GROUNDWATER MONITORING REPORT

ENERSYS, NEWPORT

Prepared for:

ENERSYS NEWPORT

JUNE 2016

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environmental compliance

GROUNDWATER MONITORING REPORT

ENERSYS,
NEWPORT,

Report Reference Number:		P1736/R004	
Report Issue:		Final	
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Date:	June 2016	***Date:***	June 2016

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GROUNDWATER MONITORING REPORT

ENERSYS,
NEWPORT

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1. SUMMARY

1.1. EnerSys Newport is required by Natural Resources Wales ("NRW") to undertake routine groundwater sampling at its site. The results outlined in this report represent the current groundwater conditions within the installation boundary.

1.2. The site groundwater sampling was undertaken on the 3rd May 2016. The sampling was undertaken by Environmental Compliance Ltd ("ECL"). The locations of the current existing groundwater installations/boreholes ("BH") are identified in the Borehole Location Diagram found in Appendix A of this report.

1.3. Of the eight boreholes sampled, groundwater obtained from three boreholes exceeded the Environmental Quality Standard ("EQS") guideline levels for lead. A full table of results may be found in Appendix C and a trend analysis of selected contaminants can be found in Chapter 5 of this report.

1.4. Three boreholes had exceedances of lead – BH1, BH9 and BH12. Although BH1 exceeds the lead EQS (a result of 39µg/l was obtained), the concentration has decreased from previous years. The other exceedances of lead were found were BH12 (located 1.5m from BH3) and BH9, 280µg/l and 35µg/l respectively. These boreholes had no previous history of elevated levels of lead. To check that these were not anomalous results, both boreholes were re-tested on the 9th June 2016. The results again exceeded the lead EQS, however, were lower – BH12 was 82µg/l and BH9 was 29µg/l.

1.5. The elevated levels have been discussed with site personnel and there is no obvious reason for the relative increase in lead in BH12 compared to BH3. BH9 is in an area of the site where lead oxide work has been undertaken historically and recently there was new security fencing installed.

1.6. In order to ensure that the increase in lead in the groundwater is not an increasing tread, groundwater monitoring of these three boreholes will undertaken in 6 months time and the situation will be reassessed.

2. INTRODUCTION

2.1. Site Location

The site is located at:

EnerSys Newport.
Stephenson Street
Newport
Gwent
NP19 4XJ

2.2. Details of Installation

The installation is specifically designed for the manufacturing of specialised lead acid batteries.

2.3. Groundwater Monitoring Approach

2.3.1. Previous groundwater monitoring has been undertaken by Terrafirma in October 2007, July 2008, November 2010 and by Environmental Compliance ("ECL") in 2013, 2014, 2015 and 2016.

2.3.2. This report is updated following each round of groundwater monitoring and contains the following:

- results of on-going monitoring,
- graphs to identify any trends; and
- laboratory testing results.

3. INVESTIGATION AND SAMPLING STRATEGY

3.1. General

3.1.1. The groundwater monitoring was undertaken on the 3rd May 2016 and re-testing of two of the boreholes was undertaken on the 9th June 2016.

3.1.2. The sampling was undertaken by ECL. The locations of the groundwater installations/boreholes ("BH") are identified in the Borehole Location Diagram found in Appendix A of this report.

3.2. Sampling History

3.2.1. Results for aliphatic/aromatics may deviate for BH06 in April 2013 due to inappropriate sample containment. This was due to the limited availability of groundwater, only 1 litre was obtained without purging from BH06.

3.2.2. Sample data for BH01 and BH08 is unavailable for October 2007 due to insufficient samples retrieved at the time of the survey.

3.2.3. Sample data for BH06 and BH07 is unavailable for July 2008 due to insufficient samples retrieved at the time of the survey.

3.2.4. From November 2010 onwards, there is be no sample data for BH02, BH05 and BH07 as they were accidentally destroyed. These were replaced by BH9, BH10 and BH11 which are located in the vicinity of the original.

3.2.5. Groundwater temperature is unavailable for the October 2007 survey.

3.2.6. Data for groundwater temperature and depth to groundwater is unavailable for the April 2008 and November 2010 surveys.

3.2.7. During the April 2015 survey, BH3 was being relocated due to safety issues. Groundwater samples were taken from the original BH3 before it was in filled and relocated 1.5m away from the path. This is now known as BH12, however, due to the close proximity to BH3 the results will be grouped with BH3 in order to continue trend analysis.

3.3. Groundwater Sampling Techniques and Protocols

3.3.1. Groundwater Sampling, Collection and Analysis Protocol

i. Depth to groundwater was recorded using a dip meter.

ii. Boreholes were purged using a bailer prior to sample extraction.

iii. Groundwater was extracted using a baler and stored in a one litre plastic bottle, a one litre glass bottle and one 40ml septum-capped vial.

iv. Sample temperature, turbidity, colour, odour and any discernible sheens were recorded on a borehole record form.

v. Samples were immediately placed in cool boxes to minimised the potential for deterioration

vi. Samples were labelled prior to dispatch to the accredited laboratory for analysis.

vii. All samples were accompanied by a chain of custody form.

3.3.2. Determination of Groundwater Level Above Ordinance Datum

Determination of groundwater level Above Ordinance Datum ("AOD") for each borehole was calculated using the nearest known AOD manhole height, minus the measured depth below ground level of the groundwater. The drainage plan for the site used to determine the nearest manhole can be found in Appendix G. Table 1 lists the borehole IDs, nearest manhole IDs and manhole heights AOD taken from the drainage plan.

Table 1: Borehole IDs, Nearest Manhole IDs and Manhole Heights.

Borehole ID	Manhole ID	Manhole Height (AOD)
BH01	S17	7.025m
BH03/BH12	S8	7.050m
BH04	F43	7.115m
BH06	F33	6.895m
BH08	S27	7.075m
BH09	F46	7.070m
BH10	S13	7.150m
BH11	F35	6.660m

3.3.3. Analytical Suites

The analytical suite used for the groundwater samples is as follows:

- lead, dissolved;
- sulphate;
- pH;
- total petroleum hydrocarbons (TPH);
- TPH aliphatic C_5-C_{44} (total and split);
- TPH aromatic C_6-C_{35} (total and split)

3.3.4. **Methodology for Data Analysis**

Results of the groundwater chemical analysis have been compared with Environmental Quality Standards ("EQSs"), or in their absence, other appropriate reference values detailed in Appendix J (Groundwater) of the EA's Horizontal Guidance Note H1 *Environmental risk assessment for permits Dec 2011 v2.1*.

4. RESULTS OF THE GROUNDWATER MONITORING

4.1. Summary of the Groundwater Monitoring Sample Conditions

A summary of the groundwater monitoring conditions can be found in Appendix B.

4.2. Laboratory results

4.2.1. The results for the groundwater samples extracted on 3rd May 2016 and 9th June are provided in Appendix C. Determinants that have exceeded their EQS are highlighted in bold.

4.2.2. The laboratory certificate of analysis is in Appendix F.

5. TREND ANALYSIS

5.1. Tables containing results for each determinant, and each individual borehole, from October 2007 to June 2016 (using results from ECL and Terrafirma's previous monitoring campaigns), can be found in Appendix D, Trend Tables.

5.2. Graphs for temperature, the depth to groundwater, lead, sulphate and TPH from October 2007 to May 2016 are shown in Appendix E, Trend Charts. Charts showing trends for groundwater temperature and depth to groundwater can also be found in Appendix E.

5.3. There is no EQS for TPH. It was noted in the April 2013 survey that the new groundwater monitoring points recently installed, BH10 and BH11, showed substantially higher levels of TPH than older groundwater installations - 7,700µg/l and 2,500µg/l, respectively. The levels of TPH identified in the April 2014 survey for BH10 and BH11 were also higher than older groundwater installations at 2,900µg/l and 9,800µg/l. The levels of TPH identified in the April 2015 survey for BH10 and BH11 are lower than previous years and are at similar concentrations to the other boreholes on site. A further decrease in TPH levels has been observed in the 2016 survey – the results for both BH10 and BH11 was 10µg/l.

5.4. None of the boreholes exceeded the EQS for sulphate (250,000µg/l). Results obtained in 2016 show an increasing trend in the majority of boreholes, however, there still remains considerable variance in the results compared to earlier data.

5.5. BH01 exceeded the EQS (25µg/l) for lead (a result of 39µg/l was obtained), however this was a decrease on the 2015 results (100µg/l), it also shows a reduction from the data obtained in 2013 (130µg/l).

5.6. BH12 (1.5m from BH3) was found to exceed the lead EQS (280µg/l), as was BH9 (35µg/l). These boreholes had no previous history of elevated levels of lead. To check that these were not anomalous results, both boreholes were re-tested. The results again exceeded the lead EQS, however, were lower – BH12 was 82µg/l and BH9 was 29µg/l. Testing will be undertaken again in 6 months time (December 2016) and the situation will be re-assessed.

