Earth Systems
Environmental Engineering

December 28, 2015

Via Certified Mail

Mr. Phillip Cole
Bureau of Case Management
New Jersey Department of Environmental Protection
401 East State Street
PO Box 28
Trenton, New Jersey 08625-0028

Re: Semi-Annual Groundwater Monitoring Report
Hess Corporation – Former Port Reading Complex (HC-PR)
750 Cliff Road
Port Reading, Middlesex County, New Jersey
EPA ID No. NJD045445483
NJPDES Permit NJ0028878 & NJ0102709

Dear Mr. Cole:

Enclosed please find the Semi-Annual Report for the Second Half of 2015 for the above referenced site. This report also includes the Progress Reports for the 3rd and 4th quarter of 2015.

Should you have any questions or comments relating to this report, please call me at 732-739-6444, extension 22. I can also be reached via e-mail at jvirgie@earthsys.net. If you have any questions relating to the project and schedule moving forward, please contact Mr. John Schenkewitz of Hess Corporation at 732-750-6616 or Mr. Rick Ofsanko of Earth Systems at 561-588-3985.

Sincerely,

John Virgie, PG, LSRP
Senior Client Manager

cc: Mr. Andy Park – USEPA Region II
Mr. John Schenkewitz – Hess Corporation (electronic copy)
Mr. Rick Ofsanko – Earth Systems, Inc. (electronic copy)

SEMI-ANNUAL GROUNDWATER MONITORING REPORT
HESS CORPORATION - FORMER PORT READING COMPLEX
NORTH LANDFARM, NO. 1 LANDFARM, and SOUTH LANDFARM
SOLID WASTE MANAGEMENT UNITS (SWMU), AREAS OF CONCERN (AOCs), HISTORIC SPILLS (HSs), AND COMBINED REMEDIATION MANAGEMENT UNITS

Hess Corporation – Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County New Jersey
EPA ID# NJD045445483

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December 28, 2015

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1.0 Introduction and Summary Table

Earth Systems, Inc. (Earth Systems) has been retained by Hess Corporation (Hess) to provide environmental consulting services for the Hess Corporation – Former Port Reading Complex (HC-PR) facility located at 750 Cliff Road in Port Reading (Woodbridge Township), Middlesex County, New Jersey. **Figure 1** is a United States Geological Survey (USGS) 7.5 minute series quadrangle map (Arthur Kill, New Jersey) depicting the site location, facility and associated land features. A Site Plan has been included as **Figure 2** and a tax map of the site is provided as **Figure 3.**

This report documents the investigative and groundwater sampling activities completed in the Third and Fourth Quarter of 2015 at the Solid Waste Management Units (SWMUs), Areas of Concern (AOCs), and Remediation Management Units (RMUs). Investigative and remedial activities included groundwater gauging, groundwater monitoring, Light Non-Aqueous Phase Liquid (LNAPL) monitoring and passive recovery, Industrial Site Recovery Act (ISRA) site investigation activities, and regulatory report preparation and submittal.

A tabulated summary of groundwater gauging and sampling events conducted during these months is shown below, followed by a discussion of actual LNAPL and contamination levels.

A Preliminary Assessment Report (PAR) was submitted to the NJDEP and USEPA on October 9, 2015. A total of 117 AOCs were identified in the PAR, of which Earth Systems concluded that 62 of the AOCs required further investigation. Site investigation activities were conducted from 2013 through 2015. A Site Investigation Report (SIR) was submitted to the NJDEP and USEPA on November 7, 2015.

Historic and current groundwater gauging data, groundwater analytical results, and site investigation data are being evaluated to finalize the preparation of the AOC specific and site-wide Remedial Investigation Workplans (RIWs). An analysis of site impacts and recommendations for additional investigation will be discussed in the RIWs.

No remedial activities were conducted for several AOCs, Historic Spills (HSs), and Management Units this quarter. Therefore, they have not been included in this progress report and will be addressed in future remedial reports and RIWs.

SUMMARY OF ACTIONS

Location	Case Number/ Description	Description and Dates of Action
AOC-1	North Landfarm	Quarterly Groundwater Sampling Event – July 2015 Quarterly Groundwater Sampling Event – October 2015 Site-wide Groundwater Gauging – November 2015
AOC-2	South Landfarm	Monthly Groundwater Gauging Events – July, August, September, October, November, December 2015 Quarterly Groundwater Sampling Event – July 2015 Quarterly Groundwater Sampling Event – October 2015 Site-wide Groundwater Gauging – November 2015
AOC-3	No. 1 Landfarm	Quarterly Groundwater Sampling Event – July 2015 Quarterly Groundwater Sampling Event – October 2015 Annual Sampling Event – November 2015 Site-wide Groundwater Gauging – November 2015
AOC-5	Aeration Basin	Site-wide Groundwater Gauging – November 2015
AOC-10	Truck Loading Rack	Monthly Groundwater Gauging Events – July, August, September, October, November, December 2015 Site-wide Groundwater Gauging – November 2015 Annual Sampling Event – November 2015
AOC-11a	Administration Building	Site-wide Groundwater Gauging – November 2015 Annual Sampling Event – November 2015
AOC-11b	Former Training Center	Site-wide Groundwater Gauging – November 2015

		Annual Sampling Event – November 2015
AOC-12	Smith Creek	Site-wide Groundwater Gauging – November 2015 Annual Sampling Event – November 2015
AOC-14a AOC-14b	TM Monitoring Wells	Annual Sampling Event – November 2015
AOC 16b	Marine Terminal Loading Area	Annual Sampling Event – November 2015
TFMU	Tankfield Remediation Management Unit	Monthly Groundwater Gauging Events – July, August, September, October, November, December 2015 Site-wide Groundwater Gauging – November 2015 Annual Sampling Event – November 2015
SRMU	Southern Remediation Management Unit	Monthly Groundwater Gauging Events – July, August, September, October, November, December 2015 Site-wide Groundwater Gauging – November 2015 Yearly Sampling Event – November 2015
ALL	Industrial Site Recovery Act (ISRA)	A PAR was submitted to the NJDEP and USEPA on October 9, 2015. An SIR was submitted to the NJDEP and USEPA on November 7, 2015.

2.0 ISRA and Regulatory Reporting Requirements Update

A PAR was submitted to the NJDEP and USEPA on October 9, 2015. A total of 117 AOCs were identified in the PAR. Of the total number of identified AOCs at the site, Earth Systems concluded that 62 of the AOCs required further investigation. A request for a 30-day extension to the deadline for the SIR was submitted to the NJDEP and subsequently granted. The SIR was submitted to the NJDEP and USEPA on November 7, 2015.

RIWs discussing proposed remedial investigation activities for selected priority AOCs will be submitted to the NJDEP and USEPA in the 1st quarter of 2016. The RIWs relate to the following priority AOCs, which have been identified by the NJDEP and USEPA:

- AOC 10 – Truck Loading Rack
- AOC 11a – Administration Building
- AOC 12 – Smith Creek and Detention Basin
- AOC 19 – QC Laboratory

In addition, due to the findings of the Site Investigation (SI) conducted at the HC-PR property, a site-wide RIW, excluding the above AOCs, will be submitted to the NJDEP and USEPA in the 1st quarter of 2016 to address the remaining impacted AOCs.

2.1 Monthly Groundwater Gauging

HC-PR conducts Monthly Gauging Events as part of the IRMs at the site. Monthly gauging events target monitoring wells with a history of LNAPL or sheen and wells in close proximity to LNAPL or sheen detections. Groundwater gauging is currently conducted monthly at twenty-four (24) monitoring wells (LFR-1, PL-1RR, PL-2, PL-3R, PL-4R, PL-5, PL-6R, PL-7, PL-8R, PL-9R, TF-1, TF-2, TF-3, TM-6R, TM-7, TR-1R, TR-2R, TR-3RR, TR-4R, TR-4D, TR-4DD, TR-5, TR-6, and TR-6D), one (1) surface water gauge (DB-SW), and three (3) recovery sumps (TR-Sump-1, TR-Sump-2, and TR-Sump-3). During the Third and Fourth Quarter of 2015, gauging was conducted on July 22, August 19, September 21, October 21, November 17-25, and December 18, 2015. The results of the monthly gauging activities are provided in **Table 1** (Monthly Groundwater Gauging Summary Table). Groundwater contours for the monthly gauging events are provided on **Figures 6 though Figure 11.**

During the July 22, 2015 monthly gauging event, a measurable thickness of LNAPL was measured in six (6) monitoring wells: PL-1RR (0.01ft), PL-2 (0.02ft), TM-7 (0.05ft), TR-2R (0.01ft), TR-6 (0.01ft), and TR-6D (0.02ft). Sheen was observed in monitoring well PL-9R. Monitoring wells LFR-1, PL-4R, PL-5, TF-1, TF-2, and TF-3 were covered with debris and were not accessible during this gauging event. Additionally, TR-Sump-3 was not accessible during this gauging event.

During the August 19, 2015 event, LNAPL was measured in four (4) monitoring wells: PL-1RR (0.01ft), PL-2 (0.02ft), TM-7 (0.07ft), and TR-2R (0.01ft). Sheen was observed in monitoring well PL-9R. Monitoring wells LFR-1, PL-4R, PL-5, TF-1, TF-2, and TF-3 were covered with debris and were not accessible during this gauging event. Additionally, TR-Sump-3 was not accessible during this gauging event.

