



Organics

A marginally elevated concentration of benzo(a)pyrene was detected in one sample of made ground taken from TP102 at a depth of 0.30m bgl. The sample was predominantly of concrete and brick gravel with some ash.

Although visual and olfactory evidence of hydrocarbon contamination was noted within the made ground encountered in TP102 between 1.20m and 2.00m bgl; no TPH fractions recorded concentrations above the relevant GAC.

Inorganic Analytes

No inorganics recorded concentrations above the relevant GAC.

3.3 Revised Conceptual Model and Generic Quantitative Risk Assessment of Pollutant Linkages

The combined conceptual site model and conceptual exposure model developed as part of the Phase 1 Geoenvironmental Appraisal Report has been revised in light of the Phase 2 (infill) ground investigation and the chemical analysis results summarised above.

This revised conceptual model has been developed for the proposed future commercial land-use. This summarises the understanding of surface and sub-surface features, the potential contaminant sources, transport pathways and receptors.

In summary, the revised CSM has identified the following potential pollutant linkages which could result in an unacceptable risk to the proposed end-use, denoted as a moderate or higher likelihood on the CSM:

- Ingestion and dermal contact with benzo(a)pyrene in made ground soils.

Marginally elevated concentrations of benzo(a)pyrene were recorded in samples of made ground containing ash. These soils are considered to pose a potential risk to site end users in soft landscape areas only and require remedial action.



4. Conclusions and Recommendations

4.1 Mining and Quarrying

The proof drilling of the proposed building footprint has confirmed the presence of a persistent intact coal seam at depths of between 8.60 and 15.60m bgl. No significant evidence of workings was encountered, hence the risk to surface stability from mining induced subsidence below the proposed buildings is considered to be low/negligible. The risk from localised bell pit/s cannot be entirely discounted below the building footprint and therefore if, during development works, any evidence of bell pitting is encountered, works should stop in that area and the advice of a suitably qualified consultant be sought.

Rotary drilling works to investigate for potential workings were limited to the proposed buildings, given that they were viewed as the most sensitive. Given the findings of the rotary drilling, the history of the site and the shallow ground conditions recorded to the west of the proposed buildings, the risk to surface stability from shallow mining elsewhere is considered to be low. If evidence of mine workings/entries are proven in the area outside the building footprint during development, works should stop in that area and the advice of a suitably qualified consultant be sought.

4.2 Foundations/Floors

Recommendations for foundation and floor design for the proposed development were included in the Phase 1 Geoenvironmental Appraisal Report.

4.3 Pavements and Highways

Based on a visual examination of the made ground and alluvial deposits, and Atterberg Limit determinations undertaken on the cohesive alluvial deposits, a preliminary CBR value of <2.5% is recommended for these materials. Highways Agency document HD25 Interim Advice Note 73/06 Revision 1 (2009) states that where a subgrade has a CBR lower than 2.5%, it is considered unsuitable support for a pavement foundation since it would tend to deform under construction traffic, and must be improved.

4.4 Outline Remediation Requirements

Contamination may pose a short-term (acute) or long-term (chronic) risk to workers during construction and maintenance. The potential risks must be specifically assessed as part of the health and safety evaluation for the works to be performed in accordance with prevailing legislation. Site practices must conform to the specific legislative requirements and follow appropriate guidance (e.g., HSE, 1991; CIRIA, 1996).



Marginally elevated concentrations of benzo(a)pyrene have been recorded in samples of made ground containing ash and clinker. These soils are considered to pose a potential risk to site end users in soft landscape areas only and require remedial action, as discussed below.

Should the material be placed under areas of proposed hardstanding (whether it be buildings or car parking/roadways), no further remedial action is considered necessary to protect end users from direct contact with the identified contamination.

Where made ground is left in place in areas of soft landscaping, a subsoil/topsoil "cap" will be required to provide a suitable growing medium for shallow rooted plants; a capping thickness of 450mm is suggested, subject to regulatory approval. Deep rooted plants will need to be potted in a suitable depth of clean inert fill. It is recommended that a clean cap specification be agreed with the local authority before development begins.

It is possible that areas of more significant contamination not identified to date may be encountered onsite during redevelopment. If any areas of noxious odorous, brightly coloured, fibrous, liquid etc contamination are encountered further advice should be sought from a suitably qualified consultant. A contingency for removal/treatment of possible contamination should be included.

If more heavily contaminated groundwater than encountered during the ground investigation is observed during the enabling/development works, treatment or disposal from site should be considered.

4.5 Ground Gas

A Gas Risk Assessment has been undertaken for the site, reported 28th March 2011 (Letter ref. C4013/JW/4320).

The gas monitoring results indicate non-detectable or very low concentrations of methane, carbon dioxide, hydrogen sulphide and carbon monoxide, with no detectable initial and steady state positive flows. Subsequently the overall ground gas regime can be assessed as Characteristic Situation (CS) 1, based on Situation A presented in CIRIA 665; necessitating no special precautions with regard to gas protection.

No VOC concentrations above the limit of detection (0.1ppm) were detected within the ground gas. Therefore, specific hydrocarbon protective measures are not required.

In accordance with the BRE Radon document (BR211) 2007 'Radon, Guidance on protective measures for new buildings', radon protection measures are not required for the proposed development on this site.



We trust that the above and attached is satisfactory and self explanatory and that you will forward this information for the appropriate regulatory approvals.

Should we be of any further assistance on this project, please do not hesitate to call.

Yours sincerely

Jim Wilson
Senior Engineer

For and on behalf of
Sirius Geotechnical and Environmental Ltd

Attachments

Attachment A -	Drawings
Attachment B -	Exploratory Hole Records (Including SDS Openhole Drill Logs and Summary Sheets)
Attachment C -	Chemical Test Results

