

# The Sizewell C Project

## 6.14 Environmental Statement Addendum
## Volume 3: Environmental Statement Addendum Appendices
## Chapter 2 Main Development Site Appendix 2.13.A
## Phase 2 Geo-Environmental Interpretative Report Part 24 of 25

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**Revision:** 2.0

**Applicable Regulation:** Regulation 5(2)(a)

**PINS Reference Number:** EN010012

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January 2021

Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

SizewellC
Doing the power of good for Britain
EDF CGN

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 29

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 18-Jun-19 | Revision | 0 |
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| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com | | |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
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## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 29

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 18-Jun-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

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**Client Representative: Venancio Carrillo**

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## Jack-up Barge Excalibur

**Daily Report No.** 30

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| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 30

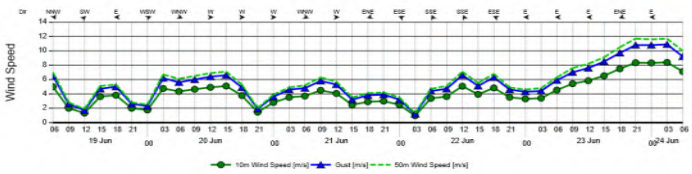
| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 19-Jun-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

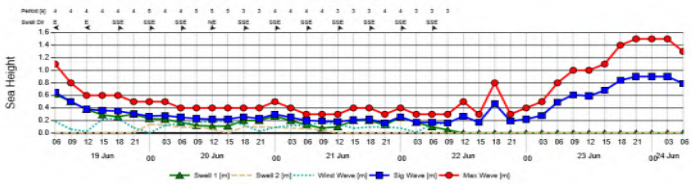
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**Weather forecast**

**Wind Chart**




**Wave Chart**




**Health Safety & the Environment**

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| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
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| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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| **Personnel on Board (Fugro/Client/Subcontractors)** | | | |
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| **0000-1200** | **1200-2400** | **Company** | **Position** |
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| **No. Personnel** | **31** | **Total Man Hours Worked** | □□□ |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| **FGSL Representative:** | **Client Representative:** |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **30**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 19-Jun-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **SPT Destructive Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| Lost or damaged equipment / materials |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 31

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 20-Jun-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □ □□□□ □□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
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| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
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| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
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| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | | Operational Status |
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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 31

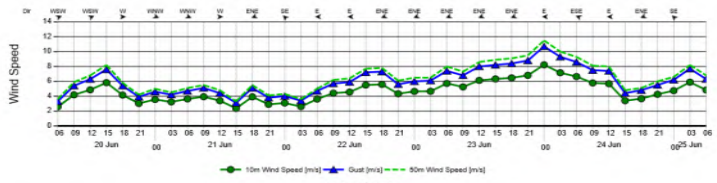
| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 20-Jun-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

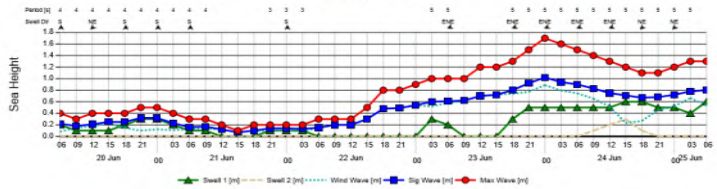
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**Weather forecast**

**Wind Chart**




**Wave Chart**




**Health Safety & the Environment**

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| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
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| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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| **Personnel on Board (Fugro/Client/Subcontractors)** | | | |
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| **0000-1200** | **1200-2400** | **Company** | **Position** |
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| **No. Personnel** | **31** | **Total Man Hours Worked** | □□□ |

| **Fugro GeoServices Representative Comments** | **Client Representative Comments** |
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| **FGSL Representative:** | **Client Representative:** |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 31

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 20-Jun-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□ | □ | □□□ | |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 32

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 21-Jun-19 | Revision | 0 |
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| To | □d□□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □ □□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □ □□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| □□□□□ | □□□□□ | □ □□□r□□□□r□□□□□ | **Start of Reporting Period /**□□□□□R□□□r□□□□d□□ □□□A□□□□□□□r□□□□□□d□□□□r□d□□□□□□□A□A□□□□□□□□□A□□□ □□□□□□r□ |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 32

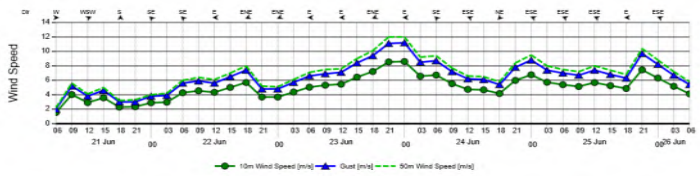
| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 21-Jun-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

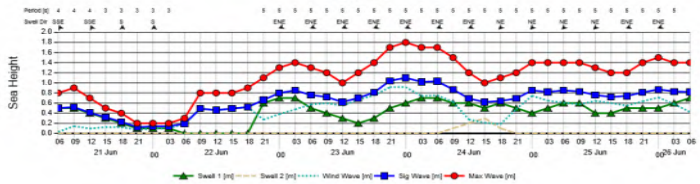
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
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| **No. Personnel** | **30** | **Total Man Hours Worked** | □□□ |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| FGSL Representative: | Client Representative: |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 32

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 21-Jun-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□ | □□ |
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| **Geophysical Logging** | | | | | | | | □□□ | □ | □□□ | □□ |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Client Representative: Venancio Carrillo**

**Signed:** [redacted] [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 33

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 22-Jun-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □ □□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □ □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs | Period | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | (m) | (Tp s) | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| □□□□ | □□□□ | □ □□□r□□□□r□□□□□ | **Start of Reporting Period /** □ □□□□IR□□□r□□□□d□□ □□IA□□□□□□□ □□□ □□□□□□□□r□□□d□□□r□□□□ |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 33

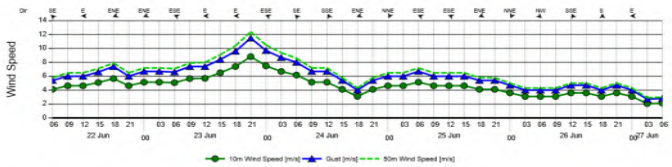
| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 22-Jun-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

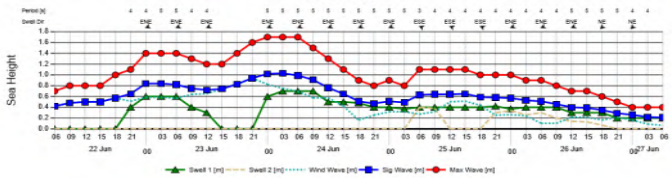
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 33

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 22-Jun-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Sign** [redacted]

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 34

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 23-Jun-19 | Revision | 0 |
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| cc | □□□□□□ □□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
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| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
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| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
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| Observed Weather | Wind | | Wave Hs | Period | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
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**Operational Status**

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

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| Fugro GeoServices Representative Comments | Client Representative Comments |
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| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 34

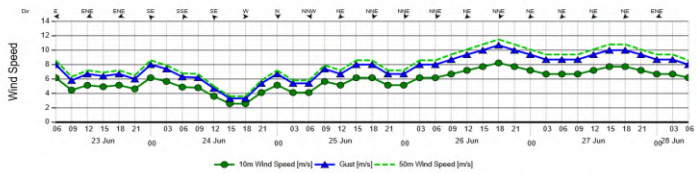
| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 23-Jun-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

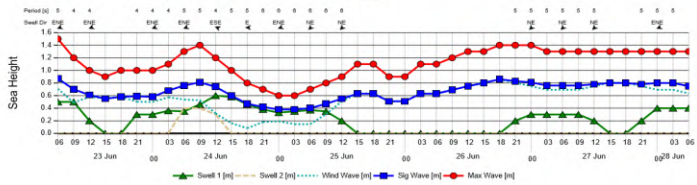
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**Weather forecast**

**Wind Chart**




**Wave Chart**




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

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| **No. Personnel** | **30** | **Total Man Hours Worked** | □□□ |

| Fugro GeoServices Representative Comments | Client Representative Comments |
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| | |

| FGSL Representative: | Client Representative: |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 34

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 23-Jun-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **Borehole Seismic** | | | | | | | | □□ | □ | □□□ | □□ |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 35

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 24-Jun-19 | Revision | 0 |
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| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
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| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
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| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
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| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
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| Time 00:00 | Speed m/s | Direction | | | | | |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 35

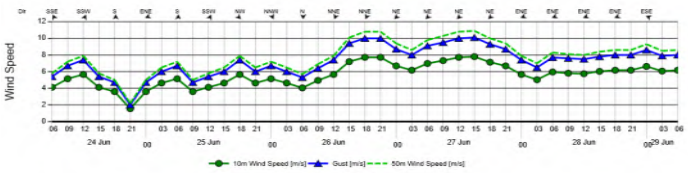
| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 24-Jun-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

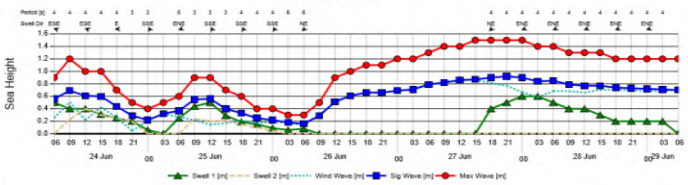
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
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| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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| Personnel on Board (Fugro/Client/Subcontractors) | | | |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 35

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 24-Jun-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

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**FGSL Representative: Colin Mulvey / Work Package Manager**

**Client Representative: Venancio Carrillo**

**Signed:** [redacted]

**Sign** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 36

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 25-Jun-19 | Revision | 0 |
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| cc | □□□□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
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| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□□rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs | Period | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | (m) | (Tp s) | | | |
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| Leg Penetration (m) | | | | | | | | |
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| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| □□□□□ | □□□□□ | □ □□□r□□□□r□□□□□ | **Start of Reporting Period /** □□r□□□□□□□□□□□□□ □□□□□□□□□□□□□□

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 36

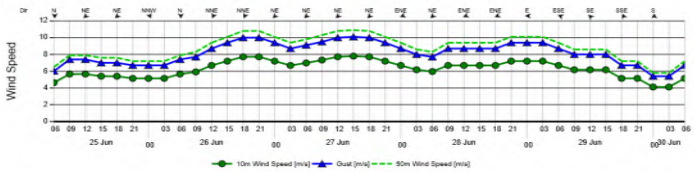
| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 25-Jun-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

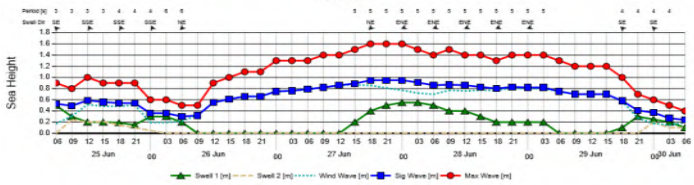
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
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| | | | |
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| | | | |
| **No. Personnel** | **29** | **Total Man Hours Worked** | □□□ |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| FGSL Representative: | Client Representative: |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 36

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 25-Jun-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 37

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 26-Jun-19 | Revision | 1 |
|---|---|---|---|---|---|---|---|

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|---|---|---|---|---|---|
| To | □d□□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
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| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 37

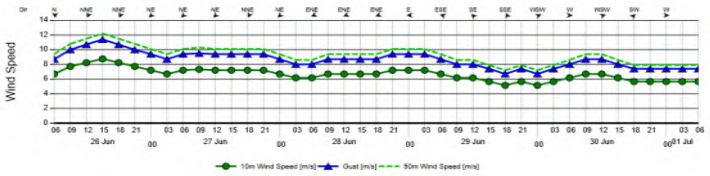
| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 26-Jun-19 | Revision | 1 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

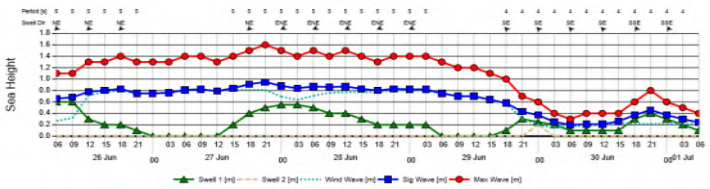
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs:**

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| Activity Time Summary | Today | To Date | Today | To Date |
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| Personnel on Board (Fugro/Client/Subcontractors) | | | |
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| | | | |
| **No. Personnel** | **29** | **Total Man Hours Worked** | □□□ |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| FGSL Representative: | Client Representative: |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 37

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 26-Jun-19 | Revision | 1 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **SPT Destructive Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

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**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

[redacted]

C[redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 38

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 27-Jun-19 | Revision | 0 |
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| To | □d□□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □ □□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □ □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | | Operational Status |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 38

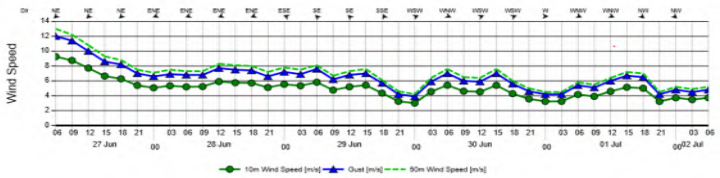
| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 27-Jun-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

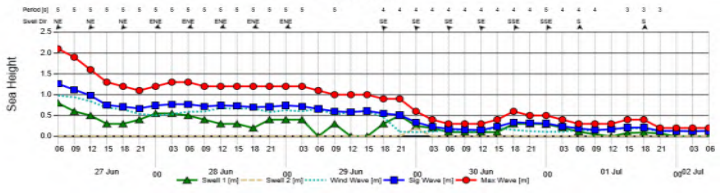
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**Weather forecast**

**Wind Chart**




**Wave Chart**




**Health Safety & the Environment**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 38

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 27-Jun-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **SPT Destructive Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| Lost or damaged equipment / materials |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Venancio Carrillo**

**Sig** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 39

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 28-Jun-19 | Revision | 0 |
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| To | □d□□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□□rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □ □□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 39

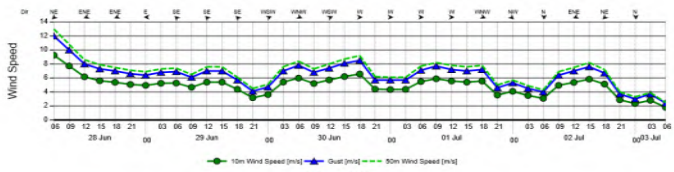
| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 28-Jun-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

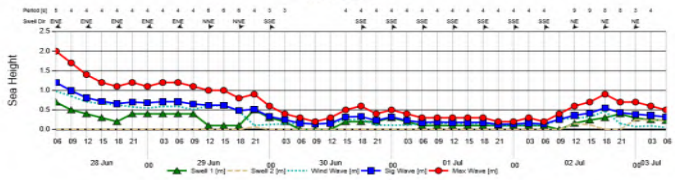
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs:**

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| Activity Time Summary | Today | To Date | Today | To Date |
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**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
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| **No. Personnel** | **29** | **Total Man Hours Worked** | □□□ |

| Fugro GeoServices Representative Comments | Client Representative Comments |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

Daily Report No. **39**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 28-Jun-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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**Lost or damaged equipment / materials**

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| Fugro GeoServices Representative Comments | Client Representative Comments |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 40

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 29-Jun-19 | Revision | 0 |
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| cc | □/□□□□ □□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □/□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
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| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
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| Time 00:00 | Speed m/s | Direction | | | | | |
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| □□□□□ | □ | 170º | □□□ | □ | □/□□□□ | □ □□d | |
| □□□□□ | □ | 200º | □□□ | □ | □/□□□□ | □ □□d | |

| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| □□□□ | □□□□ | □□□□Dr□□□□ | **Start of Reporting Period /** □□r□□□□□□□□□□□□□□□

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 40

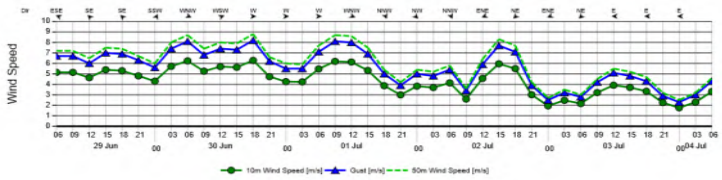
| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 29-Jun-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

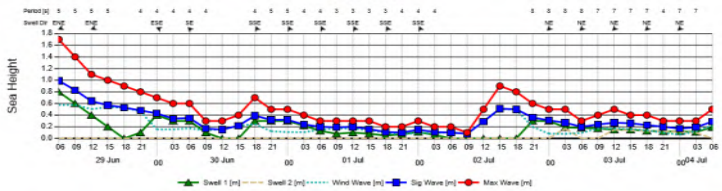
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**Weather forecast**

**Wind Chart**




**Wave Chart**




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
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| | | | |
| **No. Personnel** | **28** | **Total Man Hours Worked** | □□□ |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| | |
|---|---|
| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 40

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 29-Jun-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **SPT Destructive Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Venancio Carrillo**

[redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 41

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 30-Jun-19 | Revision | 0 |
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| To | □d□□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
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| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
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| cc | Adr□□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
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| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
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| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

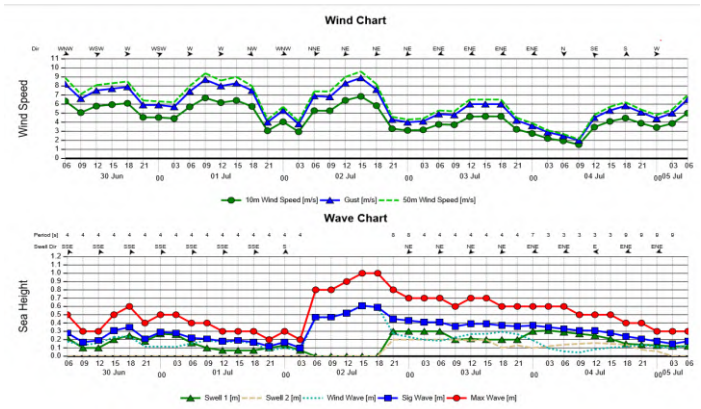
**Daily Report No.** 41

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 30-Jun-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

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**Weather forecast**




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
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| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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| FGSL Representative: | Client Representative: |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 41

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 30-Jun-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **SPT Destructive Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Variation Orders** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| Lost or damaged equipment / materials |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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**FGSL Representative: Colin Mulvey / Work Package Manager**

**Client Representative: Venancio Carrillo**

**Signed:** [redacted] [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 42

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 01-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □ □□□/□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □ □□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
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| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
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| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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| FGSL Representative: | Client Representative: |
|---|---|
| Signed: | Signed: |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 42

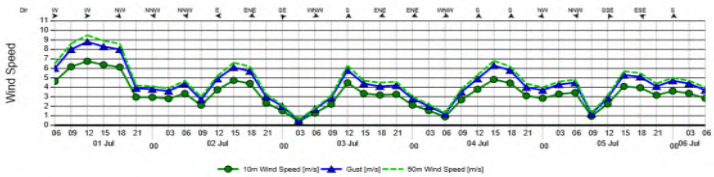
| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 01-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

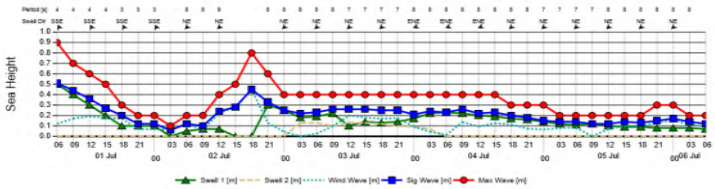
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**Weather forecast**

**Wind Chart**




**Wave Chart**




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

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| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
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| FGSL Representative: | Client Representative: |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

Daily Report No. **42**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 01-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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**FGSL Representative: Colin Mulvey / Work Package Manager**

**Client Representative: Venancio Carrillo**

**Signed:** [redacted]

**Signe** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 43

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 02-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □ □□□/□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □ □□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □ □□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □ □□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | | Operational Status |
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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 43

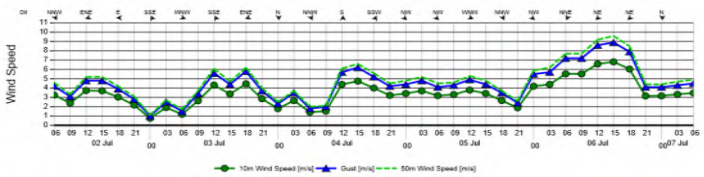
| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 02-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

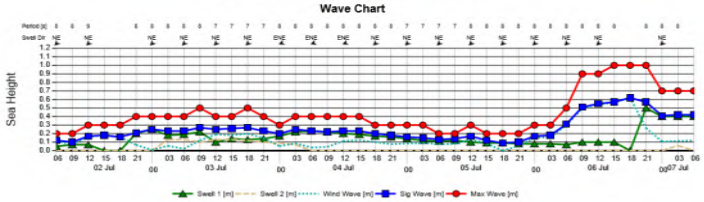
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

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| **No. Personnel** | **28** | **Total Man Hours Worked** | □□□ |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| FGSL Representative: | Client Representative: |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **43**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 02-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **SPT Destructive Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signe** [redacted]

**Client Representative: Venancio Carrillo**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 44

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 03-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □/□□□ □□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□/□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □/□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □/□□□□□rAr□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| □□□□ | □ | 90º | □□ | □ | □□ □□□ | □ □□d | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 44

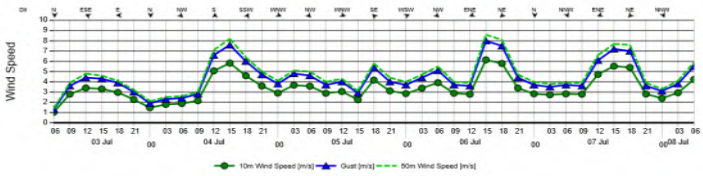
| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 03-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

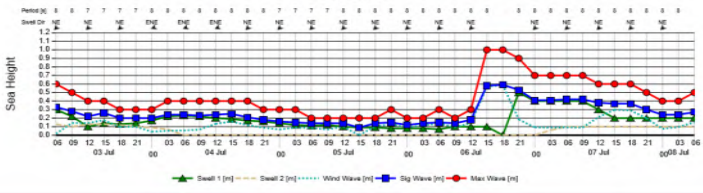
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**Weather forecast**

**Wind Chart**




**Wave Chart**




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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| **No. Personnel** | **28** | **Total Man Hours Worked** | □□□ |

| Fugro GeoServices Representative Comments | Client Representative Comments |
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| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 44

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 03-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Venancio Carrillo**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 45

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 04-Jul-19 | Revision | 0 |
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| cc | □/□□□□ □□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □/□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □/□□□□□rAr□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 45

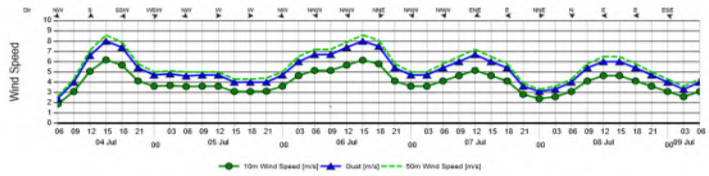
| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 04-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

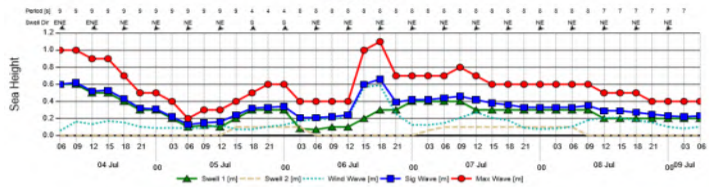
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| FGSL Representative: | Client Representative: |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 45

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 04-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□□ | □□ |
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| **Geophysical Logging** | | | | | | | | □□□ | □ | □□□□ | □□ |
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| **Variation Orders** | | | | | | | | □□□ | □ | □□□□ | □□ |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 46

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 05-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □ □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| □□□□ | □ | 170º | □□□ | □ | □□□□ | □ □□d | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| □□□□ | □□□□ | □ □□□r□□□□r□□□□□ | **Start of Reporting Period /** □ □□□□□□□dr□□□□□□ □r□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□□□□□r□□□□□□□□ □□□□r□□□□ |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 46

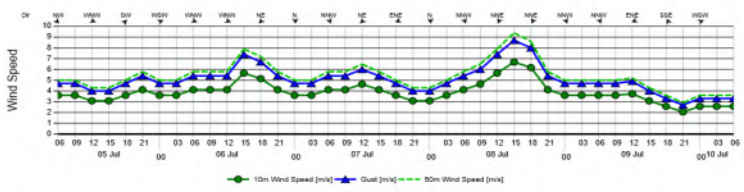
| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 05-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

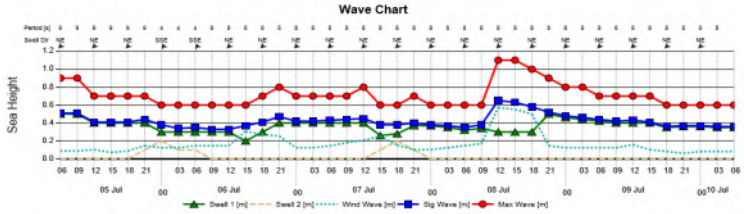
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 46

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 05-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 47

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 06-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □ □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
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| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | | Operational Status |
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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 47

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 06-Jul-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 47

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 06-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 48

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 07-Jul-19 | Revision | 0 |
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| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

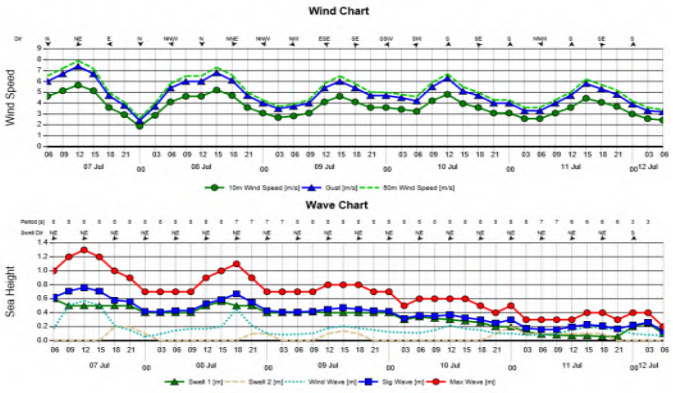
**Daily Report No.** 48

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 07-Jul-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

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**Weather forecast**




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
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| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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| **Personnel on Board (Fugro/Client/Subcontractors)** | | | |
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| **Fugro GeoServices Representative Comments** | **Client Representative Comments** |
|---|---|
| | |

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 48

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 07-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□ | □□ |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 49

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 08-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
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| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □ □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
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| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 49

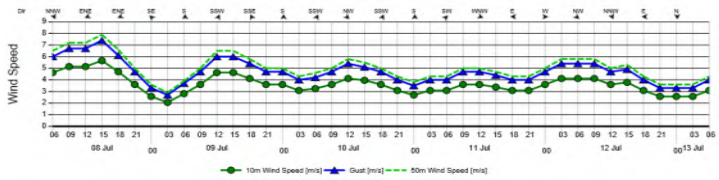
| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 08-Jul-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

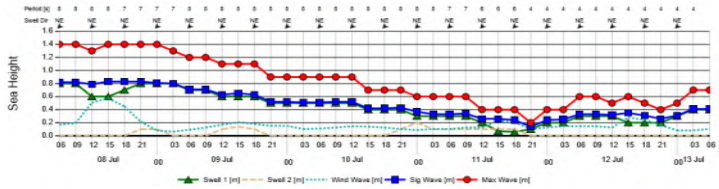
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**Weather forecast**

**Wind Chart**




**Wave Chart**




**Health Safety & the Environment**

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs:**

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| Activity Time Summary | Today | To Date | Today | To Date |
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**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
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| No. Personnel | 29 | Total Man Hours Worked | □□□ |
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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 49

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 08-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□ |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□ |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 50

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 09-Jul-19 | Revision | 0 |
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| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
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| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 50

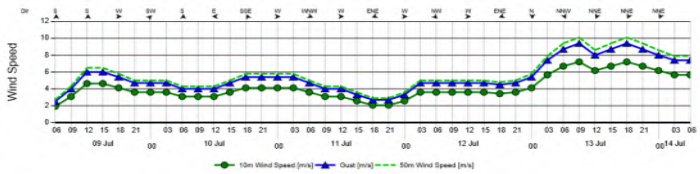
| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 09-Jul-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

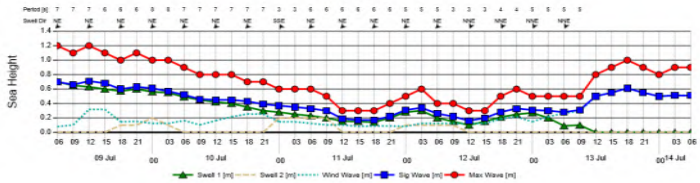
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
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| No. Personnel | 29 | Total Man Hours Worked | □□□ |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 50

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 09-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□□ | □□ |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

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**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 51

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 10-Jul-19 | Revision | 0 |
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| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 6 | 180º | 1.0 | 9 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 2 | 180º | 0.5 | 5 | Slight | Good | |
| 12:00 | 5 | 180º | 0.5 | 4 | Slight | Good | |
| 18:00 | 4 | 180º | 1.1 | 4 | Slight | Good | |
| 00:00 | 2 | 180º | 0.8 | 4 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| OT_SB_03 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.5 | 2.6 | 2.6 | Continue drilling OT_SPT_03 using Geobore. Complete crew transfer 5 PAX on, 5 PAX off |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| | | | | | | | | | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 08:10 | Other operations | **Start of Reporting Period /** Waiting on Completion of SPT hole prior to installation of check shot source |
| 08:10 | 09:10 | Crew/Materials Transfer | TSM Kermor along side for crew change and material transfer / 5 PAX on / 5 PAX off / 3 additional compressed air bottles delivered |
| 09:10 | 09:30 | Jacking Operation | Jacking barge / preloading and levelling following scouring of leg 8 |
| 09:30 | 11:45 | Other operations | Waiting on Completion of SPT hole prior to deployment of check shot source |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 18:00 | Other operations | Waiting on Completion of SPT hole prior to deployment of check shot source / undertake routine maintenance on LS 600 Geosonic rig |
| 18:00 | 23:45 | Other operations | Waiting on Completion of SPT hole prior to deployment of check shot source |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / End of Reporting Period |

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 01:20 | Destructive Drilling | **Start of Reporting Period / Continue drilling on SPT hole / water pump break down replace with spare unit** |
| 01:20 | 04:30 | Destructive Drilling | complete installation of 7" casing to 27.4m (casing toed 400mm into LC) |
| 04:30 | 05:45 | Rotary Core Drilling | Run in geobore and complete first run to 28m |
| 05:45 | 06:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 06:00 | 08:10 | Rotary Core Drilling | Continue coring |
| 08:10 | 09:10 | Crew/Materials Transfer | TSM Kermor along side for crew change and material transfer / 5 PAX on / 5 PAX off / continue coring |
| 09:10 | 09:30 | Jacking Operation | Barge scouring / unable to use bottom clamp / bargemaster jacks barge up and levels / preloads |
| 09:30 | 11:45 | Rotary Core Drilling | Continue coring / hole at 45.5m @11:45 |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 15:00 | Rotary Core Drilling | Continue coring / hole at 54.5m @ 15:00 |
| 15:00 | 18:00 | Rotary Core Drilling | Continue coring / hole at 66.5m @ 18:00 |
| 18:00 | 23:45 | Rotary Core Drilling | Continue coring / hole at 81.5m @ 23:45 |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| Geophysics technicians tested compressed air gun source for check shot. One unit tested and fully operational. Second unit has small air leak on gun, spare parts being sourced on land for delivery to Lowestoft in case temporary repair effected by barge mechanic is not succesful. All other Geophysics equipment function tested and fully operational. TSM Kermor bunkered on return to Lowestoft 33m3 MGO and 40m3 FW taken on board. | |

| FGSL Representative: | Client Representative: |
|---|---|
| Signed: | Signed: |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 51

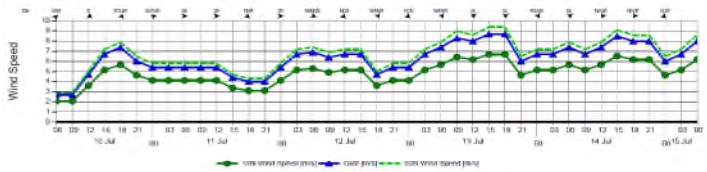
| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 10-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

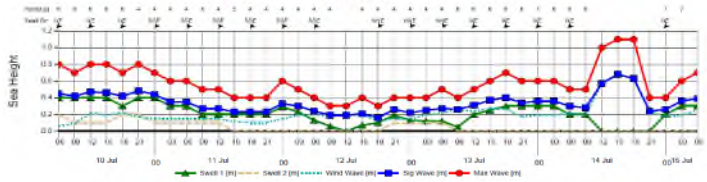
Complete Drilling on OT_SPT_03 to target depth of 110m / Commence Geophysics including ABI and check shots / Grout completed hole / Move to IT2_SB_02. TSM Kermor will undertake routine maintenance on main engines over next 24 hours. One main engine will always be available in case tug is required.

**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 0.00 | 20.80 | 0.00 | 22.13 |
| Casing Installation | 0.00 | 26.17 | 0.00 | 42.67 |
| Destructive Drilling | 0.00 | 0.00 | 4.50 | 339.25 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 17.42 | 54.17 |
| Sonic Drilling | 0.00 | 446.92 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 16.75 |
| Geophysics Operations | 0.00 | 8.50 | 0.00 | 116.58 |
| Seismic Operations | 0.00 | 1.25 | 0.00 | 6.00 |
| Grouting Operations | 0.00 | 5.42 | 0.00 | 18.42 |
| Casing removal | 0.00 | 47.33 | 0.00 | 65.42 |
| Other operations | 22.17 | 252.67 | 0.00 | 120.92 |
| Crew/Materials Transfer | 1.00 | 23.33 | 1.00 | 3.25 |
| Crew handover / TBT | 0.50 | 29.75 | 0.75 | 34.50 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 39.50 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 0.33 | 44.53 | 0.33 | 41.45 |
| Standby Current | 0.00 | 12.42 | 0.00 | 7.92 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1218.00 | 24.00 | 1008.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Colin Mulvey | Fugro | Site Project Manager |
| Charlie Crawford | Darren Bolitho | Fugro | Bargemaster |
| Josh Sandy | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Davey George | Andrew Willis | Fugro | Assistant Driller |
| Karl Harrison | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Rob Mankee | Fugro | Fitter/Electrician |
| | Peter Codling | Fugro | Lead Geotech |
| Matt Hewitson | | Fugro | Geotechnical Engineers |
| Wallace Cuthbertson | Szabolcs Boncz | Fugro | Geophysics |
| Callum Murphy | | Fugro | Project Engineer |
| | Ben Williams | Fugro | Geophysics |
| Paul Jeans | Lee McCullagh | GeoSonic | Driller |
| Mark Wetton | Craig Jackson | GeoSonic | Assistant Driller |
| Jerzy Stepnowski | Mihai Usurelu | Sodexo | Chef |
| | Andrejs Matjuks | Sodexo | Steward |
| | | | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |
| **No. Personnel** | **29** | **Total Man Hours Worked** | 348 |

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

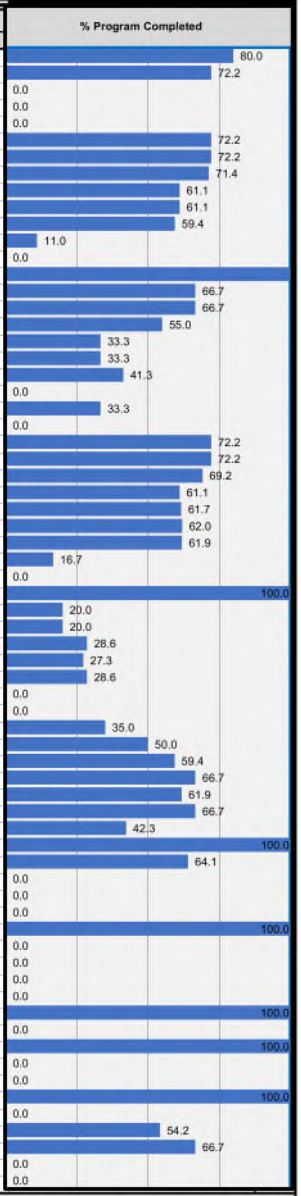
**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **51**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 10-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 |
| Platform set-up | 3.4 | | 18 | | | | | 0.0 | 13 | 0.00 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | | | | 130.0 | 0 | 0.00 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | | | | 130.0 | 0 | 0.00 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | | | | 128.5 | 0 | 0.00 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | | | | 110.0 | 0 | 0.00 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | | | | 110.0 | 0 | 0.00 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 53.5 | 0 | 0.00 |
| Back fill Sonic Borehole | 5.3 | 990 | | | | | | 109.0 | 0 | 0.00 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | 27.0 | | | 55.5 | 0 | 0.00 |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | 10.0 | | | 20.0 | 0 | 0.00 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | 10.0 | | | 20.0 | 0 | 0.00 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | 6.5 | | | 16.5 | 0 | 0.00 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 10.0 | 0 | 0.00 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 10.0 | 0 | 0.00 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 6.2 | 0 | 0.00 |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | | | | 55.0 | 0 | 0.00 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | | | | 130.0 | 0 | 0.00 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | | | | 130.0 | 0 | 0.00 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | 8.0 | | | 124.5 | 0 | 0.00 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | | | | 110.0 | 0 | 0.00 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | | | | 111.0 | 0 | 0.00 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 55.8 | 0 | 0.00 |
| Undertake SPT test | 9.3 | | 467 | | | 4.0 | | 0.0 | 289 | 0.00 |
| Back fill SPT Borehole | 9.6 | 990 | | | | | | 165.4 | 0 | 0.00 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 6 | 0.00 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | 1 | | 0.0 | 6 | 0.00 |
| Move and setup for Check shot | 15.4 | | 7 | | | | | 0.0 | 2 | 0.00 |
| Perform Check shot | 15.5 | 495.0 | | | | | | 135.0 | 0 | 0.00 |
| Reporting of Check shot | 15.6 | | 7 | | | | | 0.0 | 2 | 0.00 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 4.58 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | | | | 404.0 | 0 | 0.00 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 38 | 0.00 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | | | 0.0 | 12 | 0.00 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | | | | 714.5 | 0 | 0.00 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | | | 0.0 | 12 | 0.00 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | | | | 489.0 | 0 | 0.00 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 41 | 0.00 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 42 | 0.00 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 42 | 0.00 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Set up per section of logging ABI | 28.2 | | | | | | | 0.0 | 2 | 0.00 |
| ABI Logging | 28.3 | 186.0 | | | | | | 100.9 | 0 | 0.00 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 2 | 0.00 |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 8 | 0.00 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 |




| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 0 | 43 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 100 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 1 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 348 | 17280 |

**Lost or damaged equipment / materials**

n/a

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

Environmental Samples sent ashore. 3 number 1.5m core runs from OT_SPT_03 between 30.5m to 35m were collected for transfer to CEMETE Laboratory in France.

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 52

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 11-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| To | Ed Flint | Attn. | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 2 | 180º | 0.8 | 4 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 3 | 310º | 0.5 | 3 | Slight | Good | |
| 12:00 | 6 | 310º | 0.5 | 3 | Slight | Good | |
| 18:00 | 4 | 200º | 0.5 | 3 | Slight | Good | |
| 00:00 | 4 | 320º | 0.3 | 3 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| OT_SB_03 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.5 | 2.6 | 2.6 | Complete drilling OT_SPT_03 using Geobore to 110m, Grout sonic bore hole and deploy check shot source / Complete check shot in cased hole to 23m using compressed air source, check shot to mudline from 23m using sparker source, Commence geophysics logging in sections with stage grouting. |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| | | | | | | | | | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 11:15 | Other operations | **Start of Reporting Period /** Waiting on Completion of SPT hole prior to deployment of check shot source |
| 11:15 | 11:45 | Grouting Operations | SPT Hole completed to depth therefore pull back geosonic casing to 5m and run in grout rods / commence mixing and pumping grout |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 12:30 | Grouting Operations | Continue grouting sonic hole (28.00m to 5.0m) / Grouting completed @12:30 |
| 12:30 | 14:30 | Casing removal | Pull grouting rods / wash out grout pump / remove 10" casing and prepare for deployment of check shot source |
| 14:30 | 23:45 | Other operations | Waiting on Completion of Geophysical and siesmic logging operations in SPT hole / remove 10" casing |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
| | | | |
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| | | | |

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 03:00 | Rotary Core Drilling | **Start of Reporting Period /** New shift commence coring from 81.50m |
| 03:00 | 06:00 | Rotary Core Drilling | Continue coring / hole at 87.5m @ 03:15 / chalk encountered at approximatly 87m / hole at 95.0m depth @ 06:00 |
| 06:00 | 11:15 | Rotary Core Drilling | Continue coring / hole attains target depth of 110m @11.15 |
| 11:15 | 11:45 | Grouting Operations | Drill crew assist with grouting operations on sonic borehole / prepare SPT hole for Geophysics logging |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 12:30 | Grouting Operations | Drill crew assist with grouting operations on sonic borehole / prepare SPT hole for Geophysics logging |
| 12:30 | 14:10 | Geophysics Operations | Run in NGR Tool to 110m / complete NGR Logging in cased hole 110m to mud line / recover NGR tool to deck |
| 14:10 | 15:45 | Seismic Operations | Run in Hydraphones / complete check shot using air gun 110m to 23m / complete check shot using sparker 23m to mud line |
| 15:45 | 16:30 | Casing removal | Recover checkshot equipment to deck / pull geobore casing from 110m to 74m (1st Casing Pull) |
| 16:30 | 17:15 | Geophysics Operations | Run in CAL tool / complete caliper logging 110m to 74m / recover CAL tool to deck |
| 17:15 | 20:30 | Geophysics Operations | Run in PSSL tool / complete PSSL logging 105.5m to 74m / recover PSSL tool to deck |
| 20:30 | 22:10 | Geophysics Operations | Run in ABI tool / complete ABI logging from 109.6m to 72.8 / recover tool to deck |
| 22:10 | 22:45 | Grouting Operations | Run in grout rods to 110m / commence mixing grout |
| 22:45 | 23:45 | Grouting Operations | Grout hole between 110m and 80m / pull grout rods and recover to deck / wash out grout plant |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
| 24:00 | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| | |
|---|---|
| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **52**

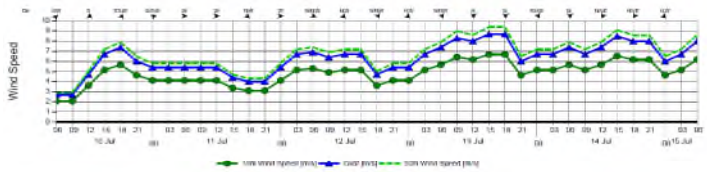
| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 11-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

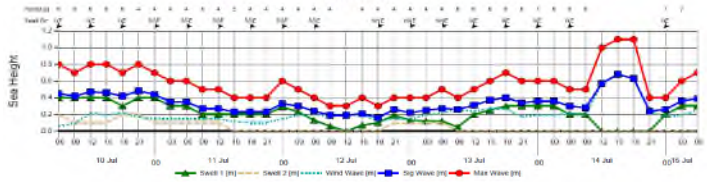
Complete Geophysics including ABI and check shots / Grout completed hole / Move to IT2_SB_02.

**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs:**

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| Activity Time Summary | Today | To Date | Today | To Date |
|---|---|---|---|---|
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 0.00 | 20.80 | 0.00 | 22.13 |
| Casing Installation | 0.00 | 26.17 | 0.00 | 42.67 |
| Destructive Drilling | 0.00 | 0.00 | 0.00 | 339.25 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 11.25 | 65.42 |
| Sonic Drilling | 0.00 | 446.92 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 16.75 |
| Geophysics Operations | 0.00 | 8.50 | 7.33 | 123.92 |
| Seismic Operations | 0.00 | 1.25 | 1.58 | 7.58 |
| Grouting Operations | 1.00 | 6.42 | 2.58 | 21.00 |
| Casing removal | 2.00 | 49.33 | 0.75 | 66.17 |
| Other operations | 20.50 | 273.17 | 0.00 | 120.92 |
| Crew/Materials Transfer | 0.00 | 23.33 | 0.00 | 3.25 |
| Crew handover / TBT | 0.50 | 30.25 | 0.50 | 35.00 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 39.50 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 0.00 | 44.53 | 0.00 | 41.45 |
| Standby Current | 0.00 | 12.42 | 0.00 | 7.92 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1242.00 | 24.00 | 1032.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Charlie Crawford | Darren Bolitho | Fugro | Bargemaster |
| Josh Sandy | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Davey George | Andrew Willis | Fugro | Assistant Driller |
| Karl Harrison | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | Peter Codling | Fugro | Lead Geotech |
| Matt Hewitson | | Fugro | Geotechnical Engineers |
| Lenard Pal | Szabolcs Boncz | Fugro | Geophysics |
| Daryl Brooks | | Fugro | Project Engineer |
| | Ben Williams | Fugro | Geophysics |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Craig Jackson | GeoSonic | Assistant Driller |
| Jerzy Stepnowski | Mihai Usurelu | Sodexo | Chef |
| | Andrejs Matjuks | Sodexo | Steward |
| Chris Crocker | | Sodexo | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |

| No. Personnel | 30 | Total Man Hours Worked | 360 |
|---|---|---|---|

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **52**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 11-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours | |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 | 80.0 |
| Platform set-up | 3.4 | | 18 | | | | | 0.0 | 13 | 0.00 | 72.2 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 | 0.0 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 | 0.0 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | | | | 130.0 | 0 | 0.00 | 72.2 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | | | | 130.0 | 0 | 0.00 | 72.2 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | | | | 128.5 | 0 | 0.00 | 71.4 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | | | | 110.0 | 0 | 0.00 | 61.1 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | | | | 110.0 | 0 | 0.00 | 61.1 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 53.5 | 0 | 0.00 | 59.4 |
| Back fill Sonic Borehole | 5.3 | 990 | | | 23.0 | | | 132.0 | 0 | 0.00 | 13.3 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 55.5 | 0 | 0.00 | |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | 3.5 | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | 10.0 | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | 10.0 | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | 5.0 | | | 11.2 | 0 | 0.00 | 74.7 |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | 30.0 | | | 85.0 | 0 | 0.00 | 51.5 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | | | | 130.0 | 0 | 0.00 | 72.2 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | | | | 130.0 | 0 | 0.00 | 72.2 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | | | | 124.5 | 0 | 0.00 | 69.2 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | | | | 110.0 | 0 | 0.00 | 61.1 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | | | | 111.0 | 0 | 0.00 | 61.7 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 55.8 | 0 | 0.00 | 62.0 |
| Undertake SPT test | 9.3 | | 467 | | | | | 0.0 | 289 | 0.00 | 61.9 |
| Back fill SPT Borehole | 9.6 | 990 | | | | | | 165.4 | 0 | 0.00 | 16.7 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 7 | 0.00 | 23.3 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | 1 | | 0.0 | 7 | 0.00 | 23.3 |
| Move and setup for Check shot | 15.4 | | 7 | | | 1 | | 0.0 | 3 | 0.00 | 42.9 |
| Perform Check shot | 15.5 | 495.0 | | | 110.0 | | | 245.0 | 0 | 0.00 | 49.5 |
| Reporting of Check shot | 15.6 | | 7 | | | 1 | | 0.0 | 3 | 0.00 | 42.9 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 4.58 | 0.0 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | 31.5 | | | 435.5 | 0 | 0.00 | 37.7 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 | 50.0 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 39 | 0.00 | 60.9 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | 1 | | 0.0 | 13 | 0.00 | 72.2 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | 110.0 | | | 824.5 | 0 | 0.00 | 71.4 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | 1 | | 0.0 | 13 | 0.00 | 72.2 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | 36.0 | | | 525.0 | 0 | 0.00 | 45.5 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 42 | 0.00 | 65.6 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 43 | 0.00 | 0.0 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 43 | 0.00 | 0.0 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Set up per section of logging ABI | 28.2 | | | | | 1 | | 0.0 | 3 | 0.00 | 0.0 |
| ABI Logging | 28.3 | 186.0 | | | 36.8 | | | 137.7 | 0 | 0.00 | 74.0 |
| Reporting ABI | 28.4 | | 3 | | | 1 | | 0.0 | 3 | 0.00 | 100.0 |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 9 | 0.00 | 0.0 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |

| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 1 | 44 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 102 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 1 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 360 | 17640 |

**Lost or damaged equipment / materials**

n/a

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 53

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 12-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 4 | 320º | 0.3 | 3 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 4 | 315º | 0.3 | 3 | Slight | Good | |
| 12:00 | 3 | 315º | 0.4 | 3 | Slight | Good | |
| 18:00 | 2 | 355º | 0.5 | 3 | Slight | Good | |
| 00:00 | 5 | 350º | 0.5 | 3 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| OT_SB_03 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.5 | 2.6 | 2.6 | Jack up is fully operational, OT_SB_03 completed with operations waiting for geophysics to be completed on OT_SPT_03. |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| IT2_SB_02 | 2.6 | 2.2 | 2.4 | 2.4 | 2.6 | 2.5 | 2.6 | 2.1 | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 11:45 | Other operations | **Start of Reporting Period /** Waiting on Completion of Geophsics logging in SPT hole |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 13:00 | Crew/Materials Transfer | tsm Kermor alongside / transfer food delivery / core boxes / stores / and spares / personnel assist with stowing stores / perishables in larder |
| 13:00 | 19:15 | Other operations | Waiting on Completion of Geophysics logging in SPT hole |
| 19:15 | 20:30 | Other operations | Undertake preparations for moving location / sea fastening rig and casings / stow main crane |
| 20:30 | 21:00 | Jacking Operation | Commence jacking down in preperation for moving to next drilling location |
| 21:00 | 22:30 | Moving to next Drilling location | JUB under tow to next drilling location / release tow / position barge on to location / spud legs |
| 22:30 | 23:45 | Jacking Operation | Commence jacking up to working height / undertake preloading of legs / barge on position and operational @ 23:45 |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 00:20 | Grouting Operations | **Start of Reporting Period /** Allow grout to gel for 1 hour following placement / dip hole to confirm grout level at 80m |
| 00:20 | 00:40 | Casing removal | Pull Geobore casing back from 74m to 29m / dip borehole / borehole collapsed at 64m / (2nd casing pull) |
| 00:40 | 01:30 | Geophysics Operations | Run in CAL3 tool / Log bore hole from 64.7m to 28m / remove CAL3 tool to deck **CAL 3 = 36.7m** |
| 01:30 | 04:00 | Geophysics Operations | Run in PSSL Tool / complete PSSL logging from 60.5m to 28.5m / remove PSSL logging tool to deck **PSSL = 32m** |
| 04:00 | 05:00 | Geophysics Operations | Run in ABI logging Tool / complete ABI logging from 63.3 to 28m / remove ABI logging tool to deck **ABI = 35.3m** |
| 05:00 | 06:30 | Casing removal | Remove remaining Geobore casing from hole and stow on deck / bore hole dipping at 64m depth / run in grout rods |
| 06:30 | 07:30 | Grouting Operations | Mix and pump grout / grout hole from 64m to 34m / dip hole to confirm grout level at 34m / wash out grout plant **Grout = 30m** |
| 07:30 | 07:45 | Casing removal | Commence pulling 7" casing from 27.4m (3rd casing pull) |
| 07:45 | 11:00 | Fugro Standby | Feed chain on Comachio drill rig breaks / remove failed chain from rig / replace and fir new feed chain to rig and function test |
| 11:00 | 11:45 | Casing removal | drill rig fully operational / commence back hammering 7" casing / casing free and starting to pull back on heavy lift winch |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 13:00 | Crew/Materials Transfer | tsm Kermor alongside / transfer food delivery / core boxes / stores / and spares / personnel assist with stowing stores / perishables in larder |
| 13:00 | 14:00 | Casing removal | Pull 7" casing from 27.4m to 23.0m / hole dipping @ 30.30m / client instruction to pull casing to 17.0m (3rd casing pull) |
| 14:00 | 15:30 | Geophysics Operations | 7" casing @17.2m / hole dipping @ 29.4m / set up and run CAL 3 tool from 29.4m to 14.6m / problem identified with wire line cable and fixed |
| 15:30 | 16:00 | Geophysics Operations | Run PSSL tool between 25.0m and 17.0m/ run ABI Tool between 29.40m and 24.85m **CAL3 = 14.8m / PSSL = 8m / ABI = 4.5m** |
| 16:00 | 16:15 | Casing removal | Logging completed pull casing from 17.2m to 11.0m / Hole dipping at 28.30m / 4th casing pull = 15 minutes |
| 16:15 | 17:30 | Geophysics Operations | Run CAL3 tool from 20.1m to 10m / Run PSSL tool from 17.5m to 11m **CAL3 = 10.1m / PSSL = 6.5m** |
| 17:30 | 19:00 | Grouting Operations | Grout hole from 28.3m to 11m / Pull 7" casing from 11m to 5m / hole collapsed below toe of 7" casing / **Grout = 17.3m** Pull remaining casing to deck |
| 19:00 | 23:45 | Moving to next Drilling location | Pull 10" casing (19.00-19.45) / prep JUB and equipment for moving to next location (19.45-20.30) see above for detail 20.30- 23.45 |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| | |
|---|---|
| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

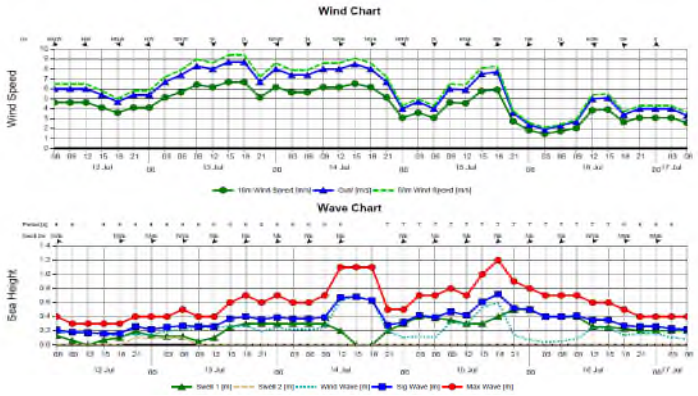
Daily Report No. **53**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 12-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

Complete Geophysics including ABI and check shots / Grout completed hole / Move to IT2_SB_02.

**Weather forecast**




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 1.50 | 22.30 | 4.75 | 26.88 |
| Casing Installation | 0.00 | 26.17 | 0.00 | 42.67 |
| Destructive Drilling | 0.00 | 0.00 | 0.00 | 339.25 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 0.00 | 65.42 |
| Sonic Drilling | 0.00 | 446.92 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 16.75 |
| Geophysics Operations | 0.00 | 8.50 | 7.58 | 131.50 |
| Seismic Operations | 0.00 | 1.25 | 0.00 | 7.58 |
| Grouting Operations | 0.00 | 6.42 | 2.83 | 23.83 |
| Casing removal | 0.00 | 49.33 | 4.08 | 70.25 |
| Other operations | 19.25 | 292.42 | 0.00 | 120.92 |
| Crew/Materials Transfer | 1.00 | 24.33 | 1.00 | 4.25 |
| Crew handover / TBT | 0.50 | 30.75 | 0.50 | 35.50 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 3.25 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 1.75 | 46.28 | 0.00 | 41.45 |
| Standby Current | 0.00 | 12.42 | 0.00 | 7.92 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1266.00 | 24.00 | 1056.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Charlie Crawford | Darren Bolitho | Fugro | Bargemaster |
| Josh Sandy | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Davey George | Andrew Willis | Fugro | Assistant Driller |
| Karl Harrison | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | Peter Codling | Fugro | Lead Geotech |
| Matt Hewitson | | Fugro | Geotechnical Engineers |
| Lenard Pal | Szabolcs Boncz | Fugro | Geophysics |
| Daryl Brooks | | Fugro | Project Engineer |
| | Ben Williams | Fugro | Geophysics |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Craig Jackson | GeoSonic | Assistant Driller |
| Jerzy Stepnowski | Mihai Usurelu | Sodexo | Chef |
| | Andrejs Matjuks | Sodexo | Steward |
| Chris Crocker | | Sodexo | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |

| **No. Personnel** | **30** | **Total Man Hours Worked** | 360 |
|---|---|---|---|

| **Fugro GeoServices Representative Comments** | **Client Representative Comments** |
|---|---|
| | |

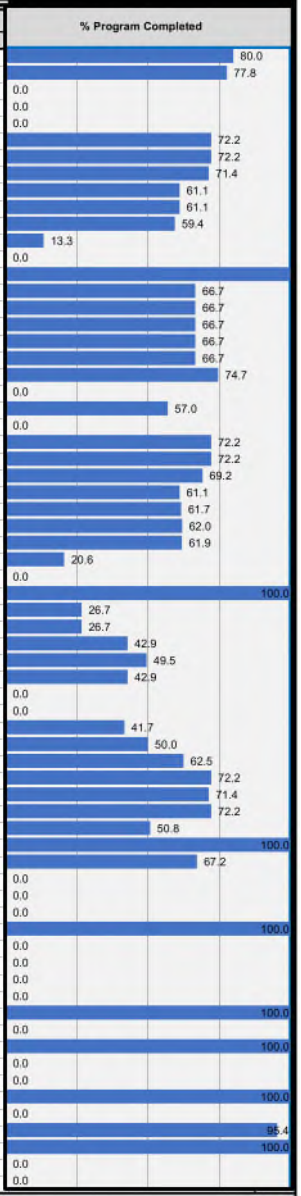
| **FGSL Representative:** | **Client Representative:** |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **53**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 12-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 |
| Platform set-up | 3.4 | | 18 | | | 1 | | 0.0 | 14 | 0.00 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | | | | 130.0 | 0 | 0.00 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | | | | 130.0 | 0 | 0.00 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | | | | 128.5 | 0 | 0.00 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | | | | 110.0 | 0 | 0.00 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | | | | 110.0 | 0 | 0.00 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 53.5 | 0 | 0.00 |
| Back fill Sonic Borehole | 5.3 | 990 | | | | | | 132.0 | 0 | 0.00 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 55.5 | 0 | 0.00 |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 20.0 | 0 | 0.00 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 20.0 | 0 | 0.00 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | | | | 20.0 | 0 | 0.00 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 20.0 | 0 | 0.00 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 20.0 | 0 | 0.00 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 11.2 | 0 | 0.00 |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | 9.0 | | | 94.0 | 0 | 0.00 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | | | | 130.0 | 0 | 0.00 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | | | | 130.0 | 0 | 0.00 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | | | | 124.5 | 0 | 0.00 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | | | | 110.0 | 0 | 0.00 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | | | | 111.0 | 0 | 0.00 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 55.8 | 0 | 0.00 |
| Undertake SPT test | 9.3 | | 467 | | | | | 0.0 | 289 | 0.00 |
| Back fill SPT Borehole | 9.6 | 990 | | | 38.3 | | | 203.7 | 0 | 0.00 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 8 | 0.00 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | 1 | | 0.0 | 8 | 0.00 |
| Move and setup for Check shot | 15.4 | | 7 | | | | | 0.0 | 3 | 0.00 |
| Perform Check shot | 15.5 | 495.0 | | | | | | 245.0 | 0 | 0.00 |
| Reporting of Check shot | 15.6 | | 7 | | | | | 0.0 | 3 | 0.00 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | 0.25 | 0.0 | 0 | 4.83 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | 46.5 | | | 482.0 | 0 | 0.00 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 40 | 0.00 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | | | 0.0 | 13 | 0.00 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | | | | 824.5 | 0 | 0.00 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | | | 0.0 | 13 | 0.00 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | 61.6 | | | 586.6 | 0 | 0.00 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 43 | 0.00 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 44 | 0.00 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 44 | 0.00 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Set up per section of logging ABI | 28.2 | | | | | | | 0.0 | 3 | 0.00 |
| ABI Logging | 28.3 | 186.0 | | | 39.8 | | | 177.5 | 0 | 0.00 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 3 | 0.00 |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 10 | 0.00 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 |




| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 0 | 44 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 104 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 1 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 360 | 18000 |

**Lost or damaged equipment / materials**

n/a

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 54

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 13-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 5 | 350º | 0.5 | 3 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 4 | 015º | 0.5 | 3 | Slight | Good | |
| 12:00 | 5 | 025º | 0.5 | 4 | Slight | Good | |
| 18:00 | 6 | 45º | 0.6 | 3 | Slight | Good | |
| 00:00 | 6 | 45º | 0.7 | 4 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| IT2_SB_02 | 2.6 | 2.2 | 2.4 | 2.4 | 2.6 | 2.5 | 2.6 | 2.1 | Barge is jacked up and preloaded on location IT2_SB_02, drilling continues on borehole IT2_SPT_02 and IT2_SB_02 |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| | | | | | | | | | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 01:15 | Standby Current | **Start of Reporting Period /** Waiting for slack water prior to running in 10" casing |
| 01:15 | 02:30 | Casing Installation | Install 10" casing / set 10" casing / Depth to mud = 17.50m |
| 02:30 | 06:00 | Sonic Drilling | Commence sonic drilling operations / Continue sonic coring in 1.5m intervals / Bore hole at 7.00m at 06:00 |
| 06:00 | 09:00 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 10.00m at 09:00 |
| 09:00 | 11:45 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 16.00m at 11:45 |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 15:00 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 26.50m at 15:35 |
| 15:00 | 18:00 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 31.0m at 18:00 |
| 18:00 | 18:50 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 32.5m at 18:50 |
| 18:50 | 20:00 | Sonic Drilling | Geosonic casing breaks at -23.5m bml/ pull casing / run in casing fishing tool and attempt location of broken length |
| 20:00 | 21:15 | Casing removal | Locate fishing tool in broken casing / retrieve broken casing to deck and split off undamaged lengths / run casing back down to depth |
| 21:15 | 22:10 | Sonic Drilling | Commence sonic coring in 1.5m intervals / Bore hole at 34.0m @ 22.10 / casing breaks at -25m bml |
| 22:10 | 23:45 | Casing removal | Pull casing / run in casing fishing tool / hole collapsed @-14.0m / continue to wash down through collapsed section to locate fishing tool in broken length of casing |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 01:15 | Standby Current | **Start of Reporting Period /** Waiting for slack water prior to running in 10" casing |
| 01:15 | 02:30 | Casing Installation | Install 10" casing / set 10" casing / Depth to mud = 17.50m |
| 02:30 | 05:00 | SPT Operations | Commence drilling / SPT sampling at 2m intervals |
| 05:00 | 06:00 | Crew/Materials Transfer | Continue drilling / Tug alongside for crew transfer / 3 PAX off / 10' core container sent ashore on tug / Bore hole at 10.00m depth at 06:00 |
| 06:00 | 09:00 | SPT Operations | Continue drilling / SPT sampling at 2m intervals / Bore hole at 14.0m depth at 09:00 |
| 09:00 | 11:45 | SPT Operations | Continue drilling / SPT sampling at 2m intervals / Bore hole at 20.0m depth at 11:45 / tug alongside for crew transfer / 1 PAX on plus pump |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 15:00 | SPT Operations | Continue drilling / SPT sampling at 2m intervals / Bore hole at 24.2m depth at 15.00 / 7" casing @ installed to 24.2m |
| 15:00 | 18:00 | Destructive Drilling | Continue drilling / SPT sampling at 2m intervals / Bore hole at 28.0m depth at 18:00 |
| 18:00 | 23:45 | Destructive Drilling | Continue drilling borehole with NCD / Bore hole at 38.0m depth at 23:45 |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| Crew transfer undertaken between 05:00 and 06:00 - 3 PAX off and one container of core samples sent to shore. Tug returned at 11:45 1 PAX on and spare flight pump for ETSU deck. A spare wire line winch was delivered to Tailsmans quay from Robertson Geologging at 16:00. It was unloaded by the GAC Agency personnel who were in Lowestoft on other business. The winch is sat at the quay for the tug to collect when ready. | |
| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 54

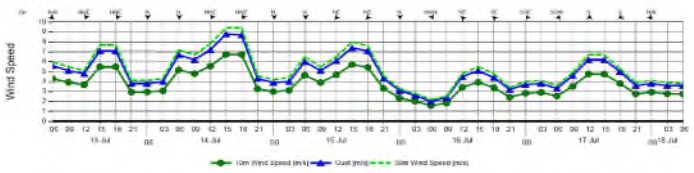
| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 13-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

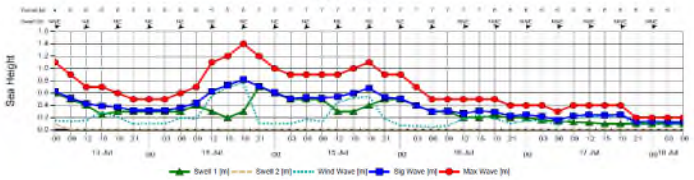
Continue drilling IT2_SB_02 and IT2_SPT_02 to depth, complete geophysics, grout up completed holes and move to location IT1_SB_05

**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs:**

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| Activity Time Summary | Today | To Date | Today | To Date |
|---|---|---|---|---|
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 0.00 | 22.30 | 0.00 | 26.88 |
| Casing Installation | 1.25 | 27.42 | 1.25 | 43.92 |
| Destructive Drilling | 0.00 | 0.00 | 8.75 | 348.00 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 0.00 | 65.42 |
| Sonic Drilling | 18.17 | 465.08 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 11.25 | 28.00 |
| Geophysics Operations | 0.00 | 8.50 | 0.00 | 131.50 |
| Seismic Operations | 0.00 | 1.25 | 0.00 | 7.58 |
| Grouting Operations | 0.00 | 6.42 | 0.00 | 23.83 |
| Casing removal | 2.83 | 52.17 | 0.00 | 70.25 |
| Other operations | 0.00 | 292.42 | 0.00 | 120.92 |
| Crew/Materials Transfer | 0.00 | 24.33 | 1.00 | 5.25 |
| Crew handover / TBT | 0.50 | 31.25 | 0.50 | 36.00 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 0.00 | 46.28 | 0.00 | 41.45 |
| Standby Current | 1.25 | 13.67 | 1.25 | 9.17 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1290.00 | 24.00 | 1080.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Charlie Crawford | Darren Bolitho | Fugro | Bargemaster |
| Josh Sandy | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Davey George | Andrew Willis | Fugro | Assistant Driller |
| Karl Harrison | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | Peter Codling | Fugro | Lead Geotech |
| Matt Hewitson | | Fugro | Geotechnical Engineers |
| Lenard Pal | Szabolcs Boncz | Fugro | Geophysics |
| Daryl Brooks | | Fugro | Project Engineer |
| | Ben Williams | Fugro | Geophysics |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Craig Jackson | GeoSonic | Assistant Driller |
| Jerzy Stepnowski | Mihai Usurelu | Sodexo | Chef |
| | Andrejs Matjuks | Sodexo | Steward |
| Chris Crocker | | Sodexo | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |

| No. Personnel | 30 | Total Man Hours Worked | 360 |
|---|---|---|---|

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **54**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 13-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours | |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 | 80.0 |
| Platform set-up | 3.4 | | 18 | | | | | 0.0 | 14 | 0.00 | 77.8 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 | 0.0 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 | 0.0 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | 10.0 | | | 140.0 | 0 | 0.00 | 77.8 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | 10.0 | | | 140.0 | 0 | 0.00 | 77.8 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | 10.0 | | | 138.5 | 0 | 0.00 | 76.9 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | 2.5 | | | 112.5 | 0 | 0.00 | 62.5 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | | | | 110.0 | 0 | 0.00 | 61.1 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 53.5 | 0 | 0.00 | 59.4 |
| Back fill Sonic Borehole | 5.3 | 990 | | | | | | 132.0 | 0 | 0.00 | 13.3 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 55.5 | 0 | 0.00 | |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 11.2 | 0 | 0.00 | 74.7 |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | | | | 94.0 | 0 | 0.00 | 57.0 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | 10.0 | | | 140.0 | 0 | 0.00 | 77.8 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | 10.0 | | | 140.0 | 0 | 0.00 | 77.8 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | 10.0 | | | 134.5 | 0 | 0.00 | 74.7 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | 8.0 | | | 118.0 | 0 | 0.00 | 65.6 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | | | | 111.0 | 0 | 0.00 | 61.7 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 55.8 | 0 | 0.00 | 62.0 |
| Undertake SPT test | 9.3 | | 467 | | | 20.0 | | 0.0 | 309 | 0.00 | 66.2 |
| Back fill SPT Borehole | 9.6 | 990 | | | | | | 203.7 | 0 | 0.00 | 20.6 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 9 | 0.00 | 30.0 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | | | 0.0 | 8 | 0.00 | 26.7 |
| Move and setup for Check shot | 15.4 | | 7 | | | | | 0.0 | 3 | 0.00 | 42.9 |
| Perform Check shot | 15.5 | 495.0 | | | | | | 245.0 | 0 | 0.00 | 49.5 |
| Reporting of Check shot | 15.6 | | 7 | | | | | 0.0 | 3 | 0.00 | 42.9 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 4.83 | 0.0 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | | | | 482.0 | 0 | 0.00 | 41.7 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 | 50.0 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 41 | 0.00 | 64.1 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | | | 0.0 | 13 | 0.00 | 72.2 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | | | | 824.5 | 0 | 0.00 | 71.4 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | | | 0.0 | 13 | 0.00 | 72.2 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | | | | 586.6 | 0 | 0.00 | 50.8 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 44 | 0.00 | 68.8 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 45 | 0.00 | 0.0 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 45 | 0.00 | 0.0 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Set up per section of logging ABI | 28.2 | | | | | | | 0.0 | 3 | 0.00 | 0.0 |
| ABI Logging | 28.3 | 186.0 | | | | | | 177.5 | 0 | 0.00 | 95.4 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 3 | 0.00 | 100.0 |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 11 | 0.00 | 0.0 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |

| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 0 | 44 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 106 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 1 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 360 | 18360 |

**Lost or damaged equipment / materials**

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

Check shot logging engineer has now departed vessel and is no longer allocated to item 15.3

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 55

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 14-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 6 | 45º | 0.7 | 4 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 6 | 25º | 0.8 | 4 | Slight | Good | |
| 12:00 | 6 | 45º | 0.8 | 5 | Slight | Good | |
| 18:00 | 9 | 45º | 1.3 | 4 | Moderate | Good | |
| 00:00 | 5 | 360º | 1.0 | 5 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| IT1_SB_05 | 2.2 | 2.5 | 2.6 | 2.3 | 2.3 | 2.4 | 2.6 | 2.6 | Drilling operations continue on borehole IT2_SPT_02, complete geophysics and seismic logging, move barge to next drilling location IT1_SB_05 |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| | | | | | | | | | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 02:00 | Casing removal | **Start of Reporting Period /** continue trying to locate fishing tool in broken length of casing in order to retrieve broken casing from hole |
| 02:00 | 03:00 | Other operations | Drilling Supervisor and Project Manager confer with Geosonic team and conclude to suspend further attempts at recovery due to hole collapse at -14m bml / 9m casing lost down hole / Hole terminated at 34m bml / last sample recovered at 32.5m bml |
| 03:00 | 06:00 | Casing removal | Trip out drill rods and fishing tool / break down drill rods into 3m sections / bore hole collapsed to -3m bml when dipped |
| 06:00 | 09:20 | Other operations | Waiting on Completion of SPT hole prior to deployment of check shot source |
| 09:20 | 10:10 | Casing removal | Remove 10" casing in Sonic moonpool and set in again 3m into water ready for check shot deployment |
| 10:10 | 11:45 | Other operations | Waiting on Completion of SPT hole |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 13:40 | Other operations | Waiting on Completion of SPT hole |
| 13:40 | 14:40 | Casing removal | Remove remaining 10" conductor casing from Sonic moonpool and wash down deck and tidy working area around Geosonic rig |
| 14:40 | 20:20 | Other operations | Waiting on Completion of SPT hole |
| 20:20 | 21:00 | Jacking Operation | Jacking down JUB / Connect tow / commence move to next location |
| 21:00 | 22:25 | Moving to next Drilling location | Under tow to next drilling location / positioning JUB on location |
| 22:25 | 23:45 | Jacking Operation | Position at IT1_SB_05 / spud legs / release tow and discharge tug / commence jacking to working height / preload JUB at working height |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
| | | | |
| | | | |
| | | | |
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| | | | |
| | | | |

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 03:00 | Destructive Drilling | **Start of Reporting Period /** Continue drilling borehole with NCD / Bore hole at 38.0m depth at 00:01 |
| 03:00 | 06:00 | Rotary Core Drilling | London Clay enountered @-46m / Continue coring / hole at 50.0m @ 06:00 |
| 06:00 | 09:20 | Rotary Core Drilling | Continue coring / hole completed to 55m / flush hole ready for geopyhsical logging to commence |
| 09:20 | 10:10 | Geophysics Operations | Drill crew remove 10" casing in Sonic moonpool and set in again 3m into water ready for check shot deployment / set up NGR logging tool / run in NGR tool and commence logging / complete logging and recover tool to deck **NGR 54.57m -0.00m = 54.57m** |
| 10:10 | 10:25 | Casing removal | Pull geobore casing from 55m to 47.5m (1st Casing pull) |
| 10:25 | 11:00 | Geophysics Operations | Run CAL 3 in open hole section between / recover tool to deck 54.66 to 46.0m **CAL 3 = 8.66m** |
| 11:00 | 11:45 | Geophysics Operations | Run PSSL tool / PSSL log hole between 50.5m and 47m / recover PSSL tool / **PSSL = 3.50m** |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 14:00 | Seismic Operations | set up for check shot / complete check shot measurement from 54.15m to 0.00m / **Check shot = 54.15m** |
| 14:00 | 14:40 | Geophysics Operations | Check shot logging completed / recover check shot equipment to deck / Pack away check shot equipmentequipment and pull Geobore back to 38.50m |
| 14:40 | 15:00 | Casing removal | Pull Geobore casing back to 38.5m / bore hole dipping at 54.80m (2nd casing pull) |
| 15:00 | 15:30 | Geophysics Operations | Run CAL 3 in open hole section between / recover tool to deck 52.00 to 37.5m **CAL 3 = 14.5m** |
| 15:30 | 16:20 | Geophysics Operations | Run PSSL tool / PSSL log hole between 47m and 38.5m / recover PSSL tool / **PSSL = 8.5m** |
| 16:20 | 17:00 | Casing removal | Pull Geobore back to 29.50m. Hole dipping @ 54.10m / Run in CAL3 tool (3rd casing pull) |
| 17:00 | 17:30 | Casing removal | CAL3 Unable to achieve depth / dip hole -collapse at 29.40m / (Client rep instruction) pull back inside 7" casing (24.20m) / Hole dipping @ 24.50m / (Client rep instruction) pull remaining Geobore and 7" casing to 18.00m / hole dipping at 19.6m |
| 17:30 | 18:00 | Casing removal | Commence removal of 7" casing / bore hole collapsing continuously as casing is removed / EOH |
| 18:00 | 20:20 | Casing removal | Remove remaining 7" casing / Remove 10" conductor casing / stow pumps and main crane / sea fastening and securing ready to move JUB |
| 20:20 | 22:25 | Moving to next Drilling location | Jacking down JUB / Connect tow / commence move to next location / Under tow to next drilling location |
| 22:25 | 23:45 | Jacking Operation | Position at IT1_SB_05 / spud legs / release tow and discharge tug / commence jacking to working height / preload JUB at working height |
| 22:25 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| | |
|---|---|
| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

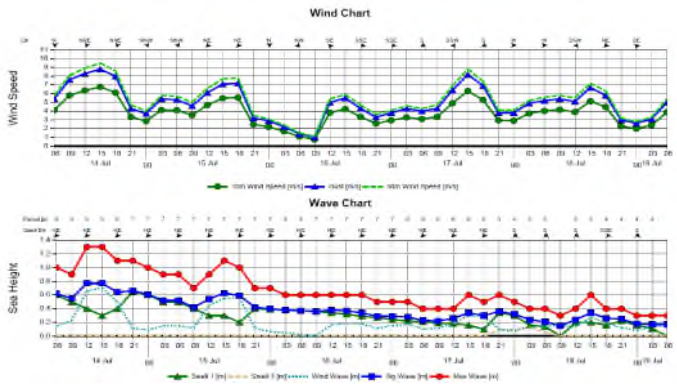
Daily Report No. **55**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 14-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

Complete and IT2_SPT_02 to depth, complete geophysics, grout up completed hole and move to location IT1_SB_05

**Weather forecast**




**Health Safety & the Environment**

| Activity Time Summary | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: Today | To Date | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: Today | To Date |
|---|---|---|---|---|
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 1.42 | 23.72 | 2.08 | 28.97 |
| Casing Installation | 0.00 | 27.42 | 0.00 | 43.92 |
| Destructive Drilling | 0.00 | 0.00 | 3.00 | 351.00 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 6.33 | 71.75 |
| Sonic Drilling | 0.00 | 465.08 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 28.00 |
| Geophysics Operations | 0.00 | 8.50 | 4.17 | 135.67 |
| Seismic Operations | 0.00 | 1.25 | 2.00 | 9.58 |
| Grouting Operations | 0.00 | 6.42 | 0.00 | 23.83 |
| Casing removal | 6.83 | 59.00 | 4.58 | 74.83 |
| Other operations | 13.25 | 305.67 | 0.00 | 120.92 |
| Crew/Materials Transfer | 0.00 | 24.33 | 0.00 | 5.25 |
| Crew handover / TBT | 0.50 | 31.75 | 0.50 | 36.50 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 2.00 | 48.28 | 1.33 | 42.78 |
| Standby Current | 0.00 | 13.67 | 0.00 | 9.17 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1314.00 | 24.00 | 1104.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Charlie Crawford | Darren Bolitho | Fugro | Bargemaster |
| Matt Blight | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Davey George | Andrew Willis | Fugro | Assistant Driller |
| Karl Harrison | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | Peter Codling | Fugro | Lead Geotech |
| Matt Hewitson | | Fugro | Geotechnical Engineers |
| Lenard Pal | Szabolcs Boncz | Fugro | Geophysics |
| Daryl Brooks | | Fugro | Project Engineer |
| | | | |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Craig Jackson | GeoSonic | Assistant Driller |
| Jerzy Stepnowski | Mihai Usurelu | Sodexo | Chef |
| | Andrejs Matjuks | Sodexo | Steward |
| | | | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |

| No. Personnel | 28 | Total Man Hours Worked | 336 |
|---|---|---|---|

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **55**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 14-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours | |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 | 80.0 |
| Platform set-up | 3.4 | | 18 | | | 1 | | 0.0 | 15 | 0.00 | 83.3 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 | 0.0 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 | 0.0 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | | | | 140.0 | 0 | 0.00 | 77.8 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | | | | 140.0 | 0 | 0.00 | 77.8 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | | | | 138.5 | 0 | 0.00 | 76.9 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | | | | 112.5 | 0 | 0.00 | 62.5 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | | | | 110.0 | 0 | 0.00 | 61.1 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 53.5 | 0 | 0.00 | 59.4 |
| Back fill Sonic Borehole | 5.3 | 990 | | | | | | 132.0 | 0 | 0.00 | 13.3 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 55.5 | 0 | 0.00 | |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 11.2 | 0 | 0.00 | 74.7 |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | | | | 94.0 | 0 | 0.00 | 57.0 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | | | | 140.0 | 0 | 0.00 | 77.8 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | | | | 140.0 | 0 | 0.00 | 77.8 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | | | | 134.5 | 0 | 0.00 | 74.7 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | 2.0 | | | 120.0 | 0 | 0.00 | 66.7 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | 10.0 | | | 121.0 | 0 | 0.00 | 67.2 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | 5.0 | | | 60.8 | 0 | 0.00 | 67.6 |
| Undertake SPT test | 9.3 | | 467 | | | 6.0 | | 0.0 | 315 | 0.00 | 67.5 |
| Back fill SPT Borehole | 9.6 | 990 | | | | | | 203.7 | 0 | 0.00 | 20.6 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 10 | 0.00 | 33.3 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | | | 0.0 | 8 | 0.00 | 26.7 |
| Move and setup for Check shot | 15.4 | | 7 | | | 1 | | 0.0 | 4 | 0.00 | 57.1 |
| Perform Check shot | 15.5 | 495.0 | | | 54.2 | | | 299.2 | 0 | 0.00 | 60.4 |
| Reporting of Check shot | 15.6 | | 7 | | | 1 | | 0.0 | 4 | 0.00 | 57.1 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 4.83 | 0.0 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | 12.0 | | | 494.0 | 0 | 0.00 | 42.8 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 | 50.0 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 42 | 0.00 | 65.6 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | 1 | | 0.0 | 14 | 0.00 | 77.8 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | 54.6 | | | 879.0 | 0 | 0.00 | 76.1 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | 1 | | 0.0 | 14 | 0.00 | 77.8 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | 23.2 | | | 609.7 | 0 | 0.00 | 52.8 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 45 | 0.00 | 70.3 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 46 | 0.00 | 0.0 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 46 | 0.00 | 0.0 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Set up per section of logging ABI | 28.2 | | | | | | | 0.0 | 3 | 0.00 | 0.0 |
| ABI Logging | 28.3 | 186.0 | | | | | | 177.5 | 0 | 0.00 | 95.4 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 3 | 0.00 | 100.0 |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 12 | 0.00 | 0.0 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |

| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 1 | 45 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 108 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 1 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 336 | 18696 |

**Lost or damaged equipment / materials**

9m of Steel casing (152.4mm OD / 139.7mm ID (6")) has not been recovered from IT2_SB_02. The top of this casing length is @ -32.541m OD, Mudline is at -7.541m OD.

As built co-ordinates of the location are as follows
Easting = 649,751.367m E (SD: ±0.03m)
Northing = 264,233.149m N (SD: ±0.04m)

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

It is accepted by client not to redrill IT2_SB_02 despite the lack of data / samples below 32.5m bml. SB operations will not be paid below this depth and SPT operations will be paid at SPT rate only.

**FGSL Representative: Julian North / Work Package Manager**

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 56

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 15-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 5 | 360º | 1.0 | 5 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 5 | 360º | 0.8 | 4 | Slight | Good | |
| 12:00 | 4 | 360º | 1.0 | 5 | Slight | Good | |
| 18:00 | 5 | 45º | 0.9 | 4 | Slight | Good | |
| 00:00 | 1 | 180º | 1.0 | 4 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| IT1_SB_05 | 2.2 | 2.5 | 2.6 | 2.3 | 2.3 | 2.4 | 2.6 | 2.6 | JUB is jacked up and preloaded on location IT1_SB_05. Drilling operations are in progress on boreholes IT1_SB_05 / IT1_SPT_05 |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| | | | | | | | | | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 01:00 | Other operations | **Start of Reporting Period /** Release sea fastening / release crane / lower water pump on ETSU deck |
| 01:00 | 03:15 | Standby Current | Waiting for slack water to install 10" conductor casings |
| 03:15 | 04:45 | Casing Installation | Instal 10" flanged casings to sea bed |
| 04:45 | 05:05 | Jacking Operation | 10" casing set in moonpool – Jack rig 0.70m to suit proximal end of 10" casing (DTM=24.10m) |
| 05:05 | 06:00 | Sonic Drilling | Commence sonic drilling operations / Continue sonic coring in 1.5m intervals |
| 06:00 | 09:00 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 6.5m at 09:00 |
| 09:00 | 11:45 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 12.50m at 11:45 |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 15:00 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 21.50m at 15:00 |
| 15:00 | 18:00 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 33m at 18:00 |
| 18:00 | 20:30 | Sonic Drilling | Continue sonic coring in 1.5m intervals |
| 20:30 | 22:00 | Other operations | Top break out clamp hydraulic issue / shut down and make repairs |
| 22:00 | 23:45 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 41m at 23:45 |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 01:00 | Other operations | **Start of Reporting Period / Release sea fastening / release crane / lower water pump on ETSU deck** |
| 01:00 | 03:15 | Standby Current | Waiting for slack water to install 10" conductor casings |
| 03:15 | 04:45 | Casing Installation | Instal 10" flanged casings to sea bed |
| 04:45 | 05:05 | Jacking Operation | 10" casing set in moonpool – Jack rig 0.70m to suit proximal end of 10" casing (DTM=24.10m) |
| 05:05 | 06:00 | Destructive Drilling | Commence drilling / SPT sampling at 2m intervals |
| 06:00 | 09:00 | Destructive Drilling | Continue drilling / SPT sampling at 2m intervals / Bore hole at 10.0m depth at 09:00 |
| 09:00 | 11:45 | Destructive Drilling | Continue drilling / SPT sampling at 2m intervals / Bore hole at 20.0m depth at 11:45 / tug alongside discharging FW to Excalibur |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 15:00 | Destructive Drilling | Tug departs for Lowestoft @ 14:30 / Continue drilling / SPT sampling at 2m intervals / Bore hole at 25.0m depth at 15:00 |
| 15:00 | 18:00 | Destructive Drilling | Continue drilling / SPT sampling at 2m intervals / Bore hole at 13.7m depth at 18:00 / London Clay @ approximatly 23m |
| 18:00 | 23:45 | Rotary Core Drilling | Continue coring / bore hole completed to 56m / flush hole ready for geopyhysical logging to commence |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| TSM Kermor along side at 11:30am to discharge fresh water, tug complets unload of 30m3 fresh water and transits to port side. Tug loads 2 x IBC waste oil, domestic waste and mixed dry recyclables. Tug departs for Lowestoft at 14:30. Tug returns to JUB at 19:55 and unloads empty 10' container and spare replacement wire line winch. Tug anchors on location awaiting orders. Geophysics technicians exchange wire line winch's and function test replacement winch | |

| FGSL Representative: | Client Representative: |
|---|---|
| Signed: | Signed: |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **56**

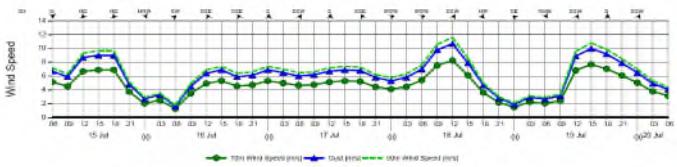
| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 15-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

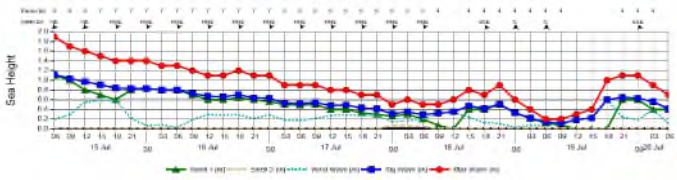
Complete and IT2_SB_05 to depth, complete geophysics, grout up completed hole and move to location IT1_SB_04. Undertake weekly crew change

**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs:**

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| Activity Time Summary | Today | To Date | Today | To Date |
|---|---|---|---|---|
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 0.00 | 23.72 | 0.00 | 28.97 |
| Casing Installation | 1.50 | 28.92 | 1.50 | 45.42 |
| Destructive Drilling | 0.00 | 0.00 | 12.67 | 363.67 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 5.75 | 77.50 |
| Sonic Drilling | 16.92 | 482.00 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 28.00 |
| Geophysics Operations | 0.00 | 8.50 | 0.00 | 135.67 |
| Seismic Operations | 0.00 | 1.25 | 0.00 | 9.58 |
| Grouting Operations | 0.00 | 6.42 | 0.00 | 23.83 |
| Casing removal | 0.00 | 59.00 | 0.00 | 74.83 |
| Other operations | 2.50 | 308.17 | 1.00 | 121.92 |
| Crew/Materials Transfer | 0.00 | 24.33 | 0.00 | 5.25 |
| Crew handover / TBT | 0.50 | 32.25 | 0.50 | 37.00 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 0.33 | 48.62 | 0.33 | 43.12 |
| Standby Current | 2.25 | 15.92 | 2.25 | 11.42 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1338.00 | 24.00 | 1128.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Charlie Crawford | Darren Bolitho | Fugro | Bargemaster |
| Matt Blight | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Davey George | Andrew Willis | Fugro | Assistant Driller |
| Karl Harrison | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | Peter Codling | Fugro | Lead Geotech |
| Matt Hewitson | | Fugro | Geotechnical Engineers |
| Lenard Pal | Szabolcs Boncz | Fugro | Geophysics |
| Daryl Brooks | | Fugro | Project Engineer |
| | | | |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Craig Jackson | GeoSonic | Assistant Driller |
| Jerzy Stepnowski | Mihai Usurelu | Sodexo | Chef |
| | Andrejs Matjuks | Sodexo | Steward |
| | | | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |

| No. Personnel | 28 | Total Man Hours Worked | 336 |
|---|---|---|---|

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **56**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 15-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours | |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 | 80.0 |
| Platform set-up | 3.4 | | 18 | | | | | 0.0 | 15 | 0.00 | 83.3 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 | 0.0 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 | 0.0 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | 10.0 | | | 150.0 | 0 | 0.00 | 83.3 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | 10.0 | | | 150.0 | 0 | 0.00 | 83.3 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | 10.0 | | | 148.5 | 0 | 0.00 | 82.5 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | 10.0 | | | 122.5 | 0 | 0.00 | 68.1 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | 1.0 | | | 111.0 | 0 | 0.00 | 61.7 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 53.5 | 0 | 0.00 | 59.4 |
| Back fill Sonic Borehole | 5.3 | 990 | | | | | | 132.0 | 0 | 0.00 | 13.3 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 55.5 | 0 | 0.00 | |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 11.2 | 0 | 0.00 | 74.7 |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | | | | 94.0 | 0 | 0.00 | 57.0 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | 10.0 | | | 150.0 | 0 | 0.00 | 83.3 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | 10.0 | | | 150.0 | 0 | 0.00 | 83.3 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | 10.0 | | | 144.5 | 0 | 0.00 | 80.3 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | 10.0 | | | 128.0 | 0 | 0.00 | 71.1 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | 10.0 | | | 121.0 | 0 | 0.00 | 67.2 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | 6.0 | | | 61.8 | 0 | 0.00 | 68.7 |
| Undertake SPT test | 9.3 | | 467 | | | 15.0 | | 0.0 | 324 | 0.00 | 69.4 |
| Back fill SPT Borehole | 9.6 | 990 | | | | | | 203.7 | 0 | 0.00 | 20.6 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 11 | 0.00 | 36.7 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | | | 0.0 | 8 | 0.00 | 26.7 |
| Move and setup for Check shot | 15.4 | | 7 | | | | | 0.0 | 4 | 0.00 | 57.1 |
| Perform Check shot | 15.5 | 495.0 | | | | | | 299.2 | 0 | 0.00 | 60.4 |
| Reporting of Check shot | 15.6 | | 7 | | | | | 0.0 | 4 | 0.00 | 57.1 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 4.83 | 0.0 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | | | | 494.0 | 0 | 0.00 | 42.8 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 | 50.0 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 43 | 0.00 | 67.2 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | | | 0.0 | 14 | 0.00 | 77.8 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | | | | 879.0 | 0 | 0.00 | 76.1 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | | | 0.0 | 14 | 0.00 | 77.8 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | | | | 609.7 | 0 | 0.00 | 52.8 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 46 | 0.00 | 71.9 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 47 | 0.00 | 0.0 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 | |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 47 | 0.00 | 100.0 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 | 100.0 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Set up per section of logging ABI | 28.2 | | | | | | | 0.0 | 3 | 0.00 | 100.0 |
| ABI Logging | 28.3 | 186.0 | | | | | | 177.5 | 0 | 0.00 | 0.0 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 3 | 0.00 | 95.4 |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 13 | 0.00 | 100.0 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| | | | | | | | | | | | 0.0 |

| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 0 | 45 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 110 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 1 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 336 | 19032 |

**Lost or damaged equipment / materials**

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Julian North / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 57

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 16-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 1 | 180º | 1.0 | 4 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 2 | 180º | 0.8 | 4 | Slight | Good | |
| 12:00 | 2 | 180º | 0.8 | 4 | Slight | Good | |
| 18:00 | 3 | 180º | 0.6 | 4 | Slight | Good | |
| 00:00 | 5 | 180º | 0.8 | 4 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| IT1_SB_05 | 2.2 | 2.5 | 2.6 | 2.3 | 2.3 | 2.4 | 2.6 | 2.6 | JUB is jacked up and preloaded on location IT1_SB_05. Drilling operations are in progress on boreholes IT1_SB_05 / Geophysics operations are in progress on IT1_SPT_05 |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| | | | | | | | | | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 01:45 | Sonic Drilling | **Start of Reporting Period /** Continue sonic coring from 41m in 1.5m intervals |
| 01:45 | 03:30 | Other operations | Break out clamp problems / hydraulic issue / shut down and make repairs |
| 03:30 | 06:00 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 47m at 06:00 |
| 06:00 | 09:15 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 48.5m at 09:00 / lost core in hole so had to trip in rods and barrel to recover |
| 09:15 | 09:45 | Other operations | Hydraulic hose failure on Geosonic drill rig / all drilling and barge crew deployed to contain oil spillage |
| 09:45 | 11:15 | Other operations | Oil spill contained on deck, NO OIL ENTERED WATER, Fugro drilling crew crew start cleaning up with absorbant pads and granules /investigating / removing burst hydraulic hose |
| 11:15 | 11:50 | Other operations | Hydraulic hose replaced / drill rig topped up with fresh bio hydraulic oil / function test drill rig and observe for further leaks / complete clean up |
| 11:50 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 15:15 | Sonic Drilling | Continue sonic coring in 1.5m intervals / Bore hole at 54.5m at 15:15 / EOH confirmed by client rep |
| 15:15 | 16:30 | Grouting Operations | Pull casing back from 54.5m to 23.50m / mix and pump grout / hole grouted back to 23.50m **Total length grouted = 31m** |
| 16:30 | 17:10 | Casing removal | Borehole collapsing as casing is pulled back into the Crag / grouting completed / pull out remaining casing and break down drill rods. |
| 17:10 | 18:30 | Casing removal | All sonic casings on deck / move rig back from moonpool / pull 10" casing / and reinstall to 3m water depth for check shot deployment |
| 18:30 | 23:45 | Other operations | Waiting for completion of geophysics logging on SPT hole |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 01:00 | Other operations | **Start of Reporting Period /** continue to flush SPT hole while setting up for geophysical logging operations |
| 01:00 | 01:45 | Geophysics Operations | Set up NGR logging tool / run in NGR tool and commence logging / complete logging and recover tool to deck NGR 54.8m -0.00m = **54.8m** |
| 01:45 | 03:30 | Other operations | NGR Logging completed / drill rig on stand by waiting for completion of Geosonic bore hole / drill crew undertake preventative maintenance |
| 03:30 | 06:00 | Other operations | drill crew continue undertaking preventative maintenance on drill rig / replace worn water swivel |
| 06:00 | 09:15 | Other operations | drill crew undertaking general house keeping duties and deck cleaning |
| 09:15 | 09:45 | Other operations | Hydraulic hose failure on Geosonic drill rig / all drilling and barge crew deployed to contain oil spillage |
| 09:45 | 11:15 | Other operations | Oil spill contained on deck, NO OIL ENTERED WATER, Fugro drilling crew crew start cleaning up with absorbant pads and granules /investigating / removing burst hydraulic hose |
| 11:15 | 11:50 | Other operations | Hydraulic hose replaced / drill rig topped up with fresh bio hydraulic oil / function test drill rig and observe for further leaks / complete clean up |
| 11:50 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 15:15 | Other operations | Comachio 1200.1 drill rig and crew continue to remain on standby waiting for the sonic borehole to reach final depth |
| 15:15 | 16:55 | Grouting Operations | Drill crew complete grouting sonic bore hole / pull geobore casings from 56m to 25.7m / set up for geophysical logging |
| 16:55 | 18:30 | Geophysics Operations | Run in CAL3 tool / log hole with CAL3 from 55.2 to 24.3m / recover CAL 3 tool to deck **CAL 3 = 30.9m** |
| 18:30 | 22:40 | Geophysics Operations | set up and run in PSSL tool / PSSL log from 51m to 25.5m / Total length of **PSSL run =25.5m** |
| 22:40 | 23:00 | Seismic Operations | PSSL Logging completed / set up and deploy check shot sparker source / run in hydraphones / commence siesmic logging |
| 23:00 | 23:45 | Seismic Operations | Check shot sparker source not working / engineer trying to repair |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| | |
|---|---|
| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

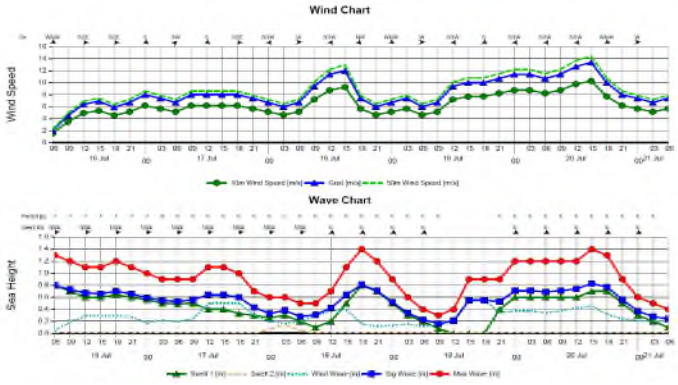
Daily Report No. **57**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 16-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

Complete IT2_SB_05 to depth, complete geophysics, grout up completed hole and move to location IT1_SB_04. Undertake weekly crew change

**Weather forecast**




**Health Safety & the Environment**

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs:**

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| Activity Time Summary | Today | To Date | Today | To Date |
|---|---|---|---|---|
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 0.00 | 23.72 | 0.00 | 28.97 |
| Casing Installation | 0.00 | 28.92 | 0.00 | 45.42 |
| Destructive Drilling | 0.00 | 0.00 | 0.00 | 363.67 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 0.00 | 77.50 |
| Sonic Drilling | 10.75 | 492.75 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 28.00 |
| Geophysics Operations | 0.00 | 8.50 | 6.50 | 142.17 |
| Seismic Operations | 0.00 | 1.25 | 1.08 | 10.67 |
| Grouting Operations | 1.25 | 7.67 | 1.67 | 25.50 |
| Casing removal | 2.00 | 61.00 | 0.00 | 74.83 |
| Other operations | 9.58 | 317.75 | 14.33 | 136.25 |
| Crew/Materials Transfer | 0.00 | 24.33 | 0.00 | 5.25 |
| Crew handover / TBT | 0.42 | 32.67 | 0.42 | 37.42 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 0.00 | 48.62 | 0.00 | 43.12 |
| Standby Current | 0.00 | 15.92 | 0.00 | 11.42 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1362.00 | 24.00 | 1152.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Charlie Crawford | Darren Bolitho | Fugro | Bargemaster |
| Matt Blight | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Davey George | Andrew Willis | Fugro | Assistant Driller |
| Karl Harrison | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | Peter Codling | Fugro | Lead Geotech |
| Matt Hewitson | | Fugro | Geotechnical Engineers |
| Lenard Pal | Szabolcs Boncz | Fugro | Geophysics |
| Daryl Brooks | | Fugro | Project Engineer |
| | | | |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Craig Jackson | GeoSonic | Assistant Driller |
| Jerzy Stepnowski | Mihai Usurelu | Sodexo | Chef |
| | Andrejs Matjuks | Sodexo | Steward |
| | | | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |

| No. Personnel | 28 | Total Man Hours Worked | 336 |
|---|---|---|---|

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **57**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 16-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours | |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 | 80.0 |
| Platform set-up | 3.4 | | 18 | | | | | 0.0 | 15 | 0.00 | 83.3 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 | 0.0 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 | 0.0 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | | | | 150.0 | 0 | 0.00 | 83.3 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | | | | 150.0 | 0 | 0.00 | 83.3 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | | | | 148.5 | 0 | 0.00 | 82.5 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | | | | 122.5 | 0 | 0.00 | 68.1 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | 9.0 | | | 120.0 | 0 | 0.00 | 66.7 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | 4.5 | | | 58.0 | 0 | 0.00 | 64.4 |
| Back fill Sonic Borehole | 5.3 | 990 | | | 31.0 | | | 163.0 | 0 | 0.00 | 16.5 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 55.5 | 0 | 0.00 | |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 11.2 | 0 | 0.00 | 74.7 |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | | | | 94.0 | 0 | 0.00 | 57.0 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | | | | 150.0 | 0 | 0.00 | 83.3 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | | | | 150.0 | 0 | 0.00 | 83.3 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | | | | 144.5 | 0 | 0.00 | 80.3 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | | | | 128.0 | 0 | 0.00 | 71.1 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | | | | 121.0 | 0 | 0.00 | 67.2 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 61.8 | 0 | 0.00 | 68.7 |
| Undertake SPT test | 9.3 | | 467 | | | | | 0.0 | 324 | 0.00 | 69.4 |
| Back fill SPT Borehole | 9.6 | 990 | | | | | | 203.7 | 0 | 0.00 | 20.6 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 12 | 0.00 | 40.0 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | | | 0.0 | 8 | 0.00 | 26.7 |
| Move and setup for Check shot | 15.4 | | 7 | | | | | 0.0 | 4 | 0.00 | 57.1 |
| Perform Check shot | 15.5 | 495.0 | | | | | | 299.2 | 0 | 0.00 | 60.4 |
| Reporting of Check shot | 15.6 | | 7 | | | | | 0.0 | 4 | 0.00 | 57.1 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 4.83 | 0.0 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | 25.5 | | | 519.5 | 0 | 0.00 | 45.0 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 | 50.0 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 44 | 0.00 | 68.8 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | 1 | | 0.0 | 15 | 0.00 | 83.3 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | 54.8 | | | 933.8 | 0 | 0.00 | 80.9 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | 1 | | 0.0 | 15 | 0.00 | 83.3 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | 30.9 | | | 640.6 | 0 | 0.00 | 55.5 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 47 | 0.00 | 73.4 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 48 | 0.00 | 0.0 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 | |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 48 | 0.00 | 0.0 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Set up per section of logging ABI | 28.2 | | | | | | | 0.0 | 3 | 0.00 | 0.0 |
| ABI Logging | 28.3 | 186.0 | | | | | | 177.5 | 0 | 0.00 | 95.4 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 3 | 0.00 | 100.0 |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 14 | 0.00 | 0.0 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |

| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 0 | 45 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 112 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 1 | 2 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 336 | 19368 |

**Lost or damaged equipment / materials**

None

**Fugro GeoServices Representative Comments**

Hydraulic hose failure on Geosonic LS 600 rig caused approximately 20 litres of bio degradable hydraulic oil to spill on barge deck, this oil was immediately contained. No Oil entered or affected any marine receptors at any point.

**Client Representative Comments**

Geophysics winch - one winch with damaged cable and spare winch not working. Seismic sparker source not working

**FGSL Representative: Julian North / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

Daily Report No. **58**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 17-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 5 | 180º | 0.8 | 4 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 2 | 190º | 0.6 | | Slight | Good | |
| 12:00 | 2 | 180º | 0.8 | 4 | Slight | Good | |
| 18:00 | | | | | Slight | Good | |
| 00:00 | | | | | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| IT1_SB_05 | 2.2 | 2.5 | 2.6 | 2.3 | 2.3 | 2.4 | 2.6 | 2.6 | Geophysics and Seismic operations were completd on IT1_SPT_05 / JUB crew change under taken / JUB moved and jacked up with preload on position IT1_SB_04 / Drilling operations commenced on IT1_SB_04 and IT1_SPT_04 |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| IT1_SB_04 | 2 | 2.5 | 2.6 | 2.5 | 2.6 | 2.5 | 2.5 | 2.5 | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 10:45 | Other operations | **Start of Reporting Period /** Waiting for completion of geophysics logging on SPT hole |
| 10:45 | 11:45 | Other operations | Secure deck equipment and items / make ready for jacking down and moving to next location |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 12:30 | Jacking Operation | Jacking down at location IT1_SB_05 / connect tow to tug / lift legs clear of sea bed |
| 12:30 | 13:30 | Moving to next Drilling location | Under tow to next drilling location / on location at IT1_SB_04 / complete final postioning with tug |
| 13:30 | 14:00 | Jacking Operation | jack up at location and preload legs / release tug from towing ops / tug standing by for orders |
| 14:00 | 15:00 | Crew/Materials Transfer | Tug along side / full core container loaded for transport to shore / tug departs for port |
| 15:00 | 16:45 | Other operations | Barge jacked to working height / release crane and sea fastenings / waiting for slack water for setting 10" casing |
| 16:45 | 18:30 | Casing Installation | Lower water pump / Start running in 10" casing in both moonpools / 10" casing set in both moonpools (DTM = 15.90m) @ 18:30 |
| 18:30 | 23:45 | Sonic Drilling | Commence sonic drilling operations / Continue sonic coring in 1.5m intervals / depth at 23:45 = 14.5m |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 04:30 | Seismic Operations | **Start of Reporting Period /** Engineer trying to make repairs to seismic sparker source |
| 04:30 | 06:15 | Seismic Operations | Sparker not fixed / Air gun source deployed / run in hydraphones and complete siesmic gather using air gun / check shots = 52.5m |
| 06:15 | 07:15 | Grouting Operations | run in grout rods to 55.2m / mix and pump grout / bore hole grouted to 30m / **grout length = 25.2m** |
| 07:15 | 08:15 | Casing removal | Pull grout rods / pull Geobore from 25.7 m to 0m / pull 7" casing back to 20.0m (2nd Casing Pull) |
| 08:15 | 08:45 | Geophysics Operations | Hole dipping @ 30.30m / set up and run in CAL3 and start logging / Pull remaining 10" casing from sonic moonpool / Lift water pump on ETSU deck |
| 08:45 | 09:35 | Geophysics Operations | CAL3 Logging completed from 29.8m to 18.9m / Run in PSSL tool and start logging **CAL3 = 10.9m** |
| 09:35 | 09:50 | Geophysics Operations | PSSL Logging completed from 26m to 19.5m / pull 7" casing back to 14m (3rd Casing pull) **PSSL = 6.5m** |
| 09:50 | 10:45 | Casing removal | 7" casing @ 14.00m / hole dipping @ 12.00m (2m inside casing) / client rep confirms EOH / Pull remaining 7" and 10" casings to deck |
| 10:45 | 11:45 | Other operations | Secure deck equipment and items / make ready for jacking down and moving to next location |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 12:30 | Jacking Operation | Jacking down at location IT1_SB_05 / connect tow to tug / lift legs clear of sea bed |
| 12:30 | 13:30 | Moving to next Drilling location | Under tow to next drilling location / on location at IT1_SB_04 / complete final postioning with tug |
| 13:30 | 14:00 | Jacking Operation | jack up at location and preload legs / release tug from towing ops / tug standing by for orders |
| 14:00 | 15:00 | Crew/Materials Transfer | Tug along side / full core container loaded for transport to shore / tug departs for port |
| 15:00 | 16:45 | Other operations | Barge jacked to working height / release crane and sea fastenings / waiting for slack water for setting 10" casing |
| 16:45 | 18:30 | Casing Installation | Lower water pump / Start running in 10" casing in both moonpools / 10" casing set in both moonpools (DTM = 15.90m) @ 18:30 |
| 18:30 | 23:45 | Other operations | Waiting for Geosonic hole to advance sufficiently in sand before commencing wash boring of 7" casing |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
| | | | |
| | | | |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| Crew change undertaken between 06:15 and 07:15 11 PAX on / 11 PAX off / on signers briefed on arrival and sign on to MS. Tug departs Lowestoft following crew change and returns for JUB move at high tide to IT1_SB_04. Tug returns to Lowestoft port at 14:30 with full core container and mixed recyclable waste | |

| | |
|---|---|
| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

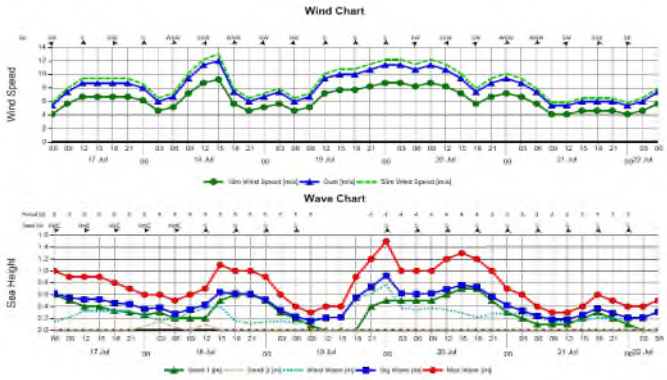
Daily Report No. **58**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 17-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

Complete drilling and sampling at location IT1_SB_04.

**Weather forecast**




**Health Safety & the Environment**

| Activity Time Summary | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: Today | To Date | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: Today | To Date |
|---|---|---|---|---|
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 1.00 | 24.72 | 1.00 | 29.97 |
| Casing Installation | 1.75 | 30.67 | 1.75 | 47.17 |
| Destructive Drilling | 0.00 | 0.00 | 0.00 | 363.67 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 0.00 | 77.50 |
| Sonic Drilling | 5.25 | 498.00 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 28.00 |
| Geophysics Operations | 0.00 | 8.50 | 1.58 | 143.75 |
| Seismic Operations | 0.00 | 1.25 | 6.25 | 16.92 |
| Grouting Operations | 0.00 | 7.67 | 1.00 | 26.50 |
| Casing removal | 0.00 | 61.00 | 1.92 | 76.75 |
| Other operations | 13.50 | 331.25 | 8.00 | 144.25 |
| Crew/Materials Transfer | 1.00 | 25.33 | 1.00 | 6.25 |
| Crew handover / TBT | 0.50 | 33.17 | 0.50 | 37.92 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 1.00 | 49.62 | 1.00 | 44.12 |
| Standby Current | 0.00 | 15.92 | 0.00 | 11.42 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1386.00 | 24.00 | 1176.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Charlie Crawford | Darren Bolitho | Fugro | Bargemaster |
| Matt Blight | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Davey George | Andrew Willis | Fugro | Assistant Driller |
| Karl Harrison | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | Peter Codling | Fugro | Lead Geotech |
| Matt Hewitson | | Fugro | Geotechnical Engineers |
| Lenard Pal | Szabolcs Boncz | Fugro | Geophysics |
| Daryl Brooks | | Fugro | Project Engineer |
| | | | |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Craig Jackson | GeoSonic | Assistant Driller |
| Jerzy Stepnowski | Mihai Usurelu | Sodexo | Chef |
| | Andrejs Matjuks | Sodexo | Steward |
| | | | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |
| **No. Personnel** | **28** | **Total Man Hours Worked** | 336 |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| FGSL Representative: | Client Representative: |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **58**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 17-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours | |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 | 80.0 |
| Platform set-up | 3.4 | | 18 | | | 1 | | 0.0 | 16 | 0.00 | 88.9 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 | 0.0 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 | 0.0 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | 10.0 | | | 160.0 | 0 | 0.00 | 88.9 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | 4.5 | | | 154.5 | 0 | 0.00 | 85.8 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | | | | 148.5 | 0 | 0.00 | 82.5 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | | | | 122.5 | 0 | 0.00 | 68.1 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | | | | 120.0 | 0 | 0.00 | 66.7 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 58.0 | 0 | 0.00 | 64.4 |
| Back fill Sonic Borehole | 5.3 | 990 | | | | | | 163.0 | 0 | 0.00 | 16.5 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 55.5 | 0 | 0.00 | |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 11.2 | 0 | 0.00 | 74.7 |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | | | | 94.0 | 0 | 0.00 | 57.0 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | | | | 150.0 | 0 | 0.00 | 83.3 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | | | | 150.0 | 0 | 0.00 | 83.3 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | | | | 144.5 | 0 | 0.00 | 80.3 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | | | | 128.0 | 0 | 0.00 | 71.1 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | | | | 121.0 | 0 | 0.00 | 67.2 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 61.8 | 0 | 0.00 | 68.7 |
| Undertake SPT test | 9.3 | | 467 | | | | | 0.0 | 324 | 0.00 | 69.4 |
| Back fill SPT Borehole | 9.6 | 990 | | | 25.2 | | | 228.9 | 0 | 0.00 | 23.1 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 13 | 0.00 | 43.3 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | | | 0.0 | 8 | 0.00 | 26.7 |
| Move and setup for Check shot | 15.4 | | 7 | | | 1 | | 0.0 | 5 | 0.00 | 71.4 |
| Perform Check shot | 15.5 | 495.0 | | | | 52.5 | | 299.2 | 53 | 0.00 | 71.0 |
| Reporting of Check shot | 15.6 | | 7 | | | 1 | | 0.0 | 5 | 0.00 | 71.4 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 4.83 | 0.0 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | 6.5 | | | 526.0 | 0 | 0.00 | 45.5 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 | 50.0 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 45 | 0.00 | 70.3 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | | | 0.0 | 15 | 0.00 | 83.3 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | | | | 933.8 | 0 | 0.00 | 80.9 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | | | 0.0 | 15 | 0.00 | 83.3 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | 10.9 | | | 651.5 | 0 | 0.00 | 56.4 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 48 | 0.00 | 75.0 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 49 | 0.00 | 0.0 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 | |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 49 | 0.00 | 0.0 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Set up per section of logging ABI | 28.2 | | | | | | | 0.0 | 3 | 0.00 | 0.0 |
| ABI Logging | 28.3 | 186.0 | | | | | | 177.5 | 0 | 0.00 | 95.4 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 3 | 0.00 | 100.0 |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 15 | 0.00 | 0.0 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |

| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 0 | 45 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 114 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | | 2 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 336 | 19704 |

**Lost or damaged equipment / materials**

None

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

Seimic sparker source not working / contractor changed to air gun despite specification / client borehole requirements

**FGSL Representative: Julian North / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 59

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 18-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 3 | 225º | 0.4 | 3 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 2 | 225º | 0.4 | 3 | Slight | Good | |
| 12:00 | 1 | 225º | 0.5 | 4 | Slight | Good | |
| 18:00 | 7 | 345º | 1.0 | 5 | Slight | Good | |
| 00:00 | 2 | 270º | 0.5 | 4 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| IT1_SB_04 | 2 | 2.5 | 2.6 | 2.5 | 2.6 | 2.5 | 2.5 | 2.5 | |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| | | | | | | | | | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 06:00 | Sonic Drilling | **Start of Reporting Period /** Continue sonic coring in 1.5m intervals / depth at 06:00 = 23.5m |
| 06:00 | 11:45 | Sonic Drilling | Continue sonic coring in 1.5m intervals / 11:45 hole @ 28.00m (Clay @ 26.00m) EOH @ 09:25 |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 18:00 | Other operations | Drilling crew undertaking rig maintenance |
| 18:00 | 23:45 | Other operations | Waiting on Completion of SPT hole prior to deployment of check shot source / Drilling crew undertaking rig maintenance |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 06:00 | Other operations | **Start of Reporting Period /** Waiting for Geosonic hole to advance sufficiently in sand before commencing wash boring of 7" casing |
| 06:00 | 11:45 | Destructive Drilling | Commence drilling / SPT sampling at 2m intervals / Hole depth at 11:45 = 24.0m |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 18:00 | Rotary Core Drilling | 7" casing installation / 7" casing installed to 26m / commence rotary drilling / continue rotary core drilling / hole depth at 18:00 = 36.0m |
| 18:00 | 23:45 | Rotary Core Drilling | continue rotary core drilling / hole depth at 23:45 = 55.0m |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| Geophysics engineer unpacked container and completed a series of QA checks on delivered check shot equipment as well as function testing over side of jack up barge. | |

| | |
|---|---|
| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

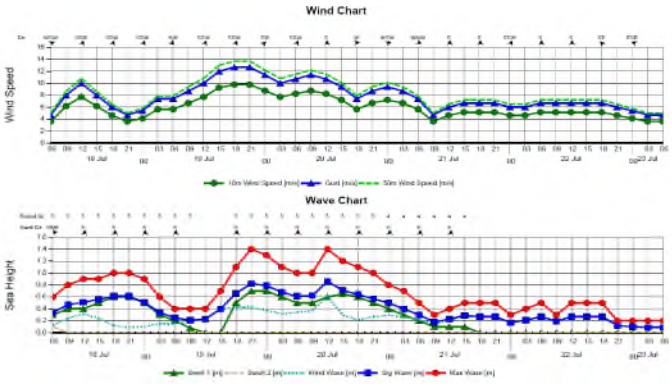
**Daily Report No.** 59

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 18-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

Complete drilling and sampling at location IT1_SB_04. complete check shot and geophysics. Grout up open boreholes on completion / mobe to IT1_SB_02

**Weather forecast**




**Health Safety & the Environment**

| Activity Time Summary | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: Today | To Date | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: Today | To Date |
|---|---|---|---|---|
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 0.00 | 24.72 | 0.00 | 29.97 |
| Casing Installation | 0.00 | 30.67 | 0.00 | 47.17 |
| Destructive Drilling | 0.00 | 0.00 | 5.75 | 369.42 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 11.75 | 89.25 |
| Sonic Drilling | 11.75 | 509.75 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 28.00 |
| Geophysics Operations | 0.00 | 8.50 | 0.00 | 143.75 |
| Seismic Operations | 0.00 | 1.25 | 0.00 | 16.92 |
| Grouting Operations | 0.00 | 7.67 | 0.00 | 26.50 |
| Casing removal | 0.00 | 61.00 | 0.00 | 76.75 |
| Other operations | 11.75 | 343.00 | 6.00 | 150.25 |
| Crew/Materials Transfer | 0.00 | 25.33 | 0.00 | 6.25 |
| Crew handover / TBT | 0.50 | 33.67 | 0.50 | 38.42 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 0.00 | 49.62 | 0.00 | 44.12 |
| Standby Current | 0.00 | 15.92 | 0.00 | 11.42 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1410.00 | 24.00 | 1200.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Zac Smart | Darren Bolitho | Fugro | Bargemaster |
| Matt Blight | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Adam Williams | Andrew Willis | Fugro | Assistant Driller |
| Steven Pearce | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | | Fugro | Lead Geotech |
| James Bailey | Stephen Brearley | Fugro | Geotechnical Engineers |
| Lenard Pal | Ed Cox | Fugro | Geophysics |
| Callum Murphy | | Fugro | Project Engineer |
| | | | |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Kevin McKay | GeoSonic | Assistant Driller |
| Jerzy Ossowski | Mihai Usurelu | Sodexo | Chef |
| | Maciej Treder | Sodexo | Steward |
| | | | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |
| **No. Personnel** | **28** | **Total Man Hours Worked** | 336 |

**Fugro GeoServices Representative Comments**

Tug transferred 2 x Robertson Geologging engineers (07:00-09:30) Engineers on board to repair both wire line winch's (09:30 - 15:30) Wireline winch's repaired Tug transferred wire line engineers back to Lowestoft (15:30-18:00) Also on board and transferrred at the same time were two air conditioning engineers who repaired faulty aircon unit on second accomodation deck

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **59**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 18-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours | |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 | 80.0 |
| Platform set-up | 3.4 | | 18 | | | | | 0.0 | 16 | 0.00 | 88.9 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 | 0.0 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 | 0.0 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | | | | 160.0 | 0 | 0.00 | 88.9 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | 5.5 | | | 160.0 | 0 | 0.00 | 88.9 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | 8.0 | | | 156.5 | 0 | 0.00 | 86.9 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | | | | 122.5 | 0 | 0.00 | 68.1 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | | | | 120.0 | 0 | 0.00 | 66.7 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 58.0 | 0 | 0.00 | 64.4 |
| Back fill Sonic Borehole | 5.3 | 990 | | | | | | 163.0 | 0 | 0.00 | 16.5 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | 29.0 | | | 84.5 | 0 | 0.00 | |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 20.0 | 0 | 0.00 | 66.7 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 11.2 | 0 | 0.00 | 74.7 |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | | | | 94.0 | 0 | 0.00 | 57.0 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | 10.0 | | | 160.0 | 0 | 0.00 | 88.9 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | 10.0 | | | 160.0 | 0 | 0.00 | 88.9 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | 6.0 | | | 150.5 | 0 | 0.00 | 83.6 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | | | | 128.0 | 0 | 0.00 | 71.1 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | | | | 121.0 | 0 | 0.00 | 67.2 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 61.8 | 0 | 0.00 | 68.7 |
| Undertake SPT test | 9.3 | | 467 | | | 14.0 | | 0.0 | 338 | 0.00 | 72.4 |
| Back fill SPT Borehole | 9.6 | 990 | | | | | | 228.9 | 0 | 0.00 | 23.1 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 14 | 0.00 | 46.7 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | | | 0.0 | 8 | 0.00 | 26.7 |
| Move and setup for Check shot | 15.4 | | 7 | | | | | 0.0 | 5 | 0.00 | 71.4 |
| Perform Check shot | 15.5 | 495.0 | | | | | | 299.2 | 53 | 0.00 | 71.0 |
| Reporting of Check shot | 15.6 | | 7 | | | | | 0.0 | 5 | 0.00 | 71.4 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 4.83 | 0.0 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | | | | 526.0 | 0 | 0.00 | 45.5 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 | 50.0 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 46 | 0.00 | 71.9 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | | | 0.0 | 15 | 0.00 | 83.3 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | | | | 933.8 | 0 | 0.00 | 80.9 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | | | 0.0 | 15 | 0.00 | 83.3 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | | | | 651.5 | 0 | 0.00 | 56.4 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 49 | 0.00 | 76.6 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 50 | 0.00 | 0.0 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 50 | 0.00 | 0.0 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Set up per section of logging ABI | 28.2 | | | | | | | 0.0 | 3 | 0.00 | 0.0 |
| ABI Logging | 28.3 | 186.0 | | | | | | 177.5 | 0 | 0.00 | 95.4 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 3 | 0.00 | 100.0 |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 16 | 0.00 | 0.0 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |

| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 0 | 45 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 116 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 2 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 336 | 20040 |

**Lost or damaged equipment / materials**

None

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Julian North / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 60

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 19-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| To | Ed Flint | Attn. | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 2 | 270º | 0.5 | 4 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 2 | 270º | 0.6 | 3 | Slight | Good | |
| 12:00 | 6 | 190º | 0.7 | 4 | Slight | Good | |
| 18:00 | 7 | 200º | 1.0 | 5 | Slight | Good | |
| 00:00 | 5 | 200º | 0.8 | 4 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| IT1_SB_04 | 2 | 2.5 | 2.6 | 2.5 | 2.6 | 2.5 | 2.5 | 2.5 | Jack up barge is jacked up and fully operational. Geophysics logging is on going on borehole IT1_SPT_04 |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| | | | | | | | | | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 11:45 | Other operations | **Start of Reporting Period /** Waiting on Completion of SPT hole prior to deployment of check shot source |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 14:00 | Casing removal | Break down drill rods and pull casing back to 10.00m |
| 14:00 | 14:40 | Grouting Operations | Casing @ 10.00m / commence mixing and pumping grout |
| 14:40 | 18:00 | Grouting Operations | Hole grouted from 28.00m to 10.00m / hole collapsing as casing is pulled back further / pull remaining casing to deck |
| 18:00 | 23:45 | Other operations | Waiting on Completion of SPT hole prior to deployment of check shot source |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 06:00 | Rotary Core Drilling | **Start of Reporting Period /** continue rotary core drilling / hole depth at 00:01 = 55m |
| 06:00 | 06:30 | Rotary Core Drilling | continue rotary core drilling / hole depth at 06:00 = 76.0m |
| 06:30 | 07:00 | Other operations | Tighten loose guard around fan on power pack / Replace missing bolt |
| 07:00 | 11:45 | Rotary Core Drilling | continue rotary core drilling / hole depth at 11:45 = 88.65m |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 18:00 | Rotary Core Drilling | continue rotary core drilling / hole depth at 18:00 = 105.9m |
| 18:00 | 21:45 | Rotary Core Drilling | continue rotary core drilling / hole depth at 21:45 = 110.4m |
| 21:45 | 23:45 | Geophysics Operations | EOH @ 110.40m / set up for geophysical logging / run in NGR tool and commence NGR logging / **NGR from 110.1m-0m = 110.10m** |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / End of Reporting Period |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| Seismic engineer transferred on tug for assisting and supporting check shot on Borehole IT1_SPT_04. Spare parts for geosonic LS 600 rig were also brought out with tug along with various small items / 3 spare nitrogen bottles for check shot and 3 pallets of CM13 grout | |

| FGSL Representative: | Client Representative: |
|---|---|
| Signed: | Signed: |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

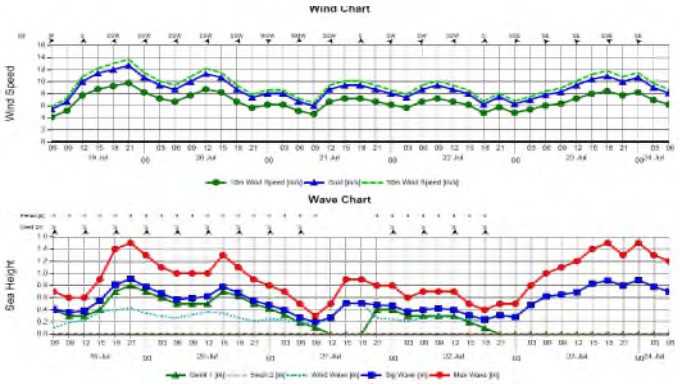
Daily Report No. **60**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 19-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

Complete geophysics. Grout up open boreholes on completion / move to IT1_SB_02

**Weather forecast**




**Health Safety & the Environment**

| Activity Time Summary | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: Today | To Date | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: Today | To Date |
|---|---|---|---|---|
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 0.00 | 24.72 | 0.00 | 29.97 |
| Casing Installation | 0.00 | 30.67 | 0.00 | 47.17 |
| Destructive Drilling | 0.00 | 0.00 | 0.00 | 369.42 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 21.00 | 110.25 |
| Sonic Drilling | 0.00 | 509.75 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 28.00 |
| Geophysics Operations | 0.00 | 8.50 | 2.00 | 145.75 |
| Seismic Operations | 0.00 | 1.25 | 0.00 | 16.92 |
| Grouting Operations | 4.00 | 11.67 | 0.00 | 26.50 |
| Casing removal | 2.00 | 63.00 | 0.00 | 76.75 |
| Other operations | 17.50 | 360.50 | 0.50 | 150.75 |
| Crew/Materials Transfer | 0.00 | 25.33 | 0.00 | 6.25 |
| Crew handover / TBT | 0.50 | 34.17 | 0.50 | 38.92 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 0.00 | 49.62 | 0.00 | 44.12 |
| Standby Current | 0.00 | 15.92 | 0.00 | 11.42 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1434.00 | 24.00 | 1224.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Zac Smart | Darren Bolitho | Fugro | Bargemaster |
| Matt Blight | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Adam Williams | Andrew Willis | Fugro | Assistant Driller |
| Steven Pearce | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | | Fugro | Lead Geotech |
| James Bailey | Stephen Brearley | Fugro | Geotechnical Engineers |
| Lenard Pal | Ed Cox | Fugro | Geophysics |
| Callum Murphy | | Fugro | Project Engineer |
| | | | |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Kevin McKay | GeoSonic | Assistant Driller |
| Jerzy Ossowski | Mihai Usurelu | Sodexo | Chef |
| | Maciej Treder | Sodexo | Steward |
| | | | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |
| **No. Personnel** | **28** | **Total Man Hours Worked** | 336 |

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

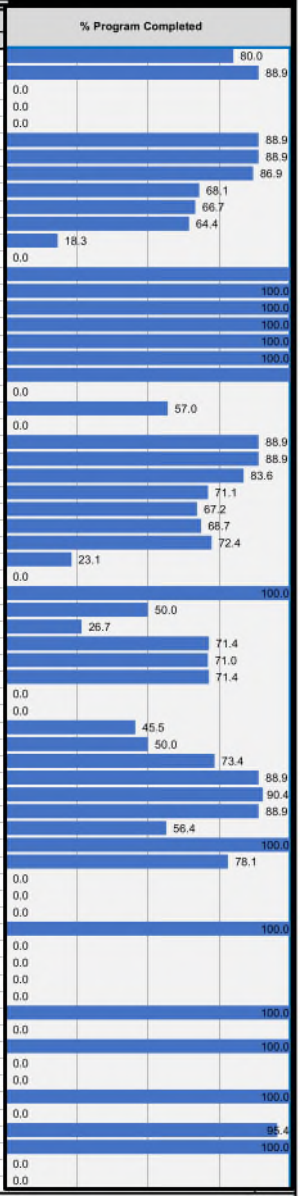
**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **60**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 19-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 |
| Platform set-up | 3.4 | | 18 | | | | | 0.0 | 16 | 0.00 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | | | | 160.0 | 0 | 0.00 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | | | | 160.0 | 0 | 0.00 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | | | | 156.5 | 0 | 0.00 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | | | | 122.5 | 0 | 0.00 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | | | | 120.0 | 0 | 0.00 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 58.0 | 0 | 0.00 |
| Back fill Sonic Borehole | 5.3 | 990 | | | 18.0 | | | 181.0 | 0 | 0.00 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 84.5 | 0 | 0.00 |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | 10.0 | | | 30.0 | 0 | 0.00 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | 10.0 | | | 30.0 | 0 | 0.00 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | 10.0 | | | 30.0 | 0 | 0.00 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | 10.0 | | | 30.0 | 0 | 0.00 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | 10.0 | | | 30.0 | 0 | 0.00 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | 5.4 | | | 16.6 | 0 | 0.00 |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | | | | 94.0 | 0 | 0.00 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | | | | 160.0 | 0 | 0.00 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | | | | 160.0 | 0 | 0.00 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | | | | 150.5 | 0 | 0.00 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | | | | 128.0 | 0 | 0.00 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | | | | 121.0 | 0 | 0.00 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 61.8 | 0 | 0.00 |
| Undertake SPT test | 9.3 | | 467 | | | | | 0.0 | 338 | 0.00 |
| Back fill SPT Borehole | 9.6 | 990 | | | | | | 228.9 | 0 | 0.00 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 15 | 0.00 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | | | 0.0 | 8 | 0.00 |
| Move and setup for Check shot | 15.4 | | 7 | | | | | 0.0 | 5 | 0.00 |
| Perform Check shot | 15.5 | 495.0 | | | | | | 299.2 | 53 | 0.00 |
| Reporting of Check shot | 15.6 | | 7 | | | | | 0.0 | 5 | 0.00 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 4.83 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | | | | 526.0 | 0 | 0.00 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 47 | 0.00 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | 1 | | 0.0 | 16 | 0.00 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | 110.1 | | | 1043.9 | 0 | 0.00 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | 1 | | 0.0 | 16 | 0.00 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | | | | 651.5 | 0 | 0.00 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 50 | 0.00 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 51 | 0.00 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 51 | 0.00 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 |
| Set up per section of logging ABI | 28.2 | | | | | | | 0.0 | 3 | 0.00 |
| ABI Logging | 28.3 | 186.0 | | | | | | 177.5 | 0 | 0.00 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 3 | 0.00 |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 17 | 0.00 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 |




| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 1 | 46 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 3 | 119 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 2 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 336 | 20376 |

**Lost or damaged equipment / materials**

None

**Fugro GeoServices Representative Comments**

Review of core box transportation undertaken following concerns raised at Leiston core logging facility over potential for core boxes to become dislodged or topple. Additional tool box talk undertaken outlining proceedure for stacking pallets and reduced height of stacked boxes. only two full pallets to be transported ashore in each 10' container to assist unloading with forklift at the shore.

**Client Representative Comments**

Client rep emphasised during tool box talk on core box staking proceedure the need for due diligence when allowing core samples to be cleared from the deck, no more than two core runs should be waiting on deck prior to logging.