During the September 21, 2015 event, LNAPL was measured in four (4) monitoring wells: PL-1RR (0.17ft), PL-2 (0.04), TM-7 (0.01ft), and TR-2R (0.02ft). Sheen was observed in monitoring well PL-9R. Monitoring wells LFR-1, PL-4R, PL-5, and TF-2 were covered with debris and were not accessible during this sampling event. Additionally, TR-Sump-3 was not accessible.

During the October 21, 2015 event, LNAPL was measured in four (4) monitoring wells: PL-1RR (0.11ft), PL-2 (0.02ft), TM-7 (0.01ft), and TR-2R (0.03ft). Sheen was observed in monitoring well PL-9R. Monitoring wells LFR-1, PL-4R, PL-5, and TF-2 were covered with debris and were not accessible during this sampling event. Additionally, TR-Sump-3 was not accessible.

During the November 19, 2015 event, LNAPL was measured in two (2) monitoring wells: PL1RR (0.10ft) and PL-2 (0.10ft). LF-1R, PL-4R, and PL-5 were covered with debris and were not accessible during this gauging event. TF-2 was damaged during construction activities in the area and is in need of repair. Additionally, TR-Sump-3 was not accessible.

During the December 18, 2015 event, LNAPL was measured in two (2) monitoring wells: PL-1RR (0.01ft), PL-2 (0.01ft), TF-2 (0.10ft), and TR-2R (0.01ft). Sheen was not observed in any of the monitoring wells during this gauging event. LFR-1, PL-4R, and PL-5 were covered with debris and were not accessible during this gauging event. TF-2 was damaged during construction activities in the area and will be repaired in December 2015. Additionally, TR-Sump-3 was not accessible. It should be noted that monitoring wells TR-4R, TR-4D, and TR-4DD were not gauged in December 2015 due to recent heavy precipitation, which caused these areas to be submerged by storm water.

Currently, only passive LNAPL recovery methods are being utilized. Absorbent booms are placed in impacted wells and replaced as necessary. All spent booms are placed in a 55-gallon drum staged on-site. Once at capacity, the drum is removed from the HC-PR site and disposed of at a licensed waste disposal facility.

2.2 Quarterly Groundwater Sampling

The condition of Site monitoring wells was assessed in the third and fourth quarters. In December 2015, damaged wells were evaluated by a licensed well driller and repaired as necessary. Wells will be re-surveyed if necessary and updated well records submitted in the subsequent progress report. In addition, an updated well construction summary table will also be submitted in the 2016 progress report.

Groundwater samples were collected via low-flow sampling methodology, in accordance with the NJDEP's *Field Sampling Procedures Manual*. Low-flow sampling sheets are attached as **Appendix 1**. Samples were collected in laboratory supplied glassware and transferred to Accutest Laboratories (Accutest) of Dayton, New Jersey (NJ Certification No. 12129) under strict chain of custody.

As mentioned in Section 2.2.2, contamination was detected in the field blank collected during the third quarter sampling event. In the future, all sampling procedures will be evaluated to eliminate the potential for cross contamination and the Site Quality Assurance Project Plan will be revised accordingly, if necessary.

2.2.1 Third Quarter Sampling Summary

Third quarter groundwater sampling was conducted at the Site on July 29 through 31, 2015 and August 3, 4, and 6, 2015. Quarterly groundwater samples were collected from the following areas and wells:

- North Landfarm – Monitoring wells LN-1, LN-2, LN-3, LN-4, LN-5, LN-6, and LN-7;
- South Landfarm – Monitoring wells LS-1R, LS-2, LS-3, and LS-4;
- No. 1 Landfarm – Monitoring wells BG-2, BG-3, L1-1, L1-2, L1-3, L1-4, and LY-1.

2.2.2 Third Quarter Sample Results

Analytical results from the North Landfarm groundwater sampling event identified the presence of benzene in sample LN-7 at 2 parts per billion, which exceeds the NJDEP Groundwater Quality Standards (GWQS) of 1 ppb. In addition, several metals were present in samples above their respective GWQS, including arsenic, iron, manganese, and sodium. The analytical results for the Third Quarter North Landfarm groundwater sampling event are provided on **Table 2.**

Analytical results from the South Landfarm groundwater sampling event identified the presence of benzene in samples LS-3 and LS-4 at 29.1 ppb and 40.6 ppb, respectively. However, it must be noted that the analytical results of the field blank associated with the samples identified the presence of benzene at 18.1

ppb. Tertiary butyl alcohol (TBA) was also detected in samples LS-3 and LS-4 at 593 ppb and 262 ppb respectively, which exceeds its GWQS of 100 ppb. In addition, several metals were present in samples above their respective GWQS including arsenic, iron, manganese, and sodium. The analytical results for the Third Quarter South Landfarm groundwater sampling event are provided on **Table 3**.

Analytical results from the No. 1 Landfarm groundwater sampling event identified the presence of bis(2-ethylhexyl)phthalate in sample L1-2 at 4 ppb, which exceeds its GWQS of 3 ppb. Arsenic was detected above its GWQS in samples BG-2, BG-3, L1-2, L1-3, and L1-Leachate. In addition, nickel was detected in sample L1-Leachate at 308 ppb, which exceeds its GWQS of 100 ppb. The analytical results for the Third Quarter No. 1 Landfarm groundwater sampling event are provided on **Table 4.**

2.2.3 Fourth Quarter Sample Summary

Fourth quarter groundwater sampling was conducted at the Site on October 26 through 28, 2015. Quarterly groundwater samples were collected from the following areas and wells:

- North Landfarm – Monitoring Wells LN-1, LN-2, LN-3, LN-4, LN-5, LN-6, and LN-7;
- South Landfarm – Monitoring Wells LS-1R, LS-2, LS-3, and LS-4;
- No. 1 Landfarm – Monitoring Wells BG-2, BG-3, L1-1, L1-2, L1-3, L1-4, and LY-1.

2.2.4 Fourth Quarter Sample Results

Analytical results from the North Landfarm groundwater sampling event identified the presence of several metals above their respective GWQS, including arsenic, iron, manganese, and sodium. The analytical results for the Fourth Quarter North Landfarm groundwater sampling event are provided on **Table 5.**

Analytical results from the South Landfarm groundwater sampling event identified the presence of benzene in sample LS-4 at 12.9 ppb. In addition, several metals were present in samples over their respective GWQS including arsenic and iron. Ammonia was also detected above its GWQS of 3,000 ppb in samples LS-2 and LS-4 at 5,100 ppb and 46,500 ppb respectively. The analytical results for the Fourth Quarter South Landfarm groundwater sampling event are provided on **Table 6**.

Analytical results from the No. 1 Landfarm groundwater sampling event indicated that no VOC or SVOC compounds exceeded the GWQS. Arsenic was detected over its GWQS in samples BG-3, L1-2, and L1-3 at concentrations of 9.1 ppb, 38.9 ppb, and 28.2 ppb respectively. In addition, nickel was detected at 622 ppb in sample L1-Leachate, which exceeds its GWQS of 100 ppb. The analytical results for the Fourth Quarter No. 1 Landfarm groundwater sampling event are provided on **Table 7**.

2.3 Annual Groundwater Sampling

Annual groundwater sampling was conducted at the Site on November 17 through 24, 2015. Annual groundwater samples were collected from the following areas and wells:

- No. 1 Landfarm (AOC-3) – Monitoring wells SP-1 and SP-3;
- Truck Loading Rack (AOC-10) – Monitoring Wells TR-1R, TR-2R, TR-3RR, TR-4R, TR-4D, TR-4DD, TR-5R, TR-6, TR-6D, and PER-1;
- Administration Building (AOC-11a) – Monitoring wells AD-1, AD-2, AD-2DD, AD-3, AD-3D, AD-4, AD-5, AD-5D, AD-6, AD-8, and AD-9D;
- Former Training Center (AOC-11b) – Monitoring Wells TC-1, TC-2, TC-3, and PER-6R;
- Smith Creek (AOC-12) – Monitoring Wells PER-2, PER-2D, PER-3, PER-3D, AB-4D, PER-5, PER-9, PER-9D, PER-9DD, PER-10, and PER-10D;
- TM Monitoring Wells TM-1, TM-2, TM-3, TM-4, LPG-1, LPG-2, and PER-4;
- Marine Terminal Loading Area (AOC-16b) – Monitoring Wells PER-7, PER-8, TL-1, and TL-2;
- Tankfield Remediation Management Unit – Monitoring Wells TF-1, TF-3, and SM-1;

- Southern Remediation Management Unit – Monitoring Wells PL-9R, PL-6R, PL-7, PL-8R, TM-7, TM-5, TM-6, and PL-3R.

Groundwater samples were collected via low-flow sampling methodology and analyzed for TCL VO+15, TCL SVOC+15, TAL Metals, and Ammonia. Low-flow sampling sheets are attached as **Appendix 1**. Samples were collected in laboratory supplied glassware and transferred to Accutest under strict chain of custody.