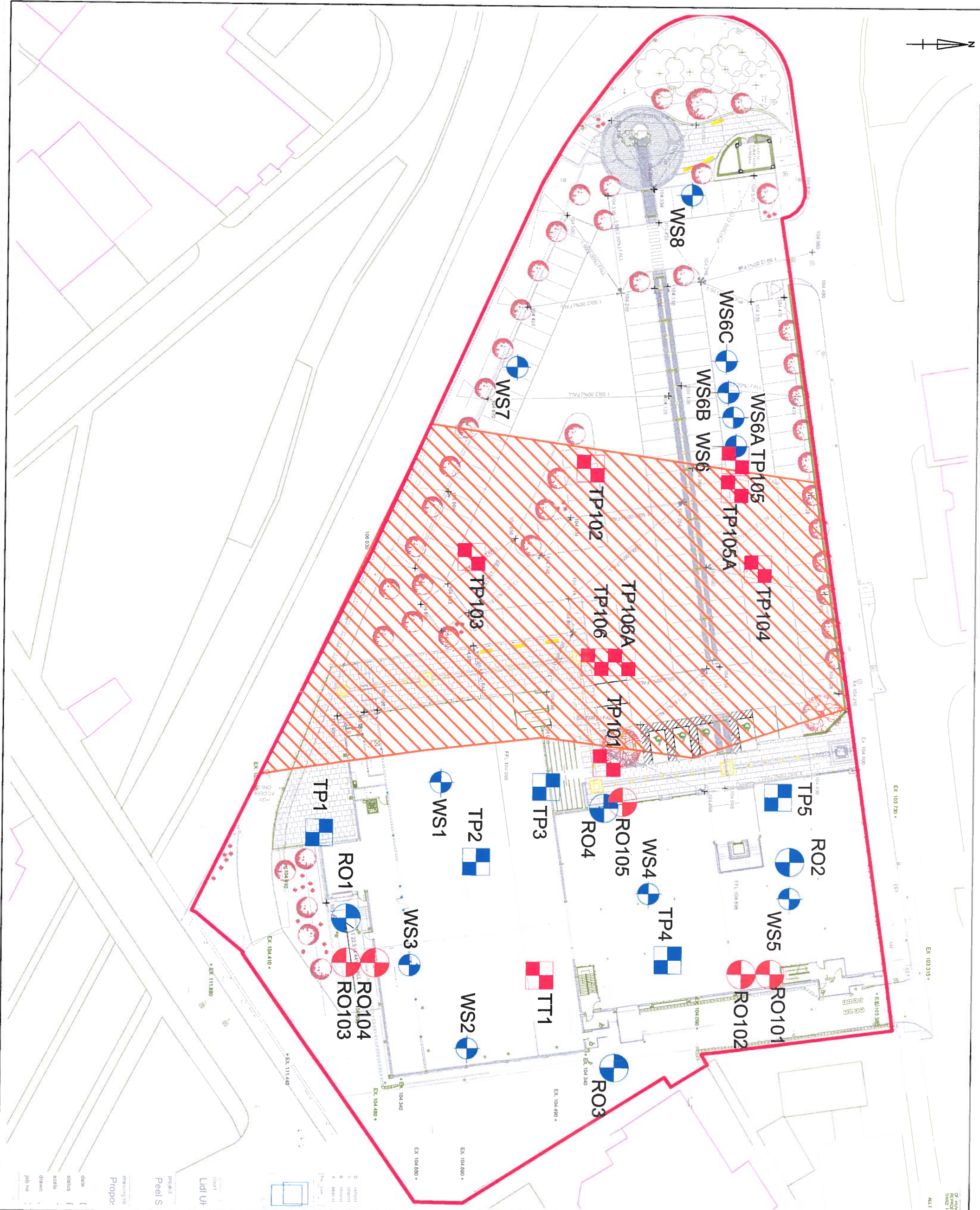
Enclosures

Invoices	C4013/JW/11055784
	C4013/JW/11055785



ATTACHMENT A

DRAWINGS



NOTES

- Approximate site boundary
- Approximate area of site not accessible due to stockpiled materials during Phase 1 investigation

RO1

Sirius rotary open-hole borehole - January 2011

TP1

Sirius trial pit - January 2011

WS1

Sirius window sample borehole - January 2011

RO101

Sirius rotary open-hole borehole / installation (February 2011)

TP101/TT101

Sirius trial pit/trench - April 2011

REVISION

REVISION	DESCRIPTION
0	Phase 1 GA Report Issue
A	Additional rotary boreholes added
B	Phase 2 ground investigation added
C	>>
D	>>

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CLIENT



SITE

PEEL STREET,
BARNSELEY

DRAWING TITLE
EXPLORATORY HOLE
LOCATION PLAN

DRAWING NO.		REVISION NO.	
C4013/P202		B	
DRAWN BY		APPROVED BY	
JW		MB	
DATE	SCALE	PAPER SIZE	
JUNE 2011	1:500	A3	



ATTACHMENT B

EXPLORATORY HOLE LOGS

Exploratory Hole	Rockhead (m bgl)	Top of Coal (m bgl)	Btm of Coal (m bgl)	Broken Ground (m bgl)	Btm of Broken Ground (m bgl)	Btm of BH (m bgl)	Coal Thickness (m)	Grout Take (Te)
A7	3.90	9.10	10.50			11.50	1.40	0.16
A8	4.70	8.60	10.00			11.00	1.40	0.16
A9	3.50	8.80	10.40			11.40	1.60	0.16
A10	3.90	8.90	10.40			11.40	1.50	0.16
A11	3.70	10.00	11.40			12.40	1.40	0.16
A12	3.50	10.20	11.70			12.70	1.50	0.16
A13	2.50	9.50	11.20			12.20	1.70	0.16
B7	4.69	9.00	10.40			11.40	1.40	0.16
B8	4.90	8.80	10.10			11.10	1.30	0.16
B9	4.50	8.90	10.30			11.30	1.40	0.16
B10	3.90	9.00	10.40			11.40	1.40	0.16
B11	3.00	10.50	11.90			12.90	1.40	0.16
B12	2.50	10.00	11.90			12.90	1.90	0.16
B13	2.70	9.50	11.20			12.20	1.70	0.16
B14	2.70	9.60	11.40			12.40	1.80	0.16
C7	3.90	9.60	11.00			12.00	1.40	0.16
C8	5.00	8.90	10.20			11.20	1.30	0.16
C9	5.10	10.10	11.50			12.50	1.40	0.16
C10	3.90	9.80	11.20			12.20	1.40	0.16
C11	2.50	10.40	11.80			12.80	1.40	0.16
C12	2.20	10.10	12.00			13.00	1.90	0.16
C13	2.70	9.80	11.50			12.50	1.70	0.16
C14	2.50	11.00	13.00			14.00	2.00	0.16
C15	2.50	11.00	13.00			14.00	2.00	0.16
D1	4.70	10.80	12.40			13.40	1.60	0.16
D2	4.60	11.00	12.50			13.50	1.50	0.16
D3	4.60	11.40	12.90			13.90	1.50	0.16
D4	4.10	11.80	13.40			14.40	1.60	0.16
D5	4.20	12.00	13.50			14.50	1.50	0.16
D6	4.20	12.10	13.60			14.60	1.50	0.16
D7	3.50	10.20	11.60			12.60	1.40	0.16
D8	4.90	9.40	10.80			11.80	1.40	0.16
D9	2.60	10.60	12.00			13.00	1.40	0.16
D10	3.00	11.10	12.50			13.50	1.40	0.16
D11	3.20	11.00	12.40			13.40	1.40	0.16
D12	2.50	10.90	12.80			13.80	1.90	0.16
D13	2.20	10.60	11.90			12.90	1.30	0.16
D14	1.50	11.00	13.00			14.00	2.00	0.16
D15	1.30	11.00	13.00			14.00	2.00	0.16
E1	6.00	11.00	12.50			13.50	1.50	0.16
E2	4.80	11.40	12.90			13.90	1.50	0.16
E3	5.00	11.60	13.10			14.10	1.50	0.16
E4	5.00	11.90	13.40			14.40	1.50	0.16
E5	5.00	12.20	13.70			14.70	1.50	0.16
E6	4.50	12.00	13.50			14.50	1.50	0.16
E7	3.40	10.70	12.10			13.10	1.40	0.16
E8	5.10	10.00	11.30			12.30	1.30	0.16
E9	2.70	10.20	11.60			12.60	1.40	0.16
E10	2.90	11.40	12.90			13.90	1.50	0.16
E11	3.00	11.80	13.40			14.40	1.60	0.16
E12	2.10	11.80	13.40			14.40	1.60	0.16
E13	1.00	11.50	13.50			14.50	2.00	0.16
E14	1.00	12.00	13.50			14.50	1.50	0.16
E15	1.20	12.00	13.50			14.50	1.50	0.16
F1	5.00	11.00	12.50			13.50	1.50	0.16
F2	4.70	11.00	12.50			13.50	1.50	0.16
F3	4.70	11.40	12.90			13.90	1.50	0.16
F4	5.00	11.80	13.30			14.30	1.50	0.16
F5	4.80	12.80	14.30			15.30	1.50	0.16
F6	4.90	12.60	14.10			15.10	1.50	0.16
F7	4.70	11.80	13.30			14.30	1.50	0.16
F8	5.20	10.70	11.90			12.90	1.20	0.16
F9	3.80	10.90	12.30			13.30	1.40	0.16
F10	3.50	11.20	12.60			13.60	1.40	0.16
F11	3.00	12.30	14.00			15.00	1.70	0.16
F12	2.70	12.30	14.10			15.10	1.80	0.16
F13	1.00	12.30	13.80			14.80	1.50	0.16
F14	1.50	13.00	14.80			15.80	1.80	0.16
F15	1.50	13.00	14.80			15.80	1.80	0.16
G1	4.90	11.00	12.50			13.50	1.50	0.16