5.7. There is no clear trend in either to depth of the groundwater or temperature.

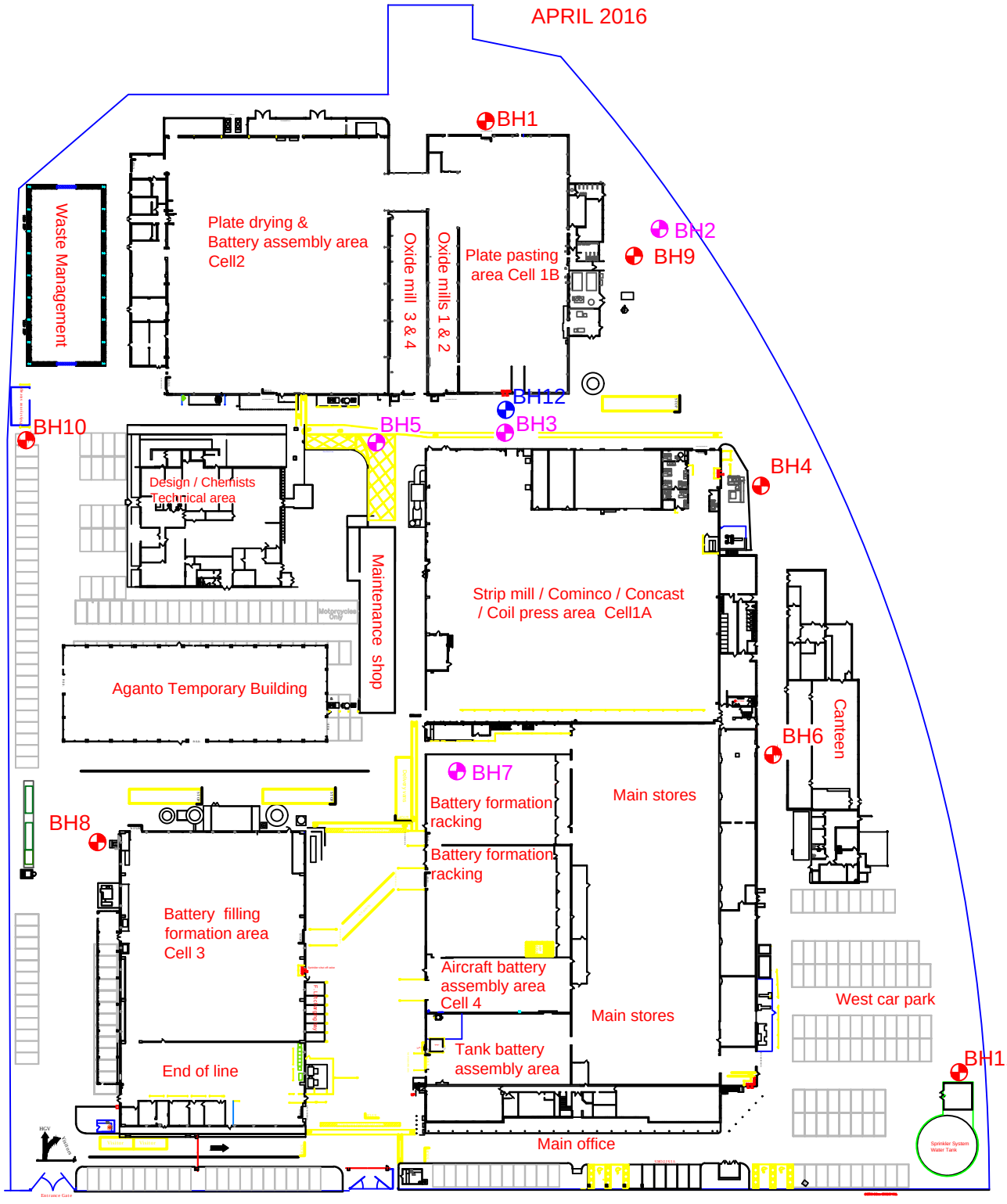
APPENDIX A

EnerSys Newport
Borehole Location Diagram

APPENDIX B

Summary of the Groundwater Monitoring Sample Conditions

BOREHOLE LOCATION DIAGRAM
APRIL 2016



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KEY

- EXISTING BOREHOLE LOCATION (1,4,6 ,8 ,9,10 & 11)
- NEW BOREHOLE LOCATION BH 12
- DESTROYED BOREHOLE LOCATION (BH 2,3,5 & 7)

Summary of the Groundwater Monitoring Sample Conditions 3rd May 2016

Sample ID	BH01	BH03/BH12	BH04	BH06	BH08	BH09	BH10	BH11
Sampling Date	03/05/2016	03/05/2016	03/05/2016	03/05/2016	03/05/2016	03/05/2016	03/05/2016	03/05/2016
Depth (AOD) in Metres	5.93	5.15	6.12	6.20	6.28	5.57	6.05	4.95
Temperature (°C)	10	14	14	16	12	14	12	16
Sampling Time	11:20	11:45	12:40	13:10	10:20	12:15	10:55	13:35
Monitored by	IH	IH	IH	IH	IH	IH	IH	IH
Sheens	None	None	None	None	None	None	None	None
Odours	None	None	None	None	None	None	None	None
Turbidity	Low	Low	Low	Low	Low	Low	Low	Low
Colour	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Sampling Method	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer
Sample Containers	1x1l Plastic 1x 1l Glass 1 x 40ml vial	1x1l Plastic 1x 1l Glass 1 x 40ml vial	1x1l Plastic 1x 1l Glass 1 x 40ml vial	1x0.5l Plastic 1x 0.5l Glass 1 x 40ml vial	1x1l Plastic 1x 1l Glass 1 x 40ml vial	1x1l Plastic 1x 1l Glass 1 x 40ml vial	1x1l Plastic 1x 1l Glass 1 x 40ml vial	1x0.5l Plastic 1x 0.5l Glass 1 x 40ml vial

APPENDIX C

Analysis Results 3rd May/9th June

Summary of Chemical Analysis - Water Samples 3rd May 2016/9th June

Test	Units	EQS*	BH01	BH03/BH12	BH04	BH06	BH08	BH09	BH10	BH11
Lead, Dissolved	µg/l	25	39	280/82	15	0.9	0.3	35/29	0.8	5.4
pH	-	n/a	6.9	6.9	7.1	7.9	7	7.5	6.9	7.9
Sulphate	µg/l	250,000	24000	18000	7800	60000	99000	17000	58000	30000
Aliphatic C5-C6	µg/l	n/a	10	10	10	10	10	10	10	10
Aliphatic C6-C8	µg/l	n/a	10	10	10	10	10	10	10	10
Aliphatic C8-C10	µg/l	n/a	10	10	10	10	10	10	10	10
Aliphatic C10-C12	µg/l	n/a	100($)	10	10	100($)	10	100($)	10	100($)
Aliphatic C12-C16	µg/l	n/a	100($)	10	10	100($)	10	100($)	20	100($)
Aliphatic C16-C21	µg/l	n/a	100($)	10	10	100($)	10	100($)	390	100($)
Aliphatic C21-C35	µg/l	n/a	100($)	10	10	100($)	10	100($)	280	100($)
Aliphatic C35-C44	µg/l	n/a	100($)	10	10	100($)	10	100($)	10	100($)
Aromatic C6-C7	µg/l	30	100($)	10	10	10	10	10	10	10
Aromatic C7-C8	µg/l	40	10	10	10	10	10	10	10	10
Aromatic C8-C10	µg/l	n/a	10	10	10	10	10	10	10	10
Aromatic C10-C12	µg/l	n/a	10	10	10	100($)	10	100($)	10	100($)
Aromatic C12-C16	µg/l	n/a	100($)	30	10	100($)	50	100($)	20	100($)
Aromatic C16-C21	µg/l	n/a	100($)	30	10	100($)	50	100($)	50	100($)
Aromatic C21-C35	µg/l	n/a	100($)	10	10	100($)	40	100($)	10	110
Aromatic C35-C44	µg/l	n/a	100($)	10	10	100($)	10	100($)	10	100($)
Aliphatic C5-C44	µg/l	n/a	100($)	N.D.	N.D.	100($)	N.D	100($)	700	100($)
Aromatic C6-C44	µg/l	n/a	100($)	60	N.D.	100($)	150	100($)	90	100($)
TPH Ali/Aro	µg/l	n/a	10	10	10	10	10	10	10	10

n/a = no guideline note available

$ = Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

n/d = Not Detected

*References H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater references)