2.3.1 Annual Sampling Summary – AOC 3 – No. 1 Landfarm

Groundwater sampling was conducted at AOC 3 – No. 1 Landfarm on November 25, 2015. Analytical results from the sampling event identified the presence of several metals above their respective GWQS, including aluminum, arsenic, iron, manganese, and sodium. In addition, lead was detected in sample SP-1 at 109 ppb, which exceeds its GWQS of 5 ppb. Analytical results from the annual groundwater sampling event associated with the No. 1 Landfarm are provided on **Table 8**.

2.3.2 Annual Sampling Summary – AOC 10 – Truck Loading Rack

Groundwater sampling was conducted at AOC 10 – Truck Loading Rack on November 19, 2015. Analytical results from the sampling event identified the presence of benzene above its GWQS of 1 ppb in monitoring wells TR-2R, TR-3RR, TR-4R, TR-4D, TR-5R, and TR-6D, ranging in concentrations from 6.1 ppb (TR-4D) to 1,200 ppb (TR-5R). 1,1-dichloroethene was detected in samples TR-1R and TR-4DD at 2.1 ppb and 3.1 ppb respectively, which exceeds its GWQS of 1 ppb. Methyl tert butyl ether (MTBE) was identified in samples TR-2R, TR-3RR, TR-4D, TR-5R, and TR-6 at concentrations in excess of its GWQS ranging in concentrations from 1,370 ppb (TR-5R) to 9,120 ppb (TR-4D). Trichloroethene (TCE) was detected in sample TR-4DD at 3.2 ppb, which exceeds its GWQS of 1 ppb. In addition to the VOCs detected at this AOC, several SVOCs and metals were detected above their respective GWQS. Analytical results from the annual groundwater sampling event associated with the Truck Loading Rack are provided on **Table 9**.

2.3.3 Annual Sampling Summary – AOC 11a – Administration Building

Groundwater sampling was conducted at AOC 11a – Administration Building on November 17, 2015. Due to the amount of compounds that were identified in excess of their respective GWQS, the following list provides a brief summation of the analytical results:

- Benzene was detected in samples AD-2, AD-4, and AD-5D at 5.0 ppb, 3.8 ppb, and 17.4 ppb respectively, which exceeds its GWQS of 1 ppb;
- Chlorobenzene was detected in sample AD-4 at 248 ppb, which exceeds its GWQS of 50 ppb;
- 1,4-Dichlorobenzene was detected in samples AD-4 and AD-5D at 108 ppb and 132 ppb respectively, which exceeds its GWQS of 75 ppb;
- 1,2-Dichloroethane was detected in samples AD-2, AD-4, and AD-5 at 4.7 ppb, 3.1 ppb, and 50.7 ppb respectively, which exceeds its GWQS of 2 ppb;
- 1,1-Dichloroethene was detected in samples AD-2, AD-2DD, AD-3D, AD-5D, and AD-9D at 2,980 ppb, 8.9 ppb, 14 ppb, 11,300 ppb, and 8.6 ppb, respectively, which exceeds its GWQS of 1 ppb;
- Tetrachloroethene (PCE) was detected in samples AD-2, AD-4, AD-5, AD-5D, and AD-9D at 298 ppb, 1.3 ppb, 1,150 ppb, 184 ppb, and 437 ppb, which exceeds its GWQS of 1 ppb;
- Trichloroethene (TCE) was detected in samples AD-2, AD-3D, AD-5, AD-5D, and AD-9D at 75.2 ppb, 7.8 ppb, 527 ppb, 110 ppb, and 192 ppb, which exceeds its GWQS of 1 ppb.

Please note that 1,4-Dioxane was detected in several samples ranging in concentrations from 1.8 ppb in AD-9D to 8,870 ppb in AD-2. As of November 25, 2015, the interim groundwater quality criteria for 1,4-Dioxane is 0.4 ppb, which previously had an interim GWQS of 10 ppb.

In addition, several metals were identified above their respective GWQS, including aluminum, arsenic, cadmium, iron, manganese, and sodium. Analytical results from the annual groundwater sampling event associated with the Administration Building are provided on **Table 10**.

2.3.4 Annual Sampling Summary – AOC 11b – Former Training Center

Groundwater sampling was conducted at AOC 11b – Former Training Center on November 20, 2015. Analytical results identified no VOC or SVOC compounds in excess of the GWQS. Several metals were detected in the samples above their GWQS, including aluminum, arsenic, iron, manganese, and sodium. Analytical results from the annual groundwater sampling event associated with the Former Training Center are provided on **Table 11**.

2.3.5 Annual Sampling Summary – AOC 12 – Smith Creek

Groundwater sampling was conducted at AOC 12 – Smith Creek on November 20 and 23, 2015. Analytical results identified the presence of benzene in sample PER-10D at 2 ppb, which exceeds its GWQS of 1 ppb. Bromodichloromethane and 1,2-Dibromomethane were detected above the GWQS in samples PER-9DD at 1.5 ppb and 0.25 ppb, respectively. MTBE was identified in samples PER-2D and PER-3D at 693 ppb and 77 ppb, respectively, which exceeds its GWQS of 70 ppb. TBA was detected at 204 ppb in sample PER-2D, which is above its GWQS of 100 ppb.

Several metals were detected in the samples above their GWQS, including aluminum, arsenic, iron, manganese, and sodium. Ammonia was detected in three samples (PER-3D, AB-4D, and PER-10D) above the GWQS ranging in concentrations from 6,100 ppb to 18,700 ppb. The analytical results from the annual groundwater sampling event associated with the Smith Creek are provided on **Table 12**.

2.3.6 Annual Sampling Results – AOC 14a – First Tankfield

Groundwater sampling was conducted at AOC 14a – TM Monitoring Wells on November 24, 2015. Analytical results identified no concentrations of VOCs or SVOCs above the GWQS. However, several metals were detected in the samples above the GWQS, including aluminum, arsenic, beryllium, iron, manganese, nickel, and sodium. The analytical results from the annual groundwater sampling event associated with this group of TM Monitoring Wells (AOC 14a) are provided on **Table 13**.

2.3.7 Annual Sampling Results – AOC 14b – Rundown Tankfield

Groundwater sampling was conducted at AOC 14b – TM Monitoring Wells on November 20, 2015. Analytical results identified no concentrations of VOCs above the GWQS. Bis(2-ethylhexyl)phthalate was detected at 64.4 ppb in sample PER-4, which exceeds its GWQS of 3 ppb. Several metals were detected in the samples above the GWQS, including aluminum, arsenic, cadmium, iron, lead, manganese, and sodium. Ammonia was detected in sample PER-4 at a concentration of 4,200 ppb, which exceeds its GWQS of 3,000 ppb. The analytical results from the annual groundwater sampling event associated with this group of TM Monitoring Wells (AOC 14b) are provided on **Table 14**.

2.3.8 Annual Sampling Results – AOC 16b – Marine Terminal Loading Area

Groundwater sampling was conducted at AOC 16b – Marine Terminal Loading Area on November 25, 2015. Analytical results detected benzene at 75.3 ppb in sample TL-2, which exceeds its GWQS of 1 ppb. In addition, several SVOCs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected above their respective GWQS in sample PER-8. Several metals were detected in the samples above the GWQS, including aluminum, arsenic, iron, lead, manganese, and sodium. Ammonia was detected in sample TL-1 at 5,000 ppb, which exceeds its GWQS of 3,000 ppb. The analytical results from the annual groundwater sampling event associated with the Marine Terminal Loading Area are provided on **Table 15**.

2.3.9 Annual Sampling Results – TRMU – Tankfield Remediation Management Unit

Groundwater sampling was conducted at the Tankfield Remediation Management Unit (TRMU) on November 24, 2015. TBA was detected in samples TF-1 and SM-1 at concentrations of 152 ppb and 171 ppb respectively, which exceeds its GWQS of 100 ppb. Benzo(a)anthracene was detected at 0.218 ppb in sample TF-1, which is above its GWQS of 0.1 ppb. Several metals were detected in the samples above the GWQS, including aluminum, arsenic, iron, manganese, and sodium. Ammonia was detected in samples TF-3 and SM-1 at 4,000 ppb and 10,800 ppb, which exceeds its GWQS of 3,000 ppb. The analytical results from the annual groundwater sampling event associated with the TRMU is are provided on **Table 16**.

2.3.10 Annual Sampling Results – SRMU – Southern Remediation Management Unit

Sampling was conducted at the Southern Remediation Management Unit (SRMU) on November 18 and 24, 2015. Analytical results detected benzene in samples TM-7, TM-6, and PL-3R at 1.2 ppb, 123 ppb, and 11 ppb respectively, which exceeds the GWQS of 1 ppb. MTBE was detected in sample TM-7 at a concentration of 76 ppb, which exceeds its GWQS of 70 ppb. TBA was detected in samples TM-7 and PL-3R at 471 ppb and 203 ppb, respectively, which exceeds its GWQS of 100 ppb.

1,4-Dioxane was detected in sample PL-3R at 2.5 ppb, which exceeds the November 25, 2015 Interim Groundwater Criteria of 0.4 ppb. Bis(2-ethylhexyl)phthalate was detected in sample PL-6R at 7.8, which is above its GWQS of 3 ppb. Several metals were detected in the samples above the GWQS, including aluminum, arsenic, iron, manganese, and sodium. Ammonia was also identified at concentrations of 4,800 ppb in sample PL-6R and 12,700 ppb in sample PL-3R, which is above its GWQS of 3,000 ppb. The analytical results from the annual groundwater sampling event associated with the TRMU are provided on **Table 17**.