**FGSL Representative: Julian North / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 61

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 20-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 5 | 200º | 0.8 | 4 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 3 | 270º | 0.8 | 4 | Slight | Good | |
| 12:00 | 9 | 270º | 1.0 | 4 | Slight | Good | |
| 18:00 | 5 | 270º | 0.9 | 4 | Slight | Good | |
| 00:00 | 3 | 270º | 0.8 | 4 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| IT1_SB_04 | 2 | 2.5 | 2.6 | 2.5 | 2.6 | 2.5 | 2.5 | 2.5 | Jack up barge is jacked up and fully operational. Geophysics logging is on going on borehole IT1_SPT_04 |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| | | | | | | | | | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 01:30 | Seismic Operations | **Start of Reporting Period /** Remove 10" casing in Sonic moonpool and set in again 3m into water ready for check shot deployment |
| 01:30 | 04:50 | Other operations | Waiting on Completion of geophysics / seismic logging SPT hole |
| 04:50 | 05:10 | Casing removal | Remove remaining 10" conductor casing from Sonic moonpool. |
| 05:10 | 11:45 | Other operations | Waiting on Completion of geophysics / seismic logging SPT hole |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 23:45 | Other operations | Waiting for Completion of geophysics on SPT hole |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 03:30 | Seismic Operations | **Start of Reporting Period /** Set up and commence check shot logging / resolving issues with checkshot source |
| 03:30 | 04:50 | Seismic Operations | Change from sparker to air gun and continue check shot logging |
| 04:50 | 05:10 | Seismic Operations | Check shot logging completed between 108m and 0m / pack away equipment |
| 05:10 | 06:30 | Casing removal | Pull geobore casing from 110m to 28.0m (1st Casing pull) |
| 06:30 | 07:30 | Geophysics Operations | Set up and run in CAL3 / hole collapsed to 108m / commence CAL3 logging from 108m to 28.0m **CAL3 =80m** |
| 07:30 | 11:45 | Geophysics Operations | CAL 3 logging complete and tool recovered to deck / Run in PSSL tool and comence logging from 99.5m (base of tool at 103.5m) |
| 11:45 | 11:46 | Geophysics Operations | PSSL logging completed from 99.5m to 49m by shift change |
| 11:46 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 14:20 | Geophysics Operations | Complete PSSL logging back to 28m / set up ABI tool **PSSL = 99.5m - 28m = 71.5m** |
| 14:20 | 15:45 | Geophysics Operations | Run in ABI tool and commence logging / tool does not go beyond 61m / start logging at 60.5m / complete **ABI logging from 60.5m-28m = 32.5m** |
| 15:45 | 16:30 | Grouting Operations | ABI Logging completed back to 28.00m / Hole dipping @ 61.20m / Client reps instruction is to grout from 61.20m back to 35.00m / Run grout rods / mix and pump grout |
| 16:30 | 17:15 | Casing removal | Hole grouted back to 35.00m / pull grout rods and clean mixing tank / Pull remaining Geobore casing **grouted length = 26.2m** |
| 17:15 | 18:30 | Grouting Operations | Standy by whist grout gels prior to obtaining accurate dip on level of placed grout in borehole |
| 18:30 | 23:00 | Casing removal | Hole dipping @ 35.40m / Pull 7" casing back from 28m to 22.10m (2nd casing pull) = 5.9m |
| 23:00 | 23:45 | Geophysics Operations | 7" casing at 22.1m / run in CAL3 and complete logging from 28 - 22.1 = 5.9m **CAL3 = 5.9m** |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| | |
|---|---|
| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

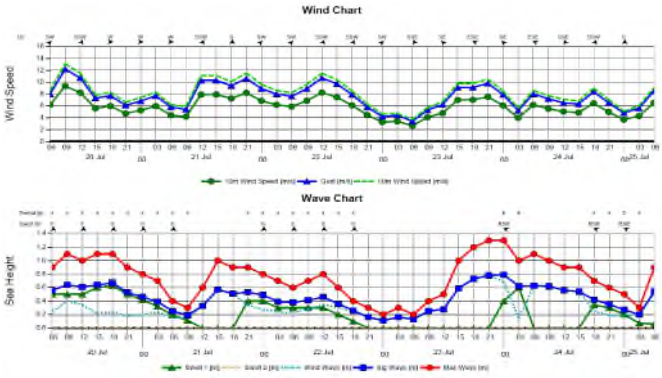
Daily Report No. **61**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 20-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

Complete geophysics. Grout up open boreholes on completion / move to IT1_SB_02

**Weather forecast**




**Health Safety & the Environment**

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs:**

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| Activity Time Summary | Today | To Date | Today | To Date |
|---|---|---|---|---|
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 0.00 | 24.72 | 0.00 | 29.97 |
| Casing Installation | 0.00 | 30.67 | 0.00 | 47.17 |
| Destructive Drilling | 0.00 | 0.00 | 0.00 | 369.42 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 0.00 | 110.25 |
| Sonic Drilling | 0.00 | 509.75 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 28.00 |
| Geophysics Operations | 0.00 | 8.50 | 9.77 | 155.52 |
| Seismic Operations | 1.50 | 2.75 | 5.17 | 22.08 |
| Grouting Operations | 0.00 | 11.67 | 2.00 | 28.50 |
| Casing removal | 0.33 | 63.33 | 6.58 | 83.33 |
| Other operations | 21.67 | 382.17 | 0.00 | 150.75 |
| Crew/Materials Transfer | 0.00 | 25.33 | 0.00 | 6.25 |
| Crew handover / TBT | 0.50 | 34.67 | 0.48 | 39.40 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 0.00 | 49.62 | 0.00 | 44.12 |
| Standby Current | 0.00 | 15.92 | 0.00 | 11.42 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1458.00 | 24.00 | 1248.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Zac Smart | Darren Bolitho | Fugro | Bargemaster |
| Matt Blight | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Adam Williams | Andrew Willis | Fugro | Assistant Driller |
| Steven Pearce | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | | Fugro | Lead Geotech |
| James Bailey | Stephen Brearley | Fugro | Geotechnical Engineers |
| Lenard Pal | Ed Cox | Fugro | Geophysics |
| Callum Murphy | | Fugro | Project Engineer |
| Wayne Caffekey | | Fugro | Seismic Ops Manager |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Kevin McKay | GeoSonic | Assistant Driller |
| Jerzy Ossowski | Mihai Usurelu | Sodexo | Chef |
| | Maciej Treder | Sodexo | Steward |
| | | | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |

| No. Personnel | 29 | Total Man Hours Worked | 348 |
|---|---|---|---|

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **61**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 20-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours | |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 | 80.0 |
| Platform set-up | 3.4 | | 18 | | | | | 0.0 | 16 | 0.00 | 88.9 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 | 0.0 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 | 0.0 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | | | | 160.0 | 0 | 0.00 | 88.9 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | | | | 160.0 | 0 | 0.00 | 88.9 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | | | | 156.5 | 0 | 0.00 | 86.9 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | | | | 122.5 | 0 | 0.00 | 68.1 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | | | | 120.0 | 0 | 0.00 | 66.7 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 58.0 | 0 | 0.00 | 64.4 |
| Back fill Sonic Borehole | 5.3 | 990 | | | | | | 181.0 | 0 | 0.00 | 18.3 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 84.5 | 0 | 0.00 | |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 16.6 | 0 | 0.00 | |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | 6.2 | | | 100.2 | 0 | 0.00 | 60.7 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | | | | 160.0 | 0 | 0.00 | 88.9 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | | | | 160.0 | 0 | 0.00 | 88.9 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | | | | 150.5 | 0 | 0.00 | 83.6 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | | | | 128.0 | 0 | 0.00 | 71.1 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | | | | 121.0 | 0 | 0.00 | 67.2 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 61.8 | 0 | 0.00 | 68.7 |
| Undertake SPT test | 9.3 | | 467 | | | | | 0.0 | 338 | 0.00 | 72.4 |
| Back fill SPT Borehole | 9.6 | 990 | | | 20.0 | | | 248.9 | 0 | 0.00 | 25.1 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 16 | 0.00 | 53.3 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | 1 | | 0.0 | 9 | 0.00 | 30.0 |
| Move and setup for Check shot | 15.4 | | 7 | | | 1 | | 0.0 | 6 | 0.00 | 85.7 |
| Perform Check shot | 15.5 | 495.0 | | | 108.0 | | | 407.2 | 53 | 0.00 | 92.9 |
| Reporting of Check shot | 15.6 | | 7 | | | 1 | | 0.0 | 6 | 0.00 | 85.7 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 4.83 | 0.0 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | 71.5 | | | 597.5 | 0 | 0.00 | 51.7 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 | 50.0 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 48 | 0.00 | 75.0 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | | | 0.0 | 16 | 0.00 | 88.9 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | | | | 1043.9 | 0 | 0.00 | 90.4 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | | | 0.0 | 16 | 0.00 | 88.9 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | 85.9 | | | 737.4 | 0 | 0.00 | 63.8 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 51 | 0.00 | 79.7 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 52 | 0.00 | 0.0 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 | |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 52 | 0.00 | 0.0 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Set up per section of logging ABI | 28.2 | | | | | 1 | | 0.0 | 4 | 0.00 | 0.0 |
| ABI Logging | 28.3 | 186.0 | | | 32.5 | | | 210.0 | 0 | 0.00 | |
| Reporting ABI | 28.4 | | 3 | | | 1 | | 0.0 | 4 | 0.00 | |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 18 | 0.00 | 0.0 |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |

| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 0 | 46 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 122 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 2 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 348 | 20724 |

**Lost or damaged equipment / materials**

None

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

Check shot specialist on board to supervise check shot operation and process field data for submission within agreed time frame and awaiting departure window from JUB. Specialist is allocated in the DPR for today. There is a mistake in the number of ABI reports generated in the DPR, should be 3 number according to live measure, but DPR is recording 4 number.

**FGSL Representative: Julian North / Work Package Manager**

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 62

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 21-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 5 | 200º | 0.8 | 4 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 2 | 270º | 0.8 | 4 | Slight | Good | |
| 12:00 | 8 | 180º | 0.9 | 4 | Slight | Good | |
| 18:00 | 8 | 180º | 0.5 | 4 | Slight | Good | |
| 00:00 | 3 | 180º | 0.6 | 4 | Slight | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| IT1_SB_04 | 2 | 2.5 | 2.6 | 2.5 | 2.6 | 2.5 | 2.5 | 2.5 | Geophysics logging was completed on borehole IT1_SPT_04. Barge moved to location IT1_SB_02. Jack up barge is jacked up and fully operational. Drilling commenced on IT1_SB_02 and IT1_SPT02. |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |
| IT1_SB_02 | 2.5 | 2.3 | 2.5 | 3.0 | 2.6 | 2.5 | 2.5 | 2.5 | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 06:00 | Other operations | **Start of Reporting Period /** Waiting for Completion of geophysics on SPT hole |
| 06:00 | 11:15 | Other operations | Waiting for Completion of geophysics on SPT hole |
| 11:15 | 11:45 | Jacking Operation | Commence jacking down prior to moving to next location |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 15:50 | Moving to next Drilling location | Move to next location / position / load 1x PAX / cargo on tug / jack up and preload legs / unfasten crane and release sea fastenings |
| 15:50 | 19:30 | Standby Current | Waiting for slack water to install 10" casings |
| 19:30 | 21:00 | Casing Installation | Run in 10" casing to both moonpools / surge casing to depth / jack up barge slightly to adjust casing height in both moonpools |
| 21:00 | 23:45 | Destructive Drilling | 10" casing set in both moonpools / DTM = 20.30m / Run in 7" casing / commence sonic coring @1.5m intervals / hole at 6m @10.00 |
| 23:45 | 24:00 | Destructive Drilling | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 01:00 | Geophysics Operations | **Start of Reporting Period /** Run in PSSL tool and complete logging from 29.5m to 21.5m **PSSL = 8m** |
| 01:00 | 01:40 | Geophysics Operations | PSSL completed / Run in ABI tool and complete logging from 33m to 21.5m **ABI = 11.5m** |
| 01:40 | 02:30 | Grouting Operations | ABI completed / run in grout rods / mix and pump grout |
| 02:30 | 05:30 | Casing removal | **Hole grouted from 35.0m to 26.0m = 9m /** Clean grout rods and mixer / pull 7" casing from 22.1m to 16.0m (3rd casing pull) |
| 05:30 | 05:55 | Geophysics Operations | 7" Casing at 16m / run in CAL3 / complete CAL 3 logging from 26m -15.5m **CAL3 = 10.5m** |
| 05:55 | 06:40 | Geophysics Operations | Run in PSSL tool and complete logging from 22m to 15.5m **PSSL = 6.5m** |
| 06:40 | 07:50 | Casing removal | pull 7" casing from 16m to 10m = 6m (4th casing pull) 70 minutes |
| 07:50 | 08:15 | Geophysics Operations | Run in CAL3 tool and complete logging from 21m to 9.5m CAL3 = **11.5m** |
| 08:15 | 09:05 | Grouting Operations | Run in PSSL tool and complete logging from 16.5m to 9.5m **PSSL = 7m** |
| 09:05 | 09:35 | Grouting Operations | run in grout rods / mix and pump grout / **Hole grouted from 26.0m to 16.0m = 10m** |
| 09:35 | 09:50 | Casing removal | pull 7" casing from 10m to 4m = 6m (5th casing pull) 15 minutes no measure obtained as borehole collapse |
| 09:50 | 10:10 | Geophysics Operations | Hole dipping @ 15.40m / set up and run CAL3 / hole Collapsed @ 4.90m / EOH confirmed by client rep |
| 10:10 | 11:15 | Casing removal | Pull remaining7" casing / Pull 10" casing / lift pump / sea fasten and secure crane |
| 11:15 | 11:45 | Jacking Operation | Commence jacking down prior to moving to next location |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 15:50 | Moving to next Drilling location | Move to next location / position / load 1x PAX / cargo on tug / jack up and preload legs / unfasten crane and release sea fastenings |
| 15:50 | 19:30 | Standby Current | Waiting for slack water to install 10" casings |
| 19:30 | 21:00 | Casing Installation | Run in 10" casing to both moonpools / surge casing to depth / jack up barge slightly to adjust casing height in both moonpools |
| 21:00 | 23:45 | Destructive Drilling | 10" casing set in both moonpools / DTM = 20.30m / Run in 7" casing / commence drilling and SPT @2m intervals / hole at 6m @23:45 |
| 23:45 | 24:00 | Destructive Drilling | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| Tug along side Excalibur at 14:00 following move to Location IT1_SB_02. 1 PAX off Wayne Caffekey Seismic specialist, 1 container full of core and rubbish also loaded. To make transfer easier jack up was left at sea level as wind had freshened. | |

| FGSL Representative: | Client Representative: |
|---|---|
| Signed: | Signed: |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **62**

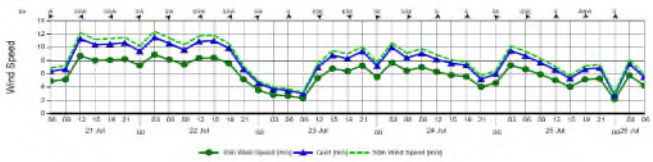
| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 21-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

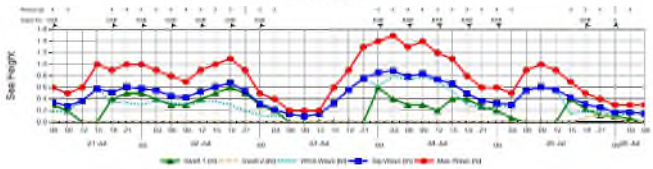
Complete drilling and geophysics on location IT1_SB_02 / Move to location IT1_SB_01 / Complete crew change

**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| Activity Time Summary | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: Today | To Date | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: Today | To Date |
|---|---|---|---|---|
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 3.83 | 28.55 | 3.83 | 33.80 |
| Casing Installation | 1.50 | 32.17 | 1.50 | 48.67 |
| Destructive Drilling | 3.00 | 3.00 | 3.00 | 372.42 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 0.00 | 110.25 |
| Sonic Drilling | 0.00 | 509.75 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 28.00 |
| Geophysics Operations | 0.00 | 8.50 | 3.58 | 159.10 |
| Seismic Operations | 0.00 | 2.75 | 0.00 | 22.08 |
| Grouting Operations | 0.00 | 11.67 | 2.17 | 30.67 |
| Casing removal | 0.00 | 63.33 | 5.50 | 88.83 |
| Other operations | 11.25 | 393.42 | 0.00 | 150.75 |
| Crew/Materials Transfer | 0.00 | 25.33 | 0.00 | 6.25 |
| Crew handover / TBT | 0.25 | 34.92 | 0.25 | 39.65 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 0.50 | 50.12 | 0.50 | 44.62 |
| Standby Current | 3.67 | 19.58 | 3.67 | 15.08 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1482.00 | 24.00 | 1272.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Zac Smart | Darren Bolitho | Fugro | Bargemaster |
| Matt Blight | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Adam Williams | Andrew Willis | Fugro | Assistant Driller |
| Steven Pearce | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | | Fugro | Lead Geotech |
| James Bailey | Stephen Brearley | Fugro | Geotechnical Engineers |
| Lenard Pal | Ed Cox | Fugro | Geophysics |
| Callum Murphy | | Fugro | Project Engineer |
| Wayne Caffekey | | Fugro | Seismic Ops Manager |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Kevin McKay | GeoSonic | Assistant Driller |
| Jerzy Ossowski | Mihai Usurelu | Sodexo | Chef |
| | Maciej Treder | Sodexo | Steward |
| | | | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |

**No. Personnel** 29 — **Total Man Hours Worked** 348

**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **62**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 21-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours | |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 | 80.0 |
| Platform set-up | 3.4 | | 18 | | | 1 | | 0.0 | 17 | 0.00 | 94.4 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 | 0.0 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 | 0.0 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | 6.0 | | | 166.0 | 0 | 0.00 | 92.2 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | | | | 160.0 | 0 | 0.00 | 88.9 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | | | | 156.5 | 0 | 0.00 | 86.9 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | | | | 122.5 | 0 | 0.00 | 68.1 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | | | | 120.0 | 0 | 0.00 | 66.7 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 58.0 | 0 | 0.00 | 64.4 |
| Back fill Sonic Borehole | 5.3 | 990 | | | | | | 181.0 | 0 | 0.00 | 18.3 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 84.5 | 0 | 0.00 | |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 16.6 | 0 | 0.00 | |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | | | | 100.2 | 0 | 0.00 | 60.7 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | 10.0 | | | 170.0 | 0 | 0.00 | 94.4 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | | | | 160.0 | 0 | 0.00 | 88.9 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | | | | 150.5 | 0 | 0.00 | 83.6 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | | | | 128.0 | 0 | 0.00 | 71.1 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | | | | 121.0 | 0 | 0.00 | 67.2 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 61.8 | 0 | 0.00 | 68.7 |
| Undertake SPT test | 9.3 | | 467 | | | | | 0.0 | 338 | 0.00 | 72.4 |
| Back fill SPT Borehole | 9.6 | 990 | | | 19.0 | | | 267.9 | 0 | 0.00 | 27.1 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 17 | 0.00 | 56.7 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | | | 0.0 | 9 | 0.00 | 30.0 |
| Move and setup for Check shot | 15.4 | | 7 | | | | | 0.0 | 6 | 0.00 | 85.7 |
| Perform Check shot | 15.5 | 495.0 | | | | | | 407.2 | 53 | 0.00 | 92.9 |
| Reporting of Check shot | 15.6 | | 7 | | | | | 0.0 | 6 | 0.00 | 85.7 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | 1.17 | 0.0 | 0 | 6.00 | 0.0 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | 21.5 | | | 619.0 | 0 | 0.00 | 53.6 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 | 50.0 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 49 | 0.00 | 76.6 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | | | 0.0 | 16 | 0.00 | 88.9 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | | | | 1043.9 | 0 | 0.00 | 90.4 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | | | 0.0 | 16 | 0.00 | 88.9 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | 22.0 | | | 759.4 | 0 | 0.00 | 65.7 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 52 | 0.00 | 81.3 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 53 | 0.00 | 0.0 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 | |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 53 | 0.00 | 100.0 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 | 100.0 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Set up per section of logging ABI | 28.2 | | | | | 1 | | 0.0 | 5 | 0.00 | 100.0 |
| ABI Logging | 28.3 | 186.0 | | | 11.5 | | | 221.5 | 0 | 0.00 | 0.0 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 4 | 0.00 | |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 19 | 0.00 | |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |

| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 2 | 48 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 122 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 2 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 348 | 21072 |

**Lost or damaged equipment / materials**

None

**Fugro GeoServices Representative Comments**

Bilbo Star fix positioning dropped out and Poseidon star fix became intermitent on Saturday pm. Possible heavy rain overnight, caused an antanae cable fault. Continuity check performed and Bilbo antanae cable changed over. Full system reboot undertaken sunday am and OARS system health check undertaken prior to move to next location. Star fix positioning system stable again.

**Client Representative Comments**

The ABI was required to be measured 1m above the Crag / London clay boundary only.

**FGSL Representative: Julian North / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 63

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 22-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| To | Ed Flint | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | Kiki Semertzidou | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | Thierry Denois | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | Gavin Hails | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | Steve Parrish | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adrian Ivor | Attn. | | No./email | a.ivor@fugro.com |
| cc | Nicholas Armstrong | Attn. | | No./email | n.armstrong@fugro.com |
| cc | Peter Gummow | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
| 00:00 | 3 | 180º | 0.6 | 4 | Slight | Good | Observed conditions have generally been greater in magnitude than those predicted |
| 06:00 | 3 | 270º | 0.5 | 4 | Slight | Good | |
| 12:00 | 10 | 180º | 1.1 | 4 | Slight | Good | |
| 18:00 | 10 | 180º | 1.0 | 4 | Slight | Good | |
| 00:00 | 0 | Variable | 0.3 | 3 | Smooth | Good | |

| Leg Penetration (m) | | | | | | | | | Operational Status |
|---|---|---|---|---|---|---|---|---|---|
| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| IT1_SB_02 | 2.5 | 2.3 | 2.5 | 3.0 | 2.6 | 2.5 | 2.5 | 2.5 | Jack up barge is jacked up and fully operational. Drilling continuing on IT1_SB_02 and on IT1_SPT_02. |
| Preloading | 860t | 860t | 860t | 860t | 860t | 860t | 860t | 860t | |

**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 06:00 | Sonic Drilling | **Start of Reporting Period /** Continue sonic coring in 1.5m intervals / depth at 06:00 = 16.5m |
| 06:00 | 11:45 | Sonic Drilling | Continue sonic coring in 1.5m intervals / depth at 11:45 = 24.0m |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 17:30 | Sonic Drilling | Continue sonic coring in 1.5m intervals / depth at 17:30 = 36.0m |
| 17:30 | 18:50 | Other operations | Sonic rig break down / undertake repairs to top break out clamp / complete repairs |
| 18:50 | 23:45 | Sonic Drilling | Continue sonic coring in 1.5m intervals / depth at 11:45 = 46.5m |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| 00:00 | 06:00 | Destructive Drilling | **Start of Reporting Period /** Continue drilling / SPT sampling at 2m intervals / Bore hole at 16.0m depth at 06:00 |
| 06:00 | 10:30 | Destructive Drilling | Continue drilling / SPT sampling at 2m intervals |
| 10:30 | 11:45 | Destructive Drilling | Struggling to advance 7" casing in Crag formation / 7" casing end at 20m/ run in Geobore and commence NCD drilling. Hole at 24m @ 11:45 |
| 11:45 | 12:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing |
| 12:00 | 18:00 | Destructive Drilling | Continue drilling / SPT sampling at 2m intervals Hole at 38.0m @ 18:00 |
| 18:00 | 23:45 | Rotary Core Drilling | Continue drilling / SPT sampling at 2m intervals Hole at 49.0m @ 23:45 / start Geobore coring at 40m |
| 23:45 | 24:00 | Crew handover / TBT | Shift Handover / Crew attend tool box talk and shift start up briefing / **End of Reporting Period** |

| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| | |
|---|---|
| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

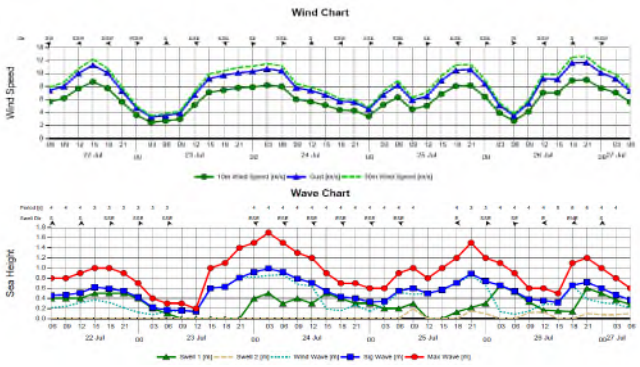
Daily Report No. **63**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 22-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

Complete drilling and geophysics on location IT1_SB_02 / Move to location IT1_SB_01 / Complete crew change

**Weather forecast**




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
| Mobilisation | 0.00 | 120.00 | 0.00 | 0.00 |
| Tow to site | 0.00 | 52.17 | 0.00 | 0.00 |
| Moving to next Drilling location | 0.00 | 28.55 | 0.00 | 33.80 |
| Casing Installation | 0.00 | 32.17 | 0.00 | 48.67 |
| Destructive Drilling | 0.00 | 0.00 | 17.75 | 390.17 |
| Sample Drilling | 0.00 | 0.00 | 0.00 | 0.00 |
| Rotary Core Drilling | 0.00 | 0.00 | 5.75 | 116.00 |
| Sonic Drilling | 22.17 | 534.92 | 0.00 | 0.00 |
| SPT Operations | 0.00 | 0.00 | 0.00 | 28.00 |
| Geophysics Operations | 0.00 | 8.50 | 0.00 | 159.10 |
| Seismic Operations | 0.00 | 2.75 | 0.00 | 22.08 |
| Grouting Operations | 0.00 | 11.67 | 0.00 | 30.67 |
| Casing removal | 0.00 | 63.33 | 0.00 | 88.83 |
| Other operations | 1.33 | 394.75 | 0.00 | 150.75 |
| Crew/Materials Transfer | 0.00 | 25.33 | 0.00 | 6.25 |
| Crew handover / TBT | 0.50 | 35.42 | 0.50 | 40.15 |
| Weather Standby | 0.00 | 92.33 | 0.00 | 79.08 |
| 3rd Party Standby | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugro Standby | 0.00 | 34.42 | 0.00 | 42.75 |
| Demobilisation | 0.00 | 0.00 | 0.00 | 0.00 |
| Jacking Operation | 0.00 | 50.12 | 0.00 | 44.62 |
| Standby Current | 0.00 | 19.58 | 0.00 | 15.08 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 24.00 | 1506.00 | 24.00 | 1296.00 |

**Personnel on Board (Fugro/Client/Subcontractors)**

| 0000-1200 | 1200-2400 | Company | Position |
|---|---|---|---|
| | Julian North | Fugro | Site Project Manager |
| Zac Smart | Darren Bolitho | Fugro | Bargemaster |
| Matt Blight | Andy Rowe | Fugro | Drilling Supervisor |
| James Lawer | James Lawson | Fugro | Driller |
| Adam Williams | Andrew Willis | Fugro | Assistant Driller |
| Steven Pearce | Justin Smith | Fugro | Assistant Driller |
| Kevin Thompson | Carl Tucker | Fugro | Crane Operator |
| Steve McInnis | Steve Hancock | Fugro | Fitter/Electrician |
| | | Fugro | Lead Geotech |
| James Bailey | Stephen Brearley | Fugro | Geotechnical Engineers |
| Lenard Pal | Ed Cox | Fugro | Geophysics |
| Callum Murphy | | Fugro | Project Engineer |
| Tim Nixon | | Fugro | Seismic PM |
| Paul Jeans | Tim McCarthy | GeoSonic | Driller |
| Mark Wetton | Kevin McKay | GeoSonic | Assistant Driller |
| Jerzy Ossowski | Mihai Usurelu | Sodexo | Chef |
| | Maciej Treder | Sodexo | Steward |
| | | | |
| | | | |
| | Véronique Bienvenu | EDF NNB | Client Representative |
| | | | |
| | | | |
| **No. Personnel** | **29** | **Total Man Hours Worked** | 348 |

**Fugro GeoServices Representative Comments**

Specialist Seismic engineer transferred on board at midday from tug Kermor. Engineer will oversee final check shot on bore hole IT1_SPT_02 (55m). Tug Kermor transferred empty core boxes and 1 x empty 10' container, tug will remain on station until final move then complete crew transfer.

**Client Representative Comments**

**FGSL Representative:**

**Signed:**

**Client Representative:**

**Signed:**

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **63**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 22-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | BoQ Item | m. | No. | Hours | m. | No. | Hours | m. | No. | Hours | |
| Platform mobilisation/demobilisation | 3.1 | | 1 | | | | | 0.0 | 0.8 | 0.00 | 80.0 |
| Platform set-up | 3.4 | | 18 | | | | | 0.0 | 17 | 0.00 | 94.4 |
| Weather standby | | | | | | | | 0.0 | 0 | 35.75 | 0.0 |
| Standby by other | | | | | | | | 0.0 | 0 | 2.00 | 0.0 |
| **SONIC (Vibration) drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Sonic Drilling between sea bed and 10m | 5.2 | 180 | | | 4.0 | | | 170.0 | 0 | 0.00 | 94.4 |
| Sonic Drilling between 10m and 20m | 5.2.1 | 180 | | | 10.0 | | | 170.0 | 0 | 0.00 | 94.4 |
| Sonic Drilling between 20m and 30m | 5.2.2 | 180 | | | 10.0 | | | 166.5 | 0 | 0.00 | 92.5 |
| Sonic Drilling between 30m and 40m | 5.2.3 | 180 | | | 10.0 | | | 132.5 | 0 | 0.00 | 73.6 |
| Sonic Drilling between 40m and 50m | 5.2.4 | 180 | | | 6.5 | | | 126.5 | 0 | 0.00 | 70.3 |
| Sonic Drilling between 50m and 55m | 5.2.5 | 90 | | | | | | 58.0 | 0 | 0.00 | 64.4 |
| Back fill Sonic Borehole | 5.3 | 990 | | | | | | 181.0 | 0 | 0.00 | 18.3 |
| **Rotary Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Rotary Coring between 45m and 55m | 6.1.1 | 30 | | | | | | 84.5 | 0 | 0.00 | |
| Rotary Coring between 55m and 65m | 6.1.2 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 65m and 75m | 6.1.3 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 75m and 85m | 6.1.4 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 85m and 95m | 6.1.5 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 95m and 105m | 6.1.6 | 30 | | | | | | 30.0 | 0 | 0.00 | 100.0 |
| Rotary Coring between 105m and 110m | 6.1.7 | 15 | | | | | | 16.6 | 0 | 0.00 | |
| Borehole cementation (E/O) | 6.2 | 165 | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Borehole cementation from 55-110m bgl | 6.3 | 165 | | | | | | 100.2 | 0 | 0.00 | 60.7 |
| **SPT Destructive Drilling** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Destructive drilling between Sea bed & 10m | 9.2 | 180 | | | | | | 170.0 | 0 | 0.00 | 94.4 |
| Destructive drilling between 10m and 20m | 9.2.1 | 180 | | | 10.0 | | | 170.0 | 0 | 0.00 | 94.4 |
| Destructive drilling between 20m and 30m | 9.2.2 | 180 | | | 10.0 | | | 160.5 | 0 | 0.00 | 89.2 |
| Destructive drilling between 30m and 40m | 9.2.3 | 180 | | | 10.0 | | | 138.0 | 0 | 0.00 | 76.7 |
| Destructive drilling between 40m and 50m | 9.2.4 | 180 | | | 9.0 | | | 130.0 | 0 | 0.00 | 72.2 |
| Destructive drilling between 50m and 55m | 9.2.5 | 90 | | | | | | 61.8 | 0 | 0.00 | 68.7 |
| Undertake SPT test | 9.3 | | 467 | | | 23.0 | | 0.0 | 361 | 0.00 | 77.3 |
| Back fill SPT Borehole | 9.6 | 990 | | | | | | 267.9 | 0 | 0.00 | 27.1 |
| **Borehole Seismic** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mob of Check shot equipment | 15.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| E/O day rate for equipment only onboard the JUB | 15.2 | | 30 | | | 1 | | 0.0 | 18 | 0.00 | 60.0 |
| E/O day rate for operator onboard the JUB | 15.3 | | 30 | | | | | 0.0 | 9 | 0.00 | 30.0 |
| Move and setup for Check shot | 15.4 | | 7 | | | | | 0.0 | 6 | 0.00 | 85.7 |
| Perform Check shot | 15.5 | 495.0 | | | | | | 407.2 | 53 | 0.00 | 92.9 |
| Reporting of Check shot | 15.6 | | 7 | | | | | 0.0 | 6 | 0.00 | 85.7 |
| E/O rate for Additional casing pulls (3 per BH) | | | | | | | | 0.0 | 0 | 6.00 | 0.0 |
| **Geophysical Logging** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| GL acquisition & Report for P/S velocity logging | 16.2 | 1155.0 | | | | | | 619.0 | 0 | 0.00 | 53.6 |
| Geo-logging mob-demob for GAMMA ray | 16.3 | | 1 | | | | | 0.0 | 1 | 0.00 | 50.0 |
| E/O day rate for equipment onboard the jack-up | 16.4.1 | | 64 | | | 1 | | 0.0 | 50 | 0.00 | 78.1 |
| Setup for Gamma Ray | 16.4.2 | | 18 | | | | | 0.0 | 16 | 0.00 | 88.9 |
| Gamma Ray Logging | 16.4.3 | 1155.0 | | | | | | 1043.9 | 0 | 0.00 | 90.4 |
| Reporting of Gamma Ray | 16.4.4 | | 18 | | | | | 0.0 | 16 | 0.00 | 88.9 |
| GL acquisition and report for Calliper | 16.6 | 1155.0 | | | | | | 759.4 | 0 | 0.00 | 65.7 |
| Mobilisation of additional wireline engineer to site | 16.7 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Daily rate for additional WL Logging Engineer | 16.8 | | 64 | | | 1 | | 0.0 | 53 | 0.00 | 82.8 |
| E/O mob/demob of the Robertson's PSSL tool | 25.3 | | | | | | | 0.0 | 1 | 0.00 | 0.0 |
| E/O day rate for the Robertson's PSSL tool | 25.4 | | | | | 1 | | 0.0 | 54 | 0.00 | 0.0 |
| **Variation Orders** | | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilise equipment for Environmental Samples | 27.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 100.0 |
| Sampling Operations within SPT BH | 27.2 | | | | | | | 0.0 | 1 | 0.00 | |
| Additional Geotechnical Engineers | 27.3 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Additional engineer shore side | 27.4 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of engineers | 27.5 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| 10ft Cooler container for jack-up | 27.6 | | 1 | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Daily hire of 10ft cooler container | 27.7 | | | | | 1 | | 0.0 | 54 | 0.00 | 100.0 |
| Provision of enviro sample containers | 27.8 | | 1 | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Estimated cost of Environmental testing | 27.11 | | | | | | | 0.0 | 0 | 0.00 | 100.0 |
| Uplift for weather Risk | 27.12 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |
| Mobilisation of ABI Equipment | 28.1 | | 1 | | | | | 0.0 | 1 | 0.00 | 0.0 |
| Set up per section of logging ABI | 28.2 | | | | | | | 0.0 | 5 | 0.00 | 100.0 |
| ABI Logging | 28.3 | 186.0 | | | | | | 221.5 | 0 | 0.00 | 0.0 |
| Reporting ABI | 28.4 | | 3 | | | | | 0.0 | 4 | 0.00 | |
| Day rate of ABI equipment | 28.5 | | | | | 1 | | 0.0 | 20 | 0.00 | |
| Uplift for weather Risk in line with item 24.2 | 28.6 | | | | | | | 0.0 | 0 | 0.00 | 0.0 |

| Health & Safety Summary | Today | Actual To Date |
|---|---|---|
| HOCs | 1 | 49 |
| Safety Drills | 0 | 4 |
| Tool Box Talks | 2 | 122 |
| HSE Meetings | 0 | 3 |
| Incidents/Near Miss | 0 | 4 |
| Environmental | 0 | 2 |
| Inspections / Audits | 0 | 3 |
| Hours Worked | 348 | 21420 |

**Lost or damaged equipment / materials**

None

**Fugro GeoServices Representative Comments**

Night shift project engineer assisted Geologist in catching up with core logging and samlpe preperation. Back log of core caught up by midnight and shift hand over. To assist, end caps and hole depths were placed on the core liners by the drilling crews.

**Client Representative Comments**

Client Rep raised concerns over number of geosonic / geobore core runs (5 number) remaining on deck waiting to be logged. (HOC raised)

**FGSL Representative: Julian North / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 64

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 23-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| □□□□ | □□□□ | □□□□Dr□□□□ | **Start of Reporting Period /** □□□□□□□□□□□□□□r□□□□□□□□ □□□r□□□□□D□□□□□□□□□□□□□□□□ |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 64

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 23-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 64

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 23-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□ |
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| **SPT Destructive Drilling** | | | | | | | | □□□ | □ | □□□□ | □□ |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□□ | □□ |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

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**Client Representative Comments**

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**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 65

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 24-Jul-19 | Revision | 0 |
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| cc | □(□□□) □□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□(□□) □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
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| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □(□□□□□)Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
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| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 65

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 24-Jul-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

Daily Report No. **65**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 24-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **SPT Destructive Drilling** | | | | □□□□□ | | | | □□□ | □ | □□□□ | □□ |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

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**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 66

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 25-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □ □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
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| Time 00:00 | Speed m/s | Direction | | | | | |
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**Operational Status**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 66

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 25-Jul-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

Daily Report No. **66**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Thursday 25-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| Health & Safety Summary | Today | Actual To Date |
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| Lost or damaged equipment / materials |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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| FGSL Representative: Colin Mulvey / Work Package Manager | Client Representative: Véronique Bienvenu |
|---|---|
| Signed: [redacted] | Signed: [redacted] |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 67

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 26-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
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| | | | | | | | | |

**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| □□□□ | □□□□ | □ □□□□r□□ □□□□ | **Start of Reporting Period /** Prepare sonic rig & equipment for tow to demobilisation site / 01:30 Pull 10" casing from moonpool |
| □□□□ | □□□□ | □r□□□□d□□□r□□ □□□ | □□M□□r□ □rA□□□□□d□□□□□□A□□□□□□□□d□□□□□□□□□□□□r□ □r□□□ □□□□ □□□□□□□r□□□□□ □□ □□□□□□□r□□□□ |
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| □□□□ | □□□□ | □ □□□□□□□□□ □ □□r□□□□□ | **Start of Reporting Period /** □□□□□□□□□□□□□□□□□M□□□□r□□□□A□□□□□□□□□□□□□□ |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 67

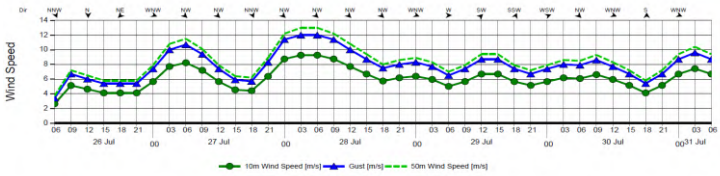
| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 26-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

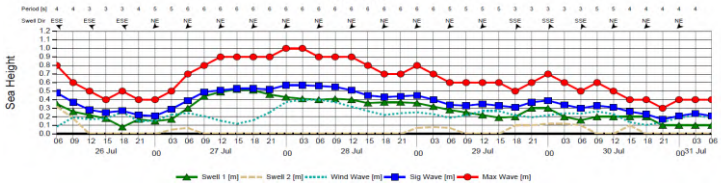
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
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| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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**Personnel on Board (Fugro/Client/Subcontractors)**

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| **No. Personnel** | **28** | **Total Man Hours Worked** | □□□ |

| Fugro GeoServices Representative Comments | Client Representative Comments |
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| FGSL Representative: | Client Representative: |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 67

| Job No: | C1984 | Vessel: | Excalibur | Date: | Friday 26-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

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**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 68

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 27-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com | | |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com | | |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com | | |
| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com | | |
| cc | □□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com | | |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com | | |
| cc | □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com | | |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com | | |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 68

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 27-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 68

| Job No: | C1984 | Vessel: | Excalibur | Date: | Saturday 27-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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| Fugro GeoServices Representative Comments | Client Representative Comments |
|---|---|
| | |

| FGSL Representative: Colin Mulvey / Work Package Manager | Client Representative: Véronique Bienvenu |
|---|---|
| Signed: [redacted] | Signed: [redacted] |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 69

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 28-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs | Period | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | (m) | (Tp s) | | | |
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**Leg Penetration (m)**

| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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| **FGSL Representative:** | **Client Representative:** |
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 69

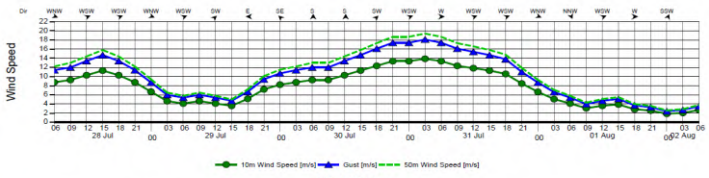
| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 28-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

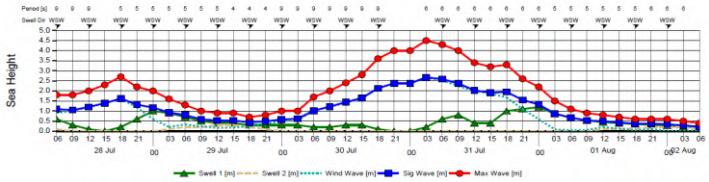
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**Weather forecast**

Wind Chart




Wave Chart




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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| **Personnel on Board (Fugro/Client/Subcontractors)** | | | |
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| **0000-1200** | **1200-2400** | **Company** | **Position** |
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| **Fugro GeoServices Representative Comments** | **Client Representative Comments** |
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| **FGSL Representative:** | **Client Representative:** |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 69

| Job No: | C1984 | Vessel: | Excalibur | Date: | Sunday 28-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **Variation Orders** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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**Lost or damaged equipment / materials**

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| Fugro GeoServices Representative Comments | Client Representative Comments |
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**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Sig** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 70

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 29-Jul-19 | Revision | 0 |
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| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
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| cc | □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| □□□□ | □ | 080º | □□□ | □ | □□ □□□□ | □ □□d | |
| □□□□ | □ | 050º | □□□ | □ | □□ □□□□ | □ □□d | |
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| Leg Penetration (m) | | | | | | | | |
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| BH no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
|---|---|---|---|
| □□□□ | □□□□ | □□□ □□□□□□ | Start of Reporting Period / □□□□□□□□□□□□□□□□□□A□□□□□□□□□d□□□□r□□□□□□□□r□□□□□□□□□ |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 70

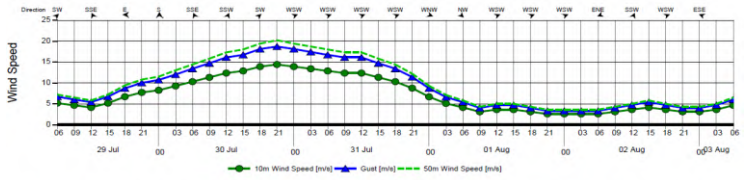
| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 29-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

**Work planned - Next 72hrs:**

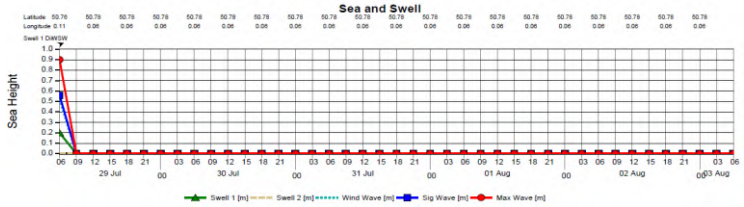
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**Weather forecast**

**Wind**




**Sea and Swell**




**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
|---|---|---|---|---|
| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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| **Personnel on Board (Fugro/Client/Subcontractors)** | | | |
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| **No. Personnel** | **17** | **Total Man Hours Worked** | □□□ |

| **Fugro GeoServices Representative Comments** | **Client Representative Comments** |
|---|---|
| | |

| **FGSL Representative:** | **Client Representative:** |
|---|---|
| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

Daily Report No. **70**

| Job No: | C1984 | Vessel: | Excalibur | Date: | Monday 29-Jul-19 | Revision | 0 |
|---|---|---|---|---|---|---|---|

| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **Rotary Drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| **SPT Destructive Drilling** | | | | □□□□ | | | | □□□ | □ | □□□□ | □□□ |
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| **Borehole Seismic** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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| Health & Safety Summary | Today | Actual To Date |
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**Lost or damaged equipment / materials**

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**Fugro GeoServices Representative Comments**

**Client Representative Comments**

**FGSL Representative: Colin Mulvey / Work Package Manager**

**Signed:** [redacted]

**Client Representative: Véronique Bienvenu**

**Signed:** [redacted]

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 71

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 30-Jul-19 | Revision | 0 |
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| To | □d□□□□ | Attn. | | No./email | ed.1.flint@edf-energy.com | | |
| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com | | |
| cc | □□□rr□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com | | |
| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com | | |
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| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com | | |
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| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com | | |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
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| Time 00:00 | Speed m/s | Direction | | | | | |
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**Operational Status**

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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 71

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 30-Jul-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

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**Weather forecast**

**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
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| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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| Personnel on Board (Fugro/Client/Subcontractors) | | | |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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| FGSL Representative: | Client Representative: |
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| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 71

| Job No: | C1984 | Vessel: | Excalibur | Date: | Tuesday 30-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| **SONIC (Vibration) drilling** | | | | | | | | □□□ | □ | □□□□ | □□□ |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 72

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 31-Jul-19 | Revision | 0 |
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| cc | □□□□□□ □r□□d□□ | Attn. | | No./email | kyriaki.semertzidou@edf-energy.com |
| cc | □□□rr□D□□□□ | Attn. | | No./email | thierry.denois@edf-en.com |
| cc | □ □□□□ □□□ | Attn. | | No./email | gavin.hails@edf-energy.com |
| cc | □□□□□ □rr□□ | Attn. | | No./email | stephen.parrish@nnb-edfenergy.com |
| cc | Adr□□□□□r | Attn. | | No./email | a.ivor@fugro.com |
| cc | □□□□□□Ar□ □r□□□ | Attn. | | No./email | n.armstrong@fugro.com |
| cc | □□□r□□ □□ □ □□ | Attn. | | No./email | p.gummow@fugro.com |

| Observed Weather | Wind | | Wave Hs (m) | Period (Tp s) | Sea State | Visibility | Weather Forecast Vs Operational Requirements |
|---|---|---|---|---|---|---|---|
| Time 00:00 | Speed m/s | Direction | | | | | |
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| Leg Penetration (m) | | | | | | | | | Operational Status |
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**Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations (LS 600 rig) - last 24hrs:**

| From | To (local) | Code | Description |
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**Moon Pool #2 - Summary of Destructive drilling / Rotary Coring and Sampling Operations (Comacchio 12.1 Rig) - last 24hrs:**

| From | To (local) | Code | Description |
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# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
## Jack-up Barge Excalibur

**Daily Report No.** 72

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 31-Jul-19 | Revision | 0 |
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**Work planned - Next 72hrs:**

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**Weather forecast**

**Health Safety & the Environment**

| | Moon Pool #1 - Summary of GeoSonic Borehole Drilling and Sampling Operations / JUB Operations (GS 600 rig) - last 24hrs: | | Moon Pool #2 - Summary of Destructive drilling / Rotary Coring & Sampling Operations (Comacchio 12.1 Rig) - last 24hrs: | |
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| **Activity Time Summary** | **Today** | **To Date** | **Today** | **To Date** |
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| Personnel on Board (Fugro/Client/Subcontractors) | | | |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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| FGSL Representative: | Client Representative: |
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| **Signed:** | **Signed:** |

# NEARSHORE DAILY PROGRESS REPORT
## SZC 2019 Offshore Ground Investigation
### Jack-up Barge Excalibur

**Daily Report No.** 72

| Job No: | C1984 | Vessel: | Excalibur | Date: | Wednesday 31-Jul-19 | Revision | 0 |
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| Project Program / Progress | | Programmed | | | Today | | | Actual To Date | | | % Program Completed |
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| Health & Safety Summary | Today | Actual To Date |
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| Lost or damaged equipment / materials |
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| Fugro GeoServices Representative Comments | Client Representative Comments |
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| FGSL Representative: Colin Mulvey / Work Package Manager | Client Representative: Véronique Bienvenu |
|---|---|
| Signed: [redacted] | Signed: [redacted] |

# INCIDENT REPORT

## GENERAL

R[illegible]

R[illegible] D[illegible]

[illegible] R[illegible] M[illegible]

[illegible]

[illegible]

D[illegible] *(dd-mmm-yy)*

**Classification of Incident:** *(Tick appropriate box or boxes)*

☒ [illegible]

☐ [illegible]

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[illegible] Ar[illegible]

[illegible]

A[illegible] R[illegible] R[illegible]

*(See Corporate Risk Matrix)*

[illegible] R[illegible] R[illegible]

## DETAILS

**Factual description of the incident:**

A[illegible] M[illegible]

[illegible]

[illegible] the 6” casing and the 10” [illegible]

[illegible]

[illegible]

[illegible]

[illegible] A[illegible]

**Immediate action(s) to prevent recurrence:**

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

## CONSEQUENCE(S)

[illegible] M[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

# INCIDENT REPORT

INVESTIGATION

**Substandard Conditions;**

**Underlying Cause;**

**Engineering;**

# INCIDENT REPORT

**ACTIONS**

| □ | A□□□

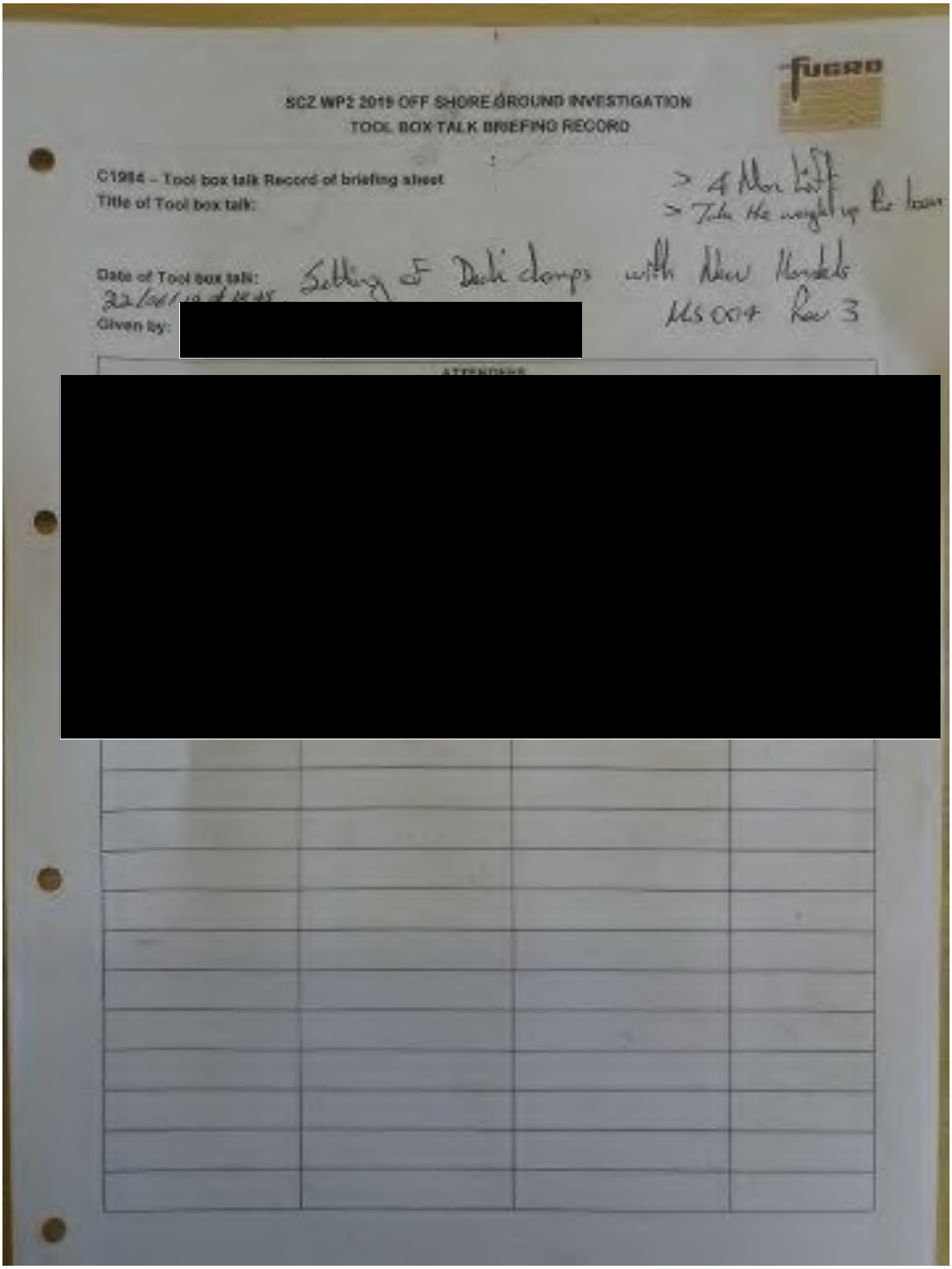
**Extract from the Method Statement – MS04.**

| | |
|---|---|
| 3. | As the lead length is elevated parallel to the deck it is inclined as it is lower into the vertical position. It is then inserted into 10" conductor casing. |
| 4. | The hydraulic clamps will be positioned loosely around the 5.5" casing. When positioning hydraulic clamp ensure that the handles attached are used. Locked off in the clamps and the drill stub will disengage to return to the deck and pick another casing.<br>  <br>*Above: Handles to be use when positioning hydraulic clamp* |




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**Communication of Method Statement Changes.**





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## APPENDIX A – FUGRO Immediate and Root Causes:

| Immediate Causes | |
|---|---|
| **Substandard Acts** | **Substandard Conditions** |
| Operating Equipment Without Authority | Inadequate guards or barriers |
| Failure to Warn Others | Inadequate or improper personal protective equipment |
| Failure to Secure | Defective hand-held tools |
| Operating at Improper Speed | Congested or restricted areas |
| Making safety devices inoperative | Inadequate warning system |
| Using defective equipment | Fire and/or explosion hazards |
| Failing to use personal protective equipment properly | Poor housekeeping |
| Improper Loading | Noise exposures |
| Improper Placement | Radiation exposures |
| Improper Mechanical Lifting | Temperature Extremes |
| Improper position for task | Inadequate or excessive illumination |
| Servicing equipment while in operation | Inadequate ventilation |
| Horseplay | Road Conditions |
| Under the influence of alcohol and/or other drugs | Weather Conditions |
| Using equipment incorrectly | Inadequate Communication |
| Failure to follow policy, procedures, instructions and/or practice | Inadequate Information / Data |
| Failure to check / monitor / measure / inspect | Lack of / Inadequate Instruction / Procedures |
| Failure to communicate / coordinate | Inadequate Preparation / Planning |
| Failure to identify Hazard / Risk | Inadequate Support / Assistance |
| Failure to React / Correct / Prevent | Defective equipment / Equipment Failure / Fatigue |
| Improper Manual Handling | Defective materials |
| Using hand held/portable tools without authority | Inadequate training |
| Failure to manage a change in conditions / task | Exposure to vibration |
| Lack of Supervision | Inadequate / no access /egress |
| Inadequate Form Completion or Record Keeping | Environmental Conditions |
| Operator Error | Current |
| Engineering / Design Error | Time Pressure |
| Failure to Install Correctly | Infection / Virus |
| Exceeded Working Limits of Equipment or other | Medical Condition |
| Inappropriate Selection of Equipment | Lack of Resources (personnel, budget, time) |
| | Inadequate Client Specification |
| □ | Inappropriate Equipment |
| | Ground Conditions |


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| Root Causes | |
|---|---|
| **JOB FACTORS** | |
| **Abuse or Misuse** | **Tools and Equipment** |
| Improper intentional conduct that is condoned | Inadequate adjustment/repair/maintenance |
| Improper intentional conduct that is not condoned | Inadequate assessment of needs and risks |
| Improper unintentional conduct that is condoned | Inadequate availability |
| Improper unintentional conduct that is not condoned | Inadequate human factors/ergonomics considerations |
| **Engineering** | Inadequate removal and replacement of unsuitable items |
| Inadequate assessment of loss exposures | Inadequate salvage and reclamation |
| Inadequate assessment of operational readiness | Inadequate standards or specifications |
| Inadequate consideration of human factors/ergonomics | Lack of calibration of inspection and test equipment |
| Inadequate evaluation of changes | **Wear and Tear** |
| Inadequate monitoring of construction | Improper extension of service life |
| Inadequate monitoring or initial operation | Improper loading or rate of use |
| Inadequate or improper controls | Inadequate inspection and/or monitoring |
| Inadequate standards, specifications and/or design criteria | Inadequate maintenance |
| **Inadequate Leadership and/or Supervision** | Inadequate planning of use |
| Giving inadequate policy, procedure, practices or guidelines | Use by unqualified or untrained people ~~for wrong purpose~~ |
| Giving objectives, goals or standards that conflict | Use for wrong purpose |
| Improper or insufficient delegation | **Work Standards** |
| Inadequate identification and evaluation of loss exposures | Inadequate communication of standards |
| Inadequate instructions, orientation and/or training | Inadequate development of standards |
| Inadequate matching of individual qualifications and job/task requirements | Inadequate maintenance of standards |
| Inadequate or incorrect performance feedback | Inadequate monitoring of compliance |
| Inadequate performance measurement and evaluation | |
| Inadequate work planning or programming | |
| Lack of supervisory/management job knowledge | |
| Providing inadequate reference documents, directives and guidance publications | |
| Unclear or conflicting assignment of responsibility | |
| Unclear or conflicting reporting relationships | |
| **Maintenance** | |
| Inadequate preventative maintenance | |
| Inadequate reparative maintenance | |
| **Purchasing** | |
| Improper handling of materials | |
| Improper salvage and/or waste disposal | |
| Improper storage of materials | |
| Improper transporting of materials | |
| Inadequate communication of safety and health data | |
| Inadequate contractor selection / management of | |
| Inadequate identification of hazardous materials | |
| Inadequate mode or route of shipment | |
| Inadequate receiving inspection and acceptance | |
| Inadequate research on materials/equipment | |
| Inadequate specifications on requisitions | |
| Inadequate specification to vendors | |


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**PERSONAL FACTORS**

**Improper Motivation**
Excessive frustration
Improper attempt to avoid discomfort
Improper attempt to gain attention
Improper attempt to save time or effort
Improper performance is rewarded (tolerated)
Improper production incentives
Improper supervisory example
Inadequate discipline
Inadequate performance feedback
Inadequate reinforcement of proper behavior
Inappropriate aggression
Inappropriate peer pressure
Lack of incentives
Proper performance is punished

**Lack of Knowledge**
Inadequate initial training
Inadequate orientation
Inadequate update training
Lack of experience
Misunderstood directions

**Lack of Skill**
Inadequate initial instruction
Inadequate practice
Inadequate review instruction
Infrequent performance
Lack of coaching

**Mental or Psychological Stress**
"Meaningless" or "degrading" activities
Conflicting demands/directions
Confusing directions/demands
Emotional overload
Extreme concentration/perception demands
Extreme judgment/decision demands
Fatigue due to mental task load or speed
Frustration
Mental illness
Preoccupation with problems
Routine, monotony, demand for uneventful vigilance

**Mental/Psychological Capacity**
Emotional disturbance
Fears and phobias
Inability to comprehend
Intelligence level
Low learning aptitude
Low mechanical aptitude
Memory failure
Mental illness
Poor coordination
Poor judgment
Slow reaction time

**Physical or Physiological Stress**
Atmospheric pressure variation
Blood sugar insufficiency
Constrained movement
Drugs
Exposure to health hazards
Exposure to temperature extremes
Fatigue due to lack of rest
Fatigue due to sensory overload
Fatigue due to task load or duration
Injury or illness
Oxygen deficiency

**Physical/Physiological Capacity**
Hearing deficiency
In appropriate height, weight, size, strength, reach, etc.
Limited ability to sustain body positions
Other permanent physical capabilities
Other sensory deficiency (touch, taste, smell, balance)
Respiratory incapacity
Restricted range of body movement
Sensitivities to sensory extremes (temperature, sound, etc)
Substance sensitivities or allergies
Temporary disabilities
Vision deficiency


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# INCIDENT REPORT

## GENERAL

Report Number: FINAL

Incident Title: Tow wire – Excalibur/ Tug

Responsible Department: NS

Project Number: C 1984

Name of Reporter: C.Mulvey

Client: NNB EDF

Specific Location: OT_SB_02_Sizewell C

Date / Time Occurred: 17/06/2019 00:38
*(dd-mmm-yy)*

**Classification of Incident:** *(Tick appropriate box or boxes)*

☐ Injury ☐ Occupational Illness ☒ Near Miss ☐ Non Work Related

☐ Environmental ☒ Property / Equipment ☐ Transportation

Severity of Injury:

Is High Potential (HIPO)? ☐ Yes ☒ No

Lighting: Artificial

Weather: Good

Actual Risk Ranking: Low
*(See Corporate Risk Matrix)*

Potential Risk Ranking: Medium

## DETAILS

**Factual description of the incident:**

**Sunday 16/06/19**

23:40 Commenced tow using Tug (TSM Kermor) towing Excalibur 1.6km to location IT2_SB_04.

**Monday 17/06/19**

00:30 Excalibur nearing final location when TSM Kermor was unable to maintain Excalibur on the required position. Both tug and Barge began to drift North, approx. 180m north of target location.

00:35 Tug re-attempted run in an easterly direction towards the target while the barges heading was WSW. As the towing wire took up the tension, the main winch wire parted.

At 00:38 Excalibur drifted North (within the work site) and dropped legs 7 & 8 (touching down first then legs 1 & 2 followed shortly afterwards. This was done to prevent barge from gaining speed and exiting the work area.

01:10 Barge made safe and commence jacking of legs 2, 7, 8 and 1 to assess leg integrity. At present all legs are clear of any observed damage or deformities.

(Continue on separate sheet if necessary)

Attach additional reports such as: Medical, Witness, Log Entries, Photos, Other Entities Incident Reports

**Immediate action(s) to prevent recurrence:**

Tug has been sent shoreside to have the winch wire inspected and a termination end re-attached.

Start investigation into incident and put in place any further control measures as for next and subsequent moves.

(Continue on separate sheet if necessary)

## CONSEQUENCE

Injured Party (IP): N/A

Employee Type: Subcontractor

Injured Body Part:

# of prior hours worked: 4

Type of Injury:

# of prior days worked: 4

List of other personnel involved / affected: N/A
(include Direct Supervisor)



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# INCIDENT REPORT

1. Confined Spaces ☐
2. Driving ☐
3. Equipment / System Isolation ☐
4. Fitness for Work ☐
5. Ground Disturbance ☐
6. Hazardous Substances ☐
7. Lifting Operations ☐
8. Loading and Unloading of Vehicles ☐
9. Personnel Transfer ☐
10. Simultaneous Operations ☐
11. Working at Height ☐
12. Working with Equipment ☐

None ☒

**ACTIONS**

| | Action to be taken | Responsible Person | Target Date | Complete (Yes / No) |
|---|---|---|---|---|
| 1 | Tug sent shoreside to repair winchwire and complete thorough inspection | PM | 17/06/2019 | Yes |
| 2 | Safety Standdown to review finding and ensure all information is relayed to crew. | PM, BM & Supervisor & HSE Rep | 18/06/2019 | Yes |
| 3 | Provide new winch wire as replacement if required. | PM | 21/06/2019 | Yes |
| 4 | HSSE Advisor to visit site to support the investigation. | HSSE Advisor | 18/06/2019 | Yes |
| 5 | Information and witness statement from Tug master of TSM Kermor | Tug master | 18/06/2019 | Yes |
| 6 | | | | |

(Continue on separate sheet if necessary)

Other details:

**APPROVAL**

Comments:

Name: M J CHAPPELL

Sign [redacted]

Date: 11/07/19

**APPENDIX – FUGRO Immediate and Root Causes**

| Immediate Causes | |
|---|---|
| **Substandard Acts** | **Substandard Conditions** |
| Operating Equipment Without Authority | Inadequate guards or barriers |



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**JOB FACTORS**

**Abuse or Misuse**

Improper intentional conduct that is condoned
Improper intentional conduct that is not condoned
Improper unintentional conduct that is condoned
Improper unintentional conduct that is not condoned

**Engineering**

Inadequate assessment of loss exposures
Inadequate assessment of operational readiness
Inadequate consideration of human factors/ergonomics
Inadequate evaluation of changes
Inadequate monitoring of construction
Inadequate monitoring or initial operation
Inadequate or improper controls
Inadequate standards, specifications and/or design criteria

**Inadequate Leadership and/or Supervision**

Giving inadequate policy, procedure, practices or guidelines
Giving objectives, goals or standards that conflict
Improper or insufficient delegation
Inadequate identification and evaluation of loss exposures
Inadequate instructions, orientation and/or training
Inadequate matching of individual qualifications and job/task requirements
Inadequate or incorrect performance feedback
Inadequate performance measurement and evaluation
Inadequate work planning or programming
Lack of supervisory/management job knowledge
Providing inadequate reference documents, directives and guidance publications
Unclear or conflicting assignment of responsibility
Unclear or conflicting reporting relationships

**Maintenance**

Inadequate preventative maintenance
Inadequate reparative maintenance

**Purchasing**

Improper handling of materials
Improper salvage and/or waste disposal
Improper storage of materials
Improper transporting of materials
Inadequate communication of safety and health data
Inadequate contractor selection / management of
Inadequate identification of hazardous materials
Inadequate mode or route of shipment
Inadequate receiving inspection and acceptance
Inadequate research on materials/equipment
Inadequate specifications on requisitions
Inadequate specification to vendors

**PERSONAL FACTORS**

**Tools and Equipment**

Inadequate adjustment/repair/maintenance
Inadequate assessment of needs and risks
Inadequate availability
Inadequate human factors/ergonomics considerations
Inadequate removal and replacement of unsuitable items
Inadequate salvage and reclamation
Inadequate standards or specifications
Lack of calibration of inspection and test equipment

**Wear and Tear**

Improper extension of service life
Improper loading or rate of use
Inadequate inspection and/or monitoring
Inadequate maintenance
Inadequate planning of use
Use by unqualified or untrained people ~~for wrong purpose~~
Use for wrong purpose

**Work Standards**

Inadequate communication of standards
Inadequate development of standards
Inadequate maintenance of standards
Inadequate monitoring of compliance


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# MV Excalibur Loss of Tow / Sizewell C



| | |
|---|---|
| **Investigation Team:** | |
| **Investigation Date:** | |
| **Report Prepared By:** | |
| **Report Date:** | |
| **Client:** | |
| **Contract Number:** | |
| **Location of Incident:** | |
| **Date of Incident:** | |
| **Time of Incident:** | |
| **Type of Incident:** | |
| **Main Equipment / Plant Involved:** | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| **Issue** | **Rev** | **Description** | **Prepared** | **Checked** | **Approved** | **Date** |

## Contents




## Appendices:

## 1.0 INTRODUCTION

## 2.0 SUMMARY


On the morning of the 3rd of May 2010 the Fugro Survey vessel Fugro Scout was conducting a survey in the Gulf of Mexico. The vessel was towing a 3D seismic streamer array and a single source array. The vessel was approaching the end of a survey line when the streamer array was observed to be fouled on the vessel's starboard quarter. The vessel was stopped and the streamer array was recovered to the vessel. The streamer array was found to be damaged and the source array was also found to be damaged.

During the recovery of the streamer array to the vessel it was observed that the [illegible] streamer was missing. The streamer was found to be damaged and the [illegible] streamer was also found to be damaged. The damaged streamers were replaced with spare streamers and the survey was resumed.

The source array was found to be damaged and the [illegible] source was found to be damaged. The damaged source was replaced with a spare source and the survey was resumed.

The [illegible] streamer was found to be damaged and the [illegible] streamer was also found to be damaged. The damaged streamers were replaced with spare streamers and the survey was resumed.

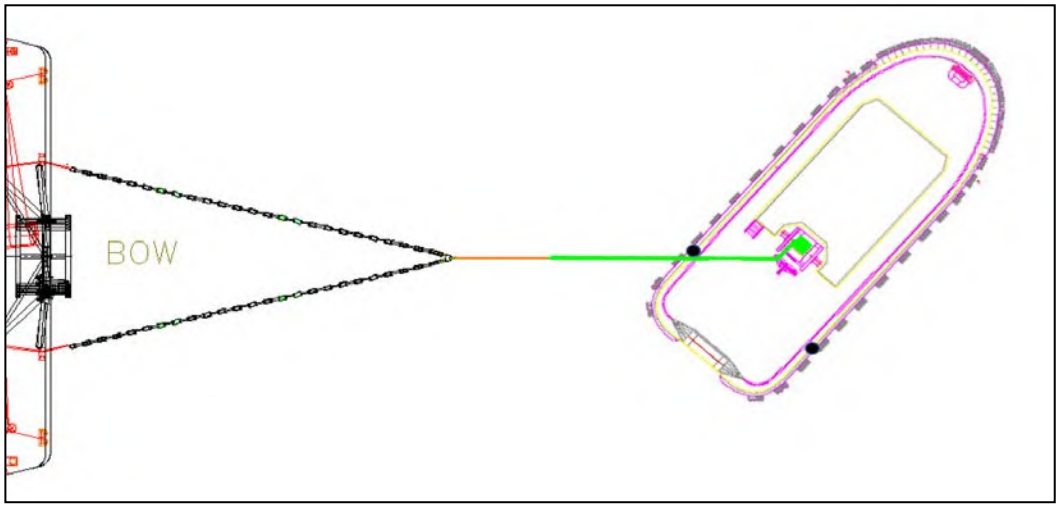
The [illegible] source was found to be damaged and the [illegible] source was also found to be damaged. The damaged sources were replaced with spare sources and the survey was resumed.

**Note:** [illegible]

## 3.0 CIRCUMSTANCES (leading to and including the incident):



**Incident Event:**



## 4.0 PROJECT DOCUMENTS

[illegible]

| Document Ref. | Title / Work Activity |
|---|---|
| [illegible] | [illegible] |
| [illegible] | [illegible] |
| [illegible] | [illegible] |
| [illegible] | [illegible] |

[illegible]

## 5.0 KEY PERSONNEL INVOLVED IN THE INCIDENT

| Name | Position / Role |
|---|---|
| [illegible] | [illegible] |
| [illegible] | [illegible] |
| [illegible] | [illegible] |

## 6.0 TRAINING AND COMPETENCE

[illegible]

□□□M□□□r□□r□□□□□□ □r□□□□□□□

CAEERS.pdf
BRM-ERM.pdf
Advanced Fire fighting.pdf
SSO.pdf
Safety.pdf
Medical Care L3.pdf
Master 3000UMS.pdf
Full DPO Certificate.pdf
CGO.pdf

## 7.0 EQUIPMENT INVOLVED □

□

□□□□□□□ □□□□□rr□□□□□□ □□□□□□□□□□□□r□□□d□□□□□□□d□□□r□□ □□□□□□ □□□□r□□□r□□□□□□□□d□□□r□□ □□□□□□□ □ □r□□ □□□□□□□□□d□□□d□□□□□□□ □□□□□□□□□□□□

| No. | Equipment | Quantity | Details | Registration Mark | Cert. No. | Min Breaking Load | Inspection Expiry |
|---|---|---|---|---|---|---|---|
| 1 | M | | | | | M | |
| 2 | | | | | | M | |
| 3 | | | | D | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | R | | | |
| 7 | | | | R<br>R<br>R<br>R | | | |

## 8.0 INVESTIGATION FINDINGS

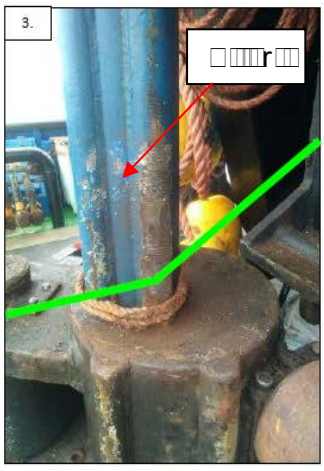
[redacted]

[redacted]



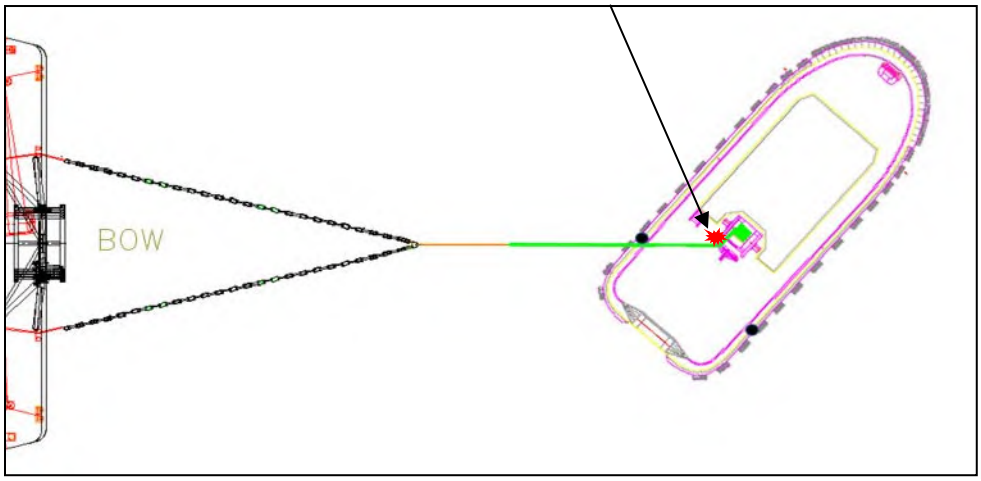


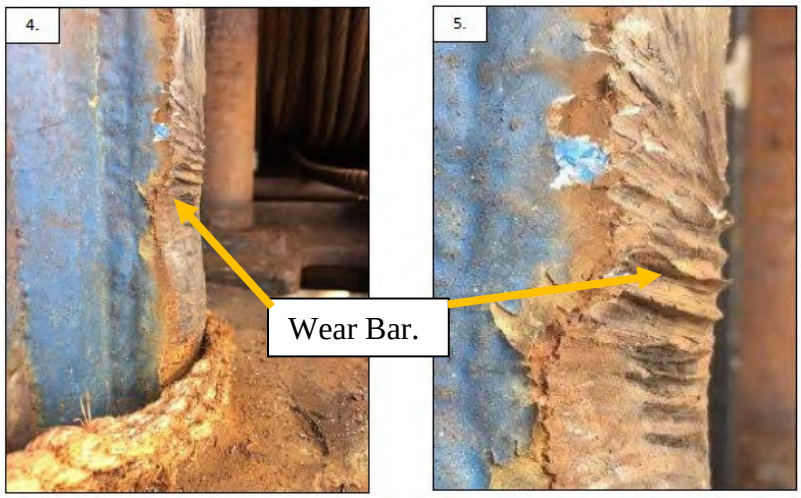


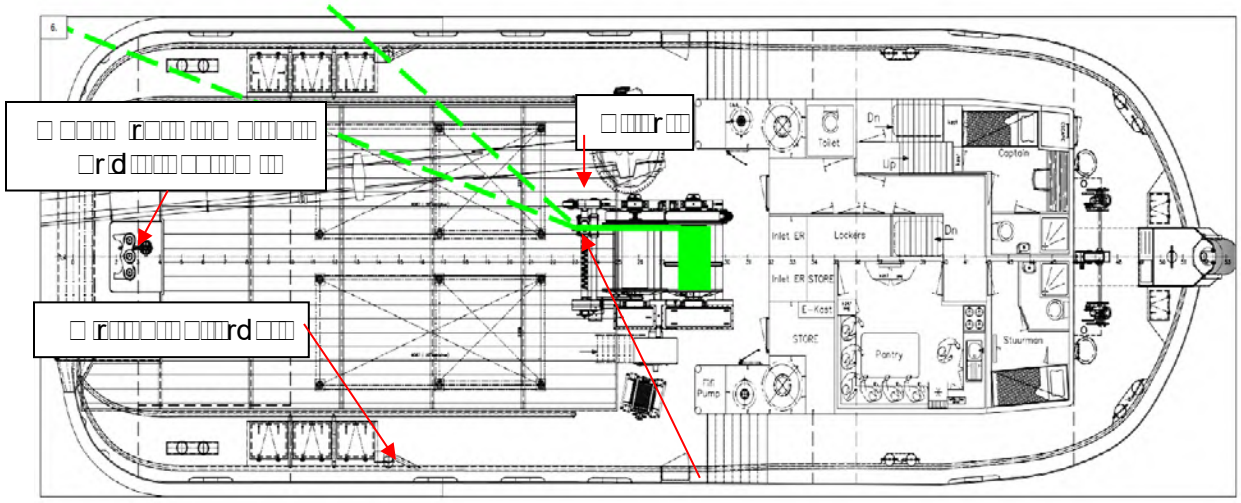



**Note:** [redacted]

**TSM Kermor and Excalibur Positioning (Point of Incident).**




4.
5.
Wear Bar.




A [illegible] d [illegible] r [illegible] M [illegible] r [illegible] r [illegible] d [illegible] r [illegible] r [illegible] d [illegible] r [illegible] r [illegible] d

## 9.0 CONSEQUENCE.

**Note:**

## 10.0 CAUSATION.

**Immediate Cause:**

**Substandard Acts;**

**Substandard Conditions;**

**Note:**

**Underlying Causes:**

**Substandard Acts;**

[illegible]

**Substandard Acts;**

[illegible]

**Substandard Acts;**

[illegible]

**Root Causes:**

**Inadequate Leadership and/or Supervision;**

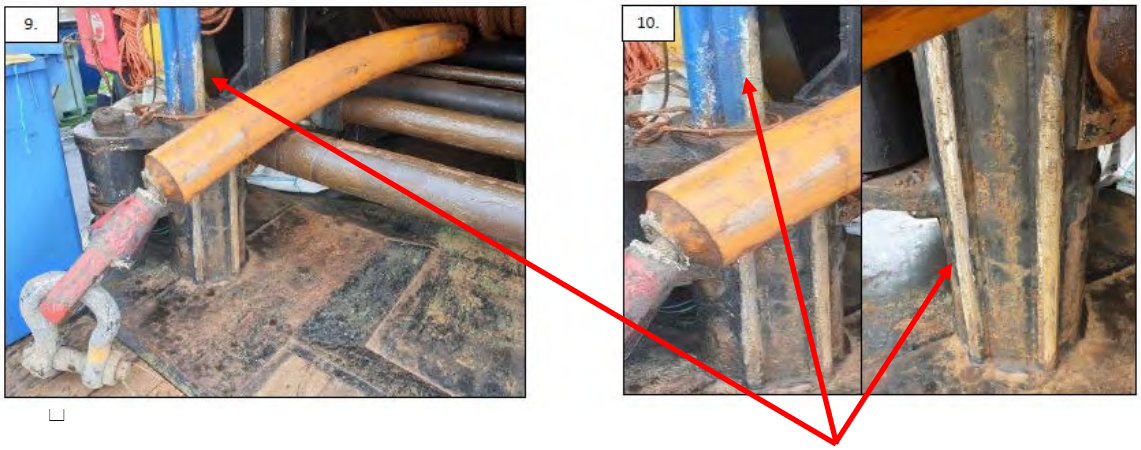
[illegible]

**Wear and Tear;**

[illegible]

## 11.0 IMMEDIATE RESPONSES

□□□□ □□□□□□□M□□□r□ □r□r□□□□□d□□□□r□□□d□□□□□□□□ □□□□□□r□□□□r□□□□□□□□□□□□ □□ r□□□□d□□□□
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## 12.0 CONCLUSIONS

[illegible]

[illegible]

[illegible]

## 13.0 RECOMMENDATIONS / ACTIONS

## 14.0 FOLLOW UP AND REVIEW

## Appendix A – Vessel Tug Data Sheet.



TSM-KERMOR-211117.pdf

## Appendix B – Witness Statement – Night Project Manager Supervisor.



Witness Statement
Callum Murphy.docx

## Appendix C – Tow Worthiness Check Sheet.



Tow Worthiness Checklist .docx

## Appendix D – Tow Wire Thorough Examination Report (following repair).



RGL48748 resocket wire rope 18.06.19.pd

## Appendix E – Masters Report (Yéné Alban).



Wire Incident Kermor Excalibur.pdf

## Appendix F – Tow Wire Inspection Report – 23rd May 2019.



TSM Kermor Tow
Gear Inspection Repo

# INCIDENT REPORT

## GENERAL

Report Number: C1984_003 Incident Title: Environmental Incident – Hydraulic Oil Release.

Responsible Department: Nearshore
Name of Reporter: Colin Mulvey
Specific Location: TMS Kermor

Project Number: N/A
Client: EDF
Date / Time Occurred: 09:47 18/06/19
*(dd-mmm-yy)*

**Classification of Incident:** *(Tick appropriate box or boxes)*

☐ Injury ☐ Occupational Illness ☐ Near Miss ☐ Non-Work Related
☒ Environmental ☐ Property / Equipment ☐ Transportation

Severity of Injury: Is High Potential (HIPO)? ☐ Yes ☒ No

Lighting: Good
Weather: Sunny

Actual Risk Ranking: Low
*(See Corporate Risk Matrix)*

Potential Risk Ranking: Low

## DETAILS

**Factual description of the incident:**

After completing a number of stores lifts using the vessels deck crane (Heila Double D) from the quayside to the back deck of the project Tug and Support Vessel (TMS Kermor), an hydraulic hose failed within the crane boom (Photo 1) that subsequently resulted in the uncontrolled release of approximately 25litres of hydraulic oil.

The vessel immediately deployed a boom to the sea water (Photo 3), blocked deck gunwale / bulwark openings, which were accessible, spread nappy pads and oil absorbent materials (Photo 2) to halt and contain the release and additionally start the clean-up process.

At 12:30 the Port Harbour Master was satisfied all relased oil had been cleaned up. A final thrust of the propolsion system was completed to see if any further residue could be disturbed, which there was nothing significant and the vessel was permiited to leave port and sailed for the Excalibur.

(Continue on separate sheet if necessary) Attach additional reports such as: Medical, Witness, Log Entries, Photos, Other Entities Incident Reports

**Immediate action(s) to prevent recurrence:**

1. The Crane Boom was in the process of being stowed and no further lifting was required prior to sailing.
2. SMS (Southampton Marine Services) repaired the hose p.m. on the 18/06/2019.
3. Crane Certification was obtained, which identified that the crane had been Thoroughly Examined and Load Tested in January 2019.

(Continue on separate sheet if necessary)

## CONSEQUENCE(S)

Injured Party (IP):
Injured Body Part:
Type of Injury:

Employee Type:
# of prior hours worked:
# of prior days worked:

List of other personnel involved / affected: None
(include Direct Supervisor)

Substance Discharged: Hydraulic Oil
Released To: Sea Water, Deck and Quayside.

Amount: 25
Unit: Litre

Property Owner: ABP Ports
Damaged or Lost Equipment: N/A

Est. Value of Loss: N/A


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# INCIDENT REPORT

Mode of Transportation:
Driver's Name *(If vehicle incident)*:

Type of Owner:
Fugro At Fault (Yes / No)?

**INVESTIGATION**

Lead Investigator: Colin Mulvey

Other Team Members: Gregg Renfree

General Notes / Contributing Factors:
Investigation ongoing – Notes / Factors to be added if identified.

Immediate Causes: (Please use Appendix A).
**TBC**

Root Causes: (Please use Appendix A)
**TBC**

Breach of Golden Rules: (Please tick below as appropriate)

1. Confined Spaces ☐
2. Driving ☐
3. Equipment / System Isolation ☐
4. Fitness for Work ☐
5. Ground Disturbance ☐
6. Hazardous Substances ☐
7. Lifting Operations ☐
8. Loading and Unloading of Vehicles ☐
9. Personnel Transfer ☐
10. Simultaneous Operations ☐
11. Working at Height ☐
12. Working with Equipment ☐

None ☒

**ACTIONS**

| | Action to be taken | Responsible Person | Target Date | Complete (Yes / No) |
|---|---|---|---|---|
| 1 | Repair Deck Crane Hydraulic Hose. | TMS Vessel Master / SMS. | 18/06/2019 | Yes |
| 2 | Provide a Report regards type of Repair (and include probable reasons why hose failed – this if established / concluded?). | TMS Vessel Master / SMS. | 19/06/2019 | Yes |
| 3 | Provide confirmation that a Hydraulic Hose Maintenance System will be implemented into the company's Management System to maintain Approved Supplier Status. | TMS Vessel Master | 26/06/2019 | Yes |

(Continue on separate sheet if necessary)

**APPROVAL**

Comments:
An excellent response from the Vessels Crew and ABP personnel ensured a timely response and clean-up operation ensuring the oil release was contained at an early stage of the incident.
E-mail confirmation has been received from TSM in reference to Action 3 (available on request)

Name: Matthew Chappell

Signatu[redacted]

Date: 27/06/2019


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Photo 1.



Photo 2.

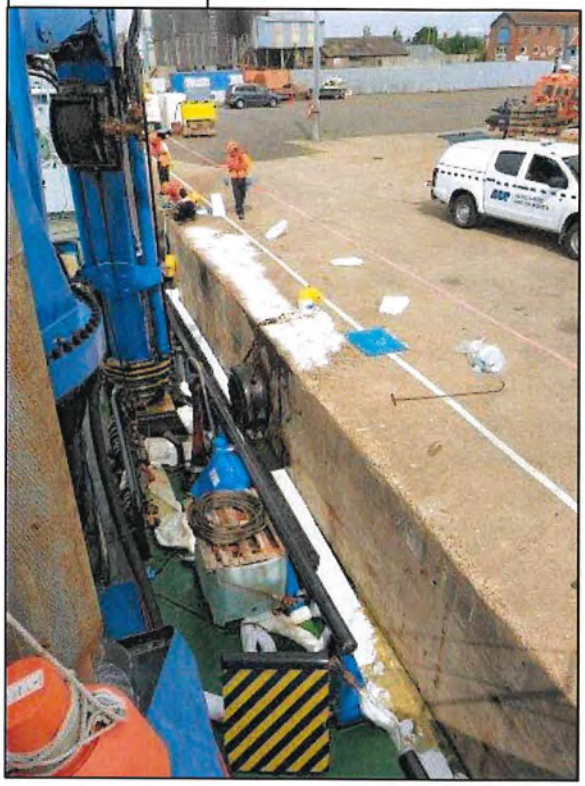
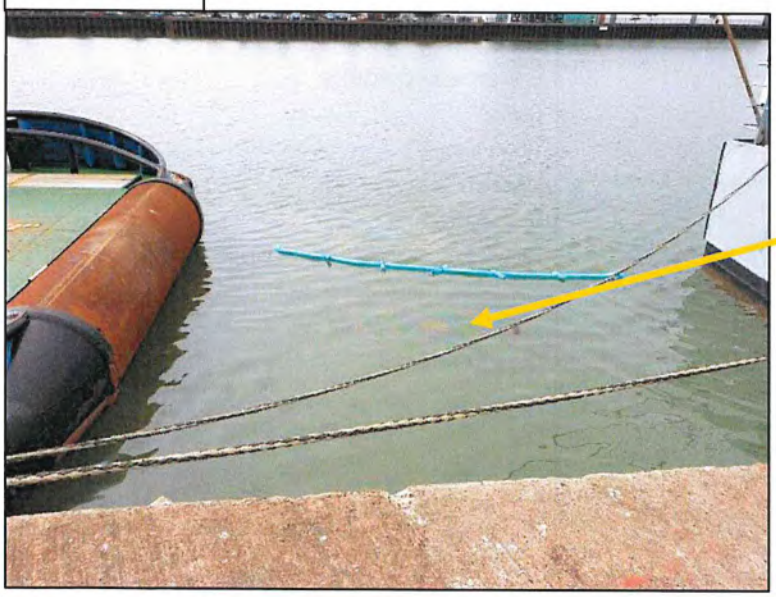


Photo 3.





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## APPENDIX A – FUGRO Immediate and Root Causes

| Immediate Causes | |
|---|---|
| **Substandard Acts** | **Substandard Conditions** |
| Operating Equipment Without Authority | Inadequate guards or barriers |
| Failure to Warn Others | Inadequate or improper personal protective equipment |
| Failure to Secure | Defective hand-held tools |
| Operating at Improper Speed | Congested or restricted areas |
| Making safety devices inoperative | Inadequate warning system |
| Using defective equipment | Fire and/or explosion hazards |
| Failing to use personal protective equipment properly | Poor housekeeping |
| Improper Loading | Noise exposures |
| Improper Placement | Radiation exposures |
| Improper Mechanical Lifting | Temperature Extremes |
| Improper position for task | Inadequate or excessive illumination |
| Servicing equipment while in operation | Inadequate ventilation |
| Horseplay | Road Conditions |
| Under the influence of alcohol and/or other drugs | Weather Conditions |
| Using equipment incorrectly | Inadequate Communication |
| Failure to follow policy, procedures, instructions and/or practice | Inadequate Information / Data |
| Failure to check / monitor / measure / inspect | Lack of / Inadequate Instruction / Procedures |
| Failure to communicate / coordinate | Inadequate Preparation / Planning |
| Failure to identify Hazard / Risk | Inadequate Support / Assistance |
| Failure to React / Correct / Prevent | Defective equipment / Equipment Failure / Fatigue |
| Improper Manual Handling | Defective materials |
| Using hand held/portable tools without authority | Inadequate training |
| Failure to manage a change in conditions / task | Exposure to vibration |
| Lack of Supervision | Inadequate / no access /egress |
| Inadequate Form Completion or Record Keeping | Environmental Conditions |
| Operator Error | Current |
| Engineering / Design Error | Time Pressure |
| Failure to Install Correctly | Infection / Virus |
| Exceeded Working Limits of Equipment or other | Medical Condition |
| Inappropriate Selection of Equipment | Lack of Resources (personnel, budget, time) |
| | Inadequate Client Specification |
| | Inappropriate Equipment |
| | Ground Conditions |


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| Root Causes | |
|---|---|
| **JOB FACTORS** | |
| **Abuse or Misuse** | **Tools and Equipment** |
| Improper intentional conduct that is condoned | Inadequate adjustment/repair/maintenance |
| Improper intentional conduct that is not condoned | Inadequate assessment of needs and risks |
| Improper unintentional conduct that is condoned | Inadequate availability |
| Improper unintentional conduct that is not condoned | Inadequate human factors/ergonomics considerations |
| **Engineering** | Inadequate removal and replacement of unsuitable items |
| Inadequate assessment of loss exposures | Inadequate salvage and reclamation |
| Inadequate assessment of operational readiness | Inadequate standards or specifications |
| Inadequate consideration of human factors/ergonomics | Lack of calibration of inspection and test equipment |
| Inadequate evaluation of changes | **Wear and Tear** |
| Inadequate monitoring of construction | Improper extension of service life |
| Inadequate monitoring or initial operation | Improper loading or rate of use |
| Inadequate or improper controls | Inadequate inspection and/or monitoring |
| Inadequate standards, specifications and/or design criteria | Inadequate maintenance |
| **Inadequate Leadership and/or Supervision** | Inadequate planning of use |
| Giving inadequate policy, procedure, practices or guidelines | Use by unqualified or untrained people ~~for wrong purpose~~ |
| Giving objectives, goals or standards that conflict | Use for wrong purpose |
| Improper or insufficient delegation | **Work Standards** |
| Inadequate identification and evaluation of loss exposures | Inadequate communication of standards |
| Inadequate instructions, orientation and/or training | Inadequate development of standards |
| Inadequate matching of individual qualifications and job/task requirements | Inadequate maintenance of standards |
| Inadequate or incorrect performance feedback | Inadequate monitoring of compliance |
| Inadequate performance measurement and evaluation | |
| Inadequate work planning or programming | |
| Lack of supervisory/management job knowledge | |
| Providing inadequate reference documents, directives and guidance publications | |
| Unclear or conflicting assignment of responsibility | |
| Unclear or conflicting reporting relationships | |
| **Maintenance** | |
| Inadequate preventative maintenance | |
| Inadequate reparative maintenance | |
| **Purchasing** | |
| Improper handling of materials | |
| Improper salvage and/or waste disposal | |
| Improper storage of materials | |
| Improper transporting of materials | |
| Inadequate communication of safety and health data | |
| Inadequate contractor selection / management of | |
| Inadequate identification of hazardous materials | |
| Inadequate mode or route of shipment | |
| Inadequate receiving inspection and acceptance | |
| Inadequate research on materials/equipment | |
| Inadequate specifications on requisitions | |
| Inadequate specification to vendors | |


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**PERSONAL FACTORS**

**Improper Motivation**
Excessive frustration
Improper attempt to avoid discomfort
Improper attempt to gain attention
Improper attempt to save time or effort
Improper performance is rewarded (tolerated)
Improper production incentives
Improper supervisory example
Inadequate discipline
Inadequate performance feedback
Inadequate reinforcement of proper behavior
Inappropriate aggression
Inappropriate peer pressure
Lack of incentives
Proper performance is punished

**Lack of Knowledge**
Inadequate initial training
Inadequate orientation
Inadequate update training
Lack of experience
Misunderstood directions

**Lack of Skill**
Inadequate initial instruction
Inadequate practice
Inadequate review instruction
Infrequent performance
Lack of coaching

**Mental or Psychological Stress**
"Meaningless" or "degrading" activities
Conflicting demands/directions
Confusing directions/demands
Emotional overload
Extreme concentration/perception demands
Extreme judgment/decision demands
Fatigue due to mental task load or speed
Frustration
Mental illness
Preoccupation with problems
Routine, monotony, demand for uneventful vigilance

**Mental/Psychological Capacity**
Emotional disturbance
Fears and phobias
Inability to comprehend
Intelligence level
Low learning aptitude
Low mechanical aptitude
Memory failure
Mental illness
Poor coordination
Poor judgment
Slow reaction time

**Physical or Physiological Stress**
Atmospheric pressure variation
Blood sugar insufficiency
Constrained movement
Drugs
Exposure to health hazards
Exposure to temperature extremes
Fatigue due to lack of rest
Fatigue due to sensory overload
Fatigue due to task load or duration
Injury or illness
Oxygen deficiency

**Physical/Physiological Capacity**
Hearing deficiency
In appropriate height, weight, size, strength, reach, etc.
Limited ability to sustain body positions
Other permanent physical capabilities
Other sensory deficiency (touch, taste, smell, balance)
Respiratory incapacity
Restricted range of body movement
Sensitivities to sensory extremes (temperature, sound, etc)
Substance sensitivities or allergies
Temporary disabilities
Vision deficiency


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# INCIDENT REPORT

**GENERAL**

Report Number: C1984_005_Rev03 Incident Title: ESVAGT - Near Miss.

Responsible Department: Nearshore
Name of Reporter: Colin Mulvey
Specific Location: TSM Kermor

Project Number: N/A
Client: EDF
Date / Time Occurred: 14:50 19/06/2019.
*(dd-mmm-yy)*

**Classification of Incident:** *(Tick appropriate box or boxes)*

☐ Injury ☐ Occupational Illness ☒ Near Miss ☐ Non-Work Related
☐ Environmental ☐ Property / Equipment ☐ Transportation

Severity of Injury: Is High Potential (HIPO)? ☐ Yes ☒ No

Lighting: Good
Weather: See General Notes.

Actual Risk Ranking: Low
*(See Corporate Risk Matrix)*

Potential Risk Ranking: Medium

**DETAILS**

**Factual description of the incident:**

At approximately 14:50 on the 19th June the M.V. TSM Kermor came alongside the Excalibur JUB to crew transfer 1x person using the Esvagt (Personnel Transfer Basket). The person who was crew transferring had not undertaken this task before. 1x person was sent down from the JUB in the Esvagt to help supervise the transfer to the JUB.

The person crew transferring for the first time was a CAT. Engineer who needed to access the vessel to undertake repairs to the Sonic Rig. Once the Tug was in a suitable position and holding station under the crane hook the Esvagt was lowered to deck by the Crane Operator at which point the CAT. Engineer (who joined the FGSL Operative) quickly entered the Esvagt in preparation for transfer to the deck of the Excalibur.

At this very stage the Barge Master, who was supervising this operation from the deck of the JUB, noticed that the tug had started to lose its station/position but was satisfied with the Crane Operator, who had altered the Crane to allow for this slight movement.

Although this movement was happening very slowly, the Barge Master was alerted to what appeared to be the start of uncontrolled movement of the tug. The Barge master was vigilant enough to instruct the 2x personnel to immediately egress the Esvagt, which was completed without delay. The 2x personnel went to a safe place on the back-deck. It is prudent to note that no personal injuries were sustained as a consequence of this incident.

Very quickly the TSM Kermor lost control of its position, which was under the JUB crane and was drifting along the Pt. Side of the Excalibur (approximately 10m off); this with the Esvagt still attached to the JUB deck crane and sat on the aft end of the Tug deck. The Crane Operator continued to pay-out the crane wire and adjust the Jib in a controlled manner so as to keep pace with the moving TUG and not apply force to the Esvagt's attached lift equipment.

The Tug transited along the Pt. side a distance approximately 30m before ending up 15m off the bow (total of 45m.), where the Tug appeared to be brought back under control and into a somewhat stationary positioning. Eventually under the weight of the deck crane wire, the Esvagt was pulled off (without excessive force) the Tug's aft deck and it entered the water.

The Esvagt was immediately lifted back to deck with minor damage observed regarding the bottom fender (Photos 1 and 2 – Pg. 5) where a section had been dislodged but was realigned when back on deck.

The incident took no longer than 10 minutes and as a consequence of this incident, the Barge Master immediately halted all further transfers operations and instructed the TUG, including the 2x personnel back to Lowestoft.

(Continue on separate sheet if necessary) Attach additional reports such as: Medical, Witness, Log Entries, Photos, Other Entities Incident Reports


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**Immediate action(s) to prevent recurrence:**

1. Crew Transfers were suspended pending investigation.

2. A Thorough Examination of the Esvagt and Deck Crane was undertaken on the 20/06/2019 by a suitably competent person – See Pg. 6 for Qualification Cert.
   **Note:** No obvious/visual defects were identified following the incident to suggest damage other than previously raised in this report. Thorough Examination/Inspection Cert. was completed (Report No.= EXC200619a & b), which identified no defects with the Esvagt and/or the Vessel Deck Crane.

3. Interview (via Telephone) was undertaken with the Vessels Master and Barge Master to establish facts regards the failure to hold/maintain position of the TSM Kermor – see No2. General Notes / Factors in Investigation Section below.

(Continue on separate sheet if necessary)

**CONSEQUENCE(S)**

Injured Party (IP): N/A
Employee Type: N/A
Injured Body Part: N/A
# of prior hours worked: N/A
Type of Injury: N/A
# of prior days worked: N/A
List of other personnel involved / affected: N/A
(include Direct Supervisor)

Substance Discharged: N/A
Amount: N/A
Released To: N/A
Unit: N/A

Property Owner: Fugro
Est. Value of Loss: N/A
Damaged or Lost Equipment: ESVAGT Personnel Carrier / Deck Crane to be Inspected / Examined.

Mode of Transportation: N/A
Type of Owner: N/A
Driver's Name *(If vehicle incident)*: N/A
Fugro At Fault (Yes / No)? N/A

**INVESTIGATION**

Lead Investigator: Gregg Renfree
Other Team Members: Barge Project Team.

General Notes / Contributing Factors:

1. Weather and Tidal conditions were deemed very good for this type of operation;
   a) Current = 1.5knts (Within Tug Specification).
   b) Wind Speed = 2m/s (12m/s FGSL max permitted for Crew Transfers).
   c) Wave Height = 0.4 max (1.2 FGSL max permitted for Crew Transfers).

2. The telephone interview with the Master established the following facts;
   a) The Chief Mate, not the Master was in control of the TSM Kermor when the positioning was first attempted and held.
   b) The Master only took control when he saw the Tug start to lose station.
   c) The Master was generally satisfied with conditions although he felt the current was not ideal and this caused problems holding position.
   d) The Master stated he was not experienced with this type of work, this regarding holding position near such Jack-up vessels.
   e) As far as the Master is aware there is nothing mechanically/electrically wrong with the Tug.
   f) Nothing distracted the attention of himself, the Chief Mate or deck crew during the operation.
   g) All instructions relayed to the Vessel by the Excalibur JUB Barge Master were clear / understood.
   h) There were no issues with instructions, signals, commands or visibility regards the Vessel or JUB.


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Immediate Cause: (Please use Appendix A).

**Substandard Acts;**

Failure to React, Correct and/or Prevent – The Tug Master did not ensure suitable control and/or maintain the correct positioning of the Tug, nor prevented the distance transited, whilst a suspended load was still on the deck of his vessel.

Underlying Cause: (Please use Appendix A).

**Lack of Knowledge;**

Lack of experience – The Master reported "a lack of his experience" to the FGSL Barge Master regarding this type of vessel (Excalibur JUB) and the positioning / holding operations of the Tug.

**Note:** The above comment was repeated during a Wash-up with the Vessel's Crew/FGSL HSSE Advisor following Action No4 within the Wheelhouse of the Tug (20/062019 – Approx. 20;00hrs). The professionalism of the stand in Master was clear as he provided full guidance/support to the crew in how to improve working practices.

Root Causes: (Please use Appendix A).

**Inadequate Leadership and/or Supervision;**

Inadequate matching of individual qualifications and job/task requirements – TSM (Tug Company) did not provide a suitably competent person/crew to oversee / undertake maneuvers necessary for FGSL to complete its operations in a safe manner i.e. Transfer of workers from the Excalibur to the Tug Deck by properly positioning / holding station of the Tug.

**Note:** All the Tug Master's certification and experience records were in place.

Breach of Golden Rules: (Please tick below as appropriate)

1. Confined Spaces ☐
2. Driving ☐
3. Equipment / System Isolation ☐
4. Fitness for Work ☐
5. Ground Disturbance ☐
6. Hazardous Substances ☐
7. Lifting Operations ☐
8. Loading and Unloading of Vehicles ☐
9. Personnel Transfer ☐
10. Simultaneous Operations ☐
11. Working at Height ☐
12. Working with Equipment ☐

None ☒ **Note:** All elements of No9 have been evaluated.

**ACTIONS**

| | Action to be taken | Responsible Person | Target Date | Complete (Yes / No) |
|---|---|---|---|---|
| 1 | FGSL 'Safety Stand Down' – continue presentations from previous swing. | HSSE Advisor / PM | 20/06/2019 | Completed |
| 2 | Source suitable Replacement Vessel / Tug Master to undertake Crew Transfers / Lift Operations (ensure competency / suitability of Vessel). | FGSL Project Team | 20/06/2019 | Completed |
| 3 | Complete Thorough Inspection of Deck Crane & ESVAGT. | FGSL Competent Person. | 20/06/2019 | Completed |
| 4 | Undertake & Complete Crew Transfer competency trial following completion of Action Point 2. To be confirmed by Barge Master and witnessed by the on board HSSE Advisor. | Tug Master | 20/06/2019 | Completed |

(Continue on separate sheet if necessary)


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**Other Details:**

FGSL Supervision of this Operation identified a potential issue arising and the immediate actions/responses avoided an incident that could have resulted in significant injury and/or equipment damage.

The TSM Kermor Master was relieved of his duties following the investigation and a change out resulted in a replacement Tug Master being employed.

After the replacement Tug Master completed several maneuvers/trials to verify ability and confidence in positioning and maneuvering the TUG in close proximity to the JUB, the Barge Master, Onboard Client Rep and Fugro HSSE Advisor all agreed that the trials were completed satisfactorily to proceed with a Crew Transfer. The transfer was competently undertaken with no issues/concerns identified.

APPROVAL

**Comments:**

Name: Matt Chappell

Signatu [redacted]

Date: 28/06/19



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Photo 1



Photo 2




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LEEA

**Lifting Equipment Engineers Association**

## Examination Diploma

This is to certify that

Paul Blackmore

passed the Association's examination

in the subject of

Lifting Gear General

held on

20 April 2007

with Distinction

[redacted]


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## APPENDIX A – FUGRO Immediate and Root Causes

| Immediate Causes | |
|---|---|
| **Substandard Acts** | **Substandard Conditions** |
| Operating Equipment Without Authority | Inadequate guards or barriers |
| Failure to Warn Others | Inadequate or improper personal protective equipment |
| Failure to Secure | Defective hand-held tools |
| Operating at Improper Speed | Congested or restricted areas |
| Making safety devices inoperative | Inadequate warning system |
| Using defective equipment | Fire and/or explosion hazards |
| Failing to use personal protective equipment properly | Poor housekeeping |
| Improper Loading | Noise exposures |
| Improper Placement | Radiation exposures |
| Improper Mechanical Lifting | Temperature Extremes |
| Improper position for task | Inadequate or excessive illumination |
| Servicing equipment while in operation | Inadequate ventilation |
| Horseplay | Road Conditions |
| Under the influence of alcohol and/or other drugs | Weather Conditions |
| Using equipment incorrectly | Inadequate Communication |
| Failure to follow policy, procedures, instructions and/or practice | Inadequate Information / Data |
| Failure to check / monitor / measure / inspect | Lack of / Inadequate Instruction / Procedures |
| Failure to communicate / coordinate | Inadequate Preparation / Planning |
| Failure to identify Hazard / Risk | Inadequate Support / Assistance |
| Failure to React / Correct / Prevent | Defective equipment / Equipment Failure / Fatigue |
| Improper Manual Handling | Defective materials |
| Using hand held/portable tools without authority | Inadequate training |
| Failure to manage a change in conditions / task | Exposure to vibration |
| Lack of Supervision | Inadequate / no access /egress |
| Inadequate Form Completion or Record Keeping | Environmental Conditions |
| Operator Error | Current |
| Engineering / Design Error | Time Pressure |
| Failure to Install Correctly | Infection / Virus |
| Exceeded Working Limits of Equipment or other | Medical Condition |
| Inappropriate Selection of Equipment | Lack of Resources (personnel, budget, time) |
| | Inadequate Client Specification |
| | Inappropriate Equipment |
| | Ground Conditions |


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| Root Causes | |
|---|---|
| **JOB FACTORS** | |
| **Abuse or Misuse** | **Tools and Equipment** |
| Improper intentional conduct that is condoned | Inadequate adjustment/repair/maintenance |
| Improper intentional conduct that is not condoned | Inadequate assessment of needs and risks |
| Improper unintentional conduct that is condoned | Inadequate availability |
| Improper unintentional conduct that is not condoned | Inadequate human factors/ergonomics considerations |
| **Engineering** | Inadequate removal and replacement of unsuitable items |
| Inadequate assessment of loss exposures | Inadequate salvage and reclamation |
| Inadequate assessment of operational readiness | Inadequate standards or specifications |
| Inadequate consideration of human factors/ergonomics | Lack of calibration of inspection and test equipment |
| Inadequate evaluation of changes | **Wear and Tear** |
| Inadequate monitoring of construction | Improper extension of service life |
| Inadequate monitoring or initial operation | Improper loading or rate of use |
| Inadequate or improper controls | Inadequate inspection and/or monitoring |
| Inadequate standards, specifications and/or design criteria | Inadequate maintenance |
| **Inadequate Leadership and/or Supervision** | Inadequate planning of use |
| Giving inadequate policy, procedure, practices or guidelines | Use by unqualified or untrained people ~~for wrong purpose~~ |
| Giving objectives, goals or standards that conflict | Use for wrong purpose |
| Improper or insufficient delegation | **Work Standards** |
| Inadequate identification and evaluation of loss exposures | Inadequate communication of standards |
| Inadequate instructions, orientation and/or training | Inadequate development of standards |
| Inadequate matching of individual qualifications and job/task requirements | Inadequate maintenance of standards |
| Inadequate or incorrect performance feedback | Inadequate monitoring of compliance |
| Inadequate performance measurement and evaluation | |
| Inadequate work planning or programming | |
| Lack of supervisory/management job knowledge | |
| Providing inadequate reference documents, directives and guidance publications | |
| Unclear or conflicting assignment of responsibility | |
| Unclear or conflicting reporting relationships | |
| **Maintenance** | |
| Inadequate preventative maintenance | |
| Inadequate reparative maintenance | |
| **Purchasing** | |
| Improper handling of materials | |
| Improper salvage and/or waste disposal | |
| Improper storage of materials | |
| Improper transporting of materials | |
| Inadequate communication of safety and health data | |
| Inadequate contractor selection / management of | |
| Inadequate identification of hazardous materials | |
| Inadequate mode or route of shipment | |
| Inadequate receiving inspection and acceptance | |
| Inadequate research on materials/equipment | |
| Inadequate specifications on requisitions | |
| Inadequate specification to vendors | |


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**PERSONAL FACTORS**

**Improper Motivation**
Excessive frustration
Improper attempt to avoid discomfort
Improper attempt to gain attention
Improper attempt to save time or effort
Improper performance is rewarded (tolerated)
Improper production incentives
Improper supervisory example
Inadequate discipline
Inadequate performance feedback
Inadequate reinforcement of proper behavior
Inappropriate aggression
Inappropriate peer pressure
Lack of incentives
Proper performance is punished

**Lack of Knowledge**
Inadequate initial training
Inadequate orientation
Inadequate update training
Lack of experience
Misunderstood directions

**Lack of Skill**
Inadequate initial instruction
Inadequate practice
Inadequate review instruction
Infrequent performance
Lack of coaching

**Mental or Psychological Stress**
"Meaningless" or "degrading" activities
Conflicting demands/directions
Confusing directions/demands
Emotional overload
Extreme concentration/perception demands
Extreme judgment/decision demands
Fatigue due to mental task load or speed
Frustration
Mental illness
Preoccupation with problems
Routine, monotony, demand for uneventful vigilance

**Mental/Psychological Capacity**
Emotional disturbance
Fears and phobias
Inability to comprehend
Intelligence level
Low learning aptitude
Low mechanical aptitude
Memory failure
Mental illness
Poor coordination
Poor judgment
Slow reaction time

**Physical or Physiological Stress**
Atmospheric pressure variation
Blood sugar insufficiency
Constrained movement
Drugs
Exposure to health hazards
Exposure to temperature extremes
Fatigue due to lack of rest
Fatigue due to sensory overload
Fatigue due to task load or duration
Injury or illness
Oxygen deficiency

**Physical/Physiological Capacity**
Hearing deficiency
In appropriate height, weight, size, strength, reach, etc.
Limited ability to sustain body positions
Other permanent physical capabilities
Other sensory deficiency (touch, taste, smell, balance)
Respiratory incapacity
Restricted range of body movement
Sensitivities to sensory extremes (temperature, sound, etc)
Substance sensitivities or allergies
Temporary disabilities
Vision deficiency


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# INCIDENT REPORT

## GENERAL

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**Classification of Incident:** □*(Tick appropriate box or boxes)*

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## DETAILS

**Factual description of the incident:** □

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# INCIDENT REPORT

## INVESTIGATION

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| Using hand held/portable tools without authority<br>Failure to manage a change in conditions / task<br>Lack of Supervision<br>Inadequate Form Completion or Record Keeping<br>Operator Error<br>Engineering / Design Error<br>Failure to Install Correctly<br>Exceeded Working Limits of Equipment or other<br>Inappropriate Selection of Equipment<br><br>□ | Inadequate training<br>Exposure to vibration<br>Inadequate / no access /egress<br>Environmental Conditions<br>Current<br>Time Pressure<br>Infection / Virus<br>Medical Condition<br>Lack of Resources (personnel, budget, time)<br>Inadequate Client Specification<br>Inappropriate Equipment<br>Ground Conditions |
| **Root Causes** | |


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**JOB FACTORS**

**Abuse or Misuse**

Improper intentional conduct that is condoned
Improper intentional conduct that is not condoned
Improper unintentional conduct that is condoned
Improper unintentional conduct that is not condoned

**Engineering**

Inadequate assessment of loss exposures
Inadequate assessment of operational readiness
Inadequate consideration of human factors/ergonomics
Inadequate evaluation of changes
Inadequate monitoring of construction
Inadequate monitoring or initial operation
Inadequate or improper controls
Inadequate standards, specifications and/or design criteria

**Inadequate Leadership and/or Supervision**

Giving inadequate policy, procedure, practices or guidelines
Giving objectives, goals or standards that conflict
Improper or insufficient delegation
Inadequate identification and evaluation of loss exposures
Inadequate instructions, orientation and/or training
Inadequate matching of individual qualifications and job/task requirements
Inadequate or incorrect performance feedback
Inadequate performance measurement and evaluation
Inadequate work planning or programming
Lack of supervisory/management job knowledge
Providing inadequate reference documents, directives and guidance publications
Unclear or conflicting assignment of responsibility
Unclear or conflicting reporting relationships

**Maintenance**

Inadequate preventative maintenance
Inadequate reparative maintenance

**Purchasing**

Improper handling of materials
Improper salvage and/or waste disposal
Improper storage of materials
Improper transporting of materials
Inadequate communication of safety and health data
Inadequate contractor selection / management of
Inadequate identification of hazardous materials
Inadequate mode or route of shipment
Inadequate receiving inspection and acceptance
Inadequate research on materials/equipment
Inadequate specifications on requisitions
Inadequate specification to vendors

**PERSONAL FACTORS**

**Tools and Equipment**

Inadequate adjustment/repair/maintenance
Inadequate assessment of needs and risks
Inadequate availability
Inadequate human factors/ergonomics considerations
Inadequate removal and replacement of unsuitable items
Inadequate salvage and reclamation
Inadequate standards or specifications
Lack of calibration of inspection and test equipment

**Wear and Tear**

Improper extension of service life
Improper loading or rate of use
Inadequate inspection and/or monitoring
Inadequate maintenance
Inadequate planning of use
Use by unqualified or untrained people ~~for wrong purpose~~
Use for wrong purpose

**Work Standards**

Inadequate communication of standards
Inadequate development of standards
Inadequate maintenance of standards
Inadequate monitoring of compliance


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**Improper Motivation**
Excessive frustration
Improper attempt to avoid discomfort
Improper attempt to gain attention
Improper attempt to save time or effort
Improper performance is rewarded (tolerated)
Improper production incentives
Improper supervisory example
Inadequate discipline
Inadequate performance feedback
Inadequate reinforcement of proper behavior
Inappropriate aggression
Inappropriate peer pressure
Lack of incentives
Proper performance is punished

**Lack of Knowledge**
Inadequate initial training
Inadequate orientation
Inadequate update training
Lack of experience
Misunderstood directions

**Lack of Skill**
Inadequate initial instruction
Inadequate practice
Inadequate review instruction
Infrequent performance
Lack of coaching

**Mental or Psychological Stress**
"Meaningless" or "degrading" activities
Conflicting demands/directions
Confusing directions/demands
Emotional overload
Extreme concentration/perception demands
Extreme judgment/decision demands
Fatigue due to mental task load or speed
Frustration
Mental illness
Preoccupation with problems
Routine, monotony, demand for uneventful vigilance

**Mental/Psychological Capacity**
Emotional disturbance
Fears and phobias
Inability to comprehend
Intelligence level
Low learning aptitude
Low mechanical aptitude
Memory failure
Mental illness
Poor coordination
Poor judgment
Slow reaction time

**Physical or Physiological Stress**
Atmospheric pressure variation
Blood sugar insufficiency
Constrained movement
Drugs
Exposure to health hazards
Exposure to temperature extremes
Fatigue due to lack of rest
Fatigue due to sensory overload
Fatigue due to task load or duration
Injury or illness
Oxygen deficiency

**Physical/Physiological Capacity**
Hearing deficiency
In appropriate height, weight, size, strength, reach, etc.
Limited ability to sustain body positions
Other permanent physical capabilities
Other sensory deficiency (touch, taste, smell, balance)
Respiratory incapacity
Restricted range of body movement
Sensitivities to sensory extremes (temperature, sound, etc)
Substance sensitivities or allergies
Temporary disabilities
Vision deficiency


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# INCIDENT REPORT

## GENERAL

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# INCIDENT REPORT

**INVESTIGATION**

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| APPROVAL | |
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## APPENDIX – FUGRO Immediate and Root Causes

| Immediate Causes | |
|---|---|
| **Substandard Acts** | **Substandard Conditions** |
| Operating Equipment Without Authority | Inadequate guards or barriers |
| Failure to Warn Others | Inadequate or improper personal protective equipment |
| Failure to Secure | Defective hand held tools |
| Operating at Improper Speed | Congested or restricted areas |
| Making safety devices inoperative | Inadequate warning system |
| Using defective equipment | Fire and/or explosion hazards |
| Failing to use personal protective equipment properly | Poor housekeeping |
| Improper Loading | Noise exposures |
| Improper Placement | Radiation exposures |
| Improper Mechanical Lifting | Temperature Extremes |
| Improper position for task | Inadequate or excessive illumination |
| Servicing equipment while in operation | Inadequate ventilation |
| Horseplay | Road Conditions |
| Under the influence of alcohol and/or other drugs | Weather Conditions |
| Using equipment incorrectly | Inadequate Communication |
| Failure to follow policy, procedures, instructions and/or practice | Inadequate Information / Data |
| Failure to check / monitor / measure / inspect | Lack of / Inadequate Instruction / Procedures |
| Failure to communicate / coordinate | Inadequate Preparation / Planning |
| Failure to identify Hazard / Risk | Inadequate Support / Assistance |
| Failure to React / Correct / Prevent | Defective equipment / Equipment Failure / Fatigue |



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| | |
|---|---|
| Improper Manual Handling<br>Using hand held/portable tools without authority<br>Failure to manage a change in conditions / task<br>Lack of Supervision<br>Inadequate Form Completion or Record Keeping<br>Operator Error<br>Engineering / Design Error<br>Failure to Install Correctly<br>Exceeded Working Limits of Equipment or other<br>Inappropriate Selection of Equipment<br><br>□ | Defective materials<br>Inadequate training<br>Exposure to vibration<br>Inadequate / no access /egress<br>Environmental Conditions<br>Current<br>Time Pressure<br>Infection / Virus<br>Medical Condition<br>Lack of Resources (personnel, budget, time)<br>Inadequate Client Specification<br>Inappropriate Equipment<br>Ground Conditions |
| **Root Causes** | |


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**JOB FACTORS**

**Abuse or Misuse**

Improper intentional conduct that is condoned
Improper intentional conduct that is not condoned
Improper unintentional conduct that is condoned
Improper unintentional conduct that is not condoned

**Engineering**

Inadequate assessment of loss exposures
Inadequate assessment of operational readiness
Inadequate consideration of human factors/ergonomics
Inadequate evaluation of changes
Inadequate monitoring of construction
Inadequate monitoring or initial operation
Inadequate or improper controls
Inadequate standards, specifications and/or design criteria

**Inadequate Leadership and/or Supervision**

Giving inadequate policy, procedure, practices or guidelines
Giving objectives, goals or standards that conflict
Improper or insufficient delegation
Inadequate identification and evaluation of loss exposures
Inadequate instructions, orientation and/or training
Inadequate matching of individual qualifications and job/task requirements
Inadequate or incorrect performance feedback
Inadequate performance measurement and evaluation
Inadequate work planning or programming
Lack of supervisory/management job knowledge
Providing inadequate reference documents, directives and guidance publications
Unclear or conflicting assignment of responsibility
Unclear or conflicting reporting relationships

**Maintenance**

Inadequate preventative maintenance
Inadequate reparative maintenance

**Purchasing**

Improper handling of materials
Improper salvage and/or waste disposal
Improper storage of materials
Improper transporting of materials
Inadequate communication of safety and health data
Inadequate contractor selection / management of
Inadequate identification of hazardous materials
Inadequate mode or route of shipment
Inadequate receiving inspection and acceptance
Inadequate research on materials/equipment
Inadequate specifications on requisitions
Inadequate specification to vendors

**PERSONAL FACTORS**

**Tools and Equipment**

Inadequate adjustment/repair/maintenance
Inadequate assessment of needs and risks
Inadequate availability
Inadequate human factors/ergonomics considerations
Inadequate removal and replacement of unsuitable items
Inadequate salvage and reclamation
Inadequate standards or specifications
Lack of calibration of inspection and test equipment

**Wear and Tear**

Improper extension of service life
Improper loading or rate of use
Inadequate inspection and/or monitoring
Inadequate maintenance
Inadequate planning of use
Use by unqualified or untrained people ~~for wrong purpose~~
Use for wrong purpose

**Work Standards**

Inadequate communication of standards
Inadequate development of standards
Inadequate maintenance of standards
Inadequate monitoring of compliance


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**Improper Motivation**
Excessive frustration
Improper attempt to avoid discomfort
Improper attempt to gain attention
Improper attempt to save time or effort
Improper performance is rewarded (tolerated)
Improper production incentives
Improper supervisory example
Inadequate discipline
Inadequate performance feedback
Inadequate reinforcement of proper behavior
Inappropriate aggression
Inappropriate peer pressure
Lack of incentives
Proper performance is punished

**Lack of Knowledge**
Inadequate initial training
Inadequate orientation
Inadequate update training
Lack of experience
Misunderstood directions

**Lack of Skill**
Inadequate initial instruction
Inadequate practice
Inadequate review instruction
Infrequent performance
Lack of coaching

**Mental or Psychological Stress**
"Meaningless" or "degrading" activities
Conflicting demands/directions
Confusing directions/demands
Emotional overload
Extreme concentration/perception demands
Extreme judgment/decision demands
Fatigue due to mental task load or speed
Frustration
Mental illness
Preoccupation with problems
Routine, monotony, demand for uneventful vigilance

**Mental/Psychological Capacity**
Emotional disturbance
Fears and phobias
Inability to comprehend
Intelligence level
Low learning aptitude
Low mechanical aptitude
Memory failure
Mental illness
Poor coordination
Poor judgment
Slow reaction time

**Physical or Physiological Stress**
Atmospheric pressure variation
Blood sugar insufficiency
Constrained movement
Drugs
Exposure to health hazards
Exposure to temperature extremes
Fatigue due to lack of rest
Fatigue due to sensory overload
Fatigue due to task load or duration
Injury or illness
Oxygen deficiency

**Physical/Physiological Capacity**
Hearing deficiency
In appropriate height, weight, size, strength, reach, etc.
Limited ability to sustain body positions
Other permanent physical capabilities
Other sensory deficiency (touch, taste, smell, balance)
Respiratory incapacity
Restricted range of body movement
Sensitivities to sensory extremes (temperature, sound, etc)
Substance sensitivities or allergies
Temporary disabilities
Vision deficiency


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# Appendix K

Vessel and Plant Datasheets

# Appendix K Contents

K.1 Vessel Datasheets
K.2 Plant Datasheets

## K.1 Vessel Datasheets

Excalibur

TSM KERMOR (Tugboat)

## K.2 Plant Datasheets

GeoSonic LS600

CR2 Marine Drill

Comacchio MC1200

Geobor-S (with Holtec EC 752 PVC Core Liner)




# FUGRO EXCALIBUR

**Excalibur is the largest in the Fugro fleet of jack-up barges, in class with Germanischer Lloyd. This 8-legged barge is capable of working in water depths up to 40 m and has been used extensively for installing foundations for offshore wind farm projects and also can be equipped with an integral foundation drilling unit.**

The jack-up provides a very stable working platform with accommodation for up to 40 personnel.

Facilities include:

- 20 two-man accommodation rooms complete with showers and toilets
- Galley
- Mess room
- Recreation room
- Laundry room
- Office
- Workshop
- Store rooms

It comes fully equipped with:

- Navigation and communication systems
- GMDSS radio room
- VHF
- INMARSAT
- NAVTEX



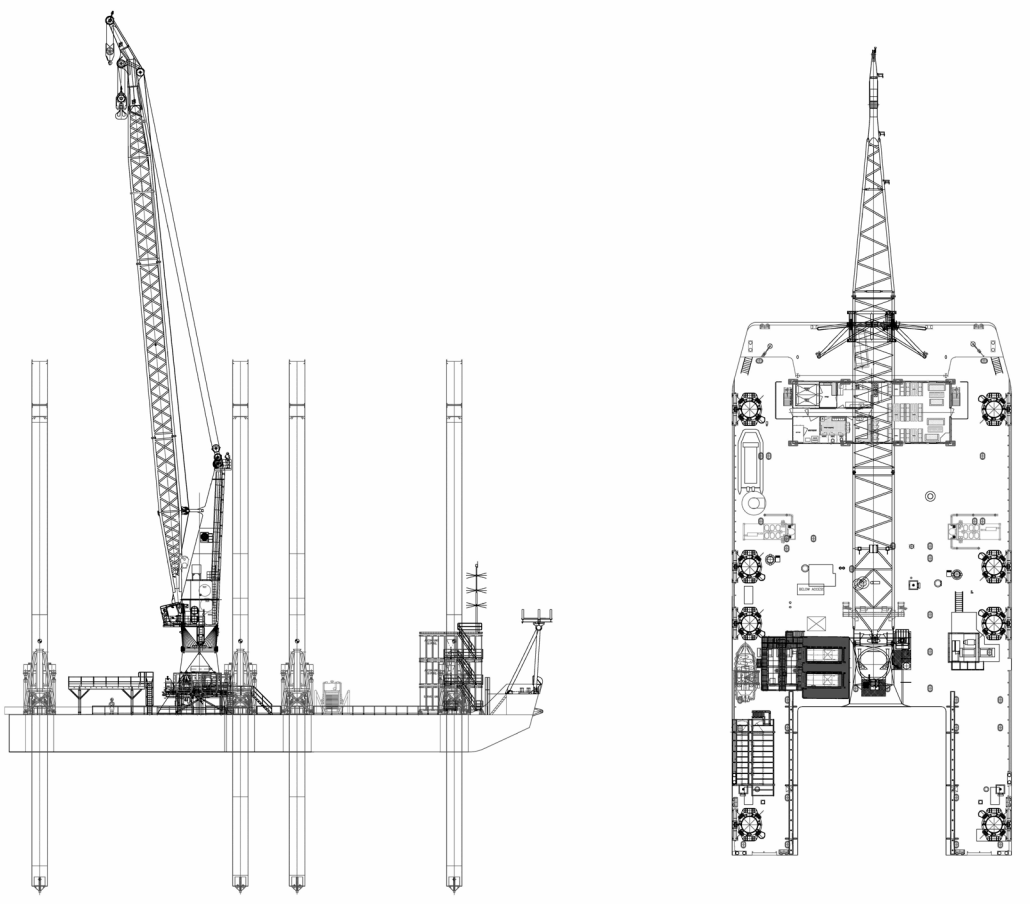


# SPECIFICATIONS

### Excalibur Jack-up Barge

| | |
|---|---|
| Classification society: | DNVGL |
| Notation: | Non propelled self-elevating unit |
| Full refurbishment: | 2018 |
| Year of last class survey: | 2018 (renewal every 5 years) |
| Flag: | The Republic of Vanuata |
| Jacking system: | Pneumatic/hydraulic |
| Power pack configuration: | Diesel hydraulic |
| Max. separation: | 45 m (length of leg below hull) |
| Draft: | 2.73 m |
| Max. payload: | 1031 t |
| Max. deck load: | 785 t @ 10 t/m2 |
| Gross tonnage: | 2390 |
| Net tonnage: | 717 |
| Deck construction: | Steel monohull |

| | |
|---|---|
| Length: | 60 m |
| Breadth: | 32 m |
| Moulded depth: | 4.24 m |
| Number of legs: | 8 |
| Max. operating water depth: | 37.1 m (dependant on environmental conditions) |
| Main crane: | Huisman |
| Max. boom length: | 62.4 m |
| Max. platform lift: | 230 t @ 17.5 m |
| Marine lift (min. radius): | 190 t @ 9 m |
| Auxiliary crane: | Hydralift (5 t) |
| Max. leg length: | 55 m |
| Leg dia.: | 1.8 m |
| Number accommodation: | 40 |



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**WWW.FUGRO.COM**

THOMAS SERVICES MARITIMES

# TSM KERMOR

## Tugboat – EuroTug 3210










# TSM KERMOR

### DIMENSIONS

| | |
|---|---|
| Lenght OA | 32,20 m |
| Breadth MLD | 10,00 m |
| Max draft | 2,6 m |
| Gross tonnage | 327 UMS |
| Net tonnage | 98 Tons |
| Material | Steel hull |
| Year of built | 2015 |
| Flag | French |
| Homeport | Brest |

### PERFORMANCES

| | |
|---|---|
| Speed | 10 knots |
| Bollard Pull | 53 tons |

### TANKS

| | |
|---|---|
| Fuel Oil | 155 m3 |
| Fresh Water | 55 m3 |

### ACCOMODATION

| | |
|---|---|
| Facilities | 10 persons |

### CLASSIFICATION

BUREAU VERITAS
HULL -MACH
AUT-UMS
TUG
Unrestricted Navigaton
GMDSS Area A3

### PROPULSION

| | |
|---|---|
| Main Engines | 2 Caterpillar 3512 HD |
| Bollard Pull | 48 tons |
| Total Power | 2850 kW @1600 RPM |
| Propellers | 2200mm in nozzle |

### AUXILIARIES

| | |
|---|---|
| Generator Sets | 2 Caterpillar C6.6 |
| Total E-Power | 286 KW |
| Hydraulic PP | 533 KW (diesel) |
| Bow thruster | 280 KW tunnel |

### DECK LAYOUT

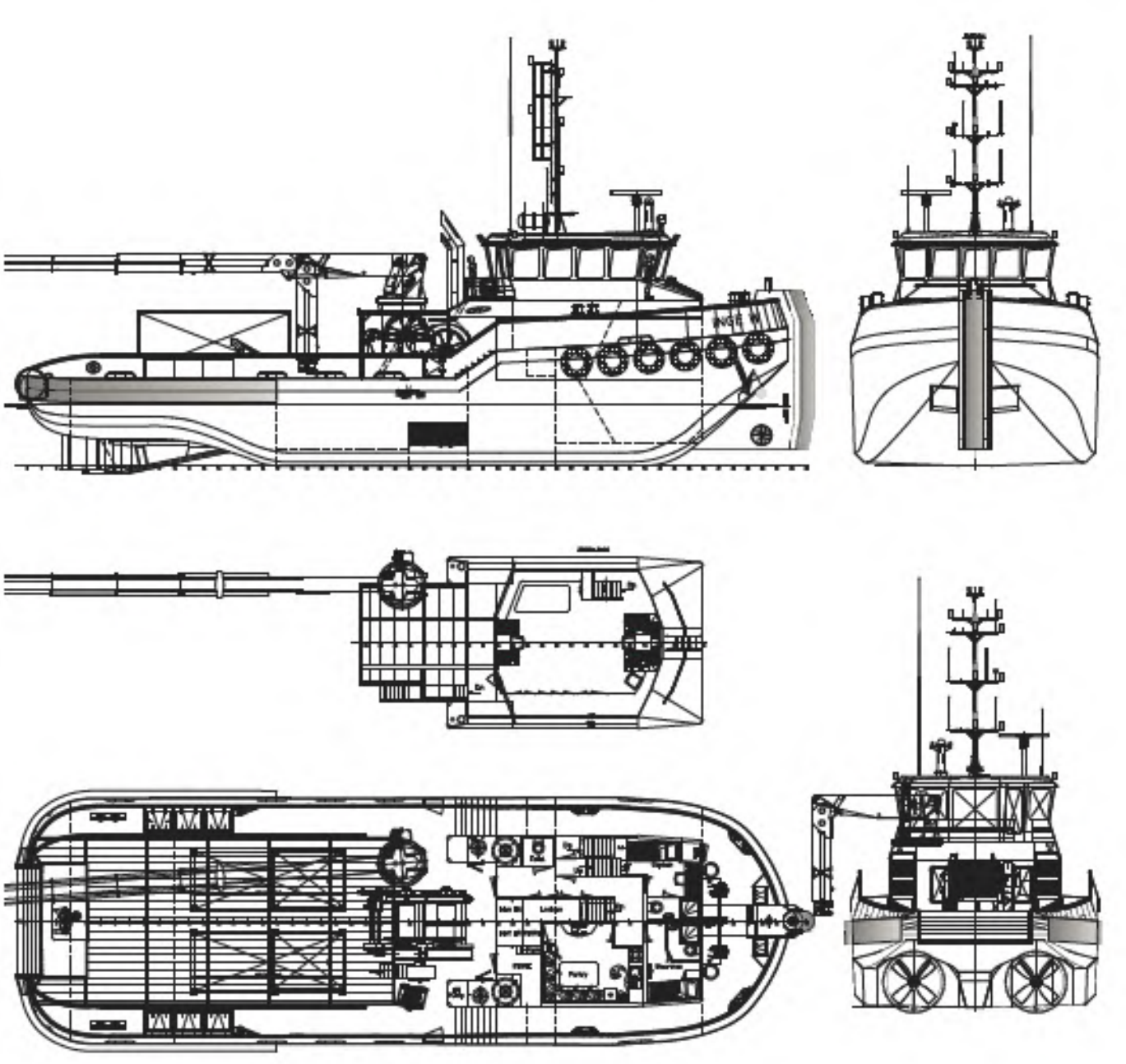
**Anchor Handling Winch**
Waterfall winch type
Holding force: 120 tons
Pulling force: 100 tons at 1st layer
Hauling speed: 6,5m/min 18m/min

**Tugger Winch**
Waterfall winch type
Holding force: 125 tons
Pulling force: 64 tons at 1st layer
Hauling speed: 10m/min 27m/min

**Deck crane**
Heila HLMR 200-4S
16,7 tons @ 9,8m / 6,6 tons @20m

**Towing hook**
Mampaey 55tons SWL Disc

**Towing Pins & Chain stopper**



# ATV ROTA-SONIC DRILL RIG (LS600)



# TECHNICAL DATA SHEET

## GENERAL DESCRIPTION

- The GeoSonic Large Sonic (also known as the LS600 ATV) is a self-contained drill rig especially designed for sonic drilling through unconsolidated material and most rock formations, with access capabilities beyond those of most standard drill rigs of similar categorisation
- The GeoSonic LS600 I optimised to extract more competent pristine core samples in sand, clay or gravel than is usually possible with traditional coring tool techniques
- User friendly design and a dual drill / drive hydraulic loop powered by an independent deck engine which promotes simplified troubleshooting, diagnostics and maintenance
- The highly efficient open centre (drill mode) hydraulic system utilises quality gear pumps and motors for maximum power transmission and competent life, drawing from a single reservoir of fully bio-degradable hydraulic fluid to lubricate and power the system

## MAIN FEATURES

- *Superficial & Bedrock Sampling/Coring Capabilities*
- *Standard or Lined Samples*
- *Competent Core Extraction Compared to Traditional Rigs*
- *Mast with Feed Cylinder and Extension to Enable 6.00m Rod Tripping Operations*
- *The Mast is Raised by Means of a Fully Hydraulic Ram; Mast Shift Capabilities Compensate for Uneven Site Conditions*
- *Tilt Feed to Allow Presentation of Drill String Components to Drill Head Horizontally*
- *Fast, Optimized Manual Rod Handling with Rod Retaining Guard and Rod Storage Racks Built into the Mast*
- *Rotation Guarding, Emergency Stop & Trip Wire Switches*



***LS600 on Jack-Up Platform***

## ADDITIONAL DETAIL

- The main power source is a 167Kw, 6.6 litre, 4 stroke air-cooled diesel engine, which drives the open-centre hydraulic circuit (at a maximum operating pressure of 275 bar)
- The Marooka carrier is tracked and controlled from the control cab at the front of the drill rig
- The drilling and set up control panel is mounted on the right hand side of the machine rear. All of the control and monitoring instruments for drilling functions are present on this panel
- The controls and instruments are of the fully hydraulic drill are conveniently positioned with graphic symbols used to indicate functionality and aid with user friendly operation
- During transport and tracking the control panel is covered by a lockable door
- The hydraulically driven Boart Longyear PS150 drill head provides plenty of flexibility to perform most coring operations
- Emergency STOP switches are fitted on the control panel, the left and right hand sides of the platform, and at the rear of the platform
- A wire mesh rotation barrier provides protection from, and obstructs access to, the rotating drill string in tandem with an interlock system linked to the rotation and torque feed. This allows the drill crew to open the barrier and gain access to the drill string to perform borehole advance and sample retrieval procedures, with an in built failsafe as the rotation and torque feeds are minimised at such time as the circuit is open
- The drill rig has a 24V DC electric circuit when operating in drive mode and a 12V DC circuit for drilling mode
- An arced, double hinged, rotation barrier provides protection from, and obstructs access to, the rotating drill string in tandem with pressure switches linked to the rotation feed. This allows the drill crew to open the barrier and gain access to the drill string to perform borehole advance and sample retrieval procedures, with an in built failsafe as the rotation feed is minimised at such time as the circuit is open

## TECHNICAL DATA SUMMARY - 1

| GeoSonic LS600 ATV Drill Rig | |
|---|---|
| **Transport Mode:** | L 10.30m – W 2.66m – H 3.65m |
| **Drill Mode (Mast Vertical):** | L 9.60m – W 3.53m – H 10.59m |
| **Max (Laden) Weight:** | 20,500 kg |
| **Ground Pressure:** | 5.9 psi / 41 KPa |
| **Head Travel:** | 7.44m |
| **Tooling Size:** | 88mm to 305mm (3.5” to 12”) |
| **Hydraulic Fluid Capacity:** | 333 Litres |
| **Diesel Capacity:** | 160 Litres |
| **Depth Capacity:** | 150m + |






*Marooka Support Vehicle for LS600*

## TECHNICAL DATA SUMMARY - 2

| GeoSonic Marooka Support Vehicle | |
|---|---|
| **Transport Mode:** | L 6.10m – W 2.75m – H 3.60m |
| **Max (Laden) Weight:** | 17,000 kg |
| **Ground Pressure:** | 5.0 psi / 36 KPa |
| **Additional:** | Independent Jack Levellers |
| **Tooling Size:** | Onboard Casing Handling System |



*GeoSonic LS600 ATV Rota-Sonic Drill & Marooka Support*

# TECHNICAL DETAILS

| | |
|---|---|
| ***Sonic Coring Head*** | |
| Vibration Motor Flow | 0-110 l/min @ 0-275 bar |
| Rotation Motor Flow | 0-55 l/min @ 0-275 bar |
| Lubrication Motor Flow | 20 l/min @ 30-60 bar |
| Torque at 275 bar | 240 da N.m |
| Speed | 80 rpm |
| ***Prime Mover*** | |
| Standard | CAT 6.6, 4 Stroke Diesel |
| Power Maximum | 167kW@2200rpm |
| Diesel Tank Capacity | 160 l |
| Fuel Consumption | 46.6 l/h |
| Electrical Circuit | 24V |
| ***Hydraulic System*** | |
| *Closed Loop* | |
| Max Flow | 240lpm @ 2300rpm (crawler & oscillators) |
| Max Pressure | 275 bar |
| *Open Loop* | |
| Two Sets of Gear Pumps | |
| 1st – 52+52+27+27 cc/rev, Maximum Pressure | 175 bar |
| 2nd – 28+52+52+16 cc/rev, Maximum Pressure | 175bar |
| Hydraulic Oil Volume | 333 litres |
| ***Drill Mast & Feed System*** | |
| Total Length | 9.90m |
| Feed Stroke | 7.47m |
| Feed Speed | Normal / Fast |
| Fast Feed Speed – Up | 25 / 50m/min |
| Fast Feed Speed – Down | 42 / 84m/min |
| Pull Down Force | 40.5 Kn |
| Pull Back Force | 67.5 Kn |
| *Drilling Inclination – 45 degrees below horizontal to 90 degrees vertical* | |
| ***Winch*** | |
| *Main Hoist* | |
| Max Pull on Inner Layer | 9.65 kN |
| Line Speed | 56 m/min |
| Cable | Ø6 mm |
| *Wireline* | |
| Max Pull | 9.65 Kn |
| Line Speed | 56 m/min |
| Cable | Ø6 mm |
| ***Rod Clamps*** | |
| Max. Clamping Diameter | 330 mm |
| Max. Clamping Capacity | 129kN |
| Max. Breaking Torque | 23 kNm |
| ***Rod Rack*** | |
| Dimensions L x W x H | 3120 x 470 x 315 mm |
| Capacity of 2 3/8" rods | 21 |

# GeoSonic LS600 ATV Drill Rig Technical Data Sheet

| | |
|---|---|
| ***SPT Auto Hammer – Standard Penetration Test*** | |
| Drop Weight | 63.5 kg |
| Vertical Travel | 750 mm |
| ***Crawler Chassis*** | |
| Axle Distance | 1800 mm |
| Length | 3870 mm |
| Width of Tracks | 700 mm |
| Driving Speed – Low Gear | 7.6 km/hour |
| Driving Speed – High Gear | 11 km/hour |
| Max. Incline Capability | 60% (~30°) |
| ***Dimensions & Weights*** | |
| *Transport Mode* | |
| Length | 10,300 mm |
| Height | 3650 mm |
| Width | 2660 mm |
| *Drill Mode* | |
| Length | 9,600 mm |
| Height | 10,590 mm |
| Width | 3530 mm |
| Total (Dry) Weight Approximately | 17,700 kg |
| Climbing Capacity | (Grade 60%) approx. 30º |
| ***FMC Water Pump*** | |
| Flow | 190 lpm FMCL1622BCD |
| Pressure | 60 bar |
| ***Grout Pump*** | |
| Flow | 102 lpm Moyno 3L6 |
| Pressure | 15 bar |
| ***Compressor*** | |
| Type | HK400 |
| Maximum Flow | 400 l/m |
| Maximum Pressure | 8 bar |
| ***Welding Generator*** | |
| Type | Getec |
| *Generator:* | |
| Voltage | 120 V |
| Frequency | 60 Hz |
| Power | 4000 W |
| *Welder:* | |
| Current | 200 A |
| Voltage | 12 – 30 V DC |
| Duty Cycle | 68% |



# FUGRO
# CR2 MARINE DRILL

**Fugro's specialised inshore marine drilling mast CR2 is a multi-purpose, twin 'A' frame mast measuring 12 m x 2.1 m. It is designed to reduce the unproductive, labour intensive operations normally associated with overwater drilling.**

Cable tool boring is carried out using a 2.5 t freefall winch. The use of the hydraulic rod/casing clamp replaces time consuming, conventionally bolted clamps.