Exploratory Hole	Rockhead (m bgl)	Top of Coal (m bgl)	Btm of Coal (m bgl)	Broken Ground (m bgl)	Btm of Broken Ground (m bgl)	Btm of BH (m bgl)	Coal Thickness (m)	Grout Take (Te)
G2	4.60	11.60	13.20			14.20	1.60	0.16
G3	5.00	11.80	13.30			14.30	1.50	0.16
G4	5.10	12.00	13.50			14.50	1.50	0.16
G5	5.50	12.50	14.00			15.00	1.50	0.16
G6	5.10	12.40	13.90			14.90	1.50	0.16
G7	5.00	12.00	13.80			14.80	1.80	0.16
G8	5.10	11.10	12.40			13.40	1.30	0.16
G9	5.00	12.00	13.90			14.90	1.90	0.16
G10	5.00	12.50	14.30			15.30	1.80	0.16
G11	5.00	12.80	14.90			15.90	2.10	0.16
G12	0.50	12.80	14.80			15.80	2.00	0.16
G13	0.80	12.60	14.00			15.00	1.40	0.16
G14	4.00	14.20	16.00			17.00	1.80	0.16
G15	4.00	14.20	16.00			17.00	1.80	0.16
H1	4.80	11.40	13.00			14.00	1.60	0.16
H2	4.80	11.60	13.30			14.30	1.70	0.16
H3	4.80	11.80	13.40			14.40	1.60	0.16
H4	5.00	12.00	13.70			14.70	1.70	0.16
H5	5.00	12.20	13.80			14.80	1.60	0.16
H6	5.00	12.40	14.00			15.00	1.60	0.16
H7	5.00	12.50	14.00			15.00	1.50	0.16
H8	5.20	11.90	13.30			14.30	1.40	0.16
H9	2.70	13.80	16.00			17.00	2.20	0.16
H10	5.00	15.30	16.70			17.70	1.40	0.16
H11	2.30	14.80	16.90			17.90	2.10	0.16
H12	4.70	13.20	15.10			16.10	1.90	0.16
H13	0.50	13.80	15.80			16.80	2.00	0.16
H14	2.50	15.00	16.70			17.70	1.70	0.16
H15	2.50	15.00	16.50			17.50	1.50	0.16
I1	4.80	12.10	13.60			14.60	1.50	0.24
I2	4.80	12.50	14.10			15.10	1.60	0.24
I3	4.70	13.30	14.90			15.90	1.60	0.24
I4	4.80	13.90	15.50			16.50	1.60	0.24
I5	4.90	14.60	16.30			17.30	1.70	0.24
I6	5.00	14.00	15.40			16.40	1.40	0.24
I7	5.00	14.40	16.20			17.20	1.80	0.24
I8	4.90	13.40	15.10			16.10	1.70	0.24
I8/9	2.70	13.90	15.80			16.80	1.90	0.24
I9	0.50			10.00	15.20	16.20		0.24
I9A	0.90	13.90	15.90			16.90	2.00	0.16
I9/10	2.70	14.20	16.00			17.00	1.80	0.24
HI9	2.70	14.00	16.00			17.00	2.00	0.24
IJ9	2.90	14.20	16.00			17.00	1.80	0.24
I10	2.50	14.80	16.80			17.80	2.00	0.24
I11	0.30	14.70	16.60			17.60	1.90	0.24
I12	0.30	13.70	15.80			16.80	2.10	0.24
I13	0.30	14.80	16.80			17.80	2.00	0.24
I14	2.30	14.80	16.60			17.60	1.80	0.24
J1	4.90	12.40	14.10			15.10	1.70	0.24
J2	4.90	13.20	15.00			16.00	1.80	0.24
J3	4.90	14.20	16.00			17.00	1.80	0.24
J4	4.70	14.60	16.20			17.20	1.60	0.24
J5	6.00	15.20	17.30			18.30	2.10	0.24
J6	6.00	15.00	17.10			18.10	2.10	0.24
J7	4.30	15.00	17.00			18.00	2.00	0.24
J8	4.00	15.00	17.00			18.00	2.00	0.24
J9	2.80	15.00	16.90			17.90	1.90	0.24
J10	2.50	14.80	16.70			17.70	1.90	0.24
J11	0.50	14.80	16.50			17.50	1.70	0.24
J12	2.30	15.00	16.90			17.90	1.90	0.24
J13	0.30	15.00	16.70			17.70	1.70	0.24
J14	2.50	15.20	17.10			18.10	1.90	0.24
K1	4.90	13.00	14.70			15.70	1.70	0.24
K2	4.90	13.90	15.50			16.50	1.60	0.24
K3	4.80	14.70	16.30			17.30	1.60	0.24
K4	4.80	15.00	16.80			17.80	1.80	0.24
K5	4.70	15.20	16.90			17.90	1.70	0.24
K6	4.90	15.10	17.10			18.10	2.00	0.24
K7	5.00	15.10	17.10			18.10	2.00	0.24
K8	4.80	15.20	17.20			18.20	2.00	0.24