3.0 Areas of Concern and Solid Waste Management Units Update

As discussed previously, a PAR and SIR were submitted to the NJDEP and USEPA on October 9, 2015 and November 7, 2015, respectively. The reports included a detailed description of both historically identified AOCs as well as newly identified AOCs. The SIR described the soil and groundwater investigation activities conducted for the following AOCs:

- Historic AOC-14a – First Tankfield;
- Historic AOC-15b – Former UST Area (USTs 0008 and 0009);
- Historic AOC-15c – Former UST Area (UST 0004);
- Historic AOC-16b – Marine Terminal Loading Rack Area;
- AOC-20a – T1600-A and T1600-B Transformers;
- AOC-20b – T510-A and T510-B Transformers;
- AOC-20c – T2606-A and T2606-B Transformers;
- AOC-21 – X-1933 (Adsorber Feed Sump);
- AOC-22 – X-1908 (Clarifier Lift Sump);
- AOC-23 – X-1904 (Storm Water Transfer Pump), S-1922 (Storm Water Corrugated Plate Separator), and X-1903 (Storm Water Diversion Manhole);
- AOC-24 – Sluice Pit;
- AOC-25 – X-1950A and X-1950B (Alkylation Neutralization Basin);
- AOC-26 – D-1104 (MEA Sump);
- AOC-27 – EADC Disposal Pit;
- AOC-28 – Cooling Water Tower;
- AOC-30 – Sulfur Pit;
- AOC-32 – X-1951 (SRU Neutralization Basin);
- AOC-33 – Truck Rack Sump 2;

- AOC-34 - X-1930 (Surge Pumping Station), X-1932 (API Splitter Box), X-1922A and X-1922B (API Separator), X-1926 (Stormwater Lagoon Sump), X-1924 (API Separator Oil Sump), S-1921A and S-1921B (Process Water Corrugated Plate Separator), X-1925 (API Separator Sump), API Truck Loading Area;
- AOC-35 – No. 1 Landfarm Discharge Sumps;
- AOC-38 – Former Ammonia Truck Loading Rack;
- AOC-40 – Fresh Acid Unloading Area;
- AOC-43 – Truck Unloading (Prover Truck) Area 1;
- AOC-44 – Truck Unloading (Prover Truck) Area 2;
- AOC-45 – Former Sulfur Recovery Unit Truck Loading Rack;
- AOC-46 – Slop Gasoline Unloading Area;
- AOC-47 – Bleach Truck Unloading Area;
- AOC-48 – Former Equipment Fuel AST;
- AOC-49 – Electrician Shop Diesel/No. 2 Fuel Oil ASTs;
- AOC-50 – Refinery Warehouse Diesel/No. 2 Fuel Oil ASTs;
- AOC-52 – TK-7925;
- AOC-53 – Second Tankfield;
- AOC-55 – Fourth Tankfield;
- AOC-56 – Second Reserve Tankfield;
- AOC-57 – Day Tankfield;
- AOC-58 – Former Chemical Storage Area;
- AOC-59 – API Storage Area;
- AOC-60 – Avenue D Tankfield;
- AOC-62 – Inactive Railroad Spur (between Canning Plant and QC Lab);
- AOC-63 – Former Rail Lines (Vacant Land North);
- AOC-64 – Inactive Railroad Spur (Administration Building);
- AOC-73 – TEL Building (North);
- AOC-74 – TEL Building (South);
- AOC-75 – Former Canning Plant AST;
- AOC-77 – Former Petroleum Solvents AST;
- AOC-80 – Former Crude Topping Unit;
- AOC-82 – Former Incinerator Building;
- AOC-84 – Former Tank North of Administration Building;
- AOC-85 – Marine Vapor Recovery Unit (VRU) – TK-4701 and TK-4801;
- AOC-86 – Truck Rack Vapor Recovery Unit (VRU);
- AOC-87 – Flare Knock Out Drum;
- AOC-88 – Compressor Building;
- AOC-89 – Cracking Tower;
- AOC-90 – Drum Compound (QC Lot);
- AOC-92 – TK-701A and TK-701B;
- AOC-96 – Boiler Area;
- AOC-99 – Chemical Storage Adjacent to Cooling Water Tower;
- AOC-100 – Laydown Yard;
- AOC-102 – Vacant Land (South);
- AOC-103 – Fire Pits/Fire Areas;
- AOC-107 – Drum Storage Compound;
- AOC-116 – Diesel Powered Emergency Generator – South Dock; and
- AOC-117 – Diesel Powered Emergency Generator – Millright's Shop

In addition to the above mentioned AOCs, sampling was conducted at the three (3) Landfarms, in accordance with the Quarterly Groundwater Monitoring protocol.

3.1 AOC 1 – North Landfarm (SWMU)

No further action is anticipated at the North Landfarm outside of routine groundwater monitoring, pending approval of the proposed Closure Plan. A Remedial Action Workplan (RAW) will be submitted to the USEPA and NJDEP for the North Landfarm in the 1st quarter of 2016.

3.2 AOC 2 – South Landfarm (SWMU)

No further action is anticipated at the South Landfarm outside of routine groundwater monitoring, pending approval of the proposed Closure Plan. A RAW will be submitted to the USEPA and NJDEP for the South Landfarm in the 1st quarter of 2016.

3.3 AOC 3 – No. 1 Landfarm (SWMU)

A RAW will be submitted to the USEPA and NJDEP in the 1st quarter of 2016.

4.0 Schedule

A RIW discussing proposed remedial investigation activities for the Site will be submitted to the NJDEP and USEPA in the 1st quarter of 2016. Further investigation is proposed for the following AOCs identified during the ISRA investigation:

- Historic AOC-14a – First Tankfield;
- Historic AOC-15b – Former UST Area (USTs 0008 and 0009);
- Historic AOC-15c – Former UST Area (UST 0004);
- Historic AOC-16b – Marine Terminal Loading Rack Area;
- AOC-21 – X-1933 (Adsorber Feed Sump);
- AOC-22 – X-1908 (Clarifier Lift Sump);
- AOC-23 – X-1904 (Storm Water Transfer Pump), S-1922 (Storm Water Corrugated Plate Separator), and X-1903 (Storm Water Diversion Manhole);
- AOC-24 – Sluice Pit;
- AOC-25 – X-1950A and X-1950B (Alkylation Neutralization Basin);
- AOC-26 – D-1104 (MEA Sump);
- AOC-27 – EADC Disposal Pit;
- AOC-28 – Cooling Water Tower;
- AOC-30 – Sulfur Pit;
- AOC-33 – Truck Rack Sump 2;
- AOC-34 - X-1930 (Surge Pumping Station), X-1932 (API Splitter Box), X-1922A and X-1922B (API Separator), X-1926 (Stormwater Lagoon Sump), X-1924 (API Separator Oil Sump), S-1921A and S-1921B (Process Water Corrugated Plate Separator), X-1925 (API Separator Sump), API Truck Loading Area;
- AOC-35 – No. 1 Landfarm Discharge Sumps;
- AOC-38 – Former Ammonia Truck Loading Rack;
- AOC-40 – Fresh Acid Unloading Area;
- AOC-43 – Truck Unloading (Prover Truck) Area 1;
- AOC-44 – Truck Unloading (Prover Truck) Area 2;
- AOC-45 – Former Sulfur Recovery Unit Truck Loading Rack;
- AOC-46 – Slop Gasoline Unloading Area;