Deck mounted mechanical bailing tippers allow removal of spoil from drilling tools in a productive, but safe, operative manner.

If required, insitu testing equipment, rods, conductor casings etc., can be vertically stacked within the mast in 9 m lengths. These are handled by a 5 t hydraulic winch. The CR2 incorporates a high powered Dando 500 hydraulic power swivel for rotary drilling and coring.

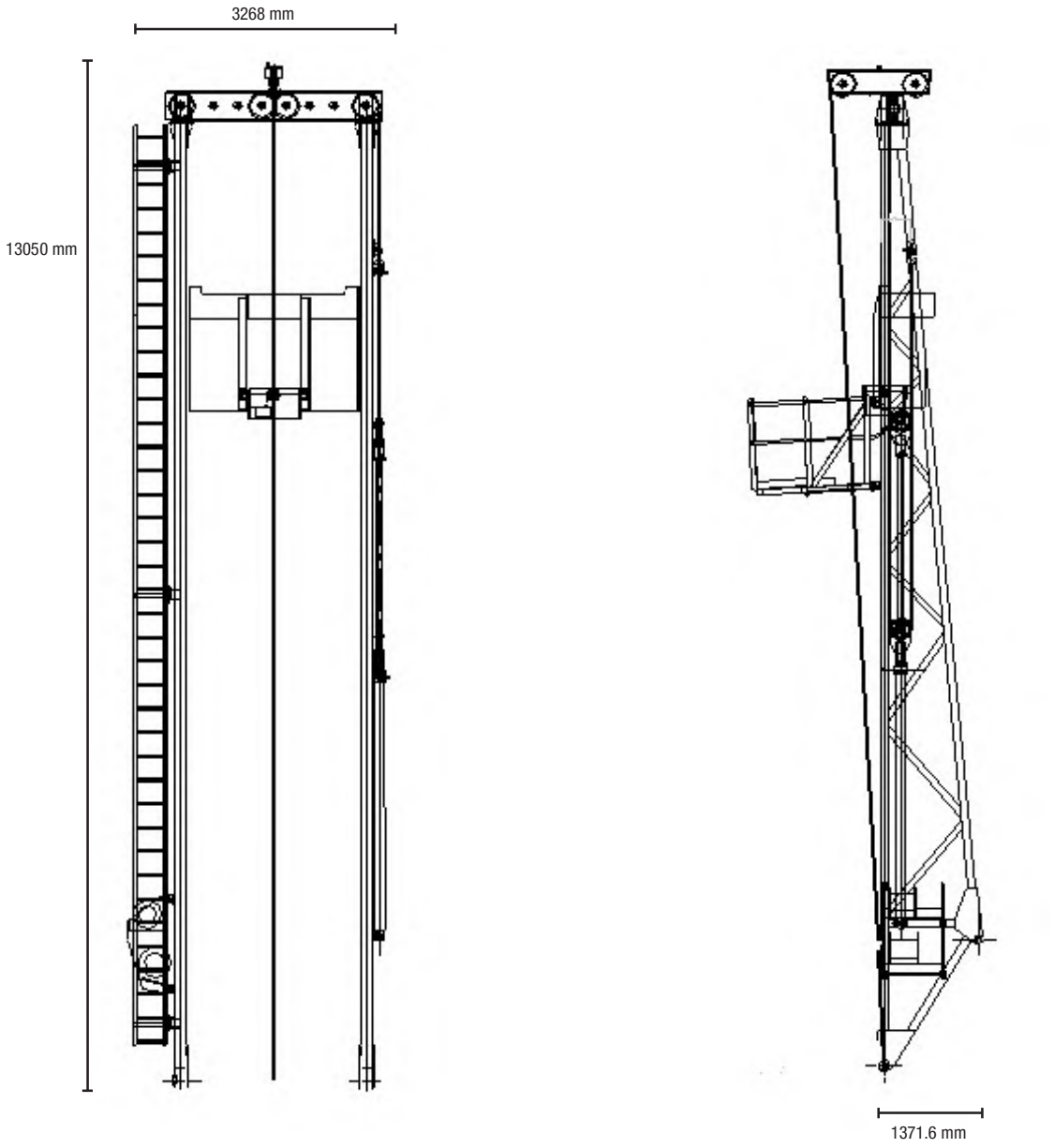
For rotary open-hole drilling, the boreholes are excavated without conductor or liner casings. Stability of the unlined holes is provided by drilling muds which are guar-based, non toxic and bio-degradable.

Conventional or wireline cores can be carried in a variety of sizes.



*CR2 Marine Drill at Barrow Offshore Wind Farm.*

# SPECIFICATIONS




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# FUGRO
# COMACCHIO MC1200

**The MC1200 is a hydraulic skid mounted drilling rig capable of operating all rotary and/or rotary percussive drilling systems.**

During the design stage, Fugro worked closely with Comacchio to ensure the development of a fully integrated drilling unit capable of withstanding both the complex and rigorous nature of marine works. For example, the MC1200 has a unique triple holding clamp and breakout arrangement for handling the various casings required. These are complimented by a set of hydraulically adjusted drill string centralisers.

The main mast is equipped with a crane boom and a drill string manipulator arm that enables drill rods and casings to be manoeuvred to and from the working deck with minimal manual intervention.

The main power supply is fully silenced and the hydraulics operate a closed system with biodegradable oil.

The control console is deployed on a multipositional arm, providing the driller with an uninterrupted view of all drilling activities. All rotating parts are guarded within a fully interlocked cage.

The MC1200 is suitable for all aspects of rotary soil investigations, core drilling as well as specialised civil engineering works such as micropiles, anchors and ground consolidation works.




*MC1200 deck layout on Excalibur jack-up.*

# SPECIFICATIONS

## MC1200 Marine Drill

### Power Pack

| | |
|---|---|
| Diesel engine: | New generation 132 kW DEUTZ diesel engine series 2012 |
| Engine power: | 132 kW (180 HP)/2300 rpm |
| Main pump: | 2 x 190 lt/min./2 x 50, 2 gal/min. |
| Oil tank: | 400 lt / 105.6 gal |
| Fuel tank: | 350 lt / 92.5 gal |

### Mast

| | |
|---|---|
| Feed stroke: | 4750/7200/10 200 mm |
| Total length: | 7100/9550/12 550 mm/ 23,3/31,3/41,2 ft |
| Feed force: | 7000 daN/ 15 736 lbs |
| Retract force: | 7000 daN/ 15 736 lbs |

### Clamps

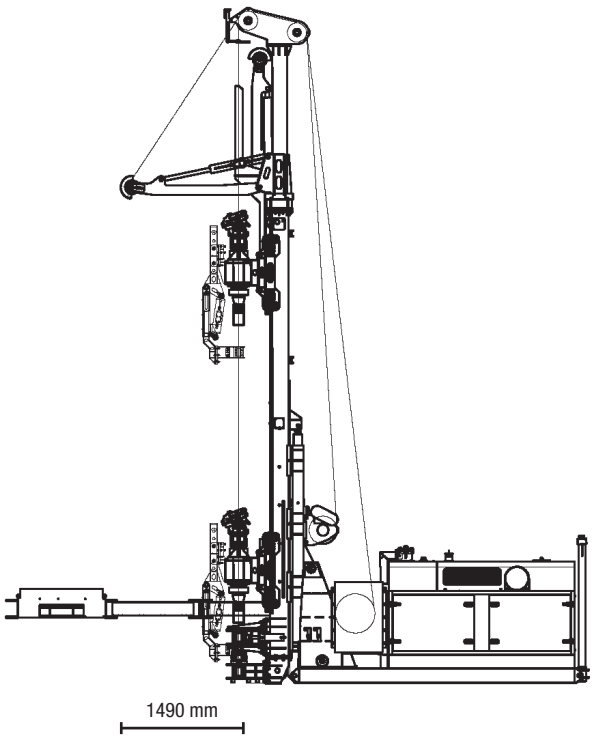
| | |
|---|---|
| Min. handling: | 45 mm / 1,8” |
| Max. handling: | 360 mm /14.1” |
| Clamping force: | 280 kN / 62 946 lbs |
| Breaking torque: | 3500 daNm / 25 814 lb ft |

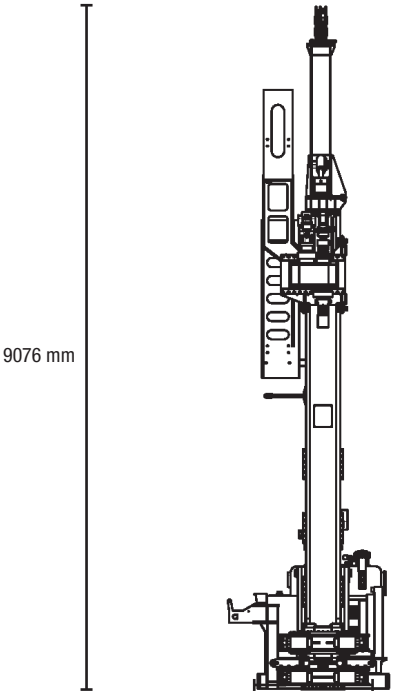
### Rotary Head

| | |
|---|---|
| Gears: | 6 |
| Max torque: | 1230 daNm/ 9072 lb ft |
| Max speed: | 340 (550) rpm |
| Head passage: | 93 mm/3,6” |
| Swivel passage: | 2” |

### Winch

| | |
|---|---|
| Max line pull: | 2000 daN/4496 lbs |
| Drum capacity: | 50 mt/164 ft |
| Rope speed: | 30 mt/min./98 ft/min |
| Rope diameter: | 10 mm/0.39” |

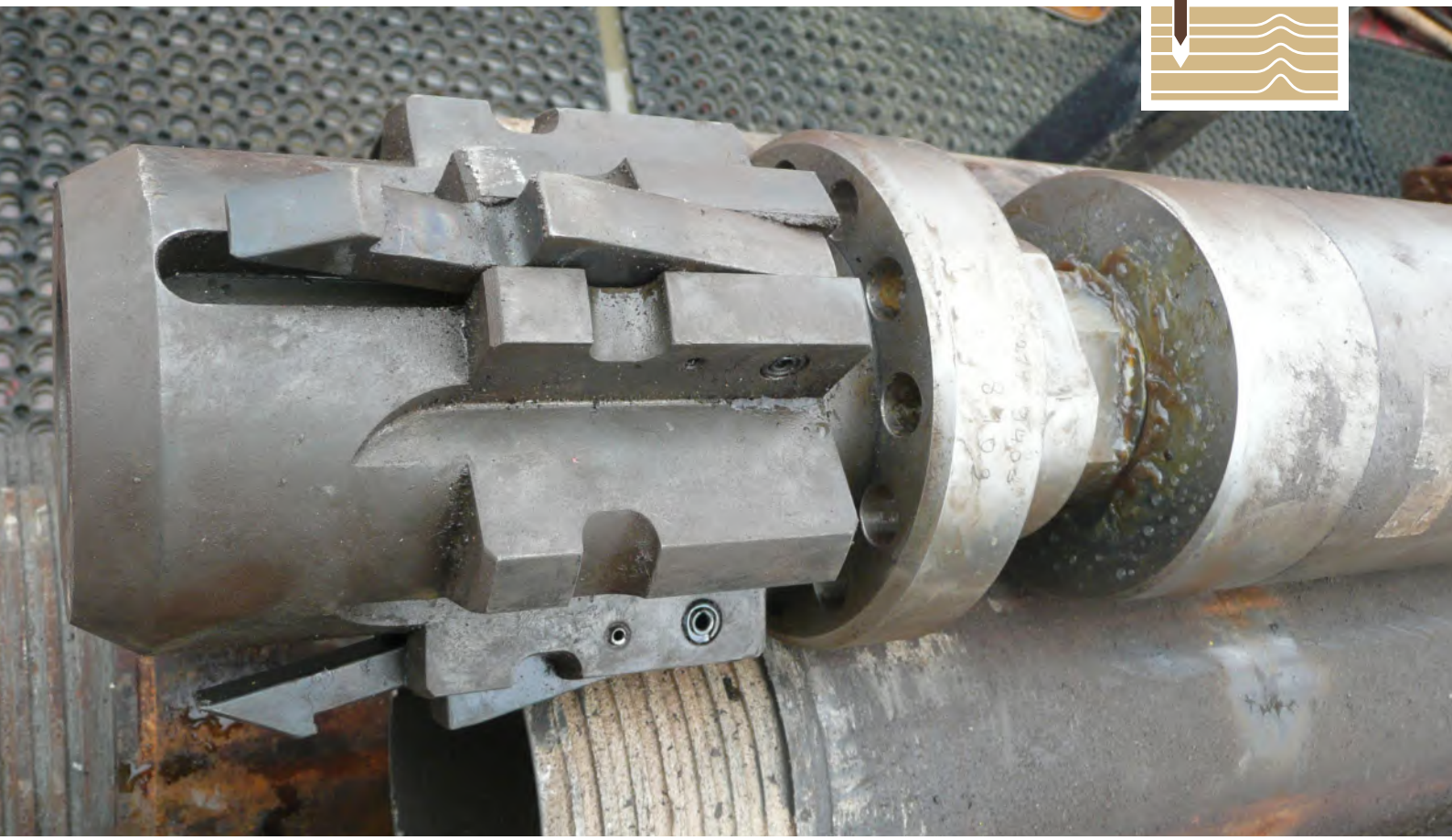



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geoservices.uk@fugro.com

**WWW.FUGRO.COM**



# FUGRO SEACORE
# GEOBOR-S

**In its 30 years of drilling experience, Fugro Seacore has examined and tested many methods of coring - aiming to minimise core disturbance and maximise core recovery.**





## GEOBOR-S SYSTEM

Our experience leads us to recommend the use of GEOBOR-S triple tube wireline drilling system, which has been specially developed for core drilling and undisturbed sampling in a wide variety of soil and rock formations. The GEOBOR-S is a “triple tube” core barrel which cuts an “S” size core sample. It has a plastic core liner, which is seated within the inner barrel assembly, considerably reducing friction between the core and the inner tube and enhancing core recovery.

## SAMPLE RECOVERY

A nominal 102 mm diameter core sample is recovered from this system, generally in 1.5 m lengths.

This larger diameter enhances drilling performance whilst obtaining high quality core samples, for soil and rock testing.

We provide a wide range of coring bits including, for example, annular and face discharge, surface set and impregnated diamond bits, saw tooth and tungsten carbide etc.

The core barrel itself is designed for flushing with water, mud or air, and can easily be adapted for most soil and rock conditions by the use of an appropriate core bit or non coring devise.

## CORE LINER

The core liner is a rigid, transparent PVC tube with a wall thickness of approximately 1 mm, that fits snugly inside the GEOBOR-S core barrel inner tube, trimmed to 1.5 m lengths. This is provided for all coring works.

The core samples are recovered within the core line tube and removed from the inner barrel between each consecutive run. The sample can be retained within the core line tube sealed at both ends and placed into the core box. This minimises handling induced core disturbance, both on the drill deck, and during subsequent transport of the core sample to the onshore core store and testing laboratories.

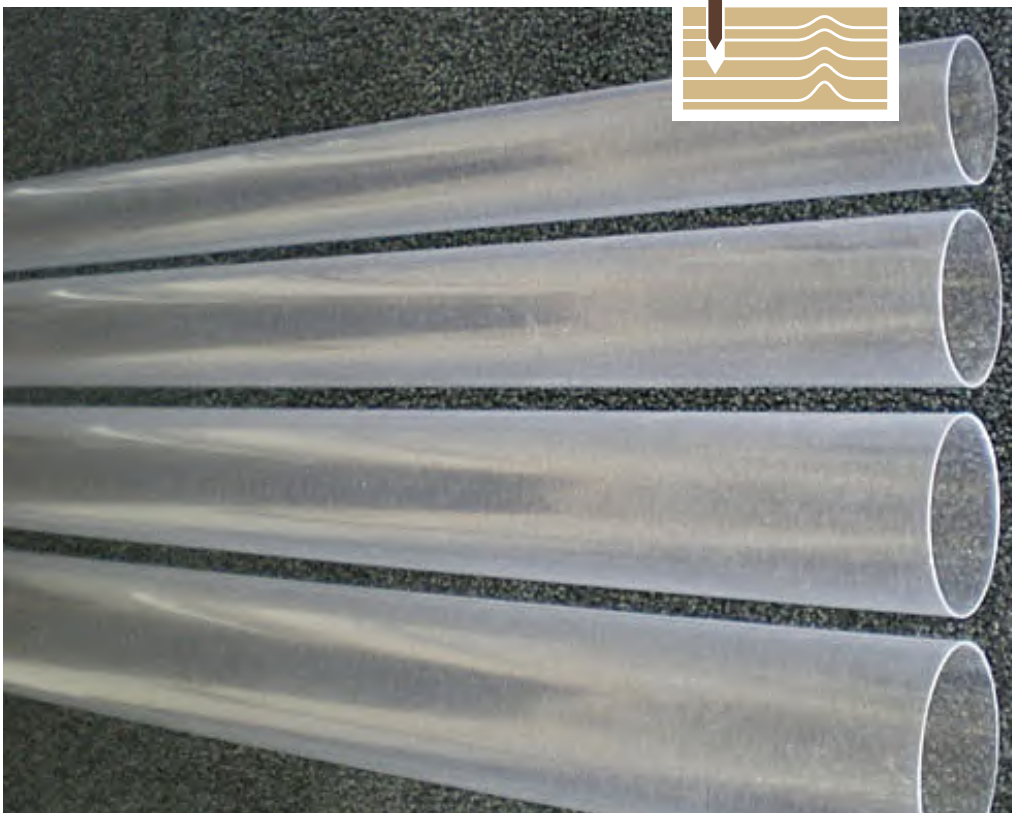
From our experience the combination of the GEOBOR-S system used with core liners:

- reduces coring and transport induced disturbance
- maintains sample quality
- significantly enhances recovery especially in mixed formations

Furthermore, we monitor the effectiveness of the various bit types throughout drilling, selecting bits appropriate to varying ground conditions as each borehole progresses. This allows us to maximise core quality and recovery in an appropriate and cost effective manner. **Four methods** can be used:

1. In medium to hard formations most suitable for soil conditions, all types of core bits can be used depending on the formation

2. For coring in soft soil formations, only TC-set bits are used and the bit consist of two parts (pilot and reamer)



*Geobor-S Core Liner.*

| Technical Specifications | Metric | Imperial |
|---|---|---|
| Hole Diameter, method 1-4 | 146.0 mm | 5.75 in |
| Hole diameter, method 2-3 | 150.0 mm | 5.90 in |
| Drill bit outer diameter | 145.6 / 149.6 mm | 5.73 / 5.90 in |
| Drill rod outer diameter | 139.7 mm | 5.58 in |
| Bit kerf, method 1 | 21.8 mm | 0.86 in |
| Bit kerf, method 2-3 | 23.8 mm | 0.94 in |
| Core diameter | 102.0 mm | 4.05 in |
| Hole area (od 146/150) | 167.3 / 176.7 $cm^2$ | 26.0 / 27.4 $in^2$ |
| Core area | 81.7 $cm^2$ | 12.7 $in^2$ |
| Cutting area in % of hole area | 51.7 % | 51.7 % |

3. For coring in very soft or loose formations, only TC-set bits are used. The bit is in two parts as in method two but one core lifter is extended to run 25 mm in front of the bit.

4. For coring in very soft, loose formations with varying layers. The spring-loaded inner tube assembly is extended to run in front of the bit, but is retractable for optimized adaptation to the consistency and density of the ground.

## OTHER ADVANTAGES

The advantages of wireline coring over conventional coring (using drill rods and core barrels) are:

- separate temporary lining casing for borehole stabilization may not be required
- the drill string is more rigid
- the core barrel may be recovered without the need to remove the outer drill rod, thus the disturbance to the borehole wall is minimized
- the small annulus between the drill pipe and borehole wall requires significantly lower volumes of flush fluid compared to conventional drilling to achieve adequate uphole velocity for removal of cuttings from the hole. As a consequence, erosion of the formation (particulary at the bit face) is reduced.

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# GEOBOR-S





GEOBOR-S triple tube wireline drilling system which has been specially developed for high quality geotechnical investigations of soil and rock formations

**In its 30 years of drilling experience, Fugro Seacore has examined and tested many methods of coring - aiming to minimise core disturbance and maximise core recovery.**

## GEOBOR-S System

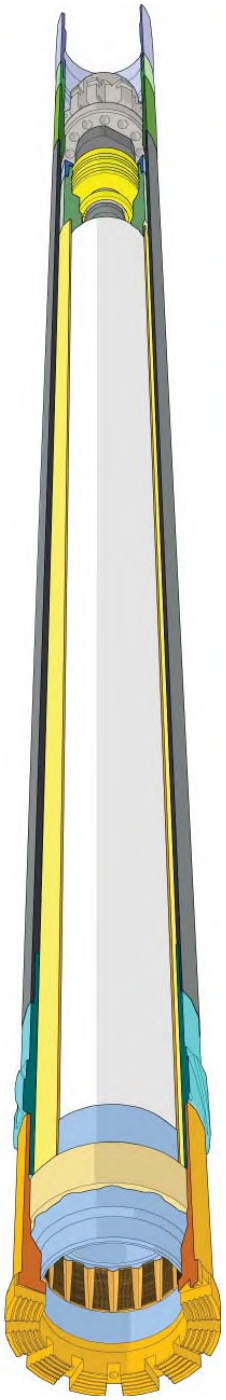
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# GEOBOR-S

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1. In medium to hard formations most suitable for soil conditions, all types of core bits can be used depending on the formation
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GEOTECHNICAL PIPEWORK AND ACCESSORIES

Unit 7
South Nelson Ind. Estate
Cramlington
Northumberland
NE23 1WF

Tel; (01670) 713913
Fax;(01670) 713717

# PRODUCT DATA SHEET
# HOLTEC EC 752 PVC COMPOUND

## Description
EC 752 is a transparent tin stabilised high impact profile, or hollow section extrusion compound.

## Applications
EC 752 has been developed for the extrusion of thin walled tubing and hollow profiles.

Unlike many tin stabilised transparent profile grades EC 752 has very good dynamic heat stability and easy processing characteristics.

## Colour
Natural transparent. The same base is available in transparent and opaque colours if required.

## Toxicity
The free VCM content of EC 752 is <1ppm. It may be regarded as having low toxicity and all the additives used in its manufacture are certified by their manufacturers as having BIBRA/BPF approval for use in foodstuffs packaging.

## Physical Form
Pellets.

## Properties

| | Units | Typical results |
|---|---|---|
| Softening Point | C | 69 |
| Relative Density (@23 C) | - | 1.34 |

NOTE:
All physical properties are measured to BS 2782
The information is based on our general experience and is considered accurate. As conditions of use are beyond our control, recommendations are made without guarantee and customers should ensure that materials supplied are satisfactory for their requirements.

# Appendix L

Drillers' Records

# Appendix L Contents

L.1 Drillers' Records – Intake 1
L.2 Drillers' Records – Intake 2
L.3 Drillers' Records – Outfall

## L.1 Drillers' Records – Intake 1

Sonic Cored Boreholes;
Rotary Boreholes
(referenced by position ID)

## L.2 Drillers' Records – Intake 2

Sonic Cored Boreholes;
Rotary Boreholes
(referenced by position ID)

## L.3 Drillers' Records – Outfall

Sonic Cored Boreholes;
Rotary Boreholes
(referenced by position ID)

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 24,07,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 01 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
| □□□ | □□□□ | □□□□ | □□□ | □□□□ | □" | □A□D□□□□□□□□□□□□ | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | □□ | |
| Gas Valve | □□ | |
| Geotextile Wrap | M | |
| Bentonite Pellets | □A□□ | |
| Gravel | □A□□ | |
| Well Cover | □□ | |
| Lock | | |
| Polymer | | |
| Cement | □A□□ | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| □□M□□AR□□□ | |
| □□M□□A□ | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

□□□□□□A□□ □□□□□□□□□□□□□

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 24 7 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | it1-sb01 | | | Corebarrel Size / Diameter: | split barrel |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□□ | □□□□□ | □□□□□ | □□□□□□ | □□□□□ | □ | □□□d□□□□□d□□□□□ □□□□□□□□□□□□ | | | | | |
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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 25,07,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 01 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
| □□□□□ | □□□□□ | □□□□ | □□□□□ | □□□□□ | □" | □A□D□□□□

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 25 7 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | it1sbo1 | | | Corebarrel Size / Diameter: | split barrel |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□ | □□□□ | □□□□ | □□□□ | □ | □□□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
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| Well Installation | | |
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| Water Sampling | | |
| Backfill / Grouting | □□□ | |
| Decontamination | | |
| Client Delays | | |
| Stand By | □□□ | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□ | |

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|---|---|---|
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| Gas Valve | | |
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| Gravel | | |
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| | | |
| | | |
| | | |
| | | |

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| | |
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| Level of Casing | m |
| Water rise (20 mins) | m |
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| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□ |
| □□□□□□□d□ | | □□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 21/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | IT1 SB02 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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**Supervisors Signature** PAUL JEANS

**Client Representative Signature**

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 22,07,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 02 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 22/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | IT1 SB02 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 23,07,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 02 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | □□ | |
| Gas Valve | □□ | |
| Geotextile Wrap | M | |
| Bentonite Pellets | □A□□ | |
| Gravel | □A□□ | |
| Well Cover | □□ | |
| Lock | | |
| Polymer | | |
| Cement | □A□□ | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
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| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
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## Comments (note any problems from pre-shift inspections here)

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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 30,05,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH 03 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 30 5 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | it1-sb-03 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□ | | □□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 31,05,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1SB 03 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
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| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
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| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 31 5 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | it1-sb-03 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□ | | □□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 01,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1SB03 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | □□ | |
| Gas Valve | □□ | |
| Geotextile Wrap | M | |
| Bentonite Pellets | □A□□ | |
| Gravel | □A□□ | |
| Well Cover | □□ | |
| Lock | | |
| Polymer | | |
| Cement | □A□□ | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
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## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
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## Comments (note any problems from pre-shift inspections here)

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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 17/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | | |
|---|---|---|---|---|
| Bore No. | | IT1 SBO4 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□ | □□□□ | □□□□ | □□□□ | □□□□ | □" | □□□d | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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| MAR□□□ □□□□□ | | □□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 18,07,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 04 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 15,07,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 05 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 2

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 15/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | IT1 SB05 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run From | Drill Run To | Drill Run Rec | Casing From | Casing To | Casing Size | Soil or Rock Description | In-Situ Tests Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
|---|---|---|---|---|---|---|---|---|---|---|---|
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 2 of 2

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 15/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | IT1 SB05 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □ |
| Support Truck | |
| Crew Truck | □□□□□□D |
| Trailers | |
| SPT Ref | □□□□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□□ | □□□□ | □□□□□ | □□□□□ | □" | □□□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| Awaiting Client | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 16,07,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 05 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
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| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 16/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | IT1 SB05 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 05,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 06 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | □□ | |
| Gas Valve | □□ | |
| Geotextile Wrap | M | |
| Bentonite Pellets | □A□□ | |
| Gravel | □A□□ | |
| Well Cover | □□ | |
| Lock | | |
| Polymer | | |
| Cement | □A□□ | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| □□M□□AR□□□ | |
| D□□A□□□□ | |
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## Comments (note any problems from pre-shift inspections here)

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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 5 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | it1-sb-06 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□□ | □□□□□□ | □□□□ | □□□□□□ | □□□□□□ | □ | □□□d□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | □□□□□ | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
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| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 06,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 06 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 6 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | it1-sb-06 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□ | □□□□□ | □□□□ | □□□□ | □□□□□ | □ | □□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | □□□□ | |
| Travel | | |
| Awaiting Installation Instructio | | |
| breakdown | □□□□ | |
| TOTAL HOURS | □□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
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| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□ |
| □□□□□□□□ | | □□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 2 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | it1-sb-07 | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | n | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | 167 |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | 16 |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| gl | 1 50 | 1 50 | 24 00 | 25 50 | 6 | sand | | | | | |
| 1 50 | 3 00 | 1 10 | 25 50 | 27 00 | 6 | sand | | | | | |
| 3 00 | 4 50 | 1 30 | 27 00 | 28 50 | 6 | sand | | | | | |
| 4 50 | 6 00 | 1 10 | 28 50 | 30 00 | 6 | sand | | | | | |
| 6 00 | 7 00 | nr | 30 00 | 31 00 | 6 | | | | | | |
| 7 00 | 7 50 | 1 40 | 31 00 | 31 50 | 6 | sand | | | | | |
| 7 50 | 8 50 | 0 90 | 31 50 | 32 50 | 6 | sand | | | | | |
| 8 50 | 9 50 | 1 00 | 32 50 | 33 50 | 6 | sand | | | | | |
| 9 50 | 10 50 | 1 00 | 33 50 | 34 50 | 6 | sand | | | | | |
| 10 50 | 11 50 | 1 00 | 34 50 | 35 50 | 6 | sand | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | 0 15 | |
| Establishment | | |
| Move Set Up | 0 45 | |
| Inspection Pit | | |
| Drilling / Sampling | 6 00 | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | 4 45 | |
| flange casing | 0 30 | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | 12 15 | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| l mccullagh | | 12 15 |
| c jackson | | 12 15 |
| p jeans | | 8 |
| | | |

## Comments (note any problems from pre-shift inspections here)

11 45 to 12 00 toolbox talk

12 00 to 13 30 finish jacking up on postion .13 30 to 14 00 flange casing

14 00 to 17 15 waiting slack water .17 15 to 18 00 set rig up over moon pool.

18 00 to 00 00 drilling

Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 03,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 07 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | LS600 |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
| 11.50 | 12.50 | 0.80 | 11.50 | 12.50 | 6" | BROWN COARSE SAND - 11.50 - 14.10 | | | | |
| 12.50 | 13.50 | 0.75 | 12.50 | 13.50 | " | | | | | |
| 13.50 | 14.50 | 1.15 | 13.50 | 14.50 | " | GREY SAND 14.10 - 16.50 | | | | |
| 14.50 | 15.50 | 1.00 | 14.50 | 15.50 | " | | | | | |
| 15.50 | 16.50 | 1.00 | 15.50 | 16.50 | " | LIGHT BROWN SAND 16.50 - 24.80 | | | | |
| 16.50 | 17.50 | 1.00 | 16.50 | 17.50 | " | | | | | |
| 17.50 | 18.50 | 1.00 | 17.50 | 18.50 | " | FIRM/STIFF GREY CLAY 24.80 - 25.50 | | | | |
| 18.50 | 19.50 | 1.00 | 18.50 | 19.50 | " | | | | | |
| 19.50 | 20.50 | 0.50 | 19.50 | 20.50 | " | | | | | |
| 20.50 | 21.50 | 1.00 | 20.50 | 21.50 | " | | | | | |
| 21.50 | 22.50 | 1.00 | 21.50 | 22.50 | " | | | | | |
| 22.50 | 23.50 | 1.00 | 22.50 | 23.50 | " | | | | | |
| 23.50 | 24.50 | 1.00 | 23.50 | 24.50 | " | | | | | |
| 24.50 | 25.50 | 1.00 | 24.50 | 25.50 | " | | | | | |
| | | | | | | BLOWING SAND AT 13.50m | | | | |
| | | | | | | | | | | |

## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | No | |
| Gas Valve | No | |
| Geotextile Wrap | M | |
| Bentonite Pellets | BAGS | |
| Gravel | BAGS | |
| Well Cover | No | |
| Lock | | |
| Polymer | | |
| Cement | BAGS | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| T.MCCARTHY | |
| D.BAILEY | |
| P.JEANS | |
| | |

## Comments (note any problems from pre-shift inspections here)

SHIFT CHANGE - 23:45 - 00:00 , 11:45 - 12:00

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 3 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | IT1-SB-07 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | 167 |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | 16 |

## Borehole Log

| Drill Run From | Drill Run To | Drill Run Rec | Casing From | Casing To | Casing Size | Soil or Rock Description | In-Situ Tests Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 50 | 26 50 | nr | 49 50 | 50 50 | 6 | drilled twice damaged catcher twicw unable to pick sample up | | | | | |
| 26 50 | 27 50 | 1 50 | 50 50 | 51 50 | 6 | clay | | | | | |
| 27 50 | 28 50 | 1 00 | 51 50 | 52 50 | 6 | clay | | | | | |
| 28 50 | 29 50 | 1 00 | 52 50 | 53 50 | 6 | clay | | | | | |
| 29 50 | 30 50 | 1 00 | 53 50 | 54 50 | 6 | clay | | | | | |
| 30 50 | 31 50 | 1 00 | 54 50 | 55 50 | 6 | clay ( drilled twice damaged core spring first run slipped core ) | | | | | |
| 31 50 | 32 50 | 1 00 | 55 50 | 56 50 | 6 | clay | | | | | |
| 32 50 | 33 50 | 1 00 | 56 50 | 57 50 | 6 | clay | | | | | |
| 33 50 | 34 50 | 1 00 | 57 50 | 58 50 | 6 | clay | | | | | |
| 34 50 | 35 50 | 0 50 | 58 50 | 59 50 | 6 | clay | | | | | |
| 35 50 | 36 50 | 1 50 | 59 50 | 60 50 | 6 | clay | | | | | |
| 36 50 | 37 50 | 1 00 | 60 50 | 61 50 | 6 | clay | | | | | |
| 37 50 | 38 50 | 1 00 | 61 50 | 62 50 | 6 | clay | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | 0 15 | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | 12 00 | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructions | | |
| Awaiting Instructions | | |
| TOTAL HOURS | 12 15 | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| l mccullagh | | 12 15 |
| c jackson | | 12 15 |
| p jeans | | 6 00 |
| | | |

## Comments (note any problems from pre-shift inspections here)

11 45 to 12 00 toolbox talk

12 00 to 00 00 drilling

platform to mud 24 00m

Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 04,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT1 SB 07 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | LS600 |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
| 38.50 | 39.50 | 1.00 | 38.50 | 39.50 | 6" | STIFF GREY CLAY 38.50 - 47.50 | | | | |
| 39.50 | 40.50 | 1.00 | 39.50 | 40.50 | " | | | | | |
| 40.50 | 41.50 | 1.00 | 40.50 | 41.50 | " | | | | | |
| 41.50 | 42.50 | 1.00 | 41.50 | 42.50 | " | | | | | |
| 42.50 | 43.50 | 1.00 | 42.50 | 43.50 | " | SAMPLES SLIPPED OUT OF BARREL AT 43.50 + 47.50 | | | | |
| 43.50 | 44.50 | 0.50 | 43.50 | 44.50 | " | | | | | |
| 44.50 | 45.50 | 1.00 | 44.50 | 45.50 | " | | | | | |
| 45.50 | 46.50 | 1.00 | 45.50 | 46.50 | " | | | | | |
| 46.50 | 47.50 | 1.00 | 46.50 | 47.50 | " | | | | | |
| 47.50 | 48.50 | N.Rec | 47.50 | 48.50 | " | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | No | |
| Gas Valve | No | |
| Geotextile Wrap | M | |
| Bentonite Pellets | BAGS | |
| Gravel | BAGS | |
| Well Cover | No | |
| Lock | | |
| Polymer | | |
| Cement | BAGS | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| T.MCCARTHY | |
| D.BAILEY | |
| P.JEANS | |
| | |

## Comments (note any problems from pre-shift inspections here)

SHIFT CHANGE - 23:45 - 00:00 , 11:45 - 12:00

WAITING FOR GEOPHYSICS - 05:15 - 05:30

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 4 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | it1-sb-07 | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | n | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | 167 |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | 16 |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| 48 50 | 49 50 | 1 50 | 72 50 | 73 50 | 6 | clay | | | | | |
| 49 50 | 50 50 | 1 00 | 73 50 | 74 50 | 6 | clay | | | | | |
| 50 50 | 51 50 | nr | 74 50 | 75 50 | 6 | (no rec slipped core drilled twice ) | | | | | |
| 51 50 | 52 50 | 1 50 | 75 50 | 76 50 | 6 | clay | | | | | |
| 52 50 | 53 50 | 1 00 | 76 50 | 77 50 | 6 | clay | | | | | |
| 53 50 | 55 00 | 1 50 | 77 50 | 79 00 | 6 | clay | | | | | |

## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | 0 15 | |
| Establishment | | |
| Move Set Up | 6 00 | |
| Inspection Pit | | |
| Drilling / Sampling | 5 00 | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | 1 00 | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | 12 15 | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| l mccullagh | | 12 15 |
| c jackson | | 12 15 |
| pjeans | | 6 00 |
| | | |

## Comments (note any problems from pre-shift inspections here)

11 45 to 12 00 toolbox talk

12 00 to 17 00 drilling 17 00 to 18 00 grouting bore hole from 24 00 m to sea bed

18 00 to 00 00 move and pre load jackup

platform to mud 18 .80 m

Supervisors Signature

Client Representative Signature

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_01 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Wednesday 2019-07-24 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: | polymer |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: | N |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: | 0 |

| Drilling Type: | Open Hole |
|---|---|
| Angle: | vertical |
| Bearing: | |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10:00 | 18.00 | 0.00 | 0.00 | ✓ | 178 | 178 | 0.00 | 0.45 | 0.45 | 5 | 100.0 | Grey | 0.00 | |
| 10:30 | 18.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 0.45 | 2.00 | 1.55 | 15 | 100.0 | Grey | 0.00 | |
| 11:00 | 18.00 | 0.00 | 4.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 12:15 | 18.00 | 0.00 | 6.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 12:55 | 18.00 | 0.00 | 8.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 13:25 | 18.00 | 0.00 | 10.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 14:05 | 18.00 | 0.00 | 12.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 15:30 | 18.00 | 0.00 | 14.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 60 | 100.0 | Grey | 0.00 | |
| 16:15 | 18.00 | 0.00 | 16.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 21:00 | 18.00 | 0.00 | 18.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 240 | 100.0 | Grey | 0.00 | |
| 23:00 | 18.00 | 0.00 | 20.00 | ✓ | 146 | 146 | 18.00 | 20.00 | 2.00 | 90 | 100.0 | Grey | 0.00 | |
| 00:10 | 18.00 | 0.00 | 22.00 | ✓ | 146 | 146 | 20.00 | 22.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | |
| 00:50 | 18.00 | 0.00 | 24.00 | ✓ | 146 | 146 | 22.00 | 24.00 | 2.00 | 25 | 100.0 | Grey | 0.00 | |
| 02:15 | 18.00 | 0.00 | 26.00 | ✓ | 146 | 146 | 24.00 | 26.00 | 2.00 | 60 | 100.0 | Grey | 0.00 | |
| 03:15 | 18.00 | 0.00 | 28.00 | ✓ | 146 | 146 | 26.00 | 28.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 03:55 | 18.00 | 0.00 | 30.00 | ✓ | 146 | 146 | 28.00 | 30.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 04:45 | 18.00 | 0.00 | 32.00 | ✓ | 146 | 146 | 30.00 | 32.00 | 2.00 | 35 | 100.0 | Grey | 0.00 | |
| 05:30 | 18.00 | 0.00 | 34.00 | ✓ | 146 | 146 | 32.00 | 34.00 | 2.00 | 25 | 100.0 | Grey | 0.00 | |
| 07:15 | 18.00 | 0.00 | 36.00 | ✓ | 146 | 146 | 34.00 | 36.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | |
| 08:15 | 18.00 | 0.00 | 38.00 | ✓ | 146 | 146 | 36.00 | 38.00 | 2.00 | 35 | 100.0 | Grey | 0.00 | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | sand |
| 4.00 | dense sand |
| 39.80 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

10" Riser casing was surged in 0.80m and rotary drilling with 7" casing (178) started from M/L inside 10" casing

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 10:00 | To | 08:15 | Total | 22.3 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_01 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Wednesday 2019-07-24 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| | | | | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.38 | 0.00 | ✓ | 0 | 4 | 5 | 150 | 12 | 20 | 18 | | 225 |
| S | 2.00 | 2.45 | 2.00 | ✓ | 0 | 5 | 6 | 150 | 9 | 12 | 14 | 15 | 300 |
| S | 4.00 | 4.37 | 4.00 | ✓ | 0 | 4 | 7 | 150 | 10 | 13 | 27 | | 220 |
| S | 6.00 | 6.38 | 6.00 | ✓ | 0 | 5 | 8 | 150 | 15 | 15 | 18 | 2 | 230 |
| S | 8.00 | 8.45 | 8.00 | ✓ | 0 | 5 | 10 | 150 | 10 | 10 | 15 | 15 | 300 |
| S | 10.00 | 10.24 | 10.00 | ✓ | 0 | 10 | 15 | 125 | 30 | 20 | | | 110 |
| S | 12.00 | 12.19 | 12.00 | ✓ | 0 | 20 | 5 | 90 | 35 | 15 | | | 100 |
| S | 14.00 | 14.22 | 14.00 | ✓ | 0 | 8 | 17 | 125 | 38 | 12 | | | 95 |
| S | 16.00 | 16.18 | 16.00 | ✓ | 0 | 14 | 11 | 105 | 50 | | | | 75 |
| S | 18.00 | 18.31 | 18.00 | ✓ | 0 | 7 | 15 | 150 | 20 | 25 | 5 | | 155 |
| S | 20.00 | 20.25 | 20.00 | ✓ | 0 | 10 | 15 | 135 | 28 | 22 | | | 115 |
| S | 22.00 | 22.22 | 22.00 | ✓ | 0 | 11 | 14 | 120 | 36 | 14 | | | 100 |
| S | 24.00 | 24.08 | 24.00 | ✓ | 0 | 10 | 15 | 5 | 50 | | | | 70 |
| S | 26.00 | 26.23 | 26.00 | ✓ | 0 | 10 | 15 | 100 | 26 | 24 | | | 130 |
| S | 28.00 | 28.24 | 28.00 | ✓ | 0 | 12 | 13 | 120 | 25 | 25 | | | 120 |
| S | 30.00 | 30.22 | 30.00 | ✓ | 0 | 15 | 10 | 110 | 30 | 20 | | | 105 |
| S | 32.00 | 32.25 | 32.00 | ✓ | 0 | 10 | 15 | 130 | 25 | 25 | | | 115 |
| S | 34.00 | 34.17 | 34.00 | ✓ | 0 | 20 | 5 | 90 | 37 | 13 | | | 80 |
| S | 36.00 | 36.18 | 36.00 | ✓ | 0 | 19 | 6 | 95 | 46 | 4 | | | 85 |
| S | 38.00 | 38.21 | 38.00 | ✓ | 0 | 8 | 17 | 120 | 43 | 7 | | | 90 |
| | | | | | | | | | | | | | |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

10" Riser casing was surged in 0.80m and rotary drilling with 7" casing (178) started from M/L inside 10" casing

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 10:00 | To | 08:15 | Total | 22.3 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_01 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Thursday 2019-07-25 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 13 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 09:15 | 18.00 | 0.00 | 40.00 | ✓ | 146 | 146 | 38.00 | 40.00 | 2.00 | 35 | 100.0 | Grey | 0.00 | |
| 09:50 | 18.00 | 0.00 | 41.00 | ✓ | 146 | 146 | 40.00 | 41.00 | 1.00 | 15 | 100.0 | Grey | 1.00 | 1 |
| 10:25 | 18.00 | 0.00 | 42.00 | ✓ | 146 | 146 | 41.00 | 42.00 | 1.00 | 15 | 100.0 | Grey | 1.00 | 2 |
| 12:15 | 18.00 | 0.00 | 43.00 | ✓ | 146 | 146 | 42.00 | 43.00 | 1.00 | 5 | 100.0 | Grey | 0.85 | 3 |
| 12:35 | 18.00 | 0.00 | 44.00 | ✓ | 146 | 146 | 43.00 | 44.00 | 1.00 | 10 | 100.0 | Grey | 1.00 | 4 |
| 13:50 | 18.00 | 0.00 | 45.50 | ✓ | 146 | 146 | 44.00 | 45.50 | 1.50 | 7 | 100.0 | Grey | 1.50 | 5 |
| 14:10 | 18.00 | 0.00 | 47.00 | ✓ | 146 | 146 | 45.50 | 47.00 | 1.50 | 10 | 100.0 | Grey | 1.50 | 6 |
| 14:40 | 18.00 | 0.00 | 48.50 | ✓ | 146 | 146 | 47.00 | 48.50 | 1.50 | 7 | 100.0 | Grey | 1.30 | 7 |
| 15:00 | 18.00 | 0.00 | 50.00 | ✓ | 146 | 146 | 48.50 | 50.00 | 1.50 | 6 | 100.0 | Grey | 1.50 | 8 |
| 15:20 | 18.00 | 0.00 | 51.50 | ✓ | 146 | 146 | 50.00 | 51.50 | 1.50 | 9 | 100.0 | Grey | 1.50 | 9 |
| 15:45 | 18.00 | 0.00 | 53.00 | ✓ | 146 | 146 | 51.50 | 53.00 | 1.50 | 6 | 100.0 | Grey | 1.50 | 10 |
| 16:05 | 18.00 | 0.00 | 54.25 | ✓ | 146 | 146 | 53.00 | 54.25 | 1.25 | 17 | 100.0 | Grey | 1.25 | 11 |
| 16:40 | 18.00 | 0.00 | 55.75 | ✓ | 146 | 146 | 54.25 | 55.75 | 1.50 | 2 | 100.0 | Grey | 1.00 | 12 |
| 17:00 | 18.00 | 0.00 | 57.25 | ✓ | 146 | 146 | 55.75 | 57.25 | 1.50 | 2 | 100.0 | Grey | 0.60 | 13 |
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Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 39.80 | CLAY |
| 51.50 | SILTY SANDY CLAY |
| 53.00 | SANDSTONE / SAND / CLAY |
| 54.25 | SAND |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 09:15 | To 17:00 | Total | 7.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_01 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Thursday 2019-07-25 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 13 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
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## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 40.00 | 40.45 | 40.00 | ✓ | 0 | 9 | 10 | 150 | 11 | 12 | 13 | 14 | 300 |
| S | 42.00 | 42.45 | 42.00 | ✓ | 0 | 6 | 3 | 150 | 8 | 8 | 9 | 10 | 300 |
| S | 44.00 | 44.45 | 44.00 | ✓ | 0 | 6 | 7 | 150 | 9 | 9 | 9 | 10 | 300 |
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|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From | 09:15 | To 17:00 | Total 7.8 | hrs |
| Drilling | 0.0 | Casing | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_02 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Sunday 2019-07-21 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: | polymer |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: | N |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: | 0 |

| | | | |
|---|---|---|---|
| Drilling Type: | Open Hole | | |
| Angle: | vertical | | |
| Bearing: | | | |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20:15 | 20.30 | 0.00 | 0.00 | ✓ | 178 | 178 | 0.00 | 0.45 | 0.45 | 5 | 100.0 | Grey | 0.00 | |
| 21:30 | 20.30 | 0.00 | 2.00 | ✓ | 178 | 178 | 0.45 | 2.00 | 1.55 | 15 | 100.0 | Grey | 0.00 | |
| 22:00 | 20.30 | 0.00 | 4.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 22:30 | 20.30 | 0.00 | 6.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 23:00 | 20.30 | 0.00 | 8.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 23:35 | 20.30 | 0.00 | 10.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 01:25 | 20.30 | 0.00 | 12.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 55 | 100.0 | Grey | 0.00 | |
| 03:50 | 20.30 | 0.00 | 14.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 100 | 100.0 | Grey | 0.00 | |
| 05:45 | 20.30 | 0.00 | 16.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 90 | 100.0 | Grey | 0.00 | |
| 08:10 | 20.30 | 0.00 | 18.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 110 | 100.0 | Grey | 0.00 | |
| 10:10 | 20.30 | 0.00 | 20.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 90 | 100.0 | Grey | 0.00 | |
| 11:15 | 20.30 | 0.00 | 22.00 | ✓ | 146 | 146 | 20.00 | 22.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 12:10 | 20.30 | 0.00 | 24.00 | ✓ | 146 | 146 | 22.00 | 24.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | |
| 12:55 | 20.30 | 0.00 | 26.00 | ✓ | 146 | 146 | 24.00 | 26.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 13:50 | 20.30 | 0.00 | 28.00 | ✓ | 146 | 146 | 26.00 | 28.00 | 2.00 | 35 | 100.0 | Grey | 0.00 | |
| 14:35 | 20.30 | 0.00 | 30.00 | ✓ | 146 | 146 | 28.00 | 30.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 15:15 | 20.30 | 0.00 | 32.00 | ✓ | 146 | 146 | 30.00 | 32.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 16:05 | 20.30 | 0.00 | 34.00 | ✓ | 146 | 146 | 32.00 | 34.00 | 2.00 | 25 | 100.0 | Grey | 0.00 | |
| 16:55 | 20.30 | 0.00 | 36.00 | ✓ | 146 | 146 | 34.00 | 36.00 | 2.00 | 25 | 100.0 | Grey | 0.00 | |
| 17:35 | 20.30 | 0.00 | 38.00 | ✓ | 146 | 146 | 36.00 | 38.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | loose sand |
| 4.00 | stiff sand |
| 10.00 | dense sand |
| 28.00 | silty sand |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

10" Riser casing surged in to 1.70m. Drilling and sampling from M/L inside riser casing.

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 20:15 | To | 17:45 | Total | 21.5 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_02 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Sunday 2019-07-21 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| | | | | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.00 | ✓ | 0 | 1 | 1 | 150 | 1 | 1 | 1 | 7 | 300 |
| S | 2.00 | 2.43 | 2.00 | ✓ | 0 | 3 | 8 | 150 | 10 | 12 | 13 | 15 | 280 |
| S | 4.00 | 4.36 | 4.00 | ✓ | 0 | 5 | 9 | 150 | 14 | 20 | 16 | | 210 |
| S | 6.00 | 6.34 | 6.00 | ✓ | 0 | 6 | 12 | 150 | 18 | 20 | 12 | | 185 |
| S | 8.00 | 8.31 | 8.00 | ✓ | 0 | 6 | 12 | 150 | 20 | 25 | 5 | | 160 |
| S | 10.00 | 10.29 | 10.00 | ✓ | 0 | 7 | 16 | 150 | 23 | 27 | | | 135 |
| S | 12.00 | 12.33 | 12.00 | ✓ | 0 | 10 | 14 | 150 | 18 | 25 | 7 | | 180 |
| S | 14.00 | 14.35 | 14.00 | ✓ | 0 | 1 | 2 | 150 | 9 | 21 | 20 | | 200 |
| S | 16.00 | 16.31 | 16.00 | ✓ | 0 | 7 | 15 | 150 | 25 | 23 | 2 | | 160 |
| S | 18.00 | 18.25 | 18.00 | ✓ | 0 | 17 | 8 | 95 | 25 | 25 | | | 150 |
| S | 20.00 | 20.21 | 20.00 | ✓ | 0 | 10 | 15 | 120 | 47 | 3 | | | 85 |
| S | 22.00 | 22.27 | 22.00 | ✓ | 0 | 14 | 11 | 110 | 10 | 35 | 5 | | 160 |
| S | 24.00 | 24.25 | 24.00 | ✓ | 0 | 11 | 14 | 120 | 28 | 22 | | | 130 |
| S | 26.00 | 26.27 | 26.00 | ✓ | 0 | 10 | 15 | 120 | 23 | 27 | | | 145 |
| S | 28.00 | 28.38 | 28.00 | ✓ | 0 | 6 | 9 | 150 | 15 | 16 | 18 | 1 | 230 |
| S | 30.00 | 30.42 | 30.00 | ✓ | 0 | 3 | 6 | 150 | 11 | 13 | 15 | 11 | 265 |
| S | 32.00 | 32.33 | 32.00 | ✓ | 0 | 4 | 6 | 150 | 16 | 25 | 9 | | 175 |
| S | 34.00 | 34.26 | 34.00 | ✓ | 0 | 6 | 15 | 150 | 33 | 17 | | | 105 |
| S | 36.00 | 36.18 | 36.00 | ✓ | 0 | 18 | 7 | 90 | 40 | 10 | | | 90 |
| S | 38.00 | 38.17 | 38.00 | ✓ | 0 | 20 | 5 | 90 | 45 | 5 | | | 80 |
| S | 40.00 | 40.45 | 40.00 | ✓ | 0 | 1 | 8 | 150 | 8 | 12 | 10 | 10 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

10" Riser casing surged in to 1.70m. Drilling and sampling from M/L inside riser casing.

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From | 20:15 | To 17:45 | Total | 21.5 hrs |
| Drilling | 0.0 | Casing | | 0.0 hrs |
| Move and Set Up | | | | 0.0 hrs |
| Delays | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_02 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Monday 2019-07-22 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 12 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18:55 | 20.30 | 0.00 | 40.00 | ✓ | 146 | 146 | 38.00 | 40.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 19:40 | 20.30 | 0.00 | 41.00 | ✓ | 146 | 146 | 40.00 | 41.00 | 1.00 | 3 | 100.0 | Grey | 1.00 | 1 |
| 20:05 | 20.30 | 0.00 | 42.00 | ✓ | 146 | 146 | 41.00 | 42.00 | 1.00 | 4 | 100.0 | Grey | 0.95 | 2 |
| 20:55 | 20.30 | 0.00 | 43.00 | ✓ | 146 | 146 | 42.00 | 43.00 | 1.00 | 4 | 100.0 | Grey | 0.85 | 3 |
| 21:15 | 20.30 | 0.00 | 44.00 | ✓ | 146 | 146 | 43.00 | 44.00 | 1.00 | 9 | 100.0 | Grey | 0.95 | 4 |
| 22:10 | 20.30 | 0.00 | 44.70 | ✓ | 146 | 146 | 44.00 | 44.70 | 0.70 | 2 | 100.0 | Grey | 0.55 | 5 |
| 22:25 | 20.30 | 0.00 | 46.20 | ✓ | 146 | 146 | 44.70 | 46.20 | 1.50 | 5 | 100.0 | Grey | 0.95 | 6 |
| 22:45 | 20.30 | 0.00 | 47.70 | ✓ | 146 | 146 | 46.20 | 47.70 | 1.50 | 7 | 100.0 | Grey | 1.50 | 7 |
| 23:05 | 20.30 | 0.00 | 49.20 | ✓ | 146 | 146 | 47.70 | 49.20 | 1.50 | 5 | 100.0 | Grey | 1.50 | 8 |
| 00:10 | 20.30 | 0.00 | 50.70 | ✓ | 146 | 146 | 49.20 | 50.70 | 1.50 | 15 | 100.0 | Grey | 1.50 | 9 |
| 00:55 | 20.30 | 0.00 | 52.20 | ✓ | 146 | 146 | 50.70 | 52.20 | 1.50 | 15 | 100.0 | Grey | 1.50 | 10 |
| 01:30 | 20.30 | 0.00 | 53.70 | ✓ | 146 | 146 | 52.20 | 53.70 | 1.50 | 15 | 100.0 | Grey | 1.50 | 11 |
| 02:00 | 20.30 | 0.00 | 55.20 | ✓ | 146 | 146 | 53.70 | 55.20 | 1.50 | 20 | 100.0 | Grey | 1.46 | 12 |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 39.80 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 18:45 | To 02:00 | Total | 7.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_02 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Monday 2019-07-22 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 12 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| | | | | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 42.00 | 42.45 | 42.00 | ✓ | 0 | 6 | 3 | 150 | 8 | 8 | 9 | 10 | 300 |
| S | 44.00 | 44.45 | 44.00 | ✓ | 0 | 5 | 7 | 150 | 8 | 8 | 8 | 8 | 300 |
| | | | | | | | | | | | | | |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 18:45 | To 02:00 | Total | 7.3 | hrs |
| Drilling 0.0 | | Casing | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Cable Percussion Boring Daily Report

| | | | | | |
|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J. Lawson | Borehole No.: | IT1_SPT_03 |
| Contract No: | C1984 | Assistant: | J. Warner | Day and Date: | Thursday 2019-05-30 |
| Client: | NNB SZC | Rig Type: | Comacchio | SPT Hammer No: | SPT15 |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete |
| Weather: | DRY | Vehicle No.: | | | |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Boring by Chisel Tool | Boring by Chisel Hours |
|---|---|---|---|---|---|---|---|---|---|---|
| 07:15 | 17.20 | 0.00 | 0.70 | ✓ | 178 | 178 | 0.00 | 2.00 | | |
| 08:45 | 17.20 | 0.00 | 2.00 | ✓ | 178 | 178 | 2.00 | 4.00 | | |
| 09:50 | 17.20 | 0.00 | 4.00 | ✓ | 178 | 178 | 4.00 | 6.00 | | |
| 10:50 | 17.20 | 0.00 | 6.00 | ✓ | 178 | 178 | 6.00 | 8.00 | | |
| 11:15 | 17.20 | 0.00 | 8.00 | ✓ | 178 | 178 | 8.00 | 10.00 | | |
| 12:39 | 17.20 | 0.00 | 10.00 | ✓ | 178 | 178 | 10.00 | 12.00 | | |
| 13:20 | 17.20 | 0.00 | 12.00 | ✓ | 178 | 178 | 12.00 | 14.00 | | |
| 14:30 | 17.20 | 0.00 | 14.00 | ✓ | 178 | 178 | 14.00 | 16.00 | | |
| 16:00 | 17.20 | 0.00 | 16.00 | ✓ | 178 | 178 | 16.00 | 18.00 | | |
| 17:10 | 17.20 | 0.00 | 18.00 | ✓ | 178 | 178 | 18.00 | 20.00 | | |
| 19:02 | 17.20 | 0.00 | 20.00 | ✓ | 178 | 178 | 20.00 | 22.00 | | |
| 21:30 | 17.20 | 0.00 | 22.00 | ✓ | 146 | 146 | 22.00 | 24.00 | | |
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## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 8.00 | SAND |
| 12.00 | SAND AND SHELLS |
| 20.00 | SAND |
| 23.30 | CEMENTED SAND |
| 24.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Size of Trial Pits, Addition of Water, Pressuremeter Tests, Permeability Tests, Vane Tests, Grout, Backfilling, etc. (continue on last page)

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 00:00 | To | 23:45 | Total | 23.8 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Cable Percussion Boring Daily Report

| | | | | | |
|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J. Lawson | Borehole No.: | IT1_SPT_03 |
| Contract No: | C1984 | Assistant: | J. Warner | Day and Date: | Thursday 2019-05-30 |
| Client: | NNB SZC | Rig Type: | Comacchio | SPT Hammer No: | SPT15 |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete |
| Weather: | DRY | Vehicle No.: | | | |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 0.00 | 0.45 | 1 | | |
| D | 2.00 | 2.45 | 2 | | |
| D | 4.00 | 4.45 | 3 | | |
| D | 8.00 | 8.22 | 4 | | |
| D | 10.00 | 10.38 | 5 | | |
| D | 12.00 | 12.26 | 6 | | |
| D | 14.00 | 14.32 | 7 | | |
| D | 16.00 | 16.30 | 8 | | |
| D | 18.00 | 18.27 | 9 | | |
| D | 20.00 | 20.45 | 11 | | |
| D | 22.00 | 22.45 | 12 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.70 | ✓ | 0 | 2 | 4 | 150 | 5 | 6 | 8 | 7 | 300 |
| S | 2.00 | 2.45 | 2.00 | ✓ | 0 | 6 | 6 | 150 | 7 | 7 | 8 | 9 | 300 |
| S | 4.00 | 4.45 | 4.00 | ✓ | 0 | 4 | 6 | 150 | 8 | 11 | 10 | 21 | 300 |
| S | 6.00 | 6.45 | 6.00 | ✓ | 0 | 5 | 4 | 150 | 1 | 1 | 1 | 1 | 300 |
| S | 8.00 | 8.22 | 8.00 | ✓ | 0 | 13 | 12 | 120 | 39 | 11 | | | 100 |
| S | 10.00 | 10.38 | 10.00 | ✓ | 0 | 5 | 8 | 150 | 12 | 17 | 19 | 2 | 226 |
| S | 12.00 | 12.26 | 12.00 | ✓ | 0 | 13 | 12 | 105 | 21 | 26 | 3 | | 151 |
| S | 14.00 | 14.32 | 14.00 | ✓ | 0 | 7 | 13 | 150 | 20 | 26 | 4 | | 165 |
| S | 16.00 | 16.30 | 16.00 | ✓ | 0 | 9 | 16 | 150 | 21 | 29 | | | 150 |
| S | 18.00 | 18.27 | 18.00 | ✓ | 0 | 14 | 11 | 110 | 24 | 20 | 6 | | 160 |
| S | 20.00 | 20.45 | 20.00 | ✓ | 0 | 7 | 10 | 150 | 11 | 12 | 13 | 14 | 300 |
| S | 22.00 | 22.45 | 22.00 | ✓ | 0 | 7 | 8 | 150 | 11 | 12 | 14 | 13 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Size of Trial Pits, Addition of Water, Pressuremeter Tests, Permeability Tests, Vane Tests, Grout, Backfilling, etc. (continue on last page)

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 00:00 | To | 23:45 | Total | 23.8 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

| | |
|---|---|
| Project: | SZC 2019 Offshore Geound Investigation |
| Contract No: | C1984 |
| Client: | NNB SZC |
| Client's No.: | C000 |

**Additional Comments**

| | |
|---|---|
| Location: | IT1_SPT_03 |
| Day and Date: | Thursday 2019-05-30 |

Remarks

Switched to Geobore at 20.00m
Clay at 23.30m

Sketch

# NS Cable Percussion Boring Daily Report

| | | | | | |
|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J. Lawson | Borehole No.: | IT1_SPT_03 |
| Contract No: | C1984 | Assistant: | J. Warner | Day and Date: | Friday 2019-05-31 |
| Client: | NNB SZC | Rig Type: | Comacchio | SPT Hammer No: | SPT15 |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete |
| Weather: | Dry | Vehicle No.: | | | |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Boring by Chisel Tool | Boring by Chisel Hours |
|---|---|---|---|---|---|---|---|---|---|---|
| 00:10 | 17.20 | 0.00 | 24.00 | ✓ | 146 | 146 | 24.00 | 26.00 | | |
| 01:15 | 17.20 | 0.00 | 26.00 | ✓ | 146 | 146 | 26.00 | 28.00 | | |
| 02:30 | 17.20 | 0.00 | 28.00 | ✓ | 146 | 146 | 28.00 | 30.00 | | |
| 03:40 | 17.20 | 0.00 | 30.00 | ✓ | 146 | 146 | 30.00 | 32.00 | | |
| 04:45 | 17.20 | 0.00 | 32.00 | ✓ | 146 | 146 | 32.00 | 34.00 | | |
| 05:50 | 17.20 | 0.00 | 34.00 | ✓ | 146 | 146 | 34.00 | 36.00 | | |
| 07:30 | 17.20 | 0.00 | 36.00 | ✓ | 146 | 146 | 36.00 | 38.00 | | |
| 08:30 | 17.20 | 0.00 | 38.00 | ✓ | 146 | 146 | 38.00 | 40.00 | | |
| 09:30 | 17.20 | 0.00 | 40.00 | ✓ | 146 | 146 | 40.00 | 42.00 | | |
| 10:40 | 17.20 | 0.00 | 42.00 | ✓ | 146 | 146 | 42.00 | 44.00 | | |
| 12:15 | 17.20 | 0.00 | 44.00 | ✓ | 146 | 146 | 44.00 | 46.00 | | |
| 13:51 | 17.20 | 0.00 | 46.00 | ✓ | 146 | 146 | 46.00 | 48.00 | | |
| 15:20 | 17.20 | 0.00 | 48.00 | ✓ | 146 | 146 | 48.00 | 50.00 | | |
| 17:19 | 17.20 | 0.00 | 50.00 | ✓ | 146 | 146 | 50.00 | 52.00 | | |
| 19:20 | 17.20 | 0.00 | 52.00 | ✓ | 146 | 146 | 52.00 | 54.00 | | |
| 20:45 | 17.20 | 0.00 | 54.00 | ✓ | 146 | 146 | 54.00 | 55.00 | | |
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## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 55.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Size of Trial Pits, Addition of Water, Pressuremeter Tests, Permeability Tests, Vane Tests, Grout, Backfilling, etc. (continue on last page)

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 00:00 | To | 21:45 | Total | 21.8 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Cable Percussion Boring Daily Report

| | | | | | |
|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J. Lawson | Borehole No.: | IT1_SPT_03 |
| Contract No: | C1984 | Assistant: | J. Warner | Day and Date: | Friday 2019-05-31 |
| Client: | NNB SZC | Rig Type: | Comacchio | SPT Hammer No: | SPT15 |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete |
| Weather: | Dry | Vehicle No.: | | | |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 24.00 | 24.45 | 12 | | |
| D | 26.00 | 24.45 | 13 | | |
| D | 28.00 | 28.45 | 14 | | |
| D | 30.00 | 30.45 | 15 | | |
| D | 32.00 | 32.45 | 16 | | |
| D | 34.00 | 34.45 | 17 | | |
| D | 36.00 | 36.45 | 18 | | |
| D | 38.00 | 38.45 | 19 | | |
| D | 40.00 | 40.45 | 20 | | |
| D | 42.00 | 42.45 | 21 | | |
| D | 44.00 | 44.44 | 22 | | |
| D | 46.00 | 46.45 | 23 | | |
| D | 48.00 | 48.45 | 24 | | |
| D | 50.00 | 50.45 | 25 | | |
| D | 52.00 | 52.45 | 26 | | |
| D | 54.00 | 54.45 | 27 | | |
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## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 24.00 | 24.45 | 24.00 | ✓ | 0 | 5 | 5 | 150 | 7 | 11 | 8 | 10 | 300 |
| S | 26.00 | 26.45 | 26.00 | ✓ | 0 | 4 | 5 | 150 | 7 | 9 | 10 | 10 | 300 |
| S | 28.00 | 28.45 | 28.00 | ✓ | 0 | 4 | 6 | 150 | 7 | 9 | 9 | 10 | 300 |
| S | 30.00 | 30.45 | 30.00 | ✓ | 0 | 5 | 7 | 150 | 7 | 8 | 9 | 9 | 300 |
| S | 32.00 | 32.45 | 32.00 | ✓ | 0 | 5 | 4 | 150 | 6 | 9 | 10 | 9 | 300 |
| S | 34.00 | 34.45 | 34.00 | ✓ | 0 | 5 | 5 | 150 | 6 | 8 | 8 | 9 | 300 |
| S | 36.00 | 36.45 | 36.00 | ✓ | 0 | 5 | 5 | 150 | 5 | 8 | 8 | 7 | 300 |
| S | 38.00 | 38.45 | 38.00 | ✓ | 0 | 5 | 6 | 150 | 6 | 10 | 11 | 12 | 300 |
| S | 40.00 | 40.45 | 40.00 | ✓ | 0 | 5 | 7 | 150 | 7 | 10 | 10 | 10 | 300 |
| S | 42.00 | 42.45 | 42.00 | ✓ | 0 | 5 | 6 | 150 | 7 | 11 | 14 | 15 | 300 |
| S | 44.00 | 44.45 | 44.00 | ✓ | 0 | 5 | 7 | 150 | 12 | 12 | 14 | 12 | 300 |
| S | 46.00 | 46.45 | 46.00 | ✓ | 0 | 5 | 6 | 150 | 8 | 8 | 8 | 11 | 300 |
| S | 48.00 | 48.45 | 48.00 | ✓ | 0 | 5 | 7 | 150 | 8 | 8 | 10 | 10 | 300 |
| S | 50.00 | 50.45 | 50.00 | ✓ | 0 | 6 | 8 | 150 | 8 | 9 | 11 | 11 | 300 |
| S | 52.00 | 52.45 | 52.00 | ✓ | 0 | 5 | 8 | 150 | 8 | 8 | 9 | 11 | 300 |
| S | 54.00 | 54.45 | 54.00 | ✓ | 0 | 5 | 8 | 150 | 8 | 8 | 8 | 11 | 300 |
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| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Size of Trial Pits, Addition of Water, Pressuremeter Tests, Permeability Tests, Vane Tests, Grout, Backfilling, etc. (continue on last page)

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 00:00 | To | 21:45 | Total | 21.8 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_04 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Thursday 2019-07-18 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | FAIR | Vehicle No.: | | | | Core Boxes Used: 6 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06:30 | 15.90 | 0.00 | 0.00 | ✓ | 178 | 178 | 0.00 | 0.45 | 0.45 | 5 | 100.0 | Grey | 0.00 | |
| 06:40 | 15.90 | 0.00 | 2.00 | ✓ | 178 | 178 | 0.45 | 2.00 | 1.55 | 10 | 100.0 | Grey | 0.00 | |
| 07:05 | 15.90 | 0.00 | 4.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 10 | 100.0 | Grey | 0.00 | |
| 07:30 | 15.90 | 0.00 | 6.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 12 | 100.0 | Grey | 0.00 | |
| 08:00 | 15.90 | 0.00 | 8.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 12 | 100.0 | Grey | 0.00 | |
| 08:25 | 15.90 | 0.00 | 10.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 10 | 100.0 | Grey | 0.00 | |
| 08:45 | 15.90 | 0.00 | 12.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 8 | 100.0 | Grey | 0.00 | |
| 09:20 | 15.90 | 0.00 | 14.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 11 | 100.0 | Grey | 0.00 | |
| 09:50 | 15.90 | 0.00 | 16.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 10 | 100.0 | Grey | 0.00 | |
| 10:15 | 15.90 | 0.00 | 18.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 12 | 100.0 | Grey | 0.00 | |
| 10:45 | 15.90 | 0.00 | 20.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 10 | 100.0 | Grey | 0.00 | |
| 11:15 | 15.90 | 0.00 | 22.00 | ✓ | 178 | 178 | 20.00 | 22.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 12:00 | 15.90 | 0.00 | 24.00 | ✓ | 178 | 178 | 22.00 | 24.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 12:50 | 15.90 | 0.00 | 26.00 | ✓ | 178 | 178 | 24.00 | 26.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 14:00 | 15.90 | 0.00 | 26.90 | ✓ | 146 | 146 | 26.00 | 26.90 | 0.90 | 7 | 100.0 | Grey | 0.90 | 1 |
| 14:25 | 15.90 | 0.00 | 27.90 | ✓ | 146 | 146 | 26.90 | 27.90 | 1.00 | 10 | 100.0 | Grey | 1.00 | 2 |
| 14:55 | 15.90 | 0.00 | 29.40 | ✓ | 146 | 146 | 27.90 | 29.40 | 1.50 | 15 | 100.0 | Grey | 1.50 | 3 |
| 15:30 | 15.90 | 0.00 | 30.90 | ✓ | 146 | 146 | 29.40 | 30.90 | 1.50 | 16 | 100.0 | Grey | 1.50 | 4 |
| 15:55 | 15.90 | 0.00 | 32.40 | ✓ | 146 | 146 | 30.90 | 32.40 | 1.50 | 15 | 100.0 | Grey | 1.50 | 5 |
| 16:35 | 15.90 | 0.00 | 33.90 | ✓ | 146 | 146 | 32.40 | 33.90 | 1.50 | 15 | 100.0 | Grey | 1.50 | 6 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | SAND |
| 8.00 | DENSE SAND |
| 10.00 | SAND |
| 14.00 | DENSE SAND |
| 26.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

10" RISER CASING (225) SURGED IN 1.00m / Rotary drilling using 7" (178) casing from M/L inside 10" riser casing.

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 06:30 | To 16:45 | Total | 10.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_04 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Thursday 2019-07-18 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | FAIR | Vehicle No.: | | | | Core Boxes Used: 6 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
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## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.00 | ✓ | 0 | 3 | 2 | 150 | 3 | 3 | 4 | 4 | 300 |
| S | 2.00 | 2.45 | 2.00 | ✓ | 0 | 3 | 3 | 150 | 5 | 5 | 9 | 10 | 300 |
| S | 4.00 | 4.45 | 4.00 | ✓ | 0 | 2 | 4 | 150 | 6 | 9 | 10 | 9 | 300 |
| S | 6.00 | 6.45 | 6.00 | ✓ | 0 | 6 | 10 | 150 | 11 | 15 | 10 | 10 | 300 |
| S | 8.00 | 8.45 | 8.00 | ✓ | 0 | 4 | 6 | 150 | 7 | 9 | 9 | 7 | 300 |
| S | 10.00 | 10.45 | 10.00 | ✓ | 0 | 1 | 2 | 150 | 5 | 7 | 8 | 9 | 300 |
| S | 12.00 | 12.45 | 12.00 | ✓ | 0 | 2 | 3 | 150 | 4 | 6 | 10 | 10 | 300 |
| S | 14.00 | 14.43 | 14.00 | ✓ | 0 | 7 | 11 | 150 | 17 | 14 | 14 | 5 | 280 |
| S | 16.00 | 16.45 | 16.00 | ✓ | 0 | 4 | 8 | 150 | 7 | 10 | 10 | 10 | 300 |
| S | 18.00 | 18.45 | 18.00 | ✓ | 0 | 1 | 1 | 150 | 4 | 9 | 11 | 9 | 300 |
| S | 20.00 | 20.45 | 20.00 | ✓ | 0 | 3 | 4 | 150 | 4 | 10 | 15 | 16 | 300 |
| S | 22.00 | 22.45 | 22.00 | ✓ | 0 | 4 | 4 | 150 | 3 | 9 | 16 | 17 | 300 |
| S | 24.00 | 24.45 | 24.00 | ✓ | 0 | 1 | 8 | 150 | 10 | 10 | 10 | 13 | 300 |
| S | 26.00 | 26.45 | 26.00 | ✓ | 0 | 4 | 6 | 150 | 9 | 10 | 12 | 13 | 300 |
| | | | | | | | | | | | | | |
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| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

10" RISER CASING (225) SURGED IN 1.00m / Rotary drilling using 7" (178) casing from M/L inside 10" riser casing.

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 06:30 | To | 16:45 | Total | 10.3 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_04 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Thursday 2019-07-18 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 20 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17:05 | 15.90 | 0.00 | 35.40 | ✓ | 146 | 146 | 33.90 | 35.40 | 1.50 | 12 | 100.0 | Grey | 1.50 | 7 |
| 17:30 | 15.90 | 0.00 | 36.90 | ✓ | 146 | 146 | 35.40 | 36.90 | 1.50 | 12 | 100.0 | Grey | 1.50 | 8 |
| 18:30 | 15.90 | 0.00 | 38.40 | ✓ | 146 | 146 | 36.90 | 38.40 | 1.50 | 13 | 100.0 | Grey | 1.50 | 9 |
| 19:00 | 15.90 | 0.00 | 39.90 | ✓ | 146 | 146 | 38.40 | 39.90 | 1.50 | 9 | 100.0 | Grey | 1.50 | 10 |
| 19:30 | 15.90 | 0.00 | 41.40 | ✓ | 146 | 146 | 39.90 | 41.40 | 1.50 | 9 | 100.0 | Grey | 1.50 | 11 |
| 20:00 | 15.90 | 0.00 | 42.90 | ✓ | 146 | 146 | 41.40 | 42.90 | 1.50 | 8 | 100.0 | Grey | 1.50 | 12 |
| 20:25 | 15.90 | 0.00 | 44.40 | ✓ | 146 | 146 | 42.90 | 44.40 | 1.50 | 7 | 100.0 | Grey | 1.50 | 13 |
| 20:45 | 15.90 | 0.00 | 45.90 | ✓ | 146 | 146 | 44.40 | 45.90 | 1.50 | 8 | 100.0 | Grey | 1.50 | 14 |
| 21:10 | 15.90 | 0.00 | 47.40 | ✓ | 146 | 146 | 45.90 | 47.40 | 1.50 | 8 | 100.0 | Grey | 1.50 | 15 |
| 21:35 | 15.90 | 0.00 | 48.90 | ✓ | 146 | 146 | 47.40 | 48.90 | 1.50 | 9 | 100.0 | Grey | 1.40 | 16 |
| 22:00 | 15.90 | 0.00 | 50.40 | ✓ | 146 | 146 | 48.90 | 50.40 | 1.50 | 7 | 100.0 | Grey | 1.50 | 17 |
| 22:20 | 15.90 | 0.00 | 51.90 | ✓ | 146 | 146 | 50.40 | 51.90 | 1.50 | 8 | 100.0 | Grey | 1.50 | 18 |
| 22:40 | 15.90 | 0.00 | 53.40 | ✓ | 146 | 146 | 51.90 | 53.40 | 1.50 | 16 | 100.0 | Grey | 0.47 | 19 |
| 23:35 | 15.90 | 0.00 | 54.90 | ✓ | 146 | 146 | 53.40 | 54.90 | 1.50 | 11 | 100.0 | Grey | 1.50 | 20 |
| 00:15 | 15.90 | 0.00 | 56.40 | ✓ | 146 | 146 | 54.90 | 56.40 | 1.50 | 9 | 100.0 | Grey | 1.45 | 21 |
| 00:35 | 15.90 | 0.00 | 57.90 | ✓ | 146 | 146 | 56.40 | 57.90 | 1.50 | 8 | 100.0 | Grey | 1.50 | 22 |
| 01:00 | 15.90 | 0.00 | 59.40 | ✓ | 146 | 146 | 57.90 | 59.40 | 1.50 | 9 | 100.0 | Grey | 1.50 | 23 |
| 01:20 | 15.90 | 0.00 | 60.90 | ✓ | 146 | 146 | 59.40 | 60.90 | 1.50 | 8 | 100.0 | Grey | 1.50 | 24 |
| 01:40 | 15.90 | 0.00 | 62.40 | ✓ | 146 | 146 | 60.90 | 62.40 | 1.50 | 4 | 100.0 | Grey | 1.50 | 25 |
| 02:05 | 15.90 | 0.00 | 63.90 | ✓ | 146 | 146 | 62.40 | 63.90 | 1.50 | 3 | 100.0 | Grey | 1.37 | 26 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 33.90 | CLAY |
| 51.90 | LIMESTONE BAND |
| 53.40 | CLAY |
| 60.90 | CLAY / SAND |
| 62.40 | SAND |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 17:00 | To 02:15 | Total | 9.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_04 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Friday 2019-07-19 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 20 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02:25 | 15.90 | 0.00 | 65.40 | ✓ | 146 | 146 | 63.90 | 65.40 | 1.50 | 9 | 100.0 | Grey | 1.42 | 27 |
| 02:50 | 15.90 | 0.00 | 66.90 | ✓ | 146 | 146 | 65.40 | 66.90 | 1.50 | 14 | 100.0 | Grey | 1.50 | 28 |
| 03:20 | 15.90 | 0.00 | 68.40 | ✓ | 146 | 146 | 66.90 | 68.40 | 1.50 | 5 | 100.0 | Grey | 1.55 | 29 |
| 03:50 | 15.90 | 0.00 | 69.90 | ✓ | 146 | 146 | 68.40 | 69.90 | 1.50 | 14 | 100.0 | Grey | 1.50 | 30 |
| 04:20 | 15.90 | 0.00 | 71.40 | ✓ | 146 | 146 | 69.90 | 71.40 | 1.50 | 6 | 100.0 | Grey | 1.50 | 31 |
| 04:45 | 15.90 | 0.00 | 72.90 | ✓ | 146 | 146 | 71.40 | 72.90 | 1.50 | 4 | 100.0 | Red | 1.40 | 32 |
| 05:10 | 15.90 | 0.00 | 74.40 | ✓ | 146 | 146 | 72.90 | 74.40 | 1.50 | 9 | 100.0 | Grey | 1.50 | 33 |
| 05:35 | 15.90 | 0.00 | 75.90 | ✓ | 146 | 146 | 74.40 | 75.90 | 1.50 | 13 | 100.0 | Grey | 1.40 | 34 |
| 06:55 | 15.90 | 0.00 | 77.40 | ✓ | 146 | 146 | 75.90 | 77.40 | 1.50 | 11 | 100.0 | Grey | 1.50 | 35 |
| 07:25 | 15.90 | 0.00 | 78.90 | ✓ | 146 | 146 | 77.40 | 78.90 | 1.50 | 13 | 100.0 | Grey | 1.50 | 36 |
| 08:30 | 15.90 | 0.00 | 80.40 | ✓ | 146 | 146 | 78.90 | 80.40 | 1.50 | 14 | 100.0 | Grey | 1.50 | 37 |
| 09:00 | 15.90 | 0.00 | 81.90 | ✓ | 146 | 146 | 80.40 | 81.90 | 1.50 | 10 | 100.0 | Grey | 1.30 | 38 |
| 09:30 | 15.90 | 0.00 | 83.40 | ✓ | 146 | 146 | 81.90 | 83.40 | 1.50 | 12 | 100.0 | Grey | 1.50 | 39 |
| 10:00 | 15.90 | 0.00 | 84.90 | ✓ | 146 | 146 | 83.40 | 84.90 | 1.50 | 16 | 100.0 | Grey | 1.50 | 40 |
| 10:35 | 15.90 | 0.00 | 86.40 | ✓ | 146 | 146 | 84.90 | 86.40 | 1.50 | 4 | 100.0 | Grey | 0.84 | 41 |
| 11:05 | 15.90 | 0.00 | 87.90 | ✓ | 146 | 146 | 86.40 | 87.90 | 1.50 | 1 | 100.0 | White | 1.50 | 42 |
| 11:30 | 15.90 | 0.00 | 88.65 | ✓ | 146 | 146 | 87.90 | 88.65 | 0.75 | 1 | 100.0 | White | 0.75 | 43 |
| 12:20 | 15.90 | 0.00 | 89.40 | ✓ | 146 | 146 | 88.65 | 89.40 | 0.75 | 6 | 100.0 | White | 0.65 | 44 |
| 12:45 | 15.90 | 0.00 | 90.90 | ✓ | 146 | 146 | 89.40 | 90.90 | 1.50 | 5 | 100.0 | White | 1.50 | 45 |
| 13:15 | 15.90 | 0.00 | 92.40 | ✓ | 146 | 146 | 90.90 | 92.40 | 1.50 | 4 | 100.0 | White | 0.95 | 46 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 63.90 | CLAY / SAND |
| 66.90 | CLAY |
| 69.90 | CLAY / SAND |
| 71.40 | CLAY / RED SILTY SAND |
| 72.90 | CLAY |
| 84.90 | CLAY / CHALK / FLINTS |
| 86.40 | CHALK / FLINTS |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 02:15 | To 13:15 | Total | 11.0 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_04 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Friday 2019-07-19 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | WET | Vehicle No.: | | | | Core Boxes Used: 12 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13:50 | 15.90 | 0.00 | 93.90 | ✓ | 146 | 146 | 92.40 | 93.90 | 1.50 | 2 | 100.0 | White | 1.45 | 47 |
| 14:20 | 15.90 | 0.00 | 95.40 | ✓ | 146 | 146 | 93.90 | 95.40 | 1.50 | 1 | 100.0 | White | 1.50 | 48 |
| 14:40 | 15.90 | 0.00 | 96.90 | ✓ | 146 | 146 | 95.40 | 96.90 | 1.50 | 2 | 100.0 | White | 1.45 | 49 |
| 15:05 | 15.90 | 0.00 | 98.40 | ✓ | 146 | 146 | 96.90 | 98.40 | 1.50 | 2 | 100.0 | White | 1.50 | 50 |
| 15:45 | 15.90 | 0.00 | 99.90 | ✓ | 146 | 146 | 98.40 | 99.90 | 1.50 | 2 | 100.0 | White | 1.45 | 51 |
| 16:15 | 15.90 | 0.00 | 101.40 | ✓ | 146 | 146 | 99.90 | 101.40 | 1.50 | 2 | 100.0 | White | 1.20 | 52 |
| 16:45 | 15.90 | 0.00 | 102.90 | ✓ | 146 | 146 | 101.40 | 102.90 | 1.50 | 6 | 100.0 | White | 1.45 | 53 |
| 17:15 | 15.90 | 0.00 | 104.40 | ✓ | 146 | 146 | 102.90 | 104.40 | 1.50 | 4 | 100.0 | White | 1.50 | 54 |
| 17:30 | 15.90 | 0.00 | 105.90 | ✓ | 146 | 146 | 104.40 | 105.90 | 1.50 | 4 | 100.0 | White | 1.25 | 55 |
| 19:00 | 15.90 | 0.00 | 107.40 | ✓ | 146 | 146 | 105.90 | 107.40 | 1.50 | 1 | 100.0 | White | 1.40 | 56 |
| 20:00 | 15.90 | 0.00 | 108.90 | ✓ | 146 | 146 | 107.40 | 108.90 | 1.50 | 2 | 100.0 | White | 0.12 | 57 |
| 21:00 | 15.90 | 0.00 | 110.40 | ✓ | 146 | 146 | 108.90 | 110.40 | 1.50 | 3 | 100.0 | White | 1.50 | 58 |
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Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 92.40 | CHALK / FLINTS |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 13:45 | To 21:00 | Total | 7.3 | hrs |
| Drilling 0.0 | | Casing | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_05 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Monday 2019-07-15 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 7 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05:30 | 24.10 | 0.00 | 0.00 | ✓ | 178 | 178 | 0.00 | 0.45 | 0.45 | 5 | 100.0 | Grey | 0.00 | |
| 06:40 | 24.10 | 0.00 | 2.00 | ✓ | 178 | 178 | 0.45 | 2.00 | 1.55 | 25 | 100.0 | Grey | 0.00 | |
| 07:05 | 24.10 | 0.00 | 4.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 07:35 | 24.10 | 0.00 | 6.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 08:10 | 24.10 | 0.00 | 8.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 08:40 | 24.10 | 0.00 | 10.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 09:20 | 24.10 | 0.00 | 12.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 25 | 100.0 | Grey | 0.00 | |
| 09:55 | 24.10 | 0.00 | 14.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 10:25 | 24.10 | 0.00 | 16.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 10:55 | 24.10 | 0.00 | 18.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 11:30 | 24.10 | 0.00 | 20.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 12:05 | 24.10 | 0.00 | 22.00 | ✓ | 178 | 178 | 20.00 | 22.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 14:00 | 24.10 | 0.00 | 24.00 | ✓ | 146 | 146 | 22.00 | 24.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 14:24 | 24.10 | 0.00 | 24.00 | ✓ | 146 | 146 | 24.00 | 25.00 | 1.00 | 7 | 100.0 | Grey | 1.00 | 1 |
| 14:45 | 24.10 | 0.00 | 25.00 | ✓ | 146 | 146 | 25.00 | 26.00 | 1.00 | 6 | 100.0 | Grey | 1.00 | 2 |
| 15:30 | 24.10 | 0.00 | 26.00 | ✓ | 146 | 146 | 26.00 | 27.00 | 1.00 | 7 | 100.0 | Grey | 1.00 | 3 |
| 16:00 | 24.10 | 0.00 | 27.00 | ✓ | 146 | 146 | 27.00 | 28.00 | 1.00 | 6 | 100.0 | Grey | 1.00 | 4 |
| 16:40 | 24.10 | 0.00 | 28.00 | ✓ | 146 | 146 | 28.00 | 29.00 | 1.00 | 6 | 100.0 | Grey | 1.00 | 5 |
| 17:10 | 24.10 | 0.00 | 29.00 | ✓ | 146 | 146 | 29.00 | 30.50 | 1.50 | 8 | 100.0 | Grey | 1.50 | 6 |
| 17:30 | 24.10 | 0.00 | 30.50 | ✓ | 146 | 146 | 30.50 | 32.00 | 1.50 | 7 | 100.0 | Grey | 1.50 | 7 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | SAND |
| 23.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

04-45- 10" casing (225) surged in 1.00m bml - Rotary drilling ops commence using 178 casing from M/L inside 10" casing

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 05:30 | To | 17:30 | Total | 12.0 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1_SPT_05 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Monday 2019-07-15 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS12 SP | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 7 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
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## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.00 | ✓ | 0 | 2 | 4 | 150 | 5 | 4 | 5 | 7 | 300 |
| S | 2.00 | 2.45 | 2.00 | ✓ | 0 | 2 | 3 | 150 | 5 | 5 | 4 | 5 | 300 |
| S | 4.00 | 4.45 | 4.00 | ✓ | 0 | 2 | 4 | 150 | 8 | 7 | 5 | 6 | 300 |
| S | 6.00 | 6.45 | 6.00 | ✓ | 0 | 2 | 3 | 150 | 4 | 6 | 6 | 7 | 300 |
| S | 8.00 | 8.45 | 8.00 | ✓ | 0 | 3 | 3 | 150 | 3 | 4 | 6 | 8 | 300 |
| S | 10.00 | 10.45 | 10.00 | ✓ | 0 | 5 | 7 | 150 | 7 | 7 | 9 | 9 | 300 |
| S | 12.00 | 12.45 | 12.00 | ✓ | 0 | 4 | 4 | 150 | 5 | 6 | 7 | 6 | 300 |
| S | 14.00 | 14.45 | 14.00 | ✓ | 0 | 7 | 8 | 150 | 8 | 7 | 8 | 9 | 300 |
| S | 16.00 | 16.45 | 16.00 | ✓ | 0 | 5 | 6 | 150 | 7 | 9 | 10 | 8 | 300 |
| S | 18.00 | 18.45 | 18.00 | ✓ | 0 | 4 | 4 | 150 | 10 | 6 | 10 | 10 | 300 |
| S | 20.00 | 20.45 | 20.00 | ✓ | 0 | 3 | 3 | 150 | 2 | 4 | 13 | 11 | 300 |
| S | 22.00 | 22.45 | 22.00 | ✓ | 0 | 3 | 4 | 150 | 4 | 9 | 12 | 14 | 300 |
| S | 24.00 | 24.45 | 24.00 | ✓ | 0 | 5 | 6 | 150 | 7 | 9 | 9 | 10 | 300 |
| S | 26.00 | 26.45 | 26.00 | ✓ | 0 | 7 | 7 | 150 | 7 | 8 | 9 | 10 | 300 |
| S | 28.00 | 28.45 | 28.00 | ✓ | 0 | 5 | 6 | 150 | 6 | 8 | 8 | 10 | 300 |
| | | | | | | | | | | | | | |
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| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

04-45- 10" casing (225) surged in 1.00m bml - Rotary drilling ops commence using 178 casing from M/L inside 10" casing

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 05:30 | To | 17:30 | Total | 12.0 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT1-SPT-05 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Monday 2019-07-15 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 16 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18:40 | 24.10 | 0.00 | 32.00 | ✓ | 146 | 146 | 32.00 | 33.50 | 1.50 | 6 | 100.0 | Grey | 1.50 | 8 |
| 19:00 | 24.10 | 0.00 | 33.50 | ✓ | 146 | 146 | 33.50 | 35.00 | 1.50 | 5 | 100.0 | Grey | 1.50 | 9 |
| 19:20 | 24.10 | 0.00 | 35.00 | ✓ | 146 | 146 | 35.00 | 36.50 | 1.50 | 5 | 100.0 | Grey | 1.50 | 10 |
| 19:45 | 24.10 | 0.00 | 36.50 | ✓ | 146 | 146 | 36.50 | 38.00 | 1.50 | 6 | 100.0 | Grey | 1.50 | 11 |
| 20:10 | 24.10 | 0.00 | 38.00 | ✓ | 146 | 146 | 38.00 | 39.50 | 1.50 | 6 | 100.0 | Grey | 1.50 | 12 |
| 20:30 | 24.10 | 0.00 | 39.50 | ✓ | 146 | 146 | 39.50 | 41.00 | 1.50 | 5 | 100.0 | Grey | 1.50 | 13 |
| 20:55 | 24.10 | 0.00 | 41.00 | ✓ | 146 | 146 | 41.00 | 42.50 | 1.50 | 5 | 100.0 | Grey | 1.50 | 14 |
| 21:15 | 24.10 | 0.00 | 42.50 | ✓ | 146 | 146 | 42.50 | 44.00 | 1.50 | 4 | 100.0 | Grey | 1.40 | 15 |
| 21:30 | 24.10 | 0.00 | 44.00 | ✓ | 146 | 146 | 44.00 | 45.50 | 1.50 | 5 | 100.0 | Grey | 1.50 | 16 |
| 22:00 | 24.10 | 0.00 | 45.50 | ✓ | 146 | 146 | 45.50 | 47.00 | 1.50 | 4 | 100.0 | Grey | 1.50 | 17 |
| 22:20 | 24.10 | 0.00 | 47.00 | ✓ | 146 | 146 | 47.00 | 48.50 | 1.50 | 4 | 100.0 | Grey | 1.50 | 18 |
| 22:40 | 24.10 | 0.00 | 48.50 | ✓ | 146 | 146 | 48.50 | 50.00 | 1.50 | 4 | 100.0 | Grey | 1.50 | 19 |
| 23:00 | 24.10 | 0.00 | 50.00 | ✓ | 146 | 146 | 50.00 | 51.50 | 1.50 | 4 | 100.0 | Grey | 1.50 | 20 |
| 23:15 | 24.10 | 0.00 | 51.50 | ✓ | 146 | 146 | 51.50 | 53.00 | 1.50 | 4 | 100.0 | Grey | 1.50 | 21 |
| 23:30 | 24.10 | 0.00 | 53.00 | ✓ | 146 | 146 | 53.00 | 54.50 | 1.50 | 5 | 100.0 | Grey | 1.50 | 22 |
| 23:45 | 24.10 | 0.00 | 54.50 | ✓ | 146 | 146 | 54.50 | 56.00 | 1.50 | 2 | 100.0 | Grey | 0.95 | 23 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 55.50 | SAND |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 18:30 | To 00:00 | Total 5.5 | | hrs |
| Drilling 0.0 | | Casing 0.0 | | hrs |
| Move and Set Up | | 0.0 | | hrs |
| Delays | | 0.0 | | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J Lawson | Borehole No.: | IT1_SPT_06 | | |
| Contract No: | C1984 | Assistant: | J Warner | Day and Date: | Wednesday 2019-06-05 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS120 | SPT Hammer No: | spt 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | fine | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 03:05 | 25.20 | 0.00 | 0.00 | ✓ | 178 | 178 | 0.00 | 2.00 | 2.00 | 40 | 0.0 | Clear | 0.00 | |
| 04:10 | 25.20 | 0.00 | 2.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | |
| 04:40 | 25.20 | 0.00 | 4.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | |
| 05:15 | 25.20 | 0.00 | 6.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | |
| 06:55 | 25.20 | 0.00 | 8.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 40 | 0.0 | Clear | 0.00 | |
| 07:35 | 25.20 | 0.00 | 10.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | |
| 08:05 | 25.20 | 0.00 | 12.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 25 | 0.0 | Clear | 0.00 | |
| 08:45 | 25.20 | 0.00 | 14.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 25 | 0.0 | Clear | 0.00 | |
| 09:15 | 25.20 | 0.00 | 16.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | |
| 09:50 | 25.20 | 0.00 | 18.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | |
| 10:35 | 25.20 | 0.00 | 20.00 | ✓ | 178 | 178 | 20.00 | 22.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | |
| 11:15 | 25.20 | 0.00 | 22.00 | ✓ | 178 | 178 | 22.00 | 24.00 | 2.00 | 30 | 0.0 | Clear | 0.00 | |
| 12:35 | 25.20 | 0.00 | 24.00 | ✓ | 146 | 146 | 24.00 | 26.00 | 2.00 | 35 | 100.0 | Grey | 0.00 | |
| 15:00 | 25.20 | 0.00 | 26.00 | ✓ | 146 | 146 | 26.00 | 28.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | |
| 16:00 | 25.20 | 0.00 | 28.00 | ✓ | 146 | 146 | 28.00 | 30.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | |
| 17:07 | 25.20 | 0.00 | 30.00 | ✓ | 146 | 146 | 30.00 | 32.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | |
| 18:51 | 25.20 | 0.00 | 32.00 | ✓ | 146 | 146 | 32.00 | 34.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 20:01 | 25.20 | 0.00 | 34.00 | ✓ | 146 | 146 | 34.00 | 36.00 | 2.00 | 50 | 100.0 | Grey | 0.00 | |
| 21:05 | 25.20 | 0.00 | 36.00 | ✓ | 146 | 146 | 36.00 | 38.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | |
| 22:14 | 25.20 | 0.00 | 38.00 | ✓ | 146 | 146 | 38.00 | 40.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | SAND |
| 23.30 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Wash bore (Open Hole) with 7" casing down from Mud Line to 24.00mBML, using Purebore as polymer flush. Switch to Geobore Rotary Core from 24.00mBML - 55.00mBML, using seawater as flush. No cores were retained.

D21 Sample: correct interval depth: 40.00m - 40.45m.

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 00:00 | To | 23:45 | Total | 23.8 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J Lawson | Borehole No.: | IT1_SPT_06 | | |
| Contract No: | C1984 | Assistant: | J Warner | Day and Date: | Wednesday 2019-06-05 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12 | SPT Hammer No: | spt 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | fine | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 0.00 | 0.45 | 1 | | |
| D | 2.00 | 2.45 | 2 | | |
| D | 4.00 | 4.45 | 3 | | |
| D | 6.00 | 6.45 | 4 | | |
| D | 8.00 | 8.45 | 5 | | |
| D | 10.00 | 10.45 | 6 | | |
| D | 12.00 | 12.45 | 7 | | |
| D | 14.00 | 14.45 | 8 | | |
| D | 16.00 | 16.45 | 9 | | |
| D | 18.00 | 18.45 | 10 | | |
| D | 20.00 | 20.45 | 11 | | |
| D | 22.00 | 22.45 | 12 | | |
| D | 24.00 | 24.45 | 13 | | |
| D | 26.00 | 26.45 | 14 | | |
| D | 28.00 | 28.45 | 15 | | |
| D | 30.00 | 30.45 | 16 | | |
| D | 32.00 | 32.45 | 17 | | |
| D | 34.00 | 34.45 | 18 | | |
| D | 36.00 | 36.45 | 19 | | |
| D | 38.00 | 38.45 | 20 | | |
| D | 40.00 | 40.00 | 21 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 1.50 | ✓ | 0 | 2 | 2 | 150 | 4 | 6 | 8 | 9 | 300 |
| S | 2.00 | 2.45 | 2.00 | ✓ | 0 | 2 | 5 | 150 | 7 | 11 | 11 | 11 | 300 |
| S | 4.00 | 4.45 | 4.00 | ✓ | 0 | 2 | 3 | 150 | 4 | 8 | 8 | 8 | 300 |
| S | 6.00 | 6.45 | 6.00 | ✓ | 0 | 5 | 7 | 150 | 11 | 12 | 14 | 13 | 300 |
| S | 8.00 | 8.45 | 8.00 | ✓ | 0 | 1 | 1 | 150 | 4 | 6 | 9 | 7 | 300 |
| S | 10.00 | 10.45 | 10.00 | ✓ | 0 | 3 | 3 | 150 | 5 | 6 | 6 | 5 | 300 |
| S | 12.00 | 12.45 | 12.00 | ✓ | 0 | 5 | 8 | 150 | 9 | 13 | 11 | 11 | 300 |
| S | 14.00 | 14.45 | 14.00 | ✓ | 0 | 4 | 4 | 150 | 4 | 6 | 6 | 6 | 300 |
| S | 16.00 | 16.45 | 16.00 | ✓ | 0 | 4 | 5 | 150 | 6 | 6 | 8 | 8 | 300 |
| S | 18.00 | 18.45 | 18.00 | ✓ | 0 | 4 | 8 | 150 | 11 | 12 | 13 | 14 | 300 |
| S | 20.00 | 20.45 | 20.00 | ✓ | 0 | 6 | 7 | 150 | 8 | 12 | 11 | 11 | 300 |
| S | 22.00 | 22.45 | 22.00 | ✓ | 0 | 2 | 6 | 150 | 8 | 10 | 10 | 10 | 300 |
| S | 24.00 | 24.45 | 24.00 | ✓ | 0 | 4 | 5 | 150 | 4 | 4 | 6 | 6 | 300 |
| S | 26.00 | 26.45 | 26.00 | ✓ | 0 | 4 | 4 | 150 | 5 | 8 | 8 | 10 | 300 |
| S | 28.00 | 28.45 | 28.00 | ✓ | 0 | 5 | 5 | 150 | 7 | 6 | 8 | 9 | 300 |
| S | 30.00 | 30.45 | 30.00 | ✓ | 0 | 4 | 4 | 150 | 5 | 7 | 8 | 8 | 300 |
| S | 32.00 | 32.45 | 32.00 | ✓ | 0 | 4 | 5 | 150 | 6 | 7 | 8 | 9 | 300 |
| S | 34.00 | 34.45 | 34.00 | ✓ | 0 | 5 | 5 | 150 | 6 | 6 | 7 | 9 | 300 |
| S | 36.00 | 36.45 | 36.00 | ✓ | 0 | 4 | 6 | 150 | 6 | 10 | 9 | 13 | 300 |
| S | 38.00 | 38.45 | 38.00 | ✓ | 0 | 4 | 7 | 150 | 10 | 11 | 15 | 14 | 300 |
| S | 40.00 | 40.45 | 40.00 | ✓ | 0 | 6 | 10 | 150 | 10 | 12 | 13 | 14 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Wash bore (Open Hole) with 7" casing down from Mud Line to 24.00mBML, using Purebore as polymer flush. Switch to Geobore Rotary Core from 24.00mBML - 55.00mBML, using seawater as flush. No cores were retained.

D21 Sample: correct interval depth: 40.00m - 40.45m.

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J Lawson | Borehole No.: | IT1_SPT_06 | | |
| Contract No: | C1984 | Assistant: | J Warner | Day and Date: | Thursday 2019-06-06 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS120 | SPT Hammer No: | spt15 | Flush: water | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | fine | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23:21 | 25.20 | 0.00 | 40.00 | ✓ | 146 | 146 | 40.00 | 42.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 01:00 | 25.20 | 0.00 | 42.00 | ✓ | 146 | 146 | 42.00 | 44.00 | 2.00 | 50 | 100.0 | Grey | 0.00 | |
| 02:45 | 25.20 | 0.00 | 44.00 | ✓ | 146 | 146 | 44.00 | 46.00 | 2.00 | 65 | 100.0 | Grey | 0.00 | |
| 04:10 | 25.20 | 0.00 | 46.00 | ✓ | 146 | 146 | 46.00 | 48.00 | 2.00 | 65 | 100.0 | Grey | 0.00 | |
| 05:30 | 25.20 | 0.00 | 48.00 | ✓ | 146 | 146 | 48.00 | 50.00 | 2.00 | 70 | 100.0 | Grey | 0.00 | |
| 07:30 | 25.20 | 0.00 | 50.00 | ✓ | 146 | 146 | 50.00 | 52.00 | 2.00 | 75 | 100.0 | Grey | 0.00 | |
| 08:55 | 25.20 | 0.00 | 52.00 | ✓ | 146 | 146 | 52.00 | 54.00 | 2.00 | 70 | 100.0 | Grey | 0.00 | |
| 10:30 | 25.20 | 0.00 | 54.00 | ✓ | 146 | 146 | 54.00 | 55.00 | 1.00 | 45 | 100.0 | Grey | 0.00 | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 46.00 | LIMESTONE |
| 48.00 | CLAY |
| 50.00 | LIMESTONE |
| 52.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J Lawson | Borehole No.: | IT1_SPT_06 | | |
| Contract No: | C1984 | Assistant: | J Warner | Day and Date: | Thursday 2019-06-06 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | spt15 | Flush: water | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | fine | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 42.00 | 42.38 | 22 | | |
| D | 44.00 | 44.45 | 23 | | |
| D | 46.00 | 46.11 | 24 | | |
| D | 48.00 | 48.45 | 25 | | |
| D | 52.00 | 52.45 | 26 | | |
| D | 54.00 | 54.45 | 27 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 42.00 | 42.38 | 42.00 | ✓ | 0 | 5 | 8 | 150 | 9 | 12 | 19 | 10 | 230 |
| S | 44.00 | 44.45 | 44.00 | ✓ | 0 | 5 | 7 | 150 | 8 | 13 | 14 | 15 | 300 |
| S | 46.00 | 46.11 | 46.00 | ✓ | 0 | 5 | 20 | 105 | 50 | | | | 5 |
| S | 48.00 | 48.45 | 48.00 | ✓ | 0 | 7 | 6 | 150 | 6 | 8 | 8 | 8 | 300 |
| S | 50.00 | 50.01 | 50.00 | ✓ | 0 | 25 | | 10 | 50 | | | | 0 |
| S | 52.00 | 52.45 | 52.00 | ✓ | 0 | 5 | 7 | 150 | 7 | 8 | 9 | 10 | 300 |
| S | 54.00 | 54.45 | 54.00 | ✓ | 0 | 6 | 8 | 150 | 8 | 9 | 11 | 11 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J. Lawson | Borehole No.: | IT1_SPT_07 | | |
| Contract No: | C1984 | Assistant: | J. Warner | Day and Date: | Sunday 2019-06-02 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: water | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | Fine | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18:50 | 23.70 | 0.00 | 1.10 | ✓ | 178 | 178 | 0.00 | 2.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 19:49 | 23.70 | 0.00 | 2.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 20:15 | 23.70 | 0.00 | 4.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 21:20 | 23.70 | 0.00 | 6.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 22:30 | 23.70 | 0.00 | 8.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 23:20 | 23.70 | 0.00 | 10.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 00:20 | 23.70 | 0.00 | 12.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | |
| 01:05 | 23.70 | 0.00 | 14.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 25 | 100.0 | Grey | 0.00 | |
| 01:30 | 23.70 | 0.00 | 16.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 02:00 | 23.70 | 0.00 | 18.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 02:30 | 23.70 | 0.00 | 20.00 | ✓ | 178 | 178 | 20.00 | 22.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 03:00 | 23.70 | 0.00 | 22.00 | ✓ | 178 | 178 | 22.00 | 24.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 03:30 | 23.70 | 0.00 | 24.00 | ✓ | 178 | 178 | 24.00 | 26.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 05:05 | 23.70 | 0.00 | 26.00 | ✓ | 146 | 146 | 26.00 | 28.00 | 2.00 | 60 | 100.0 | Grey | 0.00 | |
| 07:30 | 23.70 | 0.00 | 28.00 | ✓ | 146 | 146 | 28.00 | 30.00 | 2.00 | 60 | 100.0 | Grey | 0.00 | |
| 08:40 | 23.70 | 0.00 | 30.00 | ✓ | 146 | 146 | 30.00 | 32.00 | 2.00 | 50 | 100.0 | Grey | 0.00 | |
| 09:50 | 23.70 | 0.00 | 32.00 | ✓ | 146 | 146 | 32.00 | 34.00 | 2.00 | 50 | 100.0 | Grey | 0.00 | |
| 10:50 | 23.70 | 0.00 | 34.00 | ✓ | 146 | 146 | 34.00 | 36.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 12:10 | 23.70 | 0.00 | 36.00 | ✓ | 146 | 146 | 36.00 | 38.00 | 2.00 | 55 | 100.0 | Grey | 0.00 | |
| 13:20 | 23.70 | 0.00 | 38.00 | ✓ | 146 | 146 | 38.00 | 40.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 23.30 | SAND |
| 40.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J. Lawson | Borehole No.: | IT1_SPT_07 | | |
| Contract No: | C1984 | Assistant: | J. Warner | Day and Date: | Sunday 2019-06-02 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT 15 | Flush: water | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | Fine | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 2.00 | 2.45 | 1 | | |
| D | 4.00 | 4.45 | 2 | | |
| D | 6.00 | 6.45 | 3 | | |
| D | 8.00 | 8.45 | 4 | | |
| D | 10.00 | 10.45 | 5 | | |
| D | 12.00 | 12.45 | 6 | | |
| D | 14.00 | 14.45 | 7 | | |
| D | 16.00 | 16.45 | 8 | | |
| D | 18.00 | 18.45 | 9 | | |
| D | 20.00 | 20.45 | 10 | | |
| D | 22.00 | 22.45 | 11 | | |
| D | 24.00 | 24.45 | 12 | | |
| D | 26.00 | 26.45 | 13 | | |
| D | 28.00 | 28.45 | 14 | | |
| D | 30.00 | 30.45 | 15 | | |
| D | 32.00 | 32.45 | 16 | | |
| D | 34.00 | 34.45 | 17 | | |
| D | 36.00 | 36.45 | 18 | | |
| D | 38.00 | 38.45 | 19 | | |
| | | | | | |
| | | | | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.00 | ✓ | 0 | 3 | 3 | 150 | 3 | 3 | 3 | 4 | 300 |
| S | 2.00 | 2.45 | 2.00 | ✓ | 0 | 2 | 4 | 150 | 3 | 4 | 4 | 5 | 300 |
| S | 4.00 | 4.45 | 4.00 | ✓ | 0 | 3 | 4 | 150 | 3 | 5 | 5 | 5 | 300 |
| S | 6.00 | 6.45 | 6.00 | ✓ | 0 | 3 | 4 | 150 | 4 | 7 | 7 | 9 | 300 |
| S | 8.00 | 8.45 | 8.00 | ✓ | 0 | 5 | 6 | 150 | 7 | 6 | 5 | 7 | 300 |
| S | 10.00 | 10.45 | 10.00 | ✓ | 0 | 5 | 5 | 150 | 6 | 7 | 7 | 8 | 300 |
| S | 12.00 | 12.45 | 12.00 | ✓ | 0 | 2 | 4 | 150 | 3 | 4 | 4 | 5 | 300 |
| S | 14.00 | 14.45 | 14.00 | ✓ | 0 | 4 | 4 | 150 | 5 | 4 | 6 | 7 | 300 |
| S | 16.00 | 16.45 | 16.00 | ✓ | 0 | 3 | 3 | 150 | 4 | 5 | 6 | 9 | 300 |
| S | 18.00 | 18.45 | 18.00 | ✓ | 0 | 5 | 5 | 150 | 5 | 7 | 8 | 9 | 300 |
| S | 20.00 | 20.45 | 20.00 | ✓ | 0 | 1 | 2 | 150 | 3 | 6 | 9 | 11 | 300 |
| S | 22.00 | 22.45 | 22.00 | ✓ | 0 | 2 | 5 | 150 | 6 | 10 | 12 | 14 | 300 |
| S | 24.00 | 24.45 | 24.00 | ✓ | 0 | 5 | 6 | 150 | 7 | 10 | 11 | 10 | 300 |
| S | 26.00 | 26.45 | 26.00 | ✓ | 0 | 4 | 5 | 150 | 7 | 8 | 8 | 9 | 300 |
| S | 28.00 | 28.45 | 28.00 | ✓ | 0 | 4 | 5 | 150 | 6 | 7 | 8 | 9 | 300 |
| S | 30.00 | 30.45 | 30.00 | ✓ | 0 | 3 | 5 | 150 | 5 | 8 | 9 | 9 | 300 |
| S | 32.00 | 32.45 | 32.00 | ✓ | 0 | 4 | 5 | 150 | 5 | 6 | 7 | 8 | 300 |
| S | 34.00 | 34.45 | 34.00 | ✓ | 0 | 4 | 5 | 150 | 6 | 7 | 7 | 7 | 300 |
| S | 36.00 | 36.45 | 36.00 | ✓ | 0 | 1 | 1 | 150 | 6 | 6 | 7 | 10 | 300 |
| S | 38.00 | 38.45 | 38.00 | ✓ | 0 | 4 | 6 | 150 | 8 | 8 | 9 | 11 | 300 |
| S | 40.00 | 40.45 | 40.00 | ✓ | 0 | 5 | 5 | 150 | 8 | 9 | 9 | 12 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J. Lawson | Borehole No.: | IT1_SPT_07 | | |
| Contract No: | C1984 | Assistant: | J. Warner | Day and Date: | Monday 2019-06-03 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT15 | Flush: water | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | Fine | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14:30 | 23.70 | 0.00 | 40.00 | ✓ | 146 | 146 | 40.00 | 42.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 16:05 | 23.70 | 0.00 | 42.00 | ✓ | 146 | 146 | 42.00 | 44.00 | 2.00 | 65 | 100.0 | Grey | 0.00 | |
| 17:15 | 23.70 | 0.00 | 44.00 | ✓ | 146 | 146 | 44.00 | 46.00 | 2.00 | 55 | 100.0 | Grey | 0.00 | |
| 19:20 | 23.70 | 0.00 | 46.00 | ✓ | 146 | 146 | 46.00 | 48.00 | 2.00 | 60 | 100.0 | Grey | 0.00 | |
| 20:40 | 23.70 | 0.00 | 48.00 | ✓ | 146 | 146 | 48.00 | 50.00 | 2.00 | 55 | 100.0 | Grey | 0.00 | |
| 21:55 | 23.70 | 0.00 | 50.00 | ✓ | 146 | 146 | 50.00 | 52.00 | 2.00 | 55 | 100.0 | Grey | 0.00 | |
| 23:00 | 23.70 | 0.00 | 52.00 | ✓ | 146 | 146 | 52.00 | 54.00 | 2.00 | 50 | 100.0 | Grey | 0.00 | |
| 00:45 | 23.70 | 0.00 | 54.00 | ✓ | 146 | 146 | 54.00 | 55.00 | 1.00 | 30 | 100.0 | Grey | 0.00 | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 55.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J. Lawson | Borehole No.: | IT1_SPT_07 | | |
| Contract No: | C1984 | Assistant: | J. Warner | Day and Date: | Monday 2019-06-03 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT15 | Flush: water | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | Fine | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 42.00 | 42.45 | 21 | | |
| D | 44.00 | 44.45 | 22 | | |
| D | 46.00 | 46.45 | 23 | | |
| D | 48.00 | 48.45 | 24 | | |
| D | 50.00 | 50.45 | 25 | | |
| D | 52.00 | 52.45 | 26 | | |
| D | 54.00 | 54.45 | 27 | | |
| D | 40.00 | 40.45 | 20 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 42.00 | 42.45 | 42.00 | ✓ | 0 | 6 | 5 | 150 | 7 | 8 | 8 | 11 | 300 |
| S | 44.00 | 44.45 | 44.00 | ✓ | 0 | 5 | 8 | 150 | 9 | 9 | 11 | 15 | 300 |
| S | 46.00 | 46.45 | 46.00 | ✓ | 0 | 4 | 7 | 150 | 9 | 9 | 11 | 14 | 300 |
| S | 48.00 | 48.45 | 48.00 | ✓ | 0 | 7 | 9 | 150 | 10 | 10 | 9 | 13 | 300 |
| S | 50.00 | 50.45 | 50.00 | ✓ | 0 | 5 | 6 | 150 | 10 | 9 | 11 | 11 | 300 |
| S | 52.00 | 52.45 | 52.00 | ✓ | 0 | 5 | 5 | 150 | 8 | 8 | 10 | 10 | 300 |
| S | 54.00 | 54.45 | 54.00 | ✓ | 0 | 6 | 6 | 150 | 6 | 11 | 11 | 11 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 09,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH 1T2 SB 01 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
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| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 9 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | it2-sb-01 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□ | □□□□□ | □□□□ | □□□□ | □□□□□ | □ | □□□d□□□□□□ □□□□□□□□□□□□□□□□ □□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□□ |
| □□□□□□□□□ | | □□□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 10.06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT2 SB 01 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
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| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 10 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | it2-sb-01 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□ | □□□□ | □□□□□ | □□□□ | □ | □□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | □□□□ | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□ | | □□□□□ |
| □□□□□□□□ | | □□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 13,07,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT2 SB 02 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
| □□□ | □□□□ | □□□□ | □□□ | □□□□ | □" | □A□D□□□□□□□□□□□□□□ | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | □□ | |
| Gas Valve | □□ | |
| Geotextile Wrap | M | |
| Bentonite Pellets | □A□□ | |
| Gravel | □A□□ | |
| Well Cover | □□ | |
| Lock | | |
| Polymer | | |
| Cement | □A□□ | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| □□M□□AR□□□ | |
| □□□A□□□□□ | |
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## Comments (note any problems from pre-shift inspections here)

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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 4 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 13/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | IT2 SB02 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | 167 |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | 8 |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| 16.00 | 17.50 | 1.35 | 16.00 | 17.50 | 6" | Sand | | | | | |
| 17.50 | 19.00 | 1.50 | 17.50 | 19.00 | " | Sand | | | | | |
| 19.00 | 20.50 | 1.30 | 19.00 | 20.50 | " | Sand | | | | | |
| 20.50 | 22.00 | 1.50 | 20.50 | 22.00 | " | Sand | | | | | |
| 22.00 | 23.50 | 1.50 | 22.00 | 23.50 | " | Sand | | | | | |
| 23.50 | 25.00 | 1.40 | 23.50 | 25.00 | " | Sand | | | | | |
| 25.00 | 26.50 | 1.50 | 25.00 | 26.50 | " | Sand | | | | | |
| 26.50 | 28.00 | 1.10 | 26.50 | 28.00 | " | Sand | | | | | |
| 28.00 | 29.50 | 1.50 | 28.00 | 29.50 | " | Sand | | | | | |
| 29.50 | 31.00 | 1.50 | 29.50 | 31.00 | " | Sand | | | | | |
| 31.00 | 32.50 | 1.50 | 31.00 | 32.50 | " | Sand(Casing Snapped) | | | | | |
| 32.50 | 34.00 | 0.00 | 32.50 | 34.00 | " | Sand(Casing Snapped) | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| PAUL JEANS | | 12 |
| MARK WETTON | | 12 |
| | | |
| | | |

## Comments (note any problems from pre-shift inspections here)

12.00hrs-19.30hrs Drilling. 19.30hrs-21.30hrs Recover Snapped Casing. 21.30hrs-22.00hrs Drilling. 22.00hrs-00.00hrs Recover Snapped Casing

Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 07/07/2019 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | it2 sb 03 | Corebarrel Size / Diameter: | split barrel |
| Inspection Pit | n | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | □□□□ | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | □□□□□ | |
| flange casing | □□□□ | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 07/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | SB03 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 8 7 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | it2 sb 03 | Corebarrel Size / Diameter: | split barrel |
| Inspection Pit | n | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□ | □□□□ | □□□□□ | □□□□ | □ | □□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | □□□□ | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
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| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
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## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 22,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | IT2 SB 04 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 23/06/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | SB04 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 23,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH IT2 SB 04 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 24/06/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | | SB04 | | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□□ | □□□□ | □□□□□ | □□□□□ | □" | □□□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □A□□□□A□□ | | □□ |
| MAR□□□ □□□□□ | | □□ |
| | | |
| | | |

## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | James Lawson | Borehole No.: | IT2_SPT_01 | | |
| Contract No: | C1984 | Assistant: | Jake Warner | Day and Date: | Sunday 2019-06-09 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | Good Weather Conditions | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 04:30 | 16.70 | 0.00 | 1.10 | ✓ | 178 | 255 | 0.00 | 2.00 | 2.00 | 40 | 0.0 | Clear | 0.00 | ✓ |
| 05:15 | 16.70 | 0.00 | 2.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 30 | 0.0 | Clear | 0.00 | ✓ |
| 07:00 | 16.70 | 0.00 | 4.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | ✓ |
| 07:25 | 16.70 | 0.00 | 6.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | ✓ |
| 07:45 | 16.70 | 0.00 | 8.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | ✓ |
| 08:15 | 16.70 | 0.00 | 10.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 25 | 0.0 | Clear | 0.00 | ✓ |
| 08:50 | 16.70 | 0.00 | 12.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 30 | 0.0 | Clear | 0.00 | ✓ |
| 09:15 | 16.70 | 0.00 | 14.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 35 | 0.0 | Clear | 0.00 | ✓ |
| 09:55 | 16.70 | 0.00 | 16.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 30 | 0.0 | Clear | 0.00 | ✓ |
| 10:25 | 16.70 | 0.00 | 18.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 30 | 0.0 | Clear | 0.00 | ✓ |
| 10:55 | 16.70 | 0.00 | 20.00 | ✓ | 178 | 178 | 20.00 | 22.00 | 2.00 | 20 | 0.0 | Clear | 0.00 | ✓ |
| 12:07 | 16.70 | 0.00 | 22.00 | ✓ | 178 | 178 | 22.00 | 24.00 | 2.00 | 30 | 0.0 | Clear | 0.00 | ✓ |
| 13:30 | 16.70 | 0.00 | 24.00 | ✓ | 146 | 146 | 24.00 | 26.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | ✓ |
| 14:00 | 16.70 | 0.00 | 26.00 | ✓ | 146 | 146 | 26.00 | 28.00 | 2.00 | 35 | 100.0 | Grey | 0.00 | ✓ |
| 17:00 | 16.70 | 0.00 | 28.00 | ✓ | 146 | 146 | 28.00 | 30.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | ✓ |
| 17:45 | 16.70 | 0.00 | 30.00 | ✓ | 146 | 146 | 30.00 | 32.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | ✓ |
| 18:50 | 16.70 | 0.00 | 32.00 | ✓ | 146 | 146 | 32.00 | 34.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | ✓ |
| 20:30 | 16.70 | 0.00 | 34.00 | ✓ | 146 | 146 | 34.00 | 36.00 | 2.00 | 35 | 100.0 | Grey | 0.00 | ✓ |
| 21:15 | 16.70 | 0.00 | 36.00 | ✓ | 146 | 146 | 36.00 | 38.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | ✓ |
| 22:00 | 16.70 | 0.00 | 38.00 | ✓ | 146 | 146 | 38.00 | 40.00 | 2.00 | 40 | 100.0 | Grey | 0.00 | ✓ |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 41.00 | SAND (Boundary SAND / CLAY at 41.00m). |
| 55.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

10" Conductor Casing sat at 1.10mBML.

Wash bore (Open Hole) with 7" casing down from Mud Line to 22.00mBML, using Purebore plus seawater as polymer flush. Switch to Geobore Rotary Core from 22.00mBML - 55.00mBML, using seawater as flush. No cores were retained. Core Recovery not measured.

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 04:30 | To 22:00 | Total | 17.5 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | James Lawson | Borehole No.: | IT2_SPT_01 | | |
| Contract No: | C1984 | Assistant: | Jake Warner | Day and Date: | Sunday 2019-06-09 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | Good Weather Conditions | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 0.00 | 0.34 | 1 | | |
| D | 2.00 | 2.45 | 2 | | |
| D | 4.00 | 4.45 | 3 | | |
| D | 6.00 | 6.45 | 4 | | |
| D | 8.00 | 8.45 | 5 | | |
| D | 10.00 | 10.42 | 6 | | |
| D | 12.00 | 12.31 | 7 | | |
| D | 16.00 | 16.33 | 8 | | |
| D | 18.00 | 18.31 | 9 | | |
| D | 20.00 | 20.23 | 10 | | |
| D | 22.00 | 22.23 | 11 | | |
| D | 24.00 | 24.21 | 12 | | |
| D | 26.00 | 26.18 | 13 | | |
| D | 28.00 | 28.21 | 14 | | |
| D | 30.00 | 30.19 | 15 | | |
| D | 32.00 | 32.17 | 16 | | |
| D | 34.00 | 34.21 | 17 | | |
| D | 36.00 | 36.17 | 18 | | |
| D | 38.00 | 38.21 | 19 | | |
| | | | | | |
| | | | | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.34 | 1.10 | 0.00 | 0 | 6 | 10 | 150 | 19 | 25 | 6 | | 190 |
| S | 2.00 | 2.45 | 2.00 | 0.00 | 0 | 8 | 7 | 150 | 8 | 9 | 12 | 16 | 300 |
| S | 4.00 | 4.45 | 4.00 | 0.00 | 0 | 2 | 3 | 150 | 5 | 8 | 10 | 11 | 300 |
| S | 6.00 | 6.45 | 6.00 | 0.00 | 0 | 3 | 6 | 150 | 5 | 8 | 9 | 8 | 300 |
| S | 8.00 | 8.45 | 8.00 | 0.00 | 0 | 3 | 2 | 150 | 5 | 8 | 11 | 11 | 300 |
| S | 10.00 | 10.42 | 10.00 | 0.00 | 0 | 9 | 16 | 150 | 9 | 16 | 21 | 4 | 270 |
| S | 12.00 | 12.39 | 12.00 | 0.00 | 0 | 5 | 7 | 150 | 13 | 20 | 14 | 3 | 240 |
| S | 14.00 | 14.12 | 14.00 | 0.00 | 0 | 14 | 11 | 45 | 50 | | | | 70 |
| S | 16.00 | 16.33 | 16.00 | 0.00 | 0 | 7 | 9 | 150 | 17 | 23 | 10 | | 180 |
| S | 18.00 | 18.31 | 18.00 | 0.00 | 0 | 8 | 10 | 150 | 20 | 25 | 5 | | 160 |
| S | 20.00 | 20.23 | 20.00 | 0.00 | 0 | 5 | 20 | 150 | 40 | 10 | | | 80 |
| S | 22.00 | 22.23 | 22.00 | 0.00 | 0 | 3 | 18 | 150 | 25 | 25 | | | 80 |
| S | 24.00 | 24.21 | 24.00 | 0.00 | 0 | 21 | 4 | 105 | 31 | 19 | | | 105 |
| S | 26.00 | 26.19 | 26.00 | 0.00 | 0 | 21 | 4 | 80 | 32 | 18 | | | 105 |
| S | 28.00 | 28.21 | 28.00 | 0.00 | 0 | 16 | 9 | 115 | 37 | 13 | | | 95 |
| S | 30.00 | 30.19 | 30.00 | 0.00 | 0 | 20 | 5 | 85 | 35 | 15 | | | 105 |
| S | 32.00 | 32.17 | 32.00 | 0.00 | 0 | 23 | 2 | 85 | 40 | 10 | | | 80 |
| S | 34.00 | 34.21 | 34.00 | 0.00 | 0 | 17 | 8 | 125 | 28 | 22 | | | 85 |
| S | 36.00 | 36.17 | 36.00 | 0.00 | 0 | 18 | 7 | 85 | 38 | 12 | | | 85 |
| S | 38.00 | 38.21 | 38.00 | 0.00 | 0 | 12 | 13 | 100 | 20 | 30 | | | 105 |
| | | | | | | | | | | | | | |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

10" Conductor Casing sat at 1.10mBML.