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APPENDIX D

Trend Tables

Summary of Chemical Analysis
Water Samples October 2007 to May 2016 - Borehole 1

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16
Temperature	°C	n/a	I/S	n/d	n/d	10.0	12.0	12.0	10.0
Depth (AOD)	m	n/a	I/S	n/d	n/d	6.095	6.39	6.03	5.925
Lead, Dissolved	µg/l	25	I/S	**50**	**55**	**130**	**72**	**100**	**39**
pH	pH units	n/a	I/S	7.4	7.2	7.5	7.2	6.9	6.9
Sulphate	µg/l	250000	I/S	46000	67200	35000	32000	19000	24000
Aliphatic C5-C6	µg/l	n/a	I/S	n/d	n/d	0.1	10	10	10
Aliphatic C6-C8	µg/l	n/a	I/S	5	10	19	10	10	10
Aliphatic C8-C10	µg/l	n/a	I/S	5	10	1.8	10	10	10
Aliphatic C10-C12	µg/l	n/a	I/S	5	10	1.3	10	10	100($)
Aliphatic C12-C16	µg/l	n/a	I/S	8.7	10	1	10	10	100($)
Aliphatic C16-C21	µg/l	n/a	I/S	33	10	2.6	10	10	100($)
Aliphatic C21-C35	µg/l	n/a	n/d	n/d	n/d	1	10	10	100($)
Aliphatic C35-C44	µg/l	n/a	n/d	n/d	n/d	n/d	10	10	100($)
Aromatic C6-C7	µg/l	30	n/d	n/d	n/d	n/d	10	10	100($)
Aromatic C7-C8	µg/l	40	I/S	2.5	10	0.1	10	10	10
Aromatic C8-C10	µg/l	n/a	I/S	5	10	0.1	10	10	10
Aromatic C10-C12	µg/l	n/a	I/S	5	10	7.2	10	10	10
Aromatic C12-C16	µg/l	n/a	I/S	5	10	12	10	10	100($)
Aromatic C16-C21	µg/l	n/a	I/S	14	10	67	10	20	100($)
Aromatic C21-C35	µg/l	n/a	n/d	n/d	n/d	78	10	10	100($)
Aromatic C35-C44	µg/l	n/a	n/d	n/d	n/d	n/d	10	10	100($)
Aliphatic C5-C44	µg/l	n/a	n/d	n/d	n/d	n/d	n/d	n/d	100($)
Aromatic C6-C44	µg/l	n/a	n/d	n/d	n/d	n/d	n/d	20	100($)
TPH Ali/Aro	µg/l	n/a	I/S	270	10	190	n/d	10	10
Aromatic C5-C7(1)	µg/l	30	I/S	2.5	10	0.1	n/d	n/d	n/d
Aliphatic C5-C35(1)	µg/l	n/a	n/d	n/d	n/d	25	n/d	n/d	n/d
Aromatic C5-C35(1)	µg/l	n/a	n/d	n/d	n/d	160	n/d	n/d	n/d
Aliphatic C21-C40(1)	µg/l	n/a	I/S	140	10	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	µg/l	n/a	I/S	75	10	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	µg/l	n/a	I/S	180	10	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	µg/l	n/a	I/S	89	10	n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to May 2016 - Borehole 3/12

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	May-13	Apr-15	May-16/ June 16
Temperature	°C	n/a	n/d	n/d	n/d	11.0	13.0	13.0	14.0
Depth (AOD)	m	n/a	6.1	n/d	n/d	6.35	6.39	6.25	5.15
Lead, Dissolved	ug/l	25	**50**	**50**	5	25	1.2	2.1	**280/89**
pH	pH units	n/a	I/S	6.9	6.8	7.1	7.0	7.0	6.9
Sulphate	ug/l	250000	30000	20000	34600	33000	97000	19000	18000
Aliphatic C5-C6	ug/l	n/a	n/d	n/d	n/d	0.1	10	10	10
Aliphatic C6-C8	ug/l	n/a	5	5	10	0.1	10	10	10
Aliphatic C8-C10	ug/l	n/a	5	78	10	0.1	10	10	10
Aliphatic C10-C12	ug/l	n/a	5	450	10	1	10	10	10
Aliphatic C12-C16	ug/l	n/a	5	350	10	1	20	10	10
Aliphatic C16-C21	ug/l	n/a	8	68	10	1	10	10	10
Aliphatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	10	10	10
Aliphatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	10	10	10
Aromatic C6-C7	ug/l	n/a	n/d	n/d	n/d	n/d	10	10	10
Aromatic C7-C8	ug/l	30	n/d	n/d	n/d	n/d	10	10	10
Aromatic C8-C10	ug/l	40	2.5	2.5	5	0.1	10	10	10
Aromatic C10-C12	ug/l	n/a	5	5	10	0.1	10	10	10
Aromatic C12-C16	ug/l	n/a	5	44	10	1	10	40	30
Aromatic C16-C21	ug/l	n/a	5	47	10	1	10	40	30
Aromatic C21-C35	ug/l	n/a	8	13	10	1	10	10	10
Aromatic C35-C44	ug/l	n/a	n/d	n/d	n/d	1	10	10	10
Aliphatic C5-C44	ug/l	n/a	n/d	n/d	n/d	n/d	40	n/d	N.D.
Aromatic C6-C44	ug/l	n/a	n/d	n/d	n/d	n/d	n/d.	90	60
TPH Ali/Aro	ug/l	n/a	100	1300	10	10	40	90	10
Aromatic C5-C7(1)	ug/l	30	2.5	2.5	5	0.1	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a	22	190	10	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a	22	42	10	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a	50	1100	10	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a	50	150	10	n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

Note to table

(1) - Old banding

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to May 2016 - Borehole 4

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	May-13	Apr-15	May-16
Temperature	°C	n/a	n/d	n/d	n/d	10.0	12.0	12.0	14.0
Depth (AOD)	m	n/a	6.615	n/d	n/d	6.715	6.52	5.71	6.115
Lead, Dissolved	ug/l	25	**50**	**240**	5	16	11	24	15
pH	pH units	n/a	11.2	7.6	7.3	7.2	7.7	7.5	701
Sulphate	ug/l	250000	51000	20000	6800	11000	12000	8700	7800
Aliphatic C5-C6	ug/l	n/a	n/d	n/d	n/d	0.1	10	10	10
Aliphatic C6-C8	ug/l	n/a	5	5	10	0.1	10	10	10
Aliphatic C8-C10	ug/l	n/a	5	5	10	0.1	10	10	10
Aliphatic C10-C12	ug/l	n/a	5	5	10	1	10	10	10
Aliphatic C12-C16	ug/l	n/a	5	5	10	1	10	10	10
Aliphatic C16-C21	ug/l	n/a	8	8	10	1	10	10	10
Aliphatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	10	10	10
Aliphatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	10	10	10
Aromatic C6-C7	ug/l	30	n/d	n/d	n/d	n/d	10	10	10
Aromatic C7-C8	ug/l	40	2.5	2.5	10	0.1	10	10	10
Aromatic C8-C10	ug/l	n/a	5	5	10	0.1	10	10	10
Aromatic C10-C12	ug/l	n/a	5	5	10	1	10	10	10
Aromatic C12-C16	ug/l	n/a	5	5	10	1	10	10	10
Aromatic C16-C21	ug/l	n/a	8	8	10	1	10	20	10
Aromatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	10	10	10
Aromatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	10	10	10
Aliphatic C5-C44	ug/l	n/a	n/d	n/d	n/d	n/d	n/d	n/d	N.D.
Aromatic C6-C44	ug/l	n/a	n/d	n/d	n/d	n/d	n/d	20	N.D.
TPH Ali/Aro	ug/l	n/a	100	100	10	10	n/d	20	10
Aromatic C5-C7(1)	ug/l	30	2.5	2.5	10	0.1	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a	98	98	10	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a	22	22	10	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a	98	98	10	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a	50	50	10	n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

Note to table

(1) - Old banding

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to May 2016 - Borehole 6

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16
Temperature	°C	n/a	n/d	n/d	n/d	10.0	12.0	12.0	16.0
Depth (AOD)	m	n/a	6.395	n/d	n/d	6.225	6.25	5.9	6.195
Lead, Dissolved	ug/l	25	**50**	I/S	5	1.8	1.5	4.7	0.9
pH	pH units	n/a	10.1	I/S	8.2	8	8.1	8.7	7.9
Sulphate	ug/l	250000	76000	I/S	41700	37000	41000	31000	60000
Aliphatic C5-C6	ug/l	n/a	n/d	n/d	n/d	0.1	10	10	10
Aliphatic C6-C8	ug/l	n/a	5	I/S	10	0.1	10	10	10
Aliphatic C8-C10	ug/l	n/a	5	I/S	10	0.1	10	10	10
Aliphatic C10-C12	ug/l	n/a	5	I/S	10	10	200$	10	100($)
Aliphatic C12-C16	ug/l	n/a	32	I/S	10	10	200$	10	100($)
Aliphatic C16-C21	ug/l	n/a	80	I/S	10	10	300	10	100($)
Aliphatic C21-C35	ug/l	n/a	n/d	n/d	n/d	10	350	10	100($)
Aliphatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	200$	10	100($)
Aromatic C6-C7	ug/l	30	n/d	n/d	n/d	n/d	10	10	10
Aromatic C7-C8	ug/l	40	2.5	I/S	5	0.1	10	10	10
Aromatic C8-C10	ug/l	n/a	5	I/S	10	0.1	10	10	10
Aromatic C10-C12	ug/l	n/a	5	I/S	10	10	200$	10	100($)
Aromatic C12-C16	ug/l	n/a	8.5	I/S	10	10	200$	10	100($)
Aromatic C16-C21	ug/l	n/a	25	I/S	10	10	200$	10	100($)
Aromatic C21-C35	ug/l	n/a	n/d	n/d	n/d	10	200$	10	100($)
Aromatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	200$	10	100($)
Aliphatic C5-C44	ug/l	n/a	n/d	n/d	n/d	n/d	650	n/d	100($)
Aromatic C6-C44	ug/l	n/a	n/d	n/d	n/d	n/d	n/d	n/d	100($)
TPH Ali/Aro	ug/l	n/a	240	I/S	10	80	650	n/d	10
Aromatic C5-C7(1)	ug/l	30	2.5	I/S	5	0.1	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	40	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	40	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a	91	I/S	10	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a	22	I/S	10	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a	200	I/S	10	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a	50	I/S	10	n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to May 2016 - Borehole 8