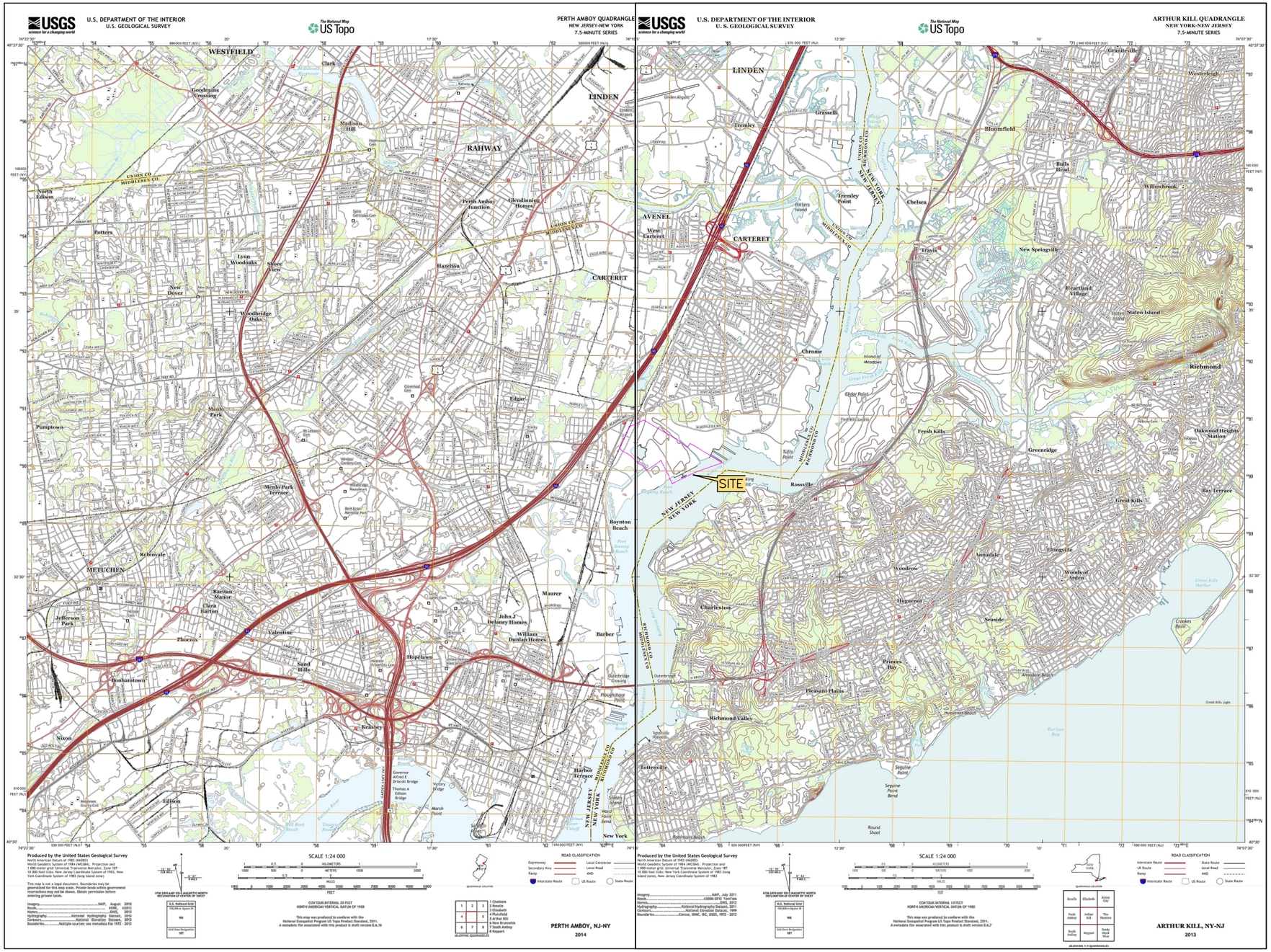
- AOC-47 – Bleach Truck Unloading Area;
- AOC-49 – Electrician Shop Diesel/No. 2 Fuel Oil ASTs;
- AOC-53 – Second Tankfield;
- AOC-55 – Fourth Tankfield;
- AOC-56 – Second Reserve Tankfield;
- AOC-57 – Day Tankfield;
- AOC-62 – Inactive Railroad Spur (between Canning Plant and QC Lab);
- AOC-63 – Former Rail Lines (Vacant Land North);
- AOC-64 – Inactive Railroad Spur (Administration Building);
- AOC-77 – Former Petroleum Solvents AST;
- AOC-80 – Former Crude Topping Unit;
- AOC-82 – Former Incinerator Building;
- AOC-84 – Former Tank North of Administration Building;
- AOC-85 – Marine Vapor Recovery Unit (VRU) – TK-4701 and TK-4801;
- AOC-86 – Truck Rack Vapor Recovery Unit (VRU);
- AOC-87 – Flare Knock Out Drum;
- AOC-88 – Compressor Building;
- AOC-89 – Cracking Tower;
- AOC-90 – Drum Compound (QC Lot);
- AOC-92 – TK-701A and TK-701B;
- AOC-96 – Boiler Area;
- AOC-99 – Chemical Storage Adjacent to Cooling Water Tower;
- AOC-100 – Laydown Yard;
- AOC-102 – Vacant Land (South);
- AOC-103 – Fire Pits/Fire Areas;
- AOC-107 – Drum Storage Compound;

In addition, during the 1st Quarter of 2016, RIWs will be submitted to the NJDEP and USEPA for the following priority Areas of Concern:

- AOC 10 – Truck Loading Rack
- AOC 11a – Administration Building
- AOC 12 – Smith Creek and Detention Basin
- AOC 19 – QC Laboratory

The next groundwater gauging event is scheduled for January 2016 and the next quarterly groundwater sampling event is scheduled for February 2016.

Figures



N

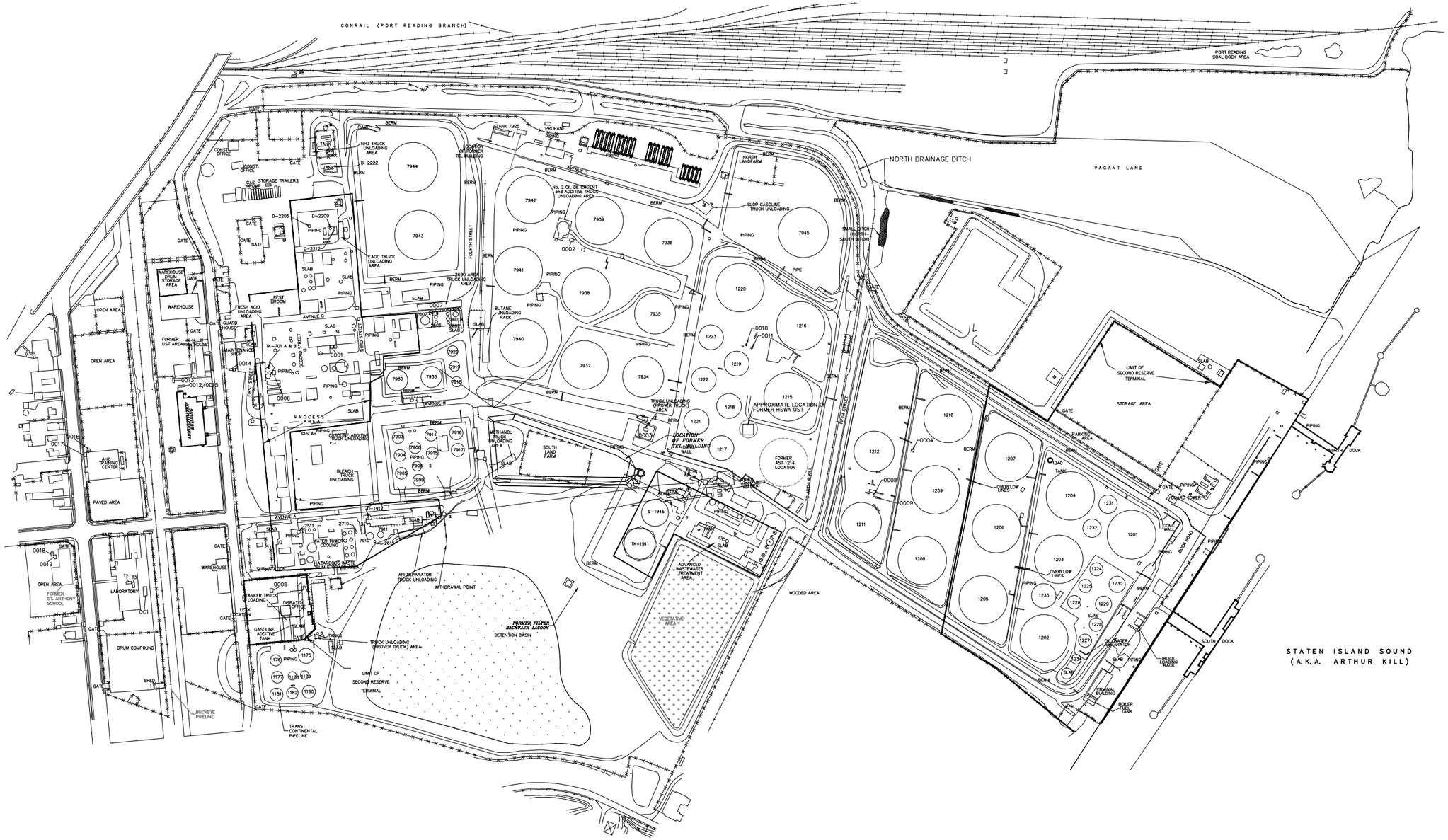
USGS MAP

Hess Corporation Former Port Reading Complex (HC–PR)
750 Cliff Road
Port Reading, New Jersey

Earth Systems

Figure 1

09/15 FIG1



0 200 400

(SCALE IN FEET)