Exploratory Hole	Rockhead (m bgl)	Top of Coal (m bgl)	Btm of Coal (m bgl)	Broken Ground (m bgl)	Btm of Broken Ground (m bgl)	Btm of BH (m bgl)	Coal Thickness (m)	Grout Take (Te)
K9	3.50	15.20	17.20			18.20	2.00	0.24
K10	3.00	15.20	17.20			18.20	2.00	0.24
K11	2.90	15.20	17.20			18.20	2.00	0.24
K12	2.50	15.30	17.30			18.30	2.00	0.24
K13	2.10	15.40	17.40			18.40	2.00	0.24
K14	2.70	15.50	17.50			18.50	2.00	0.24
L7	5.00	15.40	17.40			18.40	2.00	0.24
L8	4.90	15.60	17.60			18.60	2.00	0.24
L9	3.60	15.50	17.50			18.50	2.00	0.24
L10	3.00	15.50	17.50			18.50	2.00	0.24
L11	2.90	15.50	17.50			18.50	2.00	0.24
L12	2.80	15.50	17.50				2.00	0.24
L13	2.50	15.60	17.60			18.60	2.00	0.24
L14	2.30	15.60	17.60			18.60	2.00	0.24
min	0.30	8.60	10.00			11.00	1.20	0.16
max	6.00	15.60	17.60			18.60	2.20	0.24
Total						2325.10		28.96

Notes - I9A drilled 300mm adjacent to original borehole position



TRIAL PIT RECORD

TP No. **TT101**

Sheet 1 of 1

Site : Peel Street, Barnsley

Contract No:

C4013

Client : Lidl UK GmbH

Dates:
08/04/2011

Method : JCB 3CX equipped with 0.60m wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

Type	Depth From - To(m)	Vane Results kN/m ²
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Groundwater

STRATA RECORD

Description

Logged By: JW

Checked By: MB

Depth (m)	Level (mAOD) PID (ppm)	Legend
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MADE GROUND: Grey brown slightly sandy angular fine to coarse GRAVEL of concrete, brick and wood fragments. Occasional rebar. Medium angular cobble and boulder (to 1.10m) content of concrete.

MADE GROUND: Stiff brown and black sandy gravelly CLAY. High plasticity (field description). Gravel is angular fine and medium of coal and mudstone.

Stiff orange brown slightly sandy slightly gravelly CLAY. High plasticity (field description). Gravel is angular fine to coarse of sandstone and siltstone. Occasional thin bands of sandstone recovered as angular gravelly cobbles of sandstone.

Within eastern part of trench:

Grey brown slightly clayey slightly sandy angular fine to coarse GRAVEL of sandstone, siltstone and mudstone.

Below 3.80m: Extremely weak brown fine and medium grained SANDSTONE. Recovered as slightly gravelly angular cobbles of sandstone. Gravel is angular, tabular fine to coarse of sandstone.

End of Trial Pit at 3.90 m

2.40

2.70

3.90

Remarks and Water Observations

1. Groundwater seepage at 2.30m bgl. Groundwater inflow at 3.80m bgl within eastern part of trench.
2. Excavation remained stable.
3. Trial trench backfilled with arisings on completion.

Fig. No.

TT101



TRIAL PIT RECORD

TP No. **TP101**

Sheet 1 of 1

Site : Peel Street, Barnsley

Contract No:

C4013

Client : Lidl UK GmbH

Dates:
08/04/2011

Method : JCB 3CX equipped with 0.60m wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

Type
Depth
From - To(m)
Vane
Results
kN/m²

Groundwater

STRATA RECORD

Description

Logged By: JW

Checked By: MB

Depth
(m)

Level
(mAOD)
PID
(perm)

Legend

MADE GROUND: Grey brown slightly sandy angular fine to coarse GRAVEL of concrete, brick and wood fragments. Occasional rebar. Medium angular cobble and boulder (to 1.00m) content of concrete.

At 0.60m: 100mm thick concrete slab. Relic brickwork in north face of trial pit.

At 1.80m: Concrete obstruction within eastern part of trial pit.

MADE GROUND: Black sandy slightly gravelly SILT. Gravel is angular fine to coarse of brick. Medium angular cobble content of brick, rubber and metal waste.

At 2.50m: Concrete obstruction. Unable to excavate through.

End of Trial Pit at 2.50 m

1.90

2.50

Remarks and Water Observations

1. Wet strata below 2.00m bgl.
2. Excavation remained stable.
3. Trial pit backfilled with arisings on completion.

Fig. No.

TP101



TRIAL PIT RECORD

TP No. **TP102**

Sheet 1 of 1

Site : Peel Street, Barnsley

Contract No:

C4013

Client : Lidl UK GmbH

Dates:
08/04/2011

Method : JCB 3CX equipped with 0.60m wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

Type Depth From - To(m) Vane Results kN/m²

Groundwater

STRATA RECORD

Description

Logged By: JW

Checked By: MB

Depth (m) Level (mAOD) PID (ppm) Legend

J 0.30m

MADE GROUND: Grey brown slightly sandy angular fine to coarse GRAVEL of concrete, brick and ash. Occasional rebar. Medium angular cobble and boulder (to 1.00m) content of concrete and brick.

J 1.10m

MADE GROUND: Black slightly sandy angular fine to coarse GRAVEL of clinker. Hydrocarbon (tar) odour.

Below 1.20m: Tarry material noted. Hydrocarbon (tar) odour.

J 1.50m

Soft green grey and brown slightly organic CLAY. High plasticity (field description).

Firm orange brown mottled grey slightly sandy gravelly CLAY. High plasticity (field description). Gravel is angular and subangular fine to coarse of sandstone, mudstone and coal.

Below 3.70m: Stiff consistency.

End of Trial Pit at 4.00 m

1.00

2.00

3.40

4.00

Remarks and Water Observations

1. Tarry material encountered between 1.20 and 2.00m bgl.
2. Excavation remained stable.
3. Trial pit backfilled with arisings on completion.

Fig. No.

TP102



TRIAL PIT RECORD

TP No. **TP103**

Sheet 1 of 1

Site : Peel Street, Barnsley

Contract No: **C4013**

Client : Lidl UK GmbH

Dates: **08/04/2011**

Method : JCB 3CX equipped with 0.60m wide toothed backhoe bucket.

Scale **1:25**

SAMPLE DETAILS

Type Depth From - To(m) Vane Results kN/m²

Groundwater

STRATA RECORD

Description

Logged By: **JW**

Checked By: **MB**

Depth (m)

Level (mAOD) PID (ppm)

Legend

J

0.30m

MADE GROUND: Light brown slightly sandy angular fine to coarse GRAVEL of limestone. Low to medium angular cobble content of limestone.