Wash bore (Open Hole) with 7" casing down from Mud Line to 22.00mBML, using Purebore plus seawater as polymer flush. Switch to Geobore Rotary Core from 22.00mBML - 55.00mBML, using seawater as flush. No cores were retained. Core Recovery not measured.

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 04:30 | To 22:00 | Total | 17.5 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | James Lawson | Borehole No.: | IT2_SPT_01 | | |
| Contract No: | C1984 | Assistant: | Jake Warner | Day and Date: | Monday 2019-06-10 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT15 | Flush: water | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | Good Weather Conditions | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23:00 | 16.70 | 0.00 | 40.00 | ✓ | 146 | 146 | 0.00 | 42.00 | 42.00 | 50 | 100.0 | Grey | 0.00 | ✓ |
| 00:10 | 16.70 | 0.00 | 42.00 | ✓ | 146 | 146 | 42.00 | 44.00 | 2.00 | 65 | 100.0 | Grey | 0.00 | ✓ |
| 01:30 | 16.70 | 0.00 | 44.00 | ✓ | 146 | 146 | 44.00 | 46.00 | 2.00 | 55 | 100.0 | Grey | 0.00 | ✓ |
| 02:55 | 16.70 | 0.00 | 46.00 | ✓ | 146 | 146 | 46.00 | 48.00 | 2.00 | 65 | 100.0 | Grey | 0.00 | ✓ |
| 04:20 | 16.70 | 0.00 | 48.00 | ✓ | 146 | 146 | 48.00 | 50.00 | 2.00 | 70 | 100.0 | Grey | 0.00 | ✓ |
| 05:30 | 16.70 | 0.00 | 50.00 | ✓ | 146 | 146 | 50.00 | 52.00 | 2.00 | 55 | 100.0 | Grey | 0.00 | ✓ |
| 07:20 | 16.70 | 0.00 | 52.00 | ✓ | 146 | 146 | 52.00 | 54.00 | 2.00 | 60 | 100.0 | Grey | 0.00 | ✓ |
| 08:45 | 16.70 | 0.00 | 54.00 | ✓ | 146 | 146 | 54.00 | 55.00 | 1.00 | 60 | 100.0 | Grey | 0.00 | ✓ |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Start Drilling Record Depth: At 40.00m.

Borehole terminated at 55.00mBML.

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 23:00 | To 08:45 | Total | 9.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | James Lawson | Borehole No.: | IT2_SPT_01 | | |
| Contract No: | C1984 | Assistant: | Jake Warner | Day and Date: | Monday 2019-06-10 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT15 | Flush: water | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | Good Weather Conditions | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 40.00 | 40.20 | 20 | | |
| D | 42.00 | 42.45 | 21 | | |
| D | 44.00 | 44.45 | 22 | | |
| D | 46.00 | 46.45 | 23 | | |
| D | 48.00 | 48.45 | 24 | | |
| D | 50.00 | 50.45 | 25 | | |
| D | 52.00 | 52.45 | 26 | | |
| D | 54.00 | 54.45 | 27 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 40.00 | 40.20 | 40.00 | 0.00 | 0 | 19 | 6 | 95 | 41 | 9 | | | 100 |
| S | 42.00 | 42.45 | 42.00 | 0.00 | 0 | 4 | 6 | 150 | 6 | 9 | 9 | 9 | 300 |
| S | 44.00 | 44.45 | 44.00 | 0.00 | 0 | 4 | 5 | 150 | 5 | 7 | 10 | 8 | 300 |
| S | 46.00 | 46.45 | 46.00 | 0.00 | 0 | 5 | 5 | 150 | 6 | 9 | 8 | 8 | 300 |
| S | 48.00 | 48.45 | 48.00 | 0.00 | 0 | 3 | 3 | 150 | 4 | 7 | 8 | 9 | 300 |
| S | 50.00 | 50.45 | 50.00 | 0.00 | 0 | 3 | 4 | 150 | 6 | 7 | 9 | 9 | 300 |
| S | 52.00 | 52.45 | 52.00 | 0.00 | 0 | 5 | 6 | 150 | 7 | 10 | 11 | 11 | 300 |
| S | 54.00 | 54.45 | 54.00 | 0.00 | 0 | 5 | 8 | 150 | 8 | 15 | 13 | 13 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Start Drilling Record Depth: At 40.00m.

Borehole terminated at 55.00mBML.

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 23:00 | To | 08:45 | Total | 9.8 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT2_SPT_02 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Saturday 2019-07-13 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 03:05 | 17.50 | 0.00 | 0.00 | ✓ | 178 | 178 | 0.00 | 0.00 | 0.00 | 5 | 100.0 | Grey | 0.00 | |
| 03:30 | 17.50 | 0.00 | 2.00 | ✓ | 178 | 178 | 0.00 | 2.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 04:05 | 17.50 | 0.00 | 4.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 04:30 | 17.50 | 0.00 | 6.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 12 | 100.0 | Grey | 0.00 | |
| 05:05 | 17.50 | 0.00 | 8.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 17 | 100.0 | Grey | 0.00 | |
| 05:30 | 17.50 | 0.00 | 10.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 07:15 | 17.50 | 0.00 | 12.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 09:10 | 17.50 | 0.00 | 14.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 70 | 100.0 | Grey | 0.00 | |
| 10:20 | 17.50 | 0.00 | 16.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 11:10 | 17.50 | 0.00 | 18.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 12:00 | 17.50 | 0.00 | 20.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 13:05 | 17.50 | 0.00 | 22.00 | ✓ | 178 | 178 | 20.00 | 22.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 14:30 | 17.50 | 0.00 | 24.00 | ✓ | 178 | 178 | 22.00 | 24.00 | 2.00 | 65 | 100.0 | Grey | 0.00 | |
| 15:40 | 17.50 | 0.00 | 26.00 | ✓ | 146 | 146 | 24.00 | 26.00 | 2.00 | 55 | 100.0 | Grey | 0.00 | |
| 16:20 | 17.50 | 0.00 | 28.00 | ✓ | 146 | 146 | 26.00 | 28.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 19:05 | 17.50 | 0.00 | 30.00 | ✓ | 146 | 146 | 28.00 | 30.00 | 2.00 | 110 | 100.0 | Grey | 0.00 | |
| 20:15 | 17.50 | 0.00 | 32.00 | ✓ | 146 | 146 | 30.00 | 32.00 | 2.00 | 50 | 100.0 | Grey | 0.00 | |
| 21:25 | 17.50 | 0.00 | 34.00 | ✓ | 146 | 146 | 32.00 | 34.00 | 2.00 | 50 | 100.0 | Grey | 0.00 | |
| 22:30 | 17.50 | 0.00 | 36.00 | ✓ | 146 | 146 | 34.00 | 36.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 23:10 | 17.50 | 0.00 | 38.00 | ✓ | 146 | 146 | 36.00 | 38.00 | 2.00 | 25 | 100.0 | Grey | 0.00 | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | SAND |
| 10.00 | DENSE SAND |
| 16.00 | SAND / SILTY CLAY / DENSE SAND |
| 18.00 | DENSE SAND |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

02:30 - Surge in 10" casing riser (225) to 1.30m

03:05 Start rotary drilling and sampling ops from M/L inside 10" casing

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 03:00 | To 23:15 | Total | 20.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT2_SPT_02 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Saturday 2019-07-13 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
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## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.00 | ✓ | 0 | 3 | 5 | 150 | 7 | 10 | 12 | 10 | 300 |
| S | 2.00 | 2.45 | 2.00 | ✓ | 0 | 4 | 9 | 150 | 6 | 9 | 9 | 8 | 300 |
| S | 4.00 | 4.45 | 4.00 | ✓ | 0 | 4 | 6 | 150 | 7 | 7 | 10 | 9 | 300 |
| S | 6.00 | 6.45 | 6.00 | ✓ | 0 | 3 | 5 | 150 | 3 | 3 | 2 | 2 | 300 |
| S | 8.00 | 8.32 | 8.00 | ✓ | 0 | 2 | 5 | 150 | 15 | 17 | 18 | | 170 |
| S | 10.00 | 10.29 | 10.00 | ✓ | 0 | 5 | 15 | 150 | 25 | 25 | | | 140 |
| S | 12.00 | 12.25 | 12.00 | ✓ | 0 | 3 | 17 | 150 | 34 | 16 | | | 100 |
| S | 14.00 | 14.28 | 14.00 | ✓ | 0 | 11 | 14 | 140 | 23 | 27 | | | 140 |
| S | 16.00 | 16.24 | 16.00 | ✓ | 0 | 5 | 20 | 140 | 25 | 25 | | | 100 |
| S | 18.00 | 18.25 | 18.00 | ✓ | 0 | 7 | 18 | 140 | 42 | 8 | | | 110 |
| S | 20.00 | 20.26 | 20.00 | ✓ | 0 | 6 | 19 | 135 | 28 | 22 | | | 120 |
| S | 22.00 | 22.25 | 22.00 | ✓ | 0 | 10 | 15 | 135 | 30 | 20 | | | 115 |
| S | 24.00 | 24.25 | 24.00 | ✓ | 0 | 8 | 17 | 140 | 30 | 20 | | | 105 |
| S | 26.00 | 26.21 | 26.00 | ✓ | 0 | 11 | 14 | 125 | 40 | 10 | | | 85 |
| S | 28.00 | 28.24 | 28.00 | ✓ | 0 | 7 | 18 | 140 | 36 | 14 | | | 100 |
| S | 30.00 | 30.23 | 30.00 | ✓ | 0 | 9 | 16 | 130 | 35 | 15 | | | 100 |
| S | 32.00 | 32.39 | 32.00 | ✓ | 0 | 6 | 14 | 150 | 10 | 18 | 20 | 2 | 235 |
| S | 34.00 | 34.36 | 34.00 | ✓ | 0 | 5 | 7 | 150 | 14 | 17 | 19 | | 205 |
| S | 36.00 | 36.22 | 36.00 | ✓ | 0 | 10 | 15 | 120 | 37 | 13 | | | 100 |
| S | 38.00 | 38.20 | 38.00 | ✓ | 0 | 14 | 11 | 105 | 35 | 15 | | | 95 |
| S | 40.00 | 40.20 | 40.00 | ✓ | 0 | 16 | 9 | 100 | 35 | 15 | | | 100 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

02:30 - Surge in 10" casing riser (225) to 1.30m

03:05 Start rotary drilling and sampling ops from M/L inside 10" casing

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 03:00 | To | 23:15 | Total | 20.3 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT2_SPT_02 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Sunday 2019-07-14 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 7 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:20 | 17.50 | 0.00 | 40.00 | ✓ | 146 | 146 | 38.00 | 40.00 | 2.00 | 50 | 100.0 | Grey | 0.00 | |
| 01:05 | 17.50 | 0.00 | 42.00 | ✓ | 146 | 146 | 40.00 | 42.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 02:05 | 17.50 | 0.00 | 44.00 | ✓ | 146 | 146 | 42.00 | 44.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 03:10 | 17.50 | 0.00 | 46.00 | ✓ | 146 | 146 | 44.00 | 46.00 | 2.00 | 45 | 100.0 | Grey | 0.00 | |
| 03:30 | 17.50 | 0.00 | 47.00 | ✓ | 146 | 146 | 46.00 | 47.00 | 1.00 | 8 | 100.0 | Grey | 1.00 | 1 |
| 04:00 | 17.50 | 0.00 | 48.00 | ✓ | 146 | 146 | 47.00 | 48.00 | 1.00 | 5 | 100.0 | Grey | 1.00 | 2 |
| 04:55 | 17.50 | 0.00 | 49.00 | ✓ | 146 | 146 | 48.00 | 49.00 | 1.00 | 5 | 100.0 | Grey | 0.95 | 3 |
| 05:20 | 17.50 | 0.00 | 50.00 | ✓ | 146 | 146 | 49.00 | 50.00 | 1.00 | 6 | 100.0 | Grey | 1.05 | 4 |
| 06:40 | 17.50 | 0.00 | 50.50 | ✓ | 146 | 146 | 50.00 | 50.50 | 0.50 | 3 | 100.0 | Grey | 0.45 | 4 |
| 07:05 | 17.50 | 0.00 | 52.00 | ✓ | 146 | 146 | 50.50 | 52.00 | 1.50 | 9 | 100.0 | Grey | 1.50 | 5 |
| 07:30 | 17.50 | 0.00 | 53.50 | ✓ | 146 | 146 | 52.00 | 53.50 | 1.50 | 8 | 100.0 | Grey | 1.50 | 6 |
| 08:20 | 17.50 | 0.00 | 55.00 | ✓ | 146 | 146 | 53.50 | 55.00 | 1.50 | 11 | 100.0 | Grey | 1.40 | 7 |
| | | | | | | | | | | | | | | |
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Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 38.00 | DENSE SAND |
| 45.00 | SAND INTO CLAY |
| 46.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:15 | To 08:30 | Total | 8.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE | Borehole No.: | IT2_SPT_02 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Sunday 2019-07-14 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 7 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| | | | | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 42.00 | 42.26 | 42.00 | ✓ | 0 | 13 | 12 | 130 | 23 | 27 | | | 130 |
| S | 44.00 | 44.13 | 44.00 | ✓ | 0 | 25 | | 70 | 50 | | | | 60 |
| S | 46.00 | 46.45 | 46.00 | ✓ | 0 | 5 | 6 | 150 | 13 | 21 | 10 | 6 | 300 |
| S | 48.00 | 48.45 | 48.00 | ✓ | 0 | 4 | 5 | 150 | 7 | 10 | 4 | 9 | 300 |
| S | 50.00 | 50.45 | 50.00 | ✓ | 0 | 2 | 2 | 150 | 5 | 6 | 6 | 8 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:15 | To 08:30 | Total | 8.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Cable Percussion Boring Daily Report

| | | | | | |
|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE/J.SANDY | Borehole No.: | IT2_SPT_03 |
| Contract No: | C1984 | Assistant: | | Day and Date: | Sunday 2019-07-07 |
| Client: | NNB EDF | Rig Type: | Comacchio | SPT Hammer No: | SPT 15 |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete |
| Weather: | GOOD | Vehicle No.: | | | |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Boring by Chisel Tool | Boring by Chisel Hours |
|---|---|---|---|---|---|---|---|---|---|---|
| 03:30 | 24.50 | 0.00 | 0.00 | ✓ | 225 | 225 | 0.00 | 0.45 | | |
| 03:40 | 24.50 | 0.00 | 0.50 | ✓ | 225 | 225 | 0.45 | 0.50 | | |
| 03:50 | 24.50 | 0.00 | 1.00 | ✓ | 225 | 225 | 0.50 | 1.00 | | |
| 04:10 | 24.50 | 0.00 | 1.50 | ✓ | 225 | 225 | 1.00 | 1.50 | | |

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | FINE SILTY SAND |
| 0.50 | SILTY SAND |

## REMARKS

Standing Time, Dayworks, Breakdowns, Size of Trial Pits, Addition of Water, Pressuremeter Tests, Permeability Tests, Vane Tests, Grout, Backfilling, etc. (continue on last page)

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 03:30 | To | 04:15 | Total | 0.8 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Cable Percussion Boring Daily Report

| | | | | | |
|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE/J.SANDY | Borehole No.: | IT2_SPT_03 |
| Contract No: | C1984 | Assistant: | | Day and Date: | Sunday 2019-07-07 |
| Client: | NNB EDF | Rig Type: | Comacchio | SPT Hammer No: | SPT 15 |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete |
| Weather: | GOOD | Vehicle No.: | | | |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| B | 0.00 | 0.50 | 1 | | |
| B | 0.50 | 1.00 | 2 | | |
| B | 1.00 | 1.50 | 3 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.00 | ✓ | 0 | 3 | 2 | 150 | 4 | 6 | 6 | 4 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Size of Trial Pits, Addition of Water, Pressuremeter Tests, Permeability Tests, Vane Tests, Grout, Backfilling, etc. (continue on last page)

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 03:30 | To | 04:15 | Total | 0.8 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE/J.SANDY | Borehole No.: | IT2_SPT_03 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Sunday 2019-07-07 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 1 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 04:55 | 24.50 | 0.00 | 2.00 | ✓ | 178 | 178 | 0.00 | 2.00 | 2.00 | 30 | 0.0 | Grey | 0.00 | |
| 05:45 | 24.50 | 0.00 | 4.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 20 | 0.0 | Grey | 0.00 | |
| 10:05 | 24.50 | 0.00 | 6.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 20 | 0.0 | Grey | 0.00 | |
| 10:40 | 24.50 | 0.00 | 8.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 20 | 0.0 | Grey | 0.00 | |
| 11:30 | 24.50 | 0.00 | 10.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 20 | 0.0 | Grey | 0.00 | |
| 12:10 | 24.50 | 0.00 | 12.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 25 | 0.0 | Grey | 0.00 | |
| 12:45 | 24.50 | 0.00 | 14.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 25 | 0.0 | Grey | 0.00 | |
| 13:50 | 24.50 | 0.00 | 16.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 40 | 0.0 | Grey | 0.00 | |
| 16:00 | 24.50 | 0.00 | 18.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 90 | 0.0 | Grey | 0.00 | |
| 17:00 | 24.50 | 0.00 | 20.00 | ✓ | 146 | 146 | 18.00 | 20.00 | 2.00 | 40 | 0.0 | Grey | 0.00 | |
| 18:30 | 24.50 | 0.00 | 22.00 | ✓ | 146 | 146 | 20.00 | 22.00 | 2.00 | 45 | 0.0 | Grey | 0.00 | |
| 19:10 | 24.50 | 0.00 | 24.00 | ✓ | 146 | 146 | 22.00 | 24.00 | 2.00 | 20 | 0.0 | Grey | 0.00 | |
| 21:10 | 24.50 | 0.00 | 26.00 | ✓ | 146 | 146 | 24.00 | 26.00 | 2.00 | 75 | 0.0 | Grey | 0.00 | |
| 22:10 | 24.50 | 0.00 | 28.00 | ✓ | 146 | 146 | 26.00 | 28.00 | 2.00 | 40 | 0.0 | Grey | 0.00 | |
| 22:50 | 24.50 | 0.00 | 30.00 | ✓ | 146 | 146 | 28.00 | 30.00 | 2.00 | 30 | 0.0 | Grey | 0.00 | |
| 00:15 | 24.50 | 0.00 | 32.00 | ✓ | 146 | 146 | 30.00 | 32.00 | 2.00 | 60 | 0.0 | Grey | 0.00 | |
| 01:40 | 24.50 | 0.00 | 34.00 | ✓ | 146 | 146 | 32.00 | 34.00 | 2.00 | 25 | 0.0 | Grey | 0.00 | |
| 02:10 | 24.50 | 0.00 | 35.00 | ✓ | 146 | 146 | 34.00 | 35.00 | 1.00 | 8 | 100.0 | Grey | 1.00 | 1 |
| 02:40 | 24.50 | 0.00 | 36.00 | ✓ | 146 | 146 | 35.00 | 36.00 | 1.00 | 9 | 100.0 | Grey | 1.00 | 1 |
| 03:55 | 24.50 | 0.00 | 37.00 | ✓ | 146 | 146 | 36.00 | 37.00 | 1.00 | 7 | 100.0 | Grey | 1.00 | 1 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 2.00 | FINE SAND |
| 6.00 | SAND |
| 12.00 | DENSE SAND |
| 34.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

06:30 - 09:40 Stand down and wait for Sonic hole to get ahead because we are getting cross hole interferance.

13:50 - 15:50 Casing tight - spend time to free up casing

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 04:45 | To 04:00 | Total | 23.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 5.1 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE/J.SANDY | Borehole No.: | IT2_SPT_03 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Sunday 2019-07-07 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 1 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
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## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 2.00 | 2.45 | 2.00 | ✓ | 0 | 1 | 2 | 150 | 3 | 1 | 5 | 6 | 300 |
| S | 4.00 | 4.24 | 4.00 | ✓ | 0 | 8 | 17 | 140 | 27 | 23 | | | 100 |
| S | 6.00 | 6.39 | 6.00 | ✓ | 0 | 4 | 12 | 150 | 10 | 12 | 20 | 8 | 240 |
| S | 8.00 | 8.31 | 8.00 | ✓ | 0 | 3 | 10 | 150 | 20 | 21 | 9 | | 160 |
| S | 10.00 | 10.31 | 10.00 | ✓ | 0 | 1 | 12 | 150 | 20 | 18 | 12 | | 160 |
| S | 12.00 | 12.35 | 12.00 | ✓ | 0 | 2 | 8 | 150 | 16 | 21 | 13 | | 195 |
| S | 14.00 | 14.26 | 14.00 | ✓ | 0 | 10 | 15 | 125 | 25 | 25 | | | 135 |
| S | 16.00 | 16.28 | 16.00 | ✓ | 0 | 7 | 18 | 150 | 26 | 24 | | | 130 |
| S | 18.00 | 18.19 | 18.00 | ✓ | 0 | 11 | 14 | 120 | 50 | | | | 70 |
| S | 20.00 | 20.27 | 20.00 | ✓ | 0 | 9 | 16 | 140 | 25 | 25 | | | 125 |
| S | 22.00 | 22.18 | 22.00 | ✓ | 0 | 12 | 13 | 110 | 50 | | | | 70 |
| S | 24.00 | 24.16 | 24.00 | ✓ | 0 | 13 | 12 | 90 | 50 | | | | 65 |
| S | 26.00 | 26.22 | 26.00 | ✓ | 0 | 12 | 13 | 120 | 41 | 9 | | | 100 |
| S | 28.00 | 28.23 | 28.00 | ✓ | 0 | 10 | 15 | 125 | 36 | 14 | | | 100 |
| S | 30.00 | 30.17 | 30.00 | ✓ | 0 | 11 | 14 | 105 | 50 | | | | 65 |
| S | 32.00 | 32.18 | 32.00 | ✓ | 0 | 14 | 11 | 95 | 40 | 10 | | | 85 |
| S | 34.00 | 34.45 | 34.00 | ✓ | 0 | 5 | 7 | 150 | 7 | 8 | 10 | 13 | 300 |
| S | 36.00 | 36.45 | 36.00 | ✓ | 0 | 4 | 6 | 150 | 7 | 7 | 10 | 9 | 300 |
| S | 38.00 | 38.45 | 38.00 | ✓ | 0 | 5 | 6 | 150 | 7 | 9 | 9 | 11 | 300 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

06:30 - 09:40 Stand down and wait for Sonic hole to get ahead because we are getting cross hole interferance.

13:50 - 15:50 Casing tight - spend time to free up casing

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 04:45 | To | 04:00 | Total | 23.3 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 5.1 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE/J.SANDY | Borehole No.: | IT2_SPT_03 | | |
| Contract No: | C1984 | Assistant: | | Day and Date: | Monday 2019-07-08 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 12 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 04:25 | 24.50 | 0.00 | 38.00 | ✓ | 146 | 146 | 37.00 | 38.00 | 1.00 | 6 | 100.0 | Grey | 1.00 | 2 |
| 04:45 | 24.50 | 0.00 | 39.00 | ✓ | 146 | 146 | 38.00 | 39.00 | 1.00 | 6 | 100.0 | Grey | 1.00 | 2 |
| 05:10 | 24.50 | 0.00 | 40.50 | ✓ | 146 | 146 | 39.00 | 40.50 | 1.50 | 10 | 100.0 | Grey | 1.50 | 3 |
| 05:35 | 24.50 | 0.00 | 42.00 | ✓ | 146 | 146 | 40.50 | 42.00 | 1.50 | 12 | 100.0 | Grey | 1.50 | 4 |
| 06:40 | 24.50 | 0.00 | 43.50 | ✓ | 146 | 146 | 42.00 | 43.50 | 1.50 | 9 | 100.0 | Grey | 1.50 | 5 |
| 07:05 | 24.50 | 0.00 | 45.00 | ✓ | 146 | 146 | 43.50 | 45.00 | 1.50 | 10 | 100.0 | Grey | 1.50 | 6 |
| 07:30 | 24.50 | 0.00 | 46.50 | ✓ | 146 | 146 | 45.00 | 46.50 | 1.50 | 8 | 100.0 | Grey | 1.50 | 7 |
| 07:50 | 24.50 | 0.00 | 48.00 | ✓ | 146 | 146 | 46.50 | 48.00 | 1.50 | 9 | 100.0 | Grey | 1.50 | 8 |
| 08:15 | 24.50 | 0.00 | 49.50 | ✓ | 146 | 146 | 48.00 | 49.50 | 1.50 | 13 | 100.0 | Grey | 1.50 | 9 |
| 08:45 | 24.50 | 0.00 | 51.00 | ✓ | 146 | 146 | 49.50 | 51.00 | 1.50 | 13 | 100.0 | Grey | 0.25 | 10 |
| 09:15 | 24.50 | 0.00 | 52.50 | ✓ | 146 | 146 | 51.00 | 52.50 | 1.50 | 8 | 100.0 | Grey | 1.45 | 11 |
| 09:45 | 24.50 | 0.00 | 54.00 | ✓ | 146 | 146 | 52.50 | 54.00 | 1.50 | 7 | 100.0 | Grey | 0.90 | 12 |
| 10:15 | 24.50 | 0.00 | 55.50 | ✓ | 146 | 146 | 54.00 | 55.50 | 1.50 | 6 | 100.0 | Grey | 1.40 | 13 |
| | | | | | | | | | | | | | | |
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Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 38.00 | CLAY |
| 50.00 | CLAY / LIMESTONE |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 04:15 | To 00:00 | Total | 19.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.sandy | Borehole No.: | IT2_SPT_04 | | |
| Contract No: | C1984 | Assistant: | J.lawer | Day and Date: | Tuesday 2019-06-18 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07:00 | 24.50 | 0.00 | 2.00 | ✓ | 255 | 255 | 0.00 | 2.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 08:00 | 24.50 | 0.00 | 4.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 08:45 | 24.50 | 0.00 | 6.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 09:30 | 24.50 | 0.00 | 8.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 10:15 | 24.50 | 0.00 | 10.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 11:20 | 24.50 | 0.00 | 12.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 12:50 | 24.50 | 0.00 | 14.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 14:10 | 24.50 | 0.00 | 16.00 | ✓ | 146 | 146 | 14.00 | 16.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 14:55 | 24.50 | 0.00 | 18.00 | ✓ | 146 | 146 | 16.00 | 18.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 15:40 | 24.50 | 0.00 | 20.00 | ✓ | 146 | 146 | 18.00 | 20.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 19:40 | 24.50 | 0.00 | 22.00 | ✓ | 146 | 146 | 20.00 | 22.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 20:40 | 24.50 | 0.00 | 24.00 | ✓ | 146 | 146 | 22.00 | 24.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 03:10 | 24.50 | 0.00 | 26.00 | ✓ | 146 | 146 | 24.00 | 26.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 04:40 | 24.50 | 0.00 | 28.00 | ✓ | 146 | 146 | 26.00 | 28.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 05:40 | 24.50 | 0.00 | 30.00 | ✓ | 146 | 146 | 28.00 | 30.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | SAND |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 05:30 | To 05:15 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.sandy | Borehole No.: | IT2_SPT_04 | | |
| Contract No: | C1984 | Assistant: | J.lawer | Day and Date: | Tuesday 2019-06-18 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 0.00 | 0.45 | 1 | | |
| D | 2.00 | 2.42 | 2 | | |
| D | 4.00 | 4.35 | 3 | | |
| D | 6.00 | 6.30 | 4 | | |
| D | 8.00 | 8.32 | 5 | | |
| D | 10.00 | 10.00 | 6 | | |
| D | 12.00 | 12.00 | 7 | | |
| D | 14.00 | 14.00 | 8 | | |
| D | 16.00 | 16.00 | 9 | | |
| D | 18.00 | 18.00 | 10 | | |
| D | 18.00 | 18.00 | 11 | | |
| D | 18.00 | 18.00 | 12 | | |
| D | 18.00 | 18.00 | 13 | | |
| D | 18.00 | 18.00 | 14 | | |
| D | 18.00 | 18.00 | 15 | | |
| D | 18.00 | 18.00 | 16 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.00 | 0.00 | 100 | 0 | 2 | 50 | 3 | 4 | 1 | 1 | 300 |
| S | 2.00 | 2.42 | 2.00 | 0.00 | 0 | 8 | 9 | 150 | 10 | 14 | 16 | 10 | 270 |
| S | 4.00 | 4.35 | 4.00 | 0.00 | 0 | 8 | 10 | 150 | 14 | 20 | 16 | 0 | 200 |
| S | 6.00 | 6.30 | 6.00 | 0.00 | 0 | 5 | 14 | 150 | 15 | 35 | 0 | 0 | 150 |
| S | 8.00 | 8.32 | 8.00 | 0.00 | 0 | 6 | 19 | 150 | 23 | 27 | 0 | 0 | 170 |
| S | 10.00 | 10.30 | 10.00 | 0.00 | 0 | 5 | 14 | 150 | 19 | 31 | 0 | 0 | 150 |
| S | 12.00 | 12.25 | 12.00 | 0.00 | 0 | 14 | 11 | 90 | 16 | 29 | 5 | 0 | 160 |
| S | 14.00 | 14.27 | 14.00 | 0.00 | 0 | 3 | 9 | 150 | 25 | 25 | 0 | 0 | 115 |
| S | 16.00 | 16.30 | 16.00 | 0.00 | 0 | 10 | 15 | 135 | 26 | 22 | 2 | 0 | 160 |
| S | 18.00 | 18.27 | 18.00 | 0.00 | 0 | 14 | 11 | 115 | 20 | 30 | 0 | 0 | 150 |
| S | 20.00 | 20.23 | 20.00 | 0.00 | 0 | 9 | 16 | 135 | 35 | 15 | 0 | 0 | 95 |
| S | 22.00 | 22.28 | 22.00 | 0.00 | 0 | 8 | 17 | 125 | 18 | 30 | 2 | 0 | 155 |
| S | 24.00 | 24.30 | 24.00 | 0.00 | 0 | 8 | 17 | 150 | 20 | 25 | 5 | 0 | 155 |
| S | 26.00 | 26.21 | 26.00 | 0.00 | 0 | 6 | 19 | 140 | 50 | 0 | 0 | 0 | 75 |
| S | 28.00 | 28.22 | 28.00 | 0.00 | 0 | 8 | 17 | 120 | 35 | 15 | 0 | 0 | 100 |
| S | 30.00 | 30.15 | 30.00 | 0.00 | 0 | 13 | 12 | 90 | 50 | 0 | 0 | 0 | 60 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 05:30 | To 05:15 | Total | 23.8 | hrs |
| Drilling 0.0 | | Casing | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.Sandy | Borehole No.: | IT2_SPT_04 | | |
| Contract No: | C1984 | Assistant: | J.Lawer | Day and Date: | Thursday 2019-06-20 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | DRY | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06:55 | 24.50 | 0.00 | 30.00 | ✓ | 146 | 146 | 0.00 | 30.00 | 30.00 | 15 | 100.0 | Grey | 0.00 | |
| 07:00 | 24.50 | 0.00 | 32.00 | ✓ | 146 | 146 | 30.00 | 32.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 08:00 | 24.50 | 0.00 | 34.00 | ✓ | 146 | 146 | 32.00 | 34.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 09:00 | 24.50 | 0.00 | 36.00 | ✓ | 146 | 146 | 34.00 | 36.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 10:20 | 24.50 | 0.00 | 38.00 | ✓ | 146 | 146 | 36.00 | 38.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 12:10 | 24.50 | 0.00 | 40.00 | ✓ | 146 | 146 | 38.00 | 40.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 14:20 | 24.50 | 0.00 | 42.00 | ✓ | 146 | 146 | 40.00 | 42.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 16:10 | 24.50 | 0.00 | 44.00 | ✓ | 146 | 146 | 42.00 | 44.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 18:50 | 24.50 | 0.00 | 46.00 | ✓ | 146 | 146 | 44.00 | 46.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 20:00 | 24.50 | 0.00 | 48.00 | ✓ | 146 | 146 | 46.00 | 48.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 22:30 | 24.50 | 0.00 | 50.00 | ✓ | 146 | 146 | 48.00 | 50.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |
| 00:30 | 24.50 | 0.00 | 52.00 | ✓ | 146 | 146 | 50.00 | 52.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 01:55 | 24.50 | 0.00 | 54.00 | ✓ | 146 | 146 | 52.00 | 54.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 02:00 | 24.50 | 0.00 | 55.00 | ✓ | 146 | 146 | 54.00 | 55.00 | 1.00 | 20 | 100.0 | Grey | 0.00 | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 30.00 | SAND |
| 38.00 | CLAY |
| 44.00 | LIMESTONE |
| 55.00 | CLAY/LIMESTONE |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 06:45 | To 06:30 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.Sandy | Borehole No.: | IT2_SPT_04 | | |
| Contract No: | C1984 | Assistant: | J.Lawer | Day and Date: | Thursday 2019-06-20 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | DRY | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 30.00 | 30.15 | 16 | | |
| D | 32.00 | 32.19 | 17 | | |
| D | 34.00 | 36.26 | 18 | | |
| D | 36.00 | 36.00 | 19 | | |
| D | 38.00 | 38.00 | 20 | | |
| D | 40.00 | 40.00 | 21 | | |
| D | 42.00 | 42.00 | 22 | | |
| D | 44.00 | 42.00 | 23 | | |
| D | 46.00 | 42.00 | 24 | | |
| D | 48.00 | 42.00 | 25 | | |
| D | 50.00 | 42.00 | 26 | | |
| D | 52.00 | 42.00 | 27 | | |
| D | 54.00 | 42.00 | 28 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 30.00 | 30.15 | 30.00 | 0.00 | 0 | 13 | 12 | 90 | 50 | 0 | 0 | 0 | 60 |
| S | 32.00 | 32.19 | 32.00 | 0.00 | 0 | 13 | 12 | 100 | 40 | 10 | 0 | 0 | 90 |
| S | 34.00 | 34.13 | 34.00 | 0.00 | 0 | 25 | 0 | 70 | 50 | 0 | 0 | 0 | 60 |
| S | 36.00 | 36.26 | 36.00 | 0.00 | 0 | 9 | 14 | 100 | 12 | 35 | 3 | 0 | 160 |
| S | 38.00 | 38.45 | 38.00 | 0.00 | 0 | 4 | 6 | 150 | 6 | 8 | 9 | 10 | 300 |
| S | 40.00 | 40.45 | 40.00 | 0.00 | 0 | 5 | 6 | 150 | 6 | 6 | 9 | 9 | 300 |
| S | 42.00 | 42.45 | 42.00 | 0.00 | 0 | 5 | 7 | 150 | 7 | 7 | 10 | 11 | 300 |
| S | 44.00 | 44.27 | 44.00 | 0.00 | 0 | 6 | 11 | 150 | 13 | 37 | 0 | 0 | 115 |
| S | 46.00 | 46.45 | 46.00 | 0.00 | 0 | 5 | 7 | 150 | 6 | 7 | 10 | 11 | 300 |
| S | 48.00 | 48.45 | 48.00 | 0.00 | 0 | 5 | 6 | 150 | 8 | 8 | 10 | 14 | 300 |
| S | 50.00 | 50.45 | 50.00 | 0.00 | 0 | 5 | 7 | 150 | 7 | 6 | 9 | 89 | 300 |
| S | 52.00 | 52.40 | 52.00 | 0.00 | 0 | 5 | 6 | 150 | 6 | 9 | 10 | 25 | 250 |
| S | 54.00 | 54.45 | 54.00 | 0.00 | 0 | 5 | 6 | 150 | 8 | 10 | 10 | 10 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 06:45 | To 06:30 | Total | 23.8 | hrs |
| Drilling 0.0 | | Casing | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 11 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | ot-sb-01 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□ | □□□□□ | □□□□□ | □□□□□ | □□□□□□ | □ | □□□d□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | □□□□ | |
| jacking ,flange casing | □□□□ | |
| Drilling / Sampling | □□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 12,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | ot-sb-01 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
| □□□□□ | □□□□□ | □□□□ | □□□□□ | □□□□□ | □" | □A□D□□□□□□□□□□□□□ | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | □□ | |
| Gas Valve | □□ | |
| Geotextile Wrap | M | |
| Bentonite Pellets | □A□□ | |
| Gravel | □A□□ | |
| Well Cover | □□ | |
| Lock | | |
| Polymer | | |
| Cement | □A□□ | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 12/06/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | | SB01 | | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□ | □□□□ | □□□ | □□□□ | □□□□ | □" | □□d□□□□□□□□ □□□d□□□ □□□□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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| MAR□□□ □□□□□ | | □□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 12 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | ot-sb-01 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□ | □□□□ | □□□□□ | □□□□ | □ | □□□d□□□□□ □□□r□dr□□d□□□□ □□□□□r□□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
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| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 13/06/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | SB01 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□□ | □□□□ | □□□□□ | □□□□□ | □" | □□□d□□r□□□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 14 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | ot-sb-02 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| | | | | | | | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| flange casing | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

## Comments (note any problems from pre-shift inspections here)

Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 15/06/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | SB02 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 15 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | ot-sb-02 | | | Corebarrel Size / Diameter: | 4 1/2 |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | □□□□ | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 16/06/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | | |
|---|---|---|---|---|
| Bore No. | | SB02 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□□ | □□□□ | □□□□□ | □□□□□ | □" | □□□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □A□□□□A□□ | | □□ |
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## Comments (note any problems from pre-shift inspections here)

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**Supervisors Signature** PAUL JEANS

**Client Representative Signature**

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 2

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 09/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | OTSB03 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run From | Drill Run To | Drill Run Rec | Casing From | Casing To | Casing Size | Soil or Rock Description | In-Situ Tests Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
|---|---|---|---|---|---|---|---|---|---|---|---|
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 2 of 2

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 09/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | OTSB03 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| Awaiting Client | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 04/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | | |
|---|---|---|---|---|
| Bore No. | | SB04 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 5 7 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | ot-sb-04 | | | Corebarrel Size / Diameter: | split barrel |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□ | □□□□□ | □□□□ | □□□□ | □□□□□ | □ | □□□d | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 05/07/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | | SB04 | | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□ | □□□□ | □□□ | □□□□ | □□□□ | □" | □□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 24,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH OT SB 05 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
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| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
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## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 25/06/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | SB05 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 25,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH OT SB 05 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 1 of 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 26/06/2019 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | | |
|---|---|---|---|---|
| Bore No. | | SB05 | Corebarrel Size / Diameter: | SPLIT+LEXAN |
| Inspection Pit | | | Casing Dimensions: | 6" |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Toolbox Talk | | |
| Awaiting Installation | | |
| Awaiting BH Location | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| UT100 LINER | | |
| U86 LINER | | |
| T2 101 LINER | | |
| 412 LINER | | |
| GEOBORE S LINER | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature PAUL JEANS

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 26 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | ot-sb-05 | | | Corebarrel Size / Diameter: | split barrel |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□ | □□□□ | □□□□□ | □□□□ | □ | □□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| inductions | □□□□ | |
| Inspection Pit | | |
| Drilling / Sampling | □□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | □□□ | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□ |
| □□ □□□□□□d □ | | □□□□ |
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## Comments (note any problems from pre-shift inspections here)

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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 26,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH OT SB 05 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
| □□□□□ | □□□□□ | □□□□ | □□□□□ | □□□□□ | □" | | | | | |
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GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 27 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | ot-sb-05 | | | Corebarrel Size / Diameter: | split barrel |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□□ | □□□□□ | □□□□□ | □□□□□□ | □□□□□ | □ | □□□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
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| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 28,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | OT SB 06 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
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## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 29 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | ot-sb-06 | | | Corebarrel Size / Diameter: | split barrel |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□□ | □□□□□□ | □□□□□ | □□□□□□ | □□□□□□ | □ | □□□d□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
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## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 29,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH OT SB 06 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 30 6 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | |
|---|---|---|---|---|
| Bore No. | ot-sb-06 | | Corebarrel Size / Diameter: | lexan barrel |
| Inspection Pit | | n | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□ | □□□□ | □□□□□ | □□□□ | □ | □□□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | □□□ | |
| Decontamination | | |
| Client Delays | □□□□ | |
| Stand By | | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□ | | □□□□□ |
| □□ □□□□□d □ | | □□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

SHEET 1 OF 1

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 30,06,19 | Site / Location: | SIZEWELL |
| GS Job No: | GS19-006 | Client Reference Job No: | |

## Borehole Information

| | | | |
|---|---|---|---|
| Bore No. | BH OT SB 07 | Corebarrel Size / Diameter: | 4 3/4" |
| Inspection Pit | | Dimensions: | |

## Equipment on Site

| | |
|---|---|
| Drill Rig | |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| Other | |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | Samples | |
|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | Depth | Type/No. |
| | | | | | " | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | | |
| Travel | | |
| Other (Explain) | | |
| | | |
| TOTAL HOURS | | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | M | |
| Blank | M | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | M | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | |
|---|---|---|---|---|
| From | | | | |
| To | | | | |
| | | | | |

## Employee Information

| Name | Total Hours |
|---|---|
| | |
| | |
| | |
| | |

## Comments (note any problems from pre-shift inspections here)

T.MCCARTHY

Client Representative Signature

GeoSonic
Environmental & Geotechnical Drilling Specialists

# Daily Drill Report

Sheet 4 of 4

Tel: 01259 727780
Fax: 01259 722781

## Job Information

| | | | |
|---|---|---|---|
| Date: | 1 7 19 | Site / Location: | sizewell c |
| GS Job No: | gs19 006 | Client Reference Job No: | |

## Borehole Information

| | | | | | |
|---|---|---|---|---|---|
| Bore No. | ot-sb-07 | | | Corebarrel Size / Diameter: | split barrel |
| Inspection Pit | | n | | Casing Dimensions: | 6 |

## Equipment on Site

| | |
|---|---|
| Drill Rig | □□□□ |
| Support Truck | |
| Crew Truck | |
| Trailers | |
| SPT Ref | □□ |

## Borehole Log

| Drill Run | | | Casing | | | Soil or Rock Description | In-Situ Tests | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | Rec | From | To | Size | | Depth | SPT Blows | SW Only | Water Level Depth | Type/No. |
| □□□□□ | □□□□□□ | □□□□□ | □□□□□ | □□□□□□ | □ | □□□d□ | | | | | |
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## Hourly Distribution

| Description | Hours | Events |
|---|---|---|
| Mob / Demob | | |
| Safety Training / Induction | □□□□ | |
| Establishment | | |
| Move Set Up | | |
| Inspection Pit | | |
| Drilling / Sampling | □□□□ | |
| SPT / Geotechnical Testing | | |
| Well Installation | | |
| Well Development | | |
| Water Sampling | | |
| Backfill / Grouting | | |
| Decontamination | | |
| Client Delays | | |
| Stand By | □□□□ | |
| Travel | | |
| Awaiting Installation Instructio | | |
| Awaiting Instructions | | |
| TOTAL HOURS | □□□□□□ | |

## Supplies Consumed

| Description | UOM | Quantity |
|---|---|---|
| Screen | | |
| Blank | | |
| Bottom Cap | | |
| Gas Valve | | |
| Geotextile Wrap | | |
| Bentonite Pellets | | |
| Gravel | | |
| Well Cover | | |
| Lock | | |
| Polymer | | |
| Cement | | |
| Core Boxes | | |
| Sample Tubs | | |
| Other (detail below) | | |
| | | |
| | | |
| | | |
| | | |

## Daily Groundwater Levels

| | |
|---|---|
| 1. Water Struck at | m |
| Level of Casing | m |
| Water rise (20 mins) | m |
| 2. Level at Start of Shift | m |
| 3. Level of Re-entry | m |
| Level of Casing | m |
| 4. Level and end of Shift | m |

## Water Added (to assist drilling)

| | | | | | |
|---|---|---|---|---|---|
| From | | | | | |
| To | | | | | |
| | | | | | |

## Employee Information

| Name | | Total Hours |
|---|---|---|
| □□ □□□□□□□ | | □□□□□□ |
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## Comments (note any problems from pre-shift inspections here)

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Supervisors Signature

Client Representative Signature

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | A.Rowe | Borehole No.: | OT_SPT_01 | | |
| Contract No: | C1984 | Assistant: | J.Lawson | Day and Date: | Tuesday 2019-06-11 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | Fair Rain | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14:50 | 20.00 | 0.00 | 0.80 | ✓ | 255 | 255 | 0.00 | 2.00 | 2.00 | 1 | 0.0 | Grey | 0.00 | |
| 15:20 | 20.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 16:09 | 20.00 | 0.00 | 4.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 16:30 | 20.00 | 0.00 | 6.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 17:00 | 20.00 | 0.00 | 8.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 17:40 | 20.00 | 0.00 | 10.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 19:00 | 20.00 | 0.00 | 12.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 19:40 | 20.00 | 0.00 | 14.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 21:20 | 20.00 | 0.00 | 16.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 05:00 | 20.00 | 0.00 | 18.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 06:00 | 20.00 | 0.00 | 20.00 | ✓ | 178 | 178 | 20.00 | 22.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 12:40 | 20.00 | 0.00 | 22.00 | ✓ | 178 | 178 | 22.00 | 24.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 13:45 | 20.00 | 0.00 | 24.00 | ✓ | 178 | 178 | 24.00 | 26.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 15:00 | 20.00 | 0.00 | 26.00 | ✓ | 178 | 178 | 26.00 | 28.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 15:45 | 20.00 | 0.00 | 28.00 | ✓ | 178 | 178 | 28.00 | 30.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 17:00 | 20.00 | 0.00 | 30.00 | ✓ | 178 | 178 | 30.00 | 32.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 17:50 | 20.00 | 0.00 | 32.00 | ✓ | 178 | 178 | 32.00 | 34.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 19:30 | 20.00 | 0.00 | 34.00 | ✓ | 178 | 178 | 34.00 | 36.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 20:40 | 20.00 | 0.00 | 36.00 | ✓ | 178 | 178 | 36.00 | 38.00 | 2.00 | 15 | 0.0 | Grey | 0.00 | |
| 21:45 | 20.00 | 0.00 | 38.00 | ✓ | 178 | 178 | 38.00 | 40.20 | 2.20 | 15 | 0.0 | Grey | 0.00 | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | Sand |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 22:00 | Total | 22.0 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | A.Rowe | Borehole No.: | OT_SPT_01 | | |
| Contract No: | C1984 | Assistant: | J.Lawson | Day and Date: | Tuesday 2019-06-11 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | Fair Rain | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 0.00 | 0.45 | 1 | | |
| D | 2.00 | 2.45 | 2 | | |
| D | 4.00 | 4.45 | 3 | | |
| D | 6.00 | 6.38 | 4 | | |
| D | 8.00 | 8.30 | 5 | | |
| D | 10.00 | 10.23 | 6 | | |
| D | 12.00 | 12.23 | 7 | | |
| D | 14.00 | 14.23 | 8 | | |
| D | 16.00 | 16.22 | 9 | | |
| D | 18.00 | 18.31 | 10 | | |
| D | 20.00 | 20.24 | 11 | | |
| D | 22.00 | 22.25 | 12 | | |
| D | 24.00 | 24.24 | 13 | | |
| D | 26.00 | 26.23 | 14 | | |
| D | 28.00 | 28.30 | 15 | | |
| D | 30.00 | 30.21 | 16 | | |
| D | 32.00 | 32.45 | 17 | | |
| D | 34.00 | 34.28 | 18 | | |
| D | 36.00 | 36.17 | 19 | | |
| D | 38.00 | 38.21 | 20 | | |
| D | 40.00 | 40.20 | 21 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.80 | 0.00 ✓ | 0 | 3 | 4 | 150 | 2 | 1 | 1 | 1 | 300 |
| S | 2.00 | 2.45 | 2.00 | 0.00 | 0 | 7 | 8 | 150 | 8 | 8 | 9 | 11 | 300 |
| S | 4.00 | 4.45 | 4.00 | 0.00 | 0 | 4 | 5 | 150 | 5 | 6 | 8 | 1 | 300 |
| S | 6.00 | 6.38 | 6.00 | 0.00 | 0 | 3 | 7 | 150 | 13 | 14 | 21 | 2 | 230 |
| S | 8.00 | 8.30 | 8.00 | 0.00 | 0 | 8 | 13 | 150 | 21 | 29 | | | 150 |
| S | 10.00 | 10.23 | 10.00 | 0.00 | 0 | 9 | 16 | 125 | 33 | 17 | | | 105 |
| S | 12.00 | 12.23 | 12.00 | 0.00 | 0 | 4 | 12 | 150 | 25 | 25 | | | 105 |
| S | 14.00 | 14.23 | 14.00 | 0.00 | 0 | 10 | 15 | 135 | 36 | 14 | | | 95 |
| S | 16.00 | 16.22 | 16.00 | 0.00 | 0 | 9 | 16 | 135 | 38 | 12 | | | 85 |
| S | 18.00 | 18.31 | 18.00 | 0.00 | 0 | 4 | 6 | 150 | 12 | 27 | 11 | | 160 |
| S | 20.00 | 20.24 | 20.00 | 0.00 | 0 | 5 | 18 | 150 | 29 | 21 | | | 90 |
| S | 22.00 | 22.25 | 22.00 | 0.00 | 0 | 11 | 14 | 115 | 19 | 31 | | | 135 |
| S | 24.00 | 24.24 | 24.00 | 0.00 | 0 | 10 | 15 | 140 | 33 | 17 | | | 105 |
| S | 26.00 | 26.23 | 26.00 | 0.00 | 0 | 11 | 14 | 125 | 9 | 33 | 8 | | 160 |
| S | 28.00 | 28.30 | 28.00 | 0.00 | 0 | 11 | 14 | 125 | 26 | 24 | | | 125 |
| S | 30.00 | 30.21 | 30.00 | 0.00 | 0 | 12 | 13 | 115 | 32 | 18 | | | 95 |
| S | 32.00 | 32.45 | 32.00 | 0.00 | 0 | 1 | 1 | 150 | 6 | 7 | 14 | 22 | 300 |
| S | 34.00 | 34.28 | 34.00 | 0.00 | 0 | 9 | 16 | 140 | 17 | 33 | | | 145 |
| S | 36.00 | 36.17 | 36.00 | 0.00 | 0 | 15 | 10 | 75 | 29 | 21 | | | 95 |
| S | 38.00 | 38.21 | 38.00 | 0.00 | 0 | 18 | 7 | 95 | 29 | 21 | | | 125 |
| S | 40.00 | 40.20 | 40.00 | 0.00 | 0 | 12 | 13 | 105 | 25 | 25 | | | 95 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 22:00 | Total | 22.0 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.Sandy | Borehole No.: | OT_SPT_01 | | |
| Contract No: | C1984 | Assistant: | J.Law | Day and Date: | Thursday 2019-06-13 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:45 | 20.00 | 0.00 | 42.00 | ✓ | 146 | 146 | 0.00 | 42.00 | 42.00 | 15 | 100.0 | Grey | 0.00 | |
| 00:45 | 20.00 | 0.00 | 44.00 | ✓ | 146 | 146 | 42.00 | 44.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 02:20 | 20.00 | 0.00 | 46.00 | ✓ | 146 | 146 | 44.00 | 46.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 03:55 | 20.00 | 0.00 | 48.00 | ✓ | 146 | 146 | 46.00 | 48.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 05:15 | 20.00 | 0.00 | 50.00 | ✓ | 146 | 146 | 48.00 | 50.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 07:05 | 20.00 | 0.00 | 52.00 | ✓ | 146 | 146 | 50.00 | 52.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 08:10 | 20.00 | 0.00 | 54.00 | ✓ | 146 | 146 | 52.00 | 54.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 09:25 | 20.00 | 0.00 | 55.00 | ✓ | 146 | 146 | 54.00 | 55.00 | 1.00 | 15 | 100.0 | Grey | 0.00 | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 42.00 | Silty clay |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 10:00 | Total | 10.0 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.Sandy | Borehole No.: | OT_SPT_01 | | |
| Contract No: | C1984 | Assistant: | J.Law | Day and Date: | Thursday 2019-06-13 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: N | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 42.00 | 42.45 | 22 | | |
| D | 44.00 | 44.45 | 23 | | |
| D | 46.00 | 46.45 | 24 | | |
| D | 48.00 | 48.45 | 25 | | |
| D | 50.00 | 50.45 | 26 | | |
| D | 52.00 | 52.45 | 27 | | |
| D | 54.00 | 54.40 | 28 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 42.00 | 42.45 | 42.00 | 0.00 | 0 | 3 | 6 | 150 | 8 | 10 | 11 | 10 | 300 |
| S | 44.00 | 44.45 | 44.00 | 0.00 | 0 | 3 | 7 | 150 | 8 | 9 | 10 | 10 | 300 |
| S | 46.00 | 46.45 | 46.00 | 0.00 | 0 | 3 | 6 | 150 | 6 | 8 | 7 | 9 | 300 |
| S | 48.00 | 48.45 | 48.00 | 0.00 | 0 | 5 | 6 | 150 | 6 | 8 | 10 | 8 | 300 |
| S | 50.00 | 50.45 | 50.00 | 0.00 | 0 | 4 | 7 | 150 | 7 | 11 | 12 | 16 | 300 |
| S | 52.00 | 52.45 | 52.00 | 0.00 | 0 | 4 | 8 | 150 | 8 | 10 | 11 | 10 | 300 |
| S | 54.00 | 54.45 | 54.00 | 0.00 | 0 | 6 | 8 | 150 | 9 | 13 | 13 | 15 | 250 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 00:00 | To 10:00 | Total | 10.0 | hrs |
| Drilling | 0.0 | | Casing | 0.0 | hrs |
| Move and Set Up | | | | 0.0 | hrs |
| Delays | | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.Sandy | Borehole No.: | OT_SPT_02 | | |
| Contract No: | C1984 | Assistant: | J.Lawer | Day and Date: | Friday 2019-06-14 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21:50 | 18.00 | 0.00 | 0.00 | ✓ | 255 | 255 | 0.00 | 2.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 22:40 | 18.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 23:10 | 18.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 30 | 100.0 | Grey | 0.00 | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | Sand |
| 34.00 | Silty Clay |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 21:45 | To 23:30 | Total | 1.8 | hrs |
| Drilling 0.0 | | Casing | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.Sandy | Borehole No.: | OT_SPT_02 | | |
| Contract No: | C1984 | Assistant: | J.Lawer | Day and Date: | Friday 2019-06-14 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12SP | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 2.00 | 2.45 | 1 | | |
| D | 4.00 | 4.45 | 2 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.00 | 0.00 | 75 | 0 | 2 | 75 | 3 | 4 | 6 | 4 | 300 |
| S | 2.00 | 2.45 | 2.00 | 0.00 | 0 | 3 | 4 | 150 | 6 | 3 | 0 | 0 | 300 |
| S | 4.00 | 4.45 | 4.00 | 0.00 | 225 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 225 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 21:45 | To 23:30 | Total 1.8 | | hrs |
| Drilling 0.0 | | Casing 0.0 | | hrs |
| Move and Set Up | | 0.0 | | hrs |
| Delays | | 0.0 | | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.Sandy | Borehole No.: | OT_SPT_02 | | |
| Contract No: | C1984 | Assistant: | J.Lawer | Day and Date: | Saturday 2019-06-15 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:05 | 18.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 00:50 | 18.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 01:25 | 18.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 02:05 | 18.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 02:40 | 18.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 03:20 | 18.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 04:35 | 18.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 05:25 | 18.00 | 0.00 | 2.00 | ✓ | 146 | 146 | 20.00 | 22.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 07:40 | 18.00 | 0.00 | 2.00 | ✓ | 146 | 146 | 22.00 | 24.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 08:40 | 18.00 | 0.00 | 2.00 | ✓ | 146 | 146 | 24.00 | 26.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 09:40 | 18.00 | 0.00 | 2.00 | ✓ | 146 | 146 | 26.00 | 28.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 10:35 | 18.00 | 0.00 | 2.00 | ✓ | 146 | 146 | 28.00 | 30.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 11:20 | 18.00 | 0.00 | 2.00 | ✓ | 146 | 146 | 30.00 | 32.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 12:40 | 18.00 | 0.00 | 2.00 | ✓ | 146 | 146 | 32.00 | 34.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 13:30 | 18.00 | 0.00 | 2.00 | ✓ | 146 | 146 | 34.00 | 36.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 14:30 | 18.00 | 0.00 | 2.00 | ✓ | 146 | 146 | 36.00 | 38.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 15:25 | 18.00 | 0.00 | 2.00 | ✓ | 146 | 146 | 38.00 | 40.22 | 2.22 | 20 | 100.0 | Grey | 0.00 | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | Sand |
| 34.00 | Silty Clay |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.Sandy | Borehole No.: | OT_SPT_02 | | |
| Contract No: | C1984 | Assistant: | J.Lawer | Day and Date: | Saturday 2019-06-15 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open Hole |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 0 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 6.00 | 6.45 | 3 | | |
| D | 8.00 | 8.35 | 4 | | |
| D | 10.00 | 10.34 | 5 | | |
| D | 12.00 | 12.30 | 6 | | |
| D | 14.00 | 14.33 | 7 | | |
| D | 16.00 | 16.25 | 8 | | |
| D | 18.00 | 18.32 | 9 | | |
| D | 20.00 | 20.23 | 10 | | |
| D | 22.00 | 22.17 | 11 | | |
| D | 24.00 | 24.22 | 12 | | |
| D | 26.00 | 26.25 | 13 | | |
| D | 28.00 | 28.24 | 14 | | |
| D | 30.00 | 30.24 | 15 | | |
| D | 32.00 | 32.29 | 16 | | |
| D | 34.00 | 34.37 | 17 | | |
| D | 36.00 | 36.27 | 18 | | |
| D | 38.00 | 38.16 | 19 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 6.00 | 6.45 | 6.00 | 0.00 | 225 | 0 | 0 | 0 | 0 | 3 | 4 | 4 | 225 |
| S | 8.00 | 8.35 | 8.00 | 0.00 | 0 | 4 | 13 | 150 | 19 | 14 | 17 | | 200 |
| S | 10.00 | 10.34 | 10.00 | 0.00 | 0 | 3 | 11 | 150 | 13 | 20 | 17 | | 190 |
| S | 12.00 | 12.30 | 12.00 | 0.00 | 0 | 4 | 12 | 150 | 20 | 30 | | | 150 |
| S | 14.00 | 14.33 | 14.00 | 0.00 | 0 | 2 | 6 | 150 | 9 | 29 | 12 | | 180 |
| S | 16.00 | 16.25 | 16.00 | 0.00 | 0 | 5 | 20 | 145 | 34 | 16 | | | 100 |
| S | 18.00 | 18.32 | 18.00 | 0.00 | 0 | 4 | 10 | 150 | 14 | 27 | 9 | | 170 |
| S | 20.00 | 20.23 | 20.00 | 0.00 | 0 | 4 | 17 | 150 | 22 | 28 | | | 80 |
| S | 22.00 | 22.17 | 22.00 | 0.00 | 0 | 12 | 13 | 90 | 22 | 28 | | | 80 |
| S | 24.00 | 24.22 | 24.00 | 0.00 | 0 | 10 | 15 | 140 | 37 | 13 | | | 80 |
| S | 26.00 | 26.25 | 26.00 | 0.00 | 0 | 8 | 17 | 130 | 21 | 29 | | | 120 |
| S | 28.00 | 28.24 | 28.00 | 0.00 | 0 | 7 | 18 | 130 | 25 | 25 | | | 110 |
| S | 30.00 | 30.24 | 30.00 | 0.00 | 0 | 15 | 10 | 130 | 27 | 23 | | | 110 |
| S | 32.00 | 32.29 | 32.00 | 0.00 | 0 | 8 | 17 | 135 | 19 | 25 | 6 | | 160 |
| S | 34.00 | 34.37 | 34.00 | 0.00 | 0 | 5 | 10 | 150 | 14 | 15 | 21 | | 225 |
| S | 36.00 | 36.27 | 36.00 | 0.00 | 0 | 15 | 10 | 105 | 12 | 28 | 10 | | 165 |
| S | 38.00 | 38.16 | 38.00 | 0.00 | 0 | 25 | | 75 | 40 | 10 | | | 85 |
| S | 40.00 | 40.22 | 40.00 | 0.00 | 0 | 16 | 9 | 80 | 26 | 24 | | | 140 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.sandy | Borehole No.: | OT_SPT_02 | | |
| Contract No: | C1984 | Assistant: | J.lawer | Day and Date: | Sunday 2019-06-16 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS120 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 9 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16:30 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 0.00 | 40.00 | 40.00 | 20 | 100.0 | Grey | 0.00 | |
| 09:45 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 40.00 | 42.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 09:45 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 42.00 | 44.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 09:45 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 44.00 | 46.00 | 2.00 | 20 | 100.0 | Grey | 0.00 | |
| 20:40 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 46.00 | 47.00 | 1.00 | 10 | 0.0 | Grey | 1.00 | 1 |
| 21:40 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 47.00 | 48.00 | 1.00 | 10 | 0.0 | Grey | 0.45 | 2 |
| 22:45 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 48.00 | 49.00 | 1.00 | 10 | 0.0 | Grey | 1.00 | 3 |
| 23:40 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 49.00 | 50.00 | 1.00 | 10 | 0.0 | Grey | 1.00 | 4 |
| 00:30 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 50.00 | 51.00 | 1.00 | 15 | 0.0 | Grey | 0.20 | 5 |
| 02:00 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 51.00 | 52.00 | 1.00 | 13 | 0.0 | Grey | 1.00 | 6 |
| 02:45 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 52.00 | 53.00 | 1.00 | 10 | 0.0 | Grey | 1.00 | 7 |
| 03:30 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 53.00 | 54.00 | 1.00 | 10 | 0.0 | Grey | 1.00 | 8 |
| 04:00 | 18.00 | 0.00 | 40.00 | 0.00 | 146 | 146 | 54.00 | 55.00 | 1.00 | 10 | 0.0 | Grey | 1.00 | 9 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 40.00 | clay |
| 50.00 | limestone |
| 51.00 | clay |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SZC 2019 Offshore Ground Investigation | Foreman: | J.sandy | Borehole No.: | OT_SPT_02 | | |
| Contract No: | C1984 | Assistant: | J.lawer | Day and Date: | Sunday 2019-06-16 | | |
| Client: | NNB SZC | Rig Type: | Comacchio MCS12 | SPT Hammer No: | SPT 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 9 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 40.00 | 40.22 | 20 | | |
| D | 42.00 | 42.21 | 21 | | |
| D | 44.00 | 44.18 | 22 | | |
| D | 46.00 | 46.45 | 23 | | |
| D | 48.00 | 48.42 | 24 | | |
| D | 50.00 | 50.10 | 25 | | |
| D | 52.00 | 52.45 | 26 | | |
| D | 54.00 | 54.45 | 27 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 40.00 | 40.22 | 40.00 | 0.00 | 0 | 16 | 9 | 80 | 26 | 24 | | | 140 |
| S | 42.00 | 42.21 | 42.00 | 0.00 | 0 | 17 | 8 | 95 | 25 | 25 | | | 120 |
| S | 44.00 | 44.18 | 44.00 | 0.00 | 0 | 25 | | 75 | 30 | 20 | | | 110 |
| S | 46.00 | 46.45 | 46.00 | 0.00 | 75 | 0 | 6 | 75 | 9 | 9 | 10 | 6 | 300 |
| S | 48.00 | 48.42 | 48.00 | 0.00 | 0 | 3 | 7 | 150 | 8 | 10 | 11 | 21 | 270 |
| S | 50.00 | 50.10 | 50.00 | 0.00 | 0 | 25 | | 75 | 50 | | | | 25 |
| S | 52.00 | 52.45 | 52.00 | 0.00 | 0 | 4 | 6 | 150 | 8 | 10 | 11 | 12 | 300 |
| S | 54.00 | 54.45 | 54.00 | 0.00 | 0 | 4 | 8 | 150 | 7 | 12 | 11 | 11 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 00:00 | To 23:45 | Total | 23.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy/A.Rowe | Borehole No.: | OT_SPT_03 | | |
| Contract No: | C1984 | Assistant: | J.Lawer | Day and Date: | Wednesday 2019-07-10 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 6 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14:00 | 18.00 | 0.00 | 0.00 | 0.00 | 178 | 178 | 0.00 | 2.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 17:10 | 18.00 | 0.00 | 2.00 | 0.00 | 178 | 178 | 2.00 | 4.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 17:35 | 18.00 | 0.00 | 4.00 | 0.00 | 178 | 178 | 4.00 | 6.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 18:50 | 18.00 | 0.00 | 6.00 | 0.00 | 178 | 178 | 6.00 | 8.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 19:15 | 18.00 | 0.00 | 8.00 | 0.00 | 178 | 178 | 8.00 | 10.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 19:45 | 18.00 | 0.00 | 10.00 | 0.00 | 178 | 178 | 10.00 | 12.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 20:25 | 18.00 | 0.00 | 12.00 | 0.00 | 178 | 178 | 12.00 | 14.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 21:00 | 18.00 | 0.00 | 14.00 | 0.00 | 178 | 178 | 14.00 | 16.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 22:10 | 18.00 | 0.00 | 16.00 | 0.00 | 178 | 178 | 16.00 | 18.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 22:45 | 18.00 | 0.00 | 18.00 | 0.00 | 178 | 178 | 18.00 | 20.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 23:15 | 18.00 | 0.00 | 20.00 | 0.00 | 178 | 178 | 20.00 | 22.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 01:50 | 18.00 | 0.00 | 22.00 | 0.00 | 178 | 178 | 22.00 | 24.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 02:40 | 18.00 | 0.00 | 24.00 | 0.00 | 178 | 178 | 24.00 | 26.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 03:30 | 18.00 | 0.00 | 26.00 | 0.00 | 178 | 178 | 26.00 | 27.40 | 1.40 | 10 | 0.0 | Grey | 0.00 | |
| 04:30 | 18.00 | 0.00 | 27.40 | 0.00 | 146 | 146 | 27.40 | 28.00 | 0.60 | 10 | 100.0 | Grey | 0.00 | 3 |
| 05:35 | 18.00 | 0.00 | 28.00 | 0.00 | 146 | 146 | 28.00 | 29.00 | 1.00 | 8 | 100.0 | Grey | 0.60 | 1 |
| 06:40 | 18.00 | 0.00 | 29.00 | 0.00 | 146 | 146 | 29.00 | 30.50 | 1.50 | 13 | 100.0 | Grey | 1.00 | 2 |
| 07:15 | 18.00 | 0.00 | 30.50 | 0.00 | 146 | 146 | 30.50 | 32.00 | 1.50 | 14 | 100.0 | Grey | 1.50 | 4 |
| 07:40 | 18.00 | 0.00 | 32.00 | 0.00 | 146 | 146 | 32.00 | 33.50 | 1.50 | 12 | 100.0 | Grey | 1.50 | 5 |
| 08:05 | 18.00 | 0.00 | 33.50 | 0.00 | 146 | 146 | 33.50 | 35.00 | 1.50 | 12 | 100.0 | Grey | 1.50 | 6 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | FINE SAND |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

10" casing Surged in to 1.80m to set

CR01# from 27.40 to 28.0m taken as disturbed, (as it was a redrill through the 7" casing with Geobor)

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 14:00 | To 08:15 | Total | 18.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy/A.Rowe | Borehole No.: | OT_SPT_03 | | |
| Contract No: | C1984 | Assistant: | J.Lawer | Day and Date: | Wednesday 2019-07-10 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 6 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 0.00 | 0.27 | 1 | | |
| D | 2.00 | 2.45 | 2 | | |
| D | 4.00 | 4.45 | 3 | | |
| D | 6.00 | 6.45 | 4 | | |
| D | 8.00 | 8.45 | 5 | | |
| D | 10.00 | 10.45 | 6 | | |
| D | 12.00 | 12.45 | 7 | | |
| D | 14.00 | 14.45 | 8 | | |
| D | 16.00 | 16.45 | 9 | | |
| D | 18.00 | 18.45 | 10 | | |
| D | 20.00 | 20.45 | 11 | | |
| D | 22.00 | 22.45 | 12 | | |
| D | 24.00 | 24.45 | 13 | | |
| D | 26.00 | 26.45 | 14 | | |
| D | 28.00 | 28.45 | 15 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.27 | 0.00 | 0.00 | 0 | 4 | 13 | 150 | 30 | 20 | | | 115 |
| S | 2.00 | 2.45 | 2.00 | 0.00 | 0 | 3 | 4 | 150 | 2 | 4 | 4 | 4 | 300 |
| S | 4.00 | 4.45 | 4.00 | 0.00 | 0 | 5 | 8 | 150 | 8 | 9 | 6 | 8 | 300 |
| S | 6.00 | 6.45 | 6.00 | 0.00 | 0 | 2 | 3 | 150 | 7 | 7 | 10 | 10 | 300 |
| S | 8.00 | 8.45 | 8.00 | 0.00 | 0 | 2 | 5 | 150 | 8 | 9 | 8 | 8 | 300 |
| S | 10.00 | 10.45 | 10.00 | 0.00 | 0 | 5 | 9 | 150 | 10 | 13 | 15 | 12 | 300 |
| S | 12.00 | 12.45 | 12.00 | 0.00 | 0 | 3 | 1 | 150 | 4 | 10 | 10 | 9 | 300 |
| S | 14.00 | 14.45 | 14.00 | 0.00 | 0 | 1 | 5 | 150 | 8 | 10 | 11 | 13 | 300 |
| S | 16.00 | 16.45 | 16.00 | 0.00 | 0 | 4 | 7 | 150 | 8 | 7 | 7 | 11 | 300 |
| S | 18.00 | 18.45 | 18.00 | 0.00 | 0 | 6 | 7 | 150 | 8 | 5 | 7 | 9 | 300 |
| S | 20.00 | 20.45 | 20.00 | 0.00 | 0 | 6 | 8 | 150 | 8 | 7 | 10 | 10 | 300 |
| S | 22.00 | 22.45 | 22.00 | 0.00 | 0 | 5 | 6 | 150 | 7 | 8 | 9 | 10 | 300 |
| S | 24.00 | 24.45 | 24.00 | 0.00 | 0 | 3 | 7 | 150 | 8 | 10 | 15 | 15 | 300 |
| S | 26.00 | 26.45 | 26.00 | 0.00 | 0 | 5 | 7 | 150 | 7 | 10 | 9 | 12 | 300 |
| S | 28.00 | 28.45 | 28.00 | 0.00 | 0 | 2 | 5 | 150 | 5 | 7 | 10 | 9 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

10" casing Surged in to 1.80m to set

CR01# from 27.40 to 28.0m taken as disturbed, (as it was a redrill through the 7" casing with Geobor)

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 14:00 | To | 08:15 | Total | 18.3 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy/A.Rowe | Borehole No.: | OT_SPT_03 | | |
| Contract No: | C1984 | Assistant: | J.Lawer | Day and Date: | Wednesday 2019-07-10 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | 15 | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 20 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 08:30 | 18.00 | 0.00 | 35.00 | ✓ | 146 | 146 | 35.00 | 36.50 | 1.50 | 9 | 100.0 | Grey | 1.50 | 7 |
| 08:50 | 18.00 | 0.00 | 36.50 | ✓ | 146 | 146 | 36.50 | 38.00 | 1.50 | 9 | 100.0 | Grey | 1.50 | 8 |
| 09:40 | 18.00 | 0.00 | 38.00 | ✓ | 146 | 146 | 38.00 | 39.50 | 1.50 | 10 | 100.0 | Grey | 1.50 | 9 |
| 10:05 | 18.00 | 0.00 | 39.50 | ✓ | 146 | 146 | 39.50 | 41.00 | 1.50 | 10 | 100.0 | Grey | 1.50 | 10 |
| 10:30 | 18.00 | 0.00 | 41.00 | ✓ | 146 | 146 | 41.00 | 42.50 | 1.50 | 11 | 100.0 | Grey | 1.50 | 11 |
| 10:50 | 18.00 | 0.00 | 42.50 | ✓ | 146 | 146 | 42.50 | 44.00 | 1.50 | 11 | 100.0 | Grey | 1.50 | 12 |
| 11:15 | 18.00 | 0.00 | 44.00 | ✓ | 146 | 146 | 44.00 | 45.50 | 1.50 | 10 | 100.0 | Grey | 1.50 | 13 |
| 12:15 | 18.00 | 0.00 | 45.50 | ✓ | 146 | 146 | 45.50 | 47.00 | 1.50 | 10 | 100.0 | Grey | 1.50 | 14 |
| 12:45 | 18.00 | 0.00 | 47.00 | ✓ | 146 | 146 | 47.00 | 48.50 | 1.50 | 9 | 100.0 | Grey | 1.50 | 15 |
| 13:10 | 18.00 | 0.00 | 48.50 | ✓ | 146 | 146 | 48.50 | 50.00 | 1.50 | 12 | 100.0 | Grey | 1.50 | 16 |
| 13:35 | 18.00 | 0.00 | 50.00 | ✓ | 146 | 146 | 50.00 | 51.50 | 1.50 | 8 | 100.0 | Grey | 1.50 | 17 |
| 14:00 | 18.00 | 0.00 | 51.50 | ✓ | 146 | 146 | 51.50 | 53.00 | 1.50 | 8 | 100.0 | Grey | 1.50 | 18 |
| 14:25 | 18.00 | 0.00 | 53.00 | ✓ | 146 | 146 | 53.00 | 54.50 | 1.50 | 11 | 100.0 | Grey | 1.50 | 19 |
| 14:50 | 18.00 | 0.00 | 54.50 | ✓ | 146 | 146 | 54.50 | 56.00 | 1.50 | 11 | 100.0 | Grey | 1.50 | 20 |
| 15:15 | 18.00 | 0.00 | 56.00 | ✓ | 146 | 146 | 56.00 | 57.50 | 1.50 | 7 | 100.0 | Grey | 1.50 | 21 |
| 15:45 | 18.00 | 0.00 | 57.50 | ✓ | 146 | 146 | 57.50 | 59.00 | 1.50 | 7 | 100.0 | Grey | 1.50 | 22 |
| 16:10 | 18.00 | 0.00 | 59.00 | ✓ | 146 | 146 | 59.00 | 60.50 | 1.50 | 7 | 100.0 | Grey | 1.50 | 23 |
| 16:35 | 18.00 | 0.00 | 60.50 | ✓ | 146 | 146 | 60.50 | 62.00 | 1.50 | 6 | 100.0 | Grey | 1.40 | 24 |
| 16:55 | 18.00 | 0.00 | 62.00 | ✓ | 146 | 146 | 62.00 | 63.50 | 1.50 | 3 | 100.0 | Green | 1.50 | 25 |
| 17:15 | 18.00 | 0.00 | 63.50 | ✓ | 146 | 146 | 63.50 | 65.00 | 1.50 | 2 | 100.0 | Green | 1.50 | 26 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 35.00 | CLAY |
| 62.00 | CLAY/SAND |
| 65.00 | LOWER MOTTLED BEDS |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 08:30 | To 17:15 | Total | 8.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy/A.Rowe | Borehole No.: | OT_SPT_03 | | |
| Contract No: | C1984 | Assistant: | J.Lawson/JLawer | Day and Date: | Wednesday 2019-07-10 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS12 SP | SPT Hammer No: | 15 | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 20 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17:35 | 18.00 | 0.00 | 65.00 | ✓ | 146 | 146 | 65.00 | 66.50 | 1.50 | 9 | 100.0 | Brown | 1.50 | 27 |
| 18:50 | 18.00 | 0.00 | 66.50 | ✓ | 146 | 146 | 66.50 | 68.00 | 1.50 | 7 | 100.0 | Brown | 1.50 | 28 |
| 19:15 | 18.00 | 0.00 | 68.00 | ✓ | 146 | 146 | 68.00 | 69.50 | 1.50 | 7 | 100.0 | Brown | 1.50 | 29 |
| 19:40 | 18.00 | 0.00 | 69.50 | ✓ | 146 | 146 | 69.50 | 71.00 | 1.50 | 12 | 100.0 | Grey | 1.50 | 30 |
| 20:10 | 18.00 | 0.00 | 71.00 | ✓ | 146 | 146 | 71.00 | 72.50 | 1.50 | 3 | 100.0 | Grey | 1.50 | 31 |
| 20:35 | 18.00 | 0.00 | 72.50 | ✓ | 146 | 146 | 72.50 | 74.00 | 1.50 | 6 | 100.0 | Grey | 1.50 | 32 |
| 20:55 | 18.00 | 0.00 | 74.00 | ✓ | 146 | 146 | 74.00 | 75.50 | 1.50 | 14 | 100.0 | Grey | 1.50 | 33 |
| 21:40 | 18.00 | 0.00 | 75.50 | ✓ | 146 | 146 | 75.50 | 77.00 | 1.50 | 9 | 100.0 | Grey | 1.50 | 34 |
| 22:05 | 18.00 | 0.00 | 77.00 | ✓ | 146 | 146 | 77.00 | 78.50 | 1.50 | 12 | 100.0 | Grey | 1.50 | 35 |
| 22:45 | 18.00 | 0.00 | 78.50 | ✓ | 146 | 146 | 78.50 | 80.00 | 1.50 | 12 | 100.0 | Grey | 1.50 | 36 |
| 23:25 | 18.00 | 0.00 | 80.00 | ✓ | 146 | 146 | 80.00 | 81.50 | 1.50 | 11 | 100.0 | Grey | 1.50 | 37 |
| 00:15 | 18.00 | 0.00 | 81.50 | ✓ | 146 | 146 | 81.50 | 83.00 | 1.50 | 11 | 100.0 | Grey | 1.50 | 38 |
| 01:05 | 18.00 | 0.00 | 83.00 | ✓ | 146 | 146 | 83.00 | 84.50 | 1.50 | 12 | 100.0 | Grey | 1.50 | 39 |
| 01:50 | 18.00 | 0.00 | 84.50 | ✓ | 146 | 146 | 84.50 | 86.00 | 1.50 | 12 | 100.0 | Grey | 1.50 | 40 |
| 02:30 | 18.00 | 0.00 | 86.00 | ✓ | 146 | 146 | 86.00 | 87.50 | 1.50 | 8 | 100.0 | White | 1.50 | 41 |
| 03:05 | 18.00 | 0.00 | 87.50 | ✓ | 146 | 146 | 87.50 | 89.00 | 1.50 | 3 | 100.0 | White | 1.50 | 42 |
| 03:30 | 18.00 | 0.00 | 89.00 | ✓ | 146 | 146 | 89.00 | 90.50 | 1.50 | 4 | 100.0 | White | 1.50 | 43 |
| 03:55 | 18.00 | 0.00 | 90.50 | ✓ | 146 | 146 | 90.50 | 92.00 | 1.50 | 5 | 100.0 | White | 1.50 | 44 |
| 04:30 | 18.00 | 0.00 | 92.00 | ✓ | 146 | 146 | 92.00 | 93.50 | 1.50 | 3 | 100.0 | White | 0.90 | 45 |
| 04:56 | 18.00 | 0.00 | 93.50 | ✓ | 146 | 146 | 93.50 | 95.00 | 1.50 | 1 | 100.0 | White | 0.00 | 46 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 72.00 | LOWER MOTTLED BEDS |
| 75.00 | CLAY |
| 86.00 | CHALK |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 17:30 | To 05:15 | Total | 11.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy/A.Rowe | Borehole No.: | OT_SPT_03 | | |
| Contract No: | C1984 | Assistant: | J.Lawson | Day and Date: | Thursday 2019-07-11 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | 15 | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | Ecxcalibur | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | Dry | Vehicle No.: | | | | Core Boxes Used: 10 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06:50 | 18.00 | 0.00 | 95.00 | ✓ | 146 | 146 | 95.00 | 95.75 | 0.75 | 2 | 100.0 | White | 0.25 | 46 |
| 07:15 | 18.00 | 0.00 | 95.75 | ✓ | 146 | 146 | 95.75 | 96.50 | 0.75 | 1 | 100.0 | White | 0.60 | 46 |
| 07:35 | 18.00 | 0.00 | 96.50 | ✓ | 146 | 146 | 96.50 | 98.00 | 1.50 | 2 | 100.0 | White | 1.50 | 47 |
| 08:00 | 18.00 | 0.00 | 98.00 | ✓ | 146 | 146 | 98.00 | 99.50 | 1.50 | 2 | 100.0 | White | 1.50 | 48 |
| 08:25 | 18.00 | 0.00 | 99.50 | ✓ | 146 | 146 | 99.50 | 101.00 | 1.50 | 2 | 100.0 | White | 1.50 | 49 |
| 08:55 | 18.00 | 0.00 | 101.00 | ✓ | 146 | 146 | 101.00 | 102.50 | 1.50 | 2 | 100.0 | White | 1.50 | 50 |
| 09:20 | 18.00 | 0.00 | 102.50 | ✓ | 146 | 146 | 102.50 | 104.00 | 1.50 | 2 | 100.0 | White | 1.50 | 51 |
| 09:45 | 18.00 | 0.00 | 104.00 | ✓ | 146 | 146 | 104.00 | 105.50 | 1.50 | 1 | 100.0 | White | 1.50 | 52 |
| 10:10 | 18.00 | 0.00 | 105.50 | ✓ | 146 | 146 | 105.50 | 107.00 | 1.50 | 2 | 100.0 | White | 1.50 | 53 |
| 10:30 | 18.00 | 0.00 | 107.00 | ✓ | 146 | 146 | 107.00 | 108.50 | 1.50 | 1 | 100.0 | White | 1.50 | 54 |
| 10:55 | 18.00 | 0.00 | 108.50 | ✓ | 146 | 146 | 108.50 | 110.00 | 1.50 | 1 | 100.0 | White | 105.00 | 55 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 95.00 | CHALK/FLINTS |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 06:45 | To 11:00 | Total | 4.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy/A.Rowe | Borehole No.: | OT_SPT_04 | | |
| Contract No: | C1984 | Assistant: | J.LAWSON | Day and Date: | Thursday 2019-07-04 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | -15- | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | DRY | Vehicle No.: | | | | Core Boxes Used: 8 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14:20 | 26.00 | 0.00 | 0.00 | ✓ | 178 | 178 | 0.00 | 2.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 15:10 | 26.00 | 0.00 | 2.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 15:50 | 26.00 | 0.00 | 4.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 16:30 | 26.00 | 0.00 | 6.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 17:05 | 26.00 | 0.00 | 8.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 18:40 | 26.00 | 0.00 | 10.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 19:40 | 26.00 | 0.00 | 12.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 30 | 0.0 | Grey | 0.00 | |
| 22:15 | 26.00 | 0.00 | 14.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 30 | 0.0 | Grey | 0.00 | |
| 23:35 | 26.00 | 0.00 | 16.00 | ✓ | 146 | 146 | 16.00 | 18.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 01:55 | 26.00 | 0.00 | 18.00 | ✓ | 146 | 146 | 18.00 | 20.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 02:30 | 26.00 | 0.00 | 20.00 | ✓ | 146 | 146 | 20.00 | 22.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 04:30 | 26.00 | 0.00 | 22.00 | ✓ | 146 | 146 | 22.00 | 24.00 | 2.00 | 15 | 100.0 | Grey | 0.00 | |
| 07:00 | 26.00 | 0.00 | 24.00 | ✓ | 146 | 146 | 24.00 | 25.00 | 1.00 | 8 | 100.0 | Grey | 1.00 | 1 |
| 07:40 | 26.00 | 0.00 | 25.00 | ✓ | 146 | 146 | 25.00 | 26.00 | 1.00 | 12 | 100.0 | Grey | 1.00 | 2 |
| 08:40 | 26.00 | 0.00 | 26.00 | ✓ | 146 | 146 | 26.00 | 27.00 | 1.00 | 7 | 100.0 | Grey | 1.00 | 3 |
| 09:05 | 26.00 | 0.00 | 27.00 | ✓ | 146 | 146 | 27.00 | 28.00 | 1.00 | 8 | 100.0 | Grey | 1.00 | 4 |
| 10:05 | 26.00 | 0.00 | 28.00 | ✓ | 146 | 146 | 28.00 | 28.90 | 0.90 | 8 | 100.0 | Grey | 0.90 | 5 |
| 10:30 | 26.00 | 0.00 | 28.90 | ✓ | 146 | 146 | 28.90 | 29.80 | 0.90 | 8 | 100.0 | Grey | 0.90 | 6 |
| 10:55 | 26.00 | 0.00 | 29.80 | ✓ | 146 | 146 | 29.80 | 31.30 | 1.50 | 10 | 100.0 | Grey | 1.50 | 7 |
| 11:20 | 26.00 | 0.00 | 31.30 | ✓ | 146 | 146 | 31.30 | 32.80 | 1.50 | 14 | 100.0 | Grey | 1.50 | 8 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | FINE SANDS |
| 2.00 | SAND |
| 23.60 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 14:15 | To 11:30 | Total | 21.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy/A.Rowe | Borehole No.: | OT_SPT_04 | | |
| Contract No: | C1984 | Assistant: | J.LAWSON | Day and Date: | Thursday 2019-07-04 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | -15- | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | DRY | Vehicle No.: | | | | Core Boxes Used: 8 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 0.00 | 0.45 | 1 | | |
| D | 2.00 | 2.45 | 2 | | |
| D | 4.00 | 4.43 | 3 | | |
| D | 6.00 | 6.32 | 4 | | |
| D | 8.00 | 8.29 | 5 | | |
| D | 10.00 | 10.27 | 6 | | |
| D | 12.00 | 12.19 | 7 | | |
| D | 14.00 | 12.19 | 8 | | |
| D | 16.00 | 12.19 | 9 | | |
| D | 18.00 | 12.19 | 10 | | |
| D | 20.00 | 12.19 | 0 | | |
| D | 22.00 | 12.19 | 0 | | |
| D | 24.00 | 12.19 | 11 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.00 | 0.00 | 450 | | | | | | | | |
| S | 2.00 | 2.45 | 2.00 | 0.00 | 0 | 3 | 6 | 150 | 7 | 6 | 7 | 10 | 300 |
| S | 4.00 | 4.43 | 4.00 | 0.00 | 0 | 3 | 8 | 150 | 9 | 13 | 15 | 13 | 280 |
| S | 6.00 | 6.32 | 6.00 | 0.00 | 0 | 7 | 13 | 150 | 22 | 22 | 6 | | 170 |
| S | 8.00 | 8.29 | 8.00 | 0.00 | 0 | 6 | 13 | 150 | 22 | 28 | | | 140 |
| S | 10.00 | 10.27 | 10.00 | 0.00 | 0 | 7 | 18 | 150 | 29 | 21 | | | 120 |
| S | 12.00 | 12.19 | 12.00 | 0.00 | 0 | 7 | 18 | 120 | 50 | | | | 65 |
| S | 14.00 | 14.29 | 14.00 | 0.00 | 0 | 8 | 12 | 150 | 25 | 25 | | | 145 |
| S | 16.00 | 16.31 | 16.00 | 0.00 | 0 | 14 | 11 | 150 | 20 | 22 | 8 | | 160 |
| S | 18.00 | 18.31 | 18.00 | 0.00 | 0 | 6 | 13 | 150 | 17 | 27 | 6 | | 160 |
| S | 20.00 | 20.28 | 20.00 | 0.00 | 0 | 3 | 7 | 150 | 26 | 24 | | | 130 |
| S | 22.00 | 22.29 | 22.00 | 0.00 | 0 | 4 | 8 | 150 | 28 | 22 | | | 140 |
| S | 24.00 | 24.45 | 24.00 | 0.00 | 0 | 4 | 7 | 150 | 4 | 14 | 8 | 10 | 300 |
| S | 26.00 | 26.45 | 26.00 | 0.00 | 0 | 5 | 7 | 150 | 7 | 9 | 9 | 12 | 300 |
| S | 28.00 | 28.45 | 28.00 | 0.00 | 0 | 4 | 5 | 150 | 6 | 7 | 5 | 9 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 14:15 | To 11:30 | Total | 21.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy/A.Rowe | Borehole No.: | OT_SPT_04 | | |
| Contract No: | C1984 | Assistant: | J.LAWER | Day and Date: | Friday 2019-07-05 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | 15 | Flush: polymer | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | DRY | Vehicle No.: | | | | Core Boxes Used: 15 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:05 | 26.00 | 0.00 | 32.80 | ✓ | 146 | 146 | 32.80 | 34.30 | 1.50 | 12 | 100.0 | Grey | 1.50 | 9 |
| 12:35 | 26.00 | 0.00 | 34.30 | ✓ | 146 | 146 | 34.30 | 35.80 | 1.50 | 10 | 100.0 | Grey | 1.50 | 10 |
| 13:05 | 26.00 | 0.00 | 35.80 | ✓ | 146 | 146 | 35.80 | 37.30 | 1.50 | 10 | 100.0 | Grey | 1.50 | 11 |
| 13:30 | 26.00 | 0.00 | 37.30 | ✓ | 146 | 146 | 37.30 | 38.80 | 1.50 | 9 | 100.0 | Grey | 1.50 | 12 |
| 13:55 | 26.00 | 0.00 | 38.80 | ✓ | 146 | 146 | 38.80 | 40.30 | 1.50 | 11 | 100.0 | Grey | 1.50 | 13 |
| 14:25 | 26.00 | 0.00 | 40.30 | ✓ | 146 | 146 | 40.30 | 41.80 | 1.50 | 12 | 100.0 | Grey | 1.50 | 14 |
| 14:55 | 26.00 | 0.00 | 41.80 | ✓ | 146 | 146 | 41.80 | 43.30 | 1.50 | 9 | 100.0 | Grey | 1.50 | 15 |
| 15:15 | 26.00 | 0.00 | 43.30 | ✓ | 146 | 146 | 43.30 | 44.80 | 1.50 | 9 | 100.0 | Grey | 1.50 | 16 |
| 15:40 | 26.00 | 0.00 | 44.80 | ✓ | 146 | 146 | 44.80 | 46.30 | 1.50 | 9 | 100.0 | Grey | 1.50 | 17 |
| 16:10 | 26.00 | 0.00 | 46.30 | ✓ | 146 | 146 | 46.30 | 47.80 | 1.50 | 11 | 100.0 | Grey | 1.50 | 18 |
| 16:40 | 26.00 | 0.00 | 47.80 | ✓ | 146 | 146 | 47.80 | 49.30 | 1.50 | 8 | 100.0 | Grey | 1.50 | 19 |
| 17:05 | 26.00 | 0.00 | 49.30 | ✓ | 146 | 146 | 49.30 | 50.80 | 1.50 | 7 | 100.0 | Grey | 1.50 | 20 |
| 17:25 | 26.00 | 0.00 | 50.80 | ✓ | 146 | 146 | 50.80 | 52.30 | 1.50 | 13 | 100.0 | Grey | 1.50 | 21 |
| 18:45 | 26.00 | 0.00 | 52.30 | ✓ | 146 | 146 | 52.30 | 53.80 | 1.50 | 7 | 100.0 | Grey | 1.50 | 22 |
| 19:10 | 26.00 | 0.00 | 53.80 | ✓ | 146 | 146 | 53.80 | 55.30 | 1.50 | 7 | 100.0 | Grey | 1.50 | 23 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| | |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 12:00 | To 19:30 | Total 7.5 | | hrs |
| Drilling 0.0 | | Casing 0.0 | | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy | Borehole No.: | OT-SPT-05 | | |
| Contract No: | C1984 | Assistant: | J.LAWER | Day and Date: | Tuesday 2019-06-25 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | 15 | Flush: mud | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | WET | Vehicle No.: | | | | Core Boxes Used: 6 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22:15 | 26.50 | 0.00 | 0.00 | ✓ | 225 | 225 | 0.00 | 2.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 23:30 | 26.50 | 0.00 | 2.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 00:15 | 26.50 | 0.00 | 4.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 00:50 | 26.50 | 0.00 | 6.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 01:30 | 26.50 | 0.00 | 8.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 02:15 | 26.50 | 0.00 | 10.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 03:00 | 26.50 | 0.00 | 12.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 03:50 | 26.50 | 0.00 | 14.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 04:40 | 26.50 | 0.00 | 16.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 07:00 | 26.50 | 0.00 | 18.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 07:50 | 26.50 | 0.00 | 20.00 | ✓ | 178 | 178 | 20.00 | 22.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 08:30 | 26.50 | 0.00 | 22.00 | ✓ | 178 | 178 | 22.00 | 24.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 09:20 | 26.50 | 0.00 | 24.00 | ✓ | 178 | 178 | 24.00 | 25.50 | 1.50 | 10 | 0.0 | Grey | 0.00 | |
| 10:30 | 26.50 | 0.00 | 25.50 | ✓ | 146 | 146 | 25.50 | 26.00 | 0.50 | 10 | 100.0 | Grey | 0.00 | |
| 11:30 | 26.50 | 0.00 | 26.00 | ✓ | 146 | 146 | 26.00 | 27.00 | 1.00 | 10 | 100.0 | Grey | 1.00 | ✓ 1 |
| 12:15 | 26.50 | 0.00 | 27.00 | ✓ | 146 | 146 | 27.00 | 28.00 | 1.00 | 10 | 100.0 | Grey | 0.75 | ✓ 2 |
| 12:45 | 26.50 | 0.00 | 28.00 | ✓ | 146 | 146 | 28.00 | 29.00 | 1.00 | 10 | 100.0 | Grey | 0.80 | ✓ 3 |
| 14:15 | 26.50 | 0.00 | 29.00 | ✓ | 146 | 146 | 29.00 | 30.00 | 1.00 | 10 | 100.0 | Grey | 1.20 | ✓ 4 |
| 14:30 | 26.50 | 0.00 | 30.00 | ✓ | 146 | 146 | 30.00 | 31.50 | 1.50 | 10 | 100.0 | Grey | 1.40 | ✓ 5 |
| 16:45 | 26.50 | 0.00 | 31.50 | ✓ | 146 | 146 | 31.50 | 33.00 | 1.50 | 10 | 100.0 | Grey | 1.50 | ✓ 6 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | SILTY SAND |
| 1.00 | SAND |
| 7.00 | SAND/SANDSTONE CHIPS |
| 22.00 | SAND |
| 24.00 | SILTY CLAY SAND |
| 33.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 22:15 | To 17:00 | Total | 18.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy | Borehole No.: | OT-SPT-05 | | |
| Contract No: | C1984 | Assistant: | J.LAWER | Day and Date: | Tuesday 2019-06-25 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | 15 | Flush: mud | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | WET | Vehicle No.: | | | | Core Boxes Used: 6 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| B | 0.00 | 1.00 | 1 | | |
| D | 2.00 | 1.00 | 2 | | |
| D | 4.00 | 1.00 | 3 | | |
| D | 6.00 | 1.00 | 4 | | |
| D | 8.00 | 1.00 | 5 | | |
| D | 10.00 | 1.00 | 6 | | |
| D | 12.00 | 1.00 | 7 | | |
| D | 14.00 | 1.00 | 8 | | |
| D | 16.00 | 1.00 | 9 | | |
| D | 18.00 | 1.00 | 10 | | |
| D | 20.00 | 1.00 | 11 | | |
| D | 22.00 | 1.00 | 12 | | |
| D | 24.00 | 1.00 | 13 | | |
| D | 26.00 | 1.00 | 14 | | |
| D | 28.00 | 1.00 | 15 | | |
| D | 30.00 | 1.00 | 16 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 2.00 | 2.45 | 2.00 | 0.00 | 0 | 2 | 4 | 150 | 6 | 8 | 9 | 10 | 300 |
| S | 4.00 | 4.38 | 4.00 | 0.00 | 0 | 3 | 9 | 150 | 11 | 17 | 22 | | 225 |
| S | 6.00 | 6.39 | 6.00 | 0.00 | 0 | 3 | 6 | 150 | 10 | 16 | 20 | 4 | 240 |
| S | 8.00 | 8.32 | 8.00 | 0.00 | 0 | 2 | 5 | 150 | 17 | 24 | 9 | | 170 |
| S | 10.00 | 10.45 | 10.00 | 0.00 | 0 | 3 | 2 | 150 | 2 | 7 | 6 | 7 | 300 |
| S | 12.00 | 12.45 | 12.00 | 0.00 | 0 | 4 | 9 | 150 | 9 | 11 | 11 | 11 | 300 |
| S | 14.00 | 14.45 | 14.00 | 0.00 | 0 | 4 | 5 | 150 | 5 | 7 | 7 | 9 | 300 |
| S | 16.00 | 16.45 | 16.00 | 0.00 | 0 | 2 | 3 | 150 | 6 | 8 | 8 | 8 | 300 |
| S | 18.00 | 18.45 | 18.00 | 0.00 | 0 | 2 | 6 | 150 | 8 | 9 | 9 | 10 | 300 |
| S | 20.00 | 20.45 | 20.00 | 0.00 | 0 | 3 | 6 | 150 | 8 | 13 | 16 | 14 | 300 |
| S | 22.00 | 22.45 | 22.00 | 0.00 | 0 | 4 | 7 | 150 | 10 | 10 | 12 | 13 | 300 |
| S | 24.00 | 24.45 | 24.00 | 0.00 | 0 | 9 | 12 | 150 | 13 | 15 | 9 | 10 | 300 |
| S | 26.00 | 26.45 | 26.00 | 0.00 | 0 | 3 | 6 | 150 | 6 | 9 | 9 | 9 | 300 |
| S | 28.00 | 28.45 | 28.00 | 0.00 | 0 | 4 | 7 | 150 | 7 | 8 | 10 | 9 | 300 |
| S | 30.00 | 30.45 | 30.00 | 0.00 | 0 | 3 | 1 | 150 | 2 | 7 | 6 | 6 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 22:15 | To | 17:00 | Total | 18.8 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy | Borehole No.: | OT-SPT-05 | | |
| Contract No: | C1984 | Assistant: | J.Warner/J.Lawer | Day and Date: | Wednesday 2019-06-26 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS12 SP | SPT Hammer No: | 15 | Flush: mud | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | Excalibur | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | dry/windy | Vehicle No.: | | | | Core Boxes Used: 15 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17:00 | 26.50 | 0.00 | 33.00 | ✓ | 146 | 146 | 0.00 | 33.00 | 33.00 | 1 | 100.0 | Grey | 0.00 | |
| 17:05 | 26.50 | 0.00 | 33.00 | ✓ | 146 | 146 | 33.00 | 34.50 | 1.50 | 15 | 100.0 | Grey | 1.50 | ✓ 7 |
| 18:40 | 26.50 | 0.00 | 34.50 | ✓ | 146 | 146 | 34.50 | 36.00 | 1.50 | 15 | 100.0 | Grey | 1.50 | ✓ 8 |
| 19:40 | 26.50 | 0.00 | 36.00 | ✓ | 146 | 146 | 36.00 | 37.50 | 1.50 | 15 | 100.0 | Grey | 1.50 | ✓ 9 |
| 20:10 | 26.50 | 0.00 | 37.50 | ✓ | 146 | 146 | 37.50 | 39.00 | 1.50 | 15 | 100.0 | Grey | 1.50 | ✓ 10 |
| 20:40 | 26.50 | 0.00 | 39.00 | ✓ | 146 | 146 | 39.00 | 40.50 | 1.50 | 15 | 100.0 | Grey | 1.50 | ✓ 11 |
| 21:10 | 26.50 | 0.00 | 40.50 | ✓ | 146 | 146 | 40.50 | 42.00 | 1.50 | 17 | 100.0 | Grey | 1.50 | ✓ 12 |
| 21:45 | 26.50 | 0.00 | 42.00 | ✓ | 146 | 146 | 42.00 | 43.50 | 1.50 | 16 | 100.0 | Grey | 1.50 | ✓ 13 |
| 22:30 | 26.50 | 0.00 | 43.50 | ✓ | 146 | 146 | 43.50 | 45.00 | 1.50 | 15 | 100.0 | Grey | 1.50 | ✓ 14 |
| 23:05 | 26.50 | 0.00 | 45.00 | ✓ | 146 | 146 | 45.00 | 46.50 | 1.50 | 9 | 100.0 | Grey | 1.50 | ✓ 15 |
| 23:30 | 26.50 | 0.00 | 46.50 | ✓ | 146 | 146 | 46.50 | 48.00 | 1.50 | 10 | 100.0 | Grey | 1.50 | ✓ 16 |
| 00:15 | 26.50 | 0.00 | 48.00 | ✓ | 146 | 146 | 48.00 | 49.50 | 1.50 | 10 | 100.0 | Grey | 0.20 | ✓ 17 |
| 00:50 | 26.50 | 0.00 | 51.00 | ✓ | 146 | 146 | 49.50 | 51.00 | 1.50 | 10 | 100.0 | Grey | 1.30 | ✓ 18 |
| 01:35 | 26.50 | 0.00 | 52.50 | ✓ | 146 | 146 | 51.00 | 52.50 | 1.50 | 10 | 100.0 | Grey | 1.50 | ✓ 19 |
| 02:05 | 26.50 | 0.00 | 54.00 | ✓ | 146 | 146 | 52.50 | 54.00 | 1.50 | 10 | 100.0 | Grey | 1.50 | ✓ 20 |
| 02:50 | 26.50 | 0.00 | 55.50 | ✓ | 146 | 146 | 54.00 | 55.50 | 1.50 | 10 | 100.0 | Grey | 1.50 | ✓ 21 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 33.00 | CLAY |
| 48.00 | LIMESTONE |
| 49.50 | CLAY/LIMESTONE |
| 55.50 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 17:00 | To | 03:00 | Total | 10.0 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy | Borehole No.: | OT-SPT-06 | | |
| Contract No: | C1984 | Assistant: | J.LAWSON | Day and Date: | Friday 2019-06-28 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | DRY | Vehicle No.: | | | | Core Boxes Used: 6 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15:20 | 26.50 | 0.00 | 0.00 | ✓ | 225 | 225 | 0.00 | 1.00 | 1.00 | 10 | 0.0 | Grey | 0.00 | |
| 17:20 | 26.50 | 0.00 | 1.00 | ✓ | 178 | 178 | 1.00 | 2.00 | 1.00 | 10 | 0.0 | Grey | 0.00 | |
| 18:30 | 26.50 | 0.00 | 2.00 | ✓ | 178 | 178 | 2.00 | 4.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 19:05 | 26.50 | 0.00 | 4.00 | ✓ | 178 | 178 | 4.00 | 6.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 19:55 | 26.50 | 0.00 | 6.00 | ✓ | 178 | 178 | 6.00 | 8.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 20:40 | 26.50 | 0.00 | 8.00 | ✓ | 178 | 178 | 8.00 | 10.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 21:15 | 26.50 | 0.00 | 10.00 | ✓ | 178 | 178 | 10.00 | 12.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 21:50 | 26.50 | 0.00 | 12.00 | ✓ | 178 | 178 | 12.00 | 14.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 22:25 | 26.50 | 0.00 | 14.00 | ✓ | 178 | 178 | 14.00 | 16.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 22:55 | 26.50 | 0.00 | 16.00 | ✓ | 178 | 178 | 16.00 | 18.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 23:20 | 26.50 | 0.00 | 18.00 | ✓ | 178 | 178 | 18.00 | 20.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 00:25 | 26.50 | 0.00 | 20.00 | ✓ | 178 | 178 | 20.00 | 22.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 00:55 | 26.50 | 0.00 | 22.00 | ✓ | 178 | 178 | 22.00 | 24.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 01:40 | 26.50 | 0.00 | 24.00 | ✓ | 178 | 178 | 24.00 | 26.00 | 2.00 | 10 | 0.0 | Grey | 0.00 | |
| 02:40 | 26.50 | 0.00 | 26.00 | ✓ | 146 | 146 | 26.00 | 27.00 | 1.00 | 10 | 1.0 | Grey | 100.00 | 1 |
| 04:10 | 26.50 | 0.00 | 27.00 | ✓ | 146 | 146 | 27.00 | 28.00 | 1.00 | 10 | 1.0 | Grey | 100.00 | 2 |
| 05:30 | 26.50 | 0.00 | 28.00 | ✓ | 146 | 146 | 28.00 | 29.00 | 1.00 | 10 | 1.0 | Grey | 100.00 | 3 |
| 06:40 | 26.50 | 0.00 | 29.00 | ✓ | 146 | 146 | 29.00 | 30.00 | 1.00 | 5 | 0.9 | Grey | 100.00 | 4 |
| 07:25 | 26.50 | 0.00 | 30.00 | ✓ | 146 | 146 | 30.00 | 31.50 | 1.50 | 13 | 1.5 | Grey | 100.00 | 5 |
| 08:00 | 26.50 | 0.00 | 31.50 | ✓ | 146 | 146 | 31.50 | 33.00 | 1.50 | 15 | 1.5 | Grey | 100.00 | 6 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 0.00 | SAND |
| 26.00 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 15:15 | To 08:00 | Total | 16.8 | hrs |
| Drilling 0.0 | | Casing | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy | Borehole No.: | OT-SPT-06 | | |
| Contract No: | C1984 | Assistant: | J.LAWSON | Day and Date: | Friday 2019-06-28 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | 15 | Flush: polymer | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: N | Angle: vertical |
| Weather: | DRY | Vehicle No.: | | | | Core Boxes Used: 6 | Bearing: |

## SAMPLING

| Type | From (m) | To (m) | No | Blows | Length (mm) |
|---|---|---|---|---|---|
| D | 0.00 | 0.45 | 1 | | |
| B | 0.00 | 1.00 | 2 | | |
| D | 2.00 | 2.45 | 3 | | |
| D | 4.00 | 4.45 | 4 | | |
| D | 6.00 | 6.45 | 5 | | |
| D | 8.00 | 8.45 | 6 | | |
| D | 10.00 | 10.45 | 7 | | |
| D | 12.00 | 12.45 | 8 | | |
| D | 14.00 | 14.45 | 9 | | |
| D | 16.00 | 16.45 | 10 | | |
| D | 18.00 | 18.45 | 11 | | |
| D | 20.00 | 20.45 | 12 | | |
| D | 22.00 | 22.45 | 13 | | |
| D | 24.00 | 24.44 | 14 | | |
| D | 26.00 | 26.45 | 15 | | |
| D | 28.00 | 28.45 | 16 | | |
| D | 30.00 | 30.45 | 17 | | |

## SPT/CPT

| Type | From (m) | To (m) | Casing Depth (m) | Water Level (m/dry) | SWP (mm) | Seating Blows 75 | Seating Blows 75 | Seating Pen (mm) | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Blows 75 | Main Pen (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 0.00 | 0.45 | 0.00 | 0.00 | 0 | 4 | 6 | 150 | 7 | 9 | 8 | 7 | 300 |
| S | 2.00 | 2.45 | 2.00 | 0.00 | 0 | 2 | 6 | 150 | 9 | 8 | 8 | 8 | 300 |
| S | 4.00 | 4.45 | 4.00 | 0.00 | 0 | 4 | 6 | 150 | 6 | 6 | 10 | 14 | 300 |
| S | 6.00 | 6.45 | 6.00 | 0.00 | 0 | 4 | 5 | 150 | 4 | 6 | 7 | 7 | 300 |
| S | 8.00 | 8.45 | 8.00 | 0.00 | 0 | 3 | 4 | 150 | 4 | 5 | 5 | 7 | 300 |
| S | 10.00 | 10.45 | 10.00 | 0.00 | 0 | 3 | 4 | 150 | 5 | 5 | 6 | 7 | 300 |
| S | 12.00 | 12.45 | 12.00 | 0.00 | 0 | 2 | 2 | 150 | 4 | 4 | 3 | 3 | 300 |
| S | 14.00 | 14.45 | 14.00 | 0.00 | 0 | 6 | 10 | 150 | 10 | 10 | 12 | 13 | 300 |
| S | 16.00 | 16.45 | 16.00 | 0.00 | 0 | 3 | 6 | 150 | 8 | 9 | 10 | 12 | 300 |
| S | 18.00 | 18.45 | 18.00 | 0.00 | 0 | 5 | 8 | 150 | 8 | 8 | 9 | 10 | 300 |
| S | 20.00 | 20.45 | 20.00 | 0.00 | 0 | 6 | 7 | 150 | 9 | 11 | 13 | 13 | 300 |
| S | 22.00 | 22.45 | 22.00 | 0.00 | 0 | 4 | 12 | 150 | 10 | 14 | 13 | 13 | 300 |
| S | 24.00 | 24.44 | 24.00 | 0.00 | 0 | 4 | 8 | 150 | 14 | 15 | 15 | 6 | 290 |
| S | 26.00 | 26.45 | 26.00 | 0.00 | 0 | 2 | 3 | 150 | 4 | 10 | 6 | 9 | 300 |
| S | 28.00 | 28.45 | 28.00 | 0.00 | 0 | 4 | 6 | 150 | 6 | 10 | 9 | 8 | 300 |
| S | 30.00 | 30.45 | 30.00 | 0.00 | 0 | 4 | 5 | 150 | 6 | 8 | 9 | 8 | 300 |

| | |
|---|---|
| B | Bulk |
| D | Disturbed |
| ES | Environmental |
| P | Piston |
| SB | Small bulk |
| U | Open tube (U100) |
| UT | Undisturbed thin wall |
| W | Water |
| …# | Failed no recovery |
| …#B | Failed recovered as bulk |

UT/U/P require blowcount and length

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 15:15 | To 08:00 | Total | 16.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | Sizewell | Foreman: | J.Sandy | Borehole No.: | OT-SPT-06 | | |
| Contract No: | C1984 | Assistant: | J.LAWER | Day and Date: | Saturday 2019-06-29 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | 15 | Flush: water | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | DRY | Vehicle No.: | | | | Core Boxes Used: 15 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 09:05 | 26.50 | 0.00 | 33.00 | ✓ | 146 | 146 | 33.00 | 34.50 | 1.50 | 9 | 100.0 | Grey | 1.50 | 7 |
| 09:35 | 26.50 | 0.00 | 34.50 | ✓ | 146 | 146 | 34.50 | 36.00 | 1.50 | 6 | 100.0 | Grey | 1.50 | 8 |
| 10:00 | 26.50 | 0.00 | 36.00 | ✓ | 146 | 146 | 36.00 | 37.50 | 1.50 | 5 | 100.0 | Grey | 1.50 | 9 |
| 10:25 | 26.50 | 0.00 | 37.50 | ✓ | 146 | 146 | 37.50 | 39.00 | 1.50 | 5 | 100.0 | Grey | 1.50 | 10 |
| 10:45 | 26.50 | 0.00 | 39.00 | ✓ | 146 | 146 | 39.00 | 40.50 | 1.50 | 5 | 100.0 | Grey | 1.50 | 11 |
| 11:05 | 26.50 | 0.00 | 40.50 | ✓ | 146 | 146 | 40.50 | 42.00 | 1.50 | 7 | 100.0 | Grey | 1.50 | 12 |
| 12:10 | 26.50 | 0.00 | 42.00 | ✓ | 146 | 146 | 42.00 | 43.50 | 1.50 | 6 | 100.0 | Grey | 1.50 | 13 |
| 12:35 | 26.50 | 0.00 | 43.50 | ✓ | 146 | 146 | 43.50 | 45.00 | 1.50 | 9 | 100.0 | Grey | 1.50 | 14 |
| 13:00 | 26.50 | 0.00 | 45.00 | ✓ | 146 | 146 | 45.00 | 46.50 | 1.50 | 10 | 100.0 | Grey | 1.50 | 15 |
| 13:25 | 26.50 | 0.00 | 46.50 | ✓ | 146 | 146 | 46.50 | 48.00 | 1.50 | 12 | 100.0 | Grey | 1.50 | 16 |
| 13:55 | 26.50 | 0.00 | 48.00 | ✓ | 146 | 146 | 48.00 | 49.50 | 1.50 | 8 | 100.0 | Grey | 1.50 | 17 |
| 14:20 | 26.50 | 0.00 | 49.50 | ✓ | 146 | 146 | 49.50 | 51.00 | 1.50 | 9 | 100.0 | Grey | 1.50 | 18 |
| 14:45 | 26.50 | 0.00 | 51.00 | ✓ | 146 | 146 | 51.00 | 52.50 | 1.50 | 10 | 100.0 | Grey | 1.50 | 19 |
| 15:15 | 26.50 | 0.00 | 52.50 | ✓ | 146 | 146 | 52.50 | 54.00 | 1.50 | 11 | 100.0 | Grey | 1.50 | 20 |
| 15:40 | 26.50 | 0.00 | 54.00 | ✓ | 146 | 146 | 54.00 | 55.50 | 1.50 | 11 | 100.0 | Grey | 1.50 | 21 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 55.50 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | | |
|---|---|---|---|---|---|
| From | 09:00 | To | 15:45 | Total | 6.8 hrs |
| Drilling | 0.0 | Casing | | | 0.0 hrs |
| Move and Set Up | | | | | 0.0 hrs |
| Delays | | | | | 0.0 hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE / | Borehole No.: | OT-RB-07 | | |
| Contract No: | C1984 | Assistant: | J.SANDY | Day and Date: | Monday 2019-07-01 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | | Flush: water | Drilling Type: Open & Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 19 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06:30 | 25.30 | 0.00 | 0.00 | ✓ | 178 | 178 | 0.00 | 26.50 | 26.50 | 180 | 0.0 | Grey | 0.00 | |
| 10:40 | 25.30 | 0.00 | 26.50 | ✓ | 146 | 146 | 26.50 | 27.70 | 1.20 | 12 | 100.0 | Grey | 1.20 | 1 |
| 11:10 | 25.30 | 0.00 | 27.70 | ✓ | 146 | 146 | 27.70 | 29.20 | 1.50 | 13 | 100.0 | Grey | 1.50 | 2 |
| 12:05 | 25.30 | 0.00 | 29.20 | ✓ | 146 | 146 | 29.20 | 30.70 | 1.50 | 11 | 100.0 | Grey | 1.50 | 3 |
| 12:30 | 25.30 | 0.00 | 30.70 | ✓ | 146 | 146 | 30.70 | 32.20 | 1.50 | 11 | 100.0 | Grey | 1.50 | 4 |
| 12:55 | 25.30 | 0.00 | 32.20 | ✓ | 146 | 146 | 32.20 | 33.70 | 1.50 | 13 | 100.0 | Grey | 1.50 | 5 |
| 13:20 | 25.30 | 0.00 | 33.70 | ✓ | 146 | 146 | 33.70 | 35.20 | 1.50 | 10 | 100.0 | Grey | 1.50 | 6 |
| 13:45 | 25.30 | 0.00 | 35.20 | ✓ | 146 | 146 | 35.20 | 36.70 | 1.50 | 10 | 100.0 | Grey | 1.50 | 7 |
| 14:10 | 25.30 | 0.00 | 36.70 | ✓ | 146 | 146 | 36.70 | 38.20 | 1.50 | 9 | 100.0 | Grey | 1.50 | 8 |
| 14:30 | 25.30 | 0.00 | 38.20 | ✓ | 146 | 146 | 38.20 | 39.70 | 1.50 | 11 | 100.0 | Grey | 1.40 | 9 |
| 14:55 | 25.30 | 0.00 | 39.70 | ✓ | 146 | 146 | 39.70 | 41.20 | 1.50 | 11 | 100.0 | Grey | 1.50 | 10 |
| 15:30 | 25.30 | 0.00 | 41.20 | ✓ | 146 | 146 | 41.20 | 42.70 | 1.50 | 13 | 100.0 | Grey | 1.50 | 11 |
| 16:15 | 25.30 | 0.00 | 42.70 | ✓ | 146 | 146 | 42.70 | 44.20 | 1.50 | 11 | 100.0 | Grey | 1.50 | 12 |
| 16:40 | 25.30 | 0.00 | 44.20 | ✓ | 146 | 146 | 44.20 | 45.70 | 1.50 | 12 | 100.0 | Grey | 1.50 | 13 |
| 17:05 | 25.30 | 0.00 | 45.70 | ✓ | 146 | 146 | 45.70 | 47.20 | 1.50 | 12 | 100.0 | Grey | 1.50 | 14 |
| 17:30 | 25.30 | 0.00 | 47.20 | ✓ | 146 | 146 | 47.20 | 48.70 | 1.50 | 16 | 100.0 | Grey | 1.50 | 15 |
| 18:45 | 25.30 | 0.00 | 48.70 | ✓ | 146 | 146 | 48.70 | 50.20 | 1.50 | 27 | 100.0 | Grey | 1.50 | 16 |
| 19:25 | 25.30 | 0.00 | 50.20 | ✓ | 146 | 146 | 50.20 | 51.70 | 1.50 | 13 | 100.0 | Grey | 1.50 | 17 |
| 19:55 | 25.30 | 0.00 | 51.70 | ✓ | 146 | 146 | 51.70 | 53.20 | 1.50 | 12 | 100.0 | Grey | 1.50 | 18 |
| 21:10 | 25.30 | 0.00 | 53.20 | ✓ | 146 | 146 | 53.20 | 54.70 | 1.50 | 9 | 100.0 | Grey | 1.50 | 19 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 26.50 | CLAY |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 06:30 | To 21:15 | Total | 14.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE / | Borehole No.: | OT-RB-07 | | |
| Contract No: | C1984 | Assistant: | J.SANDY | Day and Date: | Monday 2019-07-01 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | | Flush: water | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | incomplete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 20 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21:45 | 25.30 | 0.00 | 54.70 | ✓ | 146 | 146 | 54.70 | 56.20 | 1.50 | 16 | 100.0 | Grey | 1.50 | 20 |
| 22:20 | 25.30 | 0.00 | 56.20 | ✓ | 146 | 146 | 56.20 | 57.70 | 1.50 | 13 | 100.0 | Grey | 1.50 | 21 |
| 22:50 | 25.30 | 0.00 | 57.70 | ✓ | 146 | 146 | 57.70 | 59.20 | 1.50 | 7 | 100.0 | Grey | 1.30 | 22 |
| 23:25 | 25.30 | 0.00 | 59.20 | ✓ | 146 | 146 | 59.20 | 60.70 | 1.50 | 18 | 100.0 | Grey | 1.10 | 23 |
| 00:45 | 25.30 | 0.00 | 60.70 | ✓ | 146 | 146 | 60.70 | 62.20 | 1.50 | 10 | 100.0 | Grey | 0.85 | 24 |
| 01:20 | 25.30 | 0.00 | 62.20 | ✓ | 146 | 146 | 62.20 | 63.70 | 1.50 | 5 | 100.0 | Grey | 1.35 | 25 |
| 01:45 | 25.30 | 0.00 | 63.70 | ✓ | 146 | 146 | 63.70 | 65.20 | 1.50 | 15 | 100.0 | Grey | 1.50 | 26 |
| 02:20 | 25.30 | 0.00 | 65.20 | ✓ | 146 | 146 | 65.20 | 66.70 | 1.50 | 21 | 100.0 | Grey | 1.50 | 27 |
| 03:00 | 25.30 | 0.00 | 66.70 | ✓ | 146 | 146 | 66.70 | 68.20 | 1.50 | 14 | 100.0 | Grey | 1.50 | 28 |
| 03:35 | 25.30 | 0.00 | 68.20 | ✓ | 146 | 146 | 68.20 | 69.70 | 1.50 | 8 | 100.0 | Grey | 1.35 | 29 |
| 04:00 | 25.30 | 0.00 | 69.70 | ✓ | 146 | 146 | 69.70 | 71.20 | 1.50 | 16 | 100.0 | Grey | 1.40 | 30 |
| 04:35 | 25.30 | 0.00 | 71.20 | ✓ | 146 | 146 | 71.20 | 72.70 | 1.50 | 14 | 100.0 | Grey | 1.50 | 31 |
| 05:10 | 25.30 | 0.00 | 72.70 | ✓ | 146 | 146 | 72.70 | 74.20 | 1.50 | 14 | 100.0 | Grey | 1.50 | 32 |
| 06:30 | 25.30 | 0.00 | 74.20 | ✓ | 146 | 146 | 74.20 | 75.70 | 1.50 | 16 | 100.0 | Grey | 1.35 | 33 |
| 07:10 | 25.30 | 0.00 | 75.70 | ✓ | 146 | 146 | 75.70 | 77.20 | 1.50 | 17 | 100.0 | Grey | 1.50 | 34 |
| 07:40 | 25.30 | 0.00 | 77.20 | ✓ | 146 | 146 | 77.20 | 78.70 | 1.50 | 17 | 100.0 | Grey | 1.50 | 35 |
| 08:15 | 25.30 | 0.00 | 78.70 | ✓ | 146 | 146 | 78.70 | 80.20 | 1.50 | 17 | 100.0 | Grey | 1.50 | 36 |
| 08:45 | 25.30 | 0.00 | 80.20 | ✓ | 146 | 146 | 80.20 | 81.70 | 1.50 | 16 | 100.0 | Grey | 1.45 | 37 |
| 09:50 | 25.30 | 0.00 | 81.70 | ✓ | 146 | 146 | 81.70 | 82.70 | 1.00 | 9 | 100.0 | Grey | 1.00 | 38 |
| 10:20 | 25.30 | 0.00 | 82.70 | ✓ | 146 | 146 | 82.70 | 84.20 | 1.50 | 12 | 100.0 | Grey | 1.50 | 39 |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 54.70 | CLAY / FINE SANDS |
| 56.20 | MOTTLED CLAY / FINE SANDS |
| 62.20 | MOTTLED CLAY |
| 65.20 | MOTTLED CLAY / SANDS |
| 74.20 | SANDY CLAY |
| 75.70 | CLAY |
| 78.70 | BROWN CLAY |
| 81.70 | CLAY |
| 82.70 | CLAY / SILT / FLINT |

## REMARKS

Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 21:45 | To 10:30 | Total | 12.8 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# NS Rotary Drilling Daily Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Project: | SIZEWELL | Foreman: | A.ROWE / | Borehole No.: | OT-RB-07 | | |
| Contract No: | C1984 | Assistant: | J.SANDY | Day and Date: | Tuesday 2019-07-02 | | |
| Client: | NNB EDF | Rig Type: | Comacchio MCS120 | SPT Hammer No: | | Flush: water | Drilling Type: Cored |
| Client's No.: | C000 | Rig No.: | EXCALIBUR | Borehole Completion: | complete | Coreliner: Y | Angle: vertical |
| Weather: | GOOD | Vehicle No.: | | | | Core Boxes Used: 16 | Bearing: |

## DRILLING RECORD

| Time (hh:mm) | Deck-Mud (m) | Deck-Water (m) | Casing Depth (m) | Water Level (m/dry) | Borehl Diam (mm) | Casing Diam (mm) | From (m) | To (m) | Length (m) | Time (mins) | Flush Return % | Flush Colour | Core Rec'y (m) | Box No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10:50 | 25.30 | 0.00 | 84.20 | ✓ | 146 | 146 | 84.20 | 85.70 | 1.50 | 6 | 100.0 | White | 0.90 | 40 |
| 11:20 | 25.30 | 0.00 | 85.70 | ✓ | 146 | 146 | 85.70 | 87.20 | 1.50 | 5 | 100.0 | White | 0.00 | 41 |
| 12:50 | 25.30 | 0.00 | 87.20 | ✓ | 146 | 146 | 87.20 | 88.70 | 1.50 | 3 | 100.0 | White | 0.10 | 42 |
| 13:20 | 25.30 | 0.00 | 88.70 | ✓ | 146 | 146 | 88.70 | 89.70 | 1.00 | 2 | 100.0 | White | 0.03 | 42 |
| 14:00 | 25.30 | 0.00 | 89.70 | ✓ | 146 | 146 | 89.70 | 90.20 | 0.50 | 2 | 100.0 | White | 0.50 | 43 |
| 14:30 | 25.30 | 0.00 | 90.20 | ✓ | 146 | 146 | 90.20 | 91.70 | 1.50 | 2 | 100.0 | White | 1.50 | 44 |
| 15:15 | 25.30 | 0.00 | 91.70 | ✓ | 146 | 146 | 91.70 | 93.20 | 1.50 | 2 | 100.0 | White | 1.50 | 45 |
| 15:45 | 25.30 | 0.00 | 93.20 | ✓ | 146 | 146 | 93.20 | 94.70 | 1.50 | 2 | 100.0 | White | 1.50 | 46 |
| 16:10 | 25.30 | 0.00 | 94.70 | ✓ | 146 | 146 | 94.70 | 96.20 | 1.50 | 2 | 100.0 | White | 1.50 | 47 |
| 16:55 | 25.30 | 0.00 | 96.20 | ✓ | 146 | 146 | 96.20 | 97.70 | 1.50 | 1 | 100.0 | White | 1.40 | 48 |
| 17:30 | 25.30 | 0.00 | 97.70 | ✓ | 146 | 146 | 97.70 | 99.20 | 1.50 | 2 | 100.0 | White | 1.40 | 49 |
| 17:50 | 25.30 | 0.00 | 99.20 | ✓ | 146 | 146 | 99.20 | 100.70 | 1.50 | 1 | 100.0 | White | 1.50 | 50 |
| 19:00 | 25.30 | 0.00 | 100.70 | ✓ | 146 | 146 | 100.70 | 102.20 | 1.50 | 1 | 100.0 | White | 1.50 | 51 |
| 19:25 | 25.30 | 0.00 | 102.20 | ✓ | 146 | 146 | 102.20 | 103.70 | 1.50 | 1 | 100.0 | White | 1.50 | 52 |
| 19:50 | 25.30 | 0.00 | 103.70 | ✓ | 146 | 146 | 103.70 | 105.20 | 1.50 | 2 | 100.0 | White | 0.00 | |
| 21:00 | 25.30 | 0.00 | 105.20 | ✓ | 146 | 146 | 105.20 | 106.70 | 1.50 | 3 | 100.0 | White | 0.60 | 53 |
| 21:30 | 25.30 | 0.00 | 106.70 | ✓ | 146 | 146 | 106.70 | 108.20 | 1.50 | 2 | 100.0 | White | 1.40 | 54 |
| 21:55 | 25.30 | 0.00 | 108.20 | ✓ | 146 | 146 | 108.20 | 109.70 | 1.50 | 12 | 0.0 | White | 0.00 | |
| 22:50 | 25.30 | 0.00 | 109.70 | ✓ | 146 | 146 | 109.70 | 111.20 | 1.50 | 2 | 0.0 | White | 0.60 | 55 |
| | | | | | | | | | | | | | | |

Tick in Box No. column indicates that core starts in previous box

## STRATA DESCRIPTION

| Depth (m) | Description |
|---|---|
| 85.70 | CHALK / FLINTS |
| 87.20 | FLINT |
| 89.70 | FLINT / CHALK |
| 90.20 | CHALK / FLINTS |

## REMARKS

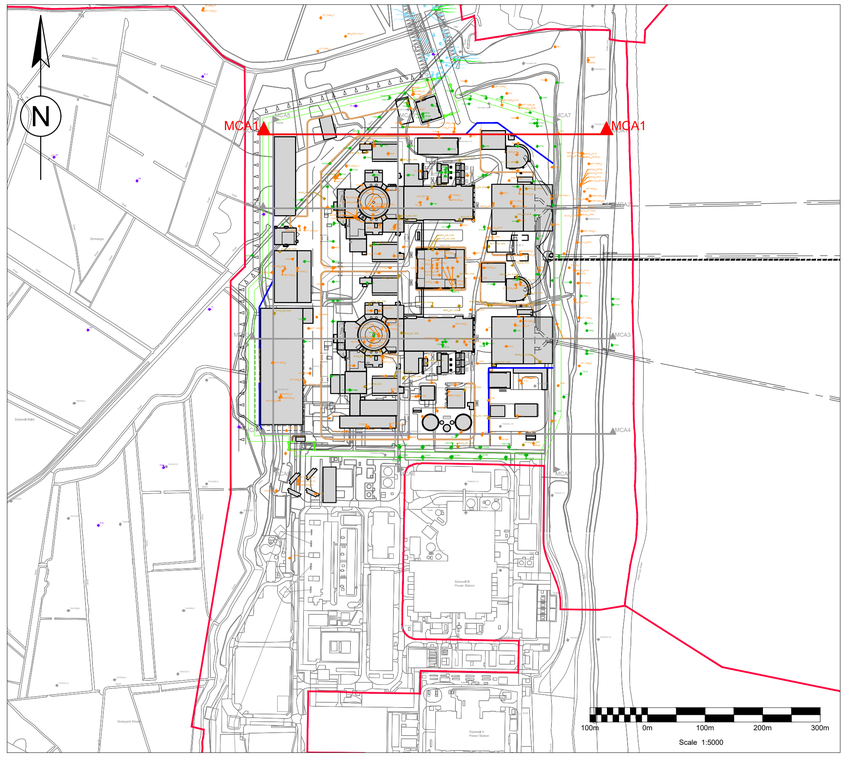
Standing Time, Dayworks, Breakdowns, Tests, Services

Signed: Driller

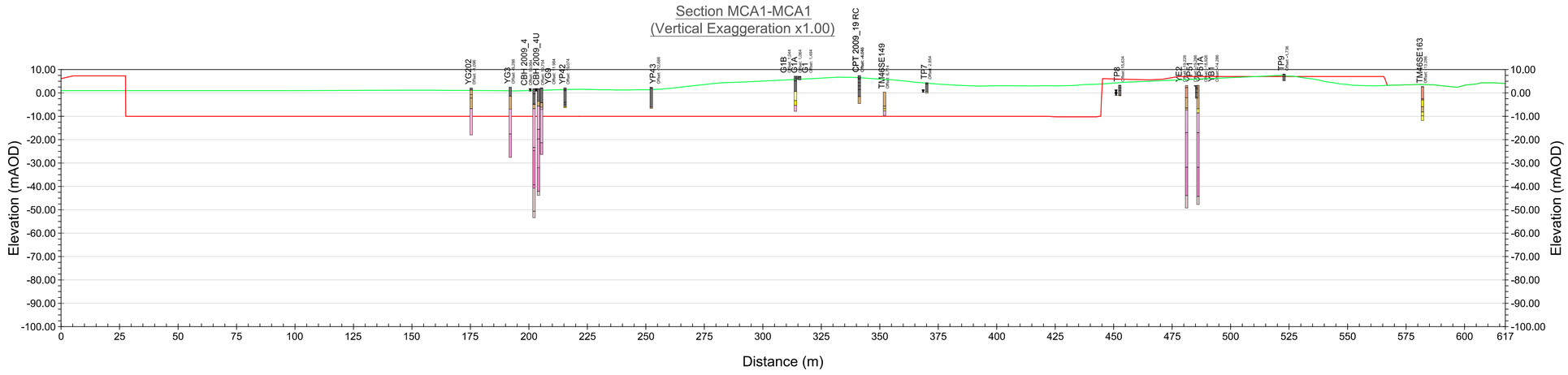
## TIME KEEPING

| | | | | |
|---|---|---|---|---|
| From 10:45 | To 23:00 | Total | 12.3 | hrs |
| Drilling 0.0 | Casing | | 0.0 | hrs |
| Move and Set Up | | | 0.0 | hrs |
| Delays | | | 0.0 | hrs |

# Appendix G – Geological Cross Sections




KEY PLAN




**UK PROTECTIVE MARKING:**
UK PROTECT

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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | | N/A | |

NOTES:

1. EDF aerial topography survey mapping data with a base scale of 1:5000 adopted as drawing background topography data.
2. All co-ordinates are in metres and are based on the national grid. All levels are in metres and relative to Ordnance Datum.
3. Exploratory hole positions are plotted from as-built co-ordinates provided in AGS format or created from PDF factual data as stated in Section 1.6 of Atkins GDR SZC-EW0400-XX-000-REP-100001.
4. Exploratory hole offset distance from the section lines are taken from ground level and indicated on the section in metres. Positive and negative offset directions are indicated on the section key plan.
5. Excavation levels have been interpreted from the documents submitted to Atkins in GC-45 dated 24 September 2019.
6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE

PROPOSED GROUND PROFILE

WATER STRIKE

STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

*NNB GenCo (SZC) LTD.*

| 1st partner | 2nd partner |
|---|---|
| NNB GENCO | EDF ENERGY |

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A | QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING: 000

SYSTEM: N/A

SCALE 1:1000

SIZE A1

PAGE 1/1

DESCRIPTION
SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL
SECTION MCA1-MCA1'

DOCUMENT REFERENCE No.

| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |
|---|---|---|---|---|---|
| SZC | EW0400 | XX | 000 | DRW | 100017 |