SITE PLAN

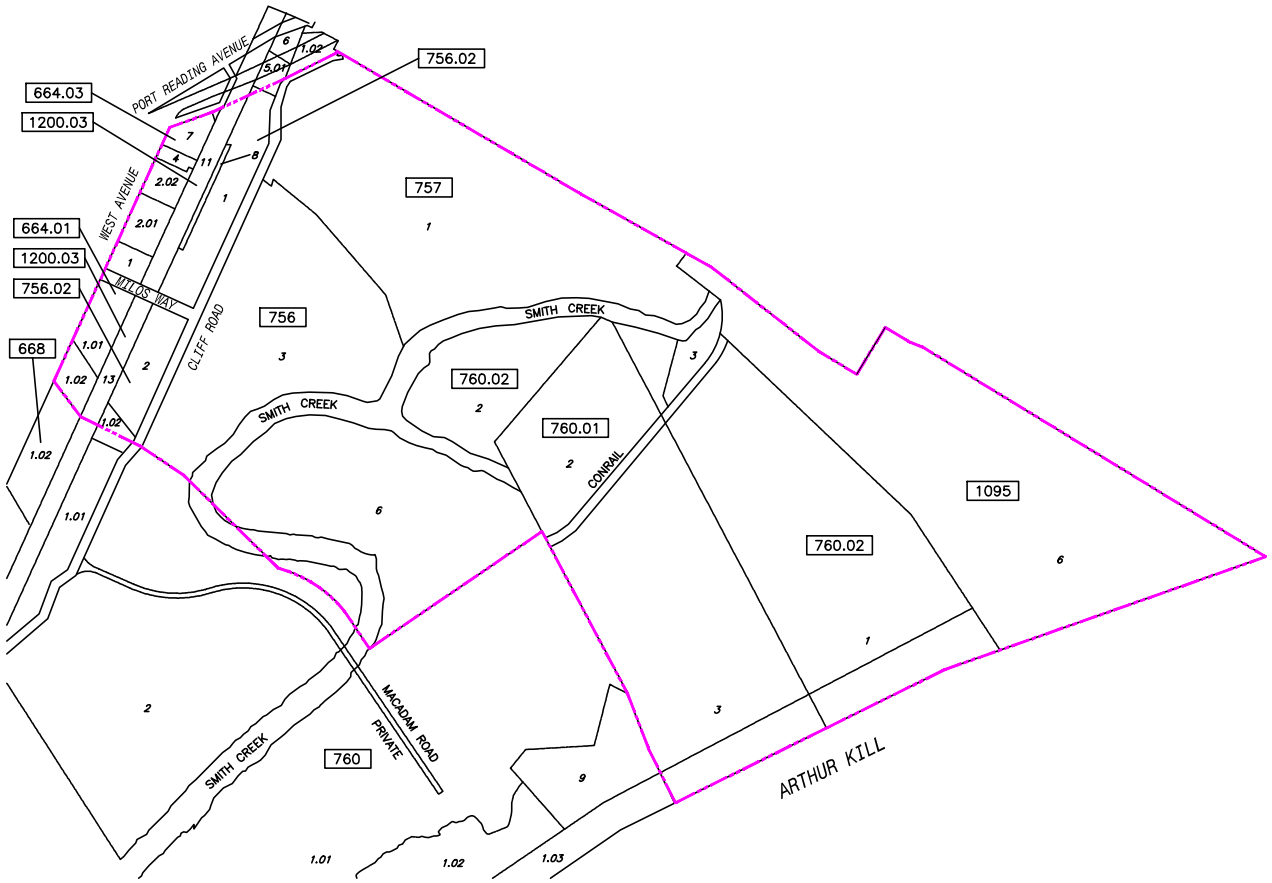
Hess Corporation Former Port Reading Complex (HC–PR)
750 Cliff Road
Port Reading, New Jersey

Earth Systems

Figure 2

09/15 FIG2

Figure 3 - Tax Map



LEGEND

PROPERTY BOUNDARY

6 LOT NUMBER

1095 BLOCK NUMBER

N
W E
S

0 1,000 2,000 FEET

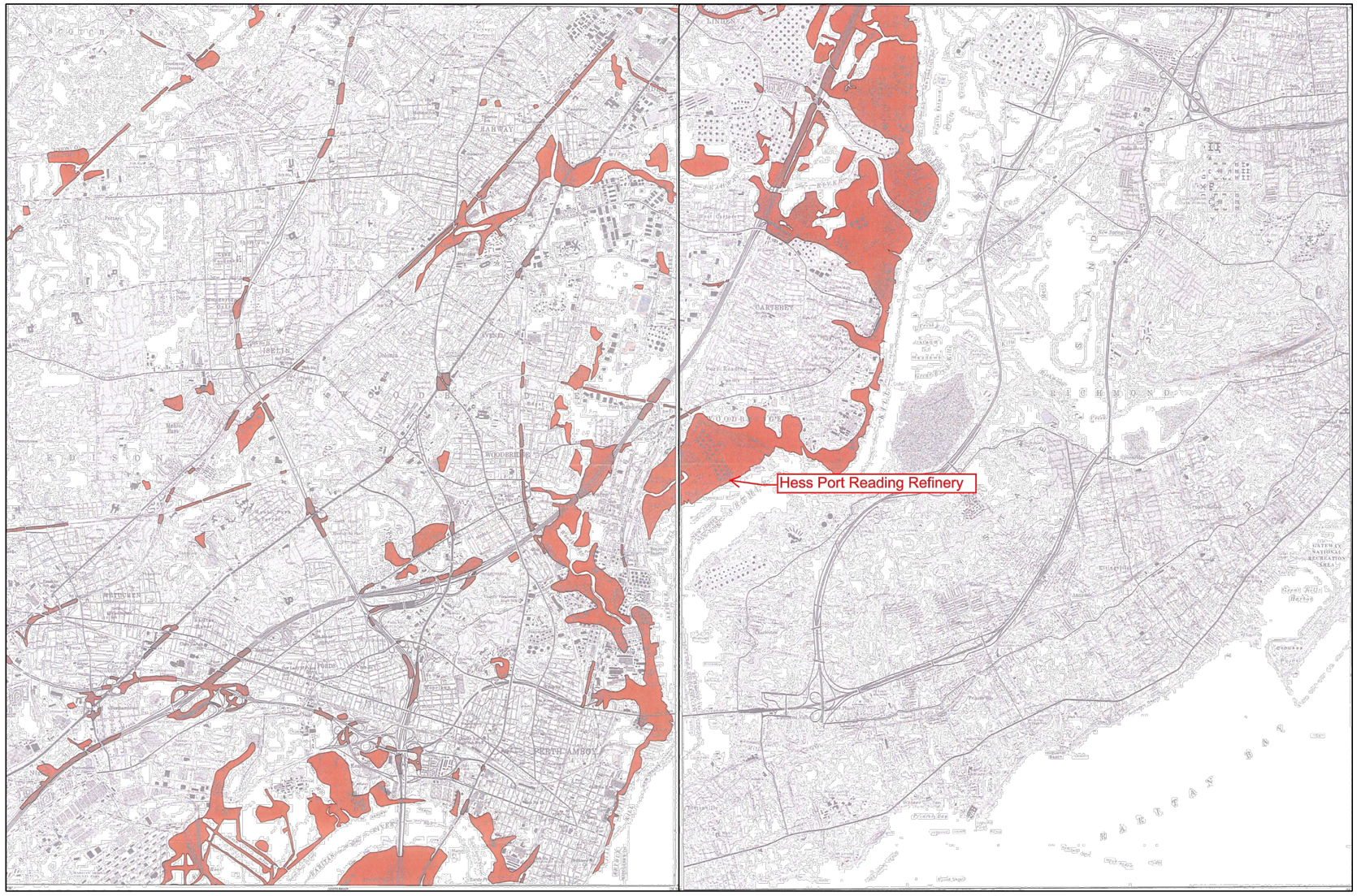
1 inch = 1,000 feet

Date: 9/24/2015

Project:

Hess Corporation
Former Port Reading Complex
(HC-PR)
750 Cliff Road
Port Reading, New Jersey