Below 1.90m: Brickwork in eastern part of pit.

Stiff orange brown mottled grey slightly sandy slightly gravelly CLAY. High plasticity (field description). Gravel is angular and subangular fine to coarse of mudstone, siltstone and sandstone.

Extremely weak thinly laminated brown and grey MUDSTONE. Recovered as slightly sandy angular tabular fine to coarse gravel of mudstone.

End of Trial Pit at 3.50 m

2.10

3.10

3.50

Remarks and Water Observations

- Groundwater inflow at 2.00m bgl.
- Excavation remained stable.
- Trial pit backfilled with arisings on completion.

Fig. No.

TP103



TRIAL PIT RECORD

TP No. **TP104**

Sheet 1 of 1

Site : Peel Street, Barnsley

Contract No:
C4013

Client : Lidl UK GmbH

Dates:
08/04/2011

Method : JCB 3CX equipped with 0.60m wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

Type	Depth From - To(m)	Vane Results kN/m ²
------	-----------------------	--------------------------------------

Groundwater

STRATA RECORD

Description

Logged By: JW

Checked By: MB

Depth
(m)Level
(mAOD)
PID
(ppm)

Legend

J

0.30m

MADE GROUND: Brown grey slightly sandy angular fine to coarse GRAVEL of concrete, brick and ash. Low to medium angular cobble content of concrete.

Stiff green grey mottled grey and brown slightly sandy slightly gravelly CLAY. High plasticity (field description). Gravel is angular and subangular fine to coarse of mudstone, siltstone, sandstone and coal.

1.50

Soft green grey slightly sandy slightly organic CLAY. High plasticity (field description).

2.00

Very soft black SILT. High plasticity (field description).

3.80

End of Trial Pit at 4.10 m

4.10

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial pit backfilled with arisings on completion.

Fig. No.

TP104



TRIAL PIT RECORD

TP No. **TP105**

Sheet 1 of 1

Site : Peel Street, Barnsley

Contract No:
C4013

Client : Lidl UK GmbH

Dates:
08/04/2011

Method : JCB 3CX equipped with 0.60m wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

Type	Depth From - To(m)	Vane Results kN/m ²
------	-----------------------	--------------------------------------

Groundwater

STRATA RECORD

Description

Logged By: JW

Checked By: MB

Depth (m)	Level (mAOD) PID (ppm)	Legend
--------------	---------------------------------	--------

MADE GROUND: Grey brown slightly sandy angular fine to coarse GRAVEL of concrete, brick and wood fragments. Occasional rebar.

0.20

MADE GROUND: Light brown slightly sandy angular fine to coarse GRAVEL of limestone. Low to medium angular cobble content of limestone.

0.50

MADE GROUND: Dark grey, black and red brown sandy angular fine to coarse GRAVEL of ash, clinker and red shale.

At 1.80m: Obstruction. Unable to excavate through. Bituminous material recovered.

1.80

End of Trial Pit at 1.80 m

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial pit backfilled with arisings on completion.

Fig. No.

TP105



TRIAL PIT RECORD

TP No. **TP105A**

Sheet 1 of 1

Site : Peel Street, Barnsley

Contract No:

C4013

Client : Lidl UK GmbH

Dates:
08/04/2011

Method : JCB 3CX equipped with 0.60m wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

Type Depth
From - To(m) Vane
Results
kN/m²

Groundwater

STRATA RECORD

Description

Logged By: JW

Checked By: MB

Depth (m) Level (mAOD) PID (ppm) Legend

MADE GROUND: Grey brown slightly sandy angular fine to coarse GRAVEL of concrete, brick and wood fragments. Occasional rebar. Medium angular cobble and boulder (to 1.00m) content of concrete.

MADE GROUND: Dark grey and black sandy angular fine to coarse GRAVEL of ash and clinker.

Soft green grey silty CLAY. High plasticity (field description).

Very soft green grey CLAY. High plasticity (field description).

End of Trial Pit at 4.00 m

2.20

2.60

3.10

4.00

Remarks and Water Observations

1. Wet strata encountered between 2.30 and 2.60m bgl.
2. Excavation remained stable.
3. Trial pit backfilled with arisings on completion.

Fig. No.

TP105A



TRIAL PIT RECORD

TP No. **TP106**

Sheet 1 of 1

Site : Peel Street, Barnsley

Contract No:

C4013

Client : Lidl UK GmbH

Dates:
08/04/2011

Method : JCB 3CX equipped with 0.60m wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

Type	Depth From - To(m)	Vane Results kN/m ²
------	-----------------------	--------------------------------------

Groundwater

STRATA RECORD

Description

Logged By: JW

Checked By: MB

Depth
(m)Level
(mAOD)
PID
(ppm)

Legend

J

0.30m

MADE GROUND: Grey brown slightly sandy angular fine to coarse GRAVEL of concrete and brick. Occasional rebar. Medium angular cobble and boulder (to 1.50m) content of concrete.

At 1.50m: Concrete obstruction.
End of Trial Pit at 1.50 m

1.50

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial pit backfilled with arisings on completion.

Fig. No.

TP106



TRIAL PIT RECORD

TP No. **TP106A**

Sheet 1 of 1

Site : Peel Street, Barnsley

Contract No:

C4013

Client : Lidl UK GmbH

Dates:
08/04/2011

Method : JCB 3CX equipped with 0.60m wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

Type
Depth
From - To(m)
Vane
Results
kN/m²

Groundwater

STRATA RECORD

Description

Logged By: JW

Checked By: MB

Depth
(m)
Level
(mAOD)
PID
(ppm)
Legend

MADE GROUND: Grey brown slightly sandy angular fine to coarse GRAVEL of concrete and brick. Occasional rebar. Medium angular cobble and boulder (to 1.20m) content of concrete.

At 1.50m: Drain.

Soft green grey very silty CLAY. High plasticity (field description).

1.80

Very soft grey slightly sandy clayey SILT. High plasticity (field description).

4.00

Orange brown and grey slightly clayey sandy angular fine to coarse GRAVEL of fine and medium grained sandstone.

4.50

End of Trial Pit at 4.70 m

4.70

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial pit backfilled with arisings on completion.

Fig. No.