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16
Temperature	°C	n/a	n/d	n/d	n/d	11.0	12.0	12.0	12.0
Depth (AOD)	m	n/a	I/S	n/d	n/d	6.355	6.33	6.08	6.275
Lead, Dissolved	ug/l	25	I/S	**50**	5	0.52	0.5	9.6	0.3
pH	pH units	n/a	I/S	7.3	7.1	7.2	7.6	7.2	7
Sulphate	ug/l	250000	I/S	20000	5000	69000	110000	89000	99000
Aliphatic C5-C6	ug/l	n/a	n/d	n/d	n/d	0.1	10	10	10
Aliphatic C6-C8	ug/l	n/a	I/S	5	10	0.1	10	10	10
Aliphatic C8-C10	ug/l	n/a	I/S	5	10	0.1	10	10	10
Aliphatic C10-C12	ug/l	n/a	I/S	5	10	1	100$	20	10
Aliphatic C12-C16	ug/l	n/a	I/S	5	10	1	100$	20	10
Aliphatic C16-C21	ug/l	n/a	I/S	8	10	1	100$	30	10
Aliphatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	100$	50	10
Aliphatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	100$	10	10
Aromatic C6-C7	ug/l	30	n/d	n/d	n/d	n/d	10	10	10
Aromatic C7-C8	ug/l	40	I/S	2.5	10	0.1	10	10	10
Aromatic C8-C10	ug/l	n/a	I/S	5	10	0.1	10	10	10
Aromatic C10-C12	ug/l	n/a	I/S	5	10	1	100$	40	10
Aromatic C12-C16	ug/l	n/a	I/S	5	10	1	100$	80	50
Aromatic C16-C21	ug/l	n/a	I/S	8	10	1	100$	30	50
Aromatic C21-C35	ug/l	n/a	n/d	n/d	n/d	1	100$	10	40
Aromatic C35-C44	ug/l	n/a	n/d	n/d	n/d	n/d	100$	10	10
Aliphatic C5-C44	ug/l	n/a	n/d	n/d	n/d	n/d	n/d	120	N.D
Aromatic C6-C44	ug/l	n/a	n/d	n/d	n/d	n/d	n/d	150	150
TPH Ali/Aro	ug/l	n/a	I/S	100	10	10	n/d	270	10
Aromatic C5-C7(1)	ug/l	30	I/S	2.5	10	0.1	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a	n/d	n/d	n/d	10	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a	I/S	60	1	n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a	I/S	22	10	n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a	I/S	60	10	n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a	I/S	50	10	n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to May 2016 - Borehole 9

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16 Jun-16
Temperature	°C	n/a	Borehole installed March 2013 - No data available before this date			10.0	12.0	12.0	14.0
Depth (AOD)	m	n/a				5.82	5.65	5.57	5.57
Lead, Dissolved	ug/l	25				4.3	12	14	**35/29**
pH	pH units	n/a				7.2	7.3	7.5	7.5
Sulphate	ug/l	250000				30000	28000	33000	17000
Aliphatic C5-C6	ug/l	n/a				0.1	10	10	10
Aliphatic C6-C8	ug/l	n/a				0.1	10	10	10
Aliphatic C8-C10	ug/l	n/a				0.1	10	10	10
Aliphatic C10-C12	ug/l	n/a				1	10	10	100($)
Aliphatic C12-C16	ug/l	n/a				1	10	10	100($)
Aliphatic C16-C21	ug/l	n/a				1	10	10	100($)
Aliphatic C21-C35	ug/l	n/a				1	30	*20*	100($)
Aliphatic C35-C44	ug/l	n/a				n/d	10	10	100($)
Aromatic C6-C7	ug/l	30				n/d	10	10	10
Aromatic C7-C8	ug/l	40				0.1	10	10	10
Aromatic C8-C10	ug/l	n/a				0.1	10	10	10
Aromatic C10-C12	ug/l	n/a				1	10	10	100($)
Aromatic C12-C16	ug/l	n/a				1	10	50	100($)
Aromatic C16-C21	ug/l	n/a				1.8	10	20	100($)
Aromatic C21-C35	ug/l	n/a				3.1	10	10	100($)
Aromatic C35-C44	ug/l	n/a				n/d	10	10	100($)
Aliphatic C5-C44	ug/l	n/a				n/d	40	20	100($)
Aromatic C6-C44	ug/l	n/a				n/d	n/d	70	100($)
TPH Ali/Aro	ug/l	n/a				10	40	90	10
Aromatic C5-C7(1)	ug/l	30				0.1	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a				10	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a				10	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

Note to table

(1) - Old banding

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to May 2016 - Borehole 10

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16
Temperature	°C	n/a	Borehole installed March 2013 - No data available before this date			10.0	12.0	12.0	12.0
Depth (AOD)	m	n/a				6.13	6.07	5.32	6.05
Lead, Dissolved	ug/l	25				1.3	4.3	2.8	0.8
pH	pH units	n/a				7.3	6.8	7.4	6.9
Sulphate	ug/l	250000				16000	59000	54000	58000
Aliphatic C5-C6	ug/l	n/a				0.1	10	10	10
Aliphatic C6-C8	ug/l	n/a				0.1	10	10	10
Aliphatic C8-C10	ug/l	n/a				0.1	10	10	10
Aliphatic C10-C12	ug/l	n/a				2.4	10	10	10
Aliphatic C12-C16	ug/l	n/a				370	130	10	20
Aliphatic C16-C21	ug/l	n/a				3500	1600	30	390
Aliphatic C21-C35	ug/l	n/a				3200	1200	150	280
Aliphatic C35-C44	ug/l	n/a				n/d	10	10	10
Aromatic C6-C7	ug/l	30				n/d	10	10	10
Aromatic C7-C8	ug/l	40				0.1	10	10	10
Aromatic C8-C10	ug/l	n/a				0.1	10	10	10
Aromatic C10-C12	ug/l	n/a				1	10	10	10
Aromatic C12-C16	ug/l	n/a				34	10	30	20
Aromatic C16-C21	ug/l	n/a				340	10	120	50
Aromatic C21-C35	ug/l	n/a				350	10	10	10
Aromatic C35-C44	ug/l	n/a				n/d	10	10	10
Aliphatic C5-C44	ug/l	n/a				n/d	2900	180	700
Aromatic C6-C44	ug/l	n/a				n/d	n/d	150	90
TPH Ali/Aro	ug/l	n/a				7700	2900	330	10
Aromatic C5-C7[(1)]	ug/l	30				0.1	n/d	n/d	n/d
Aliphatic C5-C35[(1)]	ug/l	n/a				7000	n/d	n/d	n/d
Aromatic C5-C35[(1)]	ug/l	n/a				720	n/d	n/d	n/d
Aliphatic C21-C40[(1)]	ug/l	n/a				n/d	n/d	n/d	n/d
Aromatic C21-C40[(1)]	ug/l	n/a				n/d	n/d	n/d	n/d
Aliphatic C6-C40[(1)]	ug/l	n/a				n/d	n/d	n/d	n/d
Aromatic C6-C40[(1)]	ug/l	n/a				n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

Note to table

(1) - Old banding

$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

*References

H1 Environmental Risk Assessment - Annex J v2.0 April 2010 (Saltwater)

Summary of Chemical Analysis
Water Samples October 2007 to May 2016 - Borehole 11

Determinant	Units	EQS*	Oct-07	Jul-08	Nov-10	Apr-13	Apr-14	Apr-15	May-16
Temperature	°C	n/a	Borehole installed March 2013 - No data available before this date			10.0	12.0	12.0	16.0
Depth (AOD)	m	n/a				5.47	4.99	4.82	4.96
Lead, Dissolved	ug/l	25				0.81	1.5	3.9	5.4
pH	pH units	n/a				8.2	7.8	7.6	7.9
Sulphate	ug/l	250000				12000	43000	39000	30000
Aliphatic C5-C6	ug/l	n/a				0.1	10	10	10
Aliphatic C6-C8	ug/l	n/a				0.1	10	10	10
Aliphatic C8-C10	ug/l	n/a				0.1	10	10	10
Aliphatic C10-C12	ug/l	n/a				1	200$	10	100($)
Aliphatic C12-C16	ug/l	n/a				11	200$	10	100($)
Aliphatic C16-C21	ug/l	n/a				110	360	10	100($)
Aliphatic C21-C35	ug/l	n/a				590	1100	50	100($)
Aliphatic C35-C44	ug/l	n/a				n/d	300	10	100($)
Aromatic C6-C7	ug/l	30				n/d	10	10	10
Aromatic C7-C8	ug/l	40				0.1	10	10	10
Aromatic C8-C10	ug/l	n/a				0.1	10	10	10
Aromatic C10-C12	ug/l	n/a				1	200$	10	100($)
Aromatic C12-C16	ug/l	n/a				21	320	10	100($)
Aromatic C16-C21	ug/l	n/a				420	1900	30	100($)
Aromatic C21-C35	ug/l	n/a				1300	5800	50	110
Aromatic C35-C44	ug/l	n/a				n/d	200$	10	100($)
Aliphatic C5-C44	ug/l	n/a				n/d	1500	70	100($)
Aromatic C6-C44	ug/l	n/a				n/d	8300	90	100($)
TPH Ali/Aro	ug/l	n/a				2500	9800	160	10
Aromatic C5-C7(1)	ug/l	30				0.1	n/d	n/d	n/d
Aliphatic C5-C35(1)	ug/l	n/a				710	n/d	n/d	n/d
Aromatic C5-C35(1)	ug/l	n/a				1800	n/d	n/d	n/d
Aliphatic C21-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d
Aromatic C21-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d
Aliphatic C6-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d
Aromatic C6-C40(1)	ug/l	n/a				n/d	n/d	n/d	n/d