Earth Systems



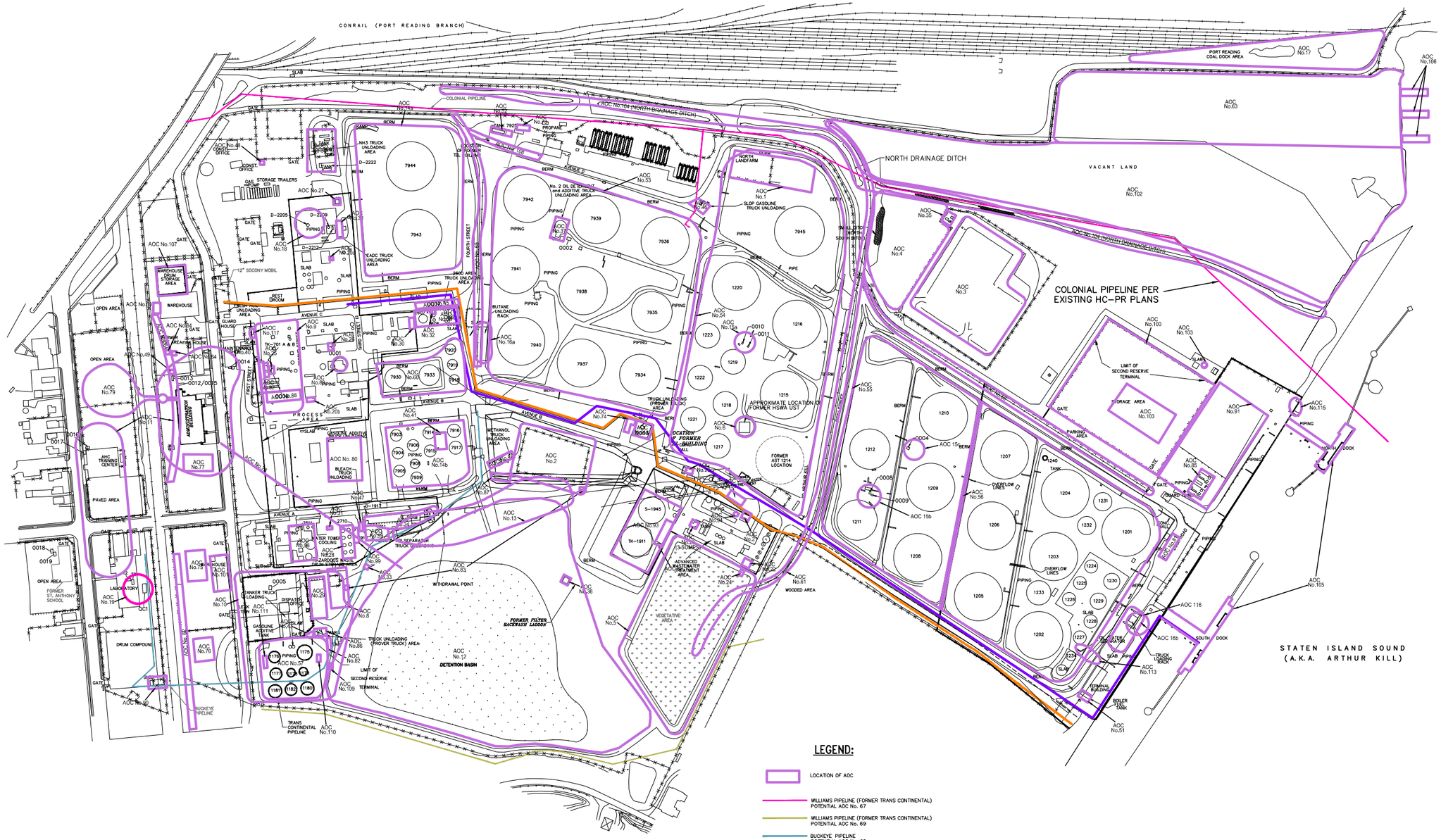
HISTORIC FILL MAP

Hess Corporation Former Port Reading Complex (HC–PR)
750 Cliff Road
Port Reading, New Jersey

Earth Systems

Figure 4

09/15 FIG4


CONRAIL (PORT READING BRANCH)
PORT READING COAL DOCK AREA
AOC No.17
AOC No.106
AOC No.63
VACANT LAND
AOC No.102
NORTH DRAINAGE DITCH
AOC No.104 (NORTH DRAINAGE DITCH)
COLONIAL PIPELINE
COLONIAL PIPELINE PER EXISTING HC-PR PLANS
STATEN ISLAND SOUND (A.K.A. ARTHUR KILL)
LIMIT OF SECOND RESERVE TERMINAL
STORAGE AREA
AOC No.103
AOC No.100
AOC No.91
AOC No.115
NORTH DOCK
SOUTH DOCK
AOC No.105
AOC 116
AOC 16b
AOC No.113
AOC No.51
TERMINAL BUILDING
BOILER FUEL TANK
PARKING AREA
OVERFLOW LINES
AOC No.56
AOC No.55
AOC No.85
AOC No.35
AOC No.4
AOC No.3
AOC No.1
SLOP GASOLINE TRUCK UNLOADING
NORTH LANDFARM
AOC No.33
AOC No.40
AOC No.53
No. 2 OIL DETERGENT and ADDITIVE TRUCK UNLOADING AREA
AOC No.37
AOC No.54
AOC No.16a
AOC No.74
AOC No.9
APPROXIMATE LOCATION OF FORMER HSWA UST
FORMER AST 1214 LOCATION
TRUCK UNLOADING (FROVER AREA)
AOC No.2
METHANOL TRUCK UNLOADING AREA
AOC No.87
AOC No.13
AOC No.36
AOC No.5
AOC No.12
DETENTION BASIN
VEGETATIVE AREA
FORMER FILTER BACKWASH LAGOON
WOODED AREA
AOC No.81
AOC No.24
ADVANCED WASTEWATER TREATMENT AREA
AOC No.93
TK-1911
S-1945
AOC No.83
WITHDRAWAL POINT
AOC No.14b
AOC No.41
AOC No.60
AOC No.32
AOC No.30
AOC No.20b
AOC No.88
AOC No.80
BLEACH TRUCK UNLOADING
GASOLINE ADDITIVE
AOC No.47
AOC No.99
AOC No.33
AOC No.28
AOC No.29
AOC No.8
TRUCK UNLOADING (FROVER TRUCK) AREA
AOC No.86
AOC No.82
AOC No.109
LIMIT OF SECOND RESERVE TERMINAL
AOC No.110
TRANS CONTINENTAL PIPELINE
BUCKEYE PIPELINE
AOC No.30
AOC No.76
DRUM COMPOUND
LABORATORY
AOC No.11
AOC No.15
AOC No.10
AOC No.79
OPEN AREA
PAVED AREA
AHC TRAINING CENTER
AOC No.77
FORMER ST. ANTHONY SCHOOL
WAREHOUSE DRUM STORAGE AREA
WAREHOUSE
AOC No.52
AOC No.49
AOC No.84
GUARD HOUSE
AOC No.40
AOC No.27
GAS STORAGE TRAILERS
AOC No.48
AOC No.107
12" SOCONY MOBIL
NH3 TRUCK UNLOADING AREA
D-2222
D-2205
D-2209
D-2212
AOC No.18
AOC No.39
EADC TRUCK UNLOADING AREA
AOC No.7a
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AOC No.7nn
AOC No.7no
AOC No.7np
AOC No.7nq
AOC No.7nr
AOC No.7ns
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AOC No.7nu
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AOC No.7br
AOC No.7bs
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AOC No.7kh
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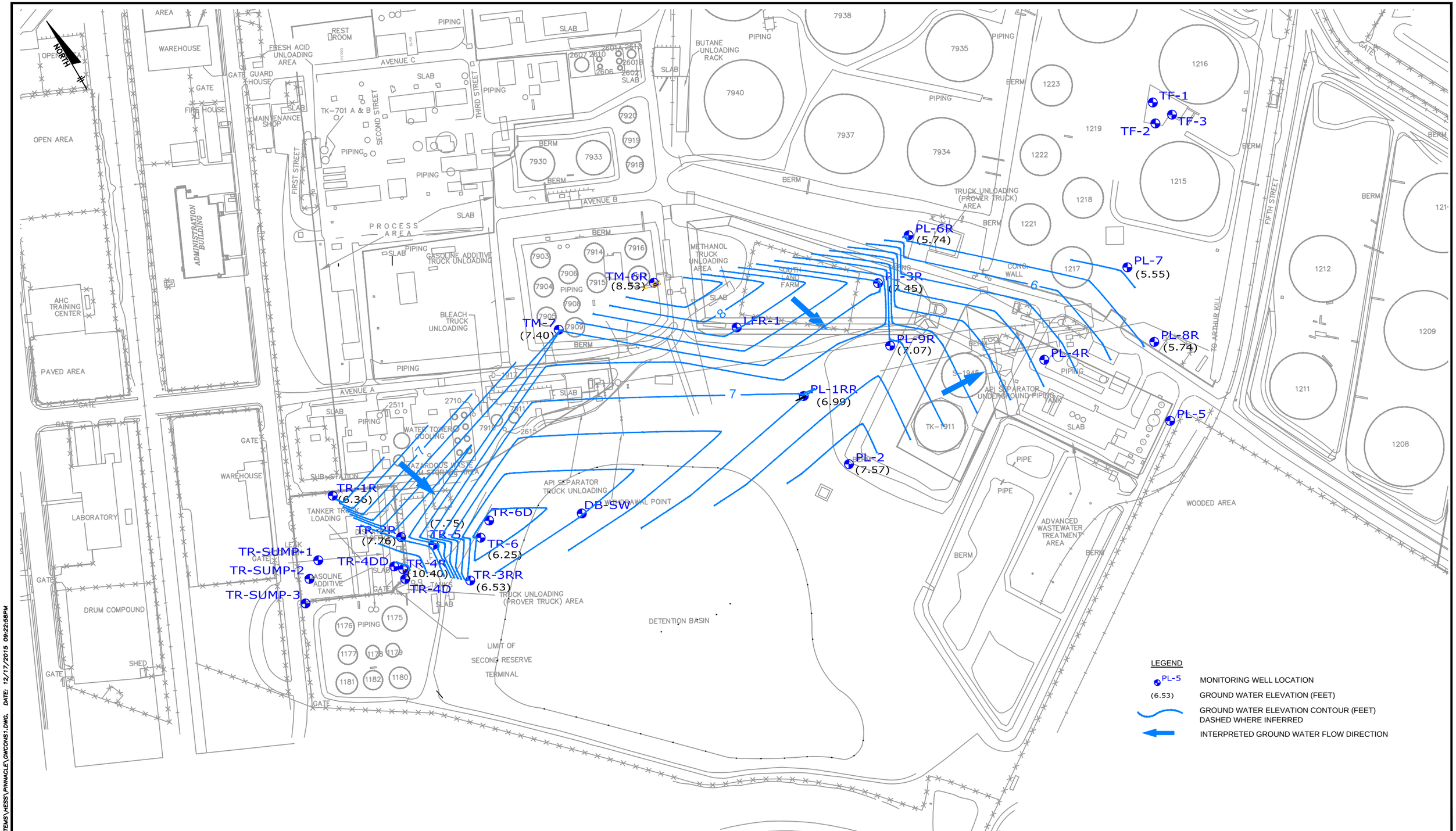
AOC No.7



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Earth Systems
Environmental Consulting