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: N/A

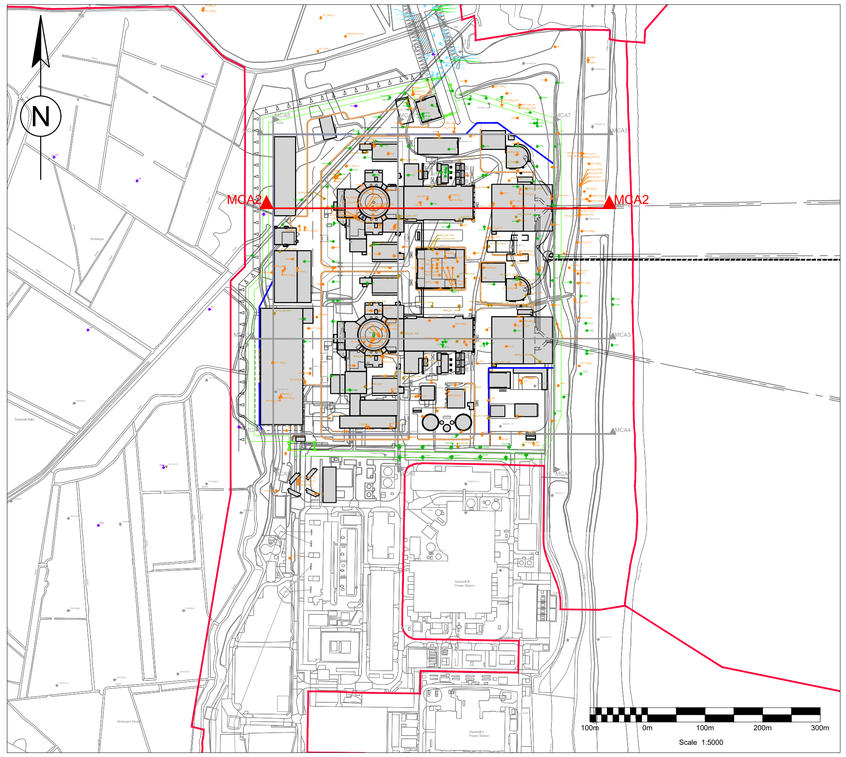
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For A0 and A1 : ABERPRTHLUOCGLIVWMNSZXKY
zsaeocmuvnwxrfkhbdpqgyjtl 71423855690
0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: | EDF: | CONTRACTOR: |
|---|---|---|---|
| | OWNERSHIP | N/A | N/A |

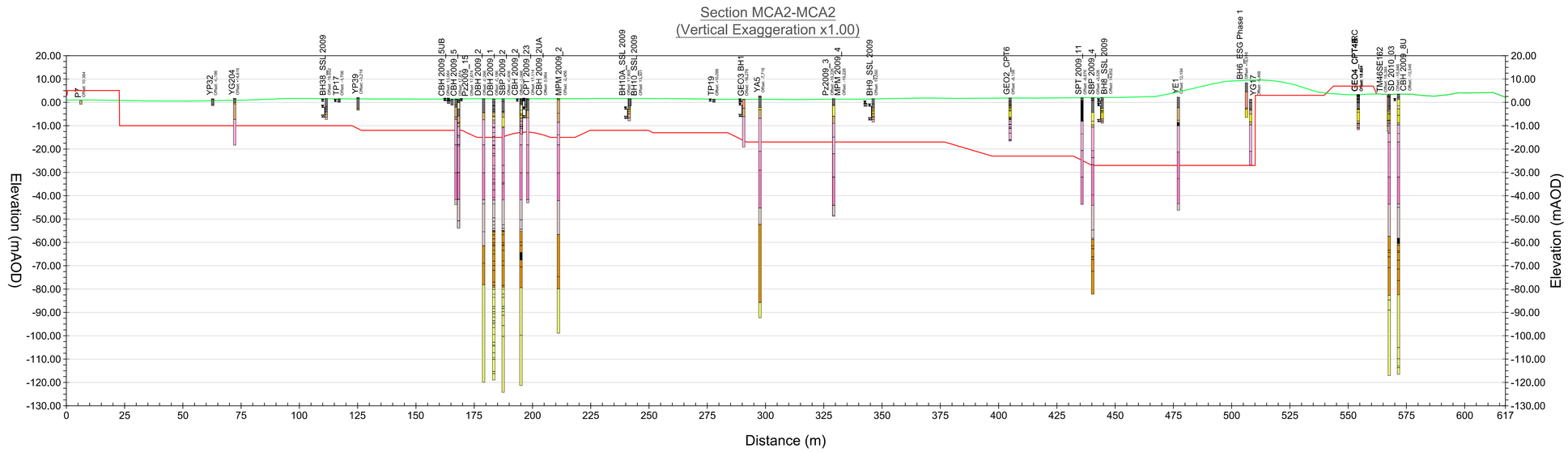
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UK PROTECT

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KEY PLAN




**UK PROTECTIVE MARKING:**
UK PROTECT

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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | N/A | | |

NOTES:

1. EDF aerial topography survey mapping data with a base scale of 1:5000 adopted as drawing background topography data.
2. All co-ordinates are in metres and are based on the national grid. All levels are in metres and relative to Ordnance Datum.
3. Exploratory hole positions are plotted from as-built co-ordinates provided in AGS format or created from PDF factual data as stated in Section 1.6 of Atkins GDR SZC-EW0400-XX-000-REP-100001.
4. Exploratory hole offset distance from the section lines are taken from ground level and indicated on the section in metres. Positive and negative offset directions are indicated on the section key plan.
5. Excavation levels have been interpreted from the documents submitted to Atkins in GC-45 dated 24 September 2019.
6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE
WATER STRIKE
STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

| NNB GenCo (SZC) LTD. | 1st partner: NNB GENCO | 2nd partner: EDF ENERGY |
|---|---|---|

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A | QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING: 000

SYSTEM: N/A

SCALE 1:1000

SIZE A1

PAGE 1/1

DESCRIPTION
SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL
SECTION MCA2-MCA2'

DOCUMENT REFERENCE No.

| SZC | EW0400 | XX | 000 | DRW | 100018 |
|---|---|---|---|---|---|
| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: N/A

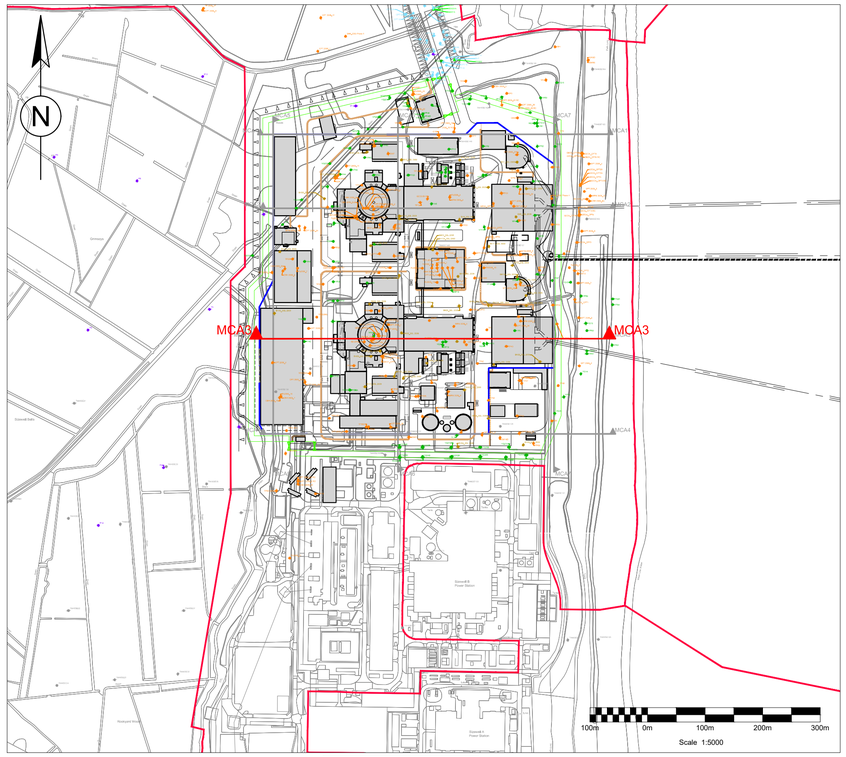
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For A0 and A1 : ABERPRTHLUOCGLIVWMNSZXKY
zsaeocmuvnwxrfkhbdpqgyjtl 71423855690
0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: OWNERSHIP | EDF: N/A | CONTRACTOR: N/A |
|---|---|---|---|

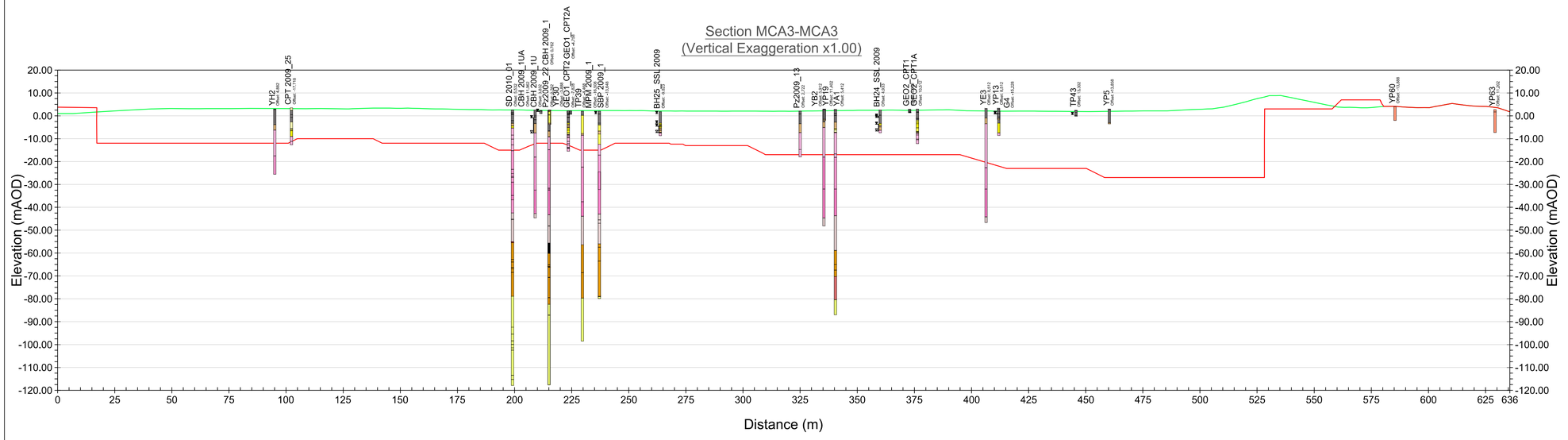
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UK PROTECT

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KEY PLAN




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| DRAWING GRID / COORDINATE SYSTEM: | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | N/A | | |

NOTES:

1. EDF aerial topography survey mapping data with a base scale of 1:5000 adopted as drawing background topography data.
2. All co-ordinates are in metres and are based on the national grid. All levels are in metres and relative to Ordnance Datum.
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4. Exploratory hole offset distance from the section lines are taken from ground level and indicated on the section in metres. Positive and negative offset directions are indicated on the section key plan.
5. Excavation levels have been interpreted from the documents submitted to Atkins in GC-45 dated 24 September 2019.
6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE
WATER STRIKE
STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

| NNB GenCo (SZC) LTD. | 1st partner: NNB GENCO | 2nd partner: EDF ENERGY |
|---|---|---|

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A | QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING: 000

SYSTEM: N/A

SCALE 1:1000

SIZE A1

PAGE 1/1

DESCRIPTION
SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL
SECTION MCA3-MCA3'

DOCUMENT REFERENCE No.

| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |
|---|---|---|---|---|---|
| SZC | EW0400 | XX | 000 | DRW | 100019 |

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: N/A

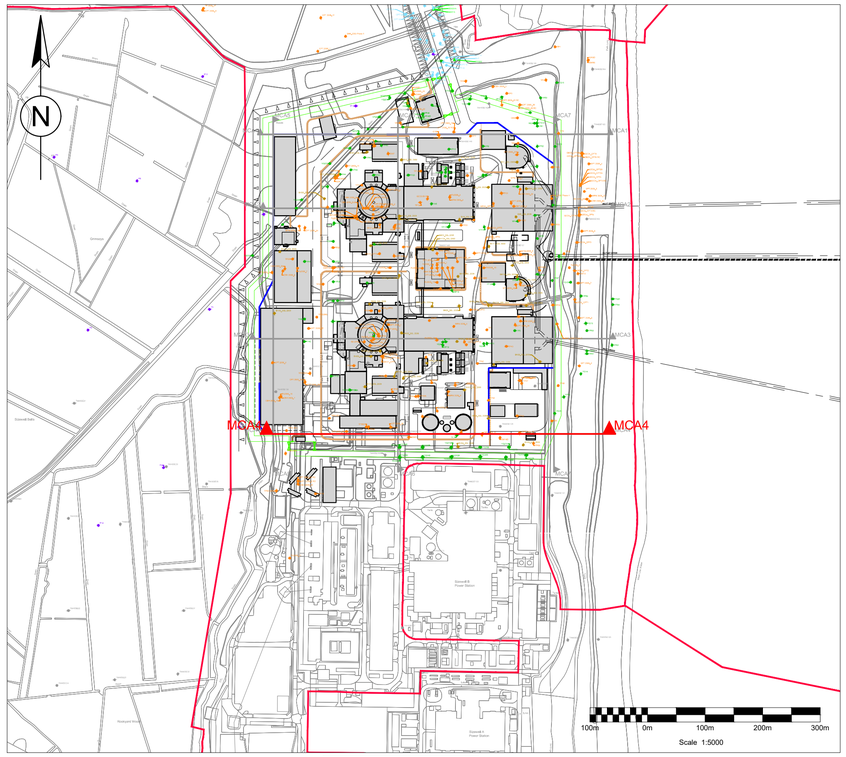
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For A0 and A1 : ABERPRTHLUOCGLIVWMNSZXKY
zsaeocmuvmxwrfkhbdpqgyjtl 71423855690
0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: OWNERSHIP | EDF: N/A | CONTRACTOR: N/A |
|---|---|---|---|

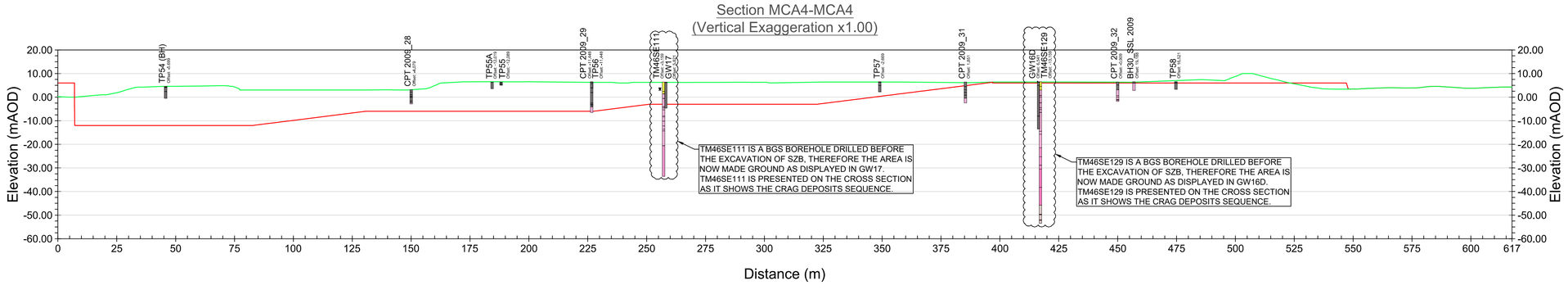
**UK PROTECTIVE MARKING:**
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KEY PLAN




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| DRAWING GRID / COORDINATE SYSTEM: | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | N/A | | |

NOTES:

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6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE
WATER STRIKE
STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
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| | LOFT | Lowestoft Formation |
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| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

| NNB GenCo (SZC) LTD. | 1st partner: NNB GENCO | 2nd partner: EDF ENERGY |
|---|---|---|

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A | QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING: 000

SYSTEM: N/A

SCALE: 1:1000

SIZE: A1

PAGE: 1/1

DESCRIPTION:
SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL
SECTION MCA4-MCA4'

DOCUMENT REFERENCE No.

| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |
|---|---|---|---|---|---|
| SZC | EW0400 | XX | 000 | DRW | 100020 |

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: N/A

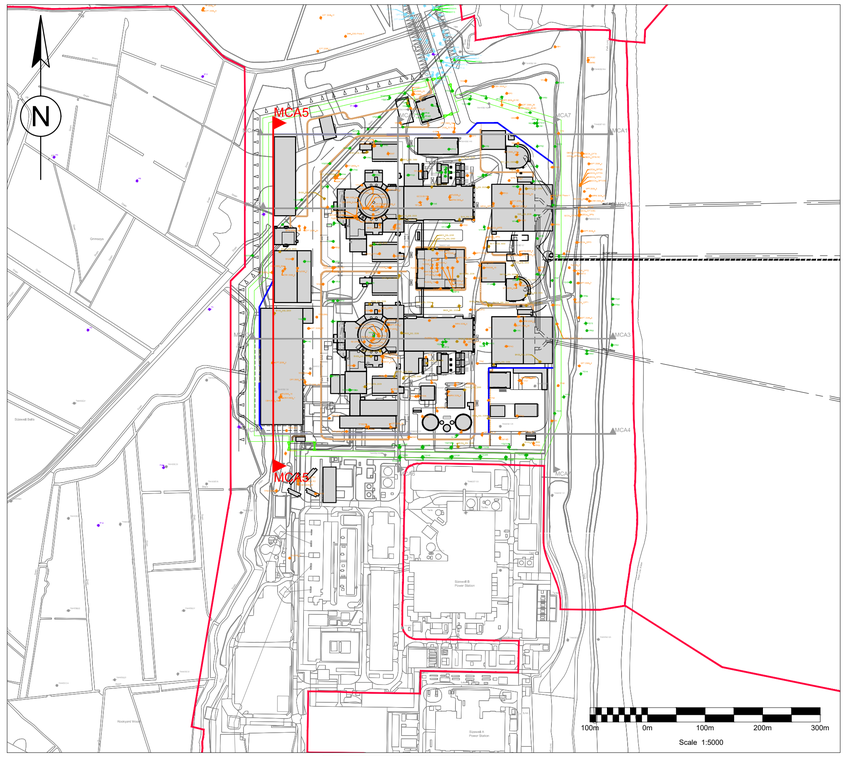
This pattern must be entirely readable
For A0 and A1 : ABERPRTHLUOCGLIVWMNSZXKY
zsaeocmuvnwxrfkhbdpqgyjtl 71423855690
0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: OWNERSHIP | EDF: N/A | CONTRACTOR: N/A |
|---|---|---|---|

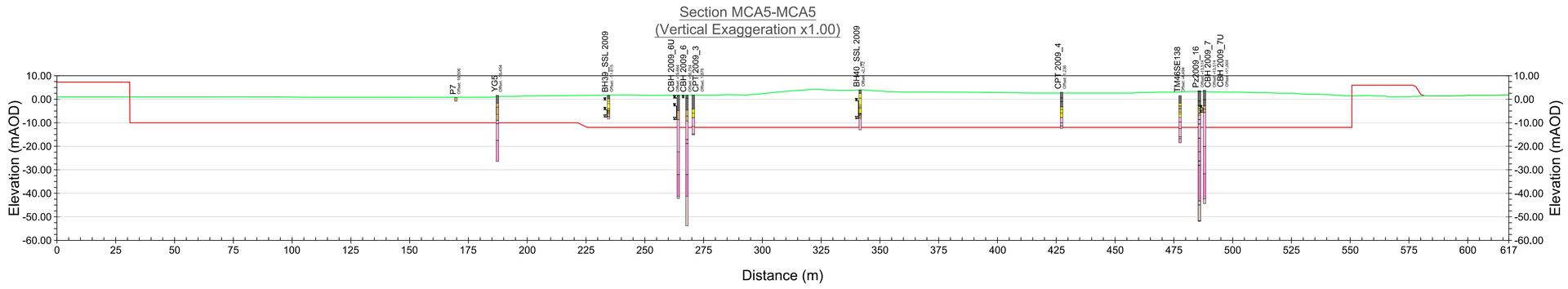
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UK PROTECT

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KEY PLAN




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UK PROTECT

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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | | N/A | |

NOTES:

1. EDF aerial topography survey mapping data with a base scale of 1:5000 adopted as drawing background topography data.
2. All co-ordinates are in metres and are based on the national grid. All levels are in metres and relative to Ordnance Datum.
3. Exploratory hole positions are plotted from as-built co-ordinates provided in AGS format or created from PDF factual data as stated in Section 1.6 of Atkins GDR SZC-EW0400-XX-000-REP-100001.
4. Exploratory hole offset distance from the section lines are taken from ground level and indicated on the section in metres. Positive and negative offset directions are indicated on the section key plan.
5. Excavation levels have been interpreted from the documents submitted to Atkins in GC-45 dated 24 September 2019.
6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE
WATER STRIKE
STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

| | | |
|---|---|---|
| *NNB GenCo (SZC) LTD.* | 1st partner: NNB GENCO | 2nd partner: EDF ENERGY |

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A | QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING: 000

SYSTEM: N/A

SCALE 1:1000

SIZE A1

PAGE 1/1

DESCRIPTION
SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL
SECTION MCA5-MCA5'

DOCUMENT REFERENCE No.

| SZC | EW0400 | XX | 000 | DRW | 100021 |
|---|---|---|---|---|---|
| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: N/A

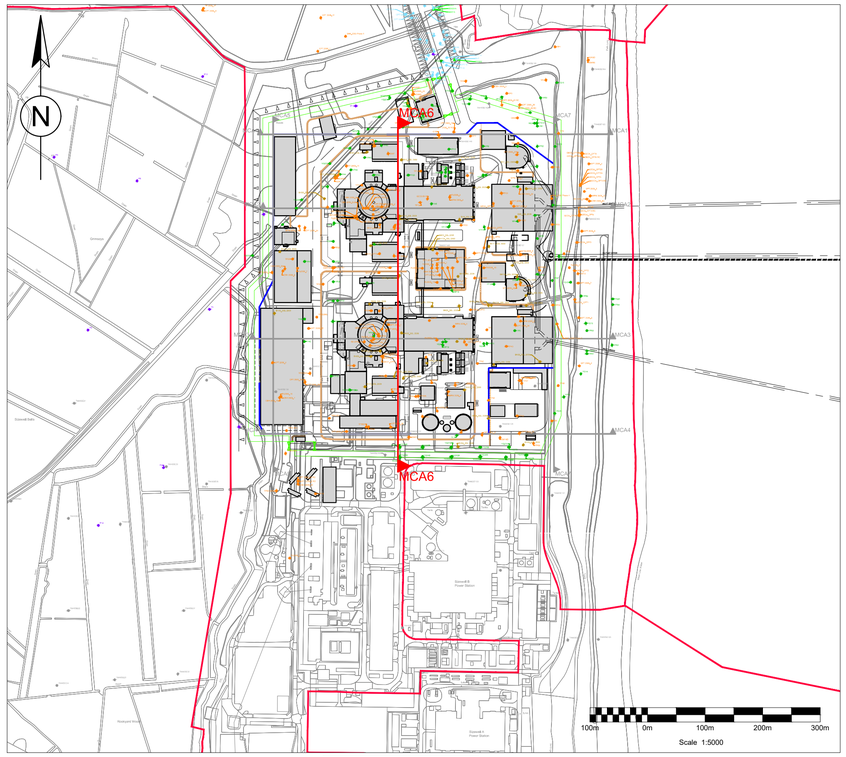
This pattern must be entirely readable
For A0 and A1 : ABERPRTHLUOCGLIVWMNSZXKY
zsaeocmuvnwxrfkhbdpqgyjtl 71423855690
0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: OWNERSHIP | EDF: N/A | CONTRACTOR: N/A |
|---|---|---|---|

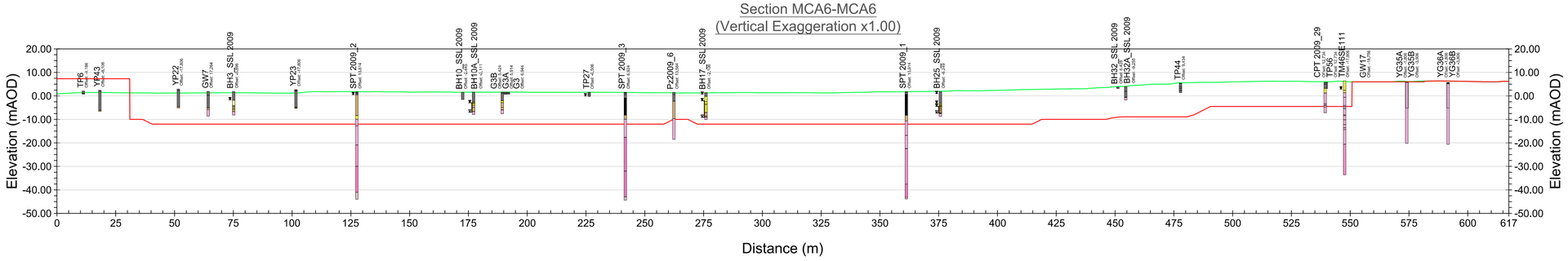
**UK PROTECTIVE MARKING:**
UK PROTECT

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KEY PLAN




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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | | N/A | |

NOTES:

1. EDF aerial topography survey mapping data with a base scale of 1:5000 adopted as drawing background topography data.
2. All co-ordinates are in metres and are based on the national grid. All levels are in metres and relative to Ordnance Datum.
3. Exploratory hole positions are plotted from as-built co-ordinates provided in AGS format or created from PDF factual data as stated in Section 1.6 of Atkins GDR SZC-EW0400-XX-000-REP-100001.
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6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE

PROPOSED GROUND PROFILE

WATER STRIKE

STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

*NNB GenCo (SZC) LTD.*

| 1st partner | 2nd partner |
|---|---|
| NNB GENCO | EDF ENERGY |

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A | QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING: 000

SYSTEM: N/A

SCALE 1:1000

SIZE A1

PAGE 1/1

DESCRIPTION

# SIZEWELL C ENABLING WORKS EW0400 GEOTECHNICAL ENGINEERING GEOLOGICAL SECTION MCA6-MCA6'

DOCUMENT REFERENCE No.

| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |
|---|---|---|---|---|---|
| SZC | EW0400 | XX | 000 | DRW | 100022 |

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: N/A

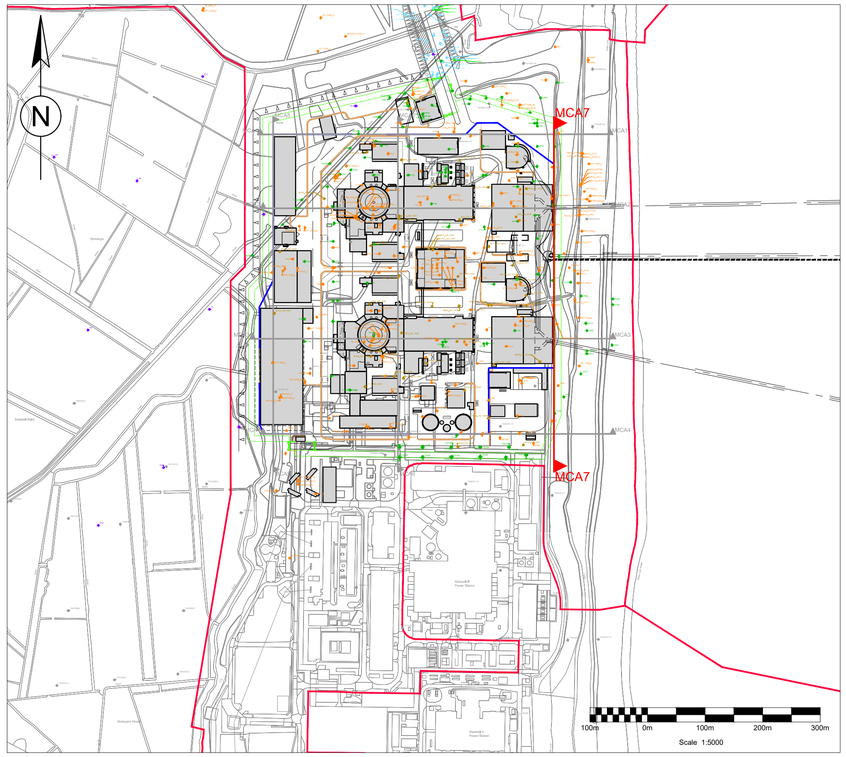
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For A0 and A1 : ABERPRTHLUOCGLIVWMNSZXKY
zsaeocmuvnwxrfkhbdpqgyjtl 7142385569
0 1 2 3 4 5 6 7 8 9 10

INTELLECTUAL PROPERTY OWNERSHIP: | NNB: OWNERSHIP | EDF: N/A | CONTRACTOR: N/A

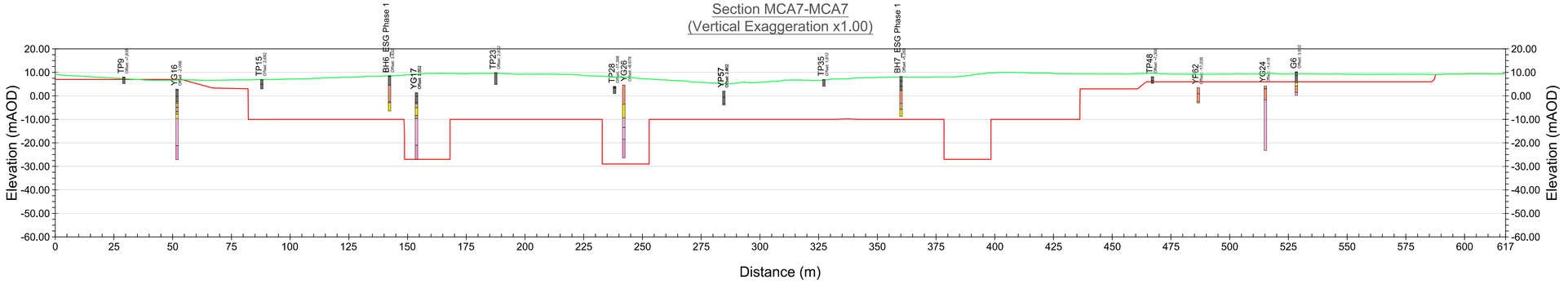
**UK PROTECTIVE MARKING:**
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KEY PLAN




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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | | N/A | |

NOTES:

1. EDF aerial topography survey mapping data with a base scale of 1:5000 adopted as drawing background topography data.
2. All co-ordinates are in metres and are based on the national grid. All levels are in metres and relative to Ordnance Datum.
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5. Excavation levels have been interpreted from the documents submitted to Atkins in GC-45 dated 24 September 2019.
6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE
WATER STRIKE
STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

| | | |
|---|---|---|
| *NNB GenCo (SZC) LTD.* | 1st partner: NNB GENCO | 2nd partner: EDF ENERGY |

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A | QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING: 000

SYSTEM: N/A

SCALE 1:1000

SIZE A1

PAGE 1/1

DESCRIPTION
SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL
SECTION MCA7-MCA7'

DOCUMENT REFERENCE No.

| SZC | EW0400 | XX | 000 | DRW | 100023 |
|---|---|---|---|---|---|
| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: N/A

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For A0 and A1 : ABERPRTHLUOCGLVVMINSZXKY
zsaeocmuvmxwrfkhbdpqgyjtl 71423855690
0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: OWNERSHIP | EDF: N/A | CONTRACTOR: N/A |
|---|---|---|---|

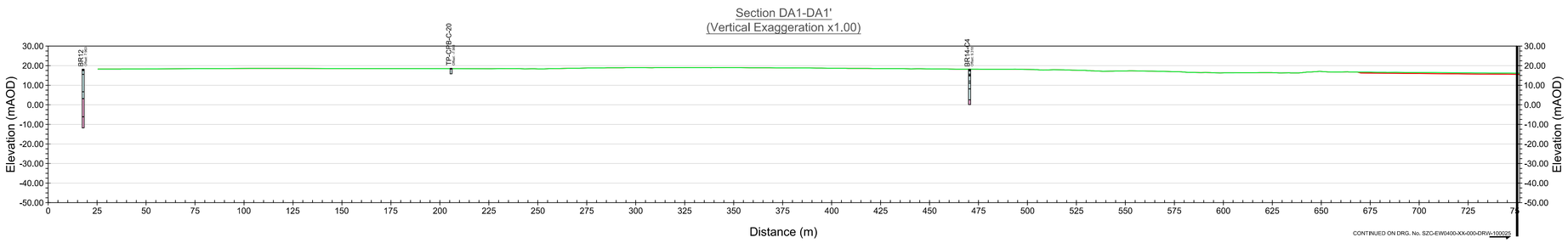
**UK PROTECTIVE MARKING:**
UK PROTECT

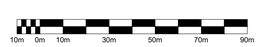
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KEY PLAN




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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | | N/A | |

NOTES:

1. EDF aerial topography survey mapping data with a base scale of 1:5000 adopted as drawing background topography data.
2. All co-ordinates are in metres and are based on the national grid. All levels are in metres and relative to Ordnance Datum.
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5. Excavation levels have been interpreted from the documents submitted to Atkins in GC-45 dated 24 September 2019.
6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE
WATER STRIKE
STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

*NNB GenCo (SZC) LTD.*

| 1st partner | 2nd partner |
|---|---|
| NNB GENCO | EDF ENERGY |

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A

QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING 000

SYSTEM N/A

SCALE 1:1250

SIZE A1

PAGE 1/1

DESCRIPTION

SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL SECTION
DA1-DA1' - SHEET 1

DOCUMENT REFERENCE No.

| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |
|---|---|---|---|---|---|
| SZC | EW0400 | XX | 000 | DRW | 100024 |

DOCUMENT SUB -TYPE N/A

EDF CLASSIFICATION CODE N/A

SUBCONTRACTOR COMPANY TRADE NAME N/A

SUBCONTRACTOR DOCUMENT REF. No N/A

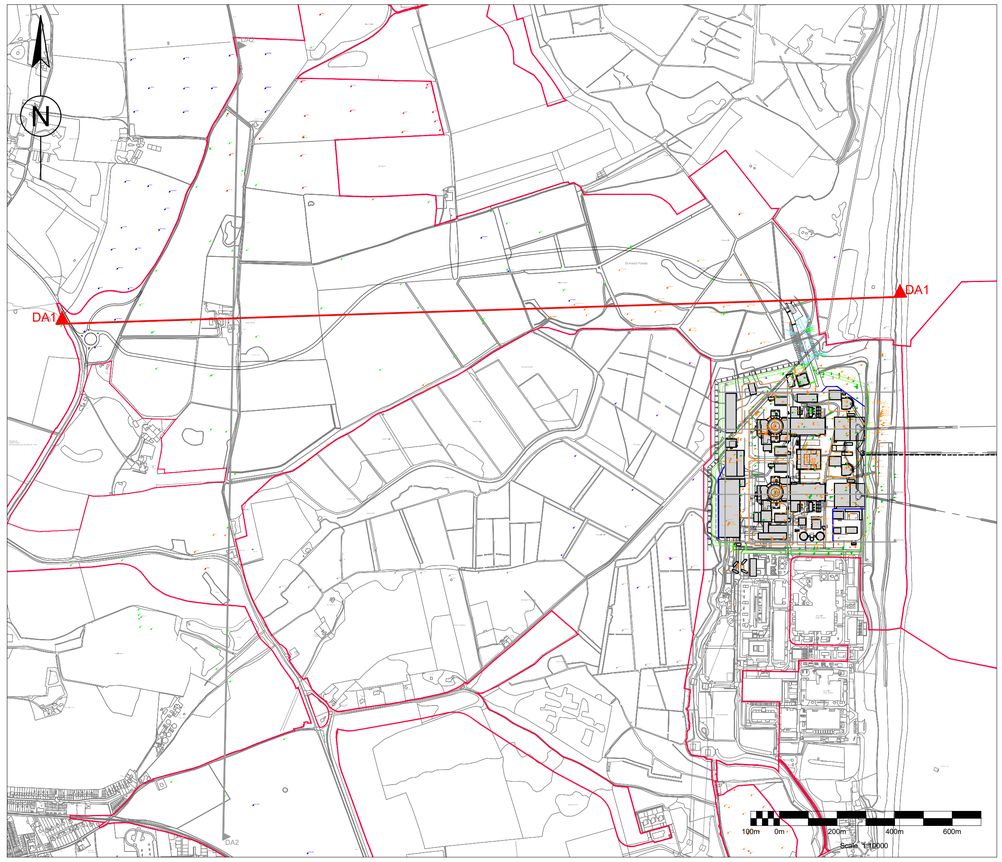
This pattern must be entirely readable
For A0 and A1 : ABERPFTHLIJOCGQUVWMNSZXKY
zsaeocmuvnwxrfkhbdpqgyjtl 71423855690
0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: | EDF: | CONTRACTOR: |
|---|---|---|---|
| | OWNERSHIP | N/A | N/A |

**UK PROTECTIVE MARKING:**
UK PROTECT

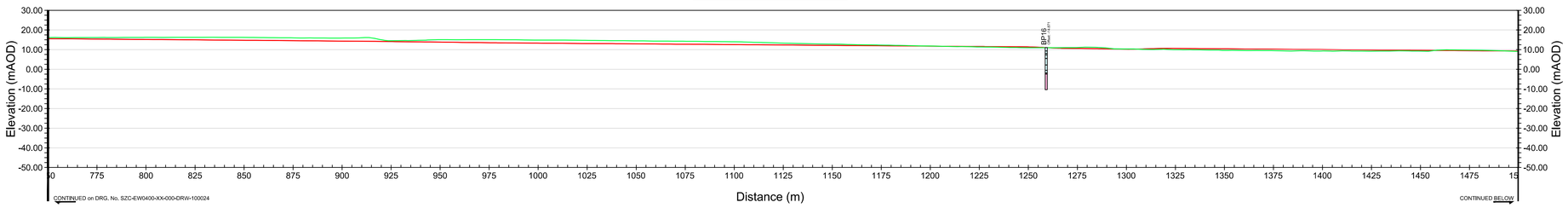
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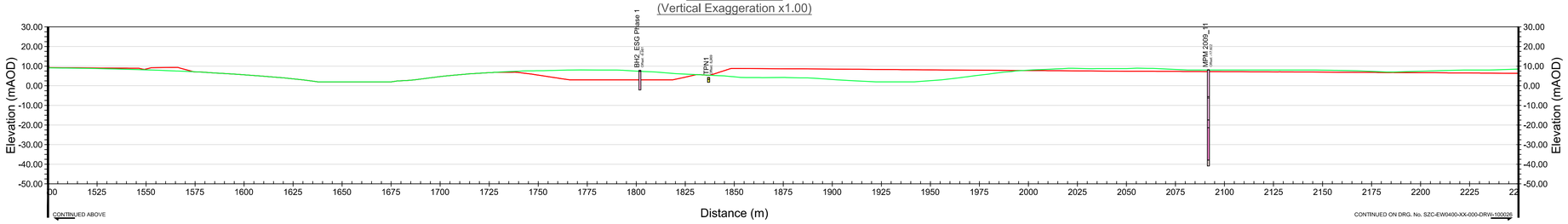



KEY PLAN

Section DA1-DA1'
(Vertical Exaggeration x1.00)




Section DA1-DA1'
(Vertical Exaggeration x1.00)




10m 0m 10m 30m 50m 70m 90m
Scale 1:1250

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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | N/A | | |

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KEY

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE
WATER STRIKE
STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
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| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

*NNB GenCo (SZC) LTD.*

| 1st partner | 2nd partner |
|---|---|
| NNB GENCO | EDF ENERGY |

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A | QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING 000

SYSTEM N/A

SCALE 1:1250

SIZE A1

PAGE 1/1

DESCRIPTION
SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL SECTION
DA1-DA1' - SHEET 2

DOCUMENT REFERENCE No.

| SZC | EW0400 | XX | 000 | DRW | 100025 |
|---|---|---|---|---|---|
| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |

DOCUMENT SUB -TYPE N/A

EDF CLASSIFICATION CODE N/A

SUBCONTRACTOR COMPANY TRADE NAME N/A

SUBCONTRACTOR DOCUMENT REF. No N/A

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For A0 and A1 : ABERPFTHLIJOCGQUVWMNSZKXY
zsaeocmvrwxr/kfxdpqyjt 7142855690

0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: | EDF: | CONTRACTOR: |
|---|---|---|---|
| | OWNERSHIP | N/A | N/A |

**UK PROTECTIVE MARKING:**
UK PROTECT

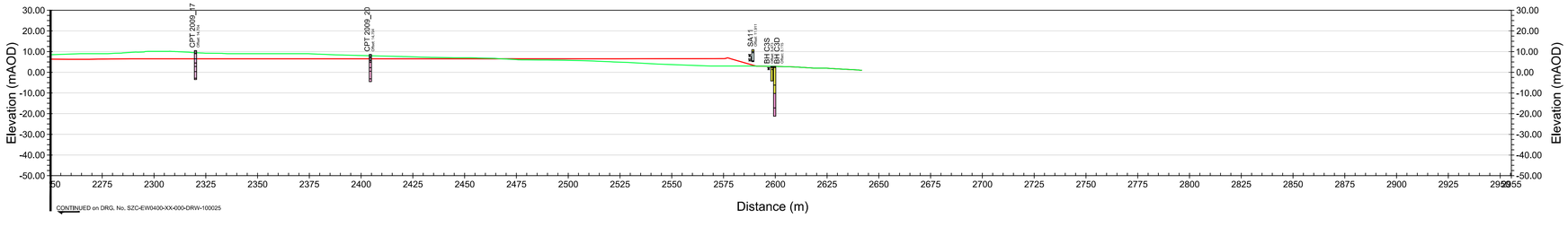
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KEY PLAN

Section DA1-DA1'
(Vertical Exaggeration x1.00)







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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | | N/A | |

NOTES:

1. EDF aerial topography survey mapping data with a base scale of 1:5000 adopted as drawing background topography data.
2. All co-ordinates are in metres and are based on the national grid. All levels are in metres and relative to Ordnance Datum.
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5. Excavation levels have been interpreted from the documents submitted to Atkins in GC-45 dated 24 September 2019.
6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE
WATER STRIKE
STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

*NNB GenCo (SZC) LTD.*

| 1st partner | 2nd partner |
|---|---|
| NNB GENCO | EDF ENERGY |

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A | QRA RELATED Yes ☐ No ☒

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1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING 000

SYSTEM N/A

SCALE 1:1250

SIZE A1

PAGE 1/1

DESCRIPTION
SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL SECTION
DA1-DA1' - SHEET 3

DOCUMENT REFERENCE No.

| SZC | EW0400 | XX | 000 | DRW | 100026 |
|---|---|---|---|---|---|
| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |

DOCUMENT SUB -TYPE N/A | EDF CLASSIFICATION CODE N/A

SUBCONTRACTOR COMPANY TRADE NAME N/A | SUBCONTRACTOR DOCUMENT REF. No N/A

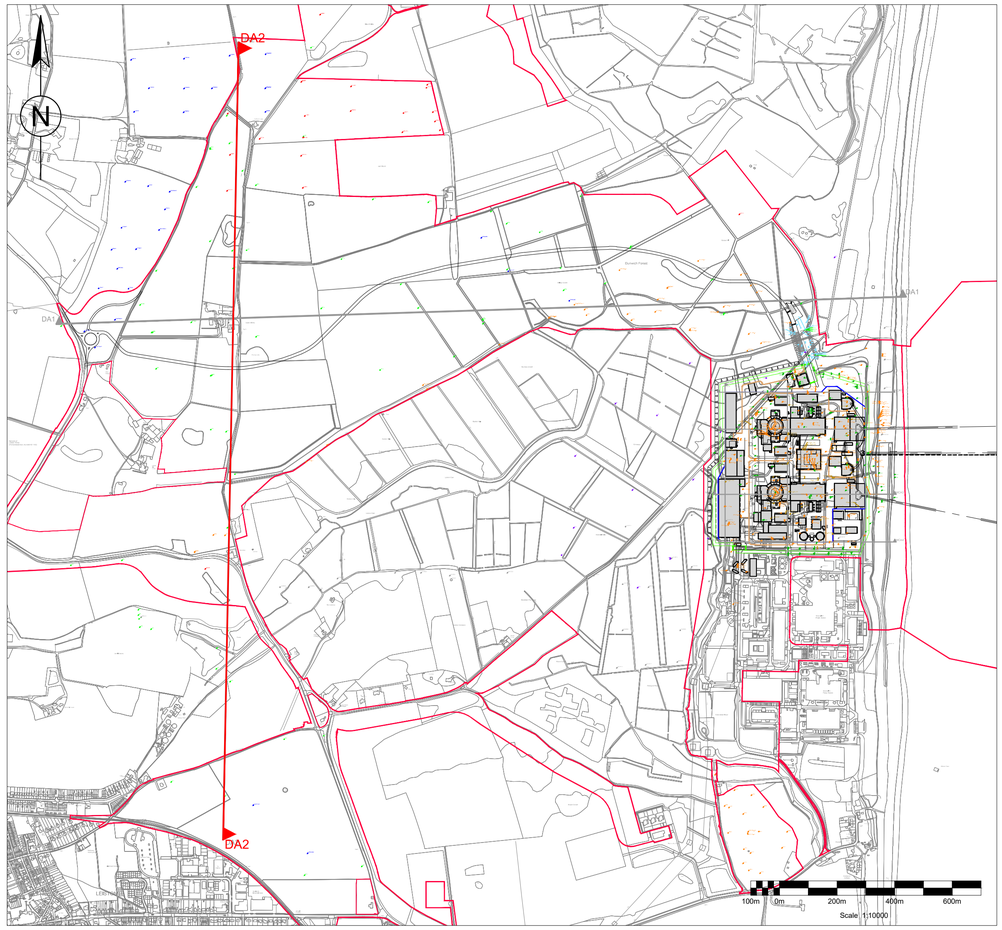
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zsaeocmuvnwxirfkhbdpqgyjtl 71423855690
0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: | EDF: | CONTRACTOR: |
|---|---|---|---|
| | OWNERSHIP | N/A | N/A |

**UK PROTECTIVE MARKING:**
UK PROTECT

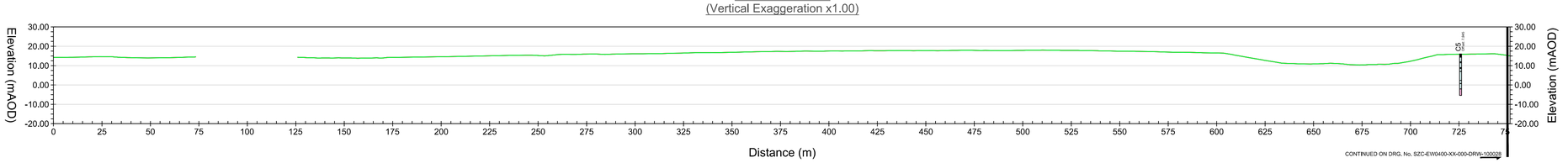
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KEY PLAN

Section DA2-DA2'
(Vertical Exaggeration x1.00)







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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | N/A | | |

NOTES:

1. EDF aerial topography survey mapping data with a base scale of 1:5000 adopted as drawing background topography data.
2. All co-ordinates are in metres and are based on the national grid. All levels are in metres and relative to Ordnance Datum.
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6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE
WATER STRIKE
STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

*NNB GenCo (SZC) LTD.*

1st partner: NNB GENCO
2nd partner: EDF ENERGY

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A

QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING: 000

SYSTEM: N/A

SCALE 1:1250

SIZE A1

PAGE 1/1

DESCRIPTION
SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL SECTION
DA2-DA2' - SHEET 1

DOCUMENT REFERENCE No.

| SZC | EW0400 | XX | 000 | DRW | 100027 |
|---|---|---|---|---|---|
| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: N/A

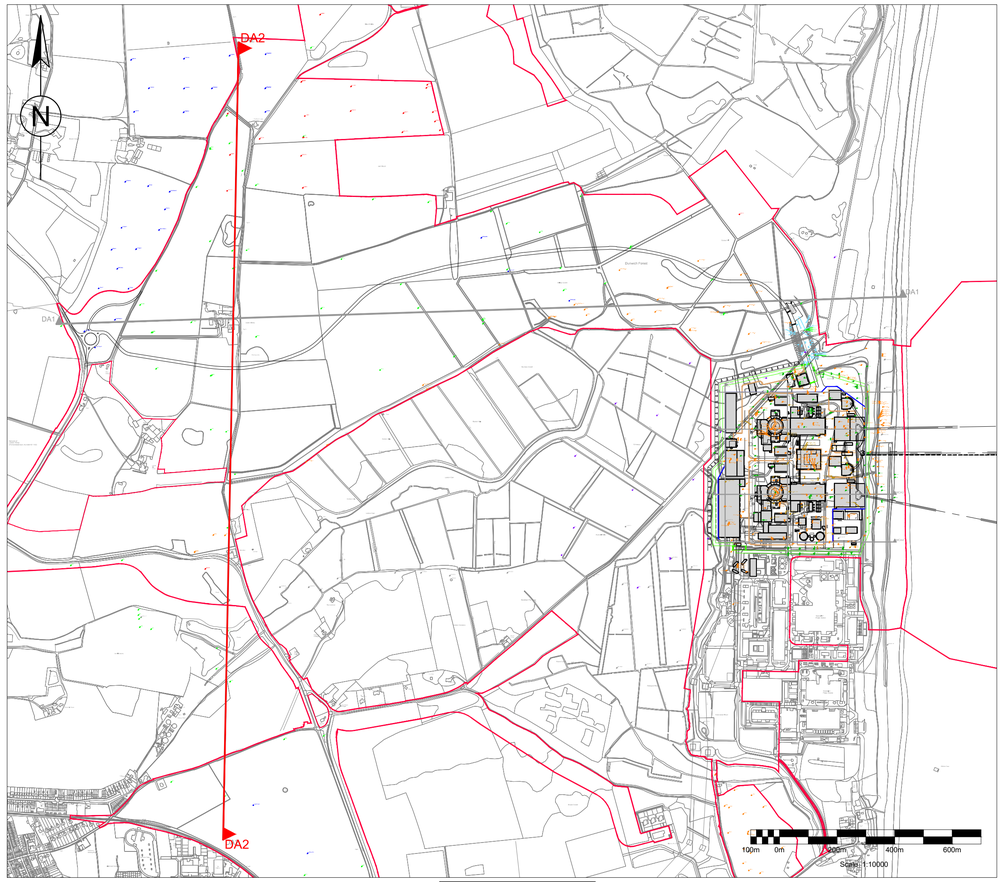
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0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: | EDF: | CONTRACTOR: |
|---|---|---|---|
| | OWNERSHIP | N/A | N/A |

**UK PROTECTIVE MARKING:**
UK PROTECT

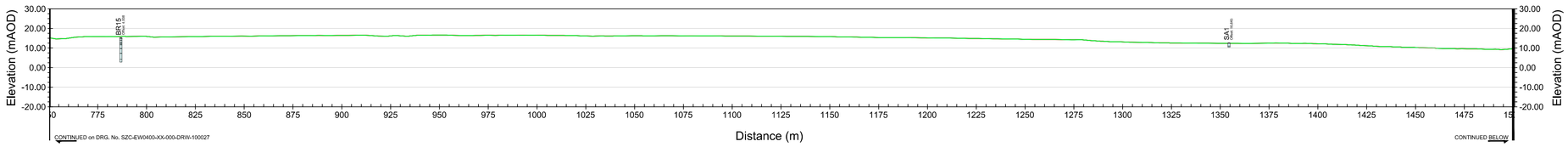
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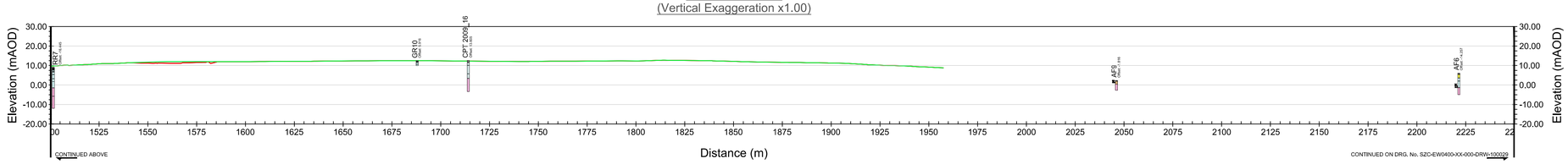



KEY PLAN

Section DA2-DA2'
(Vertical Exaggeration x1.00)




Section DA2-DA2'
(Vertical Exaggeration x1.00)




10m 0m 10m 30m 50m 70m 90m
Scale 1:1250

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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | | N/A | |

NOTES:

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6. This drawing should be read in conjunction with Atkins' GDR SZC-EW0400-XX-000-REP-100001.

KEY

EXISTING GROUND PROFILE
PROPOSED GROUND PROFILE
▽ WATER STRIKE
▼ STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
| | SD_ALV_C | Alluvium - clay |
| | BCHD | Beach deposits |
| | C1 | Crag deposits |
| | C2 | |
| | C3 | |
| | LC | London Clay |
| | LMBE_C | Lambeth Group |
| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| 01 | --- | --- | --- | S0 | Initial Revision | --- |

*NNB GenCo (SZC) LTD.*

1st partner: NNB GENCO
2nd partner: EDF ENERGY

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A

QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings....)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING: 000

SYSTEM: N/A

SCALE: 1:1250

SIZE: A1

PAGE: 1/1

DESCRIPTION

SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL SECTION
DA2-DA2' - SHEET 2

DOCUMENT REFERENCE No.

| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |
|---|---|---|---|---|---|
| SZC | EW0400 | XX | 000 | DRW | 100028 |

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: N/A

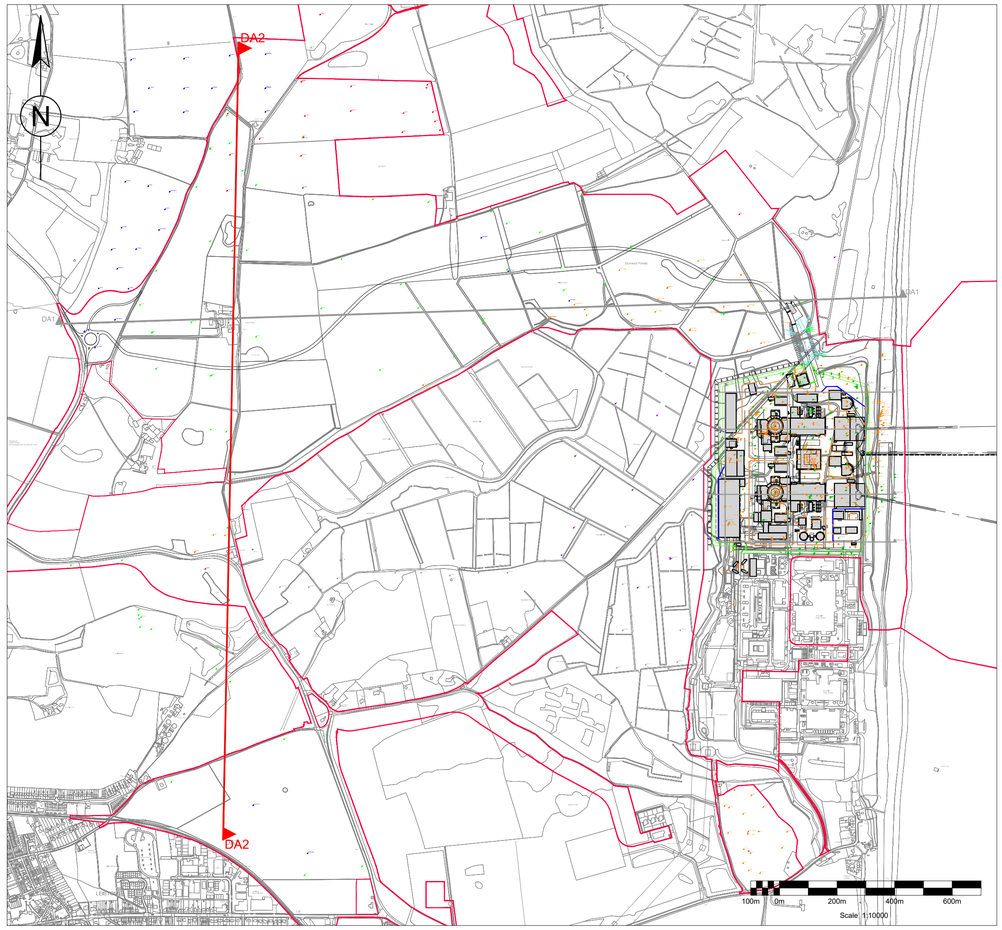
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For A0 and A1 : ABERPFTHLIJOCCGQUVWMNSZKXY
zsaeocmuvnwxrfkhbdpqgyjtl 71423855690
0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: | EDF: | CONTRACTOR: |
|---|---|---|---|
| | OWNERSHIP | N/A | N/A |

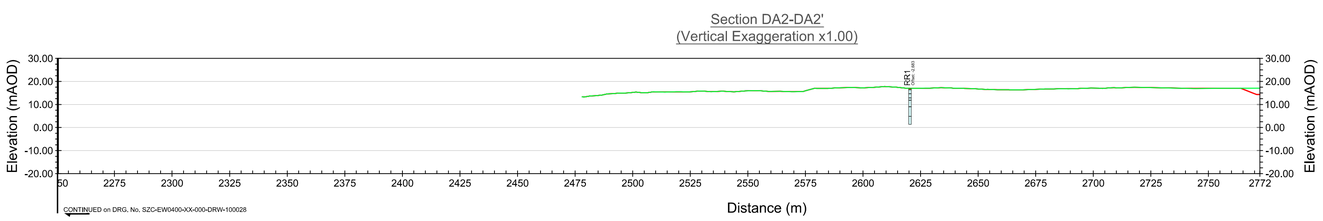
**UK PROTECTIVE MARKING:**
UK PROTECT

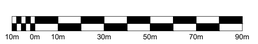


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KEY PLAN




**UK PROTECTIVE MARKING:**
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DRAWING GRID / COORDINATE SYSTEM:

| | | | |
|---|---|---|---|
| SITE LOCAL GRID | ☒ | NATIONAL GRID OSGB36 | ☐ |
| OTHER GRID | ☐ | (To be defined in the contract project plan) | |
| CONTRACT PROJECT PLAN DOC. REF. No: | N/A | | |

NOTES:

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KEY

EXISTING GROUND PROFILE

PROPOSED GROUND PROFILE

WATER STRIKE

STANDING WATER LEVEL

| Colour | Geology Code | Lithology |
|---|---|---|
| | MG | Made Ground |
| | Topsoil | Topsoil |
| | PEAT | Peat |
| | LOFT | Lowestoft Formation |
| | SD_ALV | Alluvium - undifferentiated |
| | SD_ALV_S | Alluvium - sand |
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| | LMBE_S | |
| | TAB | Thanet Formation |
| | CHALK | Chalk |
| | OPEN HOLE | Open hole |
| | ZCL | Zone of core loss |

| REV. | DATE | PREPARED BY | CHECKED BY | STATUS | REASONS FOR REVISION | APPROVED BY |
|---|---|---|---|---|---|---|
| .01 | --- | --- | --- | S0 | Initial Revision | --- |

NNB GenCo (SZC) LTD.

1st partner: NNB GENCO

2nd partner: EDF ENERGY

CONTRACTOR COMPANY TRADE NAME : N/A

CONTRACTOR REF. No. N/A

CONTRACT NUMBER : N/A

CONTRACTOR WBS CODE : N/A

QRA RELATED Yes ☐ No ☒

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1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site ( e.g. parking, ancillary buildings...)

| NUCL/REP/EPR/UKX | | | |
|---|---|---|---|
| SZC ( doc: SZ ) | | | |
| 0 | 1 | 2 | 9 |
| X | | | |

BUILDING: 000

SYSTEM: N/A

SCALE 1:1250

SIZE A1

PAGE 1/1

DESCRIPTION
SIZEWELL C ENABLING WORKS
EW0400 GEOTECHNICAL
ENGINEERING GEOLOGICAL SECTION
DA2-DA2' - SHEET 3

DOCUMENT REFERENCE No.

| SZC | EW0400 | XX | 000 | DRW | 100029 |
|---|---|---|---|---|---|
| Project | Contract No. / Orig. Co | Asset / Zone | System / Building | Doc. type | Chrono No. |

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: N/A

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zsaeocmuvrwxr/khdpqyjg/t 71423855690
0 1 2 3 4 5 6 7 8 9 10

| INTELLECTUAL PROPERTY OWNERSHIP: | NNB: OWNERSHIP | EDF: N/A | CONTRACTOR: N/A |
|---|---|---|---|

**UK PROTECTIVE MARKING:**
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# Appendix H – Soil Screening Results

ATKINS

**Assessment Criteria :** *Commercial - 1% SOM Sand*

☐ **Use MRL Values?**

| Constituent | Unit | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | Sample ID | TP1 ES3 | TP1 ES4 | TP2 ES1 | TP2 ES3 | TP3 ES2 | TP4 ES4 | TP4 ES5 | TP6 ES1 | TP6 ES2 | TP7 ES3 | TP8 ES2 | TP8 ES4 | TP9 ES2 | TP9 ES3 | TP12 ES2 | TP12 ES3 | TP13 ES1 | TP14 ES2 | TP14 ES3 | TP15 ES4 | TP17 ES2 | TP17 ES3 | TP18 ES2 | TP19 ES1 | TP20 ES1 | TP20 ES2 | TP21 ES2 | TP21 ES3 | TP22 ES2 | TP22 ES3 | TP23 ES1 | TP25 ES1 | TP25 ES2 | TP26 ES2D | TP27 ES2 | TP28 ES1 | TP28 ES4 | TP29 ES2 | TP29 ES3 | TP30 ES2 | TP32 ES1 | TP33 ES2 | TP33 ES3 | TP34 ES2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Depth | 1.5 - 1.6 | 2.5 - 2.6 | GL - 0.2 | 1.0 - 1.1 | 0.5 - 0.6 | 2.20 - 2.60 | 3.50 - 3.60 | 0.7 - 0.8 | 1.2 - 1.3 | 1.5 - 1.6 | 0.5 - 0.6 | 2.5 - 2.6 | 0.50 - 0.60 | 1.50 - 1.60 | 0.8 - 0.9 | 1.7 - 1.8 | 0 - 0.2 | 0.5 - 0.6 | 1.1 - 1.2 | 2.5 - 2.5 | 0.5 - 0.6 | 1.4 - 1.5 | 0.5 - 0.6 | 0.4 - 0.5 | GL - 0.2 | 0.4 - 0.5 | 0.5 - 0.6 | 1.5 - 1.6 | 0.50 - 0.60 | 1.50 - 1.60 | GL - 0.2 | 0.4 - 0.5 | 1.8 - 1.9 | 0.8 - 0.9 | 0.7 - 0.8 | GL - 0.20 | 2.50 - 2.60 | 0.7 - 0.8 | 1.2 - 1.3 | 0.5 - 0.6 | 0.4 - 0.5 | 0.5 - 0.6 | 1.4 - 1.5 | 0.5 - 0.6 |
| | | | | | | | | Strata | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | Zone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stone Content | (%) | No SSV | 165 | <1 | 68 | 0 | | | 8 | 7 | 5 | 21 | 7 | 19 | 16 | 21 | 11 | 14 | <1 | 4 | 2 | 13 | <1 | 5 | <1 | <1 | <1 | 13 | 4 | 7 | 10 | <1 | 9 | 40 | <1 | <1 | 13 | <1 | 19 | <1 | <1 | - | <1 | 16 | 15 | <1 | <1 | 2 | 10 | 2 | 13 | 17 |
| **Metals/Metalloids** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic** | (mg/kg) | 635 | 165 | <5 | 158.9 | 0 | | | 8.5 | 9.1 | 25.2 | 17.8 | 31 | 17.4 | 15.7 | 19.3 | 20.1 | 19 | 44.1 | 9.1 | 45 | 29.4 | 32.6 | 54.8 | 37.5 | 8.6 | 13.5 | 20.3 | 34.5 | 25.3 | 50.8 | 77.4 | 16.4 | 14.3 | 15.9 | 13.5 | 9.7 | 72.2 | 11.4 | 38.1 | 28.3 | - | 46 | 12.1 | 18.3 | 35 | 13.6 | 32.5 | 31.1 | 39.1 | 25.7 | 8.7 |
| Cadmium** | (mg/kg) | 410 | 165 | <0.5 | 2.92 | 0 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Chromium** | (mg/kg) | 208000 | 165 | 2 | 72.8 | 0 | | | 13.1 | 15.3 | 13 | 13 | 9 | 14 | 13 | 12 | 8 | 9 | 12 | 5 | 16 | 16 | 15 | 14 | 27 | 5 | 6 | 7 | 10 | 6 | 13 | 18 | 7 | 12 | 6 | 15 | 5 | 25.9 | 5 | 8 | 8 | - | 13 | 6 | 9 | 9 | 7 | 9 | 8 | 10 | 7 | 10 | 6 |
| Lead** | (mg/kg) | 2310 | 165 | 1 | 1206.8 | 0 | | | 7.1 | 6.3 | 10 | 8 | 7 | 8 | 8 | 8 | 5 | 7 | 6 | 15 | 7 | 11 | 8 | 7 | 19 | 3 | 3 | 4 | 8 | 5 | 7 | 6 | 6 | 5 | 3 | 11 | 6 | 9 | 7 | 4 | 5 | - | 6 | 9 | 7 | 4 | 3 | 14 | 4 | 8 | 5 | 6 |
| Mercury** | (mg/kg) | 7.95 | 165 | <0.5 | 3.44 | 0 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Nickel** | (mg/kg) | 8 1770 | 165 | 1.9 | 146.98 | 2 | | | 7.6 | 7.9 | 6.9 | 12.6 | 5 | 8.2 | 7.9 | 7.8 | 5.6 | 6.1 | 6.9 | 3.1 | 8.3 | 9.5 | 9 | 8.3 | 18.1 | 2.8 | 3.3 | 4.5 | 6.5 | 4.9 | 6.8 | 10.6 | 5.8 | 7.1 | 3.3 | 9.8 | 2.8 | 13.3 | 4 | 5.3 | 6.1 | - | 7.6 | 3.8 | 5.3 | 5.1 | 3.7 | 7.2 | 4.7 | 8.7 | 5.7 | 3.7 |
| Copper** | (mg/kg) | 106000 | 165 | <1 | 256.91 | 0 | | | 3 | 2.8 | 6.8 | 7.9 | 3.5 | 4.6 | 5.1 | 7.8 | 5.1 | 4.5 | 4.2 | 3.9 | 3.4 | 5.9 | 4.3 | 3.2 | 7 | 2.2 | 2.6 | 3.5 | 3.9 | 2.9 | 3.6 | 23.6 | 5.8 | 5.3 | 2.3 | 5.9 | 2.3 | 6.5 | 3.4 | 3.7 | 4.6 | - | 5.4 | 2.6 | 2.5 | 2.7 | 2.6 | 5.4 | 3.1 | 4.7 | 3.1 | 2.6 |
| Zinc** | (mg/kg) | 1100000 | 165 | 5.9 | 1220.3 | 0 | | | 18.6 | 25.8 | 32.6 | 23.1 | 22.2 | 29.2 | 26.5 | 28.4 | 26.1 | 22.9 | 31.2 | 21.6 | 28.8 | 5.9 | 34.2 | 29.8 | 44.3 | 17.6 | 19.1 | 32.2 | 30 | 23.7 | 25.6 | 77.8 | 28 | 21 | 19.9 | 37.5 | 12.7 | 62.1 | 21.4 | 28.5 | 30.8 | - | 38 | 12.8 | 16.3 | 29.4 | 21.6 | 36.9 | 24.7 | 32.2 | 22.5 | 15.4 |
| Selenium | (mg/kg) | No SSV | 165 | <0.5 | 3.57 | 1 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.53 | <0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.9 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.65 | <0.5 | <0.5 | <0.5 | 0.5 | <0.5 | 0.74 | <0.5 | <0.5 | <0.5 | - | 0.72 | <0.5 | <0.5 | 0.59 | <0.5 | 1.1 | <0.5 | <0.5 | 0.52 | 0.73 |
| Hexavalent Chromium | (mg/kg) | 49.1 | 165 | <2 | <2 | 0 | | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | - | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Water Soluble Boron | (mg/kg) | No SSV | 165 | <0.5 | 12.1 | 0 | | | <0.5 | <0.5 | 0.5 | 1.5 | <0.5 | 1.1 | 1.1 | 1.1 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | 2.1 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | 0.67 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.6 | <0.5 | <0.5 | <0.5 | 0.5 |
| **Inorganics** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH Value** | (Units) | No SSV | 165 | 4.3 | 11.2 | 0 | | | 8.95 | 8.45 | 7.1 | 11.05 | 8.6 | 9.45 | 11 | 10.2 | 9.8 | 11.1 | 8.81 | 7.4 | 8.14 | 8.62 | 8.28 | 8.35 | 8.18 | 8.7 | 8.43 | 9.5 | 8.11 | 8.13 | 8.36 | 8.07 | 8.1 | 8.06 | 8.66 | 8.41 | 8.29 | 7.32 | 7.97 | 8.38 | 7.96 | - | 7.65 | 7.99 | 8.26 | 8 | 8.13 | 7.81 | 8.49 | 8.2 | 9.64 | 6.48 |
| Total Sulphate | (% as SO4) | No SSV | 165 | <0.05 | 0.59 | 0 | | | 0.08 | 0.06 | 0.08 | 0.14 | 0.07 | 0.07 | 0.08 | 0.06 | 0.09 | 0.07 | 0.06 | <0.05 | 0.09 | 0.08 | 0.09 | 0.13 | 0.14 | 0.06 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0.06 | 0.12 | 0.08 | 0.13 | 0.08 | 0.23 | <0.05 | <0.05 | 0.15 | - | 0.29 | 0.08 | 0.09 | 0.21 | 0.11 | 0.13 | <0.05 | <0.05 | <0.05 | <0.05 |
| Total Cyanide** | (mg/kg) | No SSV | 165 | <1 | 4.78 | 0 | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | - | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulphide | (mg/kg) | No SSV | 165 | <2 | 88 | 0 | | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 27.1 | <2 | <2 | <2 | <2 | <2 | <2 | 6 | - | <2 | <2 | <2 | <2 | 27.3 | <2 | <2 | <2 | 11.4 | <2 |
| Elemental Sulphur** | (mg/kg) | No SSV | 165 | <10 | 414.72 | 0 | | | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 20 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | - | 74.75 | <10 | <10 | <10 | 108 | 19.22 | <10 | 27.2 | 29.4 | <10 |
| Total Monohydric Phenols** | (mg/kg) | No SSV | 165 | <1 | 1.3 | 0 | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | - | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **PAHs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene** | (mg/kg) | 90.1 | 165 | <0.1 | <0.1 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthylene** | (mg/kg) | No SSV | 165 | <0.1 | 0.9 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthene** | (mg/kg) | 83600 | 165 | <0.1 | <0.1 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluorene** | (mg/kg) | 66500 | 165 | <0.1 | 0.11 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Phenanthrene** | (mg/kg) | No SSV | 165 | <0.1 | 0.97 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Anthracene** | (mg/kg) | 535000 | 165 | <0.1 | 0.45 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluoranthene** | (mg/kg) | 72200 | 165 | <0.1 | 2.69 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Pyrene** | (mg/kg) | 54100 | 165 | <0.1 | 2.06 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benz(a)anthracene** | (mg/kg) | No SSV | 165 | <0.1 | 1.52 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Chrysene** | (mg/kg) | 13400 | 165 | <0.1 | 1.52 | 0 | | | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(b)fluoranthene** | (mg/kg) | BaP Surrogate BaP Surrogate | 165 | <0.1 | 0.91 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(k)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 1.32 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(a)pyrene** | (mg/kg) | 76.3 | 165 | <0.1 | 1.31 | 0 | | | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Indeno(123-cd)pyrene** | (mg/kg) | BaP Surrogate BaP Surrogate | 165 | <0.1 | 0.8 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Dibenz(ah)anthracene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.21 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(ghi)perylene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.89 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Total PAH** | (mg/kg) | No SSV | 165 | <0.1 | 14.72 | 0 | | | <0.1 | 0.4 | <0.1 | <0.1 | <0.1 | <0.1 | 0.22 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **TPH Aromatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aromatic C5-C7 | (mg/kg) | 12.5 | 165 | <0.01 | <0.01 | 0 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C7-C8 | (mg/kg) | 27900 | 165 | <0.01 | <0.01 | 0 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C8-C10 | (mg/kg) | 2210 | 165 | 0.1 | 0.4 | 0 | | | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH aromatic C10-C12 | (mg/kg) | 12300 | 165 | <0.1 | 0.22 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aromatic C12-C16 | (mg/kg) | 41300 | 165 | <0.1 | 5.83 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.15 | 0.14 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | <0.1 | <0.1 | <0.1 | 0.31 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 5.83 | 0.16 | |
| TPH Aromatic C16-C21 | (mg/kg) | 28400 | 165 | 1.41 | 19.85 | 0 | | | 0.33 | 0.1 | <0.1 | <0.1 | 0.98 | 2.85 | 0.51 | 0.37 | 0.31 | 0.39 | 0.14 | <0.1 | 0.17 | 0.17 | 0.21 | 0.11 | 0.2 | 0.22 | 0.22 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.22 | 0.11 | <0.1 | <0.1 | 4.47 | <0.1 | <0.1 | 0.12 | - | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | 19.85 | 0.39 | | |
| TPH Aromatic C21-C35 | (mg/kg) | 28400 | 165 | <-68.01 | 42.05 | 0 | | | 0.57 | 24.77 | 0.25 | 0.93 | 0.37 | 0.23 | 3.36 | 7.27 | 5.62 | 0.67 | 0.54 | 0.58 | 0.18 | <0.1 | 0.59 | 0.38 | 0.32 | 0.54 | <0.1 | 3.42 | <0.1 | <0.1 | 0.18 | 2.03 | 0.93 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | 1.91 | <0.1 | <0.1 | <0.1 | 1.1 | 1.7 | 7.59 | <0.1 | 42.05 | 0.62 |
| **TPH Aliphatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aliphatic C5-C6 | (mg/kg) | 4490 | 165 | <0.01 | 0.03 | 0 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C6-C8 | (mg/kg) | 10400 | 165 | <0.01 | <0.1 | 0 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C8-C10 | (mg/kg) | 1370 | 165 | <0.1 | 0.15 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.15 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C10-C12 | (mg/kg) | 7900 | 165 | <0.1 | 0.52 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.52 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.57 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C12-C16 | (mg/kg) | 34000 | 165 | <0.1 | 5.62 | 0 | | | <0.1 | <0.1 | <0.1 | 0.12 | <0.1 | <0.1 | <0.1 | 2.65 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | 0.11 | <0.1 | <0.1 | <0.1 | 0.12 | 0.14 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | <0.1 | <0.1 | 5.62 | <0.1 | |
| TPH Aliphatic C16-C21 | (mg/kg) | 3620000 | 165 | <0.1 | 47.96 | 0 | | | <0.1 | 1.8 | <0.1 | 0.55 | 0.76 | <0.1 | 0.8 | 3.64 | 0.36 | 0.79 | 0.63 | 0.73 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | 0.18 | <0.1 | 7.94 | <0.1 | |
| TPH Aliphatic C21-C35 | (mg/kg) | 3620000 | 165 | <-143.07 | 46.2 | 0 | | | 0.57 | 42.78 | 0.53 | 1.83 | 0.15 | 0.81 | 3.8 | 12.92 | 3.8 | 0.86 | 0.35 | 0.19 | 0.55 | 1.86 | <0.1 | 0.13 | 0.54 | <0.1 | <0.1 | 2.01 | 0.76 | 0.43 | 1.56 | 0.52 | 0.18 | 0.18 | 1.5 | 1.5 | 0.54 | 0.26 | 0.18 | 0.16 | <0.1 | - | 0.59 | 0.12 | 0.65 | <0.1 | <0.1 | 3.15 | 2.48 | <0.1 | 29.55 | 0.3 | |
| TPH (C5 - C35) | (mg/kg) | No

ATKINS

**Assessment Criteria :** *Commercial - 1% SOM Sand*

☐ **Use MRL Values?**

| Contaminant | | Generic assessment criteria (mg/kg) | Number of samples | Minimum Value | Maximum Value | Number of exceedences | Locations of Exceedences | Sample ID | TP1 ES3 | TP1 ES4 | TP2 ES1 | TP2 ES3 | TP3 ES2 | TP4 ES4 | TP4 ES5 | TP6 ES1 | TP6 ES2 | TP7 ES3 | TP8 ES2 | TP8 ES4 | TP9 ES2 | TP9 ES3 | TP12 ES2 | TP12 ES3 | TP13 ES1 | TP14 ES2 | TP14 ES3 | TP15 ES4 | TP17 ES2 | TP17 ES3 | TP18 ES2 | TP19 ES1 | TP20 ES1 | TP20 ES2 | TP21 ES2 | TP21 ES3 | TP22 ES2 | TP22 ES3 | TP23 ES1 | TP25 ES1 | TP25 ES2 | TP26 ES2D | TP27 ES2 | TP28 ES1 | TP28 ES4 | TP29 ES2 | TP29 ES3 | TP30 ES2 | TP32 ES1 | TP33 ES2 | TP33 ES3 | TP34 ES2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Depth | 1.5 - 1.6 | 2.5 - 2.6 | GL - 0.2 | 1.0 - 1.1 | 0.5 - 0.6 | 2.20 - 2.60 | 3.50 - 3.60 | 0.7 - 0.8 | 1.2 - 1.3 | 1.5 - 1.6 | 0.5 - 0.6 | 2.5 - 2.6 | 0.50 - 0.60 | 1.50 - 1.60 | 0.8 - 0.9 | 1.7 - 1.8 | 0 - 0.2 | 0.5 - 0.6 | 1.1 - 1.2 | 2.5 - 2.5 | 0.5 - 0.6 | 1.4 - 1.5 | 0.5 - 0.6 | 0.4 - 0.5 | GL - 0.2 | 0.4 - 0.5 | 0.5 - 0.6 | 1.5 - 1.6 | 0.50 - 0.60 | 1.50 - 1.60 | GL - 0.2 | 0.4 - 0.5 | 1.8 - 1.9 | 0.8 - 0.9 | 0.7 - 0.8 | GL - 0.20 | 2.50 - 2.60 | 0.7 - 0.8 | 1.2 - 1.3 | 0.5 - 0.6 | 0.4 - 0.5 | 0.5 - 0.6 | 1.4 - 1.5 | 0.5 - 0.6 |
| | | | | | | | | Strata | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2,3,5,6-Tetrachlorophenol, | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | - | <10 | - | <10 |
| Diethylphthalate | (µg/kg) | No SSV | 48 | <10 | 111.87 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | 111.87 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | - | <10 | - | <10 |
| Fluorene | (µg/kg) | 66500 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Diphenylamine | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | - | <10 | - | <10 |
| Azobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | - | <10 | - | <10 |
| 4-Bromophenyl phenyl ether | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | - | <10 | - | <10 |
| Hexachlorobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | - | <10 | - | <10 |
| Pentachlorophenol | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | - | <10 | - | <10 |
| Phenanthrene | (µg/kg) | No SSV | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Anthracene | (µg/kg) | 535000 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fluoranthene | (µg/kg) | 72200 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pyrene | (µg/kg) | 54100 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzylbutylphthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | - | <10 | - | <10 |
| Bis(2-ethylhexyl)adipate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | - | <10 | - | <10 |
| Benzo(a)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chrysene | (µg/kg) | 13400 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bis(2-ethylhexyl)phthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | - | <10 | - | <10 |
| Benzo(b)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(k)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(a)pyrene | (µg/kg) | 76.3 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Indeno[1,2,3-cd]pyrene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dibenz(ah)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(ghi)perylene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **PCBs** | | | | | | | | | | | | | | | | | | |

ATKINS

| Assessment Criteria : | | Commercial - 1% SOM Sand | | |

ATKINS

| Assessment Criteria : | | Commercial - 1% SOM Sand | | | | | | | |
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| Use MRL Values? | | | | | | | | | |
| Analyte | | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | TP34 ES3 | TP34 ES4 |
| | | | | | | | | 1.5 - 1.6 | 2.5 - 2.6 |
| 2,3,5,6-Tetrachlorophenol, | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - |
| Diethylphthalate | (µg/kg) | No SSV | 48 | <10 | 111.87 | 0 | | - | - |
| Fluorene | (µg/kg) | 66500 | 4 | <10 | <10 | 0 | | - | - |
| Diphenylamine | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - |
| Azobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - |
| 4-Bromophenyl phenyl ether | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - |
| Hexachlorobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - |
| Pentachlorophenol | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - |
| Phenanthrene | (µg/kg) | No SSV | 4 | <10 | <10 | 0 | | - | - |
| Anthracene | (µg/kg) | 535000 | 4 | <10 | <10 | 0 | | - | - |
| Fluoranthene | (µg/kg) | 72200 | 4 | <10 | <10 | 0 | | - | - |
| Pyrene | (µg/kg) | 54100 | 4 | <10 | <10 | 0 | | - | - |
| Benzylbutylphthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - |
| Bis(2-ethylhexyl)adipate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - |
| Benzo(a)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - |
| Chrysene | (µg/kg) | 13400 | 4 | <10 | <10 | 0 | | - | - |
| Bis(2-ethylhexyl)phthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - |
| Benzo(b)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - |
| Benzo(k)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - |
| Benzo(a)pyrene | (µg/kg) | 76.3 | 4 | <10 | <10 | 0 | | - | - |
| Indeno[1,2,3-cd]pyrene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - |
| Dibenz(ah)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - |
| Benzo(ghi)perylene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - |
| **PCBs** | | | | | | | | | |
| PCB 28** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - |
| PCB 52** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - |
| PCB 101** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - |
| PCB 118** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - |
| PCB 138** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - |
| PCB 153** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - |
| PCB 180** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - |
| **OCPs** | | | | | | | | | |
| Alpha BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Beta BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Gamma BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Delta BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Heptachlor | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Aldrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Heptachlor epoxide | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Chlordane | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Endosulfan I | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| cis-Chlordane | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| pp-DDE** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Dieldrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Endrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| pp-DDD** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Endrin Aldehyde | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| pp-DDT** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Endosulfan II | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| Endrin Ketone | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| pp-Methoxychlor | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - |
| **OPPs** | | | | | | | | | |
| Mevinphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Dimethoate | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Propetamphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Chloropyriphos-methyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Fenitrothion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Malathion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Parathion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Trans-Chlorfenvinphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Bromophos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Triazophos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Phosalone | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Azinphos-methyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |
| Azinphos-ethyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - |

| Analyte | TP35 ES3 | TP37 ES2 | TP37 ES4 | TP38 ES2 | TP38 ES3 | TP38 ES4 | TP39 ES2 | TP40 ES2 | TP40 ES4 | TP41 ES2 | TP41 ES3 | TP42 ES2 | TP42 ES3 | TP42 ES6 | TP43 ES1 | TP43 ES2 | TP44 ES2 | TP44 ES5 | TP45 ES2 | TP45A ES4 | TP46 ES2 | TP46 ES3 | TP47 ES2 | TP47 ES3 | TP47 ES4 | TP48 ES4 | TP50 ES1 | TP51 ES1 | TP51 ES3 | TP52 ES2 | TP52 ES3 | TP53 ES2 | TP53 ES3 | TP54 ES3 | TP55 ES2 | TP56 ES3 | TP57 ES2 | TP57 ES3 | TP57 ES5 | TP58 ES2 | TP58 ES3 | TP60 ES1 | TP62 ES5 | TP65 ES3 |
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| | 1.5 - 1.6 | 0.8 - 0.9 | 2.5 - 2.7 | 0.5 - 0.6 | 1.5 - 1.6 | 2.5 - 2.6 | 0.5 - 0.6 | 0.5 - 0.6 | 2.1 - 2.2 | 0.5 - 0.6 | 1.2 - 1.3 | 0.5 - 0.6 | 1.5 - 1.6 | 3.9 - 4.0 | GL - 0.2 | 1.2 - 1.3 | 0.7 - 0.8 | 3.5 - 3.6 | 0.9 - 1.0 | 2.5 - 2.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 2.5 - 2.6 | 2.5 - 2.6 | 0.5 - 0.6 | 0.3 - 0.4 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 1.5 - 1.7 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 0.5 - 0.6 | 1.5 - 1.6 | 3.5 - 3.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 3.5 - 3.7 | 1.6 - 1.7 |
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| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

ATKINS

**Assessment Criteria :** *Commercial - 1% SOM Sand*

☐ **Use MRL Values?**

| Constituent | Unit | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | TP66 ES2 | TP66 ES3 | TP67 ES2 | TP67 ES3 | TP68 ES5 | TP69 ES3 | TP70 ES1 | TP71 ES1 | TP71 ES2 | TP72 ES1 | TP72 ES3 | TP73 ES2 | TP74 ES1 | TP74 ES3 | TP76 ES2 | TP76 ES4 | TPN1 ES2 | TPN2 ES2 | TPN3 ES2 | TPN4 ES3 | BH1 ES1 | BH1 ES3 | BH4 ES2 | BH6 ES8 | BH7 ES6 | BH7 ES13 | GW1D ES2 | GW1D ES3 | GW1D ES5 | GW1D ES6 | GW2 ES2 | GW3 ES2 | GW3 ES5 | GW4 ES2 | GW6D ES2 | GW6D E | GW6D ES8 | GW7 ES2 | GW7 ES3 | GW7 ES6 | GW8 ES2 | GW8 ES8 | GW8 ES10 | GW9D ES1 | GW9D ES4 | GW9D ES7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 3.5 - 3.6 | 1.5 - 1.6 | 0 - 0.2 | 0 - 0.2 | 0.5 - 0.6 | 0 - 0.2 | 1.5 - 1.6 | 0.5 - 0.6 | 0 - 0.2 | 1.5 - 1.6 | 0.5 - 0.6 | 2.5 - 2.6 | 0.5 - 0.6 | 0.5 - 0.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.1 - 0.3 | 1.3 - 1.5 | 0.6 - 0.8 | 6.5 - 6.7 | 4.5 - 4.7 | 11.5 - 11.7 | 0.7 - 0.8 | 1.7 - 1.8 | 3.7 - 3.8 | 4.1 - 4.2 | 0.8 - 0.9 | 0.9 - 1.0 | 3.7 - 3.8 | 0.5 - 0.6 | 0.5 - 0.6 | 3.5 - 3.7 | 4.9 - 5.1 | 0.8 - 1.0 | 1.5 - 1.7 | 4.4 - 4.6 | 0.5 - 0.6 | 6.5 - 6.7 | 8.5 - 8.7 | 0 - 0.2 | 2.7 - 2.9 | 5.7 - 5.9 |
| Stone Content | (%) | No SSV | 165 | <1 | 68 | 0 | | 3 | <1 | <1 | <1 | <1 | <1 | 7 | - | <1 | 20 | 14 | 1 | - | <1 | - | <1 | <1 | <1 | <1 | <1 | 6 | 7 | 2 | 29 | 11 | 19 | 5 | 15 | <1 | 3 | <1 | 3 | 7 | 2 | 7 | 34 | 21 | 16 | 27 | 31 | 12 | 22 | 32 | 27 | 37 | 42 |
| **Metals/Metalloids** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic** | (mg/kg) | 635 | 165 | <5 | 158.9 | 0 | | 11 | 18.3 | 32 | 12.2 | 41 | 38.9 | 7.4 | - | 17 | 14 | 12.8 | 27.2 | - | 16.6 | - | 18.7 | 20.9 | <5 | 9 | 11.6 | 6.1 | 5.1 | 10.3 | 14.1 | 31.5 | 24.4 | 9.5 | 82.4 | 15.3 | 12 | <5 | <5 | 45.6 | 57.5 | 25.3 | 12.8 | 15.9 | 36 | 20 | 5 | 11 | 12 | <5 | <5 | <5 |
| Cadmium** | (mg/kg) | 410 | 165 | <0.5 | 2.92 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1 | 2.92 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Chromium** | (mg/kg) | 208600 | 165 | 2 | 72.8 | 0 | | 7 | 10 | 19 | 8 | 26.1 | 10 | 6 | - | 7 | 8 | 4 | 13 | - | 8 | - | 19 | 7 | 7 | 8 | 8 | 6 | 4 | 7 | 9 | 9 | 25.6 | 14 | 72.8 | 22.8 | 16 | 6 | 2 | 8 | 14 | 10 | 11 | 11 | 11 | 12 | 22 | 4 | 9 | 10 | 3 | 11 | 5 |
| Lead** | (mg/kg) | 2310 | 165 | 1 | 1206.8 | 0 | | 11 | 5 | 6 | 3 | 8 | 4 | 8 | - | 4 | 10 | 4 | 5 | - | 3 | - | 6 | 24 | 4 | 6 | 6 | 12 | 2 | 16 | 8 | 4 | 14 | 48 | 1206.8 | 66 | 39 | 8 | 3 | 4 | 7 | 9 | 6 | 7 | 5 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 1 |
| Mercury** | (mg/kg) | 7.95 | 165 | <0.5 | 3.44 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 3.44 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Nickel** | (mg/kg) | 1770 | 165 | 1.9 | 146.98 | 0 | | 5.1 | 6.2 | 10.5 | 4.2 | 19.8 | 4.5 | 3.4 | - | 4.1 | 6.2 | 4.6 | 8 | - | 1.9 | - | 7.4 | 3.4 | 3.1 | 5.3 | 4 | 6.3 | 2.7 | 4.5 | 5.8 | 6 | 19.2 | 13.8 | 146.98 | 27.1 | 15.8 | 4.4 | 2 | 4.7 | 6.4 | 7.5 | 7.5 | 7.1 | 6 | 6 | 11 | 3 | 5 | 6 | 2 | 6 | 3 |
| Copper** | (mg/kg) | 106000 | 165 | <1 | 256.91 | 0 | | 7.7 | 6.1 | 9.6 | 4 | 8.6 | 3.4 | 4.2 | - | 3 | 5.3 | 7.5 | 5.5 | - | 2.2 | - | 4.3 | 5.9 | 1.5 | 1.4 | 1.6 | 6.5 | 1.8 | 5.7 | 5.7 | 3.5 | 9.8 | 25.7 | 256.91 | 36.9 | 22.3 | 4.6 | 1.9 | 4.2 | 4.6 | 8.9 | 6.2 | 6.9 | 2 | 2 | 2 | 1 | 2 | 3 | 2 |
| Zinc** | (mg/kg) | 1100000 | 165 | 5.9 | 1220.3 | 0 | | 41.7 | 30.3 | 37.9 | 22 | 40 | 24 | 24.6 | - | 17.9 | 21.6 | 34.1 | 28.4 | - | 11.4 | - | 24.6 | 31.4 | 43.7 | 25.8 | 22.4 | 53 | 14.8 | 24 | 29.1 | 26.1 | 54.2 | 86.4 | 1220.3 | 219.6 | 81.6 | 23.4 | 15.3 | 31.5 | 59 | 39.9 | 23 | 26.5 | 36 | 19 | 14 | 10 | 9 | 6 | 11 | 9 | 14 |
| Selenium | (mg/kg) | 13000 | 165 | <0.5 | 3.57 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | 0.57 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | 0.54 | - | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.25 | <0.5 | 3.57 | 0.63 | <0.5 | <0.5 | 0.58 | 0.56 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Hexavalent Chromium | (mg/kg) | 49.1 | 165 | <2 | <2 | 0 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | - | <2 | <2 | <2 | <2 | - | <2 | - | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Water Soluble Boron | (mg/kg) | No SSV | 165 | <0.5 | 12.1 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.8 | <0.5 | 0.7 | 1 | 0.7 | 12.1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.9 | <0.5 | 0.8 | 2.2 | 0.6 | 0.6 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Inorganics** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH Value** | (Units) | No SSV | 165 | 4.3 | 11.2 | 0 | | 7.6 | 7.43 | 5.6 | 6 | 5.7 | 7.51 | 7.5 | - | 8.1 | 7.74 | 7.4 | 7.43 | - | 7.71 | - | 7.5 | 4.3 | 5.4 | 4.88 | 4.39 | 7.7 | 7.85 | 6.62 | 9.44 | 9.3 | 7.95 | 8.24 | 7.71 | 8.7 | 8.71 | 8.11 | 7.62 | 7.7 | 5.1 | 8.33 | 10.53 | 8.15 | 8.6 | 8.6 | 8.7 | 8.6 | 8.1 | 8.3 | 8.31 | 8.5 | 8.27 |
| Total Sulphate | (% as SO4) | No SSV | 165 | <0.05 | 0.59 | 0 | | 0.16 | 0.16 | <0.05 | 0.14 | 0.25 | 0.16 | 0.05 | - | 0.07 | <0.05 | 0.07 | 0.24 | - | 0.05 | - | 0.1 | 0.11 | <0.05 | 0.08 | 0.06 | 0.11 | 0.07 | 0.09 | <0.05 | <0.05 | <0.05 | <0.05 | 0.39 | 0.1 | 0.13 | 0.15 | 0.11 | 0.14 | 0.16 | 0.08 | 0.06 | 0.13 | 0.22 | 0.22 | 0.14 | <0.05 | <0.05 | <0.05 | 0.07 | <0.05 | <0.05 |
| Total Cyanide** | (mg/kg) | No SSV | 165 | <1 | 4.78 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | - | <1 | <1 | <1 | <1 | - | <1 | - | <1 | 1.21 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 4.78 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulphide | (mg/kg) | No SSV | 165 | <2 | 88 | 0 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | - | <2 | <2 | <2 | <2 | - | <2 | - | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 6.5 | 5.04 | <2 | <2 | <2 | <2 | <2 | 7.7 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 11.8 |
| Elemental Sulphur** | (mg/kg) | No SSV | 165 | <10 | 414.72 | 0 | | <10 | <10 | <10 | <10 | <10 | <10 | <10 | - | <10 | <10 | <10 | <10 | - | <10 | - | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 45.8 | <10 | 131.04 | <10 | <10 | <10 | <10 | <10 | <10 | 25.06 | 37.44 | <10 | <10 | <10 | <10 | 36.7 | 14.4 | <10 | <10 | 85 |
| Total Monohydric Phenols** | (mg/kg) | No SSV | 165 | <1 | 1.3 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | - | <1 | <1 | <1 | <1 | - | <1 | - | <1 | <1 | <1 | 1.1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **PAHs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene** | (mg/kg) | 90.1 | 165 | <0.1 | <0.1 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthylene** | (mg/kg) | No SSV | 165 | <0.1 | 0.9 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthene** | (mg/kg) | 83600 | 165 | <0.1 | <0.1 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluorene** | (mg/kg) | 66500 | 165 | <0.1 | 0.11 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Phenanthrene** | (mg/kg) | No SSV | 165 | <0.1 | 0.97 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.97 | 0.21 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Anthracene** | (mg/kg) | 535000 | 165 | <0.1 | 0.45 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.45 | 0.38 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluoranthene** | (mg/kg) | 72200 | 165 | <0.1 | 2.69 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 2.69 | 0.34 | 0.17 | 0.36 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Pyrene** | (mg/kg) | 54100 | 165 | <0.1 | 2.06 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 2.06 | 0.77 | 0.15 | 0.28 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benz(a)anthracene** | (mg/kg) | No SSV | 165 | <0.1 | 1.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.52 | 0.43 | <0.1 | 0.15 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Chrysene** | (mg/kg) | 13400 | 165 | <0.1 | 1.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.52 | 0.79 | 0.17 | 0.31 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(b)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.91 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.91 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(k)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 1.32 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.32 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(a)pyrene** | (mg/kg) | 76.3 | 165 | <0.1 | 1.31 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.31 | 0.89 | <0.1 | 0.14 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Indeno(123-cd)pyrene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.8 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.8 | 0.32 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Dibenz(ah)anthracene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.21 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.21 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.16 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(ghi)perylene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.89 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.85 | 0.89 | 0.19 | 0.18 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Total PAH** | (mg/kg) | No SSV | 165 | <0.1 | 14.72 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 14.72 | 5.02 | 0.67 | 1.56 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.47 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **TPH Aromatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aromatic C5-C7 | (mg/kg) | 12.5 | 165 | <0.01 | <0.01 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C7-C8 | (mg/kg) | 27900 | 165 | <0.01 | <0.01 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C8-C10 | (mg/kg) | 2210 | 165 | <0.1 | 0.4 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH aromatic C10-C12 | (mg/kg) | 12300 | 165 | <0.1 | 0.22 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aromatic C12-C16 | (mg/kg) | 41300 | 165 | <0.1 | 5.83 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | 0.12 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | 0.13 |
| TPH Aromatic C16-C21 | (mg/kg) | 28400 | 165 | <0.1 | 19.85 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.36 | 0.36 | - | 0.34 | <0.1 | <0.1 | <0.1 | - | 0.38 | - | 0.5 | <0.1 | <0.1 | 0.38 | 0.35 | <0.1 | <0.1 | <0.1 | 0.33 | <0.1 | <0.1 | <0.1 | 19.85 | 0.35 | 1.05 | 0.21 | 0.3 | <0.1 | <0.1 | 0.16 | 0.15 | 0.24 | 0.15 | 0.16 | 0.24 | 0.12 | 0.24 | 0.12 |
| TPH Aromatic C21-C35 | (mg/kg) | 28400 | 165 | <-68.01 | 42.05 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.42 | - | 0.74 | <0.1 | <0.1 | <0.1 | - | 0.74 | - | 0.55 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.38 | 1.4 | 0.93 | 0.36 | 0.48 | 2.36 | -68.01 | 0.51 | 2.25 | <0.1 | 0.44 | 0.19 | <0.1 | <0.1 | 2.16 | 2.05 | <0.1 | <0.1 | 0.15 | <0.1 | 0.19 | 0.1 | 0.33 | 0.54 | 0.86 |
| **TPH Aliphatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aliphatic C5-C6 | (mg/kg) | 4490 | 165 | <0.01 | 0.03 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.03 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C6-C8 | (mg/kg) | 10400 | 165 | <0.01 | <0.1 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C8-C10 | (mg/kg) | 1370 | 165 | <0.1 | 0.15 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | 0.12 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C10-C12 | (mg/kg) | 7900 | 165 | <0.1 | 0.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C12-C16 | (mg/kg) | 34000 | 165 | <0.1 | 5.62 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.23 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | <0.1 | <0.1 | <0.1 | 0.17 | 0.24 | 0.26 | <0.1 | <0.1 | 0.1 | <0.1 |
| TPH Aliphatic C16-C21 | (mg/kg) | 3620000 | 165 | <0.1 | 47.96 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.67 | - | 0.71 | <0.1 | <0.1 | <0.1 | - | 0.84 | - | 1.04 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.59 | <0.1 | <0.1 | <0.1 | 47.96 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.35 | 0.26 | 0.32 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | <0.1 |
| TPH Aliphatic C21-C35 | (mg/kg) | 3620000 | 165 | <-143.07 | 46.2 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | 0.51 | 0.28 | 0.14 | 0.31 | - | <0.1 | - | 0.22 | <0.1 | 0.13 | 0.18 | 0.19 | <0.1 | <0.1 | <0.1 | 1.85 | 0.32 | 0.11 | 1.48 | -143.07 | 1.08 | 2.36 | <0.1 | <0.1 | 0.37 | 0.19 | <0.1 | <0.1 | 1.6 | 0.8 | 0.58 | 0.68 | 0.54 | 0.73 | <0.1 | <0.1 | 0.12 | 0.12 |
| TPH (C5 - C35) | (mg/kg) | No SSV | 161 | <-271.4 | 70.86 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.45 | - | 2.3 | 0.28 | 0.14 | 0.31 | - | 1.96 | - | 2.31 | <0.1 | 0.13 | 0.56 | 0.54 | <0.1 | 1.38 | 2.54 | 3.71 | 0.68 | 0.62 | 3.84 | -271.4 | 1.

ATKINS

| Assessment Criteria : | | Commercial - 1% SOM Sand | | |

| Assessment Criteria : | | Commercial - 1% SOM Sand | | |

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| Assessment Criteria : | Commercial - 1% SOM Sand |
|---|---|
| Use MRL Values? | |

| Determinant | | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | GW10 ES1 | GW10 ES2 | GW10 ES7 | GW12 ES8 | GW12 ES9 | GW13 ES2 | GW13 ES4 | GW13 ES9 | GW15 ES2 | GW15 ES | GW15 ES5 | GW16D ES2 | GW16D ES3 | GW16D ES5 | GW17 ES2 | GW17 ES6 | GW18 ES2 | GW19 ES4 | GW20 ES1 | GW21 ES1 | GW22 ES1 | GW23 ES1 | GW23 ES2 | GW24D ES1 | GW24D ES3 | G2 ES1 | G2 ES3 | G3 ES2 | G3 ES4 | G3 ES6 | G4 ES2 | G4 ES4 | G4 ES8 | G6 ES6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 0.1 - 0.3 | 0.8 - 1.0 | 5.2 - 5.5 | 6.5 - 6.7 | 7.5 - 7.7 | 0.5 - 0.7 | 2.5 - 2.7 | 7.0 - 7.2 | 0.8 - 1.0 | 2.1 - 2.3 | 3.3 - 3.5 | 0.80 - 1.0 | 1.80 - 2.0 | 3.80 - 4.0 | 0.5 - 0.6 | 4.5 - 4.7 | 0.80 - 0.90 | 2.5 - 2.7 | GL - 0.2 | 0 - 0.2 | 0 - 0.2 | GL - 0.2 | 0.9 - 1.0 | 0 - 0.2 | 1.5 - 1.7 | 0.1 - 0.3 | 1.4 - 1.6 | 0.4 - 0.6 | 1.7 - 1.9 | 3.7 - 3.9 | 0.70 - 0.90 | 2.50 - 2.70 | 6.50 - 6.70 | 4.5 - 4.7 |
| 2,3,5,6-Tetrachlorophenol, | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Diethylphthalate | (µg/kg) | No SSV | 48 | <10 | 111.87 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Fluorene | (µg/kg) | 66500 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Diphenylamine | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Azobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 4-Bromophenyl phenyl ether | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Hexachlorobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Pentachlorophenol | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Phenanthrene | (µg/kg) | No SSV | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Anthracene | (µg/kg) | 535000 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fluoranthene | (µg/kg) | 72200 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pyrene | (µg/kg) | 54100 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzylbutylphthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Bis(2-ethylhexyl)adipate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Benzo(a)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chrysene | (µg/kg) | 13400 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bis(2-ethylhexyl)phthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Benzo(b)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(k)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(a)pyrene | (µg/kg) | 76.3 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Indeno[1,2,3-cd]pyrene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dibenz(ah)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(ghi)perylene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **PCBs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB 28** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 52** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 101** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 118** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 138** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 153** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 180** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **OCPs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alpha BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Beta BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Gamma BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Delta BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Heptachlor | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Aldrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Heptachlor epoxide | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chlordane | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endosulfan I | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| cis-Chlordane | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp-DDE** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dieldrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp-DDD** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endrin Aldehyde | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp DDT** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endosulfan II | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endrin Ketone | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp-Methoxychlor | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **OPPs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mevinphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dimethoate | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Propetamphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chlorpyriphos-methyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fenitrothion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Malathion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Parathion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Trans-Chlorfenvinphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bromophos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Triazophos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Phosalone | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Azinphos-methyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Azinphos-ethyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

ATKINS

**Assessment Criteria :** *Public Open Space (Parks) - 1% SOM Sand*

Use MRL Values?

| Constituent | Unit | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | Sample ID | TP1 ES3 | TP1 ES4 | TP2 ES1 | TP2 ES3 | TP3 ES2 | TP4 ES4 | TP4 ES5 | TP6 ES1 | TP6 ES2 | TP7 ES3 | TP8 ES2 | TP8 ES4 | TP9 ES2 | TP9 ES3 | TP12 ES2 | TP12 ES3 | TP13 ES1 | TP14 ES2 | TP14 ES3 | TP15 ES4 | TP17 ES2 | TP17 ES3 | TP18 ES2 | TP19 ES1 | TP20 ES1 | TP20 ES2 | TP21 ES2 | TP21 ES3 | TP22 ES2 | TP22 ES3 | TP23 ES1 | TP25 ES1 | TP25 ES2 | TP26 ES2D | TP27 ES2 | TP28 ES1 | TP28 ES4 | TP29 ES2 | TP29 ES3 | TP30 ES2 | TP32 ES1 | TP33 ES2 | TP33 ES3 | TP34 ES2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Depth | 1.5 - 1.6 | 2.5 - 2.6 | GL - 0.2 | 1.0 - 1.1 | 0.5 - 0.6 | 2.20 - 2.60 | 3.50 - 3.60 | 0.7 - 0.8 | 1.2 - 1.3 | 1.5 - 1.6 | 0.5 - 0.6 | 2.5 - 2.6 | 0.50 - 0.60 | 1.50 - 1.60 | 0.8 - 0.9 | 1.7 - 1.8 | 0 - 0.2 | 0.5 - 0.6 | 1.1 - 1.2 | 2.5 - 2.5 | 0.5 - 0.6 | 1.4 - 1.5 | 0.5 - 0.6 | 0.4 - 0.5 | GL - 0.2 | 0.4 - 0.5 | 0.5 - 0.6 | 1.5 - 1.6 | 0.50 - 0.60 | 1.50 - 1.60 | GL - 0.2 | 0.4 - 0.5 | 1.8 - 1.9 | 0.8 - 0.9 | 0.7 - 0.8 | GL - 0.20 | 2.50 - 2.60 | 0.7 - 0.8 | 1.2 - 1.3 | 0.5 - 0.6 | 0.4 - 0.5 | 0.5 - 0.6 | 1.4 - 1.5 | 0.5 - 0.6 |
| | | | | | | | | Strata | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | Zone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stone Content | (%) | No SSV | 165 | <1 | 68 | 0 | | | 8 | 7 | 5 | 21 | 7 | 19 | 16 | 21 | 11 | 14 | <1 | 4 | 2 | 13 | <1 | 5 | <1 | <1 | <1 | 13 | 4 | 7 | 10 | <1 | 9 | 40 | <1 | <1 | 13 | <1 | 19 | <1 | <1 | - | <1 | 16 | 15 | <1 | <1 | 2 | 10 | 2 | 13 | 17 |
| **Metals/Metalloids** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic** | (mg/kg) | 168 | 165 | <5 | 158.9 | 0 | | | 8.5 | 9.1 | 25.2 | 17.8 | 31 | 17.4 | 15.7 | 19.3 | 20.1 | 19 | 44.1 | 9.1 | 45 | 29.4 | 32.6 | 54.8 | 37.5 | 8.6 | 13.5 | 20.3 | 34.5 | 25.3 | 50.8 | 77.4 | 16.4 | 14.3 | 15.9 | 13.5 | 9.7 | 72.2 | 11.4 | 38.1 | 28.3 | - | 46 | 12.1 | 18.3 | 35 | 13.6 | 32.5 | 31.1 | 39.1 | 25.7 | 8.7 |
| Cadmium** | (mg/kg) | 882 | 165 | <0.5 | 2.92 | 0 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Chromium** | (mg/kg) | 83500 | 165 | 2 | 72.8 | 0 | | | 13.1 | 15.3 | 13 | 13 | 9 | 14 | 13 | 12 | 8 | 9 | 12 | 5 | 16 | 16 | 15 | 14 | 27 | 5 | 6 | 7 | 10 | 6 | 13 | 18 | 7 | 12 | 6 | 15 | 5 | 25.9 | 5 | 8 | 8 | - | 13 | 6 | 9 | 9 | 7 | 9 | 8 | 10 | 10 | 6 |
| Lead** | (mg/kg) | 1340 | 165 | 1 | 1206.8 | 0 | | | 7.1 | 6.3 | 10 | 8 | 7 | 8 | 8 | 8 | 5 | 7 | 6 | 15 | 7 | 11 | 8 | 7 | 19 | 3 | 3 | 4 | 8 | 5 | 7 | 6 | 6 | 5 | 3 | 11 | 6 | 9 | 7 | 4 | 5 | - | 6 | 9 | 7 | 4 | 3 | 14 | 4 | 8 | 5 | 6 |
| Mercury** | (mg/kg) | 61.2 | 165 | <0.5 | 3.44 | 0 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Nickel** | (mg/kg) | 804 | 165 | 1.9 | 146.98 | 2 | | | 7.6 | 7.9 | 4.5 | 6.9 | 12.6 | 6 | 5 | 8.2 | 7.9 | 7.8 | 5.6 | 6.1 | 6.9 | 3.1 | 8.3 | 9.5 | 9 | 8.3 | 18.1 | 2.8 | 3.3 | 4.5 | 6.5 | 4.9 | 6.8 | 10.6 | 5.8 | 7.1 | 3.3 | 9.8 | 2.8 | 13.3 | 4 | 5.3 | 6.1 | - | 7.6 | 3.8 | 5.3 | 5.1 | 3.7 | 7.2 | 4.7 | 8.7 | 5.7 | 3.7 |
| Copper** | (mg/kg) | 45200 | 165 | <1 | 256.91 | 0 | | | 3 | 2.8 | 6.8 | 7.9 | 3.5 | 4.6 | 5.1 | 7.8 | 5.1 | 4.5 | 4.2 | 3.9 | 3.4 | 5.9 | 4.3 | 3.2 | 7 | 2.2 | 2.6 | 3.5 | 3.9 | 2.9 | 3.6 | 23.6 | 5.8 | 5.3 | 2.3 | 5.9 | 2.3 | 6.5 | 3.4 | 3.7 | 4.6 | - | 5.4 | 2.6 | 2.5 | 2.7 | 2.6 | 5.4 | 3.1 | 4.7 | 3.1 | 2.6 |
| Zinc** | (mg/kg) | 201000 | 165 | 5.9 | 1220.3 | 0 | | | 18.6 | 25.8 | 32.6 | 23.1 | 22.2 | 29.2 | 26.5 | 28.4 | 26.1 | 22.9 | 31.2 | 21.6 | 28.8 | 5.9 | 34.2 | 29.8 | 44.3 | 17.6 | 19.1 | 32.2 | 30 | 23.7 | 25.6 | 77.8 | 28 | 21 | 19.9 | 37.5 | 12.7 | 62.1 | 21.4 | 28.5 | 30.8 | - | 38 | 12.8 | 16.3 | 29.4 | 21.6 | 36.9 | 24.7 | 32.2 | 22.5 | 15.4 |
| Selenium | (mg/kg) | 2550 | 165 | <0.5 | 3.57 | 1 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.53 | <0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.9 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.65 | <0.5 | <0.5 | <0.5 | 0.5 | <0.5 | 0.74 | <0.5 | <0.5 | <0.5 | - | 0.72 | <0.5 | <0.5 | 0.59 | <0.5 | 1.1 | <0.5 | <0.5 | 0.52 | 0.73 |
| Hexavalent Chromium | (mg/kg) | 251 | 165 | <2 | <2 | 0 | | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | - | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Water Soluble Boron | (mg/kg) | No SSV | 165 | <0.5 | 12.1 | 0 | | | <0.5 | <0.5 | 0.5 | 1.5 | <0.5 | 1.1 | 1.1 | 1.1 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | 2.1 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | 0.67 | <0.5 | <0.5 | <0.5 | <0.5 | 1.6 | <0.5 | <0.5 | <0.5 | 0.5 |
| **Inorganics** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH Value** | (Units) | No SSV | 165 | 4.3 | 11.2 | 0 | | | 8.95 | 8.45 | 7.1 | 11.05 | 8.6 | 9.45 | 11 | 10.2 | 9.8 | 11.1 | 8.81 | 7.4 | 8.14 | 8.62 | 8.28 | 8.35 | 8.18 | 8.7 | 8.43 | 9.5 | 8.11 | 8.13 | 8.36 | 8.07 | 8.1 | 8.06 | 8.66 | 8.41 | 8.29 | 7.32 | 7.97 | 8.38 | 7.96 | - | 7.65 | 7.99 | 8.26 | 8 | 8.13 | 7.81 | 8.49 | 8.2 | 9.64 | 6.48 |
| Total Sulphate | (% as SO4) | No SSV | 165 | <0.05 | 0.59 | 0 | | | 0.08 | 0.06 | 0.08 | 0.14 | 0.07 | 0.07 | 0.08 | 0.06 | 0.09 | 0.07 | 0.06 | <0.05 | 0.09 | 0.08 | 0.09 | 0.13 | 0.14 | 0.06 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0.06 | 0.12 | 0.08 | 0.13 | 0.08 | 0.23 | <0.05 | <0.05 | 0.15 | - | 0.29 | 0.08 | 0.09 | 0.21 | 0.11 | 0.13 | <0.05 | <0.05 | <0.05 | <0.05 |
| Total Cyanide** | (mg/kg) | No SSV | 165 | <1 | 4.78 | 0 | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 27.1 | <2 | <2 | <2 | <2 | <2 | 6 | - | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulphide | (mg/kg) | No SSV | 165 | <2 | 88 | 0 | | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | - | <2 | <2 | <2 | <2 | 27.3 | <2 | <2 | <2 | 11.4 | <2 |
| Elemental Sulphur** | (mg/kg) | No SSV | 165 | <10 | 414.72 | 0 | | | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 39 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 20 | <10 | <10 | <10 | <10 | <10 | <10 | - | 74.75 | <10 | <10 | <10 | 108 | 19.22 | <10 | 27.2 | 29.4 | <10 |
| Total Monohydric Phenols** | (mg/kg) | No SSV | 165 | <1 | 1.3 | 0 | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | - | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **PAHs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene** | (mg/kg) | 623 | 165 | <0.1 | <0.1 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthylene** | (mg/kg) | No SSV | 165 | <0.1 | 0.9 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthene** | (mg/kg) | 28600 | 165 | <0.1 | <0.1 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluorene** | (mg/kg) | 19600 | 165 | <0.1 | 0.11 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Phenanthrene** | (mg/kg) | No SSV | 165 | <0.1 | 0.97 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Anthracene** | (mg/kg) | 150000 | 165 | <0.1 | 0.45 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluoranthene** | (mg/kg) | 20200 | 165 | <0.1 | 2.69 | 0 | | | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | <0.1 | <0.1 | <0.1 | 2.69 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Pyrene** | (mg/kg) | 15100 | 165 | <0.1 | 2.06 | 0 | | | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benz(a)anthracene** | (mg/kg) | No SSV | 165 | <0.1 | 1.52 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Chrysene** | (mg/kg) | 4680 | 165 | <0.1 | 1.52 | 0 | | | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(b)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.91 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(k)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 1.32 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(a)pyrene** | (mg/kg) | 21.4 | 165 | <0.1 | 1.31 | 0 | | | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Indeno(123-cd)pyrene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.8 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Dibenz(ah)anthracene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.21 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(ghi)perylene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.89 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Total PAH** | (mg/kg) | No SSV | 165 | <0.1 | 14.72 | 0 | | | <0.1 | 0.4 | <0.1 | <0.1 | <0.1 | <0.1 | 0.22 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **TPH Aromatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aromatic C5-C7 | (mg/kg) | 139 | 165 | <0.01 | <0.01 | 0 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C7-C8 | (mg/kg) | 69900 | 165 | <0.01 | <0.01 | 0 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C8-C10 | (mg/kg) | 5140 | 165 | 0.1 | 0.4 | 0 | | | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH aromatic C10-C12 | (mg/kg) | 8260 | 165 | <0.1 | 0.22 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aromatic C12-C16 | (mg/kg) | 10600 | 165 | <0.1 | 5.83 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.15 | 0.14 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.31 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 5.83 | 0.16 | |
| TPH Aromatic C16-C21 | (mg/kg) | 7870 | 165 | <0.1 | 19.85 | 0 | | | 0.33 | <0.1 | <0.1 | <0.1 | <0.1 | 0.33 | <0.1 | 0.98 | 2.85 | 0.51 | 0.37 | 0.31 | 0.39 | 0.14 | <0.1 | 0.17 | 0.17 | 0.21 | 0.11 | 0.22 | 0.22 | <0.1 | <0.1 | <0.1 | <0.1 | 0.22 | 0.11 | <0.1 | <0.1 | 0.41 | <0.1 | <0.1 | 0.12 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | 19.85 | 0.39 | | |
| TPH Aromatic C21-C35 | (mg/kg) | 7870 | 165 | <-68.01 | 42.05 | 0 | | | 0.57 | 24.77 | 0.25 | 0.93 | 0.37 | 0.23 | 3.36 | 7.27 | 5.62 | 0.67 | 0.54 | 0.58 | 0.18 | <0.1 | 0.59 | 0.38 | 0.32 | 0.54 | <0.1 | 3.42 | <0.1 | <0.1 | 0.18 | 2.03 | 0.93 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | 1.91 | <0.1 | <0.1 | <0.1 | 1.1 | 1.7 | 7.59 | <0.1 | 42.05 | 0.62 |
| **TPH Aliphatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aliphatic C5-C6 | (mg/kg) | 109000 | 165 | <0.01 | 0.03 | 0 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C6-C8 | (mg/kg) | 163000 | 165 | <0.01 | <0.1 | 0 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C8-C10 | (mg/kg) | 9720 | 165 | <0.1 | 0.15 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.15 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C10-C12 | (mg/kg) | 17700 | 165 | <0.1 | 0.52 | 0 | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.52 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.57 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C12-C16 | (mg/kg) | 23800 | 165 | <0.1 | 5.62 | 0 | | | <0.1 | <0.1 | <0.1 | 0.12 | <0.1 | <0.1 | <0.1 | 2.65 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | 0.14 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | <0.1 | <0.1 | 5.62 | <0.1 |
| TPH Aliphatic C16-C21 | (mg/kg) | 864000 | 165 | <0.1 | 47.96 | 0 | | | <0.1 | 1.8 | <0.1 | 0.55 | 0.76 | <0.1 | 0.6 | 3.64 | 0.36 | 0.79 | 0.63 | 0.73 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | 0.18 | <0.1 | 7.94 | <0.1 | |
| TPH Aliphatic C21-C35 | (mg/kg) | 864000 | 165 | <-143.07 | 46.2 | 0 | | | 0.57 | 42.78 | 0.53 | 1.83 | 0.15 | 0.81 | 3.8 | 12.92 | 3.8 | 0.86 | 0.35 | 0.19 | 0.55 | 1.86 | <0.1 | 0.13 | 0.54 | <0.1 | <0.1 | 2.01 | 0.76 | 0.43 | 1.56 | 0.52 | 0.18 | 0.18 | 1.5 | 1.5 | 0.54 | 0.26 | 0.18 | 0.16 | <0.1 | - | 0.59 | 0.12 | 0.65 | <0.1 | <0.1 | 3.15 | 2.48 | <0.1 | 29.55 | 0.3 |
| TPH (C5 - C35) | (mg/kg) | No SSV | 161 | <-271.4 |

ATKINS

**Assessment Criteria :** *Public Open Space (Parks) - 1% SOM Sand*

☐ **Use MRL Values?**

| Contaminant | | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | Sample ID | TP1 ES3 | TP1 ES4 | TP2 ES1 | TP2 ES3 | TP3 ES2 | TP4 ES4 | TP4 ES5 | TP6 ES1 | TP6 ES2 | TP7 ES3 | TP8 ES2 | TP8 ES4 | TP9 ES2 | TP9 ES3 | TP12 ES2 | TP12 ES3 | TP13 ES1 | TP14 ES2 | TP14 ES3 | TP15 ES4 | TP17 ES2 | TP17 ES3 | TP18 ES2 | TP19 ES1 | TP20 ES1 | TP20 ES2 | TP21 ES2 | TP21 ES3 | TP22 ES2 | TP22 ES3 | TP23 ES1 | TP25 ES1 | TP25 ES2 | TP26 ES2D | TP27 ES2 | TP28 ES1 | TP28 ES4 | TP29 ES2 | TP29 ES3 | TP30 ES2 | TP32 ES1 | TP33 ES2 | TP33 ES3 | TP34 ES2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Depth | 1.5 - 1.6 | 2.5 - 2.6 | GL - 0.2 | 1.0 - 1.1 | 0.5 - 0.6 | 2.20 - 2.60 | 3.50 - 3.60 | 0.7 - 0.8 | 1.2 - 1.3 | 1.5 - 1.6 | 0.5 - 0.6 | 2.5 - 2.6 | 0.50 - 0.60 | 1.50 - 1.60 | 0.8 - 0.9 | 1.7 - 1.8 | 0 - 0.2 | 0.5 - 0.6 | 1.1 - 1.2 | 2.5 - 2.5 | 0.5 - 0.6 | 1.4 - 1.5 | 0.5 - 0.6 | 0.4 - 0.5 | GL - 0.2 | 0.4 - 0.5 | 0.5 - 0.6 | 1.5 - 1.6 | 0.50 - 0.60 | 1.50 - 1.60 | GL - 0.2 | 0.4 - 0.5 | 1.8 - 1.9 | 0.8 - 0.9 | 0.7 - 0.8 | GL - 0.20 | 2.50 - 2.60 | 0.7 - 0.8 | 1.2 - 1.3 | 0.5 - 0.6 | 0.4 - 0.5 | 0.5 - 0.6 | 1.4 - 1.5 | 0.5 - 0.6 |
| | | | | | | | | Strata | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2,3,5,6-Tetrachlorophenol, | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | - | <10 |
| Diethylphthalate | (µg/kg) | No SSV | 48 | <10 | 111.87 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | 111.87 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | - | <10 |
| Fluorene | (µg/kg) | 19600 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Diphenylamine | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | - | <10 |
| Azobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | - | <10 |
| 4-Bromophenyl phenyl ether | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | - | <10 |
| Hexachlorobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | - | <10 |
| Pentachlorophenol | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | - | <10 |
| Phenanthrene | (µg/kg) | No SSV | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Anthracene | (µg/kg) | 150000 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fluoranthene | (µg/kg) | 20200 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pyrene | (µg/kg) | 15100 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzylbutylphthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | - | <10 |
| Bis(2-ethylhexyl)adipate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | - | <10 |
| Benzo(a)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chrysene | (µg/kg) | 4660 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bis(2-ethylhexyl)phthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | | - | - | - | - | <10 | <10 | <10 | <10 | - | - | <10 | - | <10 | - | <10 | - | - | <10 | - | - | <10 | - | - | <10 | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | - | <10 |
| Benzo(b)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(k)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(a)pyrene | (µg/kg) | 21.4 | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Indeno[1,2,3-cd]pyrene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dibenz(ah)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(ghi)perylene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **PCBs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB 28** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | <10 | - | <10 |
| PCB 52** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | <10 | - | <10 |
| PCB 101** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | <10 | - | <10 |
| PCB 118** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | <10 | - | <10 |
| PCB 138** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | <10 | - | <10 |
| PCB 153** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | <10 | - | <10 |
| PCB 180** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | <10 | - | <10 |
| **OCPs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alpha BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Beta BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Gamma BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Delta BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Heptachlor | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Aldrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Heptachlor epoxide | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chlordane | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endosulfan I | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| cis-Chlordane | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp-DDE** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dieldrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp-DDD** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endrin Aldehyde | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp DDT** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endosulfan II | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endrin Ketone | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp-Methoxychlor | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **OPPs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mevinphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dimethoate | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Propetamphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chloropyriphos-methyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fenitrothion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Malathion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Parathion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Trans-Chlorfenvinphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bromophos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Triazophos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Phosalone | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Azinphos-methyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Azinphos-ethyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | | - | - | - | - | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

ATKINS

**Assessment Criteria :** *Public Open Space (Parks) - 1% SOM Sand*

☐ **Use MRL Values?**

| Constituent | Unit | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | TP34 ES3 | TP34 ES4 | TP35 ES3 | TP37 ES2 | TP37 ES4 | TP38 ES2 | TP38 ES3 | TP38 ES4 | TP39 ES2 | TP40 ES2 | TP40 ES4 | TP41 ES2 | TP41 ES3 | TP42 ES2 | TP42 ES3 | TP42 ES6 | TP43 ES1 | TP43 ES2 | TP44 ES2 | TP44 ES5 | TP45 ES2 | TP45A ES4 | TP46 ES2 | TP46 ES3 | TP47 ES2 | TP47 ES3 | TP47 ES4 | TP48 ES4 | TP50 ES1 | TP51 ES1 | TP51 ES3 | TP52 ES2 | TP52 ES3 | TP53 ES2 | TP53 ES3 | TP54 ES3 | TP55 ES2 | TP56 ES3 | TP57 ES2 | TP57 ES3 | TP57 ES5 | TP58 ES2 | TP58 ES3 | TP60 ES1 | TP62 ES5 | TP65 ES3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1.5 - 1.6 | 2.5 - 2.6 | 1.5 - 1.6 | 0.8 - 0.9 | 2.5 - 2.7 | 0.5 - 0.6 | 1.5 - 1.6 | 2.5 - 2.6 | 0.5 - 0.6 | 0.5 - 0.6 | 2.1 - 2.2 | 0.5 - 0.6 | 1.2 - 1.3 | 0.5 - 0.6 | 1.5 - 1.6 | 3.9 - 4.0 | GL - 0.2 | 1.2 - 1.3 | 0.7 - 0.8 | 3.5 - 3.6 | 0.9 - 1.0 | 2.5 - 2.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 2.5 - 2.6 | 2.5 - 2.6 | 0.5 - 0.6 | 0.3 - 0.4 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 2.5 - 2.6 | 0.5 - 0.6 | 1.5 - 1.6 | 1.5 - 1.7 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 3.5 - 3.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 3.5 - 3.7 | 1.6 - 1.7 |
| Stone Content | (%) | No SSV | 165 | <1 | 68 | 0 | | <1 | 25 | 13 | 4 | 2 | <1 | <1 | <1 | 4 | <1 | <1 | 11 | <1 | 11 | 9 | 2 | 3 | <1 | 4 | 11 | <1 | 3 | 4 | <1 | <1 | <1 | 5 | 3 | 13 | <1 | <1 | 8 | 6 | 6 | <1 | 32 | <1 | <1 | <1 | 8 | 6 | <1 | 7 | 2 | 2 | 65 |
| **Metals/Metalloids** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic** | (mg/kg) | 168 | 165 | <5 | 158.9 | 0 | | 15.7 | <5 | 19.8 | 32.9 | 34.3 | 35.1 | 42.4 | 22.8 | 25.9 | 23.7 | 86.5 | 19.6 | 29.3 | 13.9 | 24.1 | 23.7 | 33.5 | 25.1 | 30.7 | 16.8 | 32.3 | 9.9 | 31.6 | 38.3 | 27.1 | 16.6 | 8.4 | 6.1 | 31.5 | 137.8 | 46.8 | 12.3 | 11.6 | 28 | 158.9 | 16.9 | 16.3 | 36.4 | 32.9 | 41.5 | 74.9 | 139.8 | 19.3 | 24.6 | 13.7 | <5 |
| Cadmium** | (mg/kg) | 882 | 165 | <0.5 | 2.92 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Chromium** | (mg/kg) | 83500 | 165 | 2 | 72.8 | 0 | | 6 | 9 | 8 | 7 | 8 | 10 | 7 | 5 | 7 | 8 | 19 | 7 | 6 | 9 | 10 | 8 | 9 | 6 | 12 | 11 | 12 | 9 | 8 | 8 | 7 | 5 | 5 | 3 | 6 | 26.2 | 12 | 5 | 5 | 19 | 32 | 10 | 5 | 9 | 8 | 8 | 16 | 27.1 | 5 | 8 | 10 | 3 |
| Lead** | (mg/kg) | 1340 | 165 | 1 | 1206.8 | 0 | | 8 | 2 | 5 | 4 | 4 | 4 | 5 | 5 | 3 | 7 | 8 | 7 | 4 | 4 | 5 | 6 | 45 | 5 | 15 | 4 | 5 | 4 | 13 | 5 | 4 | 5 | 4 | 5 | 5 | 6 | 4 | 4 | 4 | 8 | 14 | 4 | 3 | 5 | 4 | 5 | 8 | 9 | 4 | 5 | 5 | 2 |
| Mercury** | (mg/kg) | 61.2 | 165 | <0.5 | 3.44 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Nickel** | (mg/kg) | 62 | 165 | 1.9 | 146.98 | 0 | | 4.7 | 5 | 5.6 | 5.1 | 5.6 | 7.4 | 5.4 | 4.3 | 6 | 6.3 | 8.4 | 4.4 | 5.1 | 6.2 | 6.9 | 4.8 | 4.9 | 4 | 8.8 | 6.5 | 9.2 | 5.3 | 7.6 | 7.9 | 5 | 4.2 | 3.2 | 1.9 | 4 | 12.1 | 5.6 | 3.7 | 3.9 | 11.2 | 14.1 | 7 | 2.7 | 6.2 | 4 | 4.4 | 11 | 13.6 | 2.6 | 7 | 6 | 2 |
| Copper** | (mg/kg) | 45200 | 165 | <1 | 256.91 | 0 | | 11.7 | 2.2 | 3.8 | 2.7 | 3.3 | 2.9 | 2.5 | 2.3 | 3.2 | 3 | 9 | 2.3 | 1.6 | 3.8 | 4.8 | 5.8 | 2 | 1.9 | 2.7 | 3.1 | 3.8 | 2.9 | 3.5 | 2.5 | 3.3 | 3.1 | 2.3 | 1.7 | 7 | 6.7 | 2.3 | 2.1 | 2.5 | 7.3 | 12.8 | 8 | 2.1 | 3.2 | 3.9 | 2.8 | 5.7 | 7.4 | 1.5 | 8 | 8 | 1.8 |
| Zinc** | (mg/kg) | 201000 | 165 | 5.9 | 1220.3 | 0 | | 36.8 | 8 | 26.6 | 25.9 | 28.2 | 28.2 | 27.1 | 23.4 | 28.5 | 26.4 | 36.8 | 19.3 | 22.7 | 33.1 | 41.6 | 51 | 22.2 | 22.7 | 21.9 | 17 | 22.4 | 16.2 | 29.3 | 27.6 | 21.9 | 19.7 | 15.1 | 13 | 20 | 36.5 | 20.5 | 16.3 | 16.6 | 35.2 | 57 | 15 | 13.8 | 26.3 | 31.4 | 27.3 | 41.2 | 57.6 | 18.6 | 30 | 19 | 10.1 |
| Selenium | (mg/kg) | 2650 | 165 | <0.5 | 3.57 | 0 | | 0.71 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.74 | 0.79 | 0.65 | 0.87 | 1.33 | 1.33 | 0.73 | 0.77 | <0.5 | <0.5 | <0.5 | 0.78 | 0.72 | <0.5 | <0.5 | <0.5 | 0.77 | 0.8 | 0.65 | 0.77 | 0.75 | <0.5 | <0.5 | <0.5 | <0.5 | 1.13 | <0.5 | <0.5 | <0.5 | <0.5 | 1.44 | 0.83 | 1.03 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Hexavalent Chromium | (mg/kg) | 251 | 165 | <2 | <2 | 0 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Water Soluble Boron | (mg/kg) | No SSV | 165 | <0.5 | 12.1 | 0 | | 0.7 | 1.2 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | 0.7 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1 | <0.5 | <0.5 | 0.6 | <0.5 | 0.6 | 1.1 | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 | 0.5 | <0.5 | 1.8 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.7 |
| **Inorganics** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH Value** | (Units) | No SSV | 165 | 4.3 | 11.2 | 0 | | 6.6 | 6.06 | 8.09 | 8.06 | 7.9 | 7.9 | 8.3 | 7.9 | 8.31 | 8.32 | 7.74 | 8.37 | 7.82 | 8.44 | 8.32 | 6.35 | 8.23 | 7.96 | 8 | 7.9 | 8.14 | 6.65 | 8.25 | 8 | 7.74 | 7.33 | 6.75 | 7.8 | 8.7 | 5.9 | 5.2 | 6.3 | 6.5 | 7.23 | 4.96 | 8.8 | 7.87 | 7.05 | 5 | 4.7 | 4.7 | 5.38 | 7.82 | 8.8 | 8.6 | 8.01 |
| Total Sulphate | (% as SO4) | No SSV | 165 | <0.05 | 0.59 | 0 | | <0.05 | <0.05 | <0.05 | <0.05 | 0.06 | <0.05 | <0.05 | <0.05 | 0.12 | 0.11 | 0.3 | 0.07 | 0.07 | 0.06 | 0.07 | 0.16 | <0.05 | 0.06 | 0.07 | 0.05 | 0.06 | 0.07 | <0.05 | <0.05 | 0.06 | <0.05 | <0.05 | <0.05 | 0.23 | 0.22 | <0.05 | <0.05 | <0.05 | 0.26 | 0.59 | 0.17 | 0.09 | 0.1 | 0.05 | <0.05 | <0.05 | 0.44 | <0.05 | 0.24 | 0.26 | <0.05 |
| Total Cyanide** | (mg/kg) | No SSV | 165 | <1 | 4.78 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 2.87 |
| Sulphide | (mg/kg) | No SSV | 165 | <2 | 88 | 0 | | <2 | <2 | <2 | <2 | <2 | <2 | 5.3 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 3.75 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Elemental Sulphur** | (mg/kg) | No SSV | 165 | <10 | 414.72 | 0 | | 121.4 | 11.8 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 66 | <10 | 12 | <10 | <10 | 414.72 | <10 | 34.25 | <10 | 35.9 | <10 | 64.58 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Total Monohydric Phenols** | (mg/kg) | No SSV | 165 | <1 | 1.3 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 1.3 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **PAHs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene** | (mg/kg) | 623 | 165 | <0.1 | <0.1 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthylene** | (mg/kg) | No SSV | 165 | <0.1 | 0.9 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.9 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthene** | (mg/kg) | 28600 | 165 | <0.1 | <0.1 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluorene** | (mg/kg) | 19600 | 165 | <0.1 | 0.11 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Phenanthrene** | (mg/kg) | No SSV | 165 | <0.1 | 0.97 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Anthracene** | (mg/kg) | 150000 | 165 | <0.1 | 0.45 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluoranthene** | (mg/kg) | 20200 | 165 | <0.1 | 2.69 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Pyrene** | (mg/kg) | 15100 | 165 | <0.1 | 2.06 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benz(a)anthracene** | (mg/kg) | No SSV | 165 | <0.1 | 1.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Chrysene** | (mg/kg) | 4680 | 165 | <0.1 | 1.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(b)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.91 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(k)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 1.32 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(a)pyrene** | (mg/kg) | 21.4 | 165 | <0.1 | 1.31 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Indeno(123-cd)pyrene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.8 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Dibenz(ah)anthracene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.21 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(ghi)perylene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.89 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Total PAH** | (mg/kg) | No SSV | 165 | <0.1 | 14.72 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.01 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **TPH Aromatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aromatic C5-C7 | (mg/kg) | 139 | 165 | <0.01 | <0.01 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C7-C8 | (mg/kg) | 69900 | 165 | <0.01 | <0.01 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C8-C10 | (mg/kg) | 5140 | 165 | <0.1 | 0.4 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH aromatic C10-C12 | (mg/kg) | 8260 | 165 | <0.1 | 0.22 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aromatic C12-C16 | (mg/kg) | 10600 | 165 | <0.1 | 5.83 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.18 | <0.1 | 0.13 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.32 | 0.12 | 0.24 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.17 | 0.12 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | 0.12 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aromatic C16-C21 | (mg/kg) | 7870 | 165 | <0.1 | 19.85 | 0.3 | | <0.1 | <0.1 | 0.42 | <0.1 | <0.1 | 0.15 | 0.13 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | <0.1 | 0.21 | 0.21 | 0.23 | <0.1 | <0.1 | 0.48 | <0.1 | <0.1 | 0.48 | <0.1 | 0.16 | 0.56 | <0.1 | <0.1 | 0.45 | <0.1 | <0.1 | 0.21 | 0.11 | <0.1 | 0.27 | 0.34 | 0.4 | <0.1 | <0.1 | <0.1 | 0.22 | 0.37 | <0.1 | <0.1 | <0.1 | 0.99 |
| TPH Aromatic C21-C35 | (mg/kg) | 7870 | 165 | <-68.01 | 42.05 | 0 | | 0.72 | 0.74 | <0.1 | 5.86 | 2.24 | 0.28 | 0.32 | 0.38 | <0.1 | 0.25 | <0.1 | <0.1 | 1.36 | 0.19 | 0.19 | 0.97 | 0.26 | 0.13 | 0.35 | 2.25 | 0.13 | 0.14 | 0.13 | 1.96 | 2.8 | 0.45 | <0.1 | <0.1 | 3.9 | 0.39 | <0.1 | 0.58 | <0.1 | 0.24 | 0.2 | 1.3 | 0.21 | 0.37 | 1.48 | 0.48 | <0.1 | 0.34 | 0.35 | <0.1 | <0.1 | 2.92 |
| **TPH Aliphatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aliphatic C5-C6 | (mg/kg) | 109000 | 165 | <0.01 | 0.03 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C6-C8 | (mg/kg) | 163000 | 165 | <0.01 | <0.1 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C8-C10 | (mg/kg) | 9720 | 165 | <0.1 | 0.15 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C10-C12 | (mg/kg) | 17700 | 165 | <0.1 | 0.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C12-C16 | (mg/kg) | 23800 | 165 | <0.1 | 5.62 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | <0.1 | 0.13 | <0.1 |