n/a = no guideline value available

I/S =insufficient sample

n/d = no data

Obs = obstructed

Note to table

(1) - Old banding

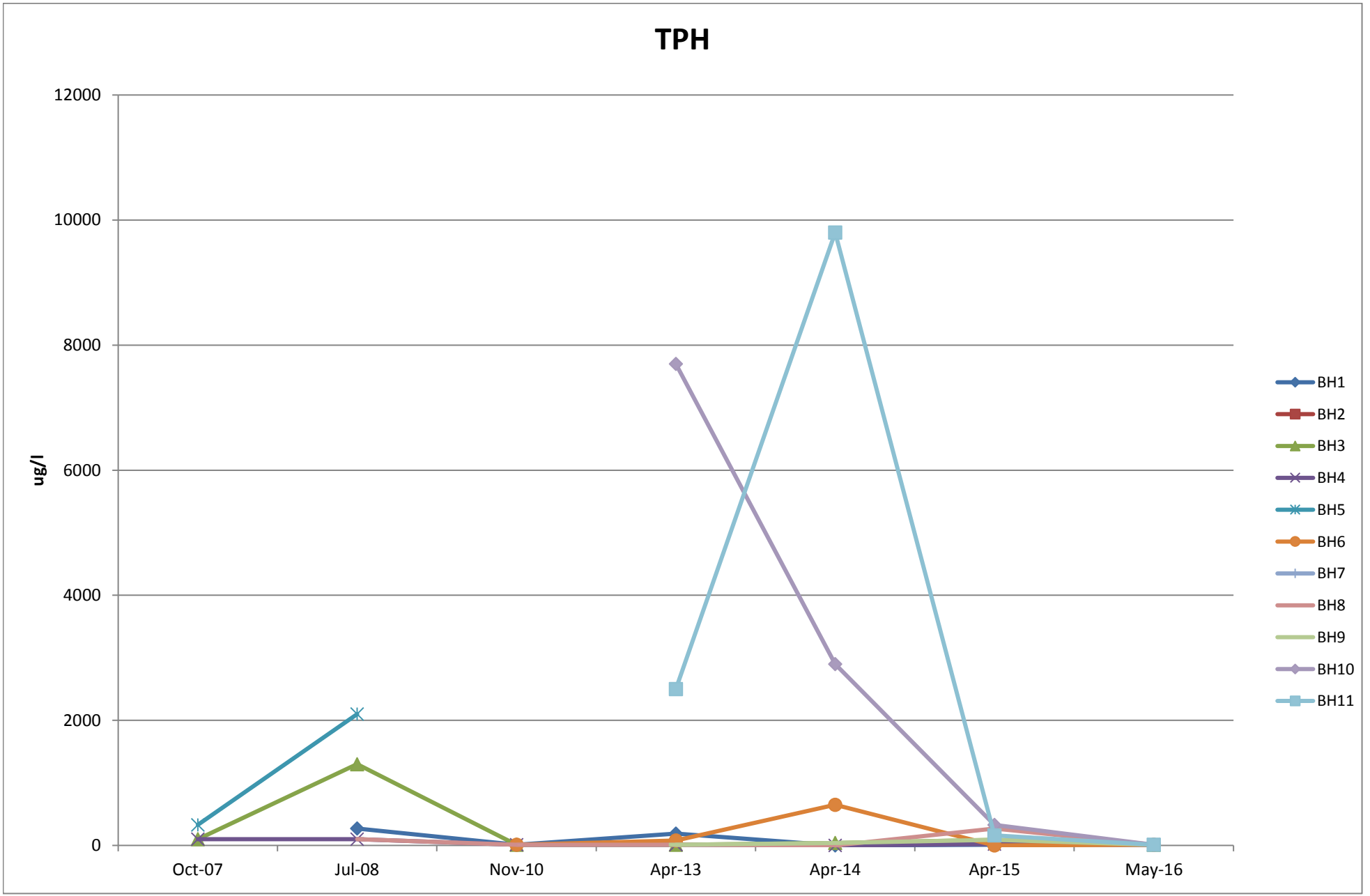
$ - Limit of Detection (LOD) determined by sample aliquot used for analysis or raised due to dilution of sample.