TP106A

SIRIUS DRILLING SERVICES LIMITED

Openhole Drill Log

4245 Park Approach, Thorpe Park, Leeds, LS15 8GB Tel: 0113 264 9960 Fax: 0113 264 9962

SIRIUS
**DRILLING
SERVICES**

Job No SOS.2385 Contract Name PEEL STREET Rig Type SM400Date 23/3/2011 Client SGE Crew Details JOHNSheet 1 of 1 Working Day N^o NATH

BH	From	To	Strata Description	BH	From	To	Strata Description
B13	GL	2.70	Fill	G13	GL	0.80	Fill
	2.70	9.50	Mudstone / Sandstone		0.80	12.60	Mudstone / Sandstone
	9.50	11.20	Core / Water		12.60	14.00	Core / Water
	11.20	12.20	Mudstone		14.00	15.00	Mudstone
			Cased to 3m.				Cased to 1m.
C13	GL	2.70	Fill	H13	GL	0.50	Fill
	2.70	9.80	Mudstone / Sandstone		0.50	13.80	Mudstone / Sandstone
	9.80	11.50	Core / Water		13.80	15.80	Core / Water
	11.50	12.50	Mudstone		15.80	16.80	Mudstone
			Cased to 3m.				Cased to 1m.
D13	GL	2.20	Fill	I13	GL	0.03	Fill
	2.20	10.60	Mudstone / Sandstone		0.30	14.80	Mudstone / Sandstone
	10.60	11.90	Core / Water		14.80	16.80	Core / Water
	11.90	12.90	Mudstone		16.80	17.80	Mudstone
			Cased to 3m.				Cased to 1m.
E13	GL	1.00	Fill	J13	GL	0.30	Fill
	1.00	11.50	Mudstone / Sandstone		0.30	15.00	Mudstone / Sandstone
	11.50	13.50	Core / Water		15.00	16.70	Core / Water
	13.50	14.50	Mudstone		16.70	17.70	Mudstone
			Cased to 1m.				Cased to 1m.
F13	GL	1.00	Fill	Started Drilling 11.00am.			
	1.00	12.30	Mudstone / Sandstone				
	12.30	13.80	Core / Water				
	13.80	14.80	Mudstone				
			Cased to 1m.				
Remarks.				Totals	Boreholes	Drilled	Cased
				Today	9	134.2m	15m
				Previous	—	—	—
				To Date	9	134.2m	15m
Signed by SDS..... Date.....							
Signed by Client..... Date.....							

SIRIUS DRILLING SERVICES LIMITED

Openhole Drill Log

4245 Park Approach, Thorpe Park, Leeds, LS15 8GB Tel: 0113 264 9960 Fax: 0113 264 9962

SIRIUS
DRILLING
SERVICESJob No. SDS.2385... Contract Name PEAR STREET Rig Type SM400Date 24/3/2011 Client SGE Crew Details JOSHSheet 1 of 2 Working Day N° NATH

BH	From	To	Strata Description	BH	From	To	Strata Description
J12	GL	2.30	Fu	J7	GL	4.30	Fu
	2.30	15.00	Mudstone/Sandstone		4.30	15.00	Mudstone/Sandstone
	15.00	16.90	Coal/Water		15.00	17.00	Coal/Water
	16.90	17.90	Mudstone		17.00	18.00	Mudstone
			cased to 3m.				cased to 4.5m.
J11	GL	0.50	Fu	J6	GL	6.00	Fu
	0.50	14.80	Mudstone/Sandstone		6.00	15.00	Mudstone/Sandstone
	14.80	16.50	Coal/Water		15.00	17.10	Coal/Water
	16.50	17.50	Mudstone		17.10	18.10	Mudstone
			cased to 1m.				cased to 6m.
J10	GL	2.50	Fu	J5	GL	6.00	Fu
	2.50	14.80	Mudstone/Sandstone		6.00	15.20	Mudstone/Sandstone
	14.80	16.70	Coal/Water		15.20	17.30	Coal/Water
	16.70	17.70	Mudstone		17.30	18.30	Mudstone
			cased to 3m.				cased to 6m.
J9	GL	2.80	Fu	I12	GL	0.30	Fu
	2.80	15.00	Mudstone/Sandstone		0.30	13.70	Mudstone/Sandstone
	15.00	16.90	Coal/Water		13.70	15.80	Coal/Water
	16.90	17.90	Mudstone		15.80	16.80	Mudstone
			cased to 3m.				cased to 1m.
J8	GL	4.00	Fu	I11	GL	0.30	Fu
	4.00	15.00	Mudstone/Sandstone		0.30	14.70	Mudstone/Sandstone
	15.00	17.00	Coal/Water		14.70	16.60	Coal/Water
	17.00	18.00	Mudstone		16.60	17.60	Mudstone
			cased to 4m.				cased to 1m.

Remarks.

Totals

Boreholes

Drilled

Cased

Today

Signed by SDS..... Date.....

Previous

Signed by Client..... Date.....

To Date

Openhole Drill Log

4245 Park Approach, Thorpe Park, Leeds, LS15 8GB Tel: 0113 264 9960 Fax: 0113 264 9962

SIRIUS
DRILLING
SERVICES

Job No Contract Name PUGI STREET Rig Type TL4
Date 26/3/11 Client Crew Details T SMITH
Sheet 1 of Working Day N^o THURSDAY 2 J BENFOLD

BH	From	To	Strata Description
G8	GL	5.1	FILL
	5.1	11.1	MUDSTONE / SANDSTONE
	11.1	12.4	COAL
	12.4	13.4	MUDSTONE
H8	GL	5.2	FILL
	5.2	11.9	MUDSTONE / SANDSTONE
	11.9	13.7	COAL
	13.7	16.3	MUDSTONE
I8	GL	4.9	FILL
	4.9	13.4	MUDSTONE / SANDSTONE
	13.4	15.1	COAL
	15.1	16.1	MUDSTONE
E12	GL	2.1	FILL
	2.1	11.8	MUDSTONE / SANDSTONE
	11.8	13.4	COAL
	13.4	14.4	MUDSTONE
D12	GL	2.5	FILL
	2.5	10.9	MUDSTONE / SANDSTONE
	10.9	12.8	COAL
	12.8	13.8	MUDSTONE
			30m Cased

BH	From	To	Strata Description
C12	GL	2.2	FILL
	2.2	10.1	MUDSTONE / SANDSTONE
	10.1	12.0	COAL
	12.0	13.0	MUDSTONE
B12	GL	2.5	FILL
	2.5	10.0	MUDSTONE / SANDSTONE
	10.0	11.9	COAL
	11.9	12.9	MUDSTONE
B11	GL	3.0	FILL
	3.0	10.5	MUDSTONE / SANDSTONE
	10.5	11.9	COAL
	11.9	12.9	MUDSTONE
B10	GL	3.9	FILL
	3.9	9.0	MUDSTONE / SANDSTONE
	9.0	10.4	COAL
	10.4	11.4	MUDSTONE
			45m Cased
			30m
			AT MAINTENANCE AUTO ELECTRIC TO REPAIR HOSE WENT BACK TO SITE TO FIT HOSE STARTED DRILLING AT 10.45 AM

Remarks.	Totals	Boreholes	Drilled	Cased
Signed by SDS..... <i>[Signature]</i> Date... <i>24/3/11</i>	Today	9	122.2	255 35.0
Signed by Client.....	Previous	6	70.3	175 310
	To Date	15	142.5	530 660