ATKINS

**Assessment Criteria :** *Public Open Space (Parks) - 1% SOM Sand*

☐ **Use MRL Values?**

| Contaminant | | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | TP34 ES3 | TP34 ES4 | TP35 ES3 | TP37 ES2 | TP37 ES4 | TP38 ES2 | TP38 ES3 | TP38 ES4 | TP39 ES2 | TP40 ES2 | TP40 ES4 | TP41 ES2 | TP41 ES3 | TP42 ES2 | TP42 ES3 | TP42 ES6 | TP43 ES1 | TP43 ES2 | TP44 ES2 | TP44 ES5 | TP45 ES2 | TP45A ES4 | TP46 ES2 | TP46 ES3 | TP47 ES2 | TP47 ES3 | TP47 ES4 | TP48 ES4 | TP50 ES1 | TP51 ES1 | TP51 ES3 | TP52 ES2 | TP52 ES3 | TP53 ES2 | TP53 ES3 | TP54 ES3 | TP55 ES2 | TP56 ES3 | TP57 ES2 | TP57 ES3 | TP57 ES5 | TP58 ES2 | TP58 ES3 | TP60 ES1 | TP62 ES5 | TP65 ES3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1.5 - 1.6 | 2.5 - 2.6 | 1.5 - 1.6 | 0.8 - 0.9 | 2.5 - 2.7 | 0.5 - 0.6 | 1.5 - 1.6 | 2.5 - 2.6 | 0.5 - 0.6 | 0.5 - 0.6 | 2.1 - 2.2 | 0.5 - 0.6 | 1.2 - 1.3 | 0.5 - 0.6 | 1.5 - 1.6 | 3.9 - 4.0 | GL - 0.2 | 1.2 - 1.3 | 0.7 - 0.8 | 3.5 - 3.6 | 0.9 - 1.0 | 2.5 - 2.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 2.5 - 2.6 | 2.5 - 2.6 | 0.5 - 0.6 | 0.3 - 0.4 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.7 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 3.5 - 3.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 3.5 - 3.7 | 1.6 - 1.7 |
| 2,3,5,6-Tetrachlorophenol, | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - | - | <10 | - | - | - | <10 | <10 | <10 | - | <10 | - | <10 | - | <10 | - | <10 | - | - | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | <10 |
| Diethylphthalate | (µg/kg) | No SSV | 48 | <10 | 111.87 | 0 | | - | - | - | <10 | - | - | - | <10 | <10 | <10 | - | <10 | - | <10 | - | <10 | - | <10 | - | - | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | 65.43 | - | - | - | - | - | - | - | - | - | - | - | <10 |
| Fluorene | (µg/kg) | 19600 | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Diphenylamine | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - | - | <10 | - | - | - | <10 | <10 | <10 | - | <10 | - | <10 | - | <10 | - | <10 | - | - | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | <10 |
| Azobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - | - | <10 | - | - | - | <10 | <10 | <10 | - | <10 | - | <10 | - | <10 | - | <10 | - | - | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | <10 |
| 4-Bromophenyl phenyl ether | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - | - | <10 | - | - | - | <10 | <10 | <10 | - | <10 | - | <10 | - | <10 | - | <10 | - | - | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | <10 |
| Hexachlorobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - | - | <10 | - | - | - | <10 | <10 | <10 | - | <10 | - | <10 | - | <10 | - | <10 | - | - | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | <10 |
| Pentachlorophenol | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - | - | <10 | - | - | - | <10 | <10 | <10 | - | <10 | - | <10 | - | <10 | - | <10 | - | - | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | <10 |
| Phenanthrene | (µg/kg) | No SSV | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Anthracene | (µg/kg) | 150000 | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fluoranthene | (µg/kg) | 20200 | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pyrene | (µg/kg) | 15100 | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzylbutylphthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - | - | <10 | - | - | - | <10 | <10 | <10 | - | <10 | - | <10 | - | <10 | - | <10 | - | - | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | <10 |
| Bis(2-ethylhexyl)adipate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - | - | <10 | - | - | - | <10 | <10 | <10 | - | <10 | - | <10 | - | <10 | - | <10 | - | - | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | <10 |
| Benzo(a)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chrysene | (µg/kg) | 4660 | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bis(2-ethylhexyl)phthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - | - | <10 | - | - | - | <10 | <10 | <10 | - | <10 | - | <10 | - | <10 | - | <10 | - | - | - | - | <10 | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | <10 |
| Benzo(b)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(k)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(a)pyrene | (µg/kg) | 21.4 | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Indeno[1,2,3-cd]pyrene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dibenz(ah)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(ghi)perylene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **PCBs** | | | | | | | |

ATKINS

**Assessment Criteria :** *Public Open Space (Parks) - 1% SOM Sand*

☐ **Use MRL Values?**

| | Unit | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | TP66 ES2 | TP66 ES3 | TP67 ES2 | TP67 ES3 | TP68 ES5 | TP69 ES3 | TP70 ES1 | TP71 ES1 | TP71 ES2 | TP72 ES1 | TP72 ES3 | TP73 ES2 | TP74 ES1 | TP74 ES3 | TP76 ES2 | TP76 ES4 | TPN1 ES2 | TPN2 ES2 | TPN3 ES2 | TPN4 ES3 | BH1 ES1 | BH1 ES3 | BH4 ES2 | BH6 ES8 | BH7 ES6 | BH7 ES13 | GW1D ES2 | GW1D ES3 | GW1D ES5 | GW1D ES6 | GW2 ES2 | GW3 ES2 | GW3 ES5 | GW4 ES2 | GW6D ES2 | GW6D E | GW6D ES8 | GW7 ES2 | GW7 ES3 | GW7 ES6 | GW8 ES2 | GW8 ES8 | GW8 ES10 | GW9D ES1 | GW9D ES4 | GW9D ES7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 3.5 - 3.6 | 1.5 - 1.6 | 0 - 0.2 | 0 - 0.2 | 0.5 - 0.6 | 0 - 0.2 | 1.5 - 1.6 | 0.5 - 0.6 | 0 - 0.2 | 1.5 - 1.6 | 0.5 - 0.6 | 2.5 - 2.6 | 0.5 - 0.6 | 0.5 - 0.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.1 - 0.3 | 1.3 - 1.5 | 0.6 - 0.8 | 6.5 - 6.7 | 4.5 - 4.7 | 11.5 - 11.7 | 0.7 - 0.8 | 1.7 - 1.8 | 3.7 - 3.8 | 4.1 - 4.2 | 0.8 - 0.9 | 0.9 - 1.0 | 3.7 - 3.8 | 0.5 - 0.6 | 0.5 - 0.6 | 3.5 - 3.7 | 4.9 - 5.1 | 0.8 - 1.0 | 1.5 - 1.7 | 4.4 - 4.6 | 0.5 - 0.6 | 6.5 - 6.7 | 8.5 - 8.7 | 0 - 0.2 | 2.7 - 2.9 | 5.7 - 5.9 |
| Stone Content | (%) | No SSV | 165 | <1 | 68 | 0 | | 3 | <1 | <1 | <1 | <1 | <1 | 7 | - | <1 | 20 | 14 | 1 | - | <1 | - | <1 | <1 | <1 | <1 | <1 | 6 | 7 | 2 | 29 | 11 | 19 | 5 | 15 | <1 | 3 | <1 | 3 | 7 | 2 | 7 | 34 | 21 | 16 | 27 | 31 | 12 | 22 | 32 | 27 | 37 | 42 |
| **Metals/Metalloids** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic** | (mg/kg) | 168 | 165 | <5 | 158.9 | 0 | | 11 | 18.3 | 32 | 12.2 | 41 | 38.9 | 7.4 | - | 17 | 14 | 12.8 | 27.2 | - | 16.6 | - | 18.7 | 20.9 | <5 | 9 | 11.6 | 6.1 | 5.1 | 10.3 | 14.1 | 31.5 | 24.4 | 9.5 | 82.4 | 15.3 | 12 | <5 | <5 | 45.6 | 57.5 | 25.3 | 12.8 | 15.9 | 36 | 20 | 5 | 11 | 12 | <5 | <5 | <5 |
| Cadmium** | (mg/kg) | 882 | 165 | <0.5 | 2.92 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1 | 2.92 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Chromium** | (mg/kg) | 83500 | 165 | 2 | 72.8 | 0 | | 7 | 10 | 19 | 8 | 26.1 | 10 | 6 | - | 7 | 8 | 4 | 13 | - | 8 | - | 19 | 7 | 7 | 8 | 8 | 6 | 4 | 7 | 9 | 9 | 25.6 | 14 | 72.8 | 22.8 | 16 | 6 | 2 | 8 | 14 | 10 | 11 | 11 | 11 | 12 | 22 | 4 | 9 | 10 | 3 | 11 | 5 |
| Lead** | (mg/kg) | 1340 | 165 | 1 | 1206.8 | 0 | | 11 | 5 | 6 | 3 | 8 | 4 | 8 | - | 4 | 10 | 4 | 5 | - | 3 | - | 6 | 24 | 4 | 6 | 6 | 12 | 2 | 16 | 8 | 4 | 14 | 48 | 1206.8 | 66 | 39 | 8 | 3 | 4 | 7 | 9 | 6 | 7 | 5 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 1 |
| Mercury** | (mg/kg) | 61.2 | 165 | <0.5 | 3.44 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 3.44 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Nickel** | (mg/kg) | 5200 | 165 | 1.9 | 146.98 | 0 | | 5.1 | 6.2 | 10.5 | 4.2 | 19.8 | 4.5 | 3.4 | - | 4.1 | 6.2 | 4.6 | 8 | - | 1.9 | - | 7.4 | 3.4 | 3.1 | 5.3 | 4 | 6.3 | 2.7 | 4.5 | 5.8 | 6 | 19.2 | 13.8 | 146.98 | 27.1 | 15.8 | 4.4 | 2 | 4.7 | 6.4 | 7.5 | 7.5 | 7.1 | 6 | 8.4 | 11 | 3 | 5 | 6 | 2 | 6 | 3 |
| Copper** | (mg/kg) | 45200 | 165 | <1 | 256.91 | 0 | | 7.7 | 6.1 | 9.6 | 4 | 8.6 | 3.4 | 4.2 | - | 3 | 5.3 | 7.5 | 5.5 | - | 2.2 | - | 4.3 | 5.9 | 1.5 | 1.4 | 1.6 | 6.5 | 1.8 | 5.7 | 5.7 | 3.5 | 9.8 | 25.7 | 256.91 | 36.9 | 22.3 | 4.6 | 1.9 | 4.2 | 4.6 | 8.9 | 6.2 | 6.9 | 2 | 2 | 1 | 2 | 3 | 2 | 2 | 3 | 2 |
| Zinc** | (mg/kg) | 201000 | 165 | 5.9 | 1220.3 | 0 | | 41.7 | 30.3 | 37.9 | 22 | 40 | 24 | 24.6 | - | 17.9 | 21.6 | 34.1 | 28.4 | - | 11.4 | - | 24.6 | 31.4 | 43.7 | 25.8 | 22.4 | 53 | 14.8 | 24 | 29.1 | 26.1 | 54.2 | 86.4 | 1220.3 | 219.6 | 81.6 | 23.4 | 15.3 | 31.5 | 59 | 39.9 | 23 | 26.5 | 36 | 19 | 14 | 10 | 9 | 6 | 11 | 9 | 14 |
| Selenium | (mg/kg) | 2650 | 165 | <0.5 | 3.57 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | 0.57 | <0.5 | <0.5 | - | <10 | <0.5 | <0.5 | 0.54 | - | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.25 | <0.5 | 3.57 | 0.63 | <0.5 | <0.5 | 0.58 | 0.56 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Hexavalent Chromium | (mg/kg) | 251 | 165 | <2 | <2 | 0 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | - | <2 | <2 | <2 | <2 | - | <2 | - | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Water Soluble Boron | (mg/kg) | No SSV | 165 | <0.5 | 12.1 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.8 | <0.5 | 0.7 | 1 | 0.7 | 12.1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.9 | <0.5 | 0.8 | 2.2 | 0.6 | 0.6 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Inorganics** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH Value** | (Units) | No SSV | 165 | 4.3 | 11.2 | 0 | | 7.6 | 7.43 | 5.6 | 6 | 5.7 | 7.51 | 7.5 | - | 8.1 | 7.74 | 7.4 | 7.43 | - | 7.71 | - | 7.5 | 4.3 | 5.4 | 4.88 | 4.39 | 7.7 | 7.85 | 6.62 | 9.44 | 9.3 | 7.95 | 8.24 | 7.71 | 8.7 | 8.71 | 8.11 | 7.62 | 7.7 | 5.1 | 8.33 | 10.53 | 8.15 | 8.6 | 8.6 | 8.7 | 8.6 | 8.1 | 8.3 | 8.31 | 8.5 | 8.27 |
| Total Sulphate | (% as SO4) | No SSV | 165 | <0.05 | 0.59 | 0 | | 0.16 | 0.16 | <0.05 | 0.14 | 0.25 | 0.16 | 0.05 | - | 0.07 | <0.05 | 0.07 | 0.24 | - | 0.05 | - | 0.1 | 0.11 | <0.05 | 0.08 | 0.06 | 0.11 | 0.07 | 0.09 | <0.05 | <0.05 | <0.05 | <0.05 | 0.39 | 0.1 | 0.13 | 0.15 | 0.11 | 0.14 | 0.16 | 0.08 | 0.06 | 0.13 | 0.22 | 0.22 | 0.14 | <0.05 | <0.05 | <0.05 | 0.07 | <0.05 | <0.05 |
| Total Cyanide** | (mg/kg) | No SSV | 165 | <1 | 4.78 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | - | <1 | <1 | <1 | <1 | - | <1 | - | <1 | 1.21 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 4.78 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulphide | (mg/kg) | No SSV | 165 | <2 | 88 | 0 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | - | <2 | <2 | <2 | <2 | - | <2 | - | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 6.5 | 5.04 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 11.8 |
| Elemental Sulphur** | (mg/kg) | No SSV | 165 | <10 | 414.72 | 0 | | <10 | <10 | <10 | <10 | <10 | <10 | <10 | - | <10 | <10 | <10 | <10 | - | <10 | - | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 45.8 | <10 | 131.04 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 25.06 | 37.44 | <10 | <10 | <10 | <10 | 36.7 | 14.4 | <10 | <10 | 85 |
| Total Monohydric Phenols** | (mg/kg) | No SSV | 165 | <1 | 1.3 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | - | <1 | <1 | <1 | <1 | - | <1 | - | <1 | <1 | <1 | 1.1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **PAHs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene** | (mg/kg) | 623 | 165 | <0.1 | <0.1 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthylene** | (mg/kg) | No SSV | 165 | <0.1 | 0.9 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthene** | (mg/kg) | 28600 | 165 | <0.1 | <0.1 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluorene** | (mg/kg) | 19600 | 165 | <0.1 | 0.11 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Phenanthrene** | (mg/kg) | No SSV | 165 | <0.1 | 0.97 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.97 | 0.21 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Anthracene** | (mg/kg) | 150000 | 165 | <0.1 | 0.45 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.45 | 0.38 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluoranthene** | (mg/kg) | 20200 | 165 | <0.1 | 2.69 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 2.69 | 0.34 | 0.17 | 0.36 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Pyrene** | (mg/kg) | 15100 | 165 | <0.1 | 2.06 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 2.06 | 0.77 | 0.15 | 0.28 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benz(a)anthracene** | (mg/kg) | No SSV | 165 | <0.1 | 1.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.52 | 0.43 | <0.1 | 0.15 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Chrysene** | (mg/kg) | 4680 | 165 | <0.1 | 1.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.52 | 0.79 | 0.17 | 0.31 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(b)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.91 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.91 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(k)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 1.32 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.32 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(a)pyrene** | (mg/kg) | 21.4 | 165 | <0.1 | 1.31 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.31 | 0.89 | <0.1 | 0.14 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Indeno(123-cd)pyrene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.8 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.8 | 0.32 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Dibenz(ah)anthracene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.21 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.21 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.16 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(ghi)perylene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.89 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.85 | 0.89 | 0.19 | 0.18 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Total PAH** | (mg/kg) | No SSV | 165 | <0.1 | 14.72 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.12 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 14.72 | 5.02 | 0.67 | 1.56 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.47 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **TPH Aromatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aromatic C5-C7 | (mg/kg) | 139 | 165 | <0.01 | <0.01 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C7-C8 | (mg/kg) | 69900 | 165 | <0.01 | <0.01 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C8-C10 | (mg/kg) | 5140 | 165 | <0.1 | 0.4 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH aromatic C10-C12 | (mg/kg) | 8260 | 165 | <0.1 | 0.22 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aromatic C12-C16 | (mg/kg) | 10600 | 165 | <0.1 | 5.83 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | 0.12 | <0.1 | 0.38 | <0.1 | <0.1 | 0.15 | <0.1 | 0.12 | 0.13 |
| TPH Aromatic C16-C21 | (mg/kg) | 7870 | 165 | <0.1 | 19.85 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.36 | 0.36 | - | 0.34 | <0.1 | <0.1 | <0.1 | - | 0.38 | - | 0.5 | <0.1 | <0.1 | 0.38 | 0.35 | <0.1 | <0.1 | 0.33 | 0.57 | 0.33 | <0.1 | <0.1 | 12.36 | <0.1 | 0.24 | <0.1 | 0.33 | 0.33 | 0.35 | 1.05 | 0.21 | 0.3 | <0.1 | 0.16 | 0.15 | 0.24 | 0.15 | 0.16 | 0.24 | 0.12 |
| TPH Aromatic C21-C35 | (mg/kg) | 7870 | 165 | <-68.01 | 42.05 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.42 | - | 0.74 | <0.1 | <0.1 | <0.1 | - | 0.74 | - | 0.55 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.38 | 1.4 | 0.93 | 0.36 | 0.48 | 2.36 | -68.01 | 0.51 | 2.25 | <0.1 | 0.44 | 0.19 | <0.1 | <0.1 | 2.16 | 2.05 | <0.1 | <0.1 | <0.1 | 0.19 | 0.1 | 0.33 | 0.54 | 0.86 |
| **TPH Aliphatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aliphatic C5-C6 | (mg/kg) | 109000 | 165 | <0.01 | 0.03 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.03 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C6-C8 | (mg/kg) | 163000 | 165 | <0.01 | <0.1 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C8-C10 | (mg/kg) | 9720 | 165 | <0.1 | 0.15 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | 0.12 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C10-C12 | (mg/kg) | 17700 | 165 | <0.1 | 0.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C12-C16 | (mg/kg) | 23800 | 165 | <0.1 | 5.62 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.23 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | <0.1 | <0.1 | <0.1 | 0.17 | 0.24 | 0.26 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C16-C21 | (mg/kg) | 864000 | 165 | <0.1 | 47.96 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.67 | - | 0.71 | <0.1 | <0.1 | <0.1 | - | 0.84 | - | 1.04 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.59 | <0.1 | <0.1 | <0.1 | 47.96 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.44 | <0.1 | 0.35 | 0.26 | 0.32 | <0.1 | <0.1 | <0.1 | 0.11 | 0.11 | <0.1 |
| TPH Aliphatic C21-C35 | (mg/kg) | 864000 | 165 | <-143.07 | 46.2 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | 0.51 | 0.28 | 0.14 | 0.31 | - | <0.1 | - | 0.22 | <0.1 | 0.13 | 0.18 | 0.19 | <0.1 | <0.1 | <0.1 | 1.85 | 0.32 | 0.11 | 1.48 | -143.07 | 1.08 | 2.36 | <0.1 | <0.1 | 0.37 | 0.19 | <0.1 | <0.1 | 1.6 | 0.8 | 0.58 | 0.68 | 0.54 | 0.73 | <0.1 | <0.1 | 0.12 |
| TPH (C5 - C35) | (mg/kg) | No SSV | 161 | <-271.4 | 70.86 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 1.45 | - | 2.3 | 0.28 | 0.14 | 0.31 | - | 1.96 | - | 2.31 | <0.1 | 0.13 | 0.56 | 0.54 | <0.1 | 1.38 | 2.54 | 3.71 | 0.68 | 0.62 | 3.84 | -271.4 | 1.59 | 4.85 | <0.1 | 1 | 0.8 | 0.52 | 0.61 | 3.77 | 2.26 | 2.8 | 1.54 | 1.69 | 0.84 | 0.98 | 0.99 | 0.6 | 1.12 | 1.24 |
| Asbest

ATKINS

**Assessment Criteria :** *Public Open Space (Parks) - 1% SOM Sand*

☐ **Use MRL Values?**

| Contaminant | | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | TP66 ES2 | TP66 ES3 | TP67 ES2 | TP67 ES3 | TP68 ES5 | TP69 ES3 | TP70 ES1 | TP71 ES1 | TP71 ES2 | TP72 ES1 | TP72 ES3 | TP73 ES2 | TP74 ES1 | TP74 ES3 | TP76 ES2 | TP76 ES4 | TPN1 ES2 | TPN2 ES2 | TPN3 ES2 | TPN4 ES3 | BH1 ES1 | BH1 ES3 | BH4 ES2 | BH6 ES8 | BH7 ES6 | BH7 ES13 | GW1D ES2 | GW1D ES3 | GW1D ES5 | GW1D ES6 | GW2 ES2 | GW3 ES2 | GW3 ES5 | GW4 ES2 | GW6D ES2 | GW6D E | GW6D ES8 | GW7 ES2 | GW7 ES3 | GW7 ES6 | GW8 ES2 | GW8 ES8 | GW8 ES10 | GW9D ES1 | GW9D ES4 | GW9D ES7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 0.5 - 0.6 | 1.5 - 1.6 | 0.5 - 0.6 | 1.5 - 1.6 | 3.5 - 3.6 | 1.5 - 1.6 | 0 - 0.2 | 0 - 0.2 | 0.5 - 0.6 | 0 - 0.2 | 1.5 - 1.6 | 0.5 - 0.6 | 0 - 0.2 | 1.5 - 1.6 | 0.5 - 0.6 | 2.5 - 2.6 | 0.5 - 0.6 | 0.5 - 0.6 | 0.5 - 0.6 | 1.5 - 1.6 | 0.1 - 0.3 | 1.3 - 1.5 | 0.6 - 0.8 | 6.5 - 6.7 | 4.5 - 4.7 | 11.5 - 11.7 | 0.7 - 0.8 | 1.7 - 1.8 | 3.7 - 3.8 | 4.1 - 4.2 | 0.8 - 0.9 | 0.9 - 1.0 | 3.7 - 3.8 | 0.5 - 0.6 | 0.5 - 0.6 | 3.5 - 3.7 | 4.9 - 5.1 | 0.8 - 1.0 | 1.5 - 1.7 | 4.4 - 4.6 | 0.5 - 0.6 | 6.5 - 6.7 | 8.5 - 8.7 | 0 - 0.2 | 2.7 - 2.9 | 5.7 - 5.9 |
| 2,3,5,6-Tetrachlorophenol, | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | <10 | - | <10 | - | - | - | - | - | <10 | <10 | <10 | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - | - | - |
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| Indeno[1,2,3-cd]pyrene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
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| Benzo(ghi)perylene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **PCBs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB 28** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
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| **OPPs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Azinphos-methyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Azinphos-ethyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

ATKINS

**Assessment Criteria :** *Public Open Space (Parks) - 1% SOM Sand*

☐ **Use MRL Values?**

| Constituent | Unit | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | GW10 ES1 | GW10 ES2 | GW10 ES7 | GW12 ES8 | GW12 ES9 | GW13 ES2 | GW13 ES4 | GW13 ES9 | GW15 ES2 | GW15 ES | GW15 ES5 | GW16D ES2 | GW16D ES3 | GW16D ES5 | GW17 ES2 | GW17 ES6 | GW18 ES2 | GW19 ES4 | GW20 ES1 | GW21 ES1 | GW22 ES1 | GW23 ES1 | GW23 ES2 | GW24D ES1 | GW24D ES3 | G2 ES1 | G2 ES3 | G3 ES2 | G3 ES4 | G3 ES6 | G4 ES2 | G4 ES4 | G4 ES8 | G6 ES6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 0.1 - 0.3 | 0.8 - 1.0 | 5.2 - 5.5 | 6.5 - 6.7 | 7.5 - 7.7 | 0.5 - 0.7 | 2.5 - 2.7 | 7.0 - 7.2 | 0.8 - 1.0 | 2.1 - 2.3 | 3.3 - 3.5 | 0.80 - 1.0 | 1.80 - 2.0 | 3.80 - 4.0 | 0.5 - 0.6 | 4.5 - 4.7 | 0.80 - 0.90 | 2.5 - 2.7 | GL - 0.2 | 0 - 0.2 | 0 - 0.2 | GL - 0.2 | 0.9 - 1.0 | 0 - 0.2 | 1.5 - 1.7 | 0.1 - 0.3 | 1.4 - 1.6 | 0.4 - 0.6 | 1.7 - 1.9 | 3.7 - 3.9 | 0.70 - 0.90 | 2.50 - 2.70 | 6.50 - 6.70 | 4.5 - 4.7 |
| Stone Content | (%) | No SSV | 165 | <1 | 68 | 0 | | 16 | <1 | 5 | 41 | 36 | 20 | 68 | 20 | - | <1 | 28 | <1 | 5 | <1 | 4 | <1 | 6 | 2 | 5 | 2 | <1 | 3 | 3 | 9 | 17 | 6 | 27 | 4 | <1 | <1 | 3 | 8 | <1 | 7 |
| **Metals/Metalloids** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic** | (mg/kg) | 168 | 165 | <5 | 158.9 | 0 | | 17.8 | 38.3 | 18.5 | 7.8 | 10.2 | <5 | <5 | 10.8 | - | 41 | 13.9 | 43.1 | 20.7 | 89.7 | 36.9 | 26.8 | 25.9 | 24.5 | 12.7 | 8.3 | 9.2 | 9.6 | 10.9 | 42.1 | 51.8 | 35.5 | 27.2 | 27.3 | 107.5 | 30 | 57.3 | 71.4 | 25.8 | 5.4 |
| Cadmium** | (mg/kg) | 882 | 165 | <0.5 | 2.92 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Chromium** | (mg/kg) | 83500 | 165 | 2 | 72.8 | 0 | | 14 | 10 | 37.8 | 9 | 10 | 3 | 3 | 22.9 | - | 9 | 11 | 7 | 4 | 13 | 9 | 5 | 9 | 8 | 11 | 7 | 5 | 8 | 6 | 12 | 15 | 10 | 11 | 10 | 21.6 | 40 | 11 | 20 | 40 | 7 |
| Lead** | (mg/kg) | 1340 | 165 | 1 | 1206.8 | 0 | | 13 | 5 | 21 | 6 | 3 | 2 | 1 | 11 | - | 20 | 4 | 5 | 3 | 5 | 4 | 2 | 20 | 8 | 19 | 16 | 11 | 35 | 19 | 9 | 7 | 5 | 4 | 6 | 8.7 | 23.2 | 6 | 11 | 21 | 2 |
| Mercury** | (mg/kg) | 61.2 | 165 | <0.5 | 3.44 | 0 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Nickel** | (mg/kg) | 804 | 165 | 1.9 | 146.98 | 0 | | 7.3 | 5.3 | 34.9 | 6.1 | 6.1 | 2 | 2 | 18 | - | 5 | 6 | 3 | 2 | 9 | 4.5 | 3.7 | 6 | 5 | 6.4 | 4 | 4 | 6.3 | 5 | 6 | 7 | 4.9 | 6.6 | 5 | 21 | 30 | 6 | 12 | 32 | 4.2 |
| Copper** | (mg/kg) | 45200 | 165 | <1 | 256.91 | 0 | | 3.1 | 1.9 | 15.4 | 4 | 2.8 | 1.9 | 1.7 | 8.9 | - | 2 | 3 | <1 | <1 | 3 | 4.6 | 2 | 11 | 10 | 5.6 | 4 | 6 | 7.6 | 5 | 3 | 4 | 2.6 | 4.3 | 2 | 5 | 11 | 1 | 5 | 14 | 2.6 |
| Zinc** | (mg/kg) | 201000 | 165 | 5.9 | 1220.3 | 0 | | 21.5 | 124 | 99.2 | 17.5 | 12.4 | 11.7 | 21 | 48.4 | - | 37 | 17 | 22 | 22 | 47 | 25.7 | 21.2 | 26 | 24 | 32.3 | 35 | 25 | 33.4 | 13.7 | 30 | 33 | 23.3 | 19.7 | 30 | 47 | 75 | 38 | 43 | 86 | 10.1 |
| Selenium | (mg/kg) | 2550 | 165 | <0.5 | 3.57 | 0 | | <0.5 | <0.5 | 0.81 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | - | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | 0.54 | <0.5 | <0.5 | 0.51 | <0.5 | <0.5 | 0.59 | 1 | <0.5 | 0.9 | 1.2 | <0.5 |
| Hexavalent Chromium | (mg/kg) | 251 | 165 | <2 | <2 | 0 | | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | - | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| Water Soluble Boron | (mg/kg) | No SSV | 165 | <0.5 | 12.1 | 0 | | 1.1 | 0.9 | 5.1 | 0.5 | <0.5 | <0.5 | <0.5 | 7.6 | - | <0.5 | <0.5 | 0.6 | 0.5 | 0.6 | 8.2 | 0.5 | <0.5 | <0.5 | <0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | 0.6 | 2.2 | <0.5 | <0.5 | 6.7 | <0.5 |
| **Inorganics** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH Value** | (Units) | No SSV | 165 | 4.3 | 11.2 | 0 | | 10.2 | 7.4 | 8.5 | 11.2 | 10.65 | 8.32 | 8.27 | 7.98 | - | 7.7 | 9.2 | 8.6 | 8.7 | 8.2 | 5.87 | 6.76 | 8.8 | 8.6 | 7.7 | 7 | 7.7 | 7.7 | 7.81 | 8.4 | 8.3 | 8.1 | 8.3 | 8.3 | 7.6 | 6.9 | 8.3 | 8.6 | 8 | 9.65 |
| Total Sulphate | (% as SO4) | No SSV | 165 | <0.05 | 0.59 | 0 | | 0.31 | 0.35 | 0.21 | 0.07 | <0.05 | <0.05 | <0.05 | <0.05 | - | 0.41 | 0.27 | <0.05 | <0.05 | 0.45 | 0.05 | <0.05 | 0.24 | 0.23 | 0.06 | <0.05 | 0.15 | 0.07 | <0.05 | <0.05 | 0.09 | 0.15 | 0.07 | 0.05 | 0.12 | 0.17 | <0.05 | <0.05 | 0.12 | 0.07 |
| Total Cyanide** | (mg/kg) | No SSV | 165 | <1 | 4.78 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | - | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Sulphide | (mg/kg) | No SSV | 165 | <2 | 88 | 0 | | <2 | <2 | 88 | <2 | <2 | <2 | <2 | <2 | - | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | 4.6 | 4.4 | 21.1 | <2 | <2 | 40.1 | <2 |
| Elemental Sulphur** | (mg/kg) | No SSV | 165 | <10 | 414.72 | 0 | | <10 | <10 | 264.4 | <10 | <10 | <10 | <10 | 49.07 | - | 47 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | 29.6 | <10 | <10 | 80 | 20 | 64 | <10 | 15 | 199 | <10 |
| Total Monohydric Phenols** | (mg/kg) | No SSV | 165 | <1 | 1.3 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | - | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| **PAHs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Naphthalene** | (mg/kg) | 623 | 165 | <0.1 | <0.1 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthylene** | (mg/kg) | No SSV | 165 | <0.1 | 0.9 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Acenaphthene** | (mg/kg) | 28600 | 165 | <0.1 | <0.1 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluorene** | (mg/kg) | 19600 | 165 | <0.1 | 0.11 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Phenanthrene** | (mg/kg) | No SSV | 165 | <0.1 | 0.97 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Anthracene** | (mg/kg) | 150000 | 165 | <0.1 | 0.45 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Fluoranthene** | (mg/kg) | 20200 | 165 | <0.1 | 2.69 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.14 | <0.1 | <0.1 | 0.19 | <0.1 | <0.1 |
| Pyrene** | (mg/kg) | 15100 | 165 | <0.1 | 2.06 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.18 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benz(a)anthracene** | (mg/kg) | No SSV | 165 | <0.1 | 1.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Chrysene** | (mg/kg) | 4680 | 165 | <0.1 | 1.52 | 0 | | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(b)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.91 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(k)fluoranthene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 1.32 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(a)pyrene** | (mg/kg) | 21.4 | 165 | <0.1 | 1.31 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.11 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Indeno(123-cd)pyrene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.8 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Dibenz(ah)anthracene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.21 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Benzo(ghi)perylene** | (mg/kg) | BaP Surrogate | 165 | <0.1 | 0.89 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 |
| Total PAH** | (mg/kg) | No SSV | 165 | <0.1 | 14.72 | 0 | | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | 0.11 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | 0.4 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.7 | 0.3 | <0.1 | <0.1 | 0.2 | <0.1 |
| **TPH Aromatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aromatic C5-C7 | (mg/kg) | 139 | 165 | <0.01 | <0.01 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C7-C8 | (mg/kg) | 69900 | 165 | <0.01 | <0.01 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aromatic C8-C10 | (mg/kg) | 5140 | 165 | <0.1 | 0.4 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH aromatic C10-C12 | (mg/kg) | 8260 | 165 | <0.1 | 0.22 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aromatic C12-C16 | (mg/kg) | 10600 | 165 | <0.1 | 5.83 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aromatic C16-C21 | (mg/kg) | 7870 | 165 | <0.1 | 19.85 | 0 | | 0.54 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | 0.22 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.36 | <0.1 | <0.1 | 0.4 | 0.62 | 0.1 | <0.1 | <0.1 | 0.74 | <0.1 | <0.1 | 0.4 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aromatic C21-C35 | (mg/kg) | 7870 | 165 | <-68.01 | 42.05 | 0 | | 10.75 | 2.51 | 4.63 | <0.1 | <0.1 | 1.8 | 0.64 | 0.38 | - | 0.17 | 0.3 | 0.58 | <0.1 | 0.25 | 1.8 | <0.1 | <0.1 | 0.3 | 0.44 | <0.1 | 0.27 | 0.55 | 0.85 | <0.1 | -50.69 | <0.1 | <0.1 | 0.59 | 0.71 | 0.48 | <0.1 | <0.1 | <0.1 | 0.14 |
| **TPH Aliphatic** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH Aliphatic C5-C6 | (mg/kg) | 109000 | 165 | <0.01 | 0.03 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C6-C8 | (mg/kg) | 163000 | 165 | <0.01 | <0.1 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| TPH Aliphatic C8-C10 | (mg/kg) | 9720 | 165 | <0.1 | 0.15 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C10-C12 | (mg/kg) | 17700 | 165 | <0.1 | 0.52 | 0 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| TPH Aliphatic C12-C16 | (mg/kg) | 23800 | 165 | <0.1 | 5.62 | 0 | | 0.18 | <0.1 | 0.44 | <0.1 | 0.2 | <0.1 | <0.1 | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.32 | <0.1 |
| TPH Aliphatic C16-C21 | (mg/kg) | 864000 | 165 | <0.1 | 47.96 | 0 | | 1.08 | <0.1 | 0.54 | <0.1 | 0.13 | <0.1 | <0.1 | <0.1 | - | 0.41 | <0.1 | 0.15 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.69 | <0.1 | <0.1 | 0.84 | 0.99 | <0.1 | 0.45 | <0.1 | 0.47 | <0.1 | 0.15 | <0.1 | 0.85 | 0.61 | 1.62 | <0.1 |
| TPH Aliphatic C21-C35 | (mg/kg) | 864000 | 165 | <-143.07 | 46.2 | 0 | | 11.8 | 1.45 | 1.59 | <0.1 | 0.32 | 0.15 | <0.1 | <0.1 | - | 4.16 | 0.38 | <0.1 | 0.11 | 0.11 | 0.62 | <0.1 | 0.5 | 0.9 | <0.1 | 0.16 | <0.1 | 0.26 | 0.2 | <0.1 | 46.2 | 2.25 | 1.71 | 1.13 | 0.48 | 0.15 | 0.85 | 0.61 | 1.94 | 0.14 |
| TPH (C5 - C35) | (mg/kg) | No SSV | 161 | <-271.4 | 70.86 | 0 | | 23.79 | 2.03 | 6.15 | <0.1 | 0.76 | 1.95 | 0.64 | 0.38 | - | 4.7 | 0.68 | 1.4 | 0.3 | 1 | 2.42 | <0.1 | 0.5 | 1.1 | 1.48 | 0.2 | 0.3 | 2.04 | 2.56 | 0.36 | -97.34 | 2.25 | 2.91 | 1.72 | 1.34 | 0.63 | | | | |
| Asbestos | % / type | Any | 50 | Not Detected | Present | 49 | | none | - | - | none | - | - | - | - | - | - | - | none | - | - | none | - | none | none | - | - | - | none | - | - | - | - | - | - | - | - | | | |
| VOCs | | No SSV | 11 | <10 | <10 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | <10 | - | - | - |
| Benzene** | (µg/kg) | 139 | 61 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | <10 | <10 | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Toluene** | (µg/kg) | 69900 | 61 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | <10 | <10 | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Ethyl Benzene** | (µg/kg) | 21400 | 61 | <10 | 16.19 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | <10 | <10 | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| m/pXylene** | (µg/kg) | No SSV | 59 | <10 | 15.07 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | <10 | <10 | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| oXylene** | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 1, 2-Dichloroethene-cis** | (µg/kg) | No SSV | 48 | <10 | 14.88 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 1, 1-Dichloroethane** | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Chloroform** | (µg/kg) | 2090 | 48 | <10 | 12 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Carbontetrachloride** | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 1, 1, 1-Trichloroethane** | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Trichloroethylene** | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Tetrachloroethylene** | (µg/kg) | No SSV | 48 | <10 | 12.34 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 1, 1, 1, 2-Tetrachloroethane** | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 1, 1, 2, 2-Tetrachloroethane** | (µg/kg) | No SSV | 39 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | | | | |
| Chlorobenzene** | (µg/kg) | 13200 | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Bromobenzene** | (µg/kg) | 986 | 48 | <10 | 12.55 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Bromodichloromethane** | (µg/kg) | 33.9 | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Methylethylbenzene** | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 1, 1-Dichloro-1-propene** | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 1, 2-Dichloroethane-trans | (µg/kg) | No SSV | 48 | <10 | 37.36 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 2, 2-Dichloropropane | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Bromochloromethane | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 1, 2-Dichlo

ATKINS

| Assessment Criteria : | *Public Open Space (Parks) - 1% SOM Sand* |
|---|---|
| Use MRL Values? | |

| Contaminant | | Generic Assessment Criteria (mg/kg) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | GW10 ES1 | GW10 ES2 | GW10 ES7 | GW12 ES8 | GW12 ES9 | GW13 ES2 | GW13 ES4 | GW13 ES9 | GW15 ES2 | GW15 ES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 0.1 - 0.3 | 0.8 - 1.0 | 5.2 - 5.5 | 6.5 - 6.7 | 7.5 - 7.7 | 0.5 - 0.7 | 2.5 - 2.7 | 7.0 - 7.2 | 0.8 - 1.0 | 2.1 - 2.3 |
| 2,3,5,6-Tetrachlorophenol, | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - |
| Diethylphthalate | (µg/kg) | No SSV | 48 | <10 | 111.87 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - |
| Fluorene | (µg/kg) | 19600 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Diphenylamine | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - |
| Azobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - |
| 4-Bromophenyl phenyl ether | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - |
| Hexachlorobenzene | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - |
| Pentachlorophenol | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - |
| Phenanthrene | (µg/kg) | No SSV | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Anthracene | (µg/kg) | 150000 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Fluoranthene | (µg/kg) | 20200 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Pyrene | (µg/kg) | 15100 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Benzylbutylphthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - |
| Bis(2-ethylhexyl)adipate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - |
| Benzo(a)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Chrysene | (µg/kg) | 4660 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Bis(2-ethylhexyl)phthalate | (µg/kg) | No SSV | 48 | <10 | <10 | 0 | | <10 | - | - | <10 | - | - | - | - | <10 | - |
| Benzo(b)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Benzo(k)fluoranthene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Benzo(a)pyrene | (µg/kg) | 21.4 | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Indeno[1,2,3-cd]pyrene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Dibenz(ah)anthracene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| Benzo(ghi)perylene | (µg/kg) | BaP Surrogate | 4 | <10 | <10 | 0 | | <10 | - | - | - | - | - | - | - | <10 | - |
| **PCBs** | | | | | | | | | | | | | | | | | |
| PCB 28** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | <10 | - |
| PCB 52** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | <10 | - |
| PCB 101** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | <10 | - |
| PCB 118** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | <10 | - |
| PCB 138** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | <10 | - |
| PCB 153** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | <10 | - |
| PCB 180** | (µg/kg) | No SSV | 12 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | <10 | - |
| **OCPs** | | | | | | | | | | | | | | | | | |
| Alpha BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Beta BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Gamma BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Delta BHC** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Heptachlor | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Aldrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Heptachlor epoxide | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Chlordane | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Endosulfan I | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| cis-Chlordane | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| pp-DDE** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Dieldrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Endrin | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| pp-DDD** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Endrin Aldehyde | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| pp DDT** | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Endosulfan II | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Endrin Ketone | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| pp-Methoxychlor | (µg/kg) | No SSV | 5 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| **OPPs** | | | | | | | | | | | | | | | | | |
| Mevinphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Dimethoate | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Propetamphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Chlorpyriphos-methyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Fenitrothion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Malathion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Parathion | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Trans-Chlorfenvinphos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Bromophos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Triazophos | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Phosalone | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Azinphos-methyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |
| Azinphos-ethyl | (µg/kg) | No SSV | 1 | <10 | <10 | 0 | | - | - | - | - | - | - | - | - | - | - |

| Contaminant | GW15 ES5 | GW16D ES2 | GW16D ES3 | GW16D ES5 | GW17 ES2 | GW17 ES6 | GW18 ES2 | GW19 ES4 | GW20 ES1 | GW21 ES1 | GW22 ES1 | GW23 ES1 | GW23 ES2 | GW24D ES1 | GW24D ES3 | G2 ES1 | G2 ES3 | G3 ES2 | G3 ES4 | G3 ES6 | G4 ES2 | G4 ES4 | G4 ES8 | G6 ES6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3.3 - 3.5 | 0.80 - 1.0 | 1.80 - 2.0 | 3.80 - 4.0 | 0.5 - 0.6 | 4.5 - 4.7 | 0.80 - 0.90 | 2.5 - 2.7 | GL - 0.2 | 0 - 0.2 | 0 - 0.2 | GL - 0.2 | 0.9 - 1.0 | 0 - 0.2 | 1.5 - 1.7 | 0.1 - 0.3 | 1.4 - 1.6 | 0.4 - 0.6 | 1.7 - 1.9 | 3.7 - 3.9 | 0.70 - 0.90 | 2.50 - 2.70 | 6.50 - 6.70 | 4.5 - 4.7 |
| Number of Exceedences | | | | | | | | | | | | | | | | | | | | | | | | |
| Locations of Exceedences | | | | | | | | | | | | | | | | | | | | | | | | |
| 2,3,5,6-Tetrachlorophenol, | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Diethylphthalate | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Fluorene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Diphenylamine | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Azobenzene | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| 4-Bromophenyl phenyl ether | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Hexachlorobenzene | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Pentachlorophenol | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Phenanthrene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Anthracene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fluoranthene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pyrene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzylbutylphthalate | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Bis(2-ethylhexyl)adipate | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Benzo(a)anthracene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chrysene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bis(2-ethylhexyl)phthalate | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | <10 | - | - | <10 | - | - | - |
| Benzo(b)fluoranthene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(k)fluoranthene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(a)pyrene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Indeno[1,2,3-cd]pyrene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dibenz(ah)anthracene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(ghi)perylene | - | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **PCBs** | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB 28** | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 52** | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 101** | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 118** | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 138** | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 153** | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PCB 180** | - | <10 | <10 | - | <10 | <10 | <10 | <10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **OCPs** | | | | | | | | | | | | | | | | | | | | | | | | |
| Alpha BHC** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Beta BHC** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Gamma BHC** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Delta BHC** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Heptachlor | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Aldrin | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Heptachlor epoxide | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chlordane | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endosulfan I | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| cis-Chlordane | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp-DDE** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dieldrin | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endrin | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp-DDD** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endrin Aldehyde | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp DDT** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endosulfan II | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Endrin Ketone | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| pp-Methoxychlor | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **OPPs** | | | | | | | | | | | | | | | | | | | | | | | | |
| Mevinphos | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Dimethoate | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Propetamphos | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Chlorpyriphos-methyl | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fenitrothion | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Malathion | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Parathion | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Trans-Chlorfenvinphos | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bromophos | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Triazophos | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Phosalone | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Azinphos-methyl | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Azinphos-ethyl | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

| Assessment Criteria : | Commercial - 1% SOM Sand |
|---|---|
| Use MRL Values? | |

| Constituent | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedances | Locations of Exceedances | Strata | Zone | Location | Sample ID | Depth | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % Stones >10mm | % w/w | 0.1 | No SSV | 98 | <0.1 | 58.1 | 0 | | | | 11232 | CH2019_R2 | 1.20m | 25-Nov-19 |
| pH | pH | 0.01 | No SSV | 98 | 5.23 | 10.04 | 0 | | | | | CH2019_R2 | 7.20m | 25-Nov-19 |
| Ammoniacal Nitrogen as NH4 | mg/kg | 0.26 | No SSV | 92 | <0.26 | 214 | 0 | | | | | DCBH2019_4 | 0.50m | 23-Jul-19 |
| Sulphate (acid soluble) | mg/kg | 200 | No SSV | 92 | <1 | 14000 | 0 | | | | 7142 | MGS_2019_B | 5.00m | 23-Jul-19 |
| Cyanide (free) | mg/kg | 1 | 373 | 96 | <1 | 4 | 0 | | | | | BMGS_2019_B | 7.00m | 23-Jul-19 |
| Cyanide (total) | mg/kg | 1 | No SSV | 96 | <1 | 44 | 0 | | | | | DCBH2019_4 | 0.30m | 22-Jul-19 |
| Phenols | mg/kg | 0.2 | No SSV | 94 | <0.2 | 1.3 | 0 | | | | | BMGS_2019_B | 3.00m | 22-Jul-19 |
| Sulphide | mg/kg | 5 | No SSV | 96 | <5 | 590 | 0 | | | | | DCBH2019_4 | 0.50m | 23-Jul-19 |
| Loss on ignition (550degC) | % w/w | 0.6 | No SSV | 96 | <0.6 | 82.3 | 0 | | | | | DCBH2019_4 | 0.20m | 23-Oct-19 |
| Total Organic Carbon | % w/w | 0.03 | No SSV | 96 | 0.04 | 41 | 0 | | | | | DCBH2019_8 | 0.80m | 23-Oct-19 |
| Fraction of organic carbon | N/A | 0.0003 | No SSV | 96 | 0.0004 | 0.4097 | 0 | | | | | DCBH2019_8 | 19.80m | 08-Nov-19 |
| Arsenic | mg/kg | 1 | 635 | 96 | <1 | 121 | 0 | | | | | BH2019_8 | 7.00m | 23-Jul-19 |
| Boron | mg/kg | 1 | No SSV | 96 | <1 | 51 | 0 | | | | 7412 | KGS_2019_B | 0.30m | 22-Jul-19 |
| Cadmium | mg/kg | 0.5 | 410 | 96 | <0.5 | 2.8 | 0 | | | | | KGS_2019_B | 3.00m | 22-Jul-19 |
| Copper | mg/kg | 1 | 106000 | 96 | <1 | 22 | 0 | | | | | KGS_2019_B | 0.50m | 23-Jul-19 |
| Chromium | mg/kg | 1 | 208000 | 96 | 1 | 64 | 0 | | | | 10259 | GS_2019_B | 0.20m | 23-Oct-19 |
| Chromium (hexavalent) | mg/kg | 1 | 49.1 | 96 | <1 | <3 | 0 | | | | | GS_2019_B | 0.80m | 23-Oct-19 |
| Iron | mg/kg | 50 | No SSV | 96 | <744 | 95100 | 0 | | | | 10819 | BH2019_8 | 19.80m | 08-Nov-19 |
| Lead | mg/kg | 1 | 2310 | 96 | <1 | 101 | 0 | | | | 7412 | KGS_2019_B | 7.00m | 23-Jul-19 |
| Mercury | mg/kg | 0.17 | No SSV | 96 | <0.17 | 1.46 | 0 | | | | | KGS_2019_B | 0.30m | 22-Jul-19 |
| Nickel | mg/kg | 1 | 1770 | 96 | <1 | 55 | 0 | | | | | KGS_2019_B | 3.00m | 22-Jul-19 |
| Selenium | mg/kg | 1 | 13000 | 96 | <1 | 3 | 0 | | | | | KGS_2019_B | 1.00m | 31-Jul-19 |
| Vanadium | mg/kg | 1 | 7490 | 96 | 2 | 92 | 0 | | | | 7423 | GS_2019_B | 1.00m | 01-Aug-19 |
| Zinc | mg/kg | 5 | 1100000 | 96 | <5 | 106 | 0 | | | | | GS_2019_B | 5.00m | 01-Aug-19 |
| Acid Herbicides | | | No SSV | 0 | - | - | 0 | | | | | GS_2019_B | 6.00m | 01-Aug-19 |
| 2,4,5-T | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | | CBH2019_1 | 8.00m | 04-Nov-19 |
| 2,4-D | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | 10642 | CBH2019_1 | 0.20m | 29-Oct-19 |
| 2,4-DP; (Dichlorprop) | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | 10529 | CBH2019_1 | 1.00m | 29-Oct-19 |
| MCPA | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | | CBH2019_1 | 4.00m | 30-Oct-19 |
| MCPB | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | 10672 | CBH2019_1 | 3.00m | 05-Nov-19 |
| MCPP; (Mecoprop) | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | | CBH2019_1 | 8.50m | 05-Nov-19 |
| Asbestos in Soil (inc. matrix) ^ | | | No SSV | 0 | - | - | 0 | | | | | SPT2019_4 | 0.70m | 05-Nov-19 |
| Asbestos in soil | | | No SSV | 118 | - | - | 3 | MGS_2019_B, 5.00m; MGS_2019_B2, 5.00m; 7377, MGS_2019_B2, 4m | | | | SPT2019_4 | 5.00m | 05-Nov-19 |
| Asbestos ACM - Suitable for Water Absorption Test? | | | No SSV | 112 | - | - | 5 | MGS_2019_B, 5.00m; MGS_2019_B2, 5.00m; 7377, MGS_2019_B2, 4m | | | | SPT2019_4 | 6.00m | 05-Nov-19 |
| Quantification | | | No SSV | 6 | 0.023 | 0.182 | 0 | | | | | SPT2019_4 | 0.3m | 12/11/2019 |
| OCP+OPP Combined Pest Suite (incl. Atrazine and Simazine) | | | No SSV | 0 | - | - | 0 | | | | 10971 | SPT2019_1 | 4.50m | 13-Nov-19 |
| Dichlobenil | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | 10973 | SPT2019_1 | 8.50m | 13-Nov-19 |
| Tecnazene | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | CBH2019_1 | 5m | 43795 |
| Trifluralin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | 11461 | SD2019_1 | 3.5m | 21-Nov-19 |
| alpha-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | 11207 | SD2019_2 | 12.5m | 21-Nov-19 |
| Hexachlorobenzene (HCB) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | SD2019_2 | 0.7m | 12-Dec-19 |
| Simazine | mg/kg | 0.01 | No SSV | 9 | <0.01 | <0.01 | 0 | | | | 11929 | SPT2019_1 | 4.0m | 12-Dec-19 |
| Atrazine | mg/kg | 0.01 | No SSV | 9 | <0.01 | <0.01 | 0 | | | | | SPT2019_1 | 0.60m | 22-Nov-19 |
| beta-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | 11198 | SPT2019_2 | 6.00m | 22-Nov-19 |
| Quintozene (PCNB) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | SPT2019_2 | 0.40m | 22-Nov-19 |
| gamma-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | 11067 | SPT2019_3 | 1.00m | 19-Nov-19 |
| Chlorothalonil | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | SPT2019_3 | 2.50m | 19-Nov-19 |
| delta-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | SPT2019_3 | 5.50m | 19-Nov-19 |
| Triallate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | 6724 | MGS2019_B | 0.50m | 09-Jul-19 |
| Heptachlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | MGS2019_B | 1.00m | 09-Jul-19 |
| Aldrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | MGS2019_B | 1.10m | 10-Jul-19 |
| Triadimefon | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Telodrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Isodrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Pendimethalin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Heptachlor epoxide | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| trans-Chlordane (Gamma) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| o,p-DDE (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Endosulphan I (Alpha) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| cis-Chlordane (Alpha) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| p,p-DDE (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Dieldrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| o,p-DDD (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Endrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Endosulphan II (Beta) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| p,p-DDD (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| o,p-DDT (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Endrin Aldehyde | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Endrin Ketone | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Endosulphan Sulphate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| p,p-DDT (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| o,p-Methoxychlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| p,p-Methoxychlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Permethrin I (cis) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Permethrin II (trans) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Dichlorvos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Mevinphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Demeton-S | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | | | | |
| Demeton-O | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | | | | |
| Phorate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Dimethoate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Propetamphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Diazinon (Dimpylate) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Disulfoton | mg/kg | 0.1 | No SSV | 22 | <0.1 | <0.1 | 0 | | | | | | | |
| Etrimphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Chlorpyrifos-methyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Parathion (Ethyl Parathion) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Methyl Parathion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Pirimiphos-methyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Fenitrothion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Fensulphothion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.05 | 0 | | | | | | | |
| Fenthion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Malathion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Chlorfenvinphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Chlorpyrifos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Trichloronate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Prothiofos (Tokuthion) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Ethion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Triazophos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Sulprofos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Carbophenothion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Phosalone | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| Azinphos-methyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.05 | 0 | | | | | | | |
| Azinphos-ethyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.05 | 0 | | | | | | | |
| Coumaphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | | | | |
| PAH-16MS | | | No SSV | 0 | - | - | 0 | | | | | | | |
| Acenaphthene | mg/kg | 0.01 | 83600 | 92 | <0.01 | 0.11 | 0 | | | | | | | |
| Acenaphthylene | mg/kg | 0.01 | No SSV | 92 | <0.01 | 0.01 | 0 | | | | | | | |
| Anthracene | mg/kg | 0.02 | 535000 | 92 | <0.02 | 0.16 | 0 | | | | | | | |
| Benzo(a)anthracene | mg/kg | 0.04 | BaP Surrogate | 92 | <0.04 | 0.14 | 0 | | | | | | | |
| Benzo(a)pyrene | mg/kg | 0.04 | 76.3 | 92 | <0.04 | 0.1 | 0 | | | | | | | |
| Benzo(b)fluoranthene | mg/kg | 0.05 | BaP Surrogate | 92 | <0.05 | 0.14 | 0 | | | | | | | |
| Benzo(ghi)perylene | mg/kg | 0.05 | BaP Surrogate | 92 | <0.05 | <0.05 | 0 | | | | | | | |
| Benzo(k)fluoranthene | mg/kg | 0.07 | BaP Surrogate | 92 | <0.07 | <0.07 | 0 | | | | | | | |
| Chrysene | mg/kg | 0.06 | BaP Surrogate | 92 | <0.06 | 0.17 | 0 | | | | | | | |
| Dibenzo(ah)anthracene | mg/kg | 0.04 | BaP Surrogate | 92 | <0.04 | <0.04 | 0 | | | | | | | |
| Fluoranthene | mg/kg | 0.08 | 72200 | 92 | <0.08 | 0.67 | 0 | | | | | | | |
| Fluorene | mg/kg | 0.01 | 66500 | 92 | <0.01 | 0.13 | 0 | | | | | | | |
| Indeno(123-cd)pyrene | mg/kg | 0.03 | BaP Surrogate | 92 | <0.03 | 0.1 | 0 | | | | | | | |
| Naphthalene | mg/kg | 0.03 | 90.1 | 92 | <0.03 | <0.03 | 0 | | | | | | | |
| Phenanthrene | mg/kg | 0.03 | No SSV | 92 | <0.03 | 0.51 | 0 | | | | | | | |
| Pyrene | mg/kg | 0.07 | 54100 | 92 | <0.07 | 0.49 | 0 | | | | | | | |
| Total PAH-16MS | mg/kg | 0.01 | No SSV | 92 | <0.08 | 2.59 | 0 | | | | | | | |
| SVOC + TICs (excluding PAH-16) | | | No SSV | 0 | - | - | 0 | | | | | | | |
| SVOC TICs (Tentatively Identified Compounds) | | | No SSV | 26 | - | - | 0 | | | | | | | |
| Hexachlorobenzene | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| Diethyl phthalate | mg/kg | 0.1 | 108000 | 26 | <0.1 | <100 | 0 | | | | | | | |
| Dimethyl phthalate | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| Dibenzofuran | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| Carbazole | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| Butylbenzyl phthalate | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| Bis(2-ethylhexyl)phthalate | mg/kg | 0.5 | No SSV | 26 | <0.5 | <500 | 0 | | | | | | | |
| Bis(2-chloroethoxy)methane | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| Bis(2-chloroethyl)ether | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| 4-Nitrophenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <200 | 0 | | | | | | | |
| 3+4-Methylphenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| 4-Chloro-3-methylphenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| 2-Nitrophenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| 2-Methylphenol | mg/kg | 0.1 | 155000 | 26 | <0.1 | <100 | 0 | | | | | | | |
| 2-Chlorophenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | | | | |
| 2,6-Dinitrotoluene | mg/kg | 0.1 | 1840 | 26 | <0.1 | <100 | 0 | | | | | | | |
| 2,4-Dinitrotoluene | mg/kg | 0.1 | 3730 | 26 | <0.1 | <100 | 0 | | | | | | | |

| Location | 11232 | | 7142 | | | | | 7412 | 10259 | | 10819 | 7412 | | | 7423 | | | 10642 | 10529 | | | 10672 | | | | 10971 | 10973 | | 11461 | 11207 | | 11929 | | 11198 | | 11067 | | | 6724 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | CH2019_R2 | CH2019_R2 | DCBH2019_4 | MGS_2019_B | MGS_2019_B | MGS_2019_B | DCBH2019_4 | DCBH2019_4 | DCBH2019_8 | DCBH2019_8 | BH2019_8 | KGS_2019_B | KGS_2019_B | KGS_2019_B | GS_2019_B | GS_2019_B | GS_2019_B | CBH2019_1 | CBH2019_1 | CBH2019_1 | CBH2019_1 | CBH2019_1 | CBH2019_1 | SPT2019_4 | SPT2019_4 | SPT2019_4 | CBH2019_1 | CBH2019_1 | SD2019_1 | SD2019_1 | SD2019_2 | SD2019_2 | SPT2019_1 | SPT2019_1 | SPT2019_2 | SPT2019_2 | SPT2019_3 | SPT2019_3 | SPT2019_3 | MGS2019_B | MGS2019_B | MGS2019_E |
| Depth | 1.20m | 7.20m | 0.50m | 5.00m | 7.00m | 0.30m | 3.00m | 0.50m | 0.20m | 0.80m | 19.80m | 7.00m | 0.30m | 3.00m | 1.00m | 5.00m | 6.00m | 8.00m | 0.20m | 1.00m | 4.00m | 3.00m | 8.50m | 0.70m | 5.00m | 6.00m | 0.3m | 4.50m | 8.50m | 5m | 3.5m | 12.5m | 0.7m | 4.0m | 0.60m | 6.00m | 0.40m | 1.00m | 2.50m | 5.50m | 0.50m | 1.00m | 1.10m |
| Date | 25-Nov-19 | 25-Nov-19 | 23-Jul-19 | 23-Jul-19 | 23-Jul-19 | 22-Jul-19 | 22-Jul-19 | 23-Jul-19 | 23-Oct-19 | 23-Oct-19 | 08-Nov-19 | 23-Jul-19 | 22-Jul-19 | 22-Jul-19 | 31-Jul-19 | 01-Aug-19 | 01-Aug-19 | 04-Nov-19 | 29-Oct-19 | 29-Oct-19 | 30-Oct-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 12/11/2019 | 13-Nov-19 | 13-Nov-19 | 43795 | 21-Nov-19 | 21-Nov-19 | 12-Dec-19 | 12-Dec-19 | 22-Nov-19 | 22-Nov-19 | 22-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 09-Jul-19 | 09-Jul-19 | 10-Jul-19 |
| | <0.1 | <0.1 | <0.1 | | <0.1 | 4.3 | 1.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 4.3 | 1.1 | <0.1 | <0.1 | | <0.1 | 12.3 | 6 | 2.3 | <0.1 | 2.3 | <0.1 | | <0.1 | <0.1 | <0.1 | 0.3 | 15.5 | <0.1 | <0.1 | 35.1 | <0.1 | 58.1 | <0.1 | <0.1 | 5 | 0.6 | 6 | 4.1 | <0.1 | 48.5 |
| | 7.88 | 8.95 | 8.95 | | 6.86 | 8.54 | 8.71 | 8.95 | 8.99 | 9.01 | 8.12 | 6.86 | 8.54 | 8.71 | 8.73 | 9.19 | | 7.78 | 9.53 | 9.2 | 8 | 9.34 | 6.06 | 9.19 | | 7.71 | 8.55 | 7.52 | 7.81 | 8.89 | 9.23 | 7.55 | 8.35 | 7.35 | 8.42 | 6.99 | 8.54 | 8.62 | 7.67 | 7.33 | 8.82 | 7.51 | 10.04 |
| | 34.3 | 0.9 | 134 | | 3.52 | 1.02 | 0.9 | 1.68 | 0.32 | 0.52 | 134 | 3.52 | 1.02 | 0.32 | 0.58 | | | 0.97 | 1.08 | 0.42 | 13.5 | | | | | 2.32 | 19 | 10.5 | 0.76 | 2.71 | 93.3 | <0.26 | 31 | 1.11 | 57.9 | 2.45 | 7.23 | 66.2 | 49.5 | 5.5 | 214 | 2.49 |
| | 2200 | <200 | 3500 | | <200 | <200 | <200 | <200 | <200 | <200 | <200 | 3500 | <200 | <200 | <200 | 300 | | 710 | 370 | <200 | 2800 | | | | | 280 | 2000 | 540 | <200 | <200 | 6300 | 300 | 3100 | <200 | 6900 | <200 | 310 | 1100 | 2300 | <200 | 14000 | 840 |
| | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| | <1 | <1 | 2 | | <1 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | 16 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| | <0.2 | <0.2 | <0.2 | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| | <5 | <5 | <5 | | 27 | <5 | <5 | <5 | 34 | <5 | <5 | 27 | <5 | <5 | <5 | <5 | | 13 | <5 | <5 | <5 | 17 | 20 | <5 | | <5 | 25 | <5 | <5 | <5 | 370 | <5 | 420 | <5 | 590 | <5 | <5 | 27 | 140 | <5 | 570 | 10 |
| | 7.6 | 1 | 14.6 | | 1.2 | 1.1 | 1 | 2.4 | 0.8 | <0.6 | 14.6 | 1.2 | 1.1 | 7.9 | 5.4 | | | 1 | 1.2 | 1.2 | 15.3 | 1.5 | 49.9 | <0.6 | | 9.9 | 1.3 | 10.5 | 3.8 | 1.4 | <0.6 | 78.1 | 1.2 | 18.3 | 0.8 | 70 | 2.1 | 1.2 | 10.1 | 23.6 | 1.7 | 30.6 | 1.1 |
| | 2.36 | 0.15 | 6.44 | | 0.15 | 0.16 | 0.15 | 0.45 | 0.05 | 0.1 | 6.44 | 0.15 | 0.16 | 0.04 | 0.25 | | | 0.25 | 0.37 | 0.15 | 6.93 | 0.06 | 25.1 | 0.06 | | 4.13 | 0.18 | 2.62 | 1.28 | 0.06 | 0.06 | 17.3 | 0.08 | 6.6 | 0.15 | 38.1 | 0.93 | 0.23 | 3.58 | 12.5 | 0.2 | 13.3 | 0.09 |
| | 0.0236 | 0.0015 | 0.0644 | | 0.0015 | 0.0016 | 0.0015 | 0.0045 | 0.0005 | 0.001 | 0.0644 | 0.0015 | 0.0016 | 0.0004 | 0.0025 | | | 0.0025 | 0.0037 | 0.0015 | 0.0693 | 0.0006 | 0.2505 | 0.0006 | | 0.0413 | 0.0018 | 0.0262 | 0.0128 | 0.0006 | 0.0006 | 0.173 | 0.0008 | 0.066 | 0.0015 | 0.3815 | 0.0093 | 0.0023 | 0.0358 | 0.1249 | 0.002 | 0.1335 | 0.0009 |
| | <1 | <1 | 18 | | 15 | 16 | 8 | 31 | 15 | 1 | 18 | 15 | 16 | 11 | 23 | | | 6 | 11 | 22 | 14 | 14 | 8 | 19 | | 19 | 15 | 17 | 11 | 3 | 1 | 4 | 6 | 13 | 3 | 5 | 2 | 15 | 19 | 13 | 13 | 27 | 13 |
| | <1 | 1.3 | <1 | | 5.5 | <1 | <1 | <1 | 5.5 | <1 | <1 | 5.5 | <1 | <1 | <1 | <1 | | <1 | 2 | <1 | 2.6 | <1 | 10.7 | <1 | | 2.6 | <1 | 1.9 | 1.2 | <1 | <1 | 6.8 | <1 | 2 | <1 | 14.6 | <1 | <1 | 4.1 | 6 | <1 | 8.1 | 1.9 |
| | 0.5 | <0.5 | 0.6 | | <0.5 | <0.5 | <0.5 | <0.5 | 0.7 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | | <0.5 | 0.5 | 0.8 | 1 | <0.5 | 1.2 | <0.5 | | 1.1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 2 | <0.5 | 1.1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.9 | <0.5 |
| | 8 | <1 | 9 | | <1 | 2 | <1 | <1 | 2 | <1 | <1 | 9 | <1 | <1 | <1 | 13 | | <1 | 2 | <1 | 6 | 22 | 6 | <1 | | 3 | <1 | 6 | <1 | 3 | <1 | 3 | <1 | 9 | 3 | 4 | 7 | <1 | 6 | 6 | 2 | 14 | 3 |
| | 39 | 5 | 38 | | 5 | 5 | 5 | 8 | 4 | 5 | 38 | 5 | 5 | 6 | 7 | | | 4 | 7 | 8 | 25 | 5 | 29 | 5 | | 16 | 7 | 38 | 6 | 7 | 64 | 3 | 5 | 39 | 3 | 19 | 9 | 8 | 14 | 24 | 6 | 33 | 6 |
| | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| | 29800 | 7330 | 33900 | | 10300 | 13400 | 7330 | 13400 | 7450 | 12000 | 33900 | 10300 | 13400 | 8750 | 17900 | | | 3440 | 13700 | 20300 | 22500 | 7280 | 24800 | 7430 | | 22000 | 10300 | 26000 | 5430 | 2650 | 3660 | 45700 | 7530 | 31000 | 6410 | 10600 | 14200 | 9380 | 13700 | 19800 | 9520 | 24800 | 6900 |
| | 15 | 3 | 21 | | 4 | 3 | 3 | 5 | 2 | 1 | 21 | 4 | 3 | 4 | 21 | | | 2 | 5 | 4 | 13 | 3 | 8 | 2 | | 6 | 5 | 10 | 3 | 2 | 2 | 11 | 3 | 13 | 3 | 6 | 11 | 16 | 19 | 10 | 8 | 35 | 4 |
| | <0.17 | <0.17 | <0.17 | | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | 0.35 | <0.17 | | | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | | 1.46 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 |
| | 3 | 3 | 28 | | 3 | 3 | 3 | 4 | 2 | 1 | 28 | 3 | 3 | 4 | 6 | | | 3 | 5 | 5 | 18 | 3 | 20 | 3 | | 11 | 4 | 25 | 3 | <1 | 55 | 4 | 3 | 29 | 3 | 13 | 6 | 4 | 10 | 17 | 7 | 24 | 4 |
| | 1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | | <1 | 1 | <1 | <1 | <1 | 2 | <1 | | 1 | <1 | 1 | <1 | <1 | <1 | 1 | <1 | 3 | <1 | 2 | <1 | <1 | 2 | <1 | <1 | 2 | <1 |
| | 67 | 12 | 66 | | 12 | 16 | 12 | 20 | 10 | 22 | 66 | 12 | 16 | 17 | 19 | | | 9 | 20 | 22 | 47 | 13 | 51 | 15 | | 36 | 18 | 72 | 11 | 3 | 2 | 10 | 12 | 74 | 14 | 30 | 29 | 17 | 32 | 45 | 13 | 55 | 13 |
| | 57 | 10 | 62 | | 19 | 13 | 10 | 21 | 10 | 14 | 62 | 19 | 13 | 13 | 50 | | | 8 | 18 | 20 | 43 | 25 | 41 | 12 | | 34 | 14 | 48 | 9 | <5 | <5 | <5 | 10 | 61 | 17 | 24 | 34 | 17 | 39 | 44 | 18 | 72 | 12 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | <0.5 | | | <0.5 | | <0.5 | <0.5 | | | <0.5 | | | | | | | <0.5 | | | | | | | | <0.5 | | | | | | | | | | <0.5 

**Assessment Criteria :** *Commercial - 1% SOM Sand*

Use MRL Values?

| | | Limit of Detection | Generic Assessment Criteria | Number of Samples | Maximum Value | Minimum Value | Number of Exceedances | | |

**Assessment Criteria :** *Commercial - 1% SOM Sand*

☐ **Use MRL Values?**

| Constituent | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedances | Locations of Exceedances | 7039 | | | | | 7214 | | | | 7318 | | | | | 7377 | 7951 | 8234 | | 8263 | 8275 | 8377 | 8574 | | 8671 | 8674 | | | | | | | | | | | 8676 | 8723 | | | | | | | | | | 8831 | 8854 | | | | | | 9229 |
|---|---|---

| Assessment Criteria : | | | | | | | | *Commercial - 1% SOM Sand* | | | | | | | |

| Assessment Criteria : | *Commercial - 1% SOM Sand* |
|---|---|
| Use MRL Values? | |

| Constituent | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedances | Locations of Exceedances | BCBH2019_ | BCBH2019_ | SD2019_6 | SD2019_6 | SD2019_6 | 9533 SD2019_7 | SD2019_7 | 10970 SD2019_7 | SD2019_7 | SD2019_7 | SD2019_7 | 11125 SGS_2019_ | SGS_2019_ | SGS_2019_ | SGS_2019_ | SGS_2019_ | SGS_2019_ | SGS_2019_ | SGS_2019_ | SGS_2019_ | SGS_2019_ | SGS_2019_ | 11863 SPT2019_5 | SPT2019_5 | SPT2019_6 | SPT2019_6 | SPT2019_6 | 12214 SPT2019_2 | SPT2019_2 | SPT2019_2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 1.80m | 6.80m | 1.20m | 3.75m | 6.60m | 0.1m | 1m | 3.1m | 6.5m | 7.36m | 9.5m | 11m | 1.40m | 2.40m | 2.00m | 2.40m | 0.40m | 1.00m | 2.00m | 3.50m | 5.00m | 5.90m | 0.50m | 4.30m | 0.10m | 1.00m | 3.00m | 0.30m | 2.00m | 6.00m |
| | | | | | | | | | 26-Sep-19 | 26-Sep-19 | 28-Sep-19 | 28-Sep-19 | 28-Sep-19 | 43739 | 43739 | 43782 | 43782 | 43782 | 43782 | 13/11/2019 | 19/11/2019 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19/11/2019 | 19-Nov-19 | 19-Nov-19 | 09-Dec-19 | 09-Dec-19 | 06-Dec-19 | 06-Dec-19 | 09-Dec-19 | 16-Dec-19 | 16-Dec-19 | 17-Dec-19 |
| % Stones >10mm | % w/w | 0.1 | No SSV | 98 | <0.1 | 58.1 | 0 | | 18.3 | <0.1 | 1.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | | | | | | | <0.1 | 7.2 | <0.1 | <0.1 | <0.1 | 46.2 | <0.1 | <0.1 |
| pH | pH | 0.01 | No SSV | 98 | 5.23 | 10.04 | 0 | | 9.46 | 8.04 | 8.63 | 8.47 | 8.77 | 8.34 | 8.53 | 8.57 | 6.95 | 7.49 | 8.32 | 5.23 | | | | | | | | | | | 8.65 | 7.68 | 7.92 | 8.3 | 7.39 | 8.59 | 7.44 | 7.03 |
| Ammoniacal Nitrogen as NH4 | mg/kg | 0.26 | No SSV | 92 | <0.26 | 214 | 0 | | 2.63 | 30.6 | 6.06 | 10.6 | 178 | 2.19 | 1.61 | 3.42 | | 39.1 | | 42.2 | | | | | | | | | | | <0.26 | 101 | 8.26 | <0.26 | 56.9 | <0.26 | 27.6 | 61.6 |
| Sulphate (acid soluble) | mg/kg | 200 | No SSV | 92 | <1 | 14000 | 0 | | <200 | <200 | <200 | <200 | 2700 | <200 | <200 | <1 | | <1 | | <1 | | | | | | | | | | | <200 | 2200 | 430 | <200 | 3200 | <200 | 3000 | 6400 |
| Cyanide (free) | mg/kg | 1 | | 96 | <1 | 4 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 | | | | | | | | | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cyanide (total) | mg/kg | 1 | No SSV | 96 | <1 | 44 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 | | | | | | | | | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Phenols | mg/kg | 0.2 | No SSV | 94 | <0.2 | 1.3 | 0 | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | | <0.2 | | <0.2 | | | | | | | | | | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Sulphide | mg/kg | 5 | No SSV | 96 | <5 | 590 | 0 | | 10 | <5 | 10 | 12 | 51 | 7 | 20 | <5 | | <5 | | <5 | | | | | | | | | | | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Loss on ignition (550degC) | % w/w | 0.6 | No SSV | 96 | <0.6 | 82.3 | 0 | | 0.8 | 7.9 | 0.9 | 1.5 | 11.1 | 1.2 | 0.9 | 1.1 | | 12.1 | | 0.8 | | | | | | | | | | | 0.9 | 14 | 3.9 | 0.9 | 11.4 | 1 | 22.8 | 78.1 |
| Total Organic Carbon | % w/w | 0.03 | No SSV | 96 | 0.04 | 41 | 0 | | 0.09 | 2.11 | 0.09 | 0.06 | 12 | 0.29 | 0.09 | 0.08 | | 4.13 | | 0.48 | | | | | | | | | | | 0.18 | 5.52 | 1.56 | 0.09 | 6.21 | 0.28 | 9.34 | 26.8 |
| Fraction of organic carbon | N/A | 0.0003 | No SSV | 98 | 0.0004 | 0.4097 | 0 | | 0.0009 | 0.0211 | 0.0009 | 0.0006 | 0.1202 | 0.0029 | 0.0009 | 0.0008 | | 0.0413 | | 0.3386 | | | | | | | | | | | 0.0018 | 0.0552 | 0.0156 | 0.0009 | 0.0621 | 0.0028 | 0.0934 | 0.2679 |
| Arsenic | mg/kg | 1 | 635 | 96 | <1 | 121 | 0 | | 20 | 30 | 21 | 34 | 21 | 30 | 16 | 18 | | 10 | | 121 | | | | | | | | | | | 21 | 17 | 36 | 23 | 22 | 9 | 15 | 8 |
| Boron | mg/kg | 1 | No SSV | 96 | <1 | 51 | 0 | | <1 | 6.9 | <1 | <1 | 7.1 | <1 | <1 | <1 | | 1.8 | | 18.1 | | | | | | | | | | | <1 | 1.6 | <1 | <1 | 5 | <1 | 8.1 | 12.4 |
| Cadmium | mg/kg | 0.5 | 410 | 96 | <0.5 | 2.8 | 0 | | <0.5 | 0.7 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | | 0.6 | | 2.8 | | | | | | | | | | | <0.5 | 1.3 | 0.7 | 0.7 | 1.2 | <0.5 | 0.6 | <0.5 |
| Copper | mg/kg | 1 | 106000 | 96 | <1 | 22 | 0 | | <1 | 3 | <1 | <1 | 6 | <1 | <1 | <1 | | 6 | | <1 | | | | | | | | | | | <1 | 10 | 15 | 1 | 8 | 2 | 8 | 3 |
| Chromium | mg/kg | 1 | 208000 | 96 | <1 | 64 | 0 | | 5 | 10 | 7 | 9 | 27 | 5 | 5 | 6 | | 31 | | 2 | | | | | | | | | | | 5 | 38 | 17 | 8 | 21 | 6 | 39 | 11 |
| Chromium (hexavalent) | mg/kg | 1 | 49.1 | 96 | <1 | <3 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <3 | | | | | | | | | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Iron | mg/kg | 50 | No SSV | 96 | <744 | 95100 | 0 | | 13300 | 20500 | 13700 | 22200 | 14600 | 15100 | 11700 | 12300 | | 26200 | | 95100 | | | | | | | | | | | 5710 | 26400 | 13400 | 15400 | 24800 | 5240 | 19900 | 11400 |
| Lead | mg/kg | 1 | 2310 | 96 | <1 | 101 | 0 | | 2 | 7 | 5 | 5 | 101 | 77 | 3 | 3 | | 10 | | 3 | | | | | | | | | | | 2 | 16 | 17 | 8 | 13 | 4 | 15 | 7 |
| Mercury | mg/kg | 0.17 | No SSV | 96 | <0.17 | 1.46 | 0 | | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | | 0.7 | | <0.17 | | | | | | | | | | | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 |
| Nickel | mg/kg | 1 | 1770 | 96 | <1 | 55 | 0 | | 3 | 7 | 5 | 7 | 16 | 5 | 4 | 4 | | 20 | | 23 | | | | | | | | | | | 3 | 27 | 6 | 5 | 15 | 4 | 26 | 8 |
| Selenium | mg/kg | 1 | 13000 | 96 | <1 | 3 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 | | | | | | | | | | | <1 | <1 | <1 | <1 | 2 | <1 | <1 | <1 |
| Vanadium | mg/kg | 1 | 7490 | 96 | 2 | 92 | 0 | | 12 | 24 | 22 | 27 | 47 | 19 | 14 | 16 | | 54 | | 13 | | | | | | | | | | | 11 | 72 | 21 | 20 | 37 | 11 | 68 | 19 |
| Zinc | mg/kg | 5 | 1100000 | 96 | <5 | 106 | 0 | | 11 | 23 | 16 | 23 | 33 | 17 | 13 | 14 | | 44 | | 50 | | | | | | | | | | | 12 | 56 | 106 | 41 | 33 | 16 | 58 | 28 |
| Acid Herbicides | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2,4,5-T | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| 2,4-D | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| 2,4-DP; (Dichlorprop) | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| MCPA | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| MCPB | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| MCPP; (Mecoprop) | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| Asbestos in Soil (inc. matrix) ^ | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asbestos in soil | | | No SSV | 118 | - | - | 3 | MGS_2019_B, 5.00m; MGS_2019_B2, 5.00m; 7377, MGS_2019_B2, 4m | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD |
| Asbestos ACM - Suitable for Water Absorption Test? | | | No SSV | 112 | - | - | 5 | MGS_2019_B, 5.00m; MGS_2019_B2, 5.00m; 7377, MGS_2019_B2, 4m | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Quantification | | | No SSV | 6 | 0.023 | 0.182 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OCP+OPP Combined Pest Suite (incl. Atrazine and Simazine) | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlobenil | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Tecnazene | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Trifluralin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| alpha-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Hexachlorobenzene (HCB) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Simazine | mg/kg | 0.01 | No SSV | 9 | <0.01 | <0.01 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrazine | mg/kg | 0.01 | No SSV | 9 | <0.01 | <0.01 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| beta-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Quintozene (PCNB) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| gamma-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Chlorothalonil | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| delta-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Trialate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Heptachlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Aldrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Triadimefon | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Telodrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Isodrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Pendimethalin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Heptachlor epoxide | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| trans-Chlordane (Gamma) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| o,p-DDE (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endosulphan I (Alpha) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| cis-Chlordane (Alpha) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| p,p-DDE (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Dieldrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| o,p-DDD (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endosulphan II (Beta) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| p,p-DDD (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| o,p-DDT (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endrin Aldehyde | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endrin Ketone | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endosulphan Sulphate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| p,p-DDT (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| o,p-Methoxychlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| p,p-Methoxychlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Permethrin I (cis) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Permethrin II (trans) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Dichlorvos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Mevinphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Demeton-S | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| Demeton-O | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| Phorate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Dimethoate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Propetamphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Diazinon (Dimpylate) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Disulfoton | mg/kg | 0.1 | No SSV | 22 | <0.1 | <0.1 | 0 | | | | <0.1 | | | | | | | | | | | | | | | | | | | | | <0.1 | | | | | | |
| Etrimphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Chlorpyrifos-methyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Parathion (Ethyl Parathion) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Methyl Parathion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Pirimiphos-methyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Fenitrothion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Fensulphothion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.05 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Fenthion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Malathion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Chlorfenvinphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Chlorpyrifos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Trichloronate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Prothiofos (Tokuthion) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Ethion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Triazophos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Sulprofos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Carbophenothion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Phosalone | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Azinphos-methyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.05 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Azinphos-ethyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.05 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Coumaphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| PAH-16MS | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acenaphthene | mg/kg | 0.01 | 83600 | 92 | <0.01 | 0.11 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | | | | | | | | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Acenaphthylene | mg/kg | 0.01 | No SSV | 92 | <0.01 | 0.01 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | | | | | | | | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Anthracene | mg/kg | 0.02 | 535000 | 92 | <0.02 | 0.16 | 0 | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | | <0.02 | | <0.02 | | | | | | | | | | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Benzo(a)anthracene | mg/kg | 0.04 | BaP Surrogate | 92 | <0.04 | 0.14 | 0 | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | | <0.04 | | <0.04 | | | | | | | | | | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Benzo(a)pyrene | mg/kg | 0.04 | 76.3 | 92 | <0.04 | 0.1 | 0 | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | | <0.04 | | <0.04 | | | | | | | | | | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Benzo(b)fluoranthene | mg/kg | 0.05 | BaP Surrogate | 92 | <0.05 | 0.14 | 0 | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | | <0.05 | | | | | | | | | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Benzo(ghi)perylene | mg/kg | 0.05 | BaP Surrogate | 92 | <0.05 | <0.05 | 0 | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | | <0.05 | | | | | | | | | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Benzo(k)fluoranthene | mg/kg | 0.07 | BaP Surrogate | 92 | <0.07 | <0.07 | 0 | | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | | <0.07 | | <0.07 | | | | | | | | | | | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 |
| Chrysene | mg/kg | 0.06 | BaP Surrogate | 92 | <0.06 | 0.17 | 0 | | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | | <0.06 | | <0.06 | | | | | | | | | | | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 |
| Dibenzo(ah)anthracene | mg/kg | 0.04 | BaP Surrogate | 92 | <0.04 | <0.04 | 0 | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | | <0.04 | | <0.04 | | | | | | | | | | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Fluoranthene | mg/kg | 0.08 | 72200 | 92 | <0.08 | 0.67 | 0 | | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | | <0.08 | | <0.08 | | | | | | | | | | | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 |
| Fluorene | mg/kg | 0.01 | 66500 | 92 | <0.01 | 0.13 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | | | | | | | | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Indeno(123-cd)pyrene | mg/kg | 0.03 | BaP Surrogate | 92 | <0.03 | 0.1 | 0 | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | <0.03 | | <0.03 | | | | | | | | | | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Naphthalene | mg/kg | 0.03 | 90.1 | 92 | <0.03 | <0.03 | 0 | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | <0.03 | | <0.03 | | | | | | | | | | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Phenanthrene | mg/kg | 0.03 | No SSV | 92 | <0.03 | 0.51 | 0 | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | <0.03 | | <0.03 | | | | | | | | | | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Pyrene | mg/kg | 0.07 | 54100 | 92 | <0.07 | 0.49 | 0 | | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | | <0.07 | | <0.07 | | | | | | | | | | | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 |
| Total PAH-16MS | mg/kg | 0.01 | No SSV | 92 | <0.08 | 2.59 | 0 | | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | | <0.08 | | <0.08 | | | | | | | | | | | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 |
| SVOC + TICs (excluding PAH-16) | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SVOC TICs (Tentatively Identified Compounds) | | | No SSV | 26 | - | - | 0 | | | | None detected | | | | | | | | | | | | | | | | | | | | | None detected | | | | | | |
| Hexachlorobenzene | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | <100 | | | | | | |
| Diethyl phthalate | mg/kg | 0.1 | 108000 | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | <100 | | | | | | |
| Dimethyl phthalate | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | <100 | | | | | | |
| Dibenzofuran | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | <100 | | | | | | |
| Carbazole | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | <100 | | | | | | |
| Butylbenzyl phthalate | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | <100 | | | | | | |
| Bis(2-ethylhexyl)phthalate | mg/kg | 0.5 | No SSV | 26 | <0.5 | <500 | 0 | | | | <500 | | | | | | | | | | | | | | | | | | | | | <500 | | | | | | |
| Bis(2-chloroethoxy)methane | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | <100 | | | | | | |
| Bis(2-chloroethyl)ether | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | <100 | | | | | | |
| 4-Nitrophenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <200 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | <200 | | | | | | |
| 3+4-Methylphenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | <100 | | | | | | |
| 4-Chloro-3-methylphenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | |

| Assessment Criteria : | Commercial - 1% SOM Sand |
|---|---|
| Use MRL Values? | |

| | | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedances | | |

**Assessment Criteria :** *Public Open Space (Parks) - 1% SOM Sand*

Use MRL Values?

| Constituent | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedances | Locations of Exceedances | Location | 11232 | | 7142 | | | 7412 | 10259 | | 10819 | 7412 | | | 7423 | | | 10642 | 10529 | | | | 10672 | | | | 10971 | 10973 | | 11461 | 11207 | | 11929 | | 11198 | | 11067 | | 6724 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Sample ID | CH2019_R2 | CH2019_R2 | DCBH2019_4 | MGS_2019_B | MGS_2019_B | MGS_2019_B | MGS_2019_B | DCBH2019_4 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | MGS_2019_B | MGS_2019_B | MGS_2019_B | MGS_2019_B | DCBH2019_5 | CBH2019_1 | CBH2019_1 | CBH2019_1 | CBH2019_1 | CBH2019_1 | CBH2019_1 | SPT2019_4 | SPT2019_4 | CBH2019_4 | CBH2019_1 | CBH2019_1 | SD2019_1 | SD2019_2 | SD2019_2 | SPT2019_1 | SPT2019_1 | SPT2019_2 | SPT2019_2 | SPT2019_2 | SPT2019_3 | SPT2019_3 | MGS2019_B | MGS2019_B | MGS2019_E |
| | | | | | | | | | Depth | 1.20m | 7.20m | 0.50m | 5.00m | 7.00m | 0.30m | 3.00m | 0.50m | 0.20m | 0.80m | 19.80m | 7.00m | 0.30m | 3.00m | 1.00m | 5.00m | 6.00m | 8.00m | 0.20m | 1.00m | 4.00m | 3.00m | 8.50m | 0.70m | 5.00m | 6.00m | 0.3m | 4.50m | 8.50m | 5m | 3.5m | 12.5m | 0.7m | 4.0m | 0.60m | 6.00m | 0.40m | 1.00m | 2.50m | 5.50m | 0.50m | 1.00m | 1.10m |
| | | | | | | | | | Date | 25-Nov-19 | 25-Nov-19 | 23-Jul-19 | 23-Jul-19 | 23-Jul-19 | 22-Jul-19 | 22-Jul-19 | 23-Jul-19 | 23-Oct-19 | 23-Oct-19 | 08-Nov-19 | 23-Jul-19 | 22-Jul-19 | 22-Jul-19 | 31-Jul-19 | 01-Aug-19 | 01-Aug-19 | 04-Nov-19 | 29-Oct-19 | 29-Oct-19 | 30-Oct-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 12/11/2019 | 13-Nov-19 | 13-Nov-19 | 43795 | 21-Nov-19 | 21-Nov-19 | 12-Dec-19 | 12-Dec-19 | 22-Nov-19 | 22-Nov-19 | 22-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 09-Jul-19 | 09-Jul-19 | 10-Jul-19 |
| | | | | | | | | | Strata | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | Zone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % Stones >10mm | % w/w | 0.1 | No SSV | 98 | <0.1 | 58.1 | 0 | | | <0.1 | <0.1 | <0.1 | | | <0.1 | 4.3 | 1.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 4.3 | 1.1 | <0.1 | <0.1 | <0.1 | 12.3 | 6 | 2.3 | <0.1 | 2.3 | <0.1 | | <0.1 | <0.1 | <0.1 | 0.3 | 15.5 | <0.1 | <0.1 | 35.1 | <0.1 | 58.1 | <0.1 | <0.1 | 5 | 0.6 | 6 | 4.1 | <0.1 | 48.5 |
| pH | pH | 0.01 | No SSV | 98 | 5.23 | 10.04 | 0 | | | 9.06 | 7.88 | 8.95 | | | 6.86 | 8.54 | 8.71 | 8.95 | 8.99 | 9.01 | 8.12 | 6.86 | 8.54 | 8.71 | 8.73 | 9.19 | | 7.78 | 9.53 | 9.2 | 8 | 9.34 | 6.06 | 9.19 | | 7.71 | 8.55 | 7.52 | 7.81 | 8.89 | 9.23 | 7.55 | 8.35 | 7.35 | 8.42 | 6.99 | 8.54 | 8.62 | 7.67 | 7.33 | 8.82 | 7.51 | 10.04 |
| Ammoniacal Nitrogen as NH4 | mg/kg | 0.26 | No SSV | 92 | <0.26 | 214 | 0 | | | 3.03 | 34.3 | 0.9 | | | 134 | 3.52 | 1.02 | 0.9 | 1.68 | 0.32 | 0.52 | 134 | 3.52 | 1.02 | 0.32 | 0.58 | | 0.97 | 1.08 | 0.42 | 13.5 | | | | | | 2.32 | 19 | 10.5 | 0.76 | 2.71 | 93.3 | <0.26 | 31 | 1.11 | 57.9 | 2.45 | 7.23 | 66.2 | 49.5 | 5.5 | 214 | 2.49 |
| Sulphate (acid soluble) | mg/kg | 200 | No SSV | 92 | <1 | 14000 | 0 | | | <200 | 2200 | <200 | | | 3500 | <200 | <200 | <200 | <200 | <200 | <200 | 3500 | <200 | <200 | <200 | 300 | | 710 | 370 | <200 | 2800 | | | | | | 280 | 2000 | 540 | <200 | <200 | 6300 | 300 | 3100 | <200 | 6900 | <200 | 310 | 1100 | 2300 | <200 | 14000 | 840 |
| Cyanide (free) | mg/kg | 1 | 34 | 96 | <1 | 4 | 0 | | | <1 | <1 | <1 | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cyanide (total) | mg/kg | 1 | No SSV | 96 | <1 | 44 | 0 | | | <1 | <1 | <1 | | | <1 | <1 | <1 | <1 | <1 | <1 | 2 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | 16 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Phenols | mg/kg | 0.2 | No SSV | 94 | <0.2 | 1.3 | 0 | | | <0.2 | <0.2 | <0.2 | | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Sulphide | mg/kg | 5 | No SSV | 96 | <5 | 590 | 0 | | | 7 | <5 | <5 | | | 27 | <5 | <5 | <5 | 34 | <5 | <5 | 27 | <5 | <5 | <5 | <5 | | 13 | <5 | <5 | <5 | 17 | 20 | <5 | | <5 | 25 | <5 | <5 | <5 | 370 | <5 | 420 | <5 | 590 | <5 | <5 | 27 | 140 | <5 | 570 | 10 |
| Loss on ignition (550degC) | % w/w | 0.6 | No SSV | 96 | <0.6 | 82.3 | 0 | | | 1 | 7.6 | 1 | | | 14.6 | 1.2 | 1.1 | 1 | 2.4 | 0.8 | <0.6 | 14.6 | 1.2 | 1.1 | 7.9 | 5.4 | | 1 | 1.2 | 1.2 | 15.3 | 1.5 | 49.9 | <0.6 | | 9.9 | 1.3 | 10.5 | 3.8 | 1.4 | <0.6 | 78.1 | 1.2 | 18.3 | 0.8 | 70 | 2.1 | 1.2 | 10.1 | 23.6 | 1.7 | 30.6 | 1.1 |
| Total Organic Carbon | % w/w | 0.03 | No SSV | 96 | 0.04 | 41 | 0 | | | 0.07 | 2.36 | 0.15 | | | 6.44 | 0.15 | 0.16 | 0.15 | 0.45 | 0.05 | 0.1 | 6.44 | 0.15 | 0.16 | 0.04 | 0.25 | | 0.25 | 0.37 | 0.15 | 6.93 | 0.06 | 25.1 | 0.06 | | 4.13 | 0.18 | 2.62 | 1.28 | 0.06 | 0.06 | 17.3 | 0.08 | 6.6 | 0.15 | 38.1 | 0.93 | 0.23 | 3.58 | 12.5 | 0.2 | 13.3 | 0.09 |
| Fraction of organic carbon | N/A | 0.0003 | No SSV | 96 | 0.0004 | 0.4097 | 0 | | | 0.0007 | 0.0236 | 0.0015 | | | 0.0044 | 0.0015 | 0.0016 | 0.0015 | 0.0045 | 0.0005 | 0.001 | 0.0044 | 0.0015 | 0.0016 | 0.0004 | 0.0025 | | 0.0025 | 0.0037 | 0.0015 | 0.0693 | 0.0006 | 0.2505 | 0.0006 | | 0.0413 | 0.0018 | 0.0262 | 0.0128 | 0.0006 | 0.0006 | 0.173 | 0.0008 | 0.066 | 0.0015 | 0.3815 | 0.0093 | 0.0023 | 0.0358 | 0.1249 | 0.002 | 0.1335 | 0.0009 |
| Arsenic | mg/kg | 1 | 168 | 96 | <1 | 121 | 0 | | | 25 | 14 | 8 | | | 18 | 15 | 16 | 8 | 31 | 15 | 1 | 18 | 15 | 16 | 11 | 23 | | 6 | 11 | 22 | 14 | 14 | 8 | 19 | | 19 | 15 | 17 | 11 | 3 | 1 | 4 | 6 | 13 | 3 | 5 | 2 | 15 | 19 | 13 | 13 | 27 | 13 |
| Boron | mg/kg | 1 | No SSV | 96 | <1 | 51 | 0 | | | 5.5 | <1 | <1 | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 5.5 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | 2.6 | <1 | 10.7 | <1 | | 2.6 | <1 | 1.9 | 1.2 | <1 | <1 | 6.8 | <1 | 2 | <1 | 14.6 | <1 | <1 | 4.1 | 6 | <1 | 8.1 | 1.9 |
| Cadmium | mg/kg | 0.5 | 882 | 96 | <0.5 | 2.8 | 0 | | | 0.6 | <0.5 | <0.5 | | | 0.6 | <0.5 | <0.5 | <0.5 | 0.7 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | | <0.5 | 0.5 | 0.8 | 1 | <0.5 | 1.2 | <0.5 | | 1.1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 2 | <0.5 | 1.1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.9 | <0.5 |
| Copper | mg/kg | 1 | 45200 | 96 | <1 | 22 | 0 | | | 9 | <1 | <1 | | | <1 | 8 | <1 | <1 | 2 | <1 | <1 | 9 | <1 | <1 | <1 | 13 | | <1 | 2 | <1 | 6 | 22 | 6 | <1 | | 3 | <1 | 6 | 2 | 3 | <1 | 9 | 3 | 4 | 7 | <1 | 6 | 6 | 2 | 14 | 3 |
| Chromium | mg/kg | 1 | 83500 | 96 | <1 | 64 | 0 | | | 8 | 39 | 5 | | | 38 | 5 | 5 | 5 | 8 | 4 | 5 | 38 | 5 | 5 | 6 | 7 | | 4 | 7 | 8 | 25 | 5 | 29 | 5 | | 16 | 7 | 38 | 6 | 7 | 64 | 3 | 5 | 39 | 3 | 19 | 9 | 8 | 14 | 24 | 6 | 33 | 6 |
| Chromium (hexavalent) | mg/kg | 1 | 251 | 96 | <1 | <3 | 0 | | | <1 | <1 | <1 | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Iron | mg/kg | 50 | No SSV | 96 | <744 | 95100 | 0 | | | 17100 | 29800 | 7330 | | | 33900 | 10300 | 13400 | 7330 | 13400 | 7450 | 12000 | 33900 | 10300 | 13400 | 8750 | 17900 | | 3440 | 13700 | 20300 | 22500 | 7280 | 24800 | 7430 | | 22000 | 10300 | 26000 | 5430 | 2650 | 3660 | 45700 | 7530 | 31000 | 6410 | 10600 | 14200 | 9380 | 13700 | 19800 | 9520 | 24800 | 6900 |
| Lead | mg/kg | 1 | 1340 | 96 | <1 | 101 | 0 | | | 12 | 15 | 3 | | | 21 | 4 | 3 | 3 | 5 | 2 | 1 | 21 | 4 | 4 | 4 | 21 | | 2 | 5 | 4 | 13 | 3 | 8 | 2 | | 6 | 5 | 10 | 3 | 2 | 2 | <1 | 3 | 13 | 3 | 6 | 11 | 16 | 19 | 10 | 8 | 35 | 4 |
| Mercury | mg/kg | 0.17 | No SSV | 96 | <0.17 | 1.46 | 0 | | | <0.17 | 0.23 | <0.17 | | | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | 0.35 | <0.17 | | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | | 1.46 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 |
| Nickel | mg/kg | 1 | 804 | 96 | <1 | 55 | 0 | | | 4 | 24 | 3 | | | 28 | 3 | 3 | 3 | 4 | 2 | 1 | 28 | 3 | 3 | 4 | 6 | | 3 | 5 | 5 | 18 | 3 | 20 | 3 | | 11 | 4 | 25 | 3 | <1 | 55 | 4 | 3 | 29 | 3 | 13 | 6 | 4 | 10 | 17 | 7 | 24 | 4 |
| Selenium | mg/kg | 1 | 2500 | 96 | <1 | 3 | 0 | | | <1 | <1 | <1 | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | 2 | <1 | | 1 | <1 | 1 | <1 | <1 | 1 | <1 | <1 | 3 | <1 | <1 | <1 | 2 | <1 | <1 | <1 | <1 | <1 |
| Vanadium | mg/kg | 1 | 1550 | 96 | 2 | 92 | 0 | | | 22 | 67 | 12 | | | 66 | 12 | 16 | 12 | 20 | 10 | 22 | 66 | 12 | 16 | 17 | 19 | | 9 | 20 | 22 | 47 | 13 | 51 | 15 | | 36 | 18 | 72 | 11 | 3 | 2 | 10 | 12 | 74 | 14 | 30 | 29 | 17 | 32 | 45 | 13 | 55 | 13 |
| Zinc | mg/kg | 5 | 201000 | 96 | <5 | 106 | 0 | | | 16 | 57 | 10 | | | 62 | 19 | 13 | 10 | 21 | 10 | 14 | 62 | 19 | 13 | 13 | 50 | | 8 | 18 | 20 | 43 | 25 | 41 | 12 | | 34 | 14 | 48 | 9 | <5 | <5 | <5 | 10 | 61 | 17 | 24 | 34 | 17 | 39 | 44 | 18 | 72 | 12 |
| Acid Herbicides | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2,4,5-T | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | <0.5 | | <0.5 | | | | <0.5 | | <0.5 | <0.5 | | | | <0.5 | | | | | <0.5 | | | | | | | | <0.5 | | | | | | | | | | <0.5 | | | | | |
| 2,4-D | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | <0.5 | | <0.5 | | | | <0.5 | | <0.5 | <0.5 | | | | <0.5 | | | | | <0.5 | | | | | | | | <0.5 | | | | | | | | | | <0.5 | | | | | |
| 2,4-DP; (Dichlorprop) | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | <0.5 | | <0.5 | | | | <0.5 | | <0.5 | <0.5 | | | | <0.5 | | | | | <0.5 | | | | | | | | <0.5 | | | | | | | | | | <0.5 | | | | | |
| MCPA | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | <0.5 | | <0.5 | | | | <0.5 | | <0.5 | <0.5 | | | | <0.5 | | | | | <0.5 | | | | | | | | <0.5 | | | | | | | | | | <0.5 | | | | | |
| MCPB | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | <0.5 | | <0.5 | | | | <0.5 | | <0.5 | <0.5 | | | | <0.5 | | | | | <0.5 | | | | | | | | <0.5 | | | | | | | | | | <0.5 | | | | | |
| MCPP; (Mecoprop) | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | <0.5 | | <0.5 | | | | <0.5 | | <0.5 | <0.5 | | | | <0.5 | | | | | <0.5 | | | | | | | | <0.5 | | | | | | | | | | <0.5 | | | | | |
| Asbestos in Soil (inc. matrix) ^ | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asbestos in soil | | | No SSV | 118 | - | - | 3 | MGS_2019_B, 5.00m; MGS_2019_B2, 5.00m; 7377, MGS_2019_B2, 4m | | NAD | NAD | NAD | Chrysotile & Amosite | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | Amosite & Chrysotile | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD |
| Asbestos ACM - Suitable for Water Absorption Test? | | | No SSV | 112 | - | - | 3 | MGS_2019_B, 5.00m; MGS_2019_B2, 5.00m; 7377, MGS_2019_B2, 4m | | N/A | N/A | - | Loose fibres, Board & Bitumen product | - | - | - | N/A | N/A | N/A | N/A | N/A | N/A | N/A | - | Loose fibres | - | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Quantification | | | No SSV | 6 | 0.023 | 0.182 | 0 | | | | | N/A | 0.182 | N/A | N/A | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OCP+OPP Combined Pest Suite (incl. Atrazine and Simazine) | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlobenil | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Tecnazene | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Trifluralin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| alpha-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Hexachlorobenzene (HCB) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Simazine | mg/kg | 0.01 | No SSV | 9 | <0.01 | <0.01 | 0 | | | | | <0.01 | | | | <0.01 | | | | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrazine | mg/kg | 0.01 | No SSV | 9 | <0.01 | <0.01 | 0 | | | | | <0.01 | | | | <0.01 | | | | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| beta-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Quintozene (PCNB) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| gamma-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Chlorothalonil | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| delta-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Triallate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Heptachlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Aldrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Triadimefon | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Telodrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Isodrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Pendimethalin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Heptachlor epoxide | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| trans-Chlordane (Gamma) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| o,p-DDE (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Endosulphan I (Alpha) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| cis-Chlordane (Alpha) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| p,p-DDE (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Dieldrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| o,p-DDD (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Endrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Endosulphan II (Beta) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| p,p-DDD (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| o,p-DDT (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Endrin Aldehyde | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Endrin Ketone | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Endosulphan Sulphate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| p,p-DDT (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| o,p-Methoxychlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| p,p-Methoxychlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Permethrin I (cis) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Permethrin II (trans) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Dichlorvos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Mevinphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Demeton-S | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | <0.5 | | <0.5 | | | | <0.5 | | <0.5 | <0.5 | | | | <0.5 | | | | | <0.5 | | | | | | | | <0.5 | | | | | | | | | | <0.5 | | | | | |
| Demeton-O | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | <0.5 | | <0.5 | | | | <0.5 | | <0.5 | <0.5 | | | | <0.5 | | | | | <0.5 | | | | | | | | <0.5 | | | | | | | | | | <0.5 | | | | | |
| Phorate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Dimethoate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Propetamphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Diazinon (Dimpylate) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Disulfoton | mg/kg | 0.1 | No SSV | 22 | <0.1 | <0.1 | 0 | | | <0.1 | | <0.1 | | | | <0.1 | | <0.1 | <0.1 | | | | <0.1 | | | | | <0.1 | | | | | | | | <0.1 | | | | | | | | | | <0.1 | | | | | |
| Etrimphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Chlorpyrifos-methyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | <0.01 | | | | | | | | <0.01 | | | | | | | | | | <0.01 | | | | | |
| Parathion (Ethyl Parathion) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | <0.01 | | <0.01 | | | | <0.01 | | <0.01 | <0.01 | | | | <0.01 |

**Assessment Criteria :** *Public Open Space (Parks) - 1% SOM Sand*

Use MRL Values?

| | | Limit of Detection | Generic Assessment Criteria | Number of Samples | Maximum Value | Minimum Value | Number of Exceedances | | Location | 11232 | | 7142 | | | | 7412 | 10259 | | 10819 | 7412 | | | 7423 | | | 10642 | 10529 | | | 10672 | | | | 10971 | 10973 | | 11461 | 11207 | | 11929 | | 11198 | | | 11067 | | 6724 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Sample ID | CH2019_R2 | CH2019_R2 | DCBH2019_4 | MGS_2019_B | MGS_2019_B | MGS_2019_B | MGS_2019_B | DCBH2019_4 | DCBH2019_8 | DCBH2019_8 | CBH2019_ | KGS_2019_ | KGS_2019_ | KGS_2019_ | KGS_2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | SD2019_1 | SD2019_2 | SD2019_2 | SPT2019_1 | SPT2019_1 | SPT2019_2 | SPT2019_2 | SPT2019_2 | SPT2019_3 | SPT2019_3 | SPT2019_3 | MGS2019_B | MGS2019_B | GS2019_E | |
| | | | | | | | | | Depth | 1.20m | 7.20m | 0.50m | 5.00m | 7.00m | 0.30m | 3.00m | 0.50m | 0.20m | 0.80m | 19.80m | 7.00m | 0.30m | 3.00m | 1.00m | 5.00m | 6.00m | 8.00m | 0.20m | 1.00m | 4.00m | 3.00m | 8.50m | 0.70m | 5.00m | 6.00m | 0.3m | 4.50m | 8.50m | 5m | 3.5m | 12.5m | 0.7m | 4.0m | 0.60m | 6.00m | 0.40m | 1.00m | 2.50m | 5.50m | 0.50m | 1.00m | 1.10m |
| | | | | | | | | | Date | 25-Nov-19 | 25-Nov-19 | 23-Jul-19 | 23-Jul-19 | 23-Jul-19 | 22-Jul-19 | 22-Jul-19 | 23-Jul-19 | 23-Oct-19 | 23-Oct-19 | 08-Nov-19 | 23-Jul-19 | 22-Jul-19 | 22-Jul-19 | 31-Jul-19 | 01-Aug-19 | 01-Aug-19 | 04-Nov-19 | 29-Oct-19 | 29-Oct-19 | 30-Oct-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 12/11/2019 | 13-Nov-19 | 13-Nov-19 | 43795 | 21-Nov-19 | 21-Nov-19 | 12-Dec-19 | 12-Dec-19 | 22-Nov-19 | 22-Nov-19 | 22-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 09-Jul-19 | 09-Jul-19 | 10-Jul-19 | |
| | | | | | | | | | Strata | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | mg/kg | 0.1 | | 8740 | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0.1 | | | <0.1 | | | <0.1 | | | | <0.1 | | | | | | | | | <100 | | <100 | |
| 2,4-Dichlorophenol | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0.1 | | | <0.1 | | | <0.1 | | | | <0.1 | | | | | | | | | <100 | | <100 | |
| 2,4,6-Trichlorophenol | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0.1 | | | <0.1 | | | <0.1 | | | | <0.1 | | | | | | | | | <100 | | <100 | |
| 2,4,5-Trichlorophenol | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0.1 | | | <0.1 | | | <0.1 | | | | <0.1 | | | | | | | | | <100 | | <100 | |
| 2-Chloronaphthalene | mg/kg | 0.1 | | 559 | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0.1 | | | <0.1 | | | <0.1 | | | | <0.1 | | | | | | | | | <100 | | <100 | |
| 2-Methylnaphthalene | mg/kg | 0.1 | | No SSV | 26 | <0.1 | 298 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0.1 | | | <0.1 | | | <0.1 | | | | <0.1 | | | | | | | | | <100 | | 298 | |
| Bis(2-chloroisopropyl)ether | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0.1 | | | <0.1 | | | <0.1 | | | | <0.1 | | | | | | | | | <100 | | <100 | |
| Phenol | mg/kg | 0.1 | | 685 | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0.1 | | | <0.1 | | | <0.1 | | | | <0.1 | | | | | | | | | <100 | | <100 | |
| Pentachlorophenol (SVOC) | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0,1 | | | <0.1 | | | <0.1 | | | | <0,1 | | | | | | | | | <100 | | <100 | |
| n-Nitroso-n-dipropylamine | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0,1 | | | <0.1 | | | <0.1 | | | | <0,1 | | | | | | | | | <100 | | <100 | |
| n-Dioctylphthalate | mg/kg | 0.5 | | No SSV | 26 | <0.5 | <500 | 0 | | | | <0.5 | | <500 | | | <500 | | <0.5 | <0.5 | | | <0.5 | | <0.5 | | | <0.5 | | | <0.5 | | | | <0.5 | | | | | | | | | <500 | | <500 | |
| n-Dibutylphthalate | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0,1 | | | <0.1 | | | <0.1 | | | | <0,1 | | | | | | | | | <100 | | <100 | |
| Nitrobenzene | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0,1 | | | <0.1 | | | <0.1 | | | | <0,1 | | | | | | | | | <100 | | <100 | |
| Isophorone | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0,1 | | | <0.1 | | | <0.1 | | | | <0,1 | | | | | | | | | <100 | | <100 | |
| Hexachloroethane | mg/kg | 0.1 | | 115 | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0,1 | | | <0.1 | | | <0.1 | | | | <0,1 | | | | | | | | | <100 | | <100 | |
| Hexachlorocyclopentadiene | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0,1 | | | <0.1 | | | <0.1 | | | | <0,1 | | | | | | | | | <100 | | <100 | |
| Perylene | mg/kg | 0.1 | | No SSV | 26 | <0.1 | <100 | 0 | | | | <0.1 | | <100 | | | <100 | | <0.1 | <0.1 | | | <0.1 | | <0,1 | | | <0.1 | | | <0.1 | | | | <0,1 | | | | | | | | | <100 | | <100 | |
| VOC+TICs | | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | mg/kg | 0.001 | | No SSV | 24 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Chloromethane | mg/kg | 0.01 | | 73.8 | 26 | <0.01 | <10 | 0 | | | | <0.01 | | <10 | | | <10 | | <0.01 | <0.01 | | | <0.01 | | <0.01 | | | <0.01 | | | <0.01 | | | | <0.01 | | | | | | | | | <10 | | <10 | |
| Vinyl Chloride (Chloroethene) | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <10 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Bromomethane | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Chloroethane | mg/kg | 0.001 | | 82400 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Trichlorofluoromethane | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,1-Dichloroethene | mg/kg | 0.001 | | 1950 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Carbon Disulphide | mg/kg | 0.001 | | 1290 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Dichloromethane | mg/kg | 0.005 | | 1430 | 26 | <0.005 | <5 | 0 | | | | <0.005 | | <5 | | | <5 | | <0.005 | <0.005 | | | <0.005 | | <0.005 | | | <0.005 | | | <0.005 | | | | <0.005 | | | | | | | | | <5 | | <5 | |
| trans 1,2-Dichloroethene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <5 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,1-Dichloroethane | mg/kg | 0.001 | | 11200 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| cis 1,2-Dichloroethene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 2,2-Dichloropropane | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Bromochloromethane | mg/kg | 0.005 | | No SSV | 26 | <0.005 | <5 | 0 | | | | <0.005 | | <5 | | | <5 | | <0.005 | <0.005 | | | <0.005 | | <0.005 | | | <0.005 | | | <0.005 | | | | <0.005 | | | | | | | | | <5 | | <5 | |
| Chloroform | mg/kg | 0.001 | | 2090 | 26 | <0.001 | <5 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,1,1-Trichloroethane | mg/kg | 0.001 | | 34900 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,1-Dichloropropene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Carbon Tetrachloride | mg/kg | 0.001 | | 915 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,2-Dichloroethane | mg/kg | 0.002 | | 37.9 | 26 | <0.002 | <2 | 0 | | | | <0.002 | | <2 | | | <2 | | <0.002 | <0.002 | | | <0.002 | | <0.002 | | | <0.002 | | | <0.002 | | | | <0.002 | | | | | | | | | <2 | | <2 | |
| Benzene | mg/kg | 0.001 | | 139 | 26 | <0.001 | <2 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Trichloroethene | mg/kg | 0.001 | | 11 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,2-Dichloropropane | mg/kg | 0.001 | | 79.6 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Dibromomethane | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Bromodichloromethane | mg/kg | 0.01 | | 33.9 | 26 | <0.01 | <10 | 0 | | | | <0.01 | | <10 | | | <10 | | <0.01 | <0.01 | | | <0.01 | | <0.01 | | | <0.01 | | | <0.01 | | | | <0.01 | | | | | | | | | <10 | | <10 | |
| cis 1,3-Dichloropropene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <10 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Toluene | mg/kg | 0.001 | | 59900 | 26 | <0.001 | <4 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| trans 1,3-Dichloropropene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,1,2-Trichloroethane | mg/kg | 0.001 | | 766 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,3-Dichloropropane | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Tetrachloroethene | mg/kg | 0.001 | | 3060 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Dibromochloromethane | mg/kg | 0.003 | | 231 | 26 | <0.003 | <3 | 0 | | | | <0.003 | | <3 | | | <3 | | <0.003 | <0.003 | | | <0.003 | | <0.003 | | | <0.003 | | | <0.003 | | | | <0.003 | | | | | | | | | <3 | | <3 | |
| 1,2-Dibromoethane | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <3 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Chlorobenzene | mg/kg | 0.001 | | 13200 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,1,1,2-Tetrachloroethane | mg/kg | 0.001 | | 3490 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Ethylbenzene | mg/kg | 0.001 | | 21400 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| m & p Xylene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <3 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| o-Xylene | mg/kg | 0.001 | | 9560 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Styrene | mg/kg | 0.001 | | 5640 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Bromoform | mg/kg | 0.001 | | 2910 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Isopropylbenzene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,1,2,2-Tetrachloroethane | mg/kg | 0.001 | | 4640 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,2,3-Trichloropropane | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| Bromobenzene | mg/kg | 0.001 | | 986 | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| n-Propylbenzene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 2-Chlorotoluene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,3,5-Trimethylbenzene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 4-Chlorotoluene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| tert-Butylbenzene | mg/kg | 0.002 | | No SSV | 26 | <0.002 | <2 | 0 | | | | <0.002 | | <2 | | | <2 | | <0.002 | <0.002 | | | <0.002 | | <0.002 | | | <0.002 | | | <0.002 | | | | <0.002 | | | | | | | | | <2 | | <2 | |
| 1,2,4-Trimethylbenzene | mg/kg | 0.001 | | 225 | 26 | <0.001 | 2 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | 2 | |
| sec-Butylbenzene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 4-Isopropyltoluene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,3-Dichlorobenzene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,4-Dichlorobenzene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| n-Butylbenzene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | 2 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | 2 | |
| 1,2-Dichlorobenzene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <1 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,2-Dibromo-3-chloropropane (DCBP) | mg/kg | 0.002 | | No SSV | 26 | <0.002 | <2 | 0 | | | | <0.002 | | <2 | | | <2 | | <0.002 | <0.002 | | | <0.002 | | <0.002 | | | <0.002 | | | <0.002 | | | | <0.002 | | | | | | | | | <2 | | <2 | |
| 1,2,4-Trichlorobenzene | mg/kg | 0.003 | | No SSV | 26 | <0.003 | <3 | 0 | | | | <0.003 | | <3 | | | <3 | | <0.003 | <0.003 | | | <0.003 | | <0.003 | | | <0.003 | | | <0.003 | | | | <0.003 | | | | | | | | | <3 | | <3 | |
| Hexachlorobutadiene | mg/kg | 0.001 | | No SSV | 26 | <0.001 | <3 | 0 | | | | <0.001 | | <1 | | | <1 | | <0.001 | <0.001 | | | <0.001 | | <0.001 | | | <0.001 | | | <0.001 | | | | <0.001 | | | | | | | | | <1 | | <1 | |
| 1,2,3-Trichlorobenzene | mg/kg | 0.003 | | No SSV | 26 | <0.003 | <3 | 0 | | | | <0.003 | | <3 | | | <3 | | <0.003 | <0.003 | | | <0.003 | | <0.003 | | | <0.003 | | | <0.003 | | | | <0.003 | | | | | | | | | <3 | | <3 | |
| VOC TICs | | | | No SSV | 26 | <3 | <3 | 0 | | | | None detected | | None detect | | | None detect | | None detect | None detected | | | None detect | | None detect | | | None detect | | | None detected | | | | None detected | | | | | | | | | None detected | | Appended | |
| TPH CWG | | | | No SSV | 2 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH aliphatic C5-C6 | mg/kg | 0.01 | | 109000 | 45 | <0.01 | <0.05 | 0 | | | | <0.01 | | <0.01 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | | | | | <0.01 | <0.05 | <0.01 | |
| TPH aliphatic C6-C8 | mg/kg | 0.01 | | 163000 | 45 | <0.01 | <0.05 | 0 | | | | <0.01 | | <0.01 | | | 0.04 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | 0.04 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | | | | | <0.01 | <0.05 | <0.01 | |
| TPH aliphatic C8-C10 | mg/kg | 1 | | 9720 | 45 | <1 | 2 | 0 | | | | <1 | | <1 | | | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | | | | <1 | | | | | | | | | <1 | <1 | 2 | |
| TPH aliphatic C10-C12 | mg/kg | 1 | | 17700 | 45 | <1 | 14 | 0 | | | | <1 | | <1 | | | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | | | | <1 | | | | | | | | | <1 | <1 | 14 | |
| TPH aliphatic C12-C16 | mg/kg | 1 | | 23800 | 45 | <1 | 103 | 0 | | | | <1 | | <1 | | | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | <1 | <1 | <1 | 4 | | <1 | <1 | | | | <1 | | | | | | | | | <1 | <1 | 103 | |
| TPH aliphatic C16-C21 | mg/kg | 1 | | 864000 | 45 | <1 | 154 | 0 | | | | 2 | | <1 | | | <1 | <1 | <1 | <1 | <1 | 7 | | 2 | <1 | <1 | <1 | 7 | | 1 | <1 | | | | <1 | | | | | | | | | <1 | 9 | 154 | |
| All >C21-C35 | mg/kg | 1 | | No SSV | 45 | <1 | 179 | 0 | | | | 113 | | 1 | | | 9 | 2 | 3 | 1 | 18 | <1 | | 9 | 2 | 3 | <1 | 38 | | 12 | 2 | | | | 2 | | | | | | | | | <1 | 6 | | 7 | 27 | 179 | |
| Total Aliphatics | mg/kg | 1 | | No SSV | 45 | <1 | 451 | 0 | | | | 117 | | 1 | | | 13 | 2 | 3 | 1 | 18 | <1 | | 13 | 2 | 3 | <1 | 49 | | 13 | 2 | | | | 2 | | | | | | | | | <1 | 6 | | 7 | 36 | 451 | |
| TPH aromatic C5-C7 (Benzene) | mg/kg | 0.01 | | 139 | 45 | <0.01 | <0.05 | 0 | | | | <0.01 | | <0.01 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | | | | | <0.01 | <0.05 | <0.01 | |
| TPH aromatic C7-C8 (Toluene) | mg/kg | 0.01 | | 89900 | 45 | <0.01 | <0.05 | 0 | | | | <0.01 | | <0.01 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | | | | | <0.01 | <0.05 | <0.01 | |
| TPH aromatic C8-C10 | mg/kg | 1 | | 5140 | 45 | <1 | 3 | 0 | | | | <1 | | <1 | | | 2 | <1 | 1 | <1 | <1 | 1 | | 2 | <1 | 1 | <1 | 1 | | <1 | <1 | | | | <1 | | | | | | | | | <1 | <1 | <1 | |
| TPH aromatic C10-C12 | mg/kg | 1 | | 8260 | 45 | <1 | 4 | 0 | | | | <1 | | <1 | | | <1 | <1 | <1 | <1 | <1 | 1 | | <1 | <1 | <1 | <1 | 1 | | <1 | <1 | | | | <1 | | | | | | | | | <1 | <1 | 4 | |
| TPH aromatic C12-C16 | mg/kg | 1 | | 10600 | 45 | <1 | 36 | 0 | | | | 1 | | <1 | | | 2 | <1 | <1 | <1 | <1 | 5 | | 2 | <1 | <1 | <1 | 5 | | 1 | <1 | | | | <1 | | | | | | | | | <1 | 6 | 36 | |
| TPH aromatic C16-C21 | mg/kg | 1 | | 7870 | 45 | <1 | 54 | 0 | | | | 3 | | <1 | | | 2 | <1 | 1 | <1 | 1 | <1 | | 2 | <1 | 1 | <1 | 8 | | 1 | <1 | | | | <1 | | | | | | | | | <1 | 6 | 54 | |
| TPH aromatic C21-C35 | mg/kg | 1 | | 7870 | 45 | <1 | 66 | 0 | | | | 12 | | 3 | | | 59 | 2 | 5 | 3 | 24 | <1 | | 59 | 2 | 5 | <1 | 29 | | 12 | 2 | | | | 4 | | | | | | | | | <1 | 5 | | 8 | 66 | 26 | |
| Total Aromatics | mg/kg | 1 | | No SSV | 45 | <1 | 121 | 0 | | | | 16 | | 3 | | | 66 | 2 | 8 | 3 | 25 | <1 | | 66 | 2 | 8 | <1 | 45 | | 14 | 2 | | | | 4 | | | | | | | | | <1 | 6 | | 8 | 78 | 121 | |
| TPH (Ali & Aro >C5-C35) | mg/kg | 1 | | No SSV | 45 | <1 | 571 | 0 | | | | 134 | | 5 | | | 79 | 5 | 12 | 5 | 42 | <1 | | 79 | 5 | 12 | <1 | 93 | | 28 | 4 | | | | 7 | | | | | | | | | <1 | 12 | | 15 | 113 | 571 | |
| Benzene | mg/kg | 0.01 | | 139 | 45 | <0.01 | <0.05 | 0 | | | | <0.01 | | <0.01 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | | | | | <0.01 | <0.01 | | <0.01 | <0.05 | <0.01 | |
| Toluene | mg/kg | 0.01 | | 89900 | 45 | <0.01 | <0.05 | 0 | | | | <0.01 | | <0.01 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | | | | | <0.01 | <0.01 | | <0.01 | <0.05 | <0.01 | |
| Ethylbenzene | mg/kg | 0.01 | | 21400 | 45 | <0.01 | <0.05 | 0 | | | | <0.01 | | <0.01 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | | | | | <0.01 | <0.01 | | <0.01 | <0.05 | <0.01 | |
| m & p Xylene | mg/kg | 0.01 | | No SSV | 45 | <0.01 | <0.05 | 0 | | | | <0.01 | | <0.01 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | | | | <0.01 | | | | | | | | | <0.01 | <0.01 | | <0.01 | <0.05 | <0.01 | |
| o Xylene | mg/kg | 0.01 | | 9560 | 45 | <0.01 | <0.05 | 0 | | | | <0.01 | | <0.01 | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 |

| Assessment Criteria : | *Public Open Space (Parks) - 1% SOM Sand* |
|---|---|
| Use MRL Values? | |

| Constituent | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedances | Locations of Exceedances | 7039 | | | | | 7214 | | | | 7318 | | | | | 7377 | 7951 | 8234 | | 8263 | 8275 | 8377 | 8574 | | 8671 | 8674 | | | | | | | | | | | | | | | | | | 8676 | 8723 | | | | | | | | | | | | | | | 8831 | 8854 | | | | | | | | | | | | | | | 9229 | | |
|---|---|---

| Assessment Criteria : | *Public Open Space (Parks) - 1% SOM Sand* |
|---|---|

Use MRL Values?

| | | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedances | | 7039 | | | | 7214 | | | 7318 | | | | | 7377 | 7951 | 8234 | | 8263 | 8275 | 8377 | 8574 | | 8671 | 8674 | | | | | | | 8676 | 8723 | | | | | | | | | 8831 | 8854 | | | | | | 9229 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | MGS2019_ | MGS2019_ | MGS2019_ | MGS2019_ | DGS_2019_ | IGS_2019_ | IGS_2019_ | IGS_2019_ | CBH2019_ | CBH2019_ | CBH2019_ | GS_2019_ | EGS_2019_ | EGS_2019_ | CBH20109 | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | SD2019_3 | SD2019_4 | SD2019_4 | CBH2019_ | CBH2019_ | CBH2019_ | SD2019_4 | SD2019_5 | SD2019_5 | IGS_2019_ | MGS_2019_ | IGS_2019_ | IGS_2019_ | IGS_2019_ | CBH2019_ | CBH2019_ | CBH2019_ | CBH2019_ | SD2019_3 | SD2019_3 | SD2019_3 | SD2019_3 | CBH2019_ | CBH2019_ |
| | | | | | | | | | 0.5m | 3m | 4m | 1m | 4.5m | 1m | 4.5m | 1m | 3.7m | 3.00m | 5.30m | 4.62m | 14.80m | 0.30m | 1.90m | 4m | 0.50m | 4.20m | 7.00m | 16.45m | 0.1m | 21.30m | 0.3m | 1m | 0.5m | 3.75m | 7.9m | 0.3m | 1m | 0.3m | 0.50m | 0.30m | 1.00m | 0.30m | 0.30m | 0.10m | 1.20m | 4.50m | 18.20m | 3.84m | 8.95m | 2m | 4.3m | 5.2m | 9.1m | 6.00m | 12.00m |
| | | | | | | | | | 43665 | 43665 | 43666 | 43667 | 43667 | 43670 | 43671 | 23-Jul-19 | 24-Jul-19 | 31-Jul-19 | 31-Jul-19 | 29-Jul-19 | 30-Jul-19 | 30-Jul-19 | 30-Jul-19 | 43677 | 43695 | 43706 | 43706 | 43683 | 43690 | 03-Sep-19 | 10-Sep-19 | 10/09/2019 | 12/09/2019 | 14-Sep-19 | 14-Sep-19 | 14-Sep-19 | 14-Sep-19 | 14-Sep-19 | 13/09/2019 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 43727 | 43725 | 43726 | 43726 | 43725 | 43725 | 43725 | 24-Sep-19 | 24-Sep-19 |
| 2,4-Dimethylphenol | mg/kg | 0.1 | 8740 | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | mg/kg | 0.1 | 659 | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | mg/kg | 0.1 | No SSV | 26 | <0.1 | 298 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| Bis(2-chloroisopropyl)ether | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| Phenol | mg/kg | 0.1 | 685 | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| Pentachlorophenol (SVOC) | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| n-Nitroso-n-dipropylamine | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| n-Dioctylphthalate | mg/kg | 0.5 | No SSV | 26 | <0.5 | <500 | 0 | | <500 | <500 | | <500 | | <500 | | <500 | | | | | | | | | <500 | | | | | <500 | | | <500 | | | <500 | <500 | <500 | | | | | | | | | | | | | | | |
| n-Dibutylphthalate | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| Nitrobenzene | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| Isophorone | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| Hexachloroethane | mg/kg | 0.1 | 115 | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| Perylene | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | <100 | <100 | | <100 | | <100 | | <100 | | | | | | | | | <100 | | | | | <100 | | | <100 | | | <100 | <100 | <100 | | | | | | | | | | | | | | | |
| VOC+TICs | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlorodifluoromethane | mg/kg | 0.001 | No SSV | 24 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | | | | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Chloromethane | mg/kg | 0.01 | 73.8 | 26 | <0.01 | <10 | 0 | | <10 | <10 | | <10 | | <1 | | <1 | | | | | | | | | <10 | | | | | <10 | | | <10 | | | <10 | <10 | <10 | | | | | | | | | | | | | | | |
| Vinyl Chloride (Chloroethene) | mg/kg | 0.001 | No SSV | 26 | <0.001 | <10 | 0 | | <1 | <1 | | <1 | | <10 | | <10 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Bromomethane | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Chloroethane | mg/kg | 0.001 | 82400 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Trichlorofluoromethane | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethene | mg/kg | 0.001 | 1950 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Carbon Disulphide | mg/kg | 0.001 | 1290 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Dichloromethane | mg/kg | 0.005 | 1430 | 26 | <0.005 | <5 | 0 | | <5 | <5 | | <5 | | <1 | | <1 | | | | | | | | | <5 | | | | | <5 | | | <5 | | | <5 | <5 | <5 | | | | | | | | | | | | | | | |
| trans 1,2-Dichloroethene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <5 | 0 | | <1 | <1 | | <1 | | <5 | | <5 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,1-Dichloroethane | mg/kg | 0.001 | 11200 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| cis 1,2-Dichloroethene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 2,2-Dichloropropane | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Bromochloromethane | mg/kg | 0.005 | No SSV | 26 | <0.005 | <5 | 0 | | <5 | <5 | | <5 | | <1 | | <1 | | | | | | | | | <5 | | | | | <5 | | | <5 | | | <5 | <5 | <5 | | | | | | | | | | | | | | | |
| Chloroform | mg/kg | 0.001 | 2090 | 26 | <0.001 | <5 | 0 | | <1 | <1 | | <1 | | <5 | | <5 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | mg/kg | 0.001 | 34900 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,1-Dichloropropene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Carbon Tetrachloride | mg/kg | 0.001 | 915 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,2-Dichloroethane | mg/kg | 0.002 | 37.9 | 26 | <0.002 | <2 | 0 | | <2 | <2 | | <2 | | <1 | | <1 | | | | | | | | | <2 | | | | | <2 | | | <2 | | | <2 | <2 | <2 | | | | | | | | | | | | | | | |
| Benzene | mg/kg | 0.001 | 139 | 26 | <0.001 | <2 | 0 | | <1 | <1 | | <1 | | <2 | | <2 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Trichloroethene | mg/kg | 0.001 | 11 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,2-Dichloropropane | mg/kg | 0.001 | 79.6 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Dibromomethane | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Bromodichloromethane | mg/kg | 0.01 | 33.9 | 26 | <0.01 | <10 | 0 | | <10 | <10 | | <10 | | <1 | | <1 | | | | | | | | | <10 | | | | | <10 | | | <10 | | | <10 | <10 | <10 | | | | | | | | | | | | | | | |
| cis 1,3-Dichloropropene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <10 | 0 | | <1 | <1 | | <1 | | <10 | | <10 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Toluene | mg/kg | 0.001 | 59900 | 26 | <0.001 | <4 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <4 | | | <4 | | | <4 | <1 | <2 | | | | | | | | | | | | | | | |
| trans 1,3-Dichloropropene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | mg/kg | 0.001 | 766 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,3-Dichloropropane | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Tetrachloroethene | mg/kg | 0.001 | 3060 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Dibromochloromethane | mg/kg | 0.003 | 231 | 26 | <0.003 | <3 | 0 | | <3 | <3 | | <3 | | <1 | | <1 | | | | | | | | | <3 | | | | | <3 | | | <3 | | | <3 | <3 | <3 | | | | | | | | | | | | | | | |
| 1,2-Dibromoethane | mg/kg | 0.001 | No SSV | 26 | <0.001 | <3 | 0 | | <1 | <1 | | <1 | | <3 | | <3 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Chlorobenzene | mg/kg | 0.001 | 13200 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | mg/kg | 0.001 | 3490 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Ethylbenzene | mg/kg | 0.001 | 21400 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| m & p Xylene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <3 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <3 | | | <3 | | | <3 | <1 | <2 | | | | | | | | | | | | | | | |
| o-Xylene | mg/kg | 0.001 | 9560 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Styrene | mg/kg | 0.001 | 5640 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Bromoform | mg/kg | 0.001 | 2910 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Isopropylbenzene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | mg/kg | 0.001 | 4640 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| Bromobenzene | mg/kg | 0.001 | 986 | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| n-Propylbenzene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 2-Chlorotoluene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 4-Chlorotoluene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| tert-Butylbenzene | mg/kg | 0.002 | No SSV | 26 | <0.002 | <2 | 0 | | <2 | <2 | | <2 | | <1 | | <1 | | | | | | | | | <2 | | | | | <2 | | | <2 | | | <2 | <2 | <2 | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | mg/kg | 0.001 | 225 | 26 | <0.001 | 2 | 0 | | <1 | <1 | | <1 | | <2 | | <2 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| sec-Butylbenzene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 4-Isopropyltoluene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| n-Butylbenzene | mg/kg | 0.001 | No SSV | 26 | <0.001 | 2 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <1 | 0 | | <1 | <1 | | <1 | | <1 | | <1 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane (DCBP) | mg/kg | 0.002 | No SSV | 26 | <0.002 | <2 | 0 | | <2 | <2 | | <2 | | <1 | | <1 | | | | | | | | | <2 | | | | | <2 | | | <2 | | | <2 | <2 | <2 | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | mg/kg | 0.003 | No SSV | 26 | <0.003 | <3 | 0 | | <3 | <3 | | <3 | | <2 | | <2 | | | | | | | | | <3 | | | | | <3 | | | <3 | | | <3 | <3 | <3 | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | mg/kg | 0.001 | No SSV | 26 | <0.001 | <3 | 0 | | <1 | <1 | | <1 | | <3 | | <3 | | | | | | | | | <1 | | | | | <1 | | | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | mg/kg | 0.003 | No SSV | 26 | <0.003 | <3 | 0 | | <3 | <3 | | <3 | | <1 | | <1 | | | | | | | | | <3 | | | | | <3 | | | <3 | | | <3 | <3 | <3 | | | | | | | | | | | | | | | |
| VOC TICs | | | No SSV | 26 | <3 | <3 | 0 | | None detect | None detect | | None detect | | <3 | | <3 | | | | | | | | | None detect | | | | | None detect | | | None detect | | | None detect | None detect | None detect | | | | | | | | | | | | | | | |
| TPH CWG | | | No SSV | 2 | - | - | 0 | | | | | | | None detect | | None detect | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPH aliphatic C5-C6 | mg/kg | 0.01 | 109000 | 45 | <0.01 | <0.05 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | | | | | | <0.01 | | | | | <0.01 | <0.01 | <0.01 | <0.01 | | | <0.01 | <0.01 | <0.01 | | | | | | | | | | | | | | <0.01 | |
| TPH aliphatic C6-C8 | mg/kg | 0.01 | 163000 | 45 | <0.01 | <0.05 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | | | | | | <0.01 | | | | | <0.01 | <0.01 | <0.01 | <0.01 | | | <0.01 | <0.01 | <0.01 | | | | | | | | | | | | | | <0.01 | |
| TPH aliphatic C8-C10 | mg/kg | 1 | 9720 | 45 | <1 | 2 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 | <1 | | | | | | <1 | | | | | <1 | <1 | <1 | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | <1 | |
| TPH aliphatic C10-C12 | mg/kg | 1 | 17700 | 45 | <1 | 14 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 | <1 | | | | | | <1 | | | | | <1 | <1 | <1 | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | <1 | |
| TPH aliphatic C12-C16 | mg/kg | 1 | 23800 | 45 | <1 | 103 | 0 | | <1 | 4 | 2 | <1 | <1 | <1 | | <1 | | <1 | <1 | | | | | | <1 | | | | | <1 | <1 | <1 | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | <1 | |
| TPH aliphatic C16-C21 | mg/kg | 1 | 864000 | 45 | <1 | 154 | 0 | | <1 | 9 | 9 | <1 | 3 | <1 | | <1 | | <1 | 4 | | | | | | <1 | | | | | <1 | <1 | <1 | <1 | | | <1 | <1 | <1 | | | | | | | | | | | | | | <1 | |
| All >C21-C35 | mg/kg | 1 | No SSV | 45 | <1 | 179 | 0 | | <1 | 11 | 48 | 3 | 3 | <1 | | <1 | | 4 | 11 | | | | | | <1 | | | | | 2 | 39 | 1 | | | | 3 | <1 | 8 | 6 | 2 | | | | | | | | | | | | <1 | |
| Total Aliphatics | mg/kg | 1 | No SSV | 45 | <1 | 451 | 0 | | <1 | 24 | 59 | 3 | 5 | <1 | | <1 | | 4 | 15 | | | | | | <1 | | | | | 2 | 39 | 1 | | | | 3 | <1 | 8 | 6 | 2 | | | | | | | | | | | | <1 | |
| TPH aromatic C5-C7 (Benzene) | mg/kg | 0.01 | 139 | 45 | <0.01 | <0.05 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | | | | | | <0.01 | | | | | <0.01 | <0.01 | <0.01 | <0.01 | | | <0.01 | <0.01 | <0.01 | | | | | | | | | | | | | | <0.01 | |
| TPH aromatic C7-C8 (Toluene) | mg/kg | 0.01 | 89900 | 45 | <0.01 | <0.05 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | | | | | | <0.01 | | | | | <0.01 | <0.01 | <0.01 | <0.01 | | | <0.01 | <0.01 | <0.01 | | | | | | | | | | | | | | <0.01 | |
| TPH aromatic C8-C10 | mg/kg | 1 | 5140 | 45 | <1 | 3 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 | <1 | | | | | | <1 | | | | | 1 | 2 | <1 | | | | <1 | <1 | <1 | | | | | | | | | | | | | | <1 | |
| TPH aromatic C10-C12 | mg/kg | 1 | 8260 | 45 | <1 | 4 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 | <1 | | | | | | <1 | | | | | <1 | <1 | <1 | | | | <1 | <1 | <1 | | | | | | | | | | | | | | <1 | |
| TPH aromatic C12-C16 | mg/kg | 1 | 10600 | 45 | <1 | 36 | 0 | | <1 | 3 | <1 | <1 | <1 | <1 | | <1 | | <1 | <1 | | | | | | <1 | | | | | <1 | <1 | <1 | | | | <1 | <1 | <1 | | | | | | | | | | | | | | <1 | |
| TPH aromatic C16-C21 | mg/kg | 1 | 7870 | 45 | <1 | 54 | 0 | | <1 | 4 | 4 | <1 | <1 | <1 | | <1 | | <1 | 2 | | | | | | <1 | | | | | <1 | 2 | 1 | | | | <1 | <1 | <1 | | | | | | | | | | | | | | <1 | |
| TPH aromatic C21-C35 | mg/kg | 1 | 7870 | 45 | <1 | 66 | 0 | | <1 | 5 | 63 | 2 | 8 | 1 | | <1 | | 7 | 22 | | | | | | <1 | | | | | 5 | 9 | 6 | | | | <1 | <1 | 5 | 6 | 4 | | | | | | | | | | | | 2 | |
| Total Aromatics | mg/kg | 1 | No SSV | 45 | <1 | 121 | 0 | | <1 | 11 | 68 | 2 | 8 | 1 | | <1 | | 7 | 24 | | | | | | <1 | | | | | 6 | 13 | 7 | | | | <1 | <1 | 5 | 6 | 4 | | | | | | | | | | | | 2 | |
| TPH (Ali & Aro >C5-C35) | mg/kg | 1 | No SSV | 45 | <1 | 571 | 0 | | <1 | 35 | 127 | 5 | 13 | 1 | | <1 | | 11 | 39 | | | | | | <1 | | | | | 8 | 53 | 10 | | | | 3 | <1 | 13 | 12 | 6 | | | | | | | | | | | | 2 | |
| Benzene | mg/kg | 0.01 | 139 | 45 | <0.01 | <0.05 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | | | | | | <0.01 | | | | | <0.01 | <0.01 | <0.01 | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | | | | | | | | <0.01 | |
| Toluene | mg/kg | 0.01 | 89900 | 45 | <0.01 | <0.05 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | | | | | | <0.01 | | | | | <0.01 | <0.01 | <0.01 | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | | | | | | | | <0.01 | |
| Ethylbenzene | mg/kg | 0.01 | 21400 | 45 | <0.01 | <0.05 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | | | | | | <0.01 | | | | | <0.01 | <0.01 | <0.01 | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | | | | | | | | <0.01 | |
| m & p Xylene | mg/kg | 0.01 | No SSV | 45 | <0.01 | <0.05 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | | | | | | <0.01 | | | | | <0.01 | <0.01 | <0.01 | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | | | | | | | | <0.01 | |
| o Xylene | mg/kg | 0.01 | 9560 | 45 | <0.01 | <0.05 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | | | | | | <0.01 | | | | | <0.01 | <0.01 | <0.01 | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | | | | | | | | <0.01 | |
| MTBE | mg/kg | 0.01 | 70800 | 45 | <0.01 | <0.05 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | <0.01 | | | | | | <0.01 | | | | | <0.01 | <0.01 | <0.01 | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | | | | | | | | | | <0.01 | |
| Speciated PCB-WHO12 | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB BZ 81 | mg/kg | 0.005 | No SSV | 6 | <0.005 | <0.005 | 0 | | | | | | | <0.005 | | <0.005 | | | | | | | | | <0.005 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB BZ 105 | mg/kg | 0.005 | No SSV | 6 | <0.005 | <0.005 | 0 | | | | | | | <0.005 | | <0.005 | | | | | | | | | <0.005 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB BZ 114 | mg/kg | 0.005 | No SSV | 6 | <0.005 | <0.005 | 0 | | | | | | | <0.005 | | <0.005 | | | | | | | | | <0.005 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB BZ 118 | mg/kg | 0.007 | No SSV | 6 | <0.007 | <0.007 | 0 | | | | | | | <0.007 | | <0.007 | | | | | | | | | <0.007 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB BZ 123 | mg/kg | 0.005 | No SSV | 6 | <0.005 | <0.005 | 0 | | | | | | | <0.005 | | <0.005 | | | | | | | | | <0.005 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB BZ 126 | mg/kg | 0.005 | No SSV | 6 | <0.005 | <0.005 | 0 | | | | | | | <0.005 | | <0.005 | | | | | | | | | <0.005 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PCB BZ 156 | mg/kg | 0.005 | No SSV | 6 | <0.005 | <0.005 | 0 | | | | | | | <0.005 | | <0.005 | | | | | | | | | <0.005 

| Assessment Criteria : | *Public Open Space (Parks) - 1% SOM Sand* |
|---|---|
| Use MRL Values? | |

| Constituent | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedances | Locations of Exceedances | | | | | | | | | 9533 | | 10970 | | | | 11125 | | | | | | | | | | | | | | 11863 | | | | 12214 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | XCBH2019_ | XCBH2019_ | SD2019_6 | SD2019_6 | SD2019_6 | SD2019_6 | SD2019_7 | SD2019_7 | SD2019_7 | SD2019_7 | SD2019_7 | SD2019_7 | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | XGS_2019_ | SPT2019_5 | SPT2019_5 | SPT2019_6 | SPT2019_6 | SPT2019_6 | SPT2019_2 | SPT2019_2 | SPT2019_2 |
| | | | | | | | | | 1.80m | 6.80m | 1.20m | 3.75m | 6.60m | 0.1m | 1m | 3.1m | 6.5m | 7.36m | 9.5m | 11m | 1.40m | 2.40m | 2.00m | 2.40m | 0.40m | 1.00m | 2.00m | 3.50m | 5.00m | 5.90m | 0.50m | 4.30m | 0.10m | 1.00m | 3.00m | 0.30m | 2.00m | 6.00m | | | | | | |
| | | | | | | | | | 26-Sep-19 | 26-Sep-19 | 28-Sep-19 | 28-Sep-19 | 28-Sep-19 | 43739 | 43739 | 43782 | 43782 | 43782 | 43782 | 13/11/2019 | 19/11/2019 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19/11/2019 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 09-Dec-19 | 09-Dec-19 | 06-Dec-19 | 06-Dec-19 | 09-Dec-19 | 16-Dec-19 | 16-Dec-19 | 17-Dec-19 |
| % Stones >10mm | % w/w | 0.1 | No SSV | 98 | <0.1 | 58.1 | 0 | | 18.3 | <0.1 | 1.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | | | | | | | | | | | <0.1 | 7.2 | <0.1 | <0.1 | <0.1 | 46.2 | <0.1 | <0.1 |
| pH | pH | 0.01 | No SSV | 98 | 5.23 | 10.04 | 0 | | 9.46 | 8.04 | 8.63 | 8.47 | 8.77 | 8.34 | 8.53 | 8.57 | 6.95 | 7.49 | 8.32 | 5.23 | | | | | | | | | | | | | | | 8.65 | 7.68 | 7.92 | 8.3 | 7.39 | 8.59 | 7.44 | 7.03 |
| Ammoniacal Nitrogen as NH4 | mg/kg | 0.26 | No SSV | 92 | <0.26 | 214 | 0 | | 2.63 | 30.6 | 6.06 | 10.6 | 178 | 2.19 | 1.61 | 3.42 | | 39.1 | | 42.2 | | | | | | | | | | | | | | | | <0.26 | 101 | 8.26 | <0.26 | 56.9 | <0.26 | 27.6 | 61.6 |
| Sulphate (acid soluble) | mg/kg | 200 | No SSV | 92 | <1 | 14000 | 0 | | <200 | <200 | <200 | <200 | 2700 | <200 | <200 | <1 | | <1 | | <1 | | | | | | | | | | | | | | | | <200 | 2200 | 430 | <200 | 3200 | <200 | 3000 | 6400 |
| Cyanide (free) | mg/kg | 1 | 34 | 96 | <1 | 4 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 | | | | | | | | | | | | | | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Cyanide (total) | mg/kg | 1 | No SSV | 96 | <1 | 44 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 | | | | | | | | | | | | | | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Phenols | mg/kg | 0.2 | No SSV | 94 | <0.2 | 1.3 | 0 | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | | <0.2 | | <0.2 | | | | | | | | | | | | | | | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Sulphide | mg/kg | 5 | No SSV | 96 | <5 | 590 | 0 | | 10 | <5 | 10 | 12 | 51 | 7 | 20 | <5 | | <5 | | <5 | | | | | | | | | | | | | | | | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Loss on ignition (550degC) | % w/w | 0.6 | No SSV | 96 | <0.6 | 82.3 | 0 | | 0.8 | 7.9 | 0.9 | 1.5 | 11.1 | 1.2 | 0.9 | 1.1 | | 12.1 | | 0.8 | | | | | | | | | | | | | | | | 0.9 | 14 | 3.9 | 0.9 | 11.4 | 1 | 22.8 | 78.1 |
| Total Organic Carbon | % w/w | 0.03 | No SSV | 96 | 0.04 | 41 | 0 | | 0.09 | 2.11 | 0.09 | 0.06 | 12 | 0.29 | 0.09 | 0.08 | | 4.13 | | 0.48 | | | | | | | | | | | | | | | | 0.18 | 5.52 | 1.56 | 0.09 | 6.21 | 0.28 | 9.34 | 26.8 |
| Fraction of organic carbon | N/A | 0.0003 | No SSV | 98 | 0.0004 | 0.4097 | 0 | | 0.0009 | 0.0211 | 0.0009 | 0.0006 | 0.1202 | 0.0029 | 0.0009 | 0.0008 | | 0.0413 | | 0.3386 | | | | | | | | | | | | | | | | 0.0018 | 0.0552 | 0.0156 | 0.0009 | 0.0621 | 0.0028 | 0.0934 | 0.2679 |
| Arsenic | mg/kg | 1 | 168 | 96 | <1 | 121 | 0 | | 20 | 30 | 21 | 34 | 21 | 30 | 16 | 18 | | 10 | | 121 | | | | | | | | | | | | | | | | 21 | 17 | 36 | 23 | 22 | 9 | 15 | 8 |
| Boron | mg/kg | 1 | No SSV | 96 | <1 | 51 | 0 | | <1 | 6.9 | <1 | <1 | 7.1 | <1 | <1 | <1 | | 1.8 | | 18.1 | | | | | | | | | | | | | | | | <1 | 1.6 | <1 | <1 | 5 | <1 | 8.1 | 12.4 |
| Cadmium | mg/kg | 0.5 | 882 | 96 | <0.5 | 2.8 | 0 | | <0.5 | 0.7 | <0.5 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | | 0.6 | | 2.8 | | | | | | | | | | | | | | | | <0.5 | 1.3 | 0.7 | 0.7 | 1.2 | <0.5 | 0.6 | <0.5 |
| Copper | mg/kg | 1 | 45200 | 96 | <1 | 22 | 0 | | <1 | 3 | <1 | <1 | 6 | <1 | <1 | <1 | | 6 | | <1 | | | | | | | | | | | | | | | | <1 | 10 | 15 | 1 | 8 | 2 | 8 | 3 |
| Chromium | mg/kg | 1 | 83500 | 96 | <1 | 64 | 0 | | 5 | 10 | 7 | 9 | 27 | 5 | 5 | 6 | | 31 | | 2 | | | | | | | | | | | | | | | | 5 | 38 | 17 | 8 | 21 | 6 | 39 | 11 |
| Chromium (hexavalent) | mg/kg | 1 | 251 | 96 | <1 | <3 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <3 | | | | | | | | | | | | | | | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Iron | mg/kg | 50 | No SSV | 96 | <744 | 95100 | 0 | | 13300 | 20500 | 13700 | 22200 | 14600 | 15100 | 11700 | 12300 | | 26200 | | 95100 | | | | | | | | | | | | | | | | 5710 | 26400 | 13400 | 15400 | 24800 | 5240 | 19900 | 11400 |
| Lead | mg/kg | 1 | 1340 | 96 | <1 | 101 | 0 | | 2 | 7 | 5 | 5 | 101 | 77 | 3 | 3 | | 10 | | 3 | | | | | | | | | | | | | | | | 2 | 16 | 17 | 8 | 13 | 4 | 15 | 7 |
| Mercury | mg/kg | 0.17 | No SSV | 96 | <0.17 | 1.46 | 0 | | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | | 0.7 | | <0.17 | | | | | | | | | | | | | | | | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 | <0.17 |
| Nickel | mg/kg | 1 | 804 | 96 | <1 | 55 | 0 | | 3 | 7 | 5 | 7 | 16 | 5 | 4 | 4 | | 20 | | 23 | | | | | | | | | | | | | | | | 3 | 27 | 6 | 5 | 15 | 4 | 26 | 8 |
| Selenium | mg/kg | 1 | 2550 | 96 | <1 | 3 | 0 | | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | | <1 | | <1 | | | | | | | | | | | | | | | | <1 | <1 | <1 | <1 | 2 | <1 | <1 | <1 |
| Vanadium | mg/kg | 1 | 1550 | 96 | 2 | 92 | 0 | | 12 | 24 | 22 | 27 | 47 | 19 | 14 | 16 | | 54 | | 13 | | | | | | | | | | | | | | | | 11 | 72 | 21 | 20 | 37 | 11 | 68 | 19 |
| Zinc | mg/ko | 5 | 201000 | 96 | <5 | 106 | 0 | | 11 | 23 | 16 | 23 | 33 | 17 | 13 | 14 | | 44 | | 50 | | | | | | | | | | | | | | | | 12 | 56 | 106 | 41 | 33 | 16 | 58 | 28 |
| Acid Herbicides | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2,4,5-T | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| 2,4-D | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| 2,4-DP; (Dichlorprop) | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| MCPA | mg/ko | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| MCPB | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| MCPP; (Mecoprop) | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| Asbestos in Soil (inc. matrix) ^ | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asbestos in soil | | | No SSV | 118 | - | - | 3 | MGS_2019_B, 5.00m; MGS_2019_B2, 5.00m; 7377, MGS_2019_B2, 4m | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD | NAD |
| Asbestos ACM - Suitable for Water Absorption Test? | | | No SSV | 112 | - | - | 3 | MGS_2019_B, 5.00m; MGS_2019_B2, 5.00m; 7377, MGS_2019_B2, 4m | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Quantification | | | No SSV | 6 | 0.023 | 0.182 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OCP+OPP Combined Pest Suite (incl. Atrazine and Simazine) | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dichlobenil | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Tecnazene | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Trifluralin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| alpha-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Hexachlorobenzene (HCB) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Simazine | mg/kg | 0.01 | No SSV | 9 | <0.01 | <0.01 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrazine | mg/kg | 0.01 | No SSV | 9 | <0.01 | <0.01 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| beta-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Quintozene (PCNB) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| gamma-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Chlorothalonil | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| delta-Hexachlorocyclohexane (HCH) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Triallate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Heptachlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Aldrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Triadimefon | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Telodrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Isodrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Pendimethalin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Heptachlor epoxide | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| trans-Chlordane (Gamma) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| o,p-DDE (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endosulphan I (Alpha) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| cis-Chlordane (Alpha) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| p,p-DDE (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Dieldrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| o,p-DDD (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endrin | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endosulphan II (Beta) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| p,p-DDD (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| o,p-DDT (2,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endrin Aldehyde | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endrin Ketone | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Endosulphan Sulphate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| p,p-DDT (4,4) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| o,p-Methoxychlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| p,p-Methoxychlor | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Permethrin I (cis) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Permethrin II (trans) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Dichlorvos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Mevinphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Demeton-S | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| Demeton-O | mg/kg | 0.5 | No SSV | 22 | <0.5 | <0.5 | 0 | | | | <0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.5 | | | | | | |
| Phorate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Dimethoate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Propetamphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Diazinon (Dimpylate) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Disulfoton | mg/kg | 0.1 | No SSV | 22 | <0.1 | <0.1 | 0 | | | | <0.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.1 | | | | | | |
| Etrimphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Chlorpyrifos-methyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Parathion (Ethyl Parathion) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Methyl Parathion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Pirimiphos-methyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Fenitrothion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Fensulphothion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.05 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Fenthion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Malathion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Chlorfenvinphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Chlorpyrifos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Trichloronate | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Prothiofos (Tokuthion) | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Ethion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Triazophos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Sulprofos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Carbophenothion | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Phosalone | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Azinphos-methyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.05 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Azinphos-ethyl | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.05 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| Coumaphos | mg/kg | 0.01 | No SSV | 22 | <0.01 | <0.01 | 0 | | | | <0.01 | | | | | | | | | | | | | | | | | | | | | | | | | | | <0.01 | | | | | | |
| PAH-16MS | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acenaphthene | mg/kg | 0.01 | 28600 | 92 | <0.01 | 0.11 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | | | | | | | | | | | | | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Acenaphthylene | mg/kg | 0.01 | No SSV | 92 | <0.01 | 0.01 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | | | | | | | | | | | | | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Anthracene | mg/kg | 0.02 | 150000 | 92 | <0.02 | 0.16 | 0 | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | | <0.02 | | <0.02 | | | | | | | | | | | | | | | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| Benzo(a)anthracene | mg/kg | 0.04 | BaP Surrogate | 92 | <0.04 | 0.14 | 0 | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | | <0.04 | | <0.04 | | | | | | | | | | | | | | | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Benzo(a)pyrene | mg/kg | 0.04 | 21.4 | 92 | <0.04 | 0.1 | 0 | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | | <0.04 | | <0.04 | | | | | | | | | | | | | | | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Benzo(b)fluoranthene | mg/kg | 0.05 | BaP Surrogate | 92 | <0.05 | 0.14 | 0 | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | | <0.05 | | | | | | | | | | | | | | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Benzo(ghi)perylene | mg/kg | 0.05 | BaP Surrogate | 92 | <0.05 | <0.05 | 0 | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | | <0.05 | | | | | | | | | | | | | | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Benzo(k)fluoranthene | mg/kg | 0.07 | BaP Surrogate | 92 | <0.07 | <0.07 | 0 | | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | | <0.07 | | <0.07 | | | | | | | | | | | | | | | | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 |
| Chrysene | mg/kg | 0.06 | BaP Surrogate | 92 | <0.06 | 0.17 | 0 | | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | | <0.06 | | <0.06 | | | | | | | | | | | | | | | | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 | <0.06 |
| Dibenzo(ah)anthracene | mg/kg | 0.04 | BaP Surrogate | 92 | <0.04 | <0.04 | 0 | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | | <0.04 | | <0.04 | | | | | | | | | | | | | | | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Fluoranthene | mg/kg | 0.08 | 20200 | 92 | <0.08 | 0.67 | 0 | | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | | <0.08 | | <0.08 | | | | | | | | | | | | | | | | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 |
| Fluorene | mg/kg | 0.01 | 19600 | 92 | <0.01 | 0.13 | 0 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | | <0.01 | | | | | | | | | | | | | | | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Indeno(123-cd)pyrene | mg/kg | 0.03 | BaP Surrogate | 92 | <0.03 | 0.1 | 0 | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | <0.03 | | <0.03 | | | | | | | | | | | | | | | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Naphthalene | mg/kg | 0.03 | 623 | 92 | <0.03 | <0.03 | 0 | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | <0.03 | | <0.03 | | | | | | | | | | | | | | | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Phenanthrene | mg/kg | 0.03 | No SSV | 92 | <0.03 | 0.51 | 0 | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | | <0.03 | | <0.03 | | | | | | | | | | | | | | | | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Pyrene | mg/kg | 0.07 | 15100 | 92 | <0.07 | 0.49 | 0 | | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | | <0.07 | | <0.07 | | | | | | | | | | | | | | | | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 | <0.07 |
| Total PAH-16MS | mg/kg | 0.01 | No SSV | 92 | <0.08 | 2.59 | 0 | | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | | <0.08 | | <0.08 | | | | | | | | | | | | | | | | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 | <0.08 |
| SVOC + TICs (excluding PAH-16) | | | No SSV | 0 | - | - | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SVOC TICs (Tentatively Identified Compounds) | | | No SSV | 26 | - | - | 0 | | | | None detected | | | | | | | | | | | | | | | | | | | | | | | | | | | None detected | | | | | | |
| Hexachlorobenzene | mg/kg | 0.1 | No SSV | 26 | <0.1 | <100 | 0 | | | | <100 | | | | | | | | | | | | | | | | | | | | | | | | | | | <100 | | | | | | |
| Diethyl phthalate | mg/kg | 0.1 | 85800 | 26 | <0.1 | <100 | 0 | | | | <100 |

| Assessment Criteria : | *Public Open Space (Parks) - 1% SOM Sand* |
|---|---|
| Use MRL Values? | |

| | | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedances | | |

**Sizewell C - Radiochemical Summary**

| | Lab report | 19-11198 | 19-06724 | 19-07039 | 19-07039 | 19-07142 | 19-07142 | 19-11232 | 19-0765 | 19-10259 | 19-10529 | 19-10971 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample | WAC1 SPT2019_2A | MGS2019_E | MGS2019_A | MGS2019_D | DCBH2019_4 | MGS2019_B | CH2019_R2 | DCBH2019_2 | DCBH2019_8 | SCBH2019_1 | SCBH2019_3 |
| | Depth | 0.4m | 0.5m | 0.5m | 1.0m | 0.5m | 0.3m | 1.2-1.3m | 0.5m | 0.2m | 0.2m | 0.3m |
| | Date | 22/11/2019 | 09/07/2019 | 19/07/2019 | 21/07/2019 | 23/07/2019 | 22/07/2019 | 25/11/2019 | 18/08/2019 | 23/10/2019 | 29/10/2019 | 12/11/2019 |
| **Determinand** | **Unit** | | | | | | | | | | | |
| **Tritium** | | | | | | | | | | | | |
| H-3 | $Bq.kg^{-1}$ | <11 | <8.3 | <9.7 | <8.9 | <9 | <9.5 | <11 | <11 | <14 | <13 | <16 |
| **Carbon-14** | | | | | | | | | | | | |
| C-14 | $Bq.kg^{-1}$ | <14 | <3.4 | <4.5 | <4.0 | <4.9 | <5.5 | <8.9 | <5.3 | <13 | <5.9 | <11 |
| **Gross Alpha** | | | | | | | | | | | | |
| PU-242 | $Bq.kg^{-1}$ | 350 ± 110 | <91 | <84 | <110 | <89 | 179 ± 62 | <110 | 110 ± 50 | 182 ± 75 | 154 ± 73 | <110 |
| **Gross Beta** | | | | | | | | | | | | |
| Cs-137 | $Bq.kg^{-1}$ | 1120 ± 30 | 267 ± 3 | <85 | <78 | <90 | <95 | 192 ± 62 | 325 ± 87 | 440 ± 100 | 372 ± 93 | 168 ± 74 |
| **Gamma Spectrometry** | | | | | | | | | | | | |
| Be-7 | $Bq.kg^{-1}$ | <12 | <11 | <12 | <9.7 | <10 | <12 | <8.2 | <12 | <9.5 | <13 | <9.5 |
| K-40 | $Bq.kg^{-1}$ | 789 ± 86 | 153 ± 30 | 182 ± 38 | <34 | 165 ± 27 | 180 ± 30 | 133 ± 23 | 266 ± 44 | 253 ± 35 | 205 ± 33 | 156±26 |
| Co-60 | $Bq.kg^{-1}$ | <1.9 | <1.4 | <1.8 | <1.5 | <1.3 | <1.4 | <1.3 | <1.6 | <1.4 | <1.7 | <1.4 |
| Cs-134 | $Bq.kg^{-1}$ | <1.9 | <1.5 | <2.0 | <1.6 | <1.3 | <1.3 | <1.3 | <1.8 | <1.6 | <1.8 | <1.4 |
| Cs-137 | $Bq.kg^{-1}$ | <1.5 | <1.3 | <1.5 | <1.2 | <1.2 | <1.2 | <1.1 | <1.5 | <1.3 | <1.5 | <1.2 |
| Tl-208 | $Bq.kg^{-1}$ | 13.7 ± 1.9 | <1.6 | 3.6 ± 1.3 | <1.5 | <1.3 | 2.6 ± 1 | 2.54 ± 0.91 | <1.7 | 4.8 ± 1.1 | 4.1 ± 1.3 | 2.54 ± 0.97 |
| Pb-210 | $Bq.kg^{-1}$ | <33 | <30 | <23 | <19 | <31 | <32 | <30 | <26 | <24 | <31 | <29 |
| Bi-212 | $Bq.kg^{-1}$ | 40 ± 15 | <17 | <21 | <18 | <16 | <17 | <16 | <20 | <17 | <20 | <16 |
| Pb-212 | $Bq.kg^{-1}$ | 42 ± 4.1 | 8.5 ± 1.8 | 9.3 ± 2.0 | 3.5 ± 1.3 | 7.7 ± 2.0 | 6.5 ± 1.8 | 7.1 ± 1.5 | 9.2 ± 1.9 | 13.7 ± 2.0 | 12.5 ± 2.2 | 8.0 ±1.6 |
| Bi-214 | $Bq.kg^{-1}$ | 20.8 ± 3.5 | <3.2 | 7.6 ± 2.8 | 6.1 ± 2.2 | <2.8 | 6.1 ± 2.1 | 6.8 ± 2.0 | <3 | 8.4 ± 2.2 | 9.2 ± 2.6 | 5.4 ± 2.0 |
| Pb-214 | $Bq.kg^{-1}$ | 21.5 ± 2.8 | 5.6 ± 2.1 | 9.7 ± 2.1 | 6.0 ± 1.8 | 6.8 ± 2.1 | 6.0 ± 2.2 | 4.8 ± 1.7 | 6.6 ± 2.3 | 9.9 ± 1.8 | 10.2 ± 2.6 | 6.0 ±1.9 |
| Ra-224 | $Bq.kg^{-1}$ | <35 | <32 | <21 | <17 | <32 | <33 | <27 | <29 | <25 | <37 | <27 |
| Ra-226 | $Bq.kg^{-1}$ | <24 | <26 | <22 | <19 | <22 | <24 | <23 | <23 | <19 | <29 | <24 |
| Ac-228 | $Bq.kg^{-1}$ | 41.6 ± 5.1 | <6.0 | <7.4 | <6.5 | <5.3 | <5.5 | 11.1 ± 3.8 | <6.9 | 15.5 ± 3.3 | 11.8 ± 4.6 | 10.0 ± 3.9 |
| Pa-234m | $Bq.kg^{-1}$ | <180 | <150 | <190 | <160 | <140 | <130 | <160 | <170 | <140 | <190 | <160 |
| Th-234 | $Bq.kg^{-1}$ | <36 | <37 | <27 | <22 | <33 | <34 | <36 | <29 | <24 | <38 | <36 |
| U-235 | $Bq.kg^{-1}$ | <1.5 | <1.7 | <1.4 | <1.2 | <1.4 | <1.5 | <1.5 | <1.5 | <1.2 | <1.8 | <1.5 |
| Am-241 | $Bq.kg^{-1}$ | <3.6 | <2.7 | <2.3 | <1.9 | <3.2 | <3.3 | <2.7 | <2.7 | <2.1 | <2.9 | <2.7 |

ATKINS CatWasteSoil

**Classification Assessment Tool of Soil Wastes - Hazard Summary Sheet**

| | |
|---|---|
| **Site Name** | Sizewell |
| **Location** | Sizewell, Suffolk |
| **Site ID** | Sizewell C |
| **Job Number** | 5166065 |
| **Date** | 6/8/2018 |
| **User Name** | Joe.Rogers@atkinsglobal.com |
| **Company Name** | Atkins |

| Hole ID | Sample Depth | Hazardous Waste Y/N | HP1 | HP2 | HP3 | HP4 | HP5 | HP6 | HP7 | HP8 | HP9 | HP10 | HP11 | HP12 | HP13 | HP14 | HP15 | HP16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TP72 ES3 | 1.5 - 1.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| TP73 ES2 | 0.5 - 0.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| TP74 ES1 | 0 - 0.2 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| TP74 ES3 | 1.5 - 1.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| TP76 ES2 | 0.5 - 0.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| TP76 ES4 | 2.5 - 2.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| TPN1 ES2 | 0.5 - 0.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| TPN2 ES2 | 0.5 - 0.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| TPN3 ES2 | 0.5 - 0.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| TPN4 ES3 | 1.5 - 1.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| BH1 ES1 | 0.1 - 0.3 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| BH1 ES3 | 1.3 - 1.5 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| BH4 ES2 | 0.6 - 0.8 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| BH6 ES8 | 6.5 - 6.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| BH7 ES6 | 4.5 - 4.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| BH7 ES13 | 11.5 - 11.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW1D ES2 | 0.7 - 0.8 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW1D ES3 | 1.7 - 1.8 | Y | No | No | No | No | No | No | No | No | No | No | No | No | No | Yes | No | No |
| GW1D ES5 | 3.7 - 3.8 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW1D ES6 | 4.1 - 4.2 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW2 ES2 | 0.8 - 0.9 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW3 ES2 | 0.9 - 1.0 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW3 ES5 | 3.7 - 3.8 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW4 ES2 | 0.5 - 0.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW6D ES2 | 0.5 - 0.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW6D E | 3.5 - 3.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW6D ES8 | 4.9 - 5.1 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW7 ES2 | 0.8 - 1.0 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW7 ES3 | 1.5 - 1.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW7 ES6 | 4.4 - 4.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW8 ES2 | 0.5 - 0.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW8 ES8 | 6.5 - 6.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW8 ES10 | 8.5 - 8.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW9D ES1 | 0 - 0.2 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW9D ES4 | 2.7 - 2.9 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW9D ES7 | 5.7 - 5.9 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW10 ES1 | 0.1 - 0.3 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW10 ES2 | 0.8 - 1.0 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW10 ES7 | 5.2 - 5.5 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW12 ES8 | 6.5 - 6.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW12 ES9 | 7.5 - 7.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW13 ES2 | 0.5 - 0.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW13 ES4 | 2.5 - 2.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW13 ES9 | 7.0 - 7.2 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW15 ES2 | 0.8 - 1.0 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW15 ES | 2.1 - 2.3 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW15 ES5 | 3.3 - 3.5 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW16D ES2 | 0.80 - 1.0 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW16D ES3 | 1.80 - 2.0 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW16D ES5 | 3.80 - 4.0 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW17 ES2 | 0.5 - 0.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |

ATKINS CatWasteSoil

**Classification Assessment Tool of Soil Wastes - Hazard Summary Sheet**

| | |
|---|---|
| **Site Name** | Sizewell |
| **Location** | Sizewell, Suffolk |
| **Site ID** | Sizewell C |
| **Job Number** | 5166065 |
| **Date** | 6/8/2018 |
| **User Name** | Joe.Rogers@atkinsglobal.com |
| **Company Name** | Atkins |

| Hole ID | Sample Depth | Hazardous Waste Y/N | HP1 | HP2 | HP3 | HP4 | HP5 | HP6 | HP7 | HP8 | HP9 | HP10 | HP11 | HP12 | HP13 | HP14 | HP15 | HP16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GW17 ES6 | 4.5 - 4.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW18 ES2 | 0.80 - 0.90 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW19 ES4 | 2.5 - 2.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW20 ES1 | GL - 0.2 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW21 ES1 | 0 - 0.2 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW22 ES1 | 0 - 0.2 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW23 ES1 | GL - 0.2 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW23 ES2 | 0.9 - 1.0 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW24D ES1 | 0 - 0.2 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| GW24D ES3 | 1.5 - 1.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| G2 ES1 | 0.1 - 0.3 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| G2 ES3 | 1.4 - 1.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| G3 ES2 | 0.4 - 0.6 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| G3 ES4 | 1.7 - 1.9 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| G3 ES6 | 3.7 - 3.9 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| G4 ES2 | 0.70 - 0.90 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| G4 ES4 | 2.50 - 2.70 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| G4 ES8 | 6.50 - 6.70 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| G6 ES6 | 4.5 - 4.7 | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| | | | | | | | | | | | | | | | | | | |

ATKINS CatWasteSoil

**Classification Assessment Tool of Soil Wastes - Hazard Summary Sheet**

| | |
|---|---|
| **Site Name** | Sizewell March 2020 |
| **Location** | Sizewell |
| **Site ID** | Sizewell |
| **Job Number** | 5187933 |
| **Date** | 3/30/2020 |
| **User Name** | James.Adley@atkinsglobal.com |
| **Company Name** | Atkins |

| Hole ID | Sample Depth | Hazardous Waste Y/N | HP1 | HP2 | HP3 | HP4 | HP5 | HP6 | HP7 | HP8 | HP9 | HP10 | HP11 | HP12 | HP13 | HP14 | HP15 | HP16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CH2019_R2 | 1.20m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| CH2019_R2 | 7.20m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| CH2019_R2 | 10.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| CH2019_R2 | 1.60m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| DCBH2019_4 | 0.50m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| DCBH2019_8 | 0.20m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| DCBH2019_8 | 0.80m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| DCBH2019_8 | 19.80m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| MGS_2019_B | 7.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| MGS_2019_B | 0.30m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| MGS_2019_B | 3.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| MGS_2019_B2 | 1.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| MGS_2019_B2 | 5.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_1 | 8.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_1 | 0.20m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_1 | 1.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_1 | 4.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 0.3m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 2.80m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 7.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 10.50m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 11.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 4.50m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 8.50m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 4.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 2.80m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 7.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 10.50m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 11.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 4.50m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SCBH2019_3 | 8.50m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SD2019_1 | 5m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SD2019_2 | 1.7m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SD2019_2 | 3.1m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SD2019_2 | 12.1m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_1 | 0.7m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_1 | 3.3m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_1 | 4.0m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_2A | 0.60m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_2A | 2.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_2A | 6.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_2A | 0.40m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_2A | 1.60m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_3 | 0.50m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_3 | 1.00m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_3 | 2.50m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_3 | 3.80m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| SPT2019_3 | 5.50m | N | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |

# Appendix I – Leachate Screening Results

ATKINS

| Assessment Criteria : | Please choose a screening criteria | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO | 0.00 | | 0.00 | DOC | 0.00 | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | 0.00 | DOC | 0.00 | | Catchment area | Freshwater not listed | | | | | | | | | | | | | | | | | | | | | | |
| Constituents | Unit | Generic Assessment Criteria (mg/l) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | Zone | CP BP7 | CP BP7 | CP BP7 | CP BP7 | CP BP7 | CP BP11 | CP BP11 | CP BP11 | CP BP11 | CP BP11 | CPBBP9 | CPBBP9 | CPBBP9 | CPBBP9 | cpbBP13 | cpbBP13 | cpbBP13 | cpbBP13 | cpbBP13 | |
| #% Stones >10mmA | % w/w | No WSV | 19 | <0.1 | 1.4 | 0 | | | 2.2 | <0.1 | <0.1 | 1.4 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | |
| Carbonate as CaCO3D | % w/w | No WSV | 12 | <0.8 | 8.4 | 0 | | | - | - | <0.8 | 4.7 | <0.8 | - | - | <0.8 | <0.8 | <0.8 | - | - | <0.8 | 2.5 | - | - | 8.4 | 2 | 1.5 | |
| #Fraction of organic carbonD | N/A | No WSV | 8 | <0.0003 | 0.0006 | 0 | | | - | - | <0.0003 | - | - | - | - | <0.0003 | | | - | - | <0.0003 | - | - | - | 0.0006 | - | | |
| Leachate Prep BS EN 12457-2 (10:1)A | | No WSV | 15 | 0 | 0 | 0 | | | | | | | | | | | | | * | * | - | - | * | * | - | - | | |
| pH | pH | 6.5-9.5 | 11 | 6.25 | 7.83 | 1 | cpbBP13 | | 7.19 | 7.15 | - | - | - | 7.5 | 7.53 | - | | | 7.17 | 7.83 | - | - | 6.74 | 6.25 | - | - | | |
| Chloride | mg/l | 250 | 11 | <1 | 3.54 | 0 | | | <1.00 | <1 | - | - | - | 1.61 | <1 | - | | | <1 | <1 | - | - | 3.14 | 3.54 | - | - | | |
| Sulphate | mg/l | 250 | 11 | <1 | 11.46 | 0 | | | 2.19 | <1 | - | - | - | 1.84 | <1 | - | | | 1.92 | 1.84 | - | - | 11.46 | 10.72 | - | - | | |
| Arsenic | mg/l | 0.01 | 11 | 0.001 | 0.004 | 0 | | | <0.001 | 0.002 | - | - | - | 0.001 | 0.003 | - | | | 0.002 | 0.004 | - | - | 0.003 | 0.002 | - | - | | |
| Cadmium | mg/l | 0.005 | 11 | 0.001 | <0.001 | 0 | | | <0.001 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | <0.001 | <0.001 | - | - | <0.001 | <0.001 | - | - | | |
| Copper | mg/l | 2 | 11 | 0.001 | 0.001 | 0 | | | <0.001 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | 0.001 | <0.001 | - | - | 0.001 | <0.001 | - | - | | |
| Chromium | mg/l | 0.05 | 11 | 0.001 | 0.001 | 0 | | | <0.001 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | 0.001 | <0.001 | - | - | <0.001 | <0.001 | - | - | | |
| Lead | mg/l | 0.01 | 11 | 0.001 | <0.001 | 0 | | | 0.004 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | <0.001 | <0.001 | - | - | <0.001 | <0.001 | - | - | | |
| Mercury | mg/l | 0.001 | 11 | 0.0001 | <0.0001 | 0 | | | <0.0001 | <0.0001 | - | - | - | <0.0001 | <0.0001 | - | | | <0.0001 | <0.0001 | - | - | <0.0001 | <0.0001 | - | - | | |
| Nickel | mg/l | 0.02 | 11 | 0.001 | <0.001 | 0 | | | <0.001 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | <0.001 | <0.001 | - | - | <0.001 | <0.001 | - | - | | |
| Selenium | mg/l | 0.01 | 11 | 0.001 | <0.001 | 0 | | | <0.001 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | <0.001 | <0.001 | - | - | <0.001 | <0.001 | - | - | | |
| Zinc | mg/l | 3 | 11 | 0.002 | 0.01 | 0 | | | 0.003 | 0.004 | - | - | - | 0.003 | 0.002 | - | | | 0.005 | 0.004 | - | - | 0.004 | 0.01 | - | - | | |
| PAH 16MS | | No WSV | 15 | 0.06 | 0.08 | 0 | | | <0.02 | 0.06 | - | - | - | 0.08 | 0.08 | - | | | | | | | | | | | | |
| Acenaphthene | mg/l | See BaP | 11 | 0.00002 | 0.00003 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | 0.00002 | 0.00003 | - | - | <0.00002 | <0.00002 | - | - | | |
| Acenaphthylene | mg/l | See BaP | 11 | 0.00002 | 0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | 0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Anthracene | mg/l | See BaP | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Benzo(a)anthracene | mg/l | See BaP | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Benzo(a)pyrene | mg/l | 0.00001 | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Benzo(b)fluoranthene | mg/l | See PAH Sum of 4 | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Benzo(ghi)perylene | mg/l | See PAH Sum of 4 | 11 | 0.00002 | 0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | 0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Benzo(k)fluoranthene | mg/l | See PAH Sum of 4 | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Chrysene | mg/l | See BaP | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Dibenzo(ah)anthracene | mg/l | No WSV | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Fluoranthene | mg/l | See BaP | 11 | 0.00002 | 0.00004 | 0 | | | <0.00002 | 0.00002 | - | - | - | 0.00004 | 0.00003 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Fluorene | mg/l | See BaP | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Indeno(123-cd)pyrene | mg/l | See PAH Sum of 4 | 11 | <0.00002 | 0.00007 | 0 | | | <0.00002 | 0.00007 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Naphthalene | mg/l | See BaP | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Phenanthrene | mg/l | See BaP | 11 | 0.00002 | 0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | 0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Pyrene | mg/l | See BaP | 11 | <0.00002 | 0.00016 | 0 | | | <0.00002 | 0.00015 | - | - | - | 0.00016 | 0.00011 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| PAH (total 16) | mg/l | No WSV | 15 | <0.00002 | 0.00004 | 0 | | | | | | | | | | | | | 0.00004 | 0.00003 | - | - | <0.00002 | <0.00002 | - | - | | |

ATKINS

| Assessment Criteria : | Please choose a screening criteria | | | | | | |
|---|---|---|---|---|---|---|---|
| CaCO | 0.00 | | 0.00 | DOC | 0.00 | | |
| Calcium | 0.00 | DOC | 0.00 | Catchment area | | Freshwater not listed | |

| Constituents | Unit | Generic Assessment Criteria (mg/l) | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | Zone | CP BP7 | CP BP7 | CP BP7 | CP BP7 | CP BP7 | CP BP11 | CP BP11 | CP BP11 | CP BP11 | CP BP11 | CPBBP9 | CPBBP9 | CPBBP9 | CPBBP9 | cpbBP13 | cpbBP13 | cpbBP13 | cpbBP13 | cpbBP13 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #% Stones >10mmA | % w/w | No WSV | 19 | <0.1 | 1.4 | 0 | | | 2.2 | <0.1 | <0.1 | 1.4 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | |
| Carbonate as CaCO3D | % w/w | No WSV | 12 | <0.8 | 8.4 | 0 | | | - | - | <0.8 | 4.7 | <0.8 | - | - | <0.8 | <0.8 | <0.8 | - | - | <0.8 | 2.5 | - | - | 8.4 | 2 | 1.5 | |
| #Fraction of organic carbonD | N/A | No WSV | 8 | <0.0003 | 0.0006 | 0 | | | - | - | <0.0003 | - | - | - | - | <0.0003 | | | - | - | <0.0003 | - | - | - | 0.0006 | - | | |
| Leachate Prep BS EN 12457-2 (10:1)A | | No WSV | 15 | 0 | 0 | 0 | | | | | | | | | | | | | * | * | - | - | * | * | - | - | | |
| pH | pH | 7 - 9.0 | 11 | 6.25 | 7.83 | 2 | cpbBP13; cpbBP13 | | 7.19 | 7.15 | - | - | - | 7.5 | 7.53 | - | | | 7.17 | 7.83 | - | - | 6.74 | 6.25 | - | - | | |
| Chloride | mg/l | N/A | 11 | <1 | 3.54 | 0 | | | <1.00 | <1 | - | - | - | 1.61 | <1 | - | | | <1 | <1 | - | - | 3.14 | 3.54 | - | - | | |
| Sulphate | mg/l | N/A | 11 | <1 | 11.46 | 0 | | | 2.19 | <1 | - | - | - | 1.84 | <1 | - | | | 1.92 | 1.84 | - | - | 11.46 | 10.72 | - | - | | |
| Arsenic | mg/l | 0.025 | 11 | 0.001 | 0.004 | 0 | | | <0.001 | 0.002 | - | - | - | 0.001 | 0.003 | - | | | 0.002 | 0.004 | - | - | 0.003 | 0.002 | - | - | | |
| Cadmium | mg/l | 0.0002 | 11 | 0.001 | <0.001 | 0 | | | <0.001 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | <0.001 | <0.001 | - | - | <0.001 | <0.001 | - | - | | |
| Copper | mg/l | 0.00376 | 11 | 0.001 | 0.001 | 0 | | | <0.001 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | 0.001 | <0.001 | - | - | 0.001 | <0.001 | - | - | | |
| Chromium | mg/l | 0.0006 | 11 | 0.001 | 0.001 | 1 | CPBBP9 | | <0.001 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | 0.001 | <0.001 | - | - | <0.001 | <0.001 | - | - | | |
| Lead | mg/l | 0.0013 | 11 | 0.001 | <0.001 | 0 | | | 0.004 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | <0.001 | <0.001 | - | - | <0.001 | <0.001 | - | - | | |
| Mercury | mg/l | 0.00007 | 11 | 0.0001 | <0.0001 | 0 | | | <0.0001 | <0.0001 | - | - | - | <0.0001 | <0.0001 | - | | | <0.0001 | <0.0001 | - | - | <0.0001 | <0.0001 | - | - | | |
| Nickel | mg/l | 0.0086 | 11 | 0.001 | <0.001 | 0 | | | <0.001 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | <0.001 | <0.001 | - | - | <0.001 | <0.001 | - | - | | |
| Selenium | mg/l | N/A | 11 | 0.001 | <0.001 | 0 | | | <0.001 | <0.001 | - | - | - | <0.001 | <0.001 | - | | | <0.001 | <0.001 | - | - | <0.001 | <0.001 | - | - | | |
| Zinc | mg/l | 0.0068 | 11 | 0.002 | 0.01 | 1 | cpbBP13 | | 0.003 | 0.004 | - | - | - | 0.003 | 0.002 | - | | | 0.005 | 0.004 | - | - | 0.004 | 0.01 | - | - | | |
| PAH 16MS | | No WSV | 15 | 0.06 | 0.08 | 0 | | | <0.02 | 0.06 | - | - | - | 0.08 | 0.08 | - | | | | | | | | | | | | |
| Acenaphthene | mg/l | N/A | 11 | 0.00002 | 0.00003 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | 0.00002 | 0.00003 | - | - | <0.00002 | <0.00002 | - | - | | |
| Acenaphthylene | mg/l | N/A | 11 | 0.00002 | 0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | 0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Anthracene | mg/l | 0.0001 | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Benzo(a)anthracene | mg/l | N/A | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Benzo(a)pyrene | mg/l | 0.00000017 | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Benzo(b)fluoranthene | mg/l | 0.000017 | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Benzo(ghi)perylene | mg/l | 0.00000082 | 11 | 0.00002 | 0.00002 | 1 | CPBBP9 | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | 0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Benzo(k)fluoranthene | mg/l | 0.000017 | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Chrysene | mg/l | See BaP | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Dibenzo(ah)anthracene | mg/l | No WSV | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Fluoranthene | mg/l | 0.0000063 | 11 | 0.00002 | 0.00004 | 3 | CP BP7; CP BP11; CP BP11 | | <0.00002 | 0.00002 | - | - | - | 0.00004 | 0.00003 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Fluorene | mg/l | N/A | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Indeno(123-cd)pyrene | mg/l | N/A | 11 | <0.00002 | 0.00007 | 0 | | | <0.00002 | 0.00007 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Naphthalene | mg/l | 0.002 | 11 | 0.00002 | <0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | <0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Phenanthrene | mg/l | See BaP | 11 | 0.00002 | 0.00002 | 0 | | | <0.00002 | <0.00002 | - | - | - | 0.00002 | <0.00002 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| Pyrene | mg/l | N/A | 11 | <0.00002 | 0.00016 | 0 | | | <0.00002 | 0.00015 | - | - | - | 0.00016 | 0.00011 | - | | | <0.00002 | <0.00002 | - | - | <0.00002 | <0.00002 | - | - | | |
| PAH (total 16) | mg/l | No WSV | 15 | <0.00002 | 0.00004 | 0 | | | | | | | | | | | | | 0.00004 | 0.00003 | - | - | <0.00002 | <0.00002 | - | - | | |

ATKINS

| Assessment Criteria : | Drinking Water Standard England and Wales/WHO |
|---|---|
| CaCO (mg/l): | 0.00 |
| Calcium (mg/l): | 0.00 |
| pH | 0.00 |
| DOC (mg/l) | 0.00 |
| Catchment area: | Drinking Water Standard |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | Strata | Zone | Location | MGS2019_E | MGS2019_E | MGS2019_E | MGS2019_E1 | MGS2019_A | MGS2019_A | MGS2019_A | MGS2019_D | MGS2019_D | DCBH2019_4 | MGS_2019_B | MGS_2019_B | MGS_2019_B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Sample ID | MGS2019_E | MGS2019_E | MGS2019_E | MGS2019_E1 | MGS2019_A | MGS2019_A | MGS2019_A | MGS2019_D | MGS2019_D | DCBH2019_4 | MGS_2019_B | MGS_2019_B | MGS_2019_B |
| | | | | | | | | | | | Depth | 0.50m | 0.60m | 1.00m | 1.10m | 0.50m | 3.00m | 4.00m | 1.00m | 4.50m | 0.50m | 5.00m | 7.00m | 0.30m |
| | | | | | | | | | | | Date | 09-Jul-19 | 09-Jul-19 | 09-Jul-19 | 10-Jul-19 | 19-Jul-19 | 19-Jul-19 | 20-Jul-19 | 21-Jul-19 | 21-Jul-19 | 23-Jul-19 | 23-Jul-19 | 23-Jul-19 | 22-Jul-19 |
| pH | pH | | 6.5-9.5 | 94 | 6.99 | 8.44 | 0 | | | | | 7.55 | | | 8.39 | 7.42 | | 7.72 | | | 7.34 | | | 7.36 |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.5 | 94 | <0.02 | 8.876 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | | <0.026 | | | 0.031 | <0.02 | | 1.39 | | | <0.026 | | | <0.026 |
| Ammoniacal nitrogen as N | mg/l | | 0.39 | 94 | 0.02 | 7.361 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | | <0.02 | | | 0.02 | <0.026 | | 1.791 | | | <0.02 | | | <0.02 |
| Nitrate | mg/l | | 50 | 94 | 0.1 | 2 | 0 | | | | | 0.7 | | | 0.7 | 0.3 | | <0.1 | | | <0.1 | | | 1.2 |
| Sulphate | mg/l | | 250 | 94 | <1 | 276.04 | 2 | SD2019_4, SD2019_4, 7.90m; DCBH2019_8, DCBH2019_8, 8.50m | | | | <1 | | | 64.02 | <1 | | 65.52 | | | 2.32 | | | 1.84 |
| Cyanide (free) | mg/l | | See Cyanide (total) | 94 | <0.005 | <0.005 | 0 | | | | | <0.005 | | | <0.005 | <0.005 | | <0.005 | | | <0.005 | | | <0.005 |
| Cyanide (total) | mg/l | | 0.05 | 94 | <0.005 | 0.082 | 1 | SD2019_5, SD2019_5, 0.30m | | | | <0.005 | | | <0.005 | <0.005 | | <0.005 | | | <0.005 | | | <0.005 |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | | <0.1 | | | <0.1 | <0.1 | | <0.1 | | | <0.1 | | | <0.1 |
| Arsenic | mg/l | 0 | 0.01 | 94 | 0.001 | 0.023 | 4 | MGS2019_E1, MGS2019_E1, 1.10m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH20109_2, DCBH20109_2, 0.50m; SPT2019_5, SPT2019_5, 4.30m | | | | 0.003 | | | 0.023 | <0.001 | | 0.009 | | | 0.004 | | | 0.004 |
| Boron | mg/l | 0 | 1 | 94 | 0.01 | 1.12 | 1 | SD2019_4, SD2019_4, 7.90m | | | | <0.01 | | | 0.057 | 0.01 | | 0.215 | | | 0.02 | | | 0.016 |
| Cadmium | mg/l | 0 | 0.005 | 94 | <0.001 | <0.001 | 0 | | | | | <0.001 | | | <0.001 | <0.001 | | <0.001 | | | <0.001 | | | <0.001 |
| Copper | mg/l | 0 | 2 | 94 | 0.001 | 0.008 | 0 | | | | | 0.001 | | | 0.006 | <0.001 | | <0.001 | | | 0.006 | | | 0.004 |
| Chromium | mg/l | 0 | 0.05 | 94 | 0.001 | 0.003 | 0 | | | | | <0.001 | | | 0.002 | <0.001 | | <0.001 | | | <0.001 | | | <0.001 |
| Chromium (hexavalent) | mg/l | | See Total Chromium | 94 | <0.05 | <0.05 | 0 | | | | | <0.05 | | | <0.05 | <0.05 | | <0.05 | | | <0.05 | | | <0.05 |
| Iron | mg/l | 0 | 0.2 | 94 | 0.01 | 1.44 | 9 | MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 3.00m; DCBH2019_5, DCBH2019_5, 4.62m; SCBH2019_1 , SCBH2019_1 , 0.20m; SPT2019_5, SPT2019_5, 0.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 0.30m | | | | 0.022 | | | 0.032 | 0.068 | | 0.044 | | | 0.086 | | | 0.142 |
| Lead | mg/l | 0 | 0.01 | 94 | 0.001 | 0.018 | 1 | DCBH2019_5, DCBH2019_5, 4.62m | | | | <0.001 | | | <0.001 | <0.001 | | <0.001 | | | <0.001 | | | <0.001 |
| Manganese | mg/l | 0 | 0.05 | 94 | 0.001 | 0.452 | 14 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 5.30m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH2019_5, DCBH2019_5, 14.80m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | | 0.002 | | | 0.002 | 0.003 | | 0.087 | | | 0.005 | | | 0.012 |
| Mercury | mg/l | 0 | 0.001 | 94 | <0.0001 | 0.0002 | 0 | | | | | <0.0001 | | | <0.0001 | <0.0001 | | <0.0001 | | | <0.0001 | | | <0.0001 |
| Nickel | mg/l | 0 | 0.02 | 94 | 0.001 | 0.006 | 0 | | | | | <0.001 | | | 0.002 | <0.001 | | <0.001 | | | <0.001 | | | 0.003 |
| Selenium | mg/l | 0 | 0.01 | 94 | <0.001 | <0.001 | 0 | | | | | <0.001 | | | <0.001 | <0.001 | | <0.001 | | | <0.001 | | | <0.001 |
| Vanadium | mg/l | 0 | N/A | 94 | 0.001 | 0.078 | 0 | | | | | <0.001 | | | 0.078 | 0.001 | | 0.004 | | | 0.002 | | | 0.002 |
| Zinc | mg/l | 0 | 3 | 94 | 0.001 | 0.167 | 0 | | | | | 0.002 | | | 0.004 | 0.001 | | 0.005 | | | 0.004 | | | 0.009 |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | | | | | | | | | | | | | | |
| Acenaphthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | | | | | | | | | | |
| Acenaphthylene | mg/l | 0 | See BaP | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Anthracene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00023 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00001 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Chrysene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Fluoranthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00013 | 0 | | | | | | | | | | | | | | | | | |
| Fluorene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | | | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Naphthalene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | | | | | | | | | | |
| Phenanthrene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | | | | | | | | | | |
| Pyrene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | | | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | | | | | | | | | | |

| Assessment Criteria : | *Drinking Water Standard England and Wales/WHO* | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 0.00 | | | | | | | | | | | | | | | | |
| Calcium (mg/l): | 0.00 | | | DOC (mg/l) | 0.00 | | Catchment area: | Drinking Water Standard | | | | | | | | | | | | | | | |
| | | | | | | | | | MGS_2019_B | MGS_2019_F | MGS_2019_F | MGS_2019_C | MGS_2019_C | MGS_2019_F | MGS_2019_F | MGS_2019_C | MGS_2019_C | DCBH2019_4 | DCBH2019_4 | DCBH2019_5 | DCBH2019_5 | DCBH2019_5 |
| | | | | | | | | | MGS_2019_B | MGS_2019_F | MGS_2019_F | MGS_2019_C | MGS_2019_C | MGS_2019_F | MGS_2019_F | MGS_2019_C | MGS_2019_C | DCBH2019_4 | DCBH2019_4 | DCBH2019_5 | DCBH2019_5 | DCBH2019_5 |
| | | | | | | | | | 3.00m | 1.00m | 4.50m | 1.00m | 3.70m | 1.00m | 4.50m | 1.00m | 3.70m | 3.00m | 5.30m | 4.62m | 14.80m | 17.50m |
| | | | | | | | | | 22-Jul-19 | 24-Jul-19 | 25-Jul-19 | 23-Jul-19 | 24-Jul-19 | 24-Jul-19 | 25-Jul-19 | 23-Jul-19 | 24-Jul-19 | 31-Jul-19 | 31-Jul-19 | 29-Jul-19 | 30-Jul-19 | 30-Jul-19 |
| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | | | | | | | | | | | | | | |
| pH | pH | | 6.5-9.5 | 94 | 6.99 | 8.44 | 0 | | | | 8.03 | | | | 8.03 | | | 8.44 | 8.38 | 8.21 | 7.99 | |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.5 | 94 | <0.02 | 8.876 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | 3.6 | | | | 3.6 | | | <0.02 | 0.15 | 5.71 | <0.02 | |
| Ammoniacal nitrogen as N | mg/l | | 0.39 | 94 | 0.02 | 7.361 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | 4.649 | | | | 4.649 | | | <0.026 | 0.197 | 7.361 | <0.026 | |
| Nitrate | mg/l | | 50 | 94 | 0.1 | 2 | 0 | | | | 0.3 | | | | 0.3 | | | 0.1 | <0.1 | <0.1 | <0.1 | |
| Sulphate | mg/l | | 250 | 94 | <1 | 276.04 | 2 | SD2019_4, SD2019_4, 7.90m; DCBH2019_8, DCBH2019_8, 8.50m | | | 59.73 | | | | 59.73 | | | 3.36 | 103.85 | 207.87 | 20.84 | |
| Cyanide (free) | mg/l | | See Cyanide (total) | 94 | <0.005 | <0.005 | 0 | | | | <0.005 | | | | <0.005 | | | <0.005 | <0.005 | <0.005 | <0.005 | |
| Cyanide (total) | mg/l | | 0.05 | 94 | <0.005 | 0.082 | 1 | SD2019_5, SD2019_5, 0.30m | | | <0.005 | | | | <0.005 | | | <0.005 | <0.005 | <0.005 | <0.005 | |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | <0.1 | | | | <0.1 | | | <0.1 | <0.1 | <0.1 | <0.1 | |
| Arsenic | mg/l | 0 | 0.01 | 94 | 0.001 | 0.023 | 4 | MGS2019_E1, MGS2019_E1, 1.10m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH20109_2, DCBH20109_2, 0.50m; SPT2019_5, SPT2019_5, 4.30m | | | 0.005 | | | | 0.005 | | | 0.005 | 0.009 | 0.018 | 0.001 | |
| Boron | mg/l | 0 | 1 | 94 | 0.01 | 1.12 | 1 | SD2019_4, SD2019_4, 7.90m | | | 0.478 | | | | 0.478 | | | 0.094 | 0.72 | 0.971 | 0.071 | |
| Cadmium | mg/l | 0 | 0.005 | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | | | | <0.001 | | | <0.001 | <0.001 | <0.001 | <0.001 | |
| Copper | mg/l | 0 | 2 | 94 | 0.001 | 0.008 | 0 | | | | <0.001 | | | | <0.001 | | | 0.004 | <0.001 | 0.008 | 0.002 | |
| Chromium | mg/l | 0 | 0.05 | 94 | 0.001 | 0.003 | 0 | | | | 0.001 | | | | 0.001 | | | <0.001 | 0.002 | 0.003 | <0.001 | |
| Chromium (hexavalent) | mg/l | | See Total Chromium | 94 | <0.05 | <0.05 | 0 | | | | <0.05 | | | | <0.05 | | | <0.05 | <0.05 | <0.05 | <0.05 | |
| Iron | mg/l | 0 | 0.2 | 94 | 0.01 | 1.44 | 9 | MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 3.00m; DCBH2019_5, DCBH2019_5, 4.62m; SCBH2019_1 , SCBH2019_1 , 0.20m; SPT2019_5, SPT2019_5, 0.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 0.30m | | | 0.264 | | | | 0.264 | | | 0.234 | 0.188 | 1.44 | 0.01 | |
| Lead | mg/l | 0 | 0.01 | 94 | 0.001 | 0.018 | 1 | DCBH2019_5, DCBH2019_5, 4.62m | | | 0.002 | | | | 0.002 | | | 0.001 | <0.001 | 0.018 | <0.001 | |
| Manganese | mg/l | 0 | 0.05 | 94 | 0.001 | 0.452 | 14 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 5.30m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH2019_5, DCBH2019_5, 14.80m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | 0.143 | | | | 0.143 | | | 0.003 | 0.079 | 0.057 | 0.08 | |
| Mercury | mg/l | 0 | 0.001 | 94 | <0.0001 | 0.0002 | 0 | | | | <0.0001 | | | | <0.0001 | | | <0.0001 | <0.0001 | <0.0001 | <0.0001 | |
| Nickel | mg/l | 0 | 0.02 | 94 | 0.001 | 0.006 | 0 | | | | 0.003 | | | | 0.003 | | | <0.001 | 0.002 | 0.006 | 0.001 | |
| Selenium | mg/l | 0 | 0.01 | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | | | | <0.001 | | | <0.001 | <0.001 | <0.001 | <0.001 | |
| Vanadium | mg/l | 0 | N/A | 94 | 0.001 | 0.078 | 0 | | | | 0.022 | | | | 0.022 | | | 0.022 | 0.016 | 0.039 | 0.002 | |
| Zinc | mg/l | 0 | 3 | 94 | 0.001 | 0.167 | 0 | | | | 0.017 | | | | 0.017 | | | 0.008 | 0.013 | 0.062 | 0.009 | |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | 0.016 | | | | 0.016 | | | 0.003 | 0.013 | 0.015 | 0.016 | |
| Acenaphthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | 0.00008 | | | 0.00059 | 0.00028 | 0.00013 | 0.00004 | |
| Acenaphthylene | mg/l | 0 | See BaP | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Anthracene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00023 | 0 | | | | | | | | 0.00006 | | | 0.00023 | 0.00011 | 0.00005 | <0.00002 | |
| Benzo(a)anthracene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | <0.00002 | | | 0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Benzo(a)pyrene | mg/l | 0 | 0.00001 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Benzo(b)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Benzo(ghi)perylene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Benzo(k)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Chrysene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | <0.00002 | | | 0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Fluoranthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00013 | 0 | | | | | | | | 0.0001 | | | 0.00013 | 0.00012 | 0.00011 | <0.00002 | |
| Fluorene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | 0.00008 | | | 0.00038 | 0.00019 | 0.00009 | <0.00002 | |
| Indeno(123-cd)pyrene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Naphthalene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | <0.00002 | | | 0.00098 | 0.0007 | 0.00009 | 0.00006 | |
| Phenanthrene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | 0.00025 | | | 0.00082 | 0.00049 | 0.00025 | 0.00002 | |
| Pyrene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | 0.00008 | | | 0.00012 | 0.0001 | 0.00008 | <0.00002 | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | 0.00065 | | | 0.00329 | 0.00199 | 0.0008 | 0.00012 | |

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| Assessment Criteria : | Drinking Water Standard England and Wales/WHO | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 0.00 | | | | | | | | | | | | | | | | | | | | |
| Calcium (mg/l): | 0.00 | | | DOC (mg/l) | 0.00 | | | Catchment area: | Drinking Water Standard | | | | | | | | | | | | | | | | |
| | | | | | | | | | MGS_2019_B1 | MGS_2019_B1 | DCBH20109_2 | SD2019_4 | SD2019_4 | DCBH2019_6 | SD2019_5 | SD2019_5 | MGS_2019_H | MGS_2019_I | MGS_2019_K | MGS_2019_K | MGS_2019_K | MGS_2019_K | DCBH2019_6 |
| | | | | | | | | | MGS_2019_B1 | MGS_2019_B1 | DCBH20109_2 | SD2019_4 | SD2019_4 | DCBH2019_6 | SD2019_5 | SD2019_5 | MGS_2019_H | MGS_2019_I | MGS_2019_K | MGS_2019_K | MGS_2019_K | MGS_2019_K | DCBH2019_6 |
| | | | | | | | | | 0.30m | 1.90m | 0.50m | 3.75m | 7.90m | 0.30m | 0.30m | 1.00m | 0.30m | 0.30m | 0.10m | 1.20m | 4.50m | 18.20m | |
| | | | | | | | | | 30-Jul-19 | 30-Jul-19 | 18-Aug-19 | 14-Sep-19 | 14-Sep-19 | 14-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 19-Sep-19 | |
| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | | | | | | | | | | | | | | | |
| pH | pH | | 6.5-9.5 | 94 | 6.99 | 8.44 | 0 | | | | 6.99 | | 7.44 | 7.53 | 7.6 | | | | | | | | 7.2 |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.5 | 94 | <0.02 | 8.876 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | <0.026 | | 7.85 | <0.026 | <0.026 | | | | | | | | <0.026 |
| Ammoniacal nitrogen as N | mg/l | | 0.39 | 94 | 0.02 | 7.361 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | <0.02 | | 6.09 | <0.02 | <0.02 | | | | | | | | <0.02 |
| Nitrate | mg/l | | 50 | 94 | 0.1 | 2 | 0 | | | | 0.1 | | <0.1 | 0.4 | 0.5 | | | | | | | | <0.1 |
| Sulphate | mg/l | | 250 | 94 | <1 | 276.04 | 2 | SD2019_4, SD2019_4, 7.90m; DCBH2019_8, DCBH2019_8, 8.50m | | | <1 | | 251.6 | <1 | 24.88 | | | | | | | | 20.83 |
| Cyanide (free) | mg/l | | See Cyanide (total) | 94 | <0.005 | <0.005 | 0 | | | | <0.005 | | <0.005 | <0.005 | <0.005 | | | | | | | | <0.005 |
| Cyanide (total) | mg/l | | 0.05 | 94 | <0.005 | 0.082 | 1 | SD2019_5, SD2019_5, 0.30m | | | <0.005 | | <0.005 | <0.005 | 0.082 | | | | | | | | <0.005 |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | <0.1 | | <0.1 | <0.1 | <0.1 | | | | | | | | <0.1 |
| Arsenic | mg/l | 0 | 0.01 | 94 | 0.001 | 0.023 | 4 | MGS2019_E1, MGS2019_E1, 1.10m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH20109_2, DCBH20109_2, 0.50m; SPT2019_5, SPT2019_5, 4.30m | | | 0.014 | | 0.008 | <0.001 | 0.003 | | | | | | | | 0.002 |
| Boron | mg/l | 0 | 1 | 94 | 0.01 | 1.12 | 1 | SD2019_4, SD2019_4, 7.90m | | | 0.011 | | 1.12 | <0.01 | 0.035 | | | | | | | | 0.015 |
| Cadmium | mg/l | 0 | 0.005 | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | | | | <0.001 |
| Copper | mg/l | 0 | 2 | 94 | 0.001 | 0.008 | 0 | | | | <0.001 | | 0.001 | <0.001 | <0.001 | | | | | | | | <0.001 |
| Chromium | mg/l | 0 | 0.05 | 94 | 0.001 | 0.003 | 0 | | | | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | | | | <0.001 |
| Chromium (hexavalent) | mg/l | | See Total Chromium | 94 | <0.05 | <0.05 | 0 | | | | <0.05 | | <0.05 | <0.05 | <0.05 | | | | | | | | <0.05 |
| Iron | mg/l | 0 | 0.2 | 94 | 0.01 | 1.44 | 9 | MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 3.00m; DCBH2019_5, DCBH2019_5, 4.62m; SCBH2019_1 , SCBH2019_1 , 0.20m; SPT2019_5, SPT2019_5, 0.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 0.30m | | | 0.04 | | <0.01 | 0.013 | 0.061 | | | | | | | | 0.037 |
| Lead | mg/l | 0 | 0.01 | 94 | 0.001 | 0.018 | 1 | DCBH2019_5, DCBH2019_5, 4.62m | | | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | | | | <0.001 |
| Manganese | mg/l | 0 | 0.05 | 94 | 0.001 | 0.452 | 14 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 5.30m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH2019_5, DCBH2019_5, 14.80m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | 0.001 | | 0.175 | 0.001 | 0.002 | | | | | | | | 0.026 |
| Mercury | mg/l | 0 | 0.001 | 94 | <0.0001 | 0.0002 | 0 | | | | <0.0001 | | <0.0001 | <0.0001 | <0.0001 | | | | | | | | <0.0001 |
| Nickel | mg/l | 0 | 0.02 | 94 | 0.001 | 0.006 | 0 | | | | <0.001 | | <0.001 | <0.001 | 0.001 | | | | | | | | 0.006 |
| Selenium | mg/l | 0 | 0.01 | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | | | | <0.001 |
| Vanadium | mg/l | 0 | N/A | 94 | 0.001 | 0.078 | 0 | | | | 0.002 | | <0.001 | <0.001 | 0.002 | | | | | | | | 0.01 |
| Zinc | mg/l | 0 | 3 | 94 | 0.001 | 0.167 | 0 | | | | 0.002 | | 0.167 | 0.002 | 0.003 | | | | | | | | 0.003 |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | | | 0.124 | 0.003 | 0.015 | | | | | | | | 0.019 |
| Acenaphthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00059 | 0 | | | | 0.00037 | | <0.00002 | | | | | | | | | | |
| Acenaphthylene | mg/l | 0 | See BaP | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | |
| Anthracene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00023 | 0 | | | | 0.00007 | | <0.00002 | | | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00001 | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | |
| Chrysene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | |
| Fluoranthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00013 | 0 | | | | 0.00007 | | <0.00002 | | | | | | | | | | |
| Fluorene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00038 | 0 | | | | 0.00022 | | <0.00002 | | | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | |
| Naphthalene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00098 | 0 | | | | 0.00009 | | <0.00002 | | | | | | | | | | |
| Phenanthrene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00082 | 0 | | | | 0.00034 | | <0.00002 | | | | | | | | | | |
| Pyrene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00012 | 0 | | | | 0.00004 | | <0.00002 | | | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | 0.0012 | | <0.00002 | | | | | | | | | | |

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| Assessment Criteria : | *Drinking Water Standard England and Wales/WHO* |
|---|---|
| CaCO (mg/l): | 0.00 |
| Calcium (mg/l): | 0.00 |
| pH | 0.00 |
| DOC (mg/l) | 0.00 |
| Catchment area: | Drinking Water Standard |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | DCBH2019_6 | DCBH2019_6 | SD2019_3 | SD2019_3 | SD2019_3 | SD2019_3 | DCBH2019_8 | DCBH2019_8 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | DCBH2019_6 | DCBH2019_6 | SD2019_3 | SD2019_3 | SD2019_3 | SD2019_3 | DCBH2019_8 | DCBH2019_8 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 |
| | | | | | | | | | 3.84m | 8.95m | 2.00m | 4.30m | 5.20m | 9.10m | 0.20m | 0.80m | 0.20m | 1.00m | 4.00m | 0.90m | 0.90m | 4.00m | 6.50m |
| | | | | | | | | | 17-Sep-19 | 18-Sep-19 | 18-Sep-19 | 17-Sep-19 | 17-Sep-19 | 17-Sep-19 | 23-Oct-19 | 23-Oct-19 | 29-Oct-19 | 29-Oct-19 | 30-Oct-19 | 30-Oct-19 | 30-Oct-19 | 30-Oct-19 | 30-Oct-19 |
| pH | pH | | 6.5-9.5 | 94 | 6.99 | 8.44 | 0 | | | | | | 7.51 | | 7.89 | | 7.06 | | 7.72 | | | | |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.5 | 94 | <0.02 | 8.876 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | | | 8.876 | | <0.026 | | 0.028 | | 0.658 | | | | |
| Ammoniacal nitrogen as N | mg/l | | 0.39 | 94 | 0.02 | 7.361 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | | | 6.88 | | <0.02 | | 0.02 | | 0.51 | | | | |
| Nitrate | mg/l | | 50 | 94 | 0.1 | 2 | 0 | | | | | | <0.1 | | 0.1 | | 0.2 | | 0.3 | | | | |
| Sulphate | mg/l | | 250 | 94 | <1 | 276.04 | 2 | SD2019_4, SD2019_4, 7.90m; DCBH2019_8, DCBH2019_8, 8.50m | | | | | 212.83 | | <1 | | 6.97 | | 52.43 | | | | |
| Cyanide (free) | mg/l | | See Cyanide (total) | 94 | <0.005 | <0.005 | 0 | | | | | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | | | |
| Cyanide (total) | mg/l | | 0.05 | 94 | <0.005 | 0.082 | 1 | SD2019_5, SD2019_5, 0.30m | | | | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | | | |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | | | <0.1 | | <0.1 | | 0.3 | | <0.1 | | | | |
| Arsenic | mg/l | 0 | 0.01 | 94 | 0.001 | 0.023 | 4 | MGS2019_E1, MGS2019_E1, 1.10m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH20109_2, DCBH20109_2, 0.50m; SPT2019_5, SPT2019_5, 4.30m | | | | | 0.002 | | 0.002 | | 0.007 | | 0.006 | | | | |
| Boron | mg/l | 0 | 1 | 94 | 0.01 | 1.12 | 1 | SD2019_4, SD2019_4, 7.90m | | | | | 0.539 | | <0.01 | | 0.019 | | 0.105 | | | | |
| Cadmium | mg/l | 0 | 0.005 | 94 | <0.001 | <0.001 | 0 | | | | | | <0.001 | | <0.001 | | <0.001 | | <0.001 | | | | |
| Copper | mg/l | 0 | 2 | 94 | 0.001 | 0.008 | 0 | | | | | | <0.001 | | <0.001 | | 0.003 | | 0.001 | | | | |
| Chromium | mg/l | 0 | 0.05 | 94 | 0.001 | 0.003 | 0 | | | | | | <0.001 | | <0.001 | | <0.001 | | <0.001 | | | | |
| Chromium (hexavalent) | mg/l | | See Total Chromium | 94 | <0.05 | <0.05 | 0 | | | | | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | | | |
| Iron | mg/l | 0 | 0.2 | 94 | 0.01 | 1.44 | 9 | MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 3.00m; DCBH2019_5, DCBH2019_5, 4.62m; SCBH2019_1 , SCBH2019_1 , 0.20m; SPT2019_5, SPT2019_5, 0.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 0.30m | | | | | 0.06 | | 0.05 | | 0.487 | | 0.083 | | | | |
| Lead | mg/l | 0 | 0.01 | 94 | 0.001 | 0.018 | 1 | DCBH2019_5, DCBH2019_5, 4.62m | | | | | <0.001 | | <0.001 | | 0.002 | | <0.001 | | | | |
| Manganese | mg/l | 0 | 0.05 | 94 | 0.001 | 0.452 | 14 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 5.30m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH2019_5, DCBH2019_5, 14.80m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | | | 0.215 | | 0.002 | | 0.034 | | 0.351 | | | | |
| Mercury | mg/l | 0 | 0.001 | 94 | <0.0001 | 0.0002 | 0 | | | | | | <0.0001 | | <0.0001 | | <0.0001 | | <0.0001 | | | | |
| Nickel | mg/l | 0 | 0.02 | 94 | 0.001 | 0.006 | 0 | | | | | | 0.004 | | <0.001 | | <0.001 | | 0.003 | | | | |
| Selenium | mg/l | 0 | 0.01 | 94 | <0.001 | <0.001 | 0 | | | | | | <0.001 | | <0.001 | | <0.001 | | <0.001 | | | | |
| Vanadium | mg/l | 0 | N/A | 94 | 0.001 | 0.078 | 0 | | | | | | 0.001 | | <0.001 | | 0.005 | | 0.002 | | | | |
| Zinc | mg/l | 0 | 3 | 94 | 0.001 | 0.167 | 0 | | | | | | 0.015 | | 0.004 | | 0.006 | | 0.01 | | | | |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | | | 0.027 | | | | | | | | | | |
| Acenaphthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | | | | | | | | | |
| Acenaphthylene | mg/l | 0 | See BaP | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Anthracene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00023 | 0 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00001 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Chrysene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Fluoranthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00013 | 0 | | | | | | | | | | | | | | | | |
| Fluorene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Naphthalene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | | | | | | | | | |
| Phenanthrene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | | | | | | | | | |
| Pyrene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | | | | | | | | | |

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| Assessment Criteria : | Drinking Water Standard England and Wales/WHO | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 0.00 | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium (mg/l): | 0.00 | | | DOC (mg/l) | 0.00 | | | Catchment area: | Drinking Water Standard | | | | | | | | | | | | | | | | | | | | |
| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | SPT2019_4 | SPT2019_4 | SPT2019_4 | Sonic Soil Skip | SD2019_7 | SD2019_7 | SD2019_7 |
| | | | | | | | | | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | DCBH2019_8 | SPT2019_4 | SPT2019_4 | SPT2019_4 | Sonic Soil Skip | SD2019_7 | SD2019_7 | SD2019_7 |
| | | | | | | | | | 1.50 m | 4.40m | 6.00m | 8.20m | 9.90m | 11.00m | 3.00m | 8.50m | 0.70m | 5.00m | 6.00m | 0.20m | 1.20m | 3.10m | 6.50m |
| | | | | | | | | | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 05-Nov-19 | 06-Nov-19 | 13-Nov-19 | 13-Nov-19 | 13-Nov-19 |
| pH | pH | | 6.5-9.5 | 94 | 6.99 | 8.44 | 0 | | | | | | | | | 7.43 | | | | | | | |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.5 | 94 | <0.02 | 8.876 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | | | | | | 1.952 | | | | | | | |
| Ammoniacal nitrogen as N | mg/l | | 0.39 | 94 | 0.02 | 7.361 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | | | | | | 1.51 | | | | | | | |
| Nitrate | mg/l | | 50 | 94 | 0.1 | 2 | 0 | | | | | | | | | 0.2 | | | | | | | |
| Sulphate | mg/l | | 250 | 94 | <1 | 276.04 | 2 | SD2019_4, SD2019_4, 7.90m; DCBH2019_8, DCBH2019_8, 8.50m | | | | | | | | 276.04 | | | | | | | |
| Cyanide (free) | mg/l | | See Cyanide (total) | 94 | <0.005 | <0.005 | 0 | | | | | | | | | <0.005 | | | | | | | |
| Cyanide (total) | mg/l | | 0.05 | 94 | <0.005 | 0.082 | 1 | SD2019_5, SD2019_5, 0.30m | | | | | | | | <0.005 | | | | | | | |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | | | | | | <0.1 | | | | | | | |
| Arsenic | mg/l | 0 | 0.01 | 94 | 0.001 | 0.023 | 4 | MGS2019_E1, MGS2019_E1, 1.10m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH20109_2, DCBH20109_2, 0.50m; SPT2019_5, SPT2019_5, 4.30m | | | | | | | | 0.001 | | | | | | | |
| Boron | mg/l | 0 | 1 | 94 | 0.01 | 1.12 | 1 | SD2019_4, SD2019_4, 7.90m | | | | | | | | 0.307 | | | | | | | |
| Cadmium | mg/l | 0 | 0.005 | 94 | <0.001 | <0.001 | 0 | | | | | | | | | <0.001 | | | | | | | |
| Copper | mg/l | 0 | 2 | 94 | 0.001 | 0.008 | 0 | | | | | | | | | 0.002 | | | | | | | |
| Chromium | mg/l | 0 | 0.05 | 94 | 0.001 | 0.003 | 0 | | | | | | | | | <0.001 | | | | | | | |
| Chromium (hexavalent) | mg/l | | See Total Chromium | 94 | <0.05 | <0.05 | 0 | | | | | | | | | <0.05 | | | | | | | |
| Iron | mg/l | 0 | 0.2 | 94 | 0.01 | 1.44 | 9 | MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 3.00m; DCBH2019_5, DCBH2019_5, 4.62m; SCBH2019_1 , SCBH2019_1 , 0.20m; SPT2019_5, SPT2019_5, 0.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 0.30m | | | | | | | | 0.011 | | | | | | | |
| Lead | mg/l | 0 | 0.01 | 94 | 0.001 | 0.018 | 1 | DCBH2019_5, DCBH2019_5, 4.62m | | | | | | | | <0.001 | | | | | | | |
| Manganese | mg/l | 0 | 0.05 | 94 | 0.001 | 0.452 | 14 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 5.30m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH2019_5, DCBH2019_5, 14.80m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | | | | | | 0.122 | | | | | | | |
| Mercury | mg/l | 0 | 0.001 | 94 | <0.0001 | 0.0002 | 0 | | | | | | | | | <0.0001 | | | | | | | |
| Nickel | mg/l | 0 | 0.02 | 94 | 0.001 | 0.006 | 0 | | | | | | | | | <0.001 | | | | | | | |
| Selenium | mg/l | 0 | 0.01 | 94 | <0.001 | <0.001 | 0 | | | | | | | | | <0.001 | | | | | | | |
| Vanadium | mg/l | 0 | N/A | 94 | 0.001 | 0.078 | 0 | | | | | | | | | 0.002 | | | | | | | |
| Zinc | mg/l | 0 | 3 | 94 | 0.001 | 0.167 | 0 | | | | | | | | | 0.012 | | | | | | | |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | | | | | | 0.112 | | | | | | | |
| Acenaphthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | | | | | | | | | |
| Acenaphthylene | mg/l | 0 | See BaP | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Anthracene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00023 | 0 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00001 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Chrysene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Fluoranthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00013 | 0 | | | | | | | | | | | | | | | | |
| Fluorene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Naphthalene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | | | | | | | | | |
| Phenanthrene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | | | | | | | | | |
| Pyrene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | | | | | | | | | |

ATKINS

| Assessment Criteria : | Drinking Water Standard England and Wales/WHO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | pH | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium (mg/l): | 0.00 | | DOC (mg/l) | 0.00 | | | Catchment area: | Drinking Water Standard | | | | | | | | | | | | | | | | | | | | | | |
| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | SD2019_7 | SD2019_7 | SD2019_7 | SCBH2019_3 | SCBH2019_3 | SCBH2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | CH2019_R2 | CH2019_R2 | CH2019_R2 | CH2019_R2 | SPT2019_5 |
| | | | | | | | | | SD2019_7 | SD2019_7 | SD2019_7 | SCBH2019_3 | SCBH2019_3 | SCBH2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | CH2019_R2 | CH2019_R2 | CH2019_R2 | CH2019_R2 | SPT2019_5 |
| | | | | | | | | | 7.36m | 9.50m | 11.00m | 0.30m | 0.70m | 1.00m | 0.50m | 1.00m | 2.50m | 3.80m | 5.50m | 1.20m | 7.20m | 10.00m | 1.60m | 0.50m |
| | | | | | | | | | 13-Nov-19 | 13-Nov-19 | 13-Nov-19 | 12-Nov-19 | 12-Nov-19 | 12-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 25-Nov-19 | 25-Nov-19 | 26-Nov-19 | 25-Nov-19 | 09-Dec-19 |
| pH | pH | | 6.5-9.5 | 94 | 6.99 | 8.44 | 0 | | | | 7.72 | 7.93 | | 7.93 | | | | | | 7.99 | | | | 7.89 |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.5 | 94 | <0.02 | 8.876 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | <0.026 | <0.026 | | 0.401 | | | | | | 0.072 | | | | 0.07 |
| Ammoniacal nitrogen as N | mg/l | | 0.39 | 94 | 0.02 | 7.361 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | <0.02 | <0.02 | | 0.31 | | | | | | 0.06 | | | | 0.05 |
| Nitrate | mg/l | | 50 | 94 | 0.1 | 2 | 0 | | | | <0.1 | <0.1 | | 0.6 | | | | | | <0.1 | | | | 2 |
| Sulphate | mg/l | | 250 | 94 | <1 | 276.04 | 2 | SD2019_4, SD2019_4, 7.90m; DCBH2019_8, DCBH2019_8, 8.50m | | | 40.74 | 9.77 | | 5.11 | | | | | | 6.74 | | | | <1 |
| Cyanide (free) | mg/l | | See Cyanide (total) | 94 | <0.005 | <0.005 | 0 | | | | <0.005 | <0.005 | | <0.005 | | | | | | <0.005 | | | | <0.005 |
| Cyanide (total) | mg/l | | 0.05 | 94 | <0.005 | 0.082 | 1 | SD2019_5, SD2019_5, 0.30m | | | <0.005 | <0.005 | | <0.005 | | | | | | <0.005 | | | | <0.005 |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | <0.1 | <0.1 | | <0.1 | | | | | | <0.1 | | | | <0.1 |
| Arsenic | mg/l | 0 | 0.01 | 94 | 0.001 | 0.023 | 4 | MGS2019_E1, MGS2019_E1, 1.10m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH20109_2, DCBH20109_2, 0.50m; SPT2019_5, SPT2019_5, 4.30m | | | 0.007 | 0.002 | | 0.004 | | | | | | 0.006 | | | | 0.008 |
| Boron | mg/l | 0 | 1 | 94 | 0.01 | 1.12 | 1 | SD2019_4, SD2019_4, 7.90m | | | 0.017 | 0.01 | | 0.031 | | | | | | 0.023 | | | | 0.099 |
| Cadmium | mg/l | 0 | 0.005 | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Copper | mg/l | 0 | 2 | 94 | 0.001 | 0.008 | 0 | | | | <0.001 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Chromium | mg/l | 0 | 0.05 | 94 | 0.001 | 0.003 | 0 | | | | <0.001 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Chromium (hexavalent) | mg/l | | See Total Chromium | 94 | <0.05 | <0.05 | 0 | | | | <0.05 | <0.05 | | <0.05 | | | | | | <0.05 | | | | <0.05 |
| Iron | mg/l | 0 | 0.2 | 94 | 0.01 | 1.44 | 9 | MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 3.00m; DCBH2019_5, DCBH2019_5, 4.62m; SCBH2019_1 , SCBH2019_1 , 0.20m; SPT2019_5, SPT2019_5, 0.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 0.30m | | | 0.15 | <0.01 | | 0.011 | | | | | | 0.013 | | | | 0.208 |
| Lead | mg/l | 0 | 0.01 | 94 | 0.001 | 0.018 | 1 | DCBH2019_5, DCBH2019_5, 4.62m | | | <0.001 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Manganese | mg/l | 0 | 0.05 | 94 | 0.001 | 0.452 | 14 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 5.30m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH2019_5, DCBH2019_5, 14.80m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | | | 0.012 | <0.001 | | 0.028 | | | | | | 0.029 | | | | 0.014 |
| Mercury | mg/l | 0 | 0.001 | 94 | <0.0001 | 0.0002 | 0 | | | | <0.0001 | 0.0002 | | <0.0001 | | | | | | <0.0001 | | | | <0.0001 |
| Nickel | mg/l | 0 | 0.02 | 94 | 0.001 | 0.006 | 0 | | | | 0.003 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Selenium | mg/l | 0 | 0.01 | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Vanadium | mg/l | 0 | N/A | 94 | 0.001 | 0.078 | 0 | | | | 0.005 | <0.001 | | 0.001 | | | | | | 0.001 | | | | 0.002 |
| Zinc | mg/l | 0 | 3 | 94 | 0.001 | 0.167 | 0 | | | | 0.005 | 0.008 | | 0.009 | | | | | | 0.003 | | | | 0.003 |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | 0.023 | | | 0.022 | | | | | | | | | | |
| Acenaphthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | | | | | | | | | | |
| Acenaphthylene | mg/l | 0 | See BaP | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Anthracene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00023 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00001 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Chrysene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Fluoranthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00013 | 0 | | | | | | | | | | | | | | | | | |
| Fluorene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | | | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Naphthalene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | | | | | | | | | | |
| Phenanthrene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | | | | | | | | | | |
| Pyrene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | | | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | | | | | | | | | | |

| Assessment Criteria : | | | *Drinking Water Standard England and Wales/WHO* | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 0.00 | | | | | | | | | | |
| Calcium (mg/l): | 0.00 | | | DOC (mg/l) | 0.00 | | Catchment area: | Drinking Water Standard | | | | | | | |
| | | | | | | | | | SPT2019_5 | SPT2019_6 | SPT2019_6 | SPT2019_6 | SPT2019_2 | SPT2019_2 | SPT2019_2 |
| | | | | | | | | | SPT2019_5 | SPT2019_6 | SPT2019_6 | SPT2019_6 | SPT2019_2 | SPT2019_2 | SPT2019_2 |
| | | | | | | | | | 4.30m | 0.10m | 1.00m | 3.00m | 0.30m | 2.00m | 6.00m |
| | | | | | | | | | 09-Dec-19 | 06-Dec-19 | 06-Dec-19 | 09-Dec-19 | 16-Dec-19 | 16-Dec-19 | 17-Dec-19 |
| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | | | | | | | |
| pH | pH | | 6.5-9.5 | 94 | 6.99 | 8.44 | 0 | | 7.93 | 7.82 | | | 7.3 | 7.64 | 7.27 |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.5 | 94 | <0.02 | 8.876 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | 8.567 | 0.072 | | | <0.026 | 1.943 | 1.807 |
| Ammoniacal nitrogen as N | mg/l | | 0.39 | 94 | 0.02 | 7.361 | 11 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_5, DCBH2019_5, 4.62m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | 6.64 | 0.06 | | | <0.02 | 1.51 | 1.4 |
| Nitrate | mg/l | | 50 | 94 | 0.1 | 2 | 0 | | <0.1 | 0.3 | | | <0.1 | <0.1 | <0.1 |
| Sulphate | mg/l | | 250 | 94 | <1 | 276.04 | 2 | SD2019_4, SD2019_4, 7.90m; DCBH2019_8, DCBH2019_8, 8.50m | 34.48 | <1 | | | 2.92 | 57.96 | 157.76 |
| Cyanide (free) | mg/l | | See Cyanide (total) | 94 | <0.005 | <0.005 | 0 | | <0.005 | <0.005 | | | <0.005 | <0.005 | <0.005 |
| Cyanide (total) | mg/l | | 0.05 | 94 | <0.005 | 0.082 | 1 | SD2019_5, SD2019_5, 0.30m | <0.005 | <0.005 | | | <0.005 | <0.005 | <0.005 |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | <0.1 | <0.1 | | | <0.1 | <0.1 | <0.1 |
| Arsenic | mg/l | 0 | 0.01 | 94 | 0.001 | 0.023 | 4 | MGS2019_E1, MGS2019_E1, 1.10m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH20109_2, DCBH20109_2, 0.50m; SPT2019_5, SPT2019_5, 4.30m | 0.011 | 0.005 | | | 0.005 | 0.004 | 0.005 |
| Boron | mg/l | 0 | 1 | 94 | 0.01 | 1.12 | 1 | SD2019_4, SD2019_4, 7.90m | 0.089 | 0.036 | | | 0.015 | 0.168 | 0.429 |
| Cadmium | mg/l | 0 | 0.005 | 94 | <0.001 | <0.001 | 0 | | <0.001 | <0.001 | | | <0.001 | <0.001 | <0.001 |
| Copper | mg/l | 0 | 2 | 94 | 0.001 | 0.008 | 0 | | 0.001 | 0.002 | | | 0.001 | <0.001 | 0.001 |
| Chromium | mg/l | 0 | 0.05 | 94 | 0.001 | 0.003 | 0 | | <0.001 | <0.001 | | | <0.001 | <0.001 | <0.001 |
| Chromium (hexavalent) | mg/l | | See Total Chromium | 94 | <0.05 | <0.05 | 0 | | <0.05 | <0.05 | | | <0.05 | <0.05 | <0.05 |
| Iron | mg/l | 0 | 0.2 | 94 | 0.01 | 1.44 | 9 | MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 3.00m; DCBH2019_5, DCBH2019_5, 4.62m; SCBH2019_1 , SCBH2019_1 , 0.20m; SPT2019_5, SPT2019_5, 0.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 0.30m | 0.215 | 0.444 | | | 0.241 | 0.024 | 0.016 |
| Lead | mg/l | 0 | 0.01 | 94 | 0.001 | 0.018 | 1 | DCBH2019_5, DCBH2019_5, 4.62m | 0.003 | 0.003 | | | <0.001 | <0.001 | <0.001 |
| Manganese | mg/l | 0 | 0.05 | 94 | 0.001 | 0.452 | 14 | MGS2019_A, MGS2019_A, 4.00m; MGS_2019_F, MGS_2019_F, 4.50m; MGS_2019_F, MGS_2019_F, 4.50m; DCBH2019_4, DCBH2019_4, 5.30m; DCBH2019_5, DCBH2019_5, 4.62m; DCBH2019_5, DCBH2019_5, 14.80m; SD2019_4, SD2019_4, 7.90m; SD2019_3, SD2019_3, 5.20m; SCBH2019_1 , SCBH2019_1 , 4.00m; DCBH2019_8, DCBH2019_8, 8.50m; SPT2019_5, SPT2019_5, 4.30m; SPT2019_6, SPT2019_6, 0.10m; SPT2019_2, SPT2019_2, 2.00m; SPT2019_2, SPT2019_2, 6.00m | 0.102 | 0.06 | | | 0.014 | 0.151 | 0.452 |
| Mercury | mg/l | 0 | 0.001 | 94 | <0.0001 | 0.0002 | 0 | | <0.0001 | <0.0001 | | | <0.0001 | <0.0001 | <0.0001 |
| Nickel | mg/l | 0 | 0.02 | 94 | 0.001 | 0.006 | 0 | | 0.002 | 0.001 | | | <0.001 | 0.001 | <0.001 |
| Selenium | mg/l | 0 | 0.01 | 94 | <0.001 | <0.001 | 0 | | <0.001 | <0.001 | | | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/l | 0 | N/A | 94 | 0.001 | 0.078 | 0 | | 0.012 | 0.005 | | | 0.003 | 0.005 | <0.001 |
| Zinc | mg/l | 0 | 3 | 94 | 0.001 | 0.167 | 0 | | 0.008 | 0.019 | | | 0.005 | 0.011 | 0.013 |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | | | 0.008 | 0.035 | 0.123 |
| Acenaphthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | |
| Acenaphthylene | mg/l | 0 | See BaP | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Anthracene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00023 | 0 | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00001 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Chrysene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Fluoranthene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00013 | 0 | | | | | | | | |
| Fluorene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | See PAH Sum of 4 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Naphthalene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | |
| Phenanthrene | mg/l | 0 | See BaP | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | |
| Pyrene | mg/l | 0 | See BaP | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | |

ATKINS

| Assessment Criteria : | Freshwater EQS | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 7.00 | | | | | | | | | | | | | | | | | | | | | |
| Calcium (mg/l): | 4.00 | | | DOC (mg/l) | 135.00 | | | Catchment area: | Blackwater / Chelmer | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | Location | MGS2019_E | MGS2019_E | MGS2019_E | MGS2019_E1 | MGS2019_A | MGS2019_A | MGS2019_A | MGS2019_D | MGS2019_D | DCBH2019_4 | MGS_2019_B | MGS_2019_B | MGS_2019_B |
| | | | | | | | | | | | Sample ID | MGS2019_E | MGS2019_E | MGS2019_E | MGS2019_E1 | MGS2019_A | MGS2019_A | MGS2019_A | MGS2019_D | MGS2019_D | DCBH2019_4 | MGS_2019_B | MGS_2019_B | MGS_2019_B |
| | | | | | | | | | | | Depth | 0.50m | 0.60m | 1.00m | 1.10m | 0.50m | 3.00m | 4.00m | 1.00m | 4.50m | 0.50m | 5.00m | 7.00m | 0.30m |
| | | | | | | | | | | | Date | 09-Jul-19 | 09-Jul-19 | 09-Jul-19 | 10-Jul-19 | 19-Jul-19 | 19-Jul-19 | 20-Jul-19 | 21-Jul-19 | 21-Jul-19 | 23-Jul-19 | 23-Jul-19 | 23-Jul-19 | 22-Jul-19 |
| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | Strata | Zone | | | | | | | | | | | | | | | | |
| pH | pH | | 6-9 | 94 | 6.99 | 8.44 | 0 | | | | | 7.55 | | | 8.39 | 7.42 | | 7.72 | | | 7.34 | | | 7.36 |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.26 | 94 | <0.02 | 8.876 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | | <0.026 | | | 0.031 | <0.02 | | 1.39 | | | <0.026 | | | <0.026 |
| Ammoniacal nitrogen as N | mg/l | | 0.2 | 94 | 0.02 | 7.361 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | | <0.02 | | | 0.02 | <0.026 | | 1.791 | | | <0.02 | | | <0.02 |
| Nitrate | mg/l | | N/A | 94 | 0.1 | 2 | 0 | | | | | 0.7 | | | 0.7 | 0.3 | | <0.1 | | | <0.1 | | | 1.2 |
| Sulphate | mg/l | | 400 | 94 | <1 | 276.04 | 0 | | | | | <1 | | | 64.02 | <1 | | 65.52 | | | 2.32 | | | 1.84 |
| Cyanide (free) | mg/l | | 0.001 | 94 | <0.005 | <0.005 | 0 | | | | | <0.005 | | | <0.005 | <0.005 | | <0.005 | | | <0.005 | | | <0.005 |
| Cyanide (total) | mg/l | | N/A | 94 | <0.005 | 0.082 | 0 | | | | | <0.005 | | | <0.005 | <0.005 | | <0.005 | | | <0.005 | | | <0.005 |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | | <0.1 | | | <0.1 | <0.1 | | <0.1 | | | <0.1 | | | <0.1 |
| Arsenic | mg/l | 0 | 0.05 | 94 | 0.001 | 0.023 | 0 | | | | | 0.003 | | | 0.023 | <0.001 | | 0.009 | | | 0.004 | | | 0.004 |
| Boron | mg/l | 0 | 2 | 94 | 0.01 | 1.12 | 0 | | | | | <0.01 | | | 0.057 | 0.01 | | 0.215 | | | 0.02 | | | 0.016 |
| Cadmium | mg/l | 0 | 0.00008 | 94 | <0.001 | <0.001 | 0 | | | | | <0.001 | | | <0.001 | <0.001 | | <0.001 | | | <0.001 | | | <0.001 |
| Copper | mg/l | 0 | 0.001 | 94 | 0.001 | 0.008 | 9 | MGS2019_E1, 10-Jul-19; DCBH2019_4, 23-Jul-19; MGS_2019_B, 22-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH2019_5, 30-Jul-19; SCBH2019_1 , 29-Oct-19; DCBH2019_8, 05-Nov-19; SPT2019_6, 06-Dec-19 | | | | 0.001 | | | 0.006 | <0.001 | | <0.001 | | | 0.006 | | | 0.004 |
| Chromium | mg/l | 0 | See Cr VI as first pass | 94 | 0.001 | 0.003 | 0 | | | | | <0.001 | | | 0.002 | <0.001 | | <0.001 | | | <0.001 | | | <0.001 |
| Chromium (hexavalent) | mg/l | | 0.0034 | 94 | <0.05 | <0.05 | 0 | | | | | <0.05 | | | <0.05 | <0.05 | | <0.05 | | | <0.05 | | | <0.05 |
| Iron | mg/l | 0 | 1 | 94 | 0.01 | 1.44 | 1 | DCBH2019_5, 29-Jul-19 | | | | 0.022 | | | 0.032 | 0.068 | | 0.044 | | | 0.086 | | | 0.142 |
| Lead | mg/l | 0 | 0.0012 | 94 | 0.001 | 0.018 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SCBH2019_1 , 29-Oct-19; SPT2019_5, 09-Dec-19; SPT2019_6, 06-Dec-19 | | | | <0.001 | | | <0.001 | <0.001 | | <0.001 | | | <0.001 | | | <0.001 |
| Manganese | mg/l | 0 | 0.123 | 94 | 0.001 | 0.452 | 7 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | | 0.002 | | | 0.002 | 0.003 | | 0.087 | | | 0.005 | | | 0.012 |
| Mercury | mg/l | 0 | 0.00007 | 94 | <0.0001 | 0.0002 | 1 | SCBH2019_3, 12-Nov-19 | | | | <0.0001 | | | <0.0001 | <0.0001 | | <0.0001 | | | <0.0001 | | | <0.0001 |
| Nickel | mg/l | 0 | 0.004 | 94 | 0.001 | 0.006 | 2 | DCBH2019_5, 29-Jul-19; DCBH2019_6, 19-Sep-19 | | | | <0.001 | | | 0.002 | <0.001 | | <0.001 | | | <0.001 | | | 0.003 |
| Selenium | mg/l | 0 | N/A | 94 | <0.001 | <0.001 | 0 | | | | | <0.001 | | | <0.001 | <0.001 | | <0.001 | | | <0.001 | | | <0.001 |
| Vanadium | mg/l | 0 | 0.02 | 94 | 0.001 | 0.078 | 5 | MGS2019_E1, 10-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19 | | | | <0.001 | | | 0.078 | 0.001 | | 0.004 | | | 0.002 | | | 0.002 |
| Zinc | mg/l | 0 | 0.0145 | 94 | 0.001 | 0.167 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SPT2019_6, 06-Dec-19 | | | | 0.002 | | | 0.004 | 0.001 | | 0.005 | | | 0.004 | | | 0.009 |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | | | | | | | | | | | | | | |
| Acenaphthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | | | | | | | | | | |
| Acenaphthylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Anthracene | mg/l | 0 | 0.0001 | 94 | <0.00002 | 0.00023 | 2 | DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00000017 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Chrysene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Fluoranthene | mg/l | 0 | 0.0000063 | 94 | <0.00002 | 0.00013 | 5 | MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH20109_2, 18-Aug-19 | | | | | | | | | | | | | | | | |
| Fluorene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | | | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Naphthalene | mg/l | 0 | 0.002 | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | | | | | | | | | | |
| Phenanthrene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | | | | | | | | | | |
| Pyrene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | | | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | | | | | | | | | | |

ATKINS

| Assessment Criteria : | | | Freshwater EQS | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 7.00 | | | | | | | | | | | | | | | | |
| Calcium (mg/l): | 4.00 | | | DOC (mg/l) | 135.00 | | Catchment area: | Blackwater / Chelmer | | | | | | | | | | | | | |
| | | | | | | | | | MGS_2019_B | MGS_2019_F | MGS_2019_F | MGS_2019_C | MGS_2019_C | MGS_2019_F | MGS_2019_F | MGS_2019_C | MGS_2019_C | DCBH2019_4 | DCBH2019_4 | DCBH2019_5 | DCBH2019_5 | DCBH2019_5 |
| | | | | | | | | | MGS_2019_B | MGS_2019_F | MGS_2019_F | MGS_2019_C | MGS_2019_C | MGS_2019_F | MGS_2019_F | MGS_2019_C | MGS_2019_C | DCBH2019_4 | DCBH2019_4 | DCBH2019_5 | DCBH2019_5 | DCBH2019_5 |
| | | | | | | | | | 3.00m | 1.00m | 4.50m | 1.00m | 3.70m | 1.00m | 4.50m | 1.00m | 3.70m | 3.00m | 5.30m | 4.62m | 14.80m | 17.50m |
| | | | | | | | | | 22-Jul-19 | 24-Jul-19 | 25-Jul-19 | 23-Jul-19 | 24-Jul-19 | 24-Jul-19 | 25-Jul-19 | 23-Jul-19 | 24-Jul-19 | 31-Jul-19 | 31-Jul-19 | 29-Jul-19 | 30-Jul-19 | 30-Jul-19 |
| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | | | | | | | | | | | | | | |
| pH | pH | | 6-9 | 94 | 6.99 | 8.44 | 0 | | | | 8.03 | | | | 8.03 | | | 8.44 | 8.38 | 8.21 | 7.99 | |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.26 | 94 | <0.02 | 8.876 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | 3.6 | | | | 3.6 | | | <0.02 | 0.15 | 5.71 | <0.02 | |
| Ammoniacal nitrogen as N | mg/l | | 0.2 | 94 | 0.02 | 7.361 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | 4.649 | | | | 4.649 | | | <0.026 | 0.197 | 7.361 | <0.026 | |
| Nitrate | mg/l | | N/A | 94 | 0.1 | 2 | 0 | | | | 0.3 | | | | 0.3 | | | 0.1 | <0.1 | <0.1 | <0.1 | |
| Sulphate | mg/l | | 400 | 94 | <1 | 276.04 | 0 | | | | 59.73 | | | | 59.73 | | | 3.36 | 103.85 | 207.87 | 20.84 | |
| Cyanide (free) | mg/l | | 0.001 | 94 | <0.005 | <0.005 | 0 | | | | <0.005 | | | | <0.005 | | | <0.005 | <0.005 | <0.005 | <0.005 | |
| Cyanide (total) | mg/l | | N/A | 94 | <0.005 | 0.082 | 0 | | | | <0.005 | | | | <0.005 | | | <0.005 | <0.005 | <0.005 | <0.005 | |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | <0.1 | | | | <0.1 | | | <0.1 | <0.1 | <0.1 | <0.1 | |
| Arsenic | mg/l | 0 | 0.05 | 94 | 0.001 | 0.023 | 0 | | | | 0.005 | | | | 0.005 | | | 0.005 | 0.009 | 0.018 | 0.001 | |
| Boron | mg/l | 0 | 2 | 94 | 0.01 | 1.12 | 0 | | | | 0.478 | | | | 0.478 | | | 0.094 | 0.72 | 0.971 | 0.071 | |
| Cadmium | mg/l | 0 | 0.00008 | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | | | | <0.001 | | | <0.001 | <0.001 | <0.001 | <0.001 | |
| Copper | mg/l | 0 | 0.001 | 94 | 0.001 | 0.008 | 9 | MGS2019_E1, 10-Jul-19; DCBH2019_4, 23-Jul-19; MGS_2019_B, 22-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH2019_5, 30-Jul-19; SCBH2019_1 , 29-Oct-19; DCBH2019_8, 05-Nov-19; SPT2019_6, 06-Dec-19 | | | <0.001 | | | | <0.001 | | | 0.004 | <0.001 | 0.008 | 0.002 | |
| Chromium | mg/l | 0 | See Cr VI as first pass | 94 | 0.001 | 0.003 | 0 | | | | 0.001 | | | | 0.001 | | | <0.001 | 0.002 | 0.003 | <0.001 | |
| Chromium (hexavalent) | mg/l | | 0.0034 | 94 | <0.05 | <0.05 | 0 | | | | <0.05 | | | | <0.05 | | | <0.05 | <0.05 | <0.05 | <0.05 | |
| Iron | mg/l | 0 | 1 | 94 | 0.01 | 1.44 | 1 | DCBH2019_5, 29-Jul-19 | | | 0.264 | | | | 0.264 | | | 0.234 | 0.188 | 1.44 | 0.01 | |
| Lead | mg/l | 0 | 0.0012 | 94 | 0.001 | 0.018 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SCBH2019_1 , 29-Oct-19; SPT2019_5, 09-Dec-19; SPT2019_6, 06-Dec-19 | | | 0.002 | | | | 0.002 | | | 0.001 | <0.001 | 0.018 | <0.001 | |
| Manganese | mg/l | 0 | 0.123 | 94 | 0.001 | 0.452 | 7 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | 0.143 | | | | 0.143 | | | 0.003 | 0.079 | 0.057 | 0.08 | |
| Mercury | mg/l | 0 | 0.00007 | 94 | <0.0001 | 0.0002 | 1 | SCBH2019_3, 12-Nov-19 | | | <0.0001 | | | | <0.0001 | | | <0.0001 | <0.0001 | <0.0001 | <0.0001 | |
| Nickel | mg/l | 0 | 0.004 | 94 | 0.001 | 0.006 | 2 | DCBH2019_5, 29-Jul-19; DCBH2019_6, 19-Sep-19 | | | 0.003 | | | | 0.003 | | | <0.001 | 0.002 | 0.006 | 0.001 | |
| Selenium | mg/l | 0 | N/A | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | | | | <0.001 | | | <0.001 | <0.001 | <0.001 | <0.001 | |
| Vanadium | mg/l | 0 | 0.02 | 94 | 0.001 | 0.078 | 5 | MGS2019_E1, 10-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19 | | | 0.022 | | | | 0.022 | | | 0.022 | 0.016 | 0.039 | 0.002 | |
| Zinc | mg/l | 0 | 0.0145 | 94 | 0.001 | 0.167 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SPT2019_6, 06-Dec-19 | | | 0.017 | | | | 0.017 | | | 0.008 | 0.013 | 0.062 | 0.009 | |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | 0.016 | | | | 0.016 | | | 0.003 | 0.013 | 0.015 | 0.016 | |
| Acenaphthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | 0.00008 | | | 0.00059 | 0.00028 | 0.00013 | 0.00004 | |
| Acenaphthylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Anthracene | mg/l | 0 | 0.0001 | 94 | <0.00002 | 0.00023 | 2 | DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19 | | | | | | | 0.00006 | | | 0.00023 | 0.00011 | 0.00005 | <0.00002 | |
| Benzo(a)anthracene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | <0.00002 | | | 0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Benzo(a)pyrene | mg/l | 0 | 0.00000017 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Benzo(b)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Benzo(ghi)perylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Benzo(k)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Chrysene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | <0.00002 | | | 0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Fluoranthene | mg/l | 0 | 0.0000063 | 94 | <0.00002 | 0.00013 | 5 | MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH20109_2, 18-Aug-19 | | | | | | | 0.0001 | | | 0.00013 | 0.00012 | 0.00011 | <0.00002 | |
| Fluorene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | 0.00008 | | | 0.00038 | 0.00019 | 0.00009 | <0.00002 | |
| Indeno(123-cd)pyrene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | <0.00002 | | | <0.00002 | <0.00002 | <0.00002 | <0.00002 | |
| Naphthalene | mg/l | 0 | 0.002 | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | <0.00002 | | | 0.00098 | 0.0007 | 0.00009 | 0.00006 | |
| Phenanthrene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | 0.00025 | | | 0.00082 | 0.00049 | 0.00025 | 0.00002 | |
| Pyrene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | 0.00008 | | | 0.00012 | 0.0001 | 0.00008 | <0.00002 | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | 0.00065 | | | 0.00329 | 0.00199 | 0.0008 | 0.00012 | |

ATKINS

| Assessment Criteria : | | | *Freshwater EQS* | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 7.00 | | | | | | | | | | | | | | | | | | | |
| Calcium (mg/l): | 4.00 | | | DOC (mg/l) | 135.00 | | Catchment area: | Blackwater / Chelmer | | | | | | | | | | | | | | | | |
| | | | | | | | | | MGS_2019_B1 | MGS_2019_B1 | DCBH20109_2 | SD2019_4 | SD2019_4 | DCBH2019_6 | SD2019_5 | SD2019_5 | MGS_2019_H | MGS_2019_I | MGS_2019_K | MGS_2019_K | MGS_2019_K | MGS_2019_K | DCBH2019_6 |
| | | | | | | | | | MGS_2019_B1 | MGS_2019_B1 | DCBH20109_2 | SD2019_4 | SD2019_4 | DCBH2019_6 | SD2019_5 | SD2019_5 | MGS_2019_H | MGS_2019_I | MGS_2019_K | MGS_2019_K | MGS_2019_K | MGS_2019_K | DCBH2019_6 |
| | | | | | | | | | 0.30m | 1.90m | 0.50m | 3.75m | 7.90m | 0.30m | 0.30m | 1.00m | 0.30m | 0.30m | 0.10m | 1.20m | 4.50m | 18.20m | |
| | | | | | | | | | 30-Jul-19 | 30-Jul-19 | 18-Aug-19 | 14-Sep-19 | 14-Sep-19 | 14-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 16-Sep-19 | 19-Sep-19 | |
| **Constituents** | **Unit** | **Limit of Detection** | **Generic Assessment Criteria** | **Number of Samples** | **Minimum Value** | **Maximum Value** | **Number of Exceedences** | **Locations of Exceedences** | | | | | | | | | | | | | | | | |
| pH | pH | | 6-9 | 94 | 6.99 | 8.44 | 0 | | | | 6.99 | | 7.44 | 7.53 | 7.6 | | | | | | | | 7.2 | |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.26 | 94 | <0.02 | 8.876 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | <0.026 | | 7.85 | <0.026 | <0.026 | | | | | | | | <0.026 | |
| Ammoniacal nitrogen as N | mg/l | | 0.2 | 94 | 0.02 | 7.361 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | <0.02 | | 6.09 | <0.02 | <0.02 | | | | | | | | <0.02 | |
| Nitrate | mg/l | | N/A | 94 | 0.1 | 2 | 0 | | | | 0.1 | | <0.1 | 0.4 | 0.5 | | | | | | | | <0.1 | |
| Sulphate | mg/l | | 400 | 94 | <1 | 276.04 | 0 | | | | <1 | | 251.6 | <1 | 24.88 | | | | | | | | 20.83 | |
| Cyanide (free) | mg/l | | 0.001 | 94 | <0.005 | <0.005 | 0 | | | | <0.005 | | <0.005 | <0.005 | <0.005 | | | | | | | | <0.005 | |
| Cyanide (total) | mg/l | | N/A | 94 | <0.005 | 0.082 | 0 | | | | <0.005 | | <0.005 | <0.005 | 0.082 | | | | | | | | <0.005 | |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | <0.1 | | <0.1 | <0.1 | <0.1 | | | | | | | | <0.1 | |
| Arsenic | mg/l | 0 | 0.05 | 94 | 0.001 | 0.023 | 0 | | | | 0.014 | | 0.008 | <0.001 | 0.003 | | | | | | | | 0.002 | |
| Boron | mg/l | 0 | 2 | 94 | 0.01 | 1.12 | 0 | | | | 0.011 | | 1.12 | <0.01 | 0.035 | | | | | | | | 0.015 | |
| Cadmium | mg/l | 0 | 0.00008 | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | | | | <0.001 | |
| Copper | mg/l | 0 | 0.001 | 94 | 0.001 | 0.008 | 9 | MGS2019_E1, 10-Jul-19; DCBH2019_4, 23-Jul-19; MGS_2019_B, 22-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH2019_5, 30-Jul-19; SCBH2019_1 , 29-Oct-19; DCBH2019_8, 05-Nov-19; SPT2019_6, 06-Dec-19 | | | <0.001 | | 0.001 | <0.001 | <0.001 | | | | | | | | <0.001 | |
| Chromium | mg/l | 0 | See Cr VI as first pass | 94 | 0.001 | 0.003 | 0 | | | | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | | | | <0.001 | |
| Chromium (hexavalent) | mg/l | | 0.0034 | 94 | <0.05 | <0.05 | 0 | | | | <0.05 | | <0.05 | <0.05 | <0.05 | | | | | | | | <0.05 | |
| Iron | mg/l | 0 | 1 | 94 | 0.01 | 1.44 | 1 | DCBH2019_5, 29-Jul-19 | | | 0.04 | | <0.01 | 0.013 | 0.061 | | | | | | | | 0.037 | |
| Lead | mg/l | 0 | 0.0012 | 94 | 0.001 | 0.018 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SCBH2019_1 , 29-Oct-19; SPT2019_5, 09-Dec-19; SPT2019_6, 06-Dec-19 | | | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | | | | <0.001 | |
| Manganese | mg/l | 0 | 0.123 | 94 | 0.001 | 0.452 | 7 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | 0.001 | | 0.175 | 0.001 | 0.002 | | | | | | | | 0.026 | |
| Mercury | mg/l | 0 | 0.00007 | 94 | <0.0001 | 0.0002 | 1 | SCBH2019_3, 12-Nov-19 | | | <0.0001 | | <0.0001 | <0.0001 | <0.0001 | | | | | | | | <0.0001 | |
| Nickel | mg/l | 0 | 0.004 | 94 | 0.001 | 0.006 | 2 | DCBH2019_5, 29-Jul-19; DCBH2019_6, 19-Sep-19 | | | <0.001 | | <0.001 | <0.001 | 0.001 | | | | | | | | 0.006 | |
| Selenium | mg/l | 0 | N/A | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | | | | <0.001 | |
| Vanadium | mg/l | 0 | 0.02 | 94 | 0.001 | 0.078 | 5 | MGS2019_E1, 10-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19 | | | 0.002 | | <0.001 | <0.001 | 0.002 | | | | | | | | 0.01 | |
| Zinc | mg/l | 0 | 0.0145 | 94 | 0.001 | 0.167 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SPT2019_6, 06-Dec-19 | | | 0.002 | | 0.167 | 0.002 | 0.003 | | | | | | | | 0.003 | |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | | | 0.124 | 0.003 | 0.015 | | | | | | | | 0.019 | |
| Acenaphthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | 0.00059 | 0 | | | | 0.00037 | | <0.00002 | | | | | | | | | | | |
| Acenaphthylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | | |
| Anthracene | mg/l | 0 | 0.0001 | 94 | <0.00002 | 0.00023 | 2 | DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19 | | | 0.00007 | | <0.00002 | | | | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00000017 | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | | |
| Chrysene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | | |
| Fluoranthene | mg/l | 0 | 0.0000063 | 94 | <0.00002 | 0.00013 | 5 | MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH20109_2, 18-Aug-19 | | | 0.00007 | | <0.00002 | | | | | | | | | | | |
| Fluorene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00038 | 0 | | | | 0.00022 | | <0.00002 | | | | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | <0.00002 | | <0.00002 | | | | | | | | | | | |
| Naphthalene | mg/l | 0 | 0.002 | 94 | <0.00002 | 0.00098 | 0 | | | | 0.00009 | | <0.00002 | | | | | | | | | | | |
| Phenanthrene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00082 | 0 | | | | 0.00034 | | <0.00002 | | | | | | | | | | | |
| Pyrene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00012 | 0 | | | | 0.00004 | | <0.00002 | | | | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | 0.0012 | | <0.00002 | | | | | | | | | | | |

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| Assessment Criteria : | | | *Freshwater EQS* | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 7.00 | | | | | | | | | | | | | | | | | | |
| Calcium (mg/l): | 4.00 | | | DOC (mg/l) | 135.00 | | Catchment area: | Blackwater / Chelmer | | | | | | | | | | | | | | | |
| | | | | | | | | | DCBH2019_6 | DCBH2019_6 | SD2019_3 | SD2019_3 | SD2019_3 | SD2019_3 | DCBH2019_8 | DCBH2019_8 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 |
| | | | | | | | | | DCBH2019_6 | DCBH2019_6 | SD2019_3 | SD2019_3 | SD2019_3 | SD2019_3 | DCBH2019_8 | DCBH2019_8 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 | SCBH2019_1 |
| | | | | | | | | | 3.84m | 8.95m | 2.00m | 4.30m | 5.20m | 9.10m | 0.20m | 0.80m | 0.20m | 1.00m | 4.00m | 0.90m | 0.90m | 4.00m | 6.50m |
| | | | | | | | | | 17-Sep-19 | 18-Sep-19 | 18-Sep-19 | 17-Sep-19 | 17-Sep-19 | 17-Sep-19 | 23-Oct-19 | 23-Oct-19 | 29-Oct-19 | 29-Oct-19 | 30-Oct-19 | 30-Oct-19 | 30-Oct-19 | 30-Oct-19 | 30-Oct-19 |
| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | | | | | | | | | | | | | | | |
| pH | pH | | 6-9 | 94 | 6.99 | 8.44 | 0 | | | | | | 7.51 | | 7.89 | | 7.06 | | 7.72 | | | | |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.26 | 94 | <0.02 | 8.876 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | | | 8.876 | | <0.026 | | 0.028 | | 0.658 | | | | |
| Ammoniacal nitrogen as N | mg/l | | 0.2 | 94 | 0.02 | 7.361 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | | | 6.88 | | <0.02 | | 0.02 | | 0.51 | | | | |
| Nitrate | mg/l | | N/A | 94 | 0.1 | 2 | 0 | | | | | | <0.1 | | 0.1 | | 0.2 | | 0.3 | | | | |
| Sulphate | mg/l | | 400 | 94 | <1 | 276.04 | 0 | | | | | | 212.83 | | <1 | | 6.97 | | 52.43 | | | | |
| Cyanide (free) | mg/l | | 0.001 | 94 | <0.005 | <0.005 | 0 | | | | | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | | | |
| Cyanide (total) | mg/l | | N/A | 94 | <0.005 | 0.082 | 0 | | | | | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | | | |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | | | <0.1 | | <0.1 | | 0.3 | | <0.1 | | | | |
| Arsenic | mg/l | 0 | 0.05 | 94 | 0.001 | 0.023 | 0 | | | | | | 0.002 | | 0.002 | | 0.007 | | 0.006 | | | | |
| Boron | mg/l | 0 | 2 | 94 | 0.01 | 1.12 | 0 | | | | | | 0.539 | | <0.01 | | 0.019 | | 0.105 | | | | |
| Cadmium | mg/l | 0 | 0.00008 | 94 | <0.001 | <0.001 | 0 | | | | | | <0.001 | | <0.001 | | <0.001 | | <0.001 | | | | |
| Copper | mg/l | 0 | 0.001 | 94 | 0.001 | 0.008 | 9 | MGS2019_E1, 10-Jul-19; DCBH2019_4, 23-Jul-19; MGS_2019_B, 22-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH2019_5, 30-Jul-19; SCBH2019_1 , 29-Oct-19; DCBH2019_8, 05-Nov-19; SPT2019_6, 06-Dec-19 | | | | | <0.001 | | <0.001 | | 0.003 | | 0.001 | | | | |
| Chromium | mg/l | 0 | See Cr VI as first pass | 94 | 0.001 | 0.003 | 0 | | | | | | <0.001 | | <0.001 | | <0.001 | | <0.001 | | | | |
| Chromium (hexavalent) | mg/l | | 0.0034 | 94 | <0.05 | <0.05 | 0 | | | | | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | | | |
| Iron | mg/l | 0 | 1 | 94 | 0.01 | 1.44 | 1 | DCBH2019_5, 29-Jul-19 | | | | | 0.06 | | 0.05 | | 0.487 | | 0.083 | | | | |
| Lead | mg/l | 0 | 0.0012 | 94 | 0.001 | 0.018 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SCBH2019_1 , 29-Oct-19; SPT2019_5, 09-Dec-19; SPT2019_6, 06-Dec-19 | | | | | <0.001 | | <0.001 | | 0.002 | | <0.001 | | | | |
| Manganese | mg/l | 0 | 0.123 | 94 | 0.001 | 0.452 | 7 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | | | 0.215 | | 0.002 | | 0.034 | | 0.351 | | | | |
| Mercury | mg/l | 0 | 0.00007 | 94 | <0.0001 | 0.0002 | 1 | SCBH2019_3, 12-Nov-19 | | | | | <0.0001 | | <0.0001 | | <0.0001 | | <0.0001 | | | | |
| Nickel | mg/l | 0 | 0.004 | 94 | 0.001 | 0.006 | 2 | DCBH2019_5, 29-Jul-19; DCBH2019_6, 19-Sep-19 | | | | | 0.004 | | <0.001 | | <0.001 | | 0.003 | | | | |
| Selenium | mg/l | 0 | N/A | 94 | <0.001 | <0.001 | 0 | | | | | | <0.001 | | <0.001 | | <0.001 | | <0.001 | | | | |
| Vanadium | mg/l | 0 | 0.02 | 94 | 0.001 | 0.078 | 5 | MGS2019_E1, 10-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19 | | | | | 0.001 | | <0.001 | | 0.005 | | 0.002 | | | | |
| Zinc | mg/l | 0 | 0.0145 | 94 | 0.001 | 0.167 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SPT2019_6, 06-Dec-19 | | | | | 0.015 | | 0.004 | | 0.006 | | 0.01 | | | | |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | | | 0.027 | | | | | | | | | | |
| Acenaphthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | | | | | | | | | |
| Acenaphthylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Anthracene | mg/l | 0 | 0.0001 | 94 | <0.00002 | 0.00023 | 2 | DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19 | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00000017 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Chrysene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Fluoranthene | mg/l | 0 | 0.0000063 | 94 | <0.00002 | 0.00013 | 5 | MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH20109_2, 18-Aug-19 | | | | | | | | | | | | | | | |
| Fluorene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Naphthalene | mg/l | 0 | 0.002 | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | | | | | | | | | |
| Phenanthrene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | | | | | | | | | |
| Pyrene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | | | | | | | | | |