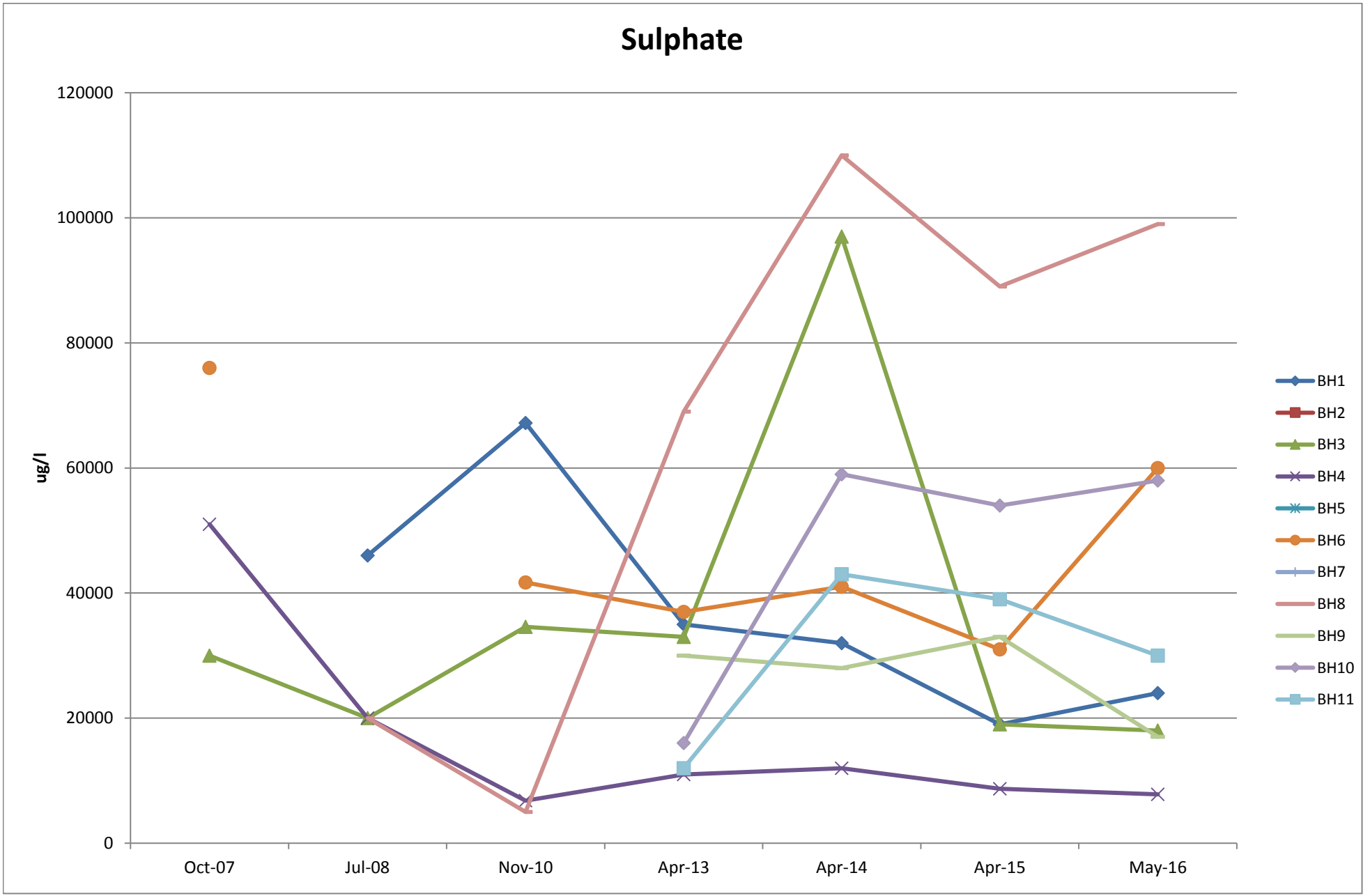
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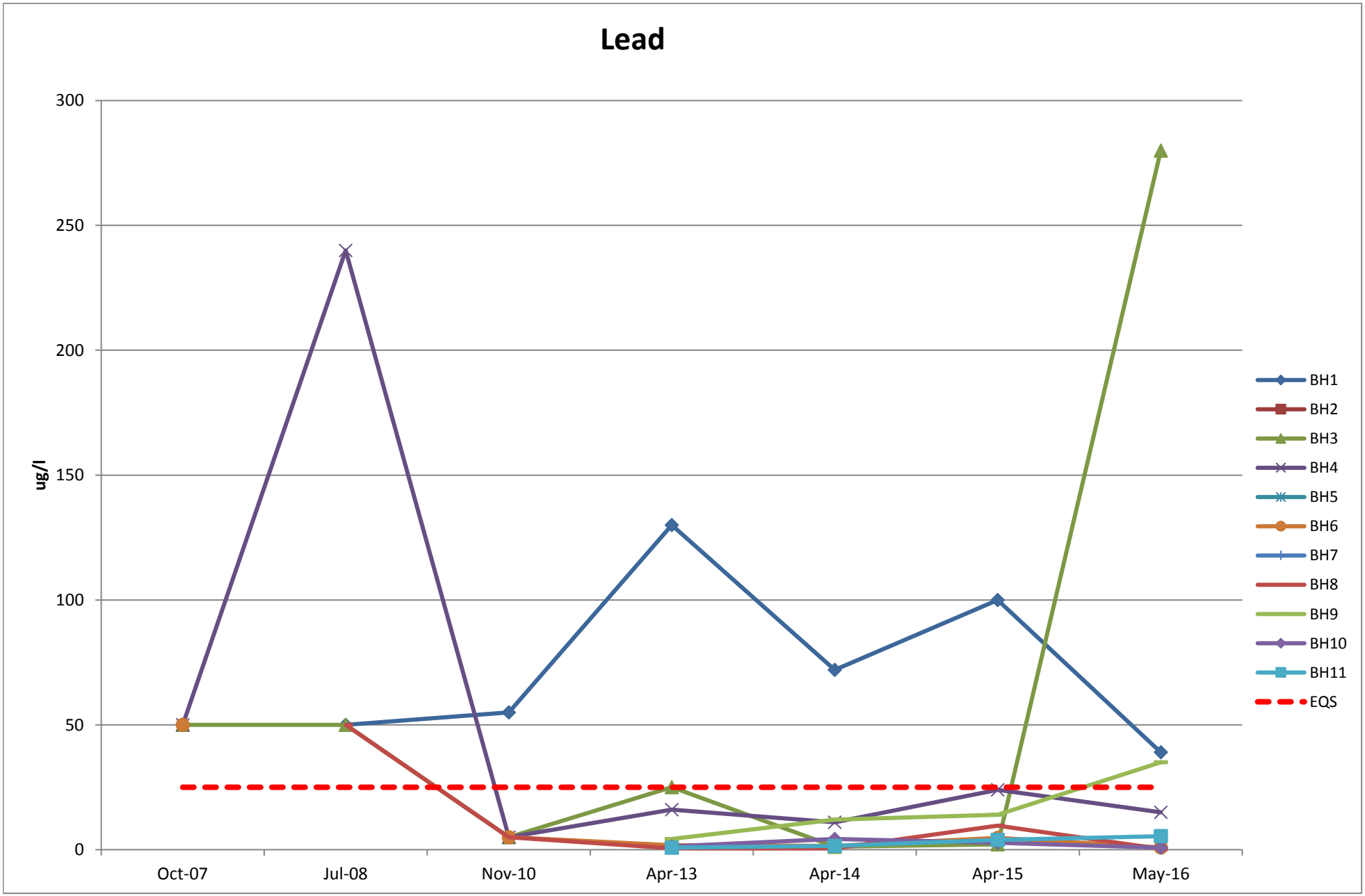
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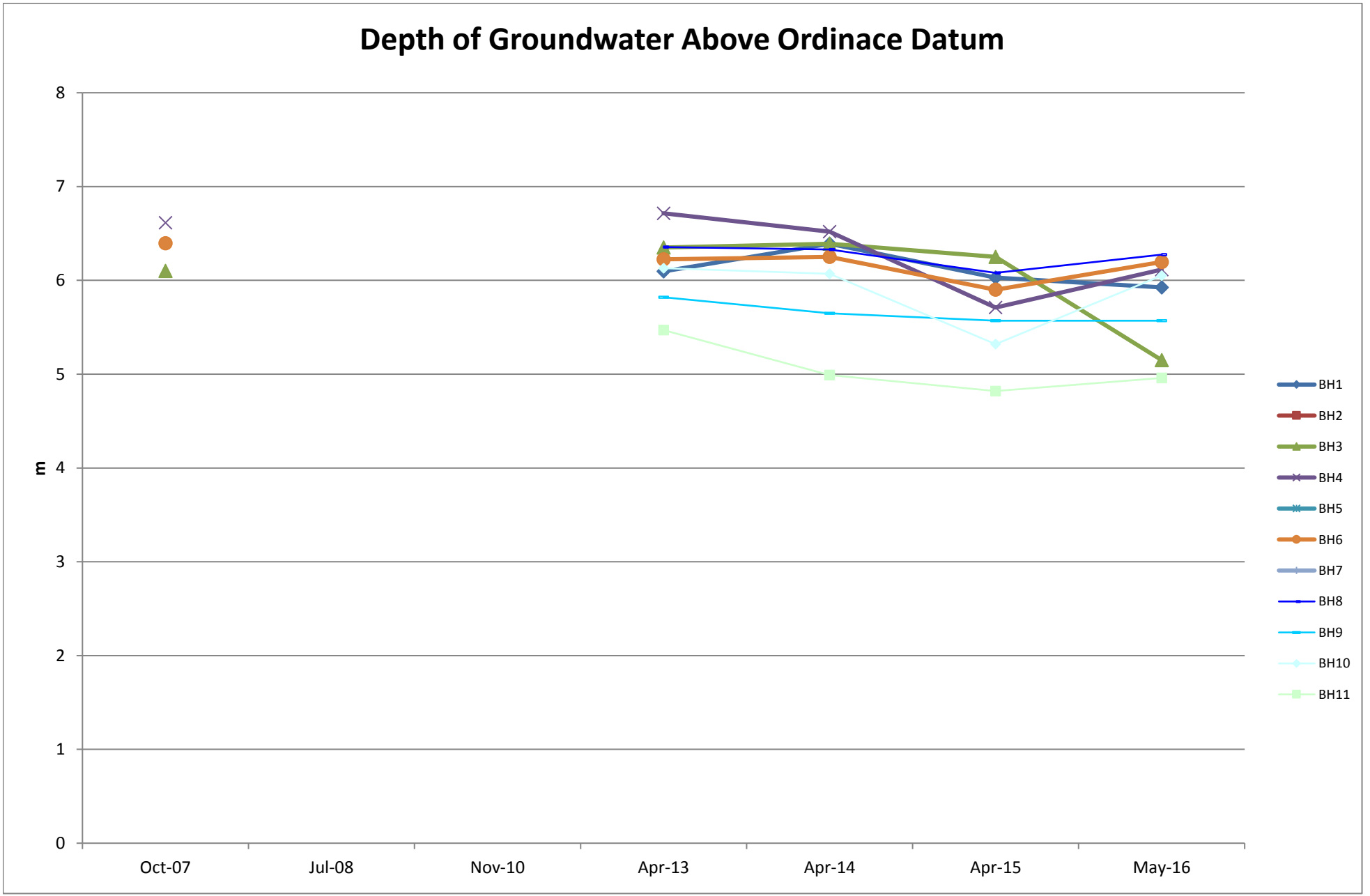
APPENDIX E