SIRIUS DRILLING SERVICES LIMITED

Openhole Drill Log

4245 Park Approach, Thorpe Park, Leeds, LS15 8GB Tel: 0113 264 9960 Fax: 0113 264 9962

SIRIUS
DRILLING
SERVICES

Job No SDS 2385 Contract Name Peel Street Rig Type SM 400

Date 25/3/2011 Client SGE Crew Details JOSH

Sheet 1 of 1 Working Day N^o NATH

BH	From	To	Strata Description	BH	From	To	Strata Description
I9	GL	0.50	Fn	H9	GL	2.70	Fn
	0.50	10.00	Mudstone / Sandstone		2.70	13.80	Mudstone / Sandstone
	10.00	15.20	Brown Ground / Water		13.80	16.00	Com / Water
	5.20	16.20	Mudstone		16.00	17.00	Mudstone
			Cased to 0.5m.				Cased to 3m.
			Logs snapped down hole				
			Attempt to retrieve.				
H12	GL	4.70	Fn	G12	GL	0.50	Fn
	4.70	13.20	Mudstone / Sandstone		0.50	12.80	Mudstone / Sandstone
	13.20	15.10	Com / Water		12.80	14.80	Com / Water
	15.10	16.10	Mudstone		14.80	15.80	Mudstone
			Cased to 5m.				Cased to 1m.
H11	GL	2.30	Fn	A13	GL	2.50	Fn
	2.30	14.80	Mudstone / Sandstone		2.50	9.50	Mudstone / Sandstone
	14.80	16.90	Com / Water		9.50	11.20	Com / Water
	16.90	17.90	Mudstone		11.20	12.20	Mudstone
			Cased to 3m.				Cased to 3m.
H10	GL	5.00	Fn	B14	GL	2.70	Fn
	5.00	15.30	Mudstone / Sandstone		2.70	9.60	Mudstone / Sandstone
	15.30	16.70	Com / Water		9.60	11.40	Com / Water
	16.70	17.70	Mudstone		11.40	12.40	Mudstone
			Cased to 5m.				Cased to 3m.
Remarks.				Totals			
				Boreholes			
				Drilled			
				Cased			
Signed by SDS..... Date.....				Today	8	125.3m	23.5m.
Signed by Client..... Date.....				Previous	20	329.8m	50.5m
				To Date	28	455.1m	74m.

SIRIUS DRILLING SERVICES LIMITED

Openhole Drill Log

4245 Park Approach, Thorpe Park, Leeds, LS15 8GB Tel: 0113 264 9960 Fax: 0113 264 9962

SIRIUS
DRILLING
SERVICESJob No Contract Name PETROL STREET Rig Type TLLDate 25/3/11 Client Crew Details T. SMITHSheet 1 of Working Day N° FRIDAY 3 J. BENFORD

BH	From	To	Strata Description	BH	From	To	Strata Description
B9	9.6	4.5	FILL	D10	9.6	3.0	FILL
	4.5	8.9	MUDSTONE / SANDSTONE		3.0	11.1	MUDSTONE / SANDSTONE
	8.9	10.3	COAL		11.1	12.5	COAL
	10.3	11.3	MUDSTONE		12.5	13.5	MUDSTONE
			4.5m CASSED				3.0m CASSED
C9	9.6	5.1	FILL	D11	9.6	3.2	FILL
	5.1	10.1	MUDSTONE / SANDSTONE		3.2	11.0	MUDSTONE / SANDSTONE
	10.1	11.5	COAL		11.0	12.4	COAL
	11.5	12.5	MUDSTONE		12.4	13.4	MUDSTONE
			4.5m CASSED				4.0m CASSED
C10	9.6	3.9	FILL	E9	9.6	2.7	FILL
	3.9	9.8	MUDSTONE / SANDSTONE		2.7	10.2	MUDSTONE / SANDSTONE
	9.8	11.2	COAL		10.2	11.6	COAL
	11.2	12.2	MUDSTONE		11.6	12.6	MUDSTONE
			3.0m CASSED				3.0m CASSED
C11	9.6	2.5	FILL	E10	9.6	2.9	FILL
	2.5	10.4	MUDSTONE / SANDSTONE		2.9	11.4	MUDSTONE / SANDSTONE
	10.4	11.8	COAL		11.4	12.9	COAL
	11.8	12.8	MUDSTONE		12.9	13.9	MUDSTONE
			3.0m CASSED				3.0m CASSED
D9	9.6	2.6	FILL	E11	9.6	3.0	FILL
	2.6	10.6	MUDSTONE / SANDSTONE		3.0	11.8	MUDSTONE / SANDSTONE
	10.6	12.0	COAL		11.8	13.4	COAL
	12.0	13.0	MUDSTONE		13.4	14.4	MUDSTONE
			3m CASSED				3.0m CASSED
Remarks.				Totals			
				Boreholes			
				Drilled			
				Cased			
Signed by SDS..... Date.....				Today			
Signed by Client..... Date.....				Previous			
				To Date			

SIRIUS DRILLING SERVICES LIMITED

Openhole Drill Log

4245 Park Approach, Thorpe Park, Leeds, LS15 8GB Tel: 0113 264 9960 Fax: 0113 264 9962

SIRIUS
DRILLING
SERVICES

Job No. DS 2385 Contract Name PEL STREET Rig Type SM 400Date 28/03/2011 Client SGE Crew Details JOHNSheet 1 of 2 Working Day N° NATH

BH	From	To	Strata Description	BH	From	To	Strata Description
G11	GL	5.00	Fill	I7	GL	5.00	Fill
	5.00	12.80	Mudstone / Sandstone		5.00	14.40	Mudstone / Sandstone
	12.80	14.90	Coal		14.40	16.20	Coal
	14.90	15.90	Mudstone		16.20	17.20	Mudstone
			cased to 5m.				cased to 5m
G10	GL	5.00	Fill	H6	GL	5.00	Fill
	5.00	12.50	Mudstone / Sandstone		5.00	12.40	Mudstone / Sandstone
	12.50	14.30	Coal		12.40	14.00	Coal
	14.30	15.30	Mudstone		14.00	15.00	Mudstone
			cased to 5m.				cased to 5m
G9	GL	5.00	Fill	H5	GL	5.00	Fill
	5.00	12.00	Mudstone / Sandstone		5.00	12.20	Mudstone / Sandstone
	12.00	13.90	Coal		12.20	13.80	Coal
	13.90	14.90	Mudstone		13.80	14.80	Mudstone
			cased to 5m.				cased to 5m.
G7	GL	5.00	Fill	H4	GL	5.00	Fill
	5.00	12.00	Mudstone / Sandstone		5.00	12.00	Mudstone / Sandstone
	12.00	13.80	Coal		12.00	13.70	Coal
	13.80	14.80	Mudstone		13.70	14.70	Mudstone
			cased to 5m				cased to 5m
H7	GL	5.00	Fill	H3	GL	4.80	Fill
	5.00	12.50	Mudstone / Sandstone		4.80	11.80	Mudstone / Sandstone
	12.50	14.00	Coal		11.80	13.40	Coal
	14.00	15.20	Mudstone		13.40	14.40	Mudstone
			cased to 5m.				cased to 5m.
Remarks.				Totals			
				Boreholes		Drilled	Cased
				Today			
Signed by SDS..... Date.....				Previous			
Signed by Client..... Date.....				To Date			