ATKINS

| Assessment Criteria : | Freshwater EQS |
|---|---|
| CaCO (mg/l): | 0.00 |
| pH | 7.00 |
| Calcium (mg/l): | 4.00 |
| DOC (mg/l) | 135.00 |
| Catchment area: | Blackwater / Chelmer |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | DCBH2019_8 DCBH2019_8 1.50 m 05-Nov-19 | DCBH2019_8 DCBH2019_8 4.40m 05-Nov-19 | DCBH2019_8 DCBH2019_8 6.00m 05-Nov-19 | DCBH2019_8 DCBH2019_8 8.20m 05-Nov-19 | DCBH2019_8 DCBH2019_8 9.90m 05-Nov-19 | DCBH2019_8 DCBH2019_8 11.00m 05-Nov-19 | DCBH2019_8 DCBH2019_8 3.00m 05-Nov-19 | DCBH2019_8 DCBH2019_8 8.50m 05-Nov-19 | SPT2019_4 SPT2019_4 0.70m 05-Nov-19 | SPT2019_4 SPT2019_4 5.00m 05-Nov-19 | SPT2019_4 SPT2019_4 6.00m 05-Nov-19 | Sonic Soil Skip Sonic Soil Skip 0.20m 06-Nov-19 | SD2019_7 SD2019_7 1.20m 13-Nov-19 | SD2019_7 SD2019_7 3.10m 13-Nov-19 | SD2019_7 SD2019_7 6.50m 13-Nov-19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | pH | | 6-9 | 94 | 6.99 | 8.44 | 0 | | | | | | | | | 7.43 | | | | | | | |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.26 | 94 | <0.02 | 8.876 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | | | | | | 1.952 | | | | | | | |
| Ammoniacal nitrogen as N | mg/l | | 0.2 | 94 | 0.02 | 7.361 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | | | | | | 1.51 | | | | | | | |
| Nitrate | mg/l | | N/A | 94 | 0.1 | 2 | 0 | | | | | | | | | 0.2 | | | | | | | |
| Sulphate | mg/l | | 400 | 94 | <1 | 276.04 | 0 | | | | | | | | | 276.04 | | | | | | | |
| Cyanide (free) | mg/l | | 0.001 | 94 | <0.005 | <0.005 | 0 | | | | | | | | | <0.005 | | | | | | | |
| Cyanide (total) | mg/l | | N/A | 94 | <0.005 | 0.082 | 0 | | | | | | | | | <0.005 | | | | | | | |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | | | | | | <0.1 | | | | | | | |
| Arsenic | mg/l | 0 | 0.05 | 94 | 0.001 | 0.023 | 0 | | | | | | | | | 0.001 | | | | | | | |
| Boron | mg/l | 0 | 2 | 94 | 0.01 | 1.12 | 0 | | | | | | | | | 0.307 | | | | | | | |
| Cadmium | mg/l | 0 | 0.00008 | 94 | <0.001 | <0.001 | 0 | | | | | | | | | <0.001 | | | | | | | |
| Copper | mg/l | 0 | 0.001 | 94 | 0.001 | 0.008 | 9 | MGS2019_E1, 10-Jul-19; DCBH2019_4, 23-Jul-19; MGS_2019_B, 22-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH2019_5, 30-Jul-19; SCBH2019_1 , 29-Oct-19; DCBH2019_8, 05-Nov-19; SPT2019_6, 06-Dec-19 | | | | | | | | 0.002 | | | | | | | |
| Chromium | mg/l | 0 | See Cr VI as first pass | 94 | 0.001 | 0.003 | 0 | | | | | | | | | <0.001 | | | | | | | |
| Chromium (hexavalent) | mg/l | | 0.0034 | 94 | <0.05 | <0.05 | 0 | | | | | | | | | <0.05 | | | | | | | |
| Iron | mg/l | 0 | 1 | 94 | 0.01 | 1.44 | 1 | DCBH2019_5, 29-Jul-19 | | | | | | | | 0.011 | | | | | | | |
| Lead | mg/l | 0 | 0.0012 | 94 | 0.001 | 0.018 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SCBH2019_1 , 29-Oct-19; SPT2019_5, 09-Dec-19; SPT2019_6, 06-Dec-19 | | | | | | | | <0.001 | | | | | | | |
| Manganese | mg/l | 0 | 0.123 | 94 | 0.001 | 0.452 | 7 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | | | | | | 0.122 | | | | | | | |
| Mercury | mg/l | 0 | 0.00007 | 94 | <0.0001 | 0.0002 | 1 | SCBH2019_3, 12-Nov-19 | | | | | | | | <0.0001 | | | | | | | |
| Nickel | mg/l | 0 | 0.004 | 94 | 0.001 | 0.006 | 2 | DCBH2019_5, 29-Jul-19; DCBH2019_6, 19-Sep-19 | | | | | | | | <0.001 | | | | | | | |
| Selenium | mg/l | 0 | N/A | 94 | <0.001 | <0.001 | 0 | | | | | | | | | <0.001 | | | | | | | |
| Vanadium | mg/l | 0 | 0.02 | 94 | 0.001 | 0.078 | 5 | MGS2019_E1, 10-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19 | | | | | | | | 0.002 | | | | | | | |
| Zinc | mg/l | 0 | 0.0145 | 94 | 0.001 | 0.167 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SPT2019_6, 06-Dec-19 | | | | | | | | 0.012 | | | | | | | |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | | | | | | 0.112 | | | | | | | |
| Acenaphthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | | | | | | | | | |
| Acenaphthylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Anthracene | mg/l | 0 | 0.0001 | 94 | <0.00002 | 0.00023 | 2 | DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19 | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00000017 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Chrysene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Fluoranthene | mg/l | 0 | 0.0000063 | 94 | <0.00002 | 0.00013 | 5 | MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH20109_2, 18-Aug-19 | | | | | | | | | | | | | | | |
| Fluorene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | |
| Naphthalene | mg/l | 0 | 0.002 | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | | | | | | | | | |
| Phenanthrene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | | | | | | | | | |
| Pyrene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | | | | | | | | | |

ATKINS

| Assessment Criteria : | Freshwater EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 7.00 | | | |
| Calcium (mg/l): | 4.00 | | | DOC (mg/l) | 135.00 | | Catchment area: | Blackwater / Chelmer |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | SD2019_7 | SD2019_7 | SD2019_7 | SCBH2019_3 | SCBH2019_3 | SCBH2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | CH2019_R2 | CH2019_R2 | CH2019_R2 | CH2019_R2 | SPT2019_5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SD2019_7 | SD2019_7 | SD2019_7 | SCBH2019_3 | SCBH2019_3 | SCBH2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | SPT2019_3 | CH2019_R2 | CH2019_R2 | CH2019_R2 | CH2019_R2 | SPT2019_5 |
| | | | | | | | | | 7.36m | 9.50m | 11.00m | 0.30m | 0.70m | 1.00m | 0.50m | 1.00m | 2.50m | 3.80m | 5.50m | 1.20m | 7.20m | 10.00m | 1.60m | 0.50m |
| | | | | | | | | | 13-Nov-19 | 13-Nov-19 | 13-Nov-19 | 12-Nov-19 | 12-Nov-19 | 12-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 19-Nov-19 | 25-Nov-19 | 25-Nov-19 | 26-Nov-19 | 25-Nov-19 | 09-Dec-19 |
| pH | pH | | 6-9 | 94 | 6.99 | 8.44 | 0 | | | | 7.72 | 7.93 | | 7.93 | | | | | | 7.99 | | | | 7.89 |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.26 | 94 | <0.02 | 8.876 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | <0.026 | <0.026 | | 0.401 | | | | | | 0.072 | | | | 0.07 |
| Ammoniacal nitrogen as N | mg/l | | 0.2 | 94 | 0.02 | 7.361 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | <0.02 | <0.02 | | 0.31 | | | | | | 0.06 | | | | 0.05 |
| Nitrate | mg/l | | N/A | 94 | 0.1 | 2 | 0 | | | | <0.1 | <0.1 | | 0.6 | | | | | | <0.1 | | | | 2 |
| Sulphate | mg/l | | 400 | 94 | <1 | 276.04 | 0 | | | | 40.74 | 9.77 | | 5.11 | | | | | | 6.74 | | | | <1 |
| Cyanide (free) | mg/l | | 0.001 | 94 | <0.005 | <0.005 | 0 | | | | <0.005 | <0.005 | | <0.005 | | | | | | <0.005 | | | | <0.005 |
| Cyanide (total) | mg/l | | N/A | 94 | <0.005 | 0.082 | 0 | | | | <0.005 | <0.005 | | <0.005 | | | | | | <0.005 | | | | <0.005 |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | | | <0.1 | <0.1 | | <0.1 | | | | | | <0.1 | | | | <0.1 |
| Arsenic | mg/l | 0 | 0.05 | 94 | 0.001 | 0.023 | 0 | | | | 0.007 | 0.002 | | 0.004 | | | | | | 0.006 | | | | 0.008 |
| Boron | mg/l | 0 | 2 | 94 | 0.01 | 1.12 | 0 | | | | 0.017 | 0.01 | | 0.031 | | | | | | 0.023 | | | | 0.099 |
| Cadmium | mg/l | 0 | 0.00008 | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Copper | mg/l | 0 | 0.001 | 94 | 0.001 | 0.008 | 9 | MGS2019_E1, 10-Jul-19; DCBH2019_4, 23-Jul-19; MGS_2019_B, 22-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH2019_5, 30-Jul-19; SCBH2019_1 , 29-Oct-19; DCBH2019_8, 05-Nov-19; SPT2019_6, 06-Dec-19 | | | <0.001 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Chromium | mg/l | 0 | See Cr VI as first pass | 94 | 0.001 | 0.003 | 0 | | | | <0.001 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Chromium (hexavalent) | mg/l | | 0.0034 | 94 | <0.05 | <0.05 | 0 | | | | <0.05 | <0.05 | | <0.05 | | | | | | <0.05 | | | | <0.05 |
| Iron | mg/l | 0 | 1 | 94 | 0.01 | 1.44 | 1 | DCBH2019_5, 29-Jul-19 | | | 0.15 | <0.01 | | 0.011 | | | | | | 0.013 | | | | 0.208 |
| Lead | mg/l | 0 | 0.0012 | 94 | 0.001 | 0.018 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SCBH2019_1 , 29-Oct-19; SPT2019_5, 09-Dec-19; SPT2019_6, 06-Dec-19 | | | <0.001 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Manganese | mg/l | 0 | 0.123 | 94 | 0.001 | 0.452 | 7 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | | | 0.012 | <0.001 | | 0.028 | | | | | | 0.029 | | | | 0.014 |
| Mercury | mg/l | 0 | 0.00007 | 94 | <0.0001 | 0.0002 | 1 | SCBH2019_3, 12-Nov-19 | | | <0.0001 | 0.0002 | | <0.0001 | | | | | | <0.0001 | | | | <0.0001 |
| Nickel | mg/l | 0 | 0.004 | 94 | 0.001 | 0.006 | 2 | DCBH2019_5, 29-Jul-19; DCBH2019_6, 19-Sep-19 | | | 0.003 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Selenium | mg/l | 0 | N/A | 94 | <0.001 | <0.001 | 0 | | | | <0.001 | <0.001 | | <0.001 | | | | | | <0.001 | | | | <0.001 |
| Vanadium | mg/l | 0 | 0.02 | 94 | 0.001 | 0.078 | 5 | MGS2019_E1, 10-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19 | | | 0.005 | <0.001 | | 0.001 | | | | | | 0.001 | | | | 0.002 |
| Zinc | mg/l | 0 | 0.0145 | 94 | 0.001 | 0.167 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SPT2019_6, 06-Dec-19 | | | 0.005 | 0.008 | | 0.009 | | | | | | 0.003 | | | | 0.003 |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | 0.023 | | | 0.022 | | | | | | | | | | |
| Acenaphthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | | | | | | | | | | |
| Acenaphthylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Anthracene | mg/l | 0 | 0.0001 | 94 | <0.00002 | 0.00023 | 2 | DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19 | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00000017 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Chrysene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Fluoranthene | mg/l | 0 | 0.0000063 | 94 | <0.00002 | 0.00013 | 5 | MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH20109_2, 18-Aug-19 | | | | | | | | | | | | | | | | |
| Fluorene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | | | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | | | | | | | | | | |
| Naphthalene | mg/l | 0 | 0.002 | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | | | | | | | | | | |
| Phenanthrene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | | | | | | | | | | |
| Pyrene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | | | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | | | | | | | | | | |

| Assessment Criteria : | | | Freshwater EQS | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | pH | 7.00 | | | | | | | | | | | |
| Calcium (mg/l): | 4.00 | | DOC (mg/l) | 135.00 | | Catchment area: | | Blackwater / Chelmer | | | | | | | |
| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | SPT2019_5 | SPT2019_6 | SPT2019_6 | SPT2019_6 | SPT2019_2 | SPT2019_2 | SPT2019_2 |
| | | | | | | | | | SPT2019_5 | SPT2019_6 | SPT2019_6 | SPT2019_6 | SPT2019_2 | SPT2019_2 | SPT2019_2 |
| | | | | | | | | | 4.30m | 0.10m | 1.00m | 3.00m | 0.30m | 2.00m | 6.00m |
| | | | | | | | | | 09-Dec-19 | 06-Dec-19 | 06-Dec-19 | 09-Dec-19 | 16-Dec-19 | 16-Dec-19 | 17-Dec-19 |
| pH | pH | | 6-9 | 94 | 6.99 | 8.44 | 0 | | 7.93 | 7.82 | | | 7.3 | 7.64 | 7.27 |
| Ammoniacal Nitrogen as NH4 | mg/l | | 0.26 | 94 | <0.02 | 8.876 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | 8.567 | 0.072 | | | <0.026 | 1.943 | 1.807 |
| Ammoniacal nitrogen as N | mg/l | | 0.2 | 94 | 0.02 | 7.361 | 12 | MGS2019_A, 20-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; DCBH2019_8, 05-Nov-19; SCBH2019_3, 12-Nov-19; SPT2019_5, 09-Dec-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | 6.64 | 0.06 | | | <0.02 | 1.51 | 1.4 |
| Nitrate | mg/l | | N/A | 94 | 0.1 | 2 | 0 | | <0.1 | 0.3 | | | <0.1 | <0.1 | <0.1 |
| Sulphate | mg/l | | 400 | 94 | <1 | 276.04 | 0 | | 34.48 | <1 | | | 2.92 | 57.96 | 157.76 |
| Cyanide (free) | mg/l | | 0.001 | 94 | <0.005 | <0.005 | 0 | | <0.005 | <0.005 | | | <0.005 | <0.005 | <0.005 |
| Cyanide (total) | mg/l | | N/A | 94 | <0.005 | 0.082 | 0 | | <0.005 | <0.005 | | | <0.005 | <0.005 | <0.005 |
| Sulphide | mg/l | | No WSV | 94 | <0.1 | 0.3 | 0 | | <0.1 | <0.1 | | | <0.1 | <0.1 | <0.1 |
| Arsenic | mg/l | 0 | 0.05 | 94 | 0.001 | 0.023 | 0 | | 0.011 | 0.005 | | | 0.005 | 0.004 | 0.005 |
| Boron | mg/l | 0 | 2 | 94 | 0.01 | 1.12 | 0 | | 0.089 | 0.036 | | | 0.015 | 0.168 | 0.429 |
| Cadmium | mg/l | 0 | 0.00008 | 94 | <0.001 | <0.001 | 0 | | <0.001 | <0.001 | | | <0.001 | <0.001 | <0.001 |
| Copper | mg/l | 0 | 0.001 | 94 | 0.001 | 0.008 | 9 | MGS2019_E1, 10-Jul-19; DCBH2019_4, 23-Jul-19; MGS_2019_B, 22-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH2019_5, 30-Jul-19; SCBH2019_1 , 29-Oct-19; DCBH2019_8, 05-Nov-19; SPT2019_6, 06-Dec-19 | 0.001 | 0.002 | | | 0.001 | <0.001 | 0.001 |
| Chromium | mg/l | 0 | See Cr VI as first pass | 94 | 0.001 | 0.003 | 0 | | <0.001 | <0.001 | | | <0.001 | <0.001 | <0.001 |
| Chromium (hexavalent) | mg/l | | 0.0034 | 94 | <0.05 | <0.05 | 0 | | <0.05 | <0.05 | | | <0.05 | <0.05 | <0.05 |
| Iron | mg/l | 0 | 1 | 94 | 0.01 | 1.44 | 1 | DCBH2019_5, 29-Jul-19 | 0.215 | 0.444 | | | 0.241 | 0.024 | 0.016 |
| Lead | mg/l | 0 | 0.0012 | 94 | 0.001 | 0.018 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SCBH2019_1 , 29-Oct-19; SPT2019_5, 09-Dec-19; SPT2019_6, 06-Dec-19 | 0.003 | 0.003 | | | <0.001 | <0.001 | <0.001 |
| Manganese | mg/l | 0 | 0.123 | 94 | 0.001 | 0.452 | 7 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SCBH2019_1 , 30-Oct-19; SPT2019_2, 16-Dec-19; SPT2019_2, 17-Dec-19 | 0.102 | 0.06 | | | 0.014 | 0.151 | 0.452 |
| Mercury | mg/l | 0 | 0.00007 | 94 | <0.0001 | 0.0002 | 1 | SCBH2019_3, 12-Nov-19 | <0.0001 | <0.0001 | | | <0.0001 | <0.0001 | <0.0001 |
| Nickel | mg/l | 0 | 0.004 | 94 | 0.001 | 0.006 | 2 | DCBH2019_5, 29-Jul-19; DCBH2019_6, 19-Sep-19 | 0.002 | 0.001 | | | <0.001 | 0.001 | <0.001 |
| Selenium | mg/l | 0 | N/A | 94 | <0.001 | <0.001 | 0 | | <0.001 | <0.001 | | | <0.001 | <0.001 | <0.001 |
| Vanadium | mg/l | 0 | 0.02 | 94 | 0.001 | 0.078 | 5 | MGS2019_E1, 10-Jul-19; MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19 | 0.012 | 0.005 | | | 0.003 | 0.005 | <0.001 |
| Zinc | mg/l | 0 | 0.0145 | 94 | 0.001 | 0.167 | 6 | MGS_2019_F, 25-Jul-19; MGS_2019_F, 25-Jul-19; DCBH2019_5, 29-Jul-19; SD2019_4, 14-Sep-19; SD2019_3, 17-Sep-19; SPT2019_6, 06-Dec-19 | 0.008 | 0.019 | | | 0.005 | 0.011 | 0.013 |
| Calcium | mg/l | 0 | N/A | 94 | 0.003 | 0.124 | 0 | | | | | | 0.008 | 0.035 | 0.123 |
| Acenaphthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | 0.00059 | 0 | | | | | | | | |
| Acenaphthylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Anthracene | mg/l | 0 | 0.0001 | 94 | <0.00002 | 0.00023 | 2 | DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19 | | | | | | | |
| Benzo(a)anthracene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | |
| Benzo(a)pyrene | mg/l | 0 | 0.00000017 | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Benzo(b)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Benzo(ghi)perylene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Benzo(k)fluoranthene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Chrysene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00002 | 0 | | | | | | | | |
| Dibenzo(ah)anthracene | mg/l | 0 | No WSV | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Fluoranthene | mg/l | 0 | 0.0000063 | 94 | <0.00002 | 0.00013 | 5 | MGS_2019_F, 25-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_4, 31-Jul-19; DCBH2019_5, 29-Jul-19; DCBH20109_2, 18-Aug-19 | | | | | | | |
| Fluorene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00038 | 0 | | | | | | | | |
| Indeno(123-cd)pyrene | mg/l | 0 | Screen BaP only | 94 | <0.00002 | <0.00002 | 0 | | | | | | | | |
| Naphthalene | mg/l | 0 | 0.002 | 94 | <0.00002 | 0.00098 | 0 | | | | | | | | |
| Phenanthrene | mg/l | 0 | Screen BaP only | 94 | 0.00002 | 0.00082 | 0 | | | | | | | | |
| Pyrene | mg/l | 0 | N/A | 94 | <0.00002 | 0.00012 | 0 | | | | | | | | |
| Total PAH 16MS | mg/l | 0 | No WSV | 94 | <0.00002 | 0.00329 | 0 | | | | | | | | |

# Appendix J – Surface Water Screening Results

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| Assessment Criteria : | Coastal and Estuarine EQS | | |

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| Assessment Criteria : | Coastal and Estuarine EQS | | |

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| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | pH | 0.00 | | | | | |
| Calcium (mg/l): | 0.00 | DOC (mg/l) | 0.00 | Catchment area: | Freshwater not listed | | | |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | March 2011 Campaign 15 SW1 | April 2011 Campaign 16 SW1 | May 2011 Campaign 17 SW1 | June 2011 Campaign 18 SW1 | Aug 2011 Campaign 19 SW1 | Aug 2011 Campaign 20 SW1 | Sep 2011 Campaign 21 SW1 | Oct 2011 Campaign 22 SW1 | Nov 2011 Campaign 23 SW1 | Dec 2011 Campaign 24 SW1 | Jan 2012 Campaign 25 SW1 | Feb 2012 Campaign 26 SW1 | Mar 2012 Campaign 27 SW1 | Apr 2012 Campaign 28 SW1 | May 2012 Campaign 29 SW1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 410 | 380 | 350 | 370 | 370 | 400 | 210 | 380 | 300 | 400 | 310 | 480 | 580 | 400 | 290 |
| | | | | | | | | | 0.034 | 0.04943 | 0.06334 | 0.0454 | 0.04915 | 0.04305 | 0.05 | 0.07053 | 0.02433 | 0.04174 | 0.02907 | 0.029 | 0.021 | 0.051 | 0.038 |
| Alkalinity | mg/l as CaCO3 | | No WSV | 592 | 0.16 | 650 | 0 | | 410 | 380 | 350 | 370 | 370 | 400 | 210 | 380 | 300 | 400 | 310 | 480 | 580 | 400 | 290 |
| Zinc | mg/l | | 0.0068 | 592 | 0.00042 | 112 | 540 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; May-2010 Campaign 5, SW2; June-2010 Campaign 6, SW2; July-2010 Campaign 7, SW2; August-2010 Campaign 8, SW2; September- 2010 Campaign 9, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; May-2010 Campaign 5, SW3; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; September- 2010 Campaign 9, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Sep 2011 Campaign 21, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; Mar-2010 Campaign 3, SW4; May-2010 Campaign 5, SW4; June-2010 Campaign 6, SW4; July-2010 Campaign 7, SW4; August-2010 Campaign 8, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 | 0.034 | 0.04943 | 0.06334 | 0.0454 | 0.04915 | 0.04305 | 0.05 | 0.07053 | 0.02433 | 0.04174 | 0.02907 | 0.029 | 0.021 | 0.051 | 0.038 |
| Iron | mg/l | | 1 | 592 | 0.00078 | 1689 | 136 | December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; July-2010 Campaign 7, SW3; Sep 2011 Campaign 21, SW4; December 2012 Campaign 36, SW4; May-2010 Campaign 5, SW5 (Stillwater); June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); Apr 2012 Campaign 28, SW5 (Stillwater); June 2012 Campaign 30, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); October 2012 Campaign 34, SW5 (Stillwater); November 2012 Campaign 35, SW5 (Stillwater); December 2012 Campaign 36, SW5 (Stillwater); January 2013 Campaign 37, SW5 (Stillwater); May-2010 Campaign 5, SW6; June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; August-2010 Campaign 8, SW6; December-2010 Campaign 12, SW6; January 2011 Campaign 13, SW6; February 2011 Campaign 14, SW6; March 2011 Campaign 15, SW6; April 2011 Campaign 16, SW6; May 2011 Campaign 17, SW6; June 2011 Campaign 18, SW6; Aug 2011 Campaign 20, SW6; Sep 2011 Campaign 21, SW6; Oct 2011 Campaign 22, SW6; Dec 2011 Campaign 24, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; Mar 2012 Campaign 27, SW6; Apr 2012 Campaign 28, SW6; May 2012 Campaign 29, SW6; June 2012 Campaign 30, SW6; July 2012 Campaign 31, SW6; August 2012 Campaign 32, SW6; September 2012 Campaign 33, SW6; October 2012 Campaign 34, SW6; November 2012 Campaign 35, SW6; December 2012 Campaign 36, SW6; January 2013 Campaign 37, SW6; May-2010 Campaign 5, SW7; June 2011 Campaign 18, SW7; Dec 2011 Campaign 24, SW7; Apr 2012 Campaign 28, SW7; October 2012 Campaign 34, SW7; December 2012 Campaign 36, SW7; January 2013 Campaign 37, SW7; August 2012 Campaign 32, SW8; September 2012 Campaign 33, SW8; December 2012 Campaign 36, SW8; Apr 2012 Campaign 28, SW10; October 2012 Campaign 34, SW10; May 2011 Campaign 17, SW12; September- 2010 Campaign 9, SW13; October-2010 Campaign 10, SW13; November- 2010 Campaign 11, SW13; December-2010 Campaign 12, SW13; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; May 2011 Campaign 17, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Dec 2011 Campaign 24, SW13; Jan 2012 Campaign 25, SW13; Feb 2012 Campaign 26, SW13; Apr 2012 Campaign 28, SW13; May 2012 Campaign 29, SW13; June 2012 Campaign 30, SW13; July 2012 Campaign 31, SW13; August 2012 Campaign 32, SW13; October 2012 Campaign 34, SW13; November 2012 Campaign 35, SW13; December 2012 Campaign 36, SW13; January 2013 Campaign 37, SW13; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; September 2010 Campaign 9, SW14; October-2010 Campaign 10, SW14; November- 2010 Campaign 11, SW14; December-2010 Campaign 12, SW14; January 2011 Campaign 13, SW14; February 2011 Campaign 14, SW14; March 2011 Campaign 15, SW14; June 2011 Campaign 18, SW14; Aug 2011 Campaign 19, SW14; Aug 2011 Campaign 20, SW14; Sep 2011 Campaign 21, SW14; Oct 2011 Campaign 22, SW14; Nov 2011 Campaign 23, SW14; Dec 2011 | 0.03821 | 0.03706 | 0.06783 | 0.1912 | 0.082635 | 0.03048 | 0.328 | 0.1261 | 0.04122 | 0.04952 | 0.1839 | 0.098 | 0.267 | 0.309 | 0.121 |
| Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 6 | 42 | June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; June-2010 Campaign 6, SW2; Jan-2010 Campaign 1; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; Jan-2010 Campaign 1; July-2010 Campaign 7, SW4; Jan-2010 Campaign 1; June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; June-2010 Campaign 6, SW11; Jan-2010 Campaign 1; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; Jan-2010 Campaign 1; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW16; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 1.41 | 16 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Lead | mg/l | 0 | 0.0013 | 592 | 0 | 16 | 29 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; June-2010 Campaign 6, SW11; July-2010 Campaign 7, SW11; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Sodium | mg/l | | N/A | 592 | 0.0002 | 2396 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.06999 | 0.07873 | 0.07979 | 0.06428 | 0.053815 | 0.07742 | 0.047 | 0.05729 | 0.07881 | 0.07899 | 0.0775 | 0.0747 | 0.03124 | 0.0938 | 0.0539 |
| Total Ammonia as N | mg/l as N | | No WSV | 592 | 0 | 8.24 | 0 | | 0.00058 | 0.00046 | 0.00018 | 0.00003 | 0.00021 | 0.00041 | | | | 0.00008 | | 0.00016 | 0.00082 | | |
| Un-ionised ammonia as N | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Un-ionised ammonia as NH3 | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ammonium as N | mg/l | | No WSV | 592 | 0 | 39.24 | 0 | | 0.57 | 0.46 | 0.18 | 0.03 | 0.21 | 0.41 | 0 | 0 | 0 | 0.08 | 0 | 0.16 | 0.82 | 0 | 0 |
| Ammonium as NH4 | mg/l | | Not appropriate, see Unionised Ammonia | 592 | 0 | 48 | 0 | | 0.74 | 0.59 | 0.23 | 0.03 | 0.26 | 0.53 | 0 | 0 | 0 | 0.11 | 0 | 0.21 | 1 | 0 | 0 |
| BOD | mg/l | | No WSV | 592 | 0 | 130 | 0 | | 9 | 8.5 | 8.6 | 7 | 2.3 | 0 | 0 | 0 | 0 | 2 | 8 | 0 | 7 | 4 | 8 |
| Chloride | mg/l | | N/A | 592 | 0.22 | 15655 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 70.556 | 92.161 | 115.816 | 83.627 | 86.284 | 93.057 | 64 | 78.188 | 104.55 | 101.894 | 102.621 | 79 | 38 | 122 | 69 |
| Nitrate | mg/l | | N/A | 592 | 0 | 94 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 61.701 | 47.178 | 52.175 | 58.913 | 37.077 | 40.05 | 47 | 49.866 | 71.817 | 78.668 | 59.459 | 60 | 65 | 75 | 28 |
| Nitrite | mg/l | | N/A | 592 | 0 | 5.92 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0 | 0 | 0 | 0 | 3.85 | 2.125 | 0 | 0 | 0 | 0 | 0 | 0 | 1.03 | 0 | 0 |
| Suspended Solids | mg/l | | No WSV | 592 | 0 | 6378 | 0 | | 36 | 14 | 14 | 10 | 0 | 16 | 11 | 16 | 20 | 18 | 18 | 32 | 32 | 18 | 14 |
| Total Hardness | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 6487 | 0 | | 446.25406 | 462.51526 | 403.03574 | 476.96192 | 421 | 492 | 406 | 395 | 406 | 480 | 395 | 529 | 323 | 456 | 365 |
| Hardness~ | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 4325 | 0 | | 298 | 308 | 269 | 318 | 281 | 328 | 271 | 263 | 271 | 320 | 263 | 353 | 215 | 304 | 243 |
| Total Petroleum Hydrocarbons(C8-C35) | mg/l | 0 | No WSV | 592 | 0 | 3169.93 | 0 | | 0 | 0 | 223.602 | 19.665 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 22 |

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| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 0.00 | | | |
| Calcium (mg/l): | 0.00 | | | DOC (mg/l) | 0.00 | Catchment area: | | Freshwater not listed |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | March 2011 Campaign 15 | April 2011 Campaign 16 | May 2011 Campaign 17 | June 2011 Campaign 18 | Aug 2011 Campaign 19 | Aug 2011 Campaign 20 | Sep 2011 Campaign 21 | Oct 2011 Campaign 22 | Nov 2011 Campaign 23 | Dec 2011 Campaign 24 | Jan 2012 Campaign 25 | Feb 2012 Campaign 26 | Mar 2012 Campaign 27 | Apr 2012 Campaign 28 | May 2012 Campaign 29 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 410 | 380 | 350 | 370 | 370 | 400 | 210 | 380 | 300 | 400 | 310 | 480 | 580 | 400 | 290 |
| | | | | | | | | | 0.034 | 0.04943 | 0.06334 | 0.0454 | 0.04915 | 0.04305 | 0.05 | 0.07053 | 0.02433 | 0.04174 | 0.02907 | 0.029 | 0.021 | 0.051 | 0.038 |
| pH | pH units | | 7 - 9.0 | 592 | 0.05 | 8.4 | 134 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; September- 2010 Campaign 9, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; October 2012 Campaign 34, SW1; Jan-2010 Campaign 1; October-2010 Campaign 10, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Dec 2011 Campaign 24, SW2; Jan-2010 Campaign 1; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; September- 2010 Campaign 9, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Sep 2011 Campaign 21, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; October 2012 Campaign 34, SW4; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); September- 2010 Campaign 9, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW6; Apr-2010 Campaign 4, SW6; July-2010 Campaign 7, SW6; September- 2010 Campaign 9, SW6; December-2010 Campaign 12, SW6; June 2011 Campaign 18, SW6; Oct 2011 Campaign 22, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; July 2012 Campaign 31, SW6; Jan-2010 Campaign 1; Apr-2010 Campaign 4, SW7; September- 2010 Campaign 9, SW7; June 2011 Campaign 18, SW7; Oct 2011 Campaign 22, SW7; Nov 2011 Campaign 23, SW7; Mar-2010 Campaign 3, SW8; Apr-2010 Campaign 4, SW8; June-2010 Campaign 6, SW8; October-2010 Campaign 10, SW8; November- 2010 Campaign 11, SW8; December-2010 Campaign 12, SW8; Aug 2011 Campaign 20, SW8; Sep 2011 Campaign 21, SW8; Oct 2011 Campaign 22, SW8; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW9; Apr-2010 Campaign 4, SW9; September- 2010 Campaign 9, SW9; Sep 2011 Campaign 21, SW9; Oct 2011 Campaign 22, SW9; Nov 2011 Campaign 23, SW9; Jan 2012 Campaign 25, SW9; September 2012 Campaign 33, SW9; October-2010 Campaign 10, SW10; December-2010 Campaign 12, SW10; Aug 2011 Campaign 20, SW10; Sep 2011 Campaign 21, SW10; Jan-2010 Campaign 1; November- 2010 Campaign 11, SW11; January 2011 Campaign 13, SW11; Oct 2011 Campaign 22, SW11; Nov 2011 Campaign 23, SW11; July 2012 Campaign 31, SW11; August 2012 Campaign 32, SW11; October 2012 Campaign 34, SW11; December 2012 Campaign 36, SW11; January 2013 Campaign 37, SW11; Jan-2010 Campaign 1; September- 2010 Campaign 9, SW12; May 2011 Campaign 17, SW12; June 2011 Campaign 18, SW12; Sep 2011 Campaign 21, SW12; Oct 2011 Campaign 22, SW12; Nov 2011 Campaign 23, SW12; Dec 2011 Campaign 24, SW12; Jan-2010 Campaign 1; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; April 2011 Campaign 16, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Oct 2011 Campaign 22, SW13; Dec 2011 Campaign 24, SW13; Feb 2012 Campaign 26, SW13; | 7.48 | 7.18 | 7.53 | 6.8 | 6.945 | 7.13 | 6.89 | 6.86 | 7.25 | 6.6 | 7.1 | 7.2 | 7.4 | 7.3 | 7.2 |
| Temperature | oC | | No WSV | 592 | 0.00028 | 20.3 | 0 | | 0.00742 | 0.0129 | 0.0114 | 0.013 | 0.0168 | 0.0147 | 0.01316 | 0.01372 | 0.01277 | 0.01094 | 0.00681 | 0.0053 | 0.0078 | 0.0118 | 0.0136 |
| Dissolved Oxygen | % saturation | | No WSV | 592 | 0.21 | 159.3 | 0 | | 27.4 | 63.5 | 61.1 | 46 | DNS | 12.5 | 26.1 | 33.4 | 36.8 | 57.1 | 41.5 | 45.4 | 53.9 | 80.2 | 36.4 |
| Total Phosphorus | mg/l | | No WSV | 592 | 0.02 | 25.74 | 0 | | 1.936 | 2.228 | 3.236 | 1.67 | 3.249 | 2.448 | 1.92 | 4.268 | 3.122 | 3.061 | 1.643 | 1.18 | 0.91 | 3.01 | 1.7 |
| Soluble ReactivePhosphorus | mg/l | | No WSV | 592 | 0 | 4.32 | 0 | | 1.397 | 1.54 | 2.269 | 1.35 | 1.623 | 2.148 | 1.37 | 2.02 | 2.639 | 2.683 | 1.148 | 0.92 | 0.49 | 2.37 | 1.31 |
| Dissolved Copper | mg/l | 0 | 0.00376 | 592 | 0 | 30.1 | 259 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; June 2011 Campaign 18, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; August-2010 Campaign 8, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; June 2011 Campaign 18, SW2; Mar 2012 Campaign 27, SW2; July 2012 Campaign 31, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; August-2010 Campaign 8, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; June 2011 Campaign 18, SW3; Jan 2012 Campaign 25, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; Apr-2010 Campaign 4, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 Campaign 11, SW4; December-2010 Campaign 12, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; September 2012 Campaign 33, SW4; October 2012 Campaign 34, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Jan-2010 Campaign 1; July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); October-2010 Campaign 10, SW5 (Stillwater); November- 2010 Campaign 11, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 (Stillwater); March 2011 Campaign 15, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); December 2012 Campaign 36, SW5 (Stillwater); Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW6; July-2010 Campaign 7, SW6; October-2010 Campaign 10, SW6; November- 2010 Campaign 11, SW6; December-2010 Campaign 12, SW6; February 2011 Campaign 14, SW6; April 2011 Campaign 16, SW6; June | 7.074 | 19.01 | 0 | 3.289 | 0 | 0 | 0 | 5.069 | 0 | 5.274 | 6.753 | 0 | 6 | 9 | 0 |
| Dissolved Iron | mg/l | 0 | No WSV | 592 | 10 | 31740 | 0 | | 21.47 | 38.84 | 37.62 | 0 | 20.16 | 0 | 59 | 29.92 | 32.32 | 32.98 | 0 | 28 | 224 | 58 | 68 |
| Dissolved Zinc | mg/l | 0 | 0.0068 | 592 | 0 | 237.8 | 354 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Apr-2010 Campaign 4, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; November- 2010 Campaign 11, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; May 2011 Campaign 17, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; Jan 2012 Campaign 25, SW4; Mar 2012 Campaign 27, SW4; May 2012 Campaign 29, SW4; June 2012 Campaign 30, SW4; July 2012 Campaign 31, SW4; August 2012 Campaign 32, SW4; September 2012 Campaign 33, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 | 0.01152 | 0.04564 | 0.0284 | 0.01161 | 0.0173 | 0.01944 | 0.006 | 0.02058 | 0.01105 | 0.01956 | 0.01355 | 0.01 | 0.021 | 0.035 | 0.018 |
| Dissolved Cadmium | mg/l | 0 | 0.0002 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 1.41 | 18 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12; July-2010 Campaign 7, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Lead | mg/l | 0 | 0.0013 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Sulphate | mg/l | | N/A | 592 | 0 | 410.447 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.090254 | 0.106437 | 0.120442 | 0.106422 | 0.0998575 | 0.095777 | 0.094 | 0.100781 | 0.10701 | 0.114713 | 0.088026 | 0.101 | 0.061 | 0.115 | 0.081 |
| Dissolved Organic Carbon | mg/l | | No WSV | 592 | 0.0001 | 139.56 | 0 | | 0.0089263 | 0.013654 | 0.011089 | 0.0079295 | 0.0099895 | 0.006854286 | 0.0123 | 0.011279 | 0.011657 | 0.0085 | 0.0095483 | 0.0113 | 0.0139 | 0.0081 | 0.0106 |
| Acid Neutralising Capacity | mg/l as CaCO3 | | No WSV | 592 | 0 | 0 | 0 | | | | | | | | | | | | | | | | |

ATKINS

| Assessment Criteria : | Coastal and Estuarine EQS | | |

ATKINS

| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 0.00 | | | |
| Calcium (mg/l): | 0.00 | | | DOC (mg/l) | 0.00 | Catchment area: | | Freshwater not listed |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | June 2012 Campaign 30 | July 2012 Campaign 31 | August 2012 Campaign 32 | September 2012 Campaign 33 | October 2012 Campaign 34 | November 2012 Campaign 35 | December 2012 Campaign 36 | January 2013 Campaign 37 | Jan-2010 Campaign 1 | Feb-2010 Campaign 2 | Mar-2010 Campaign 3 | Apr-2010 Campaign 4 | May-2010 Campaign 5 | June-2010 Campaign 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | SW1 | | SW2 | SW2 | SW2 | SW2 | SW2 |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 380 | 250 | 330 | 300 | 200 | 290 | 380 | 310 | 240 | 349.9 | 77.6 | 180 | 580 | 208 |
| | | | | | | | | | 0.044 | 0.109 | 0.067 | 0.045 | 0.089 | 0.049 | 0.075 | 0.06 | 0.057 | 0.0477 | 0.0205 | 0.019 | 0.109 | 0.02078 |
| pH | pH units | | 7 - 9.0 | 592 | 0.05 | 8.4 | 134 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; September- 2010 Campaign 9, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; October 2012 Campaign 34, SW1; Jan-2010 Campaign 1; October-2010 Campaign 10, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Dec 2011 Campaign 24, SW2; Jan-2010 Campaign 1; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; September- 2010 Campaign 9, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Sep 2011 Campaign 21, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; October 2012 Campaign 34, SW4; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); September- 2010 Campaign 9, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW6; Apr-2010 Campaign 4, SW6; July-2010 Campaign 7, SW6; September- 2010 Campaign 9, SW6; December-2010 Campaign 12, SW6; June 2011 Campaign 18, SW6; Oct 2011 Campaign 22, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; July 2012 Campaign 31, SW6; Jan-2010 Campaign 1; Apr-2010 Campaign 4, SW7; September- 2010 Campaign 9, SW7; June 2011 Campaign 18, SW7; Oct 2011 Campaign 22, SW7; Nov 2011 Campaign 23, SW7; Mar-2010 Campaign 3, SW8; Apr-2010 Campaign 4, SW8; June-2010 Campaign 6, SW8; October-2010 Campaign 10, SW8; November- 2010 Campaign 11, SW8; December-2010 Campaign 12, SW8; Aug 2011 Campaign 20, SW8; Sep 2011 Campaign 21, SW8; Oct 2011 Campaign 22, SW8; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW9; Apr-2010 Campaign 4, SW9; September- 2010 Campaign 9, SW9; Sep 2011 Campaign 21, SW9; Oct 2011 Campaign 22, SW9; Nov 2011 Campaign 23, SW9; Jan 2012 Campaign 25, SW9; September 2012 Campaign 33, SW9; October-2010 Campaign 10, SW10; December-2010 Campaign 12, SW10; Aug 2011 Campaign 20, SW10; Sep 2011 Campaign 21, SW10; Jan-2010 Campaign 1; November- 2010 Campaign 11, SW11; January 2011 Campaign 13, SW11; Oct 2011 Campaign 22, SW11; Nov 2011 Campaign 23, SW11; July 2012 Campaign 31, SW11; August 2012 Campaign 32, SW11; October 2012 Campaign 34, SW11; December 2012 Campaign 36, SW11; January 2013 Campaign 37, SW11; Jan-2010 Campaign 1; September- 2010 Campaign 9, SW12; May 2011 Campaign 17, SW12; June 2011 Campaign 18, SW12; Sep 2011 Campaign 21, SW12; Oct 2011 Campaign 22, SW12; Nov 2011 Campaign 23, SW12; Dec 2011 Campaign 24, SW12; Jan-2010 Campaign 1; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; April 2011 Campaign 16, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Oct 2011 Campaign 22, SW13; Dec 2011 Campaign 24, SW13; Feb 2012 Campaign 26, SW13; | 7.5 | 7.4 | 7.3 | 7.2 | 6.8 | 7.6 | 7.4 | 7.3 | 0.05 | 7.6 | 7.1 | 7.05 | 7.7 | 7.65 |
| Temperature | oC | | No WSV | 592 | 0.00028 | 20.3 | 0 | | 0.0137 | 0.0148 | 0.016 | 0.0137 | 0.0134 | 0.01 | 0.0095 | 0.0097 | 0.00029 | 0.00626 | 0.00734 | 0.010495 | 0.01545 | 0.01487 |
| Dissolved Oxygen | % saturation | | No WSV | 592 | 0.21 | 159.3 | 0 | | 41.1 | 38.7 | 38.9 | 31.3 | 20.8 | 46.6 | 34.4 | 30.4 | 0.44 | 42.3 | 46.9 | 64.4 | 84.2 | 125.5 |
| Total Phosphorus | mg/l | | No WSV | 592 | 0.02 | 25.74 | 0 | | 1.5 | 3.96 | 2.52 | 2.64 | 3.58 | 1.26 | 1.33 | 1.73 | 0.41 | 1.07 | 0.495 | 0.84 | 0.89 | 1.46 |
| Soluble ReactivePhosphorus | mg/l | | No WSV | 592 | 0 | 4.32 | 0 | | 1.1 | 2.18 | 2.03 | 2.1 | 2.02 | 0.09 | 1.04 | 1.06 | 0.42 | 0.73 | 0.475 | 0.77 | 0.6 | 0.63 |
| Dissolved Copper | mg/l | 0 | 0.00376 | 592 | 0 | 30.1 | 259 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; June 2011 Campaign 18, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; August-2010 Campaign 8, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; June 2011 Campaign 18, SW2; Mar 2012 Campaign 27, SW2; July 2012 Campaign 31, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; August-2010 Campaign 8, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; June 2011 Campaign 18, SW3; Jan 2012 Campaign 25, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; Apr-2010 Campaign 4, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 Campaign 11, SW4; December-2010 Campaign 12, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; September 2012 Campaign 33, SW4; October 2012 Campaign 34, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Jan-2010 Campaign 1; July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); October-2010 Campaign 10, SW5 (Stillwater); November- 2010 Campaign 11, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 (Stillwater); March 2011 Campaign 15, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW6; July-2010 Campaign 7, SW6; October-2010 Campaign 10, SW6; November- 2010 Campaign 11, SW6; December-2010 Campaign 12, SW6; February 2011 Campaign 14, SW6; April 2011 Campaign 16, SW6; June | 0 | 0 | 6 | 1 | 5 | 8 | 17 | 0 | 1.11 | 2 | 1 | 2 | 0 | 0 |
| Dissolved Iron | mg/l | 0 | No WSV | 592 | 10 | 31740 | 0 | | 25 | 0 | 41 | 29 | 10 | 33 | 97 | 32 | 1.23 | DNS | DNS | DNS | 0 | 0 |
| Dissolved Zinc | mg/l | 0 | 0.0068 | 592 | 0 | 237.8 | 354 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Apr-2010 Campaign 4, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; November- 2010 Campaign 11, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; May 2011 Campaign 17, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; Jan 2012 Campaign 25, SW4; Mar 2012 Campaign 27, SW4; May 2012 Campaign 29, SW4; June 2012 Campaign 30, SW4; July 2012 Campaign 31, SW4; August 2012 Campaign 32, SW4; September 2012 Campaign 33, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 | 0.012 | 0.018 | 0.031 | 0.016 | 0.022 | 0.018 | 0.039 | 0.01 | 0.00062 | 0.009 | 0.0055 | 0.008 | 0.002 | |
| Dissolved Cadmium | mg/l | 0 | 0.0002 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | | DNS | DNS | DNS | DNS | |
| Dissolved Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | | DNS | DNS | DNS | DNS | |
| Dissolved Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 1.41 | 18 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12; July-2010 Campaign 7, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | | DNS | DNS | DNS | DNS | |
| Dissolved Lead | mg/l | 0 | 0.0013 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | | DNS | DNS | DNS | DNS | |
| Sulphate | mg/l | | N/A | 592 | 0 | 410.447 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.105 | 0.087 | 0.12 | 0.105 | 0.091 | 0.085 | 0.074 | 0.102 | 0.00016 | DNS | DNS | DNS | 0.091 | 0.09 |
| Dissolved Organic Carbon | mg/l | | No WSV | 592 | 0.0001 | 139.56 | 0 | | 0.0083 | 0.0104 | 0.0123 | 0.0074 | 0.0088 | 0.0034 | 0.0005 | 0.0148 | 0.00037 | 0.0046 | 0.00555 | 0.00845 | 0.01 | 0.014 |
| Acid Neutralising Capacity | mg/l as CaCO3 | | No WSV | 592 | 0 | 0 | 0 | | | | | | | | | | | | | | | |

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| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | pH | 0.00 | | | | |
| Calcium (mg/l): | 0.00 | | DOC (mg/l) | 0.00 | Catchment area: | | Freshwater not listed | |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | July-2010 Campaign 7 SW2 | August-2010 Campaign 8 SW2 | September- 2010 Campaign 9 SW2 | October-2010 Campaign 10 SW2 | November- 2010 Campaign 11 SW2 | December-2010 Campaign 12 SW2 | January 2011 Campaign 13 SW2 | February 2011 Campaign 14 SW2 | March 2011 Campaign 15 SW2 | April 2011 Campaign 16 SW2 | May 2011 Campaign 17 SW2 | June 2011 Campaign 18 SW2 | Aug 2011 Campaign 19 SW2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 246 | 360 | 410 | 464 | 508 | 0.22 | 340 | 300 | 345 | 360 | 350 | 490 | 370 |
| | | | | | | | | | 0.026532 | 0.04529 | 0.07235 | 0.089914 | 0.0964528 | 0.00043 | 0.031 | 0.027 | 0.0115 | 0.015 | 0.024 | 0.036 | 0.013 |
| Alkalinity | mg/l as CaCO3 | | No WSV | 592 | 0.16 | 650 | 0 | | 490 | 370 | 370 | 420 | 360 | 390 | 380 | 360 | 460 | 360 | 370 | 370 | 365 |
| Zinc | mg/l | | 0.0068 | 592 | 0.00042 | 112 | 540 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; May-2010 Campaign 5, SW2; June-2010 Campaign 6, SW2; July-2010 Campaign 7, SW2; August-2010 Campaign 8, SW2; September- 2010 Campaign 9, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; May-2010 Campaign 5, SW3; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; September- 2010 Campaign 9, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Sep 2011 Campaign 21, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; Mar-2010 Campaign 3, SW4; May-2010 Campaign 5, SW4; June-2010 Campaign 6, SW4; July-2010 Campaign 7, SW4; August-2010 Campaign 8, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 | 0.036 | 0.013 | 0.02 | 0.043 | 0.026 | 0.056 | 0.03226 | 0.04018 | 0.03615 | 0.03638 | 0.05162 | 0.04694 | 0.05851 |
| Iron | mg/l | | 1 | 592 | 0.00078 | 1689 | 136 | December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; July-2010 Campaign 7, SW3; Sep 2011 Campaign 21, SW4; December 2012 Campaign 36, SW4; May-2010 Campaign 5, SW5 (Stillwater); June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); Apr 2012 Campaign 28, SW5 (Stillwater); June 2012 Campaign 30, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); October 2012 Campaign 34, SW5 (Stillwater); November 2012 Campaign 35, SW5 (Stillwater); December 2012 Campaign 36, SW5 (Stillwater); January 2013 Campaign 37, SW5 (Stillwater); May-2010 Campaign 5, SW6; June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; August-2010 Campaign 8, SW6; December-2010 Campaign 12, SW6; January 2011 Campaign 13, SW6; February 2011 Campaign 14, SW6; March 2011 Campaign 15, SW6; April 2011 Campaign 16, SW6; May 2011 Campaign 17, SW6; June 2011 Campaign 18, SW6; Aug 2011 Campaign 20, SW6; Sep 2011 Campaign 21, SW6; Oct 2011 Campaign 22, SW6; Dec 2011 Campaign 24, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; Mar 2012 Campaign 27, SW6; Apr 2012 Campaign 28, SW6; May 2012 Campaign 29, SW6; June 2012 Campaign 30, SW6; July 2012 Campaign 31, SW6; August 2012 Campaign 32, SW6; September 2012 Campaign 33, SW6; October 2012 Campaign 34, SW6; November 2012 Campaign 35, SW6; December 2012 Campaign 36, SW6; January 2013 Campaign 37, SW6; May-2010 Campaign 5, SW7; June 2011 Campaign 18, SW7; Dec 2011 Campaign 24, SW7; Apr 2012 Campaign 28, SW7; October 2012 Campaign 34, SW7; December 2012 Campaign 36, SW7; January 2013 Campaign 37, SW7; August 2012 Campaign 32, SW8; September 2012 Campaign 33, SW8; December 2012 Campaign 36, SW8; Apr 2012 Campaign 28, SW10; October 2012 Campaign 34, SW10; May 2011 Campaign 17, SW12; September- 2010 Campaign 9, SW13; October-2010 Campaign 10, SW13; November- 2010 Campaign 11, SW13; December-2010 Campaign 12, SW13; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; May 2011 Campaign 17, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Dec 2011 Campaign 24, SW13; Jan 2012 Campaign 25, SW13; Feb 2012 Campaign 26, SW13; Apr 2012 Campaign 28, SW13; May 2012 Campaign 29, SW13; June 2012 Campaign 30, SW13; July 2012 Campaign 31, SW13; August 2012 Campaign 32, SW13; October 2012 Campaign 34, SW13; November 2012 Campaign 35, SW13; December 2012 Campaign 36, SW13; January 2013 Campaign 37, SW13; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; September 2010 Campaign 9, SW14; October-2010 Campaign 10, SW14; November- 2010 Campaign 11, SW14; December-2010 Campaign 12, SW14; January 2011 Campaign 13, SW14; February 2011 Campaign 14, SW14; March 2011 Campaign 15, SW14; June 2011 Campaign 18, SW14; Aug 2011 Campaign 19, SW14; Aug 2011 Campaign 20, SW14; Sep 2011 Campaign 21, SW14; Oct 2011 Campaign 22, SW14; Nov 2011 Campaign 23, SW14; Dec 2011 | 0.058 | 0.016 | 0.028 | 0.065 | 0.026 | 0.097 | 0.01794 | 0.07925 | 0.05823 | 0.04995 | 0.1255 | 0.09918 | 0.16237 |
| Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 6 | 42 | June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; June-2010 Campaign 6, SW2; Jan-2010 Campaign 1; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; Jan-2010 Campaign 1; July-2010 Campaign 7, SW4; Jan-2010 Campaign 1; June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; June-2010 Campaign 6, SW11; Jan-2010 Campaign 1; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; Jan-2010 Campaign 1; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW16; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | 0 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 1.41 | 16 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; May 2011 Campaign 17, SW12 | 0 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Lead | mg/l | 0 | 0.0013 | 592 | 0 | 16 | 29 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; June-2010 Campaign 6, SW11; July-2010 Campaign 7, SW11; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | 2E-18 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Sodium | mg/l | | N/A | 592 | 0.0002 | 2396 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.0583 | 0.0633 | 0.0614 | 0.047 | 0.0493 | 0.1028 | 0.05403 | 0.06144 | 0.05037 | 0.05492 | 0.0552 | 0.05216 | 0.05108 |
| Total Ammonia as N | mg/l as N | | No WSV | 592 | 0 | 8.24 | 0 | | 0.00008 | 0.00006 | 0.00005 | 0.00008 | 0.00008 | 0.00006 | 0.00128 | 0.00065 | 0.00008 | 0.00007 | | 0.00002 | 0.00058 |
| Un-ionised ammonia as N | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0 | 0 | 0 | 0 | 0 | 0 |
| Un-ionised ammonia as NH3 | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0.02 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ammonium as N | mg/l | | No WSV | 592 | 0 | 39.24 | 0 | | 0.08 | 0.06 | 0.05 | 0.08 | 0.08 | 0.06 | 1.26 | 0.65 | 0.08 | 0.07 | 0 | 0.02 | 0.57 |
| Ammonium as NH4 | mg/l | | Not appropriate, see Unionised Ammonia | 592 | 0 | 48 | 0 | | 0.1 | 0.08 | 0.06 | 0.1 | 0.1 | 0.08 | 1.62 | 0.83 | 0.11 | 0.09 | 0 | 0.03 | 0.74 |
| BOD | mg/l | | No WSV | 592 | 0 | 130 | 0 | | 0 | 0 | 0 | 0 | 8 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 5 |
| Chloride | mg/l | | N/A | 592 | 0.22 | 15655 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 87 | 77 | 79 | 72 | 73 | 170 | 101.651 | 77.305 | 64.225 | 75.019 | 76.267 | 80.01 | 77.855 |
| Nitrate | mg/l | | N/A | 592 | 0 | 94 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 53 | 29 | 42 | 33 | 42 | 34 | 28.496 | 26.318 | 36.991 | 41.678 | 20.978 | 24.529 | 27.178 |
| Nitrite | mg/l | | N/A | 592 | 0 | 5.92 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0 | 0 | 0 | 0 | 0 | 1.53 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4465 |
| Suspended Solids | mg/l | | No WSV | 592 | 0 | 6378 | 0 | | 0 | 33 | 30 | 24 | 14 | 14 | 150 | 66 | 20 | 14 | 0 | 12 | 0 |
| Total Hardness | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 6487 | 0 | | 561 | 535 | 399 | 353 | 339 | 385 | 314.594374 | 420.77606 | 380.35684 | 401.8082 | 411.30506 | 430.80336 | 391 |
| Hardness~ | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 4325 | 0 | | 374 | 357 | 266 | 235 | 226 | 257 | 210 | 281 | 254 | 268 | 274 | 287 | 261 |
| Total Petroleum Hydrocarbons(C8-C35) | mg/l | 0 | No WSV | 592 | 0 | 3169.93 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121.734 | 0 |

ATKINS

| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | pH | 0.00 | | | | |
| Calcium (mg/l): | 0.00 | | DOC (mg/l) | 0.00 | Catchment area: | | Freshwater not listed | |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | July-2010 Campaign 7 | August-2010 Campaign 8 | September- 2010 Campaign 9 | October-2010 Campaign 10 | November- 2010 Campaign 11 | December-2010 Campaign 12 | January 2011 Campaign 13 | February 2011 Campaign 14 | March 2011 Campaign 15 | April 2011 Campaign 16 | May 2011 Campaign 17 | June 2011 Campaign 18 | Aug 2011 Campaign 19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 246 | 360 | 410 | 464 | 508 | 0.22 | 340 | 300 | 345 | 360 | 350 | 490 | 370 |
| | | | | | | | | | 0.026532 | 0.04529 | 0.07235 | 0.089914 | 0.0964528 | 0.00043 | 0.031 | 0.027 | 0.0115 | 0.015 | 0.024 | 0.036 | 0.013 |
| pH | pH units | | 7 - 9.0 | 592 | 0.05 | 8.4 | 134 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; September- 2010 Campaign 9, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; October 2012 Campaign 34, SW1; Jan-2010 Campaign 1; October-2010 Campaign 10, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Dec 2011 Campaign 24, SW2; Jan-2010 Campaign 1; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; September- 2010 Campaign 9, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Sep 2011 Campaign 21, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; October 2012 Campaign 34, SW4; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); September- 2010 Campaign 9, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW6; Apr-2010 Campaign 4, SW6; July-2010 Campaign 7, SW6; September- 2010 Campaign 9, SW6; December-2010 Campaign 12, SW6; June 2011 Campaign 18, SW6; Oct 2011 Campaign 22, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; July 2012 Campaign 31, SW6; Jan-2010 Campaign 1; Apr-2010 Campaign 4, SW7; September- 2010 Campaign 9, SW7; June 2011 Campaign 18, SW7; Oct 2011 Campaign 22, SW7; Nov 2011 Campaign 23, SW7; Mar-2010 Campaign 3, SW8; Apr-2010 Campaign 4, SW8; June-2010 Campaign 6, SW8; October-2010 Campaign 10, SW8; November- 2010 Campaign 11, SW8; December-2010 Campaign 12, SW8; Aug 2011 Campaign 20, SW8; Sep 2011 Campaign 21, SW8; Oct 2011 Campaign 22, SW8; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW9; Apr-2010 Campaign 4, SW9; September- 2010 Campaign 9, SW9; Sep 2011 Campaign 21, SW9; Oct 2011 Campaign 22, SW9; Nov 2011 Campaign 23, SW9; Jan 2012 Campaign 25, SW9; September 2012 Campaign 33, SW9; October-2010 Campaign 10, SW10; December-2010 Campaign 12, SW10; Aug 2011 Campaign 20, SW10; Sep 2011 Campaign 21, SW10; Jan-2010 Campaign 1; November- 2010 Campaign 11, SW11; January 2011 Campaign 13, SW11; Oct 2011 Campaign 22, SW11; Nov 2011 Campaign 23, SW11; July 2012 Campaign 31, SW11; August 2012 Campaign 32, SW11; October 2012 Campaign 34, SW11; December 2012 Campaign 36, SW11; January 2013 Campaign 37, SW11; Jan-2010 Campaign 1; September- 2010 Campaign 9, SW12; May 2011 Campaign 17, SW12; June 2011 Campaign 18, SW12; Sep 2011 Campaign 21, SW12; Oct 2011 Campaign 22, SW12; Nov 2011 Campaign 23, SW12; Dec 2011 Campaign 24, SW12; Jan-2010 Campaign 1; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; April 2011 Campaign 16, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Oct 2011 Campaign 22, SW13; Dec 2011 Campaign 24, SW13; Feb 2012 Campaign 26, SW13; | 7.6 | 7.7 | 7 | 6.9 | 7.5 | 7.2 | 7.9 | 7.1 | 7.71 | 7.52 | 7.75 | 7.3 | 7.31 |
| Temperature | oC | | No WSV | 592 | 0.00028 | 20.3 | 0 | | 0.019 | 0.0183 | 0.01478 | 0.01418 | 0.0117 | 0.005 | 0.0059 | 0.0051 | 0.0068 | 0.01098 | 0.0114 | 0.0166 | 0.01734 |
| Dissolved Oxygen | % saturation | | No WSV | 592 | 0.21 | 159.3 | 0 | | 112.1 | 71.4 | 58.5 | 33.5 | 33.5 | 29.2 | 19.4 | 17 | 43.1 | 104 | 61.1 | 111.4 | 79.2 |
| Total Phosphorus | mg/l | | No WSV | 592 | 0.02 | 25.74 | 0 | | 1.04 | 1.65 | 1.66 | 0.69 | 1 | 1.04 | 0.9194 | 0.8213 | 1.338 | 1.24 | 0.7926 | 2.465 | 2.4375 |
| Soluble ReactivePhosphorus | mg/l | | No WSV | 592 | 0 | 4.32 | 0 | | 0.86 | 0.87 | 1 | 0.53 | 0.69 | 1.02 | 0.693 | 0.6034 | 0.6255 | 0.82 | 0.4159 | 0.6272 | 1.074 |
| Dissolved Copper | mg/l | 0 | 0.00376 | 592 | 0 | 30.1 | 259 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; June 2011 Campaign 18, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; August-2010 Campaign 8, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; June 2011 Campaign 18, SW2; Mar 2012 Campaign 27, SW2; July 2012 Campaign 31, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; August-2010 Campaign 8, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; June 2011 Campaign 18, SW3; Jan 2012 Campaign 25, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; Apr-2010 Campaign 4, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 Campaign 11, SW4; December-2010 Campaign 12, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; September 2012 Campaign 33, SW4; October 2012 Campaign 34, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Jan-2010 Campaign 1; July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); October-2010 Campaign 10, SW5 (Stillwater); November- 2010 Campaign 11, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 (Stillwater); March 2011 Campaign 15, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); December 2012 Campaign 36, SW5 (Stillwater); Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW6; July-2010 Campaign 7, SW6; October-2010 Campaign 10, SW6; November- 2010 Campaign 11, SW6; December-2010 Campaign 12, SW6; February 2011 Campaign 14, SW6; April 2011 Campaign 16, SW6; June | 0 | 1 | 0 | 3 | 2 | 4 | 2.094 | 10.88 | 5.622 | 10.53 | 0 | 3.586 | 0 |
| Dissolved Iron | mg/l | 0 | No WSV | 592 | 10 | 31740 | 0 | | 0 | 0 | 10 | 27 | 0 | 87 | 0 | 52.83 | 11.25 | 21.75 | 19.7 | 0 | 19.07 |
| Dissolved Zinc | mg/l | 0 | 0.0068 | 592 | 0 | 237.8 | 354 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Apr-2010 Campaign 4, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; November- 2010 Campaign 11, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; May 2011 Campaign 17, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; Jan 2012 Campaign 25, SW4; Mar 2012 Campaign 27, SW4; May 2012 Campaign 29, SW4; June 2012 Campaign 30, SW4; July 2012 Campaign 31, SW4; August 2012 Campaign 32, SW4; September 2012 Campaign 33, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 | 0.003 | 0.002 | 0.009 | 0.017 | 0.0102 | 0.02542 | 0.01074 | 0.018 | 0.02915 | 0.007794 | 0.01287 |
| Dissolved Cadmium | mg/l | 0 | 0.0002 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 1.41 | 18 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12; July-2010 Campaign 7, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Lead | mg/l | 0 | 0.0013 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Sulphate | mg/l | | N/A | 592 | 0 | 410.447 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.104 | 0.084 | 0.081 | 0.087 | 0.089 | 0.087 | 0.084232 | 0.086561 | 0.0812 | 0.090286 | 0.084614 | 0.091864 | 0.0897545 |
| Dissolved Organic Carbon | mg/l | | No WSV | 592 | 0.0001 | 139.56 | 0 | | 0.0052 | 0.0057 | 0.0022 | 0.0103 | 0.0058 | 0.008 | 0.0080452 | 0.010053 | 0.0083632 | 0.011346 | 0.010684 | 0.0087472 | 0.0099651 |
| Acid Neutralising Capacity | mg/l as CaCO3 | | No WSV | 592 | 0 | 0 | 0 | | | | | | | | | | | | | | |

| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | pH | 0.00 | | | | |
| Calcium (mg/l): | 0.00 | | DOC (mg/l) | 0.00 | Catchment area: | | Freshwater not listed | |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | Aug 2011 Campaign 20 SW2 | Sep 2011 Campaign 21 SW2 | Oct 2011 Campaign 22 SW2 | Nov 2011 Campaign 23 SW2 | Dec 2011 Campaign 24 SW2 | Jan 2012 Campaign 25 SW2 | Feb 2012 Campaign 26 SW2 | Mar 2012 Campaign 27 SW2 | Apr 2012 Campaign 28 SW2 | May 2012 Campaign 29 SW2 | June 2012 Campaign 30 SW2 | July 2012 Campaign 31 SW2 | August 2012 Campaign 32 SW2 | September 2012 Campaign 33 SW2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 370 | 420 | 360 | 390 | 380 | 360 | 460 | 360 | 370 | 370 | 365 | 400 | 380 | 400 |
| | | | | | | | | | 0.02 | 0.043 | 0.026 | 0.056 | 0.03226 | 0.04018 | 0.03615 | 0.03638 | 0.05162 | 0.04694 | 0.05851 | 0.04625 | 0.065 | 0.03093 |
| Alkalinity | mg/l as CaCO3 | | No WSV | 592 | 0.16 | 650 | 0 | | 400 | 380 | 400 | 380 | 380 | 320 | 450 | 550 | 450 | 370 | 390 | 280 | 450 | 365 |
| Zinc | mg/l | | 0.0068 | 592 | 0.00042 | 112 | 540 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; May-2010 Campaign 5, SW2; June-2010 Campaign 6, SW2; July-2010 Campaign 7, SW2; August-2010 Campaign 8, SW2; September- 2010 Campaign 9, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; May-2010 Campaign 5, SW3; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; September- 2010 Campaign 9, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Sep 2011 Campaign 21, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; Mar-2010 Campaign 3, SW4; May-2010 Campaign 5, SW4; June-2010 Campaign 6, SW4; July-2010 Campaign 7, SW4; August-2010 Campaign 8, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 | 0.04625 | 0.065 | 0.03093 | 0.02506 | 0.03121 | 0.03236 | 0.027 | 0.017 | 0.047 | 0.032 | 0.132 | 0.086 | 0.075 | 0.08 |
| Iron | mg/l | | 1 | 592 | 0.00078 | 1689 | 136 | December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; July-2010 Campaign 7, SW3; Sep 2011 Campaign 21, SW4; December 2012 Campaign 36, SW4; May-2010 Campaign 5, SW5 (Stillwater); June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); Apr 2012 Campaign 28, SW5 (Stillwater); June 2012 Campaign 30, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); October 2012 Campaign 34, SW5 (Stillwater); November 2012 Campaign 35, SW5 (Stillwater); December 2012 Campaign 36, SW5 (Stillwater); January 2013 Campaign 37, SW5 (Stillwater); May-2010 Campaign 5, SW6; June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; August-2010 Campaign 8, SW6; December-2010 Campaign 12, SW6; January 2011 Campaign 13, SW6; February 2011 Campaign 14, SW6; March 2011 Campaign 15, SW6; April 2011 Campaign 16, SW6; May 2011 Campaign 17, SW6; June 2011 Campaign 18, SW6; Aug 2011 Campaign 20, SW6; Sep 2011 Campaign 21, SW6; Oct 2011 Campaign 22, SW6; Dec 2011 Campaign 24, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; Mar 2012 Campaign 27, SW6; Apr 2012 Campaign 28, SW6; May 2012 Campaign 29, SW6; June 2012 Campaign 30, SW6; July 2012 Campaign 31, SW6; August 2012 Campaign 32, SW6; September 2012 Campaign 33, SW6; October 2012 Campaign 34, SW6; November 2012 Campaign 35, SW6; December 2012 Campaign 36, SW6; January 2013 Campaign 37, SW6; May-2010 Campaign 5, SW7; June 2011 Campaign 18, SW7; Dec 2011 Campaign 24, SW7; Apr 2012 Campaign 28, SW7; October 2012 Campaign 34, SW7; December 2012 Campaign 36, SW7; January 2013 Campaign 37, SW7; August 2012 Campaign 32, SW8; September 2012 Campaign 33, SW8; December 2012 Campaign 36, SW8; Apr 2012 Campaign 28, SW10; October 2012 Campaign 34, SW10; May 2011 Campaign 17, SW12; September- 2010 Campaign 9, SW13; October-2010 Campaign 10, SW13; November- 2010 Campaign 11, SW13; December-2010 Campaign 12, SW13; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; May 2011 Campaign 17, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Dec 2011 Campaign 24, SW13; Jan 2012 Campaign 25, SW13; Feb 2012 Campaign 26, SW13; Apr 2012 Campaign 28, SW13; May 2012 Campaign 29, SW13; June 2012 Campaign 30, SW13; July 2012 Campaign 31, SW13; August 2012 Campaign 32, SW13; October 2012 Campaign 34, SW13; November 2012 Campaign 35, SW13; December 2012 Campaign 36, SW13; January 2013 Campaign 37, SW13; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; September 2010 Campaign 9, SW14; October-2010 Campaign 10, SW14; November- 2010 Campaign 11, SW14; December-2010 Campaign 12, SW14; January 2011 Campaign 13, SW14; February 2011 Campaign 14, SW14; March 2011 Campaign 15, SW14; June 2011 Campaign 18, SW14; Aug 2011 Campaign 19, SW14; Aug 2011 Campaign 20, SW14; Sep 2011 Campaign 21, SW14; Oct 2011 Campaign 22, SW14; Nov 2011 Campaign 23, SW14; Dec 2011 | 0.2339 | 0.218 | 0.04628 | 0.3857 | 0.0275 | 0.06832 | 0.122 | 0.18 | 0.652 | 0.121 | 0.934 | 0.565 | 0.067 | 0.316 |
| Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 6 | 42 | June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; June-2010 Campaign 6, SW2; Jan-2010 Campaign 1; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; Jan-2010 Campaign 1; July-2010 Campaign 7, SW4; Jan-2010 Campaign 1; June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; June-2010 Campaign 6, SW11; Jan-2010 Campaign 1; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; Jan-2010 Campaign 1; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW16; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 1.41 | 16 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Lead | mg/l | 0 | 0.0013 | 592 | 0 | 16 | 29 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; June-2010 Campaign 6, SW11; July-2010 Campaign 7, SW11; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Sodium | mg/l | | N/A | 592 | 0.0002 | 2396 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.064 | 0.0495 | 0.05038 | 0.05486 | 0.0625 | 0.05943 | 0.0697 | 0.02611 | 0.0667 | 0.0382 | 0.0575 | 0.058 | 0.0466 | 0.0525 |
| Total Ammonia as N | mg/l as N | | No WSV | 592 | 0 | 8.24 | 0 | | 0.00008 | | | 0.00247 | | | | 0.00016 | | 0.0002 | | | | |
| Un-ionised ammonia as N | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0 | 0.03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Un-ionised ammonia as NH3 | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0 | 0.04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ammonium as N | mg/l | | No WSV | 592 | 0 | 39.24 | 0 | | 0.08 | 0 | 0 | 2.44 | 0 | 0 | 0 | 0.16 | 0 | 0.25 | 0 | 0 | 0 | 0 |
| Ammonium as NH4 | mg/l | | Not appropriate, see Unionised Ammonia | 592 | 0 | 48 | 0 | | 0.11 | 0 | 0 | 3.13 | 0 | 0 | 0 | 0.2 | 0 | 0.3 | 0 | 0.1 | 0 | 0.1 |
| BOD | mg/l | | No WSV | 592 | 0 | 130 | 0 | | 0 | 0 | 0 | 118.4785714 | 15 | 0 | 8 | 13 | 13 | 10 | 0 | 10 | 5 | 8 |
| Chloride | mg/l | | N/A | 592 | 0.22 | 15655 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 82.438 | 65 | 76.658 | 79.819 | 88.537 | 83.719 | 94 | 36 | 83 | 55 | 83 | 73 | 80 | 76 |
| Nitrate | mg/l | | N/A | 592 | 0 | 94 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 29.156 | 20 | 33.456 | 0 | 47.142 | 35.462 | 47 | 41 | 38 | 25 | 23 | 31 | 32 | 32 |
| Nitrite | mg/l | | N/A | 592 | 0 | 5.92 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.716 | 0 | 0 | 0 | 0 | 0 | 0 | 2.41 | 0 | 0 | 0 | 0 | 0 | 0 |
| Suspended Solids | mg/l | | No WSV | 592 | 0 | 6378 | 0 | | 16 | 53 | 14 | 478 | 0 | 14 | 0 | 16 | 0 | 12 | 208 | 6 | 8 | 7 |
| Total Hardness | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 6487 | 0 | | 469 | 436 | 369 | 417 | 468 | 391 | 430 | 223 | 476 | 370 | 171 | 152 | 143 | 147 |
| Hardness~ | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 4325 | 0 | | 313 | 291 | 246 | 278 | 312 | 261 | 287 | 149 | 317 | 247 | 114 | 101 | 95 | 98 |
| Total Petroleum Hydrocarbons(C8-C35) | mg/l | 0 | No WSV | 592 | 0 | 3169.93 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 69 | 0 | 0 | 0 |

| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | pH | 0.00 | | | | | |
| Calcium (mg/l): | 0.00 | | DOC (mg/l) | 0.00 | | Catchment area: | | Freshwater not listed | |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | Aug 2011 Campaign 20 | Sep 2011 Campaign 21 | Oct 2011 Campaign 22 | Nov 2011 Campaign 23 | Dec 2011 Campaign 24 | Jan 2012 Campaign 25 | Feb 2012 Campaign 26 | Mar 2012 Campaign 27 | Apr 2012 Campaign 28 | May 2012 Campaign 29 | June 2012 Campaign 30 | July 2012 Campaign 31 | August 2012 Campaign 32 | September 2012 Campaign 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 | SW2 |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 370 | 420 | 360 | 390 | 380 | 360 | 460 | 360 | 370 | 370 | 365 | 400 | 380 | 400 |
| | | | | | | | | | 0.02 | 0.043 | 0.026 | 0.056 | 0.03226 | 0.04018 | 0.03615 | 0.03638 | 0.05162 | 0.04694 | 0.05851 | 0.04625 | 0.065 | 0.03093 |
| pH | pH units | | 7 - 9.0 | 592 | 0.05 | 8.4 | 134 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; September- 2010 Campaign 9, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; October 2012 Campaign 34, SW1; Jan-2010 Campaign 1; October-2010 Campaign 10, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Dec 2011 Campaign 24, SW2; Jan-2010 Campaign 1; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; September- 2010 Campaign 9, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Sep 2011 Campaign 21, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; October 2012 Campaign 34, SW4; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); September- 2010 Campaign 9, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW6; Apr-2010 Campaign 4, SW6; July-2010 Campaign 7, SW6; September- 2010 Campaign 9, SW6; December-2010 Campaign 12, SW6; June 2011 Campaign 18, SW6; Oct 2011 Campaign 22, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; July 2012 Campaign 31, SW6; Jan-2010 Campaign 1; Apr-2010 Campaign 4, SW7; September- 2010 Campaign 9, SW7; June 2011 Campaign 18, SW7; Oct 2011 Campaign 22, SW7; Nov 2011 Campaign 23, SW7; Mar-2010 Campaign 3, SW8; Apr-2010 Campaign 4, SW8; June-2010 Campaign 6, SW8; October-2010 Campaign 10, SW8; November- 2010 Campaign 11, SW8; December-2010 Campaign 12, SW8; Aug 2011 Campaign 20, SW8; Sep 2011 Campaign 21, SW8; Oct 2011 Campaign 22, SW8; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW9; Apr-2010 Campaign 4, SW9; September- 2010 Campaign 9, SW9; Sep 2011 Campaign 21, SW9; Oct 2011 Campaign 22, SW9; Nov 2011 Campaign 23, SW9; Jan 2012 Campaign 25, SW9; September 2012 Campaign 33, SW9; October-2010 Campaign 10, SW10; December-2010 Campaign 12, SW10; Aug 2011 Campaign 20, SW10; Sep 2011 Campaign 21, SW10; Jan-2010 Campaign 1; November- 2010 Campaign 11, SW11; January 2011 Campaign 13, SW11; Oct 2011 Campaign 22, SW11; Nov 2011 Campaign 23, SW11; July 2012 Campaign 31, SW11; August 2012 Campaign 32, SW11; October 2012 Campaign 34, SW11; December 2012 Campaign 36, SW11; January 2013 Campaign 37, SW11; Jan-2010 Campaign 1; September- 2010 Campaign 9, SW12; May 2011 Campaign 17, SW12; June 2011 Campaign 18, SW12; Sep 2011 Campaign 21, SW12; Oct 2011 Campaign 22, SW12; Nov 2011 Campaign 23, SW12; Dec 2011 Campaign 24, SW12; Jan-2010 Campaign 1; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; April 2011 Campaign 16, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Oct 2011 Campaign 22, SW13; Dec 2011 Campaign 24, SW13; Feb 2012 Campaign 26, SW13; | 6.79 | 6.85 | 6.85 | 7.78 | 6.56 | 7.2 | 7.3 | 7.2 | 7.3 | 7.4 | 7.6 | 7.4 | 7.4 | 7.9 |
| Temperature | oC | | No WSV | 592 | 0.00028 | 20.3 | 0 | | 0.0181 | 0.01334 | 0.01682 | 0.01229 | 0.00935 | 0.00528 | 0.0044 | 0.006 | 0.0094 | 0.0113 | 0.0144 | 0.0162 | 0.0135 | 0.015 |
| Dissolved Oxygen | % saturation | | No WSV | 592 | 0.21 | 159.3 | 0 | | 65.4 | 23 | 43.9 | 49.5 | 36.5 | 32.6 | 36.8 | 68.7 | 55.5 | 78.5 | 32.8 | 56.7 | 20.1 | 17.1 |
| Total Phosphorus | mg/l | | No WSV | 592 | 0.02 | 25.74 | 0 | | 2.149 | 1.49 | 1.997 | 3.038 | 1.898 | 0.8218 | 1.35 | 0.64 | 1.48 | 1.04 | 3.8 | 4 | 1.08 | 2.4 |
| Soluble ReactivePhosphorus | mg/l | | No WSV | 592 | 0 | 4.32 | 0 | | 1.156 | 1.18 | 1.339 | 2.341 | 1.433 | 0.6377 | 0.95 | 0.52 | 0.89 | 0.67 | 0.6 | 2 | 0.87 | 1.44 |
| Dissolved Copper | mg/l | 0 | 0.00376 | 592 | 0 | 30.1 | 259 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; June 2011 Campaign 18, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; August-2010 Campaign 8, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; June 2011 Campaign 18, SW2; Mar 2012 Campaign 27, SW2; July 2012 Campaign 31, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; August-2010 Campaign 8, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; June 2011 Campaign 18, SW3; Jan 2012 Campaign 25, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; Apr-2010 Campaign 4, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 Campaign 11, SW4; December-2010 Campaign 12, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; September 2012 Campaign 33, SW4; October 2012 Campaign 34, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Jan-2010 Campaign 1; July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); October-2010 Campaign 10, SW5 (Stillwater); November- 2010 Campaign 11, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 (Stillwater); March 2011 Campaign 15, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); December 2012 Campaign 36, SW5 (Stillwater); Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW6; July-2010 Campaign 7, SW6; October-2010 Campaign 10, SW6; November- 2010 Campaign 11, SW6; December-2010 Campaign 12, SW6; February 2011 Campaign 14, SW6; April 2011 Campaign 16, SW6; June | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 5 | 0 | 3 |
| Dissolved Iron | mg/l | 0 | No WSV | 592 | 10 | 31740 | 0 | | 0 | 29 | 16.04 | 215.6 | 15.35 | 0 | 55 | 215 | 23 | 72 | 0 | 0 | 0 | 0 |
| Dissolved Zinc | mg/l | 0 | 0.0068 | 592 | 0 | 237.8 | 354 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Apr-2010 Campaign 4, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; November- 2010 Campaign 11, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; May 2011 Campaign 17, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; Jan 2012 Campaign 25, SW4; Mar 2012 Campaign 27, SW4; May 2012 Campaign 29, SW4; June 2012 Campaign 30, SW4; July 2012 Campaign 31, SW4; August 2012 Campaign 32, SW4; September 2012 Campaign 33, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 | 0.01057 | 0.0194 | 0.0189 | 0.01213 | 0.0101 | 0.009 | 0.018 | 0.01 | 0.011 | 0.014 | 0.013 | 0.007 | 0.01 |
| Dissolved Cadmium | mg/l | 0 | 0.0002 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 1.41 | 18 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12; July-2010 Campaign 7, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Lead | mg/l | 0 | 0.0013 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Sulphate | mg/l | | N/A | 592 | 0 | 410.447 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.087574 | 0.082 | 0.09449 | 0.094416 | 0.099826 | 0.079034 | 0.093 | 0.051 | 0.09 | 0.061 | 0.09 | 0.081 | 0.094 | 0.087 |
| Dissolved Organic Carbon | mg/l | | No WSV | 592 | 0.0001 | 139.56 | 0 | | 0.004502857 | 0.0096 | 0.010186 | 0.02352 | 0.0069 | 0.0099765 | 0.01287 | 0.015 | 0.007 | 0.0133 | 0.0078 | 0.0122 | 0.0186 | 0.0154 |
| Acid Neutralising Capacity | mg/l as CaCO3 | | No WSV | 592 | 0 | 0 | 0 | | | | | | | | | | | | | | | |

ATKINS

| Assessment Criteria : | Coastal and Estuarine EQS | | |
|---|---|---|---|
| CaCO (mg/l): | 0.00 | pH | 0.00 |
| Calcium (mg/l): | 0.00 | DOC (mg/l) | 0.00 |
| Catchment area: | Freshwater not listed | | |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | October 2012 Campaign 34 | November 2012 Campaign 35 | December 2012 Campaign 36 | January 2013 Campaign 37 | Jan-2010 Campaign 1 | Feb-2010 Campaign 2 | Mar-2010 Campaign 3 | Apr-2010 Campaign 4 | May-2010 Campaign 5 | June-2010 Campaign 6 | July-2010 Campaign 7 | August-2010 Campaign 8 | September- 2010 Campaign 9 | October-2010 Campaign 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SW2 | SW2 | SW2 | SW2 | | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 380 | 380 | 320 | 450 | 550 | 450 | 370 | 390 | 280 | 450 | 365 | 255 | 245 | 355 |
| | | | | | | | | | 0.02506 | 0.03121 | 0.03236 | 0.027 | 0.017 | 0.047 | 0.032 | 0.132 | 0.086 | 0.075 | 0.08 | 0.097 | 0.075 | 0.101 |
| Alkalinity | mg/l as CaCO3 | | No WSV | 592 | 0.16 | 650 | 0 | | 255 | 245 | 355 | 360 | 0.16 | 320 | 300 | 350 | 370 | 370 | 640 | 360 | 340 | 330 |
| Zinc | mg/l | | 0.0068 | 592 | 0.00042 | 112 | 540 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; May-2010 Campaign 5, SW2; June-2010 Campaign 6, SW2; July-2010 Campaign 7, SW2; August-2010 Campaign 8, SW2; September- 2010 Campaign 9, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; May-2010 Campaign 5, SW3; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; September- 2010 Campaign 9, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Sep 2011 Campaign 21, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; Mar-2010 Campaign 3, SW4; May-2010 Campaign 5, SW4; June-2010 Campaign 6, SW4; July-2010 Campaign 7, SW4; August-2010 Campaign 8, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 | 0.097 | 0.075 | 0.101 | 0.079 | 0.00059 | 0.021 | 0.019 | 0.009 | 0.009 | 0.019 | 0.057 | 0.006 | 0.013 | 0.041 |
| Iron | mg/l | | 1 | 592 | 0.00078 | 1689 | 136 | December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; July-2010 Campaign 7, SW3; Sep 2011 Campaign 21, SW4; December 2012 Campaign 36, SW4; May-2010 Campaign 5, SW5 (Stillwater); June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); Apr 2012 Campaign 28, SW5 (Stillwater); June 2012 Campaign 30, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); October 2012 Campaign 34, SW5 (Stillwater); November 2012 Campaign 35, SW5 (Stillwater); December 2012 Campaign 36, SW5 (Stillwater); January 2013 Campaign 37, SW5 (Stillwater); May-2010 Campaign 5, SW6; June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; August-2010 Campaign 8, SW6; December-2010 Campaign 12, SW6; January 2011 Campaign 13, SW6; February 2011 Campaign 14, SW6; March 2011 Campaign 15, SW6; April 2011 Campaign 16, SW6; May 2011 Campaign 17, SW6; June 2011 Campaign 18, SW6; Aug 2011 Campaign 20, SW6; Sep 2011 Campaign 21, SW6; Oct 2011 Campaign 22, SW6; Dec 2011 Campaign 24, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; Mar 2012 Campaign 27, SW6; Apr 2012 Campaign 28, SW6; May 2012 Campaign 29, SW6; June 2012 Campaign 30, SW6; July 2012 Campaign 31, SW6; August 2012 Campaign 32, SW6; September 2012 Campaign 33, SW6; October 2012 Campaign 34, SW6; November 2012 Campaign 35, SW6; December 2012 Campaign 36, SW6; January 2013 Campaign 37, SW6; May-2010 Campaign 5, SW7; June 2011 Campaign 18, SW7; Dec 2011 Campaign 24, SW7; Apr 2012 Campaign 28, SW7; October 2012 Campaign 34, SW7; December 2012 Campaign 36, SW7; January 2013 Campaign 37, SW7; August 2012 Campaign 32, SW8; September 2012 Campaign 33, SW8; December 2012 Campaign 36, SW8; Apr 2012 Campaign 28, SW10; October 2012 Campaign 34, SW10; May 2011 Campaign 17, SW12; September- 2010 Campaign 9, SW13; October-2010 Campaign 10, SW13; November- 2010 Campaign 11, SW13; December-2010 Campaign 12, SW13; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; May 2011 Campaign 17, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Dec 2011 Campaign 24, SW13; Jan 2012 Campaign 25, SW13; Feb 2012 Campaign 26, SW13; Apr 2012 Campaign 28, SW13; May 2012 Campaign 29, SW13; June 2012 Campaign 30, SW13; July 2012 Campaign 31, SW13; August 2012 Campaign 32, SW13; October 2012 Campaign 34, SW13; November 2012 Campaign 35, SW13; December 2012 Campaign 36, SW13; January 2013 Campaign 37, SW13; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; September 2010 Campaign 9, SW14; October-2010 Campaign 10, SW14; November- 2010 Campaign 11, SW14; December-2010 Campaign 12, SW14; January 2011 Campaign 13, SW14; February 2011 Campaign 14, SW14; March 2011 Campaign 15, SW14; June 2011 Campaign 18, SW14; Aug 2011 Campaign 19, SW14; Aug 2011 Campaign 20, SW14; Sep 2011 Campaign 21, SW14; Oct 2011 Campaign 22, SW14; Nov 2011 Campaign 23, SW14; Dec 2011 | 0.24 | 0.317 | 2.427 | 1.476 | 0.00155 | DNS | DNS | DNS | 0.161 | | 2.324 | 0.356 | 0.051 | 0.139 |
| Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 6 | 42 | June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; June-2010 Campaign 6, SW2; Jan-2010 Campaign 1; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; Jan-2010 Campaign 1; July-2010 Campaign 7, SW4; Jan-2010 Campaign 1; June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; June-2010 Campaign 6, SW11; Jan-2010 Campaign 1; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; Jan-2010 Campaign 1; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW16; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | 1.41 | DNS | DNS | DNS | DNS | 1 | 4 | DNS | DNS | DNS |
| Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 1.41 | 16 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | | DNS | DNS | DNS | DNS | 0 | 0 | DNS | DNS | DNS |
| Lead | mg/l | 0 | 0.0013 | 592 | 0 | 16 | 29 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; Jan-2010 Campaign 1; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; July-2010 Campaign 7, SW11; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | 4.7E-19 | DNS | DNS | DNS | DNS | 1E-18 | 4E-18 | DNS | DNS | DNS |
| Sodium | mg/l | | N/A | 592 | 0.0002 | 2396 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.054 | 0.0471 | 0.0374 | 0.0605 | 0.00021 | 0.0759 | 0.052 | 0.0435 | 0.0595 | 0.0526 | 0.0602 | 0.0679 | 0.0693 | 0.0481 |
| Total Ammonia as N | mg/l as N | | No WSV | 592 | 0 | 8.24 | 0 | | 0.0002 | | | | 0.0025 | | 0.00002 | 0.00002 | 0.00004 | 0.00032 | 0.00036 | 0.00003 | 0.00001 | 0.00003 |
| Un-ionised ammonia as N | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0 | 0 | 3.26 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0 | 0 | 0 |
| Un-ionised ammonia as NH3 | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0 | 0 | 3.26 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0 | 0 | 0 |
| Ammonium as N | mg/l | | No WSV | 592 | 0 | 39.24 | 0 | | 0 | 0 | 0 | 0 | 2.49 | 0 | 0.02 | 0.02 | 0.04 | 0.32 | 0.35 | 0.03 | 0.01 | 0.03 |
| Ammonium as NH4 | mg/l | | Not appropriate, see Unionised Ammonia | 592 | 0 | 48 | 0 | | 0.3 | 0 | 0 | 0 | 2.49 | 0 | 0.03 | 0.03 | 0.05 | 0.41 | 0.45 | 0.04 | 0.01 | 0.04 |
| BOD | mg/l | | No WSV | 592 | 0 | 130 | 0 | | 2 | 2 | 17 | 6 | 2.5 | 1 | 0 | 0 | 0 | 8 | 0 | 0 | 4 | 7 |
| Chloride | mg/l | | N/A | 592 | 0.22 | 15655 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 78 | 88 | 60 | 98 | 0.25 | 112 | 69 | 83 | 94 | 77 | 88 | 75 | 86 | 74 |
| Nitrate | mg/l | | N/A | 592 | 0 | 94 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 33 | 35 | 21 | 41 | 0.31 | 43 | 39 | 31 | 23 | 29 | 0 | 26 | 43 | 33 |
| Nitrite | mg/l | | N/A | 592 | 0 | 5.92 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0 | 0 | 0 | 0 | 3.13 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 | 0 | 0 |
| Suspended Solids | mg/l | | No WSV | 592 | 0 | 6378 | 0 | | 12 | 27 | 40 | 38 | 2 | 10 | 12 | 12 | 58 | 16 | 28 | 8 | 18 | 28 |
| Total Hardness | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 6487 | 0 | | 388 | 368 | 317 | 381 | 0.26 | 463 | 382 | 306 | 367 | 404 | 534 | 560 | 628 | 361 |
| Hardness~ | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 4325 | 0 | | 258 | 245 | 211 | 254 | 0.26 | 309 | 255 | 204 | 245 | 269 | 356 | 373 | 419 | 241 |
| Total Petroleum Hydrocarbons(C8-C35) | mg/l | 0 | No WSV | 592 | 0 | 3169.93 | 0 | | 10 | 10 | 548 | 40 | 3.35 | 0 | 142 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

ATKINS

| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 0.00 | | | |
| Calcium (mg/l): | 0.00 | | | DOC (mg/l) | 0.00 | Catchment area: | | Freshwater not listed |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | October 2012 Campaign 34 | November 2012 Campaign 35 | December 2012 Campaign 36 | January 2013 Campaign 37 | Jan-2010 Campaign 1 | Feb-2010 Campaign 2 | Mar-2010 Campaign 3 | Apr-2010 Campaign 4 | May-2010 Campaign 5 | June-2010 Campaign 6 | July-2010 Campaign 7 | August-2010 Campaign 8 | September- 2010 Campaign 9 | October-2010 Campaign 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SW2 | SW2 | SW2 | SW2 | | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 380 | 380 | 320 | 450 | 550 | 450 | 370 | 390 | 280 | 450 | 365 | 255 | 245 | 355 |
| | | | | | | | | | 0.02506 | 0.03121 | 0.03236 | 0.027 | 0.017 | 0.047 | 0.032 | 0.132 | 0.086 | 0.075 | 0.08 | 0.097 | 0.075 | 0.101 |
| pH | pH units | | 7 - 9.0 | 592 | 0.05 | 8.4 | 134 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; September- 2010 Campaign 9, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; October 2012 Campaign 34, SW1; Jan-2010 Campaign 1; October-2010 Campaign 10, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Dec 2011 Campaign 24, SW2; Jan-2010 Campaign 1; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; September- 2010 Campaign 9, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Sep 2011 Campaign 21, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; October 2012 Campaign 34, SW4; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); September- 2010 Campaign 9, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW6; Apr-2010 Campaign 4, SW6; July-2010 Campaign 7, SW6; September- 2010 Campaign 9, SW6; December-2010 Campaign 12, SW6; June 2011 Campaign 18, SW6; Oct 2011 Campaign 22, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; July 2012 Campaign 31, SW6; Jan-2010 Campaign 1; Apr-2010 Campaign 4, SW7; September- 2010 Campaign 9, SW7; June 2011 Campaign 18, SW7; Oct 2011 Campaign 22, SW7; Nov 2011 Campaign 23, SW7; Mar-2010 Campaign 3, SW8; Apr-2010 Campaign 4, SW8; June-2010 Campaign 6, SW8; October-2010 Campaign 10, SW8; November- 2010 Campaign 11, SW8; December-2010 Campaign 12, SW8; Aug 2011 Campaign 20, SW8; Sep 2011 Campaign 21, SW8; Oct 2011 Campaign 22, SW8; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW9; Apr-2010 Campaign 4, SW9; September- 2010 Campaign 9, SW9; Sep 2011 Campaign 21, SW9; Oct 2011 Campaign 22, SW9; Nov 2011 Campaign 23, SW9; Jan 2012 Campaign 25, SW9; September 2012 Campaign 33, SW9; October-2010 Campaign 10, SW10; December-2010 Campaign 12, SW10; Aug 2011 Campaign 20, SW10; Sep 2011 Campaign 21, SW10; Jan-2010 Campaign 1; November- 2010 Campaign 11, SW11; January 2011 Campaign 13, SW11; Oct 2011 Campaign 22, SW11; Nov 2011 Campaign 23, SW11; July 2012 Campaign 31, SW11; August 2012 Campaign 32, SW11; October 2012 Campaign 34, SW11; December 2012 Campaign 36, SW11; January 2013 Campaign 37, SW11; Jan-2010 Campaign 1; September- 2010 Campaign 9, SW12; May 2011 Campaign 17, SW12; June 2011 Campaign 18, SW12; Sep 2011 Campaign 21, SW12; Oct 2011 Campaign 22, SW12; Nov 2011 Campaign 23, SW12; Dec 2011 Campaign 24, SW12; Jan-2010 Campaign 1; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; April 2011 Campaign 16, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Oct 2011 Campaign 22, SW13; Dec 2011 Campaign 24, SW13; Feb 2012 Campaign 26, SW13; | 7.5 | 7.5 | 7.7 | 7.4 | 0.05 | 7.4 | 7.4 | 7 | 7.6 | 7.5 | 7.7 | 7.8 | 7.2 | 6.9 |
| Temperature | oC | | No WSV | 592 | 0.00028 | 20.3 | 0 | | 0.0129 | 0.0089 | 0.0077 | 0.0086 | 0.00038 | 0.00638 | 0.00665 | 0.01051 | 0.0149 | 0.0144 | 0.0206 | 0.0212 | 0.01417 | 0.01378 |
| Dissolved Oxygen | % saturation | | No WSV | 592 | 0.21 | 159.3 | 0 | | 13.5 | 18.9 | 25.5 | 25.7 | 0.58 | 46.5 | 48.6 | 65.7 | 84.4 | 159.3 | / | 107 | 49.6 | 26.7 |
| Total Phosphorus | mg/l | | No WSV | 592 | 0.02 | 25.74 | 0 | | 2.09 | 0.77 | 1.57 | 1.75 | 0.54 | 1 | 0.59 | 0.8 | 0.82 | 1.21 | 2.12 | 1.76 | 1.62 | 0.92 |
| Soluble ReactivePhosphorus | mg/l | | No WSV | 592 | 0 | 4.32 | 0 | | 1.23 | 0.05 | 0.59 | 0.57 | 0.5 | 0.56 | 0.48 | 0.52 | 0.6 | 0.29 | 1.63 | 0.86 | 1.06 | 0.51 |
| Dissolved Copper | mg/l | 0 | 0.00376 | 592 | 0 | 30.1 | 259 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; June 2011 Campaign 18, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; August-2010 Campaign 8, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; June 2011 Campaign 18, SW2; Mar 2012 Campaign 27, SW2; July 2012 Campaign 31, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; August-2010 Campaign 8, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; June 2011 Campaign 18, SW3; Jan 2012 Campaign 25, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; Apr-2010 Campaign 4, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 Campaign 11, SW4; December-2010 Campaign 12, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; September 2012 Campaign 33, SW4; October 2012 Campaign 34, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Jan-2010 Campaign 1; July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); October-2010 Campaign 10, SW5 (Stillwater); November- 2010 Campaign 11, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 (Stillwater); March 2011 Campaign 15, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW6; July-2010 Campaign 7, SW6; October-2010 Campaign 10, SW6; November- 2010 Campaign 11, SW6; December-2010 Campaign 12, SW6; February 2011 Campaign 14, SW6; April 2011 Campaign 16, SW6; June | 5 | 10 | 10 | 0 | 1.36 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 4 |
| Dissolved Iron | mg/l | 0 | No WSV | 592 | 10 | 31740 | 0 | | 10 | 28 | 137 | 34 | 1.61 | DNS | DNS | DNS | 0 | 0 | 1069 | 0 | 0 | 25 |
| Dissolved Zinc | mg/l | 0 | 0.0068 | 592 | 0 | 237.8 | 354 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Apr-2010 Campaign 4, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; November- 2010 Campaign 11, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; May 2011 Campaign 17, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; Jan 2012 Campaign 25, SW4; Mar 2012 Campaign 27, SW4; May 2012 Campaign 29, SW4; June 2012 Campaign 30, SW4; July 2012 Campaign 31, SW4; August 2012 Campaign 32, SW4; September 2012 Campaign 33, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 | 0.011 | 0.018 | 0.022 | 0.009 | 0.00065 | 0.008 | 0.004 | 0.002 | 0.003 | | | 0.002 | 0.003 | 0.002 |
| Dissolved Cadmium | mg/l | 0 | 0.0002 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | | DNS | DNS | DNS | DNS | | | DNS | DNS | DNS |
| Dissolved Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | | DNS | DNS | DNS | DNS | | | DNS | DNS | DNS |
| Dissolved Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 1.41 | 18 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12; July-2010 Campaign 7, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | | DNS | DNS | DNS | DNS | | | DNS | DNS | DNS |
| Dissolved Lead | mg/l | 0 | 0.0013 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | | DNS | DNS | DNS | DNS | | | DNS | DNS | DNS |
| Sulphate | mg/l | | N/A | 592 | 0 | 410.447 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.079 | 0.075 | 0.066 | 0.092 | 0.00012 | DNS | DNS | DNS | 0.084 | 0.09 | 0.102 | 0.084 | 0.088 | 0.089 |
| Dissolved Organic Carbon | mg/l | | No WSV | 592 | 0.0001 | 139.56 | 0 | | 0.0093 | 0.0067 | 0.0053 | 0.0118 | 0.00369 | 0.0047 | 0.0057 | 0.009 | 0.01 | 0.0448 | 0.0124 | 0.0048 | 0.0025 | 0.0107 |
| Acid Neutralising Capacity | mg/l as CaCO3 | | No WSV | 592 | 0 | 0 | 0 | | | | | | | | | | | | | | | |

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| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | pH | 0.00 | | | | | |
| Calcium (mg/l): | 0.00 | DOC (mg/l) | 0.00 | Catchment area: | Freshwater not listed | | | |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | November- 2010 Campaign 11 | December-2010 Campaign 12 | January 2011 Campaign 13 | February 2011 Campaign 14 | March 2011 Campaign 15 | April 2011 Campaign 16 | May 2011 Campaign 17 | June 2011 Campaign 18 | Aug 2011 Campaign 19 | Aug 2011 Campaign 20 | Sep 2011 Campaign 21 | Oct 2011 Campaign 22 | Nov 2011 Campaign 23 | Dec 2011 Campaign 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 360 | 280 | 373.5 | 61.1 | 245 | 550 | 275 | 292 | 370 | 450 | 466 | 506.8 | 0.16 | 320 |
| | | | | | | | | | 0.079 | 0.048 | 0.0468 | 0.0277 | 0.0115 | 0.132 | 0.0146 | 0.018712 | 0.03638 | 0.08257 | 0.097829 | 0.1096844 | 0.00059 | 0.021 |
| Alkalinity | mg/l as CaCO3 | | No WSV | 592 | 0.16 | 650 | 0 | | 380 | 380 | 390 | 370 | 390 | 360 | 350 | 360 | 350 | 420 | 290 | 340 | 370 | 390 |
| Zinc | mg/l | | 0.0068 | 592 | 0.00042 | 112 | 540 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; May-2010 Campaign 5, SW2; June-2010 Campaign 6, SW2; July-2010 Campaign 7, SW2; August-2010 Campaign 8, SW2; September- 2010 Campaign 9, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; May-2010 Campaign 5, SW3; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; September- 2010 Campaign 9, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Sep 2011 Campaign 21, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; Mar-2010 Campaign 3, SW4; May-2010 Campaign 5, SW4; June-2010 Campaign 6, SW4; July-2010 Campaign 7, SW4; August-2010 Campaign 8, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 | 0.028 | 0.038 | 0.02455 | 0.06083 | 0.03312 | 0.04391 | 0.04192 | 0.05794 | 0.07459 | 0.03765 | 0.046 | 0.03618 | 0.01432 | 0.03788 |
| Iron | mg/l | | 1 | 592 | 0.00078 | 1689 | 136 | December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; July-2010 Campaign 7, SW3; Sep 2011 Campaign 21, SW4; December 2012 Campaign 36, SW4; May-2010 Campaign 5, SW5 (Stillwater); June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); Apr 2012 Campaign 28, SW5 (Stillwater); June 2012 Campaign 30, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); October 2012 Campaign 34, SW5 (Stillwater); November 2012 Campaign 35, SW5 (Stillwater); December 2012 Campaign 36, SW5 (Stillwater); January 2013 Campaign 37, SW5 (Stillwater); May-2010 Campaign 5, SW6; June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; August-2010 Campaign 8, SW6; December-2010 Campaign 12, SW6; January 2011 Campaign 13, SW6; February 2011 Campaign 14, SW6; March 2011 Campaign 15, SW6; April 2011 Campaign 16, SW6; May 2011 Campaign 17, SW6; June 2011 Campaign 18, SW6; Aug 2011 Campaign 20, SW6; Sep 2011 Campaign 21, SW6; Oct 2011 Campaign 22, SW6; Dec 2011 Campaign 24, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; Mar 2012 Campaign 27, SW6; Apr 2012 Campaign 28, SW6; May 2012 Campaign 29, SW6; June 2012 Campaign 30, SW6; July 2012 Campaign 31, SW6; August 2012 Campaign 32, SW6; September 2012 Campaign 33, SW6; October 2012 Campaign 34, SW6; November 2012 Campaign 35, SW6; December 2012 Campaign 36, SW6; January 2013 Campaign 37, SW6; May-2010 Campaign 5, SW7; June 2011 Campaign 18, SW7; Dec 2011 Campaign 24, SW7; Apr 2012 Campaign 28, SW7; October 2012 Campaign 34, SW7; December 2012 Campaign 36, SW7; January 2013 Campaign 37, SW7; August 2012 Campaign 32, SW8; September 2012 Campaign 33, SW8; December 2012 Campaign 36, SW8; Apr 2012 Campaign 28, SW10; October 2012 Campaign 34, SW10; May 2011 Campaign 17, SW12; September- 2010 Campaign 9, SW13; October-2010 Campaign 10, SW13; November- 2010 Campaign 11, SW13; December-2010 Campaign 12, SW13; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; May 2011 Campaign 17, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Dec 2011 Campaign 24, SW13; Jan 2012 Campaign 25, SW13; Feb 2012 Campaign 26, SW13; Apr 2012 Campaign 28, SW13; May 2012 Campaign 29, SW13; June 2012 Campaign 30, SW13; July 2012 Campaign 31, SW13; August 2012 Campaign 32, SW13; October 2012 Campaign 34, SW13; November 2012 Campaign 35, SW13; December 2012 Campaign 36, SW13; January 2013 Campaign 37, SW13; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; September 2010 Campaign 9, SW14; October-2010 Campaign 10, SW14; November- 2010 Campaign 11, SW14; December-2010 Campaign 12, SW14; January 2011 Campaign 13, SW14; February 2011 Campaign 14, SW14; March 2011 Campaign 15, SW14; June 2011 Campaign 18, SW14; Aug 2011 Campaign 19, SW14; Aug 2011 Campaign 20, SW14; Sep 2011 Campaign 21, SW14; Oct 2011 Campaign 22, SW14; Nov 2011 Campaign 23, SW14; Dec 2011 | 0.025 | 0.083 | 0.03587 | 0.1435 | 0.0437 | 0.1164 | 0.05347 | 0.03571 | 0.08264 | 0.02908 | 0.213 | 0.05182 | | 0.04168 |
| Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 6 | 42 | June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; June-2010 Campaign 6, SW2; Jan-2010 Campaign 1; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; Jan-2010 Campaign 1; July-2010 Campaign 7, SW4; Jan-2010 Campaign 1; June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; June-2010 Campaign 6, SW11; Jan-2010 Campaign 1; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; Jan-2010 Campaign 1; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW16; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 1.41 | 16 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Lead | mg/l | 0 | 0.0013 | 592 | 0 | 16 | 29 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; Jan-2010 Campaign 1; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; July-2010 Campaign 7, SW11; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Sodium | mg/l | | N/A | 592 | 0.0002 | 2396 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.0484 | 0.1174 | 0.06049 | 0.05146 | 0.05559 | 0.04862 | 0.05315 | 0.0495 | 0.04583 | 0.06595 | 0.0448 | 0.06113 | 0.06657 | 0.06451 |
| Total Ammonia as N | mg/l as N | | No WSV | 592 | 0 | 8.24 | 0 | | 0.00005 | 0.00003 | 0.00155 | 0.00073 | | | 0.00039 | 0.00001 | 0.00016 | 0.00008 | 0.00004 | | 0.00329 | |
| Un-ionised ammonia as N | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0.01 | 0 | 0 | 0 | 0.01 | 0 | 0 | 0 | 0 | 0 | 0.03 | 0 |
| Un-ionised ammonia as NH3 | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0.02 | 0 | 0 | 0 | 0.02 | 0 | 0 | 0 | 0 | 0 | 0.03 | 0 |
| Ammonium as N | mg/l | | No WSV | 592 | 0 | 39.24 | 0 | | 0.05 | 0.03 | 1.54 | 0.73 | 0 | 0 | 0.37 | 0.01 | 0.16 | 0.08 | 0.04 | 0 | 3.27 | 0 |
| Ammonium as NH4 | mg/l | | Not appropriate, see Unionised Ammonia | 592 | 0 | 48 | 0 | | 0.06 | 0.04 | 1.97 | 0.94 | 0 | 0 | 0.48 | 0.01 | 0.21 | 0.11 | 0.05 | 0 | 4.2 | 0 |
| BOD | mg/l | | No WSV | 592 | 0 | 130 | 0 | | 2 | 22 | 5 | 0 | 0 | 0 | 4 | 0 | 2 | 0 | 4 | 0 | 33.98571429 | 0 |
| Chloride | mg/l | | N/A | 592 | 0.22 | 15655 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 69 | 179 | 90.415 | 78.061 | 62.028 | 74.47 | 80.997 | 77.139 | 72.624 | 87.028 | 66 | 77.832 | 83.061 | 91.194 |
| Nitrate | mg/l | | N/A | 592 | 0 | 94 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 36 | 36 | 24.492 | 25.679 | 35.734 | 37.655 | 19.871 | 21.703 | 21.686 | 31.312 | 29 | 30.901 | 27.063 | 47.02 |
| Nitrite | mg/l | | N/A | 592 | 0 | 5.92 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0 | 1.78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.58 | 0 |
| Suspended Solids | mg/l | | No WSV | 592 | 0 | 6378 | 0 | | 12 | 26 | 48 | 86 | 40 | 32 | 0 | 18 | 52 | 0 | 17 | 6 | 80 | 6 |
| Total Hardness | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 6487 | 0 | | 349 | 441 | 411.4151 | 365.37746 | 432.4427 | 369.43779 | 404.79788 | 405.56868 | 394 | 477 | 365 | 438 | 482 | 478 |
| Hardness~ | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 4325 | 0 | | 233 | 294 | 274 | 244 | 288 | 246 | 270 | 270 | 263 | 318 | 243 | 292 | 321 | 319 |
| Total Petroleum Hydrocarbons(C8-C35) | mg/l | 0 | No WSV | 592 | 0 | 3169.93 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

ATKINS

| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | | pH | 0.00 | | | |
| Calcium (mg/l): | 0.00 | | | DOC (mg/l) | 0.00 | | Catchment area: | Freshwater not listed |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | November- 2010 Campaign 11 | December-2010 Campaign 12 | January 2011 Campaign 13 | February 2011 Campaign 14 | March 2011 Campaign 15 | April 2011 Campaign 16 | May 2011 Campaign 17 | June 2011 Campaign 18 | Aug 2011 Campaign 19 | Aug 2011 Campaign 20 | Sep 2011 Campaign 21 | Oct 2011 Campaign 22 | Nov 2011 Campaign 23 | Dec 2011 Campaign 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 360 | 280 | 373.5 | 61.1 | 245 | 550 | 275 | 292 | 370 | 450 | 466 | 506.8 | 0.16 | 320 |
| | | | | | | | | | 0.079 | 0.048 | 0.0468 | 0.0277 | 0.0115 | 0.132 | 0.0146 | 0.018712 | 0.03638 | 0.08257 | 0.097829 | 0.1096844 | 0.00059 | 0.021 |
| pH | pH units | | 7 - 9.0 | 592 | 0.05 | 8.4 | 134 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; September- 2010 Campaign 9, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; October 2012 Campaign 34, SW1; Jan-2010 Campaign 1; October-2010 Campaign 10, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Dec 2011 Campaign 24, SW2; Jan-2010 Campaign 1; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; September- 2010 Campaign 9, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Sep 2011 Campaign 21, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; October 2012 Campaign 34, SW4; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); September- 2010 Campaign 9, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW6; Apr-2010 Campaign 4, SW6; July-2010 Campaign 7, SW6; September- 2010 Campaign 9, SW6; December-2010 Campaign 12, SW6; June 2011 Campaign 18, SW6; Oct 2011 Campaign 22, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; July 2012 Campaign 31, SW6; Jan-2010 Campaign 1; Apr-2010 Campaign 4, SW7; September- 2010 Campaign 9, SW7; June 2011 Campaign 18, SW7; Oct 2011 Campaign 22, SW7; Nov 2011 Campaign 23, SW7; Mar-2010 Campaign 3, SW8; Apr-2010 Campaign 4, SW8; June-2010 Campaign 6, SW8; October-2010 Campaign 10, SW8; November- 2010 Campaign 11, SW8; December-2010 Campaign 12, SW8; Aug 2011 Campaign 20, SW8; Sep 2011 Campaign 21, SW8; Oct 2011 Campaign 22, SW8; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW9; Apr-2010 Campaign 4, SW9; September- 2010 Campaign 9, SW9; Sep 2011 Campaign 21, SW9; Oct 2011 Campaign 22, SW9; Nov 2011 Campaign 23, SW9; Jan 2012 Campaign 25, SW9; September 2012 Campaign 33, SW9; October-2010 Campaign 10, SW10; December-2010 Campaign 12, SW10; Aug 2011 Campaign 20, SW10; Sep 2011 Campaign 21, SW10; Jan-2010 Campaign 1; November- 2010 Campaign 11, SW11; January 2011 Campaign 13, SW11; Oct 2011 Campaign 22, SW11; Nov 2011 Campaign 23, SW11; July 2012 Campaign 31, SW11; August 2012 Campaign 32, SW11; October 2012 Campaign 34, SW11; December 2012 Campaign 36, SW11; January 2013 Campaign 37, SW11; Jan-2010 Campaign 1; September- 2010 Campaign 9, SW12; May 2011 Campaign 17, SW12; June 2011 Campaign 18, SW12; Sep 2011 Campaign 21, SW12; Oct 2011 Campaign 22, SW12; Nov 2011 Campaign 23, SW12; Dec 2011 Campaign 24, SW12; Jan-2010 Campaign 1; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; April 2011 Campaign 16, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Oct 2011 Campaign 22, SW13; Dec 2011 Campaign 24, SW13; Feb 2012 Campaign 26, SW13; | 6.5 | 6.5 | 7.8 | 7.1 | 7.78 | 7.61 | 8.26 | 7.3 | 7.24 | 7 | 7.17 | 7.33 | 7.56 | 7.35 |
| Temperature | oC | | No WSV | 592 | 0.00028 | 20.3 | 0 | | 0.0114 | 0.0045 | 0.0055 | 0.0043 | 0.00606 | 0.0112 | 0.0114 | 0.0193 | 0.0168 | 0.0187 | 0.01393 | 0.01652 | 0.012 | 0.00944 |
| Dissolved Oxygen | % saturation | | No WSV | 592 | 0.21 | 159.3 | 0 | | 39.3 | 31.4 | 21.6 | 21.3 | 47.5 | 116 | 61.1 | 114.7 | DNS | 63.1 | 32.3 | 77.8 | 48.1 | 32.8 |
| Total Phosphorus | mg/l | | No WSV | 592 | 0.02 | 25.74 | 0 | | 0.73 | 1.31 | 2.455 | 0.8293 | 0.9091 | 1.142 | 0.7151 | 1.033 | 2.727 | 1.179 | 1.48 | 2.145 | 4.636 | 1.884 |
| Soluble ReactivePhosphorus | mg/l | | No WSV | 592 | 0 | 4.32 | 0 | | 0.71 | 1.01 | 2.303 | 0.6261 | 0.6021 | 0.45 | 0.4776 | 0.5777 | 0.867 | 1.031 | 1.24 | 1.325 | 1.496 | 1.478 |
| Dissolved Copper | mg/l | 0 | 0.00376 | 592 | 0 | 30.1 | 259 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; June 2011 Campaign 18, SW1; Oct 2011 Campaign 22, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; August-2010 Campaign 8, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; June 2011 Campaign 18, SW2; Mar 2012 Campaign 27, SW2; July 2012 Campaign 31, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; August-2010 Campaign 8, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; June 2011 Campaign 18, SW3; Jan 2012 Campaign 25, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; Jan-2010 Campaign 1; Mar-2010 Campaign 3, SW4; Apr-2010 Campaign 4, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 Campaign 11, SW4; December-2010 Campaign 12, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; September 2012 Campaign 33, SW4; October 2012 Campaign 34, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Jan-2010 Campaign 1; July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); October-2010 Campaign 10, SW5 (Stillwater); November- 2010 Campaign 11, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 (Stillwater); March 2011 Campaign 15, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); Jan-2010 Campaign 1; Feb-2010 Campaign 2, SW6; July-2010 Campaign 7, SW6; October-2010 Campaign 10, SW6; November- 2010 Campaign 11, SW6; December-2010 Campaign 12, SW6; February 2011 Campaign 14, SW6; April 2011 Campaign 16, SW6; June | 2 | 4 | 3.295 | 11.16 | 5.589 | 8.305 | 0 | 2.337 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dissolved Iron | mg/l | 0 | No WSV | 592 | 10 | 31740 | 0 | | 0 | 56 | 0 | 127.6 | 0 | 34.82 | 35.78 | 0 | 0 | 10.13 | 23 | 18.37 | 0 | 0 |
| Dissolved Zinc | mg/l | 0 | 0.0068 | 592 | 0 | 237.8 | 354 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Apr-2010 Campaign 4, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; November- 2010 Campaign 11, SW4; January 2011 Campaign 13, SW4; February 2011 Campaign 14, SW4; March 2011 Campaign 15, SW4; April 2011 Campaign 16, SW4; May 2011 Campaign 17, SW4; Aug 2011 Campaign 19, SW4; Aug 2011 Campaign 20, SW4; Oct 2011 Campaign 22, SW4; Dec 2011 Campaign 24, SW4; Jan 2012 Campaign 25, SW4; Mar 2012 Campaign 27, SW4; May 2012 Campaign 29, SW4; June 2012 Campaign 30, SW4; July 2012 Campaign 31, SW4; August 2012 Campaign 32, SW4; September 2012 Campaign 33, SW4; November 2012 Campaign 35, SW4; December 2012 Campaign 36, SW4; Mar-2010 Campaign 3, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); December-2010 Campaign 12, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); February 2011 Campaign 14, SW5 | 0.007 | 0.011 | 0.008475 | 0.05287 | 0.008855 | 0.03171 | 0.01788 | 0.006957 | 0.01157 | 0.01087 | 0.02392 | 0.01121 | 0.01147 |
| Dissolved Cadmium | mg/l | 0 | 0.0002 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 1.41 | 18 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12; July-2010 Campaign 7, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Dissolved Lead | mg/l | 0 | 0.0013 | 592 | 0 | 0 | 14 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS |
| Sulphate | mg/l | | N/A | 592 | 0 | 410.447 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.087 | 0.092 | 0.091279 | 0.096624 | 0.081691 | 0.090833 | 0.091537 | 0.089538 | 0.087535 | 0.091369 | 0.08 | 0.092191 | 0.097027 | 0.101076 |
| Dissolved Organic Carbon | mg/l | | No WSV | 592 | 0.0001 | 139.56 | 0 | | 0.0064 | 0.0081 | 0.0083025 | 0.008916 | 0.008349 | 0.011232 | 0.0089037 | 0.0086673 | 0.0090344 | 0.0106 | 0.0099 | 0.0095143 | 0.010878 | 0.0085 |
| Acid Neutralising Capacity | mg/l as CaCO3 | | No WSV | 592 | 0 | 0 | 0 | | | | | | | | | | | | | | | |

| Assessment Criteria : | Coastal and Estuarine EQS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CaCO (mg/l): | 0.00 | | pH | 0.00 | | | | |
| Calcium (mg/l): | 0.00 | | DOC (mg/l) | 0.00 | Catchment area: | | Freshwater not listed | |

| Constituents | Unit | Limit of Detection | Generic Assessment Criteria | Number of Samples | Minimum Value | Maximum Value | Number of Exceedences | Locations of Exceedences | Jan 2012 Campaign 25 | Feb 2012 Campaign 26 | Mar 2012 Campaign 27 | Apr 2012 Campaign 28 | May 2012 Campaign 29 | June 2012 Campaign 30 | July 2012 Campaign 31 | August 2012 Campaign 32 | September 2012 Campaign 33 | October 2012 Campaign 34 | November 2012 Campaign 35 | December 2012 Campaign 36 | January 2013 Campaign 37 | Jan-2010 Campaign 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | SW3 | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 300 | 350 | 370 | 370 | 640 | 360 | 340 | 330 | 380 | 380 | 390 | 370 | 390 | 360 |
| | | | | | | | | | 0.019 | 0.009 | 0.009 | 0.019 | 0.057 | 0.006 | 0.013 | 0.041 | 0.028 | 0.038 | 0.02455 | 0.06083 | 0.03312 | 0.04391 |
| Alkalinity | mg/l as CaCO3 | | No WSV | 592 | 0.16 | 650 | 0 | | 320 | 460 | 430 | 460 | 295 | 390 | 260 | 400 | 360 | 230 | 220 | 370 | 290 | 0.21 |
| Zinc | mg/l | | 0.0068 | 592 | 0.00042 | 112 | 540 | Feb-2010 Campaign 2, SW1; Mar-2010 Campaign 3, SW1; Apr-2010 Campaign 4, SW1; May-2010 Campaign 5, SW1; June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; August-2010 Campaign 8, SW1; September- 2010 Campaign 9, SW1; October-2010 Campaign 10, SW1; November- 2010 Campaign 11, SW1; December-2010 Campaign 12, SW1; January 2011 Campaign 13, SW1; February 2011 Campaign 14, SW1; March 2011 Campaign 15, SW1; April 2011 Campaign 16, SW1; May 2011 Campaign 17, SW1; June 2011 Campaign 18, SW1; Aug 2011 Campaign 19, SW1; Aug 2011 Campaign 20, SW1; Sep 2011 Campaign 21, SW1; Oct 2011 Campaign 22, SW1; Nov 2011 Campaign 23, SW1; Dec 2011 Campaign 24, SW1; Jan 2012 Campaign 25, SW1; Feb 2012 Campaign 26, SW1; Mar 2012 Campaign 27, SW1; Apr 2012 Campaign 28, SW1; May 2012 Campaign 29, SW1; June 2012 Campaign 30, SW1; July 2012 Campaign 31, SW1; August 2012 Campaign 32, SW1; September 2012 Campaign 33, SW1; October 2012 Campaign 34, SW1; November 2012 Campaign 35, SW1; December 2012 Campaign 36, SW1; January 2013 Campaign 37, SW1; Feb-2010 Campaign 2, SW2; Mar-2010 Campaign 3, SW2; Apr-2010 Campaign 4, SW2; May-2010 Campaign 5, SW2; June-2010 Campaign 6, SW2; July-2010 Campaign 7, SW2; August-2010 Campaign 8, SW2; September- 2010 Campaign 9, SW2; October-2010 Campaign 10, SW2; November- 2010 Campaign 11, SW2; December-2010 Campaign 12, SW2; January 2011 Campaign 13, SW2; February 2011 Campaign 14, SW2; March 2011 Campaign 15, SW2; April 2011 Campaign 16, SW2; May 2011 Campaign 17, SW2; June 2011 Campaign 18, SW2; Aug 2011 Campaign 19, SW2; Aug 2011 Campaign 20, SW2; Sep 2011 Campaign 21, SW2; Oct 2011 Campaign 22, SW2; Nov 2011 Campaign 23, SW2; Dec 2011 Campaign 24, SW2; Jan 2012 Campaign 25, SW2; Feb 2012 Campaign 26, SW2; Mar 2012 Campaign 27, SW2; Apr 2012 Campaign 28, SW2; May 2012 Campaign 29, SW2; June 2012 Campaign 30, SW2; July 2012 Campaign 31, SW2; August 2012 Campaign 32, SW2; September 2012 Campaign 33, SW2; October 2012 Campaign 34, SW2; November 2012 Campaign 35, SW2; December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; Feb-2010 Campaign 2, SW3; Mar-2010 Campaign 3, SW3; Apr-2010 Campaign 4, SW3; May-2010 Campaign 5, SW3; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; September- 2010 Campaign 9, SW3; October-2010 Campaign 10, SW3; November- 2010 Campaign 11, SW3; December-2010 Campaign 12, SW3; January 2011 Campaign 13, SW3; February 2011 Campaign 14, SW3; March 2011 Campaign 15, SW3; April 2011 Campaign 16, SW3; May 2011 Campaign 17, SW3; June 2011 Campaign 18, SW3; Aug 2011 Campaign 19, SW3; Aug 2011 Campaign 20, SW3; Sep 2011 Campaign 21, SW3; Oct 2011 Campaign 22, SW3; Nov 2011 Campaign 23, SW3; Dec 2011 Campaign 24, SW3; Jan 2012 Campaign 25, SW3; Feb 2012 Campaign 26, SW3; Mar 2012 Campaign 27, SW3; Apr 2012 Campaign 28, SW3; May 2012 Campaign 29, SW3; June 2012 Campaign 30, SW3; July 2012 Campaign 31, SW3; August 2012 Campaign 32, SW3; September 2012 Campaign 33, SW3; October 2012 Campaign 34, SW3; November 2012 Campaign 35, SW3; December 2012 Campaign 36, SW3; January 2013 Campaign 37, SW3; Feb-2010 Campaign 2, SW4; Mar-2010 Campaign 3, SW4; May-2010 Campaign 5, SW4; June-2010 Campaign 6, SW4; July-2010 Campaign 7, SW4; August-2010 Campaign 8, SW4; September- 2010 Campaign 9, SW4; October-2010 Campaign 10, SW4; November- 2010 | 0.03477 | 0.02 | 0.019 | 0.032 | 0.028 | 0.025 | 0.068 | 0.044 | 0.034 | 0.064 | 0.063 | 0.059 | 0.053 | 0.00049 |
| Iron | mg/l | | 1 | 592 | 0.00078 | 1689 | 136 | December 2012 Campaign 36, SW2; January 2013 Campaign 37, SW2; July-2010 Campaign 7, SW3; Sep 2011 Campaign 21, SW4; December 2012 Campaign 36, SW4; May-2010 Campaign 5, SW5 (Stillwater); June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); April 2011 Campaign 16, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); Apr 2012 Campaign 28, SW5 (Stillwater); June 2012 Campaign 30, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); October 2012 Campaign 34, SW5 (Stillwater); November 2012 Campaign 35, SW5 (Stillwater); December 2012 Campaign 36, SW5 (Stillwater); January 2013 Campaign 37, SW5 (Stillwater); May-2010 Campaign 5, SW6; June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; August-2010 Campaign 8, SW6; December-2010 Campaign 12, SW6; January 2011 Campaign 13, SW6; February 2011 Campaign 14, SW6; March 2011 Campaign 15, SW6; April 2011 Campaign 16, SW6; May 2011 Campaign 17, SW6; June 2011 Campaign 18, SW6; Aug 2011 Campaign 20, SW6; Sep 2011 Campaign 21, SW6; Oct 2011 Campaign 22, SW6; Dec 2011 Campaign 24, SW6; Jan 2012 Campaign 25, SW6; Feb 2012 Campaign 26, SW6; Mar 2012 Campaign 27, SW6; Apr 2012 Campaign 28, SW6; May 2012 Campaign 29, SW6; June 2012 Campaign 30, SW6; July 2012 Campaign 31, SW6; August 2012 Campaign 32, SW6; September 2012 Campaign 33, SW6; October 2012 Campaign 34, SW6; November 2012 Campaign 35, SW6; December 2012 Campaign 36, SW6; January 2013 Campaign 37, SW6; May-2010 Campaign 5, SW7; June 2011 Campaign 18, SW7; Dec 2011 Campaign 24, SW7; Apr 2012 Campaign 28, SW7; October 2012 Campaign 34, SW7; December 2012 Campaign 36, SW7; January 2013 Campaign 37, SW7; August 2012 Campaign 32, SW8; September 2012 Campaign 33, SW8; December 2012 Campaign 36, SW8; Apr 2012 Campaign 28, SW10; October 2012 Campaign 34, SW10; May 2011 Campaign 17, SW12; September- 2010 Campaign 9, SW13; October-2010 Campaign 10, SW13; November- 2010 Campaign 11, SW13; December-2010 Campaign 12, SW13; January 2011 Campaign 13, SW13; February 2011 Campaign 14, SW13; March 2011 Campaign 15, SW13; May 2011 Campaign 17, SW13; June 2011 Campaign 18, SW13; Aug 2011 Campaign 19, SW13; Sep 2011 Campaign 21, SW13; Dec 2011 Campaign 24, SW13; Jan 2012 Campaign 25, SW13; Feb 2012 Campaign 26, SW13; Apr 2012 Campaign 28, SW13; May 2012 Campaign 29, SW13; June 2012 Campaign 30, SW13; July 2012 Campaign 31, SW13; August 2012 Campaign 32, SW13; October 2012 Campaign 34, SW13; November 2012 Campaign 35, SW13; December 2012 Campaign 36, SW13; January 2013 Campaign 37, SW13; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; September 2010 Campaign 9, SW14; October-2010 Campaign 10, SW14; November- 2010 Campaign 11, SW14; December-2010 Campaign 12, SW14; January 2011 Campaign 13, SW14; February 2011 Campaign 14, SW14; March 2011 Campaign 15, SW14; June 2011 Campaign 18, SW14; Aug 2011 Campaign 19, SW14; Aug 2011 Campaign 20, SW14; Sep 2011 Campaign 21, SW14; Oct 2011 Campaign 22, SW14; Nov 2011 Campaign 23, SW14; Dec 2011 | 0.05472 | 0.169 | 0.147 | 0.114 | 0.167 | 0.12 | 0.208 | 0.055 | 0.184 | 0.256 | 0.233 | 0.734 | 0.764 | 0.00183 |
| Nickel | mg/l | 0 | 0.0086 | 592 | 0 | 6 | 42 | June-2010 Campaign 6, SW1; July-2010 Campaign 7, SW1; June-2010 Campaign 6, SW2; Jan-2010 Campaign 1; June-2010 Campaign 6, SW3; July-2010 Campaign 7, SW3; Jan-2010 Campaign 1; July-2010 Campaign 7, SW4; Jan-2010 Campaign 1; June-2010 Campaign 6, SW5 (Stillwater); July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; June-2010 Campaign 6, SW11; Jan-2010 Campaign 1; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; Jan-2010 Campaign 1; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; July-2010 Campaign 7, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW16; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | 0.85 |
| Mercury | mg/l | 0 | 0.00007 | 592 | 0 | 1.41 | 16 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); July-2010 Campaign 7, SW6; July-2010 Campaign 7, SW10; Jan-2010 Campaign 1; May 2011 Campaign 17, SW12 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | |
| Lead | mg/l | 0 | 0.0013 | 592 | 0 | 16 | 29 | July-2010 Campaign 7, SW5 (Stillwater); August-2010 Campaign 8, SW5 (Stillwater); January 2011 Campaign 13, SW5 (Stillwater); May 2011 Campaign 17, SW5 (Stillwater); June 2011 Campaign 18, SW5 (Stillwater); Aug 2011 Campaign 19, SW5 (Stillwater); Aug 2011 Campaign 20, SW5 (Stillwater); Sep 2011 Campaign 21, SW5 (Stillwater); Oct 2011 Campaign 22, SW5 (Stillwater); Nov 2011 Campaign 23, SW5 (Stillwater); August 2012 Campaign 32, SW5 (Stillwater); September 2012 Campaign 33, SW5 (Stillwater); June-2010 Campaign 6, SW6; July-2010 Campaign 7, SW6; June-2010 Campaign 6, SW8; Jan-2010 Campaign 1; June-2010 Campaign 6, SW11; July-2010 Campaign 7, SW11; June-2010 Campaign 6, SW12; July-2010 Campaign 7, SW12; May 2011 Campaign 17, SW12; June-2010 Campaign 6, SW13; Jan-2010 Campaign 1; June-2010 Campaign 6, SW14; Jan-2010 Campaign 1; June-2010 Campaign 6, SW15; Jan-2010 Campaign 1; July-2010 Campaign 7, SW16; October 2012 Campaign 34 | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | DNS | 8.5E-19 |
| Sodium | mg/l | | N/A | 592 | 0.0002 | 2396 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0.05937 | 0.0625 | 0.02567 | 0.0585 | 0.0318 | 0.0549 | 0.064 | 0.0536 | 0.0591 | 0.0582 | 0.0616 | 0.0417 | 0.0585 | 0.00025 |
| Total Ammonia as N | mg/l as N | | No WSV | 592 | 0 | 8.24 | 0 | | | | 0.00033 | | 0.0002 | | 0.00025 | | 0.00329 | 0.00001 | 0.00124 | 0.00001 | | 0.00234 |
| Un-ionised ammonia as N | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.08 | 0 | 0.01 | 0 | 0 | 3.19 |
| Un-ionised ammonia as NH3 | mg/l | | No WSV | 592 | 0 | 3.66 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0.02 | 0 | 0 | 3.19 |
| Ammonium as N | mg/l | | No WSV | 592 | 0 | 39.24 | 0 | | 0 | 0 | 0.33 | 0 | 0.2 | 0 | 0.24 | 0 | 3.21 | 0.01 | 1.22 | 0.01 | 0 | 2.34 |
| Ammonium as NH4 | mg/l | | Not appropriate, see Unionised Ammonia | 592 | 0 | 48 | 0 | | 0 | 0 | 0.4 | 0 | 0.3 | 0 | 0.32 | 0 | 4 | 0 | 1.6 | 0 | 0 | 2.31 |
| BOD | mg/l | | No WSV | 592 | 0 | 130 | 0 | | 0 | 5 | 14 | 9 | 5 | 0 | 2 | 5 | 2 | 2 | 2 | 15 | 5 | 1.58 |
| Chloride | mg/l | | N/A | 592 | 0.22 | 15655 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 84.461 | 97 | 36 | 80 | 47 | 75 | 73 | 80 | 87 | 85 | 87 | 65 | 90 | 0.26 |
| Nitrate | mg/l | | N/A | 592 | 0 | 94 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 33.376 | 47 | 39 | 36 | 23 | 25 | 31 | 32 | 22 | 30 | 34 | 21 | 30 | 0.29 |
| Nitrite | mg/l | | N/A | 592 | 0 | 5.92 | 1 | January 2011 Campaign 13, SW5 (Stillwater) | 0 | 0 | 2.01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.96 |
| Suspended Solids | mg/l | | No WSV | 592 | 0 | 6378 | 0 | | 16 | 6 | 22 | 0 | 15 | 10 | 0 | 6 | 38 | 16 | 16 | 18 | 30 | 0.91 |
| Total Hardness | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 6487 | 0 | | 390 | 373 | 203 | 428 | 330 | 168 | 169 | 163 | 457 | 420 | 357 | 360 | 385 | 0.25 |
| Hardness~ | mg/l as CaCO3 | | No WSV | 592 | 0.23 | 4325 | 0 | | 260 | 249 | 135 | 285 | 220 | 112 | 113 | 109 | 305 | 280 | 238 | 240 | 257 | 0.25 |
| Total Petroleum Hydrocarbons(C8-C35) | mg/l | 0 | No WSV | 592 | 0 | 3169.93 | 0 | | 0 | 0 | 37 | 0 | 25 | 31 | 0 | 0 | 10 | 10 | 10 | 616 | 19 | 3.89 |