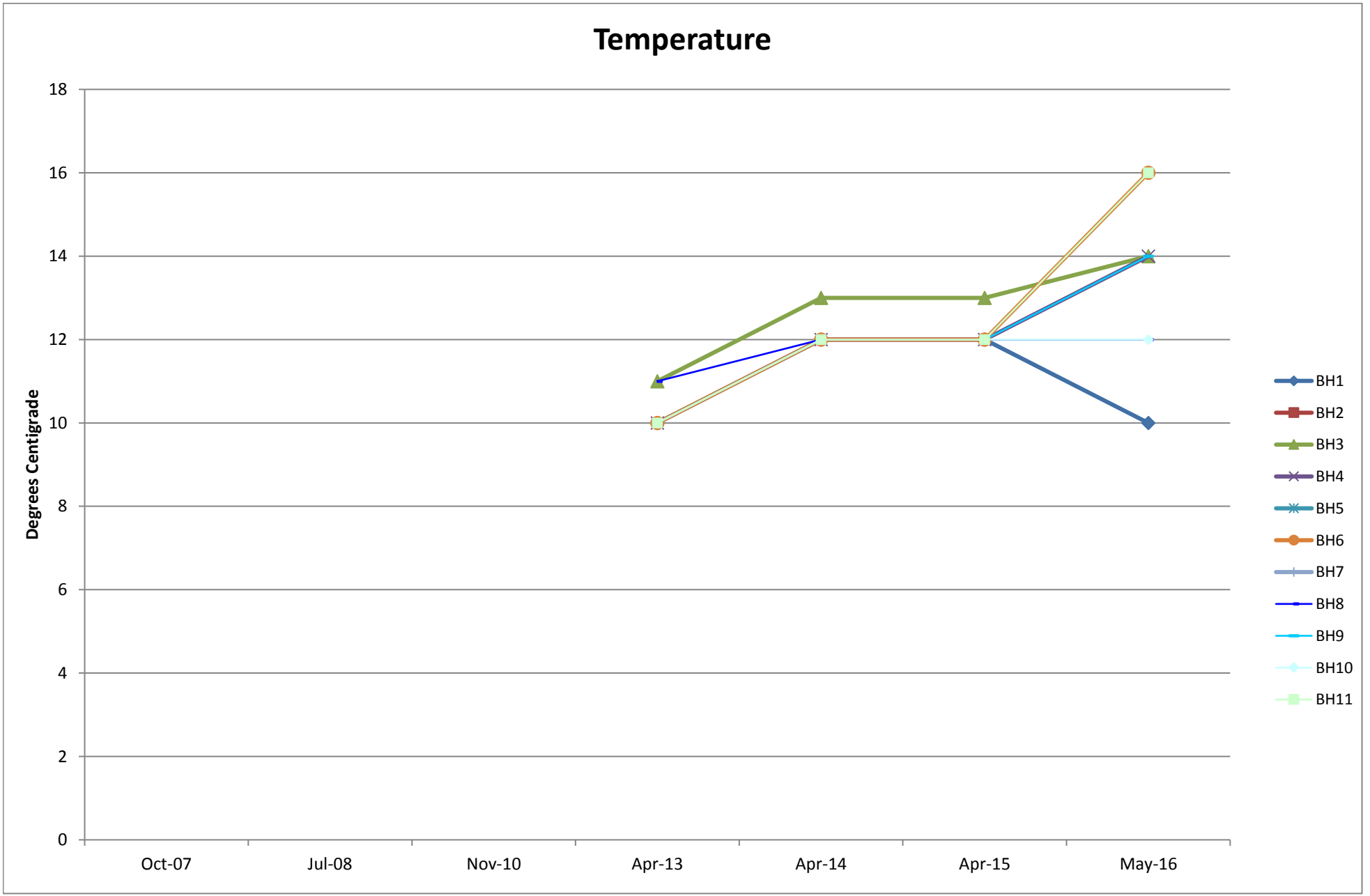
Trend Charts


TPH
12000
10000
8000
6000
4000
2000
0
ug/l
Oct-07
Jul-08
Nov-10
Apr-13
Apr-14
Apr-15
May-16
BH1
BH2
BH3
BH4
BH5
BH6
BH7
BH8
BH9
BH10
BH11


Sulphate
120000
100000
80000
60000
40000
20000
0
ug/l
Oct-07
Jul-08
Nov-10
Apr-13
Apr-14
Apr-15
May-16
BH1
BH2
BH3
BH4
BH5
BH6
BH7
BH8
BH9
BH10
BH11


Lead
300
250
200
150
100
50
0
ug/l
Oct-07
Jul-08
Nov-10
Apr-13
Apr-14
Apr-15
May-16
BH1
BH2
BH3
BH4
BH5
BH6
BH7
BH8
BH9
BH10
BH11
EQS


Depth of Groundwater Above Ordinace Datum
8
7
6
5
4
3
2
1
0
m
Oct-07
Jul-08
Nov-10
Apr-13
Apr-14
Apr-15
May-16
BH1
BH2
BH3
BH4
BH5
BH6
BH7
BH8
BH9
BH10
BH11


Temperature
Degrees Centigrade
18
16
14
12
10
8
6
4
2
0
Oct-07
Jul-08
Nov-10
Apr-13
Apr-14
Apr-15
May-16
BH1
BH2
BH3
BH4
BH5
BH6
BH7
BH8
BH9
BH10
BH11

APPENDIX F

Laboratory Certificate of Analysis

Hadfield House
Hadfield Street
Cornbrook
Manchester
M16 9FE
Tel : 0161 874 2400
Fax : 0161 874 2468

Scientific Analysis Laboratories Ltd

Certificate of Analysis

Scientific Analysis Laboratories is a limited company registered in England and Wales (No 2514788) whose address is at Hadfield House, Hadfield Street, Manchester M16 9FE

Report Number: 567829-1

Date of Report: 11-May-2016

Customer: Environmental Compliance Ltd
Unit G1
Main Avenue
Treforest Industrial Estate
Pontypridd
CF37 5BF

Customer Contact: M/S Sarah Burley

Customer Job Reference: P1736
Customer Purchase Order: E5227
Customer Site Reference: Enersys Newport
Date Job Received at SAL: 06-May-2016
Date Analysis Started: 06-May-2016
Date Analysis Completed: 11-May-2016

The results reported relate to samples received in the laboratory and may not be representative of a whole batch.
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs
All results have been reviewed in accordance with Section 25 of the SAL Quality Manual

UKAS TESTING
1549

Report checked and authorised by :
Laura Debbage
Project Manager

Issued by :
Laura Debbage
Project Manager

SAL Reference: 567829
Project Site: Enersys Newport
Customer Reference: P1736

Water Analysed as Water
Miscellaneous

	SAL Reference	567829 001	567829 002	567829 003	567829 004	567829 005
	Customer Sample Reference	BW1 ECL/14/1409/1410/1411	BW12 ECL/14/1412/1413/1414	BW4 ECL/14/1415/1416/1417	BW6 ECL/14/1418/1419/1420	BW8 ECL/14/1421/1422/1423
	Date Sampled	23-APR-2016	23-APR-2016	23-APR-2016	23-APR-2016	23-APR-2016
Determinand	**Method** / **Test Sample** / **LOD** / **Units**					
Pb (Dissolved)	T281 / AR / 0.3 / µg/l	**39**	**280**	**15**	**0.9**	<0.3
Sulphate	T686 / AR / 0.5 / mg/l	**24**	**18**	**7.8**	**60**	**99**
pH	T7 / AR	**6.9**	**6.9**	**7.1**	**7.9**	**7.0**

SAL Reference: 567829
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Water Analysed as Water
Miscellaneous

	SAL Reference	567829 006	567829 007	567829 008
	Customer Sample Reference	BW9 ECL/14/1424/1425/1426	BW10 ECL/14/1427/1428/1429	BW11 ECL/1430/1431/1432
	Date Sampled	23-APR-2016	23-APR-2016	23-APR-2016
Determinand	**Method** / **Test Sample** / **LOD** / **Units**			
Pb (Dissolved)	T281 / AR / 0.3 / µg/l	**35**	**0.8**	**5.4**
Sulphate	T686 / AR / 0.5 / mg/l	**17**	**58**	**30**
pH	T7 / AR	**7.5**	**6.9**	**7.9**

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Water Analysed as Water
TPH UKCWG

				SAL Reference	**567829 001**	**567829 002**	**567829 003**	**567829 004**	**567829 005**
				Customer Sample Reference	**BW1 ECL/14/1409/14 10/1411**	**BW12 ECL/14/1412/14 13/1414**	**BW4 ECL/14/1415/14 16/1417**	**BW6 ECL/14/1418/14 19/1420**	**BW8 ECL/14/1421/14 22/1423**
				Date Sampled	**23-APR-2016**	**23-APR-2016**	**23-APR-2016**	**23-APR-2016**	**23-APR-2016**
Determinand	**Method**	**Test Sample**	**LOD**	**Units**					
Benzene	T54	AR	1	µg/l	(13) <1	(13) <1	(13) <1	(13) <1	(13) <1
EthylBenzene	T54	AR	1	µg/l	<1	<1	<1	<1	<1
M/P Xylene	T54	AR	1	µg/l	<1	<1	<1	<1	<1
Methyl tert-Butyl Ether	T54	AR	1	µg/l	<1	<1	<1	<1	<1
O Xylene	T54	AR	1	µg/l	<1	<1	<1	<1	<1
Toluene	T54	AR	0.001	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
TPH (C5-C6 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH (C6-C8 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH (C8-C10 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH DW(C10-C12 aliphatic)	T81	AR	0.01	mg/l	(100,13) <0.10	(13) <0.01	(13) <0.01	(13,100) <0.10	(13) <0.01
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	(100,13) <0.10	(13) <0.01	(13) <0.01	(13,100) <0.10	(13) <0.01
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	(100,13) <0.10	(13) <0.01	(13) <0.01	(13,100) <0.10	(13) <0.01
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	(13,100) <0.10	(13) <0.01	(13) <0.01	(100,13) <0.10	(13) <0.01
TPH (C35-C44 aliphatic)	T81	AR	0.01	mg/l	(100,13) <0.10	(13) <0.01	(13) <0.01	(13,100) <0.10	(13) <0.01
TPH (Aliphatic) total	T85	AR		mg/l	(13,100) <0.10	(13) N.D.	(13) N.D.	(13,100) <0.10	(13) N.D.
TPH (C6-C7 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH (C7-C8 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH (C8-C10 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
TPH DW(C10-C12 aromatic)	T81	AR	0.01	mg/l	(100,13) <0.10	(13) <0.01	(13) <0.01	(13,100) <0.10	(13) <0.01
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	(100,13) <0.10	**(13) 0.03**	(13) <0.01	(13,100) <0.10	**(13) 0.05**
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	(13,100) <0.10	**(13) 0.03**	(13) <0.01	(13,100) <0.10	**(13) 0.05**
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	(100,13) <0.10	(13) <0.01	(13) <0.01	(13,100) <0.10	**(13) 0.04**
TPH (C35-C44 aromatic)	T81	AR	0.01	mg/l	(13,100) <0.10	(13) <0.01	(13) <0.01	(13,100) <0.10	(13) <0.01
TPH (Aromatic) total	T85	AR		mg/l	(13,100) <0.10	**(13) 0.06**	(13) N.D.	(13,100) <0.10	**(13) 0.15**
TPH (Aliphatic+Aromatic) (sum)	T85	AR		mg/l	(13,100) <0.10	**(13) 0.06**	(13) N.D.	(13,100) <0.10	**(13) 0.15**
Total Petroleum Hydrocarbons (C5 - C10 aliphatic/aromatic)	T85	AR	10	µg/l	<10	<10	<10	<10	<10