SIRIUS DRILLING SERVICES LIMITED

Openhole Drill Log

4245 Park Approach, Thorpe Park, Leeds, LS15 8GB Tel: 0113 264 9960 Fax: 0113 264 9962

SIRIUS
DRILLING
SERVICESJob No. SDS 2385 Contract Name PEL STREET Rig Type SM 400Date 28/03/2011 Client SGE Crew Details JOSESheet 2 of 2 Working Day N° NATH

BH	From	To	Strata Description	BH	From	To	Strata Description
H2	GL	4.80	Flu				
	4.80	11.60	Mudstone / Sandstone				
	11.60	13.30	Com				
	13.30	14.30	Mudstone				
			cased to 5m.				
H2	GL	4.80	Flu				
	4.80	11.60	Mudstone / Sandstone				
	11.60	13.30	Com				
	13.30	14.30	Mudstone				
			cased to 5m.				
I6	GL	5.00	Flu				
	5.00	14.00	Mudstone / Sandstone				
	14.00	15.40	Com				
	15.40	16.40	Mudstone				
			cased to 5m.				
Remarks.				Totals	Boreholes	Drilled	Cased
				Today	12	182.7m	60m
Signed by SDS..... Date.....				Previous	28	455.1m	74m
Signed by Client..... Date.....				To Date	40	637.8m	134m.

SIRIUS DRILLING SERVICES LIMITED

Openhole Drill Log

4245 Park Approach, Thorpe Park, Leeds, LS15 8GB Tel: 0113 264 9960 Fax: 0113 264 9962

SIRIUS
DRILLING
SERVICESJob No Contract Name PGC1 STREET Rig Type TLL4Date 28/3/11 Client Crew Details T. SMITHSheet 1 of Working Day N^o MONDAY 4J. BENFOLD

BH	From	To	Strata Description	BH	From	To	Strata Description
A7	9L	3.9	FILL	F7	9L	4.7	FILL
	3.9	9.1	MUDSTONE / SANDSTONE		4.7	11.8	MUDSTONE / SANDSTONE
	9.1	10.5	COAL		11.8	13.3	COAL
	10.5	11.5	MUDSTONE		13.3	14.3	MUDSTONE
			CASED 4m.				CASED 5m
B7	9L	4.6	FILL	46	9L	5.1	FILL
	4.6	9.0	MUDSTONE / SANDSTONE		5.1	12.4	MUDSTONE / SANDSTONE
	9.0	10.4	COAL		12.4	13.9	COAL
	10.4	11.4	MUDSTONE		13.9	14.9	MUDSTONE
			CASED 5m				CASED 5.5m
C7	9L	3.9	FILL	45	9L	5.5	FILL
	3.9	9.6	MUDSTONE / SANDSTONE		5.5	12.5	MUDSTONE / SANDSTONE
	9.6	11.0	COAL		12.5	14.0	COAL
	11.0	12.0	MUDSTONE		14.0	15.0	MUDSTONE
			CASED 4m.				CASED 6m
D7	9L	3.5	FILL	F6	9L	4.9	FILL
	3.5	10.2	MUDSTONE / SANDSTONE		4.9	12.6	MUDSTONE / SANDSTONE
	10.2	11.6	COAL		12.6	14.1	COAL
	11.6	12.6	MUDSTONE		14.1	15.1	MUDSTONE
			CASED 4m				CASED 5m
E7	9L	3.4	FILL	EG	9L	4.5	FILL
	3.4	10.7	MUDSTONE / SANDSTONE		4.5	12.0	MUDSTONE / SANDSTONE
	10.7	12.1	COAL		12.0	13.5	COAL
	12.1	13.1	MUDSTONE		13.5	14.5	MUDSTONE
			CASED 4m.				CASED 4.5m
Remarks.				Totals			
				Boreholes			
				Drilled			
				Cased			
				Today			
Signed by SDS <u>T. Biddle</u> Date <u>28/3/11</u>				Previous			
Signed by Client Date				To Date			

SIRIUS DRILLING SERVICES LIMITED

Openhole Drill Log

4245 Park Approach, Thorpe Park, Leeds, LS15 8GB Tel: 0113 264 9960 Fax: 0113 264 9962

SIRIUS
DRILLING
SERVICESJob No Contract Name Peel St Barnsley Rig Type SM 14Date 29-3-11 Client Crew Details AdrianSheet 1 of 2 Working Day No Tuesday stere

on site

Drilling for 12pm

BH	From	To	Strata Description	BH	From	To	Strata Description
H14	0:0	2:50	Fill	F14	0:0	1:50	Fill
	2:50	15:00	Sandstone - mudstone		1:50	13:00	Sandstone - mudstone
	15:00	16:70	Coal		13:00	14:80	Coal
	16:70	17:70	Mudstone		14:80	15:80	Mudstone
			CASED TO 3m.				CASED TO 2m.
G14	0:0	4:00	Fill	H15	0:0	2:50	Fill
	4:00	14:20	Sandstone - mudstone		2:50	15:00	Sandstone - mudstone
	14:20	16:00	Coal		15:00	16:50	Coal
	16:00	17:00	Mudstone		16:50	17:50	Mudstone
			CASED TO 4m.				CASED TO 3m.
C14	0:0	2:50	Fill	G15	0:0	4:00	Fill
	2:50	11:00	Sandstone - mudstone		4:00	14:20	Sandstone - mudstone
	11:00	13:00	Coal		14:20	16:00	Coal
	13:00	14:00	Mudstone		16:00	17:00	Mudstone
			CASED TO 3m.				CASED TO 4m.
D14	0:0	1:50	Fill	C15	0:0	2:50	Fill
	1:50	11:00	Sandstone - mudstone		2:50	11:00	Sandstone - mudstone
	11:00	13:00	Coal		11:00	13:00	Coal
	13:00	14:00	Mudstone		13:00	14:00	Mudstone
			CASED TO 1.5m.				CASED TO 3m.
E14	0:0	1:00	Fill	D15	0:0	1:30	Fill
	1:00	12:00	Sandstone - mudstone		1:30	11:00	Sandstone - mudstone
	12:00	13:50	Coal		11:00	13:00	Coal
	13:50	14:50	Mudstone		13:00	14:00	Mudstone
			CASED TO 1m.				CASED TO 1.5m.
Remarks				Totals			
				Boreholes			
				Drilled			
				Cased			
				Today			
Signed by SDS..... Date.....				Previous			
Signed by Client..... Date.....				To Date			