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Project Site: Enersys Newport
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Water Analysed as Water
TPH UKCWG

	SAL Reference	567829 006	567829 007	567829 008
	Customer Sample Reference	BW9 ECL/14/1424/1425/1426	BW10 ECL/14/1427/1428/1429	BW11 ECL/1430/1431/1432
	Date Sampled	23-APR-2016	23-APR-2016	23-APR-2016

Determinand	Method	Test Sample	LOD	Units			
Benzene	T54	AR	1	µg/l	(13) <1	(13) <1	(13) <1
EthylBenzene	T54	AR	1	µg/l	<1	<1	<1
M/P Xylene	T54	AR	1	µg/l	<1	<1	<1
Methyl tert-Butyl Ether	T54	AR	1	µg/l	<1	<1	<1
O Xylene	T54	AR	1	µg/l	<1	<1	<1
Toluene	T54	AR	0.001	mg/l	<0.001	<0.001	<0.001
TPH (C5-C6 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH (C6-C8 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH (C8-C10 aliphatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH DW(C10-C12 aliphatic)	T81	AR	0.01	mg/l	(13,100) <0.10	(13) <0.01	(13,100) <0.10
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	(13,100) <0.10	**(13) 0.02**	(13,100) <0.10
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	(100,13) <0.10	**(13) 0.39**	(100,13) <0.10
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	(13,100) <0.10	**(13) 0.28**	(13,100) <0.10
TPH (C35-C44 aliphatic)	T81	AR	0.01	mg/l	(13,100) <0.10	(13) <0.01	(13,100) <0.10
TPH (Aliphatic) total	T85	AR		mg/l	(13,100) <0.10	**(13) 0.70**	(13,100) <0.10
TPH (C6-C7 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH (C7-C8 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH (C8-C10 aromatic)	T215	AR	0.010	mg/l	<0.010	<0.010	<0.010
TPH DW(C10-C12 aromatic)	T81	AR	0.01	mg/l	(100,13) <0.10	(13) <0.01	(13,100) <0.10
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	(13,100) <0.10	**(13) 0.02**	(100,13) <0.10
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	(100,13) <0.10	**(13) 0.05**	(13,100) <0.10
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	(13,100) <0.10	**(13) 0.01**	**(13) 0.11**
TPH (C35-C44 aromatic)	T81	AR	0.01	mg/l	(100,13) <0.10	(13) <0.01	(100,13) <0.10
TPH (Aromatic) total	T85	AR		mg/l	(13,100) <0.10	**(13) 0.09**	(13,100) <0.10
TPH (Aliphatic+Aromatic) (sum)	T85	AR		mg/l	(13,100) <0.10	**(13) 0.79**	(100,13) <0.10
Total Petroleum Hydrocarbons (C5 - C10 aliphatic/aromatic)	T85	AR	10	µg/l	<10	<10	<10

Index to symbols used in 567829-1

Value	Description
AR	As Received
N.D.	Not Detected
100	LOD determined by sample aliquot used for analysis
13	Results have been blank corrected.
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

Value	Description
T7	Probe
T281	ICP/MS (Filtered)
T54	GC/MS (Headspace)
T686	Discrete Analyser
T81	GC/FID (LV)
T85	Calc
T215	GC/MS (Headspace)(LV)

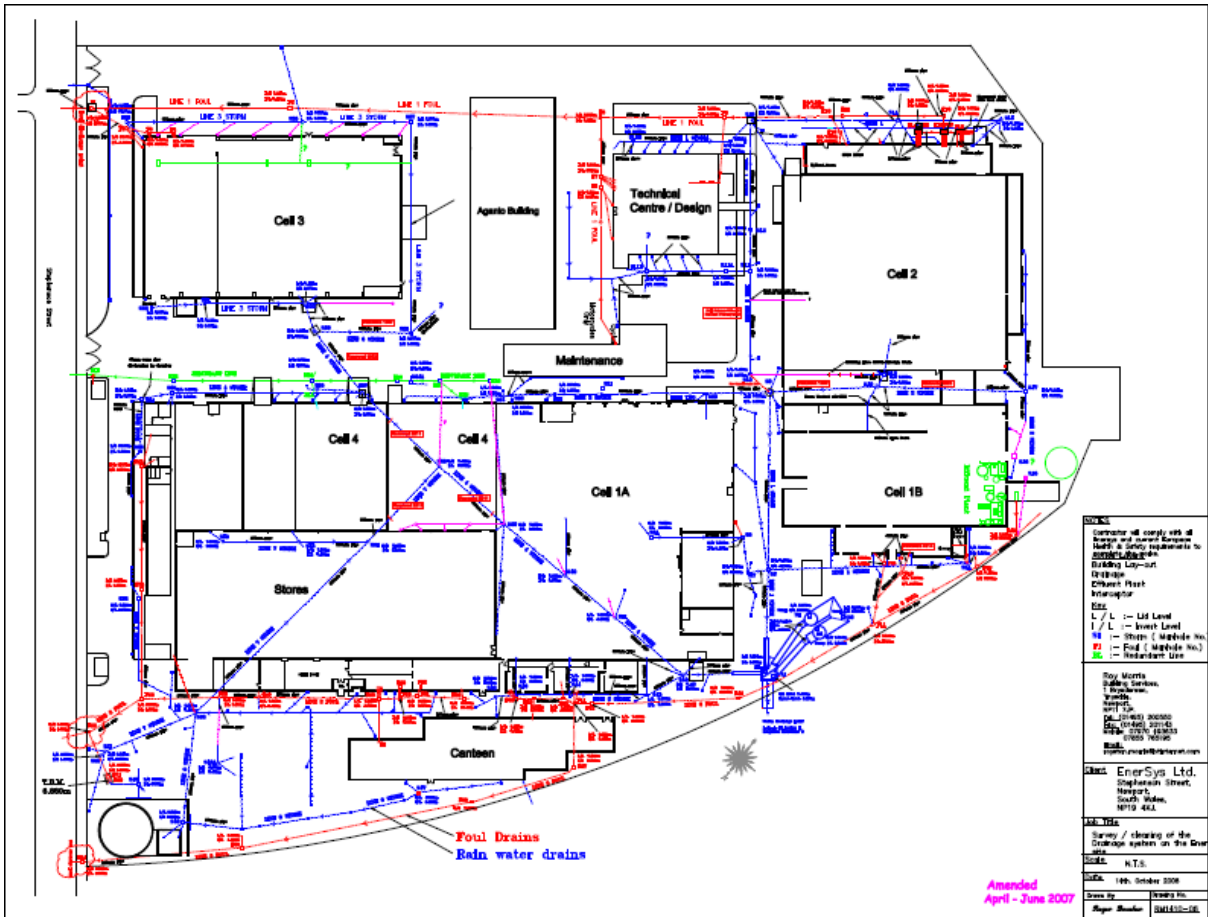
Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Pb (Dissolved)	T281	AR	0.3	µg/l	U	001-008
Sulphate	T686	AR	0.5	mg/l	U	001-008
pH	T7	AR			U	001-008

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Benzene	T54	AR	1	µg/l	U	001-008
EthylBenzene	T54	AR	1	µg/l	U	001-008
M/P Xylene	T54	AR	1	µg/l	U	001-008
Methyl tert-Butyl Ether	T54	AR	1	µg/l	U	001-008
O Xylene	T54	AR	1	µg/l	U	001-008
Toluene	T54	AR	0.001	mg/l	U	001-008
TPH (C5-C6 aliphatic)	T215	AR	0.010	mg/l	N	001-008
TPH (C6-C8 aliphatic)	T215	AR	0.010	mg/l	N	001-008
TPH (C8-C10 aliphatic)	T215	AR	0.010	mg/l	N	001-008
TPH DW(C10-C12 aliphatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	N	001-008
TPH (C35-C44 aliphatic)	T81	AR	0.01	mg/l	N	001-008
TPH (Aliphatic) total	T85	AR		mg/l	N	001-008
TPH (C6-C7 aromatic)	T215	AR	0.010	mg/l	N	001-008
TPH (C7-C8 aromatic)	T215	AR	0.010	mg/l	N	001-008
TPH (C8-C10 aromatic)	T215	AR	0.010	mg/l	N	001-008
TPH DW(C10-C12 aromatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	N	001-008
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	N	001-008
TPH (C35-C44 aromatic)	T81	AR	0.01	mg/l	N	001-008
TPH (Aromatic) total	T85	AR		mg/l	N	001-008
TPH (Aliphatic+Aromatic) (sum)	T85	AR		mg/l	N	001-008
Total Petroleum Hydrocarbons (C5 - C10 aliphatic/aromatic)	T85	AR	10	µg/l	N	001-008

APPENDIX G

EnerSys Newport Drainage Plan


Cell 3
Agents Building
Technical Centre / Design
Cell 2
Maintenance
Cell 4
Cell 4
Cell 1A
Cell 1B
Stores
Canteen
Foul Drains
Rain water drains
Amended April - June 2007
EnerSys Ltd.