SCALE:
0 200
SCALE: 1"=20'

DATE:	12/2/15
DRAWN BY:	AG
CHECKED BY:	JC
FILENAME:	GWCONS1
LAYOUT:	GWCON_715

PROJECT:

HESS CORPORATION

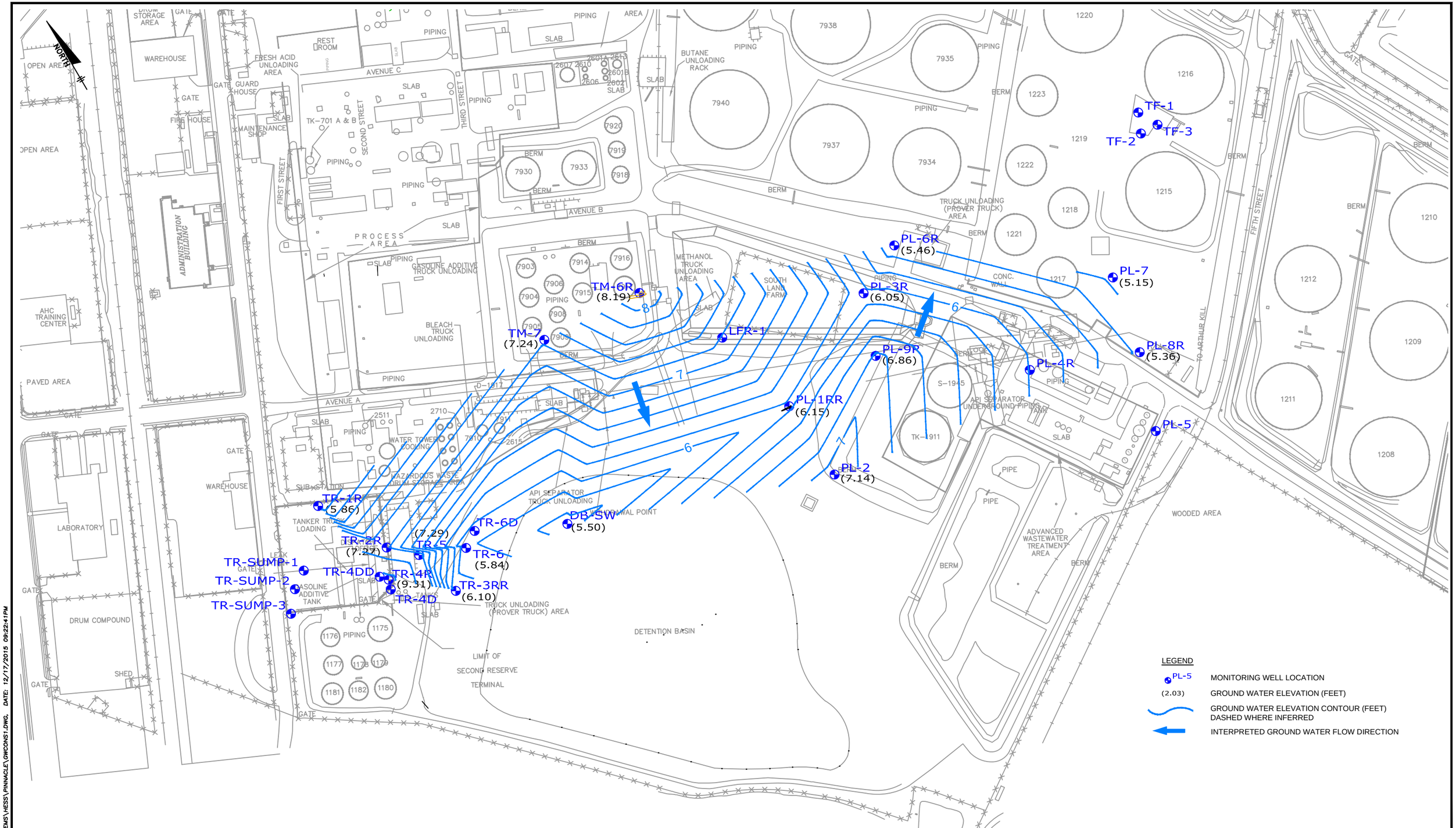
FORMER PORT READING COMPLEX (HC-PR)
750 CLIFF ROAD
PORT READING, NEW JERSEY

TITLE:

GROUNDWATER CONTOUR MAP (JULY 2015)

FIGURE NO.

6



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Earth Systems
Environmental Consulting

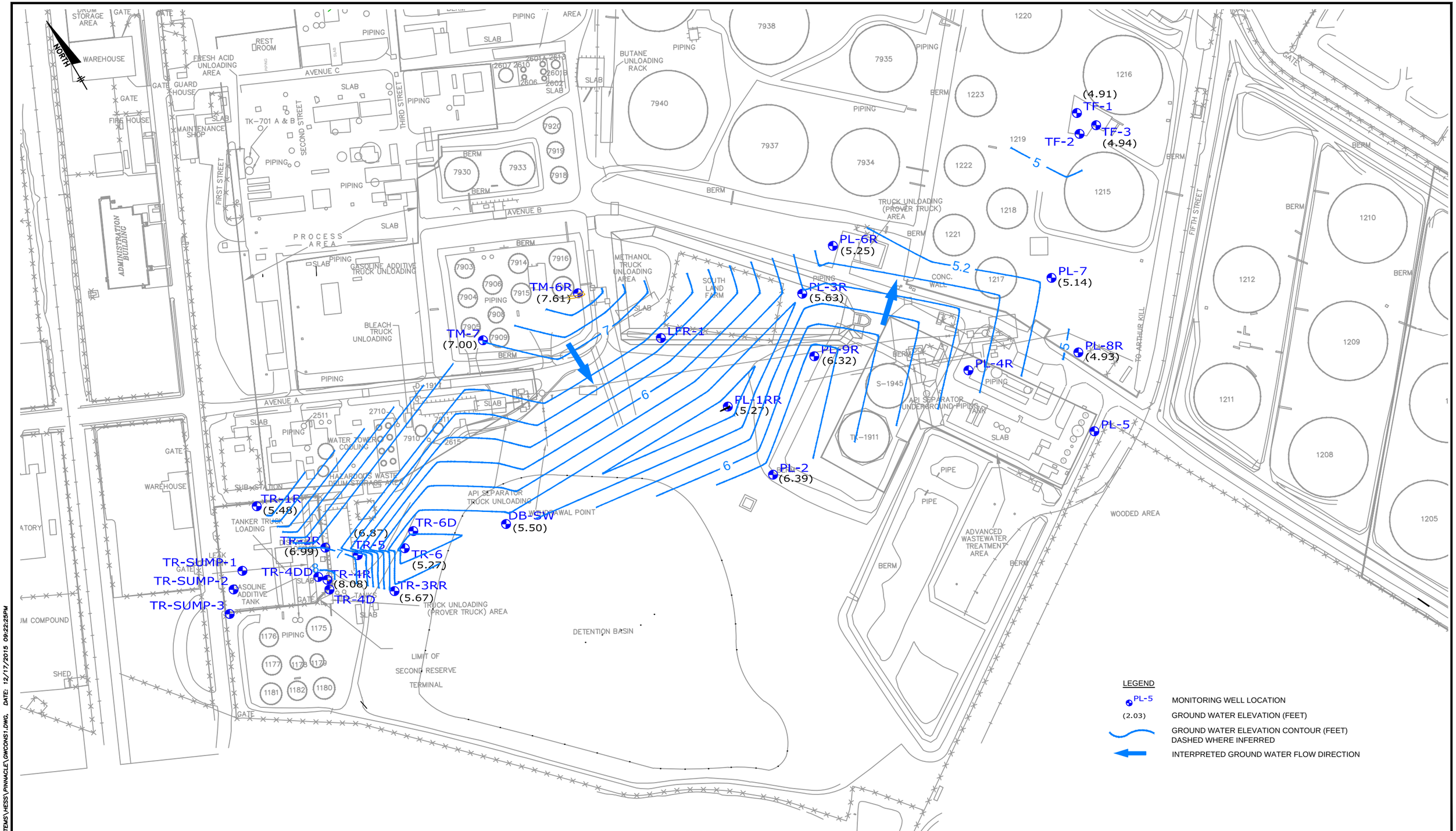
SCALE: 0 200 SCALE: 1"=200'

DATE: 12/2/15
DRAWN BY: AG
CHECKED BY: JC
FILENAME: GWCONS1
LAYOUT: GWCON_815

PROJECT:
HESS CORPORATION
FORMER PORT READING COMPLEX (HC-PR)
750 CLIFF ROAD
PORT READING, NEW JERSEY

TITLE:
GROUNDWATER CONTOUR MAP (AUGUST 2015)

FIGURE NO.
7



Earth Systems
Environmental Consulting

SCALE:
0 200
SCALE: 1"=200'

DATE:	12/2/15
DRAWN BY:	AG
CHECKED BY:	JC
FILENAME:	GWCONS1
LAYOUT:	GWCON_915

PROJECT:

HESS CORPORATION

FORMER PORT READING COMPLEX (HC-PR)
750 CLIFF ROAD
PORT READING, NEW JERSEY

TITLE:

GROUNDWATER CONTOUR MAP (SEPTEMBER 2015)

FIGURE NO.

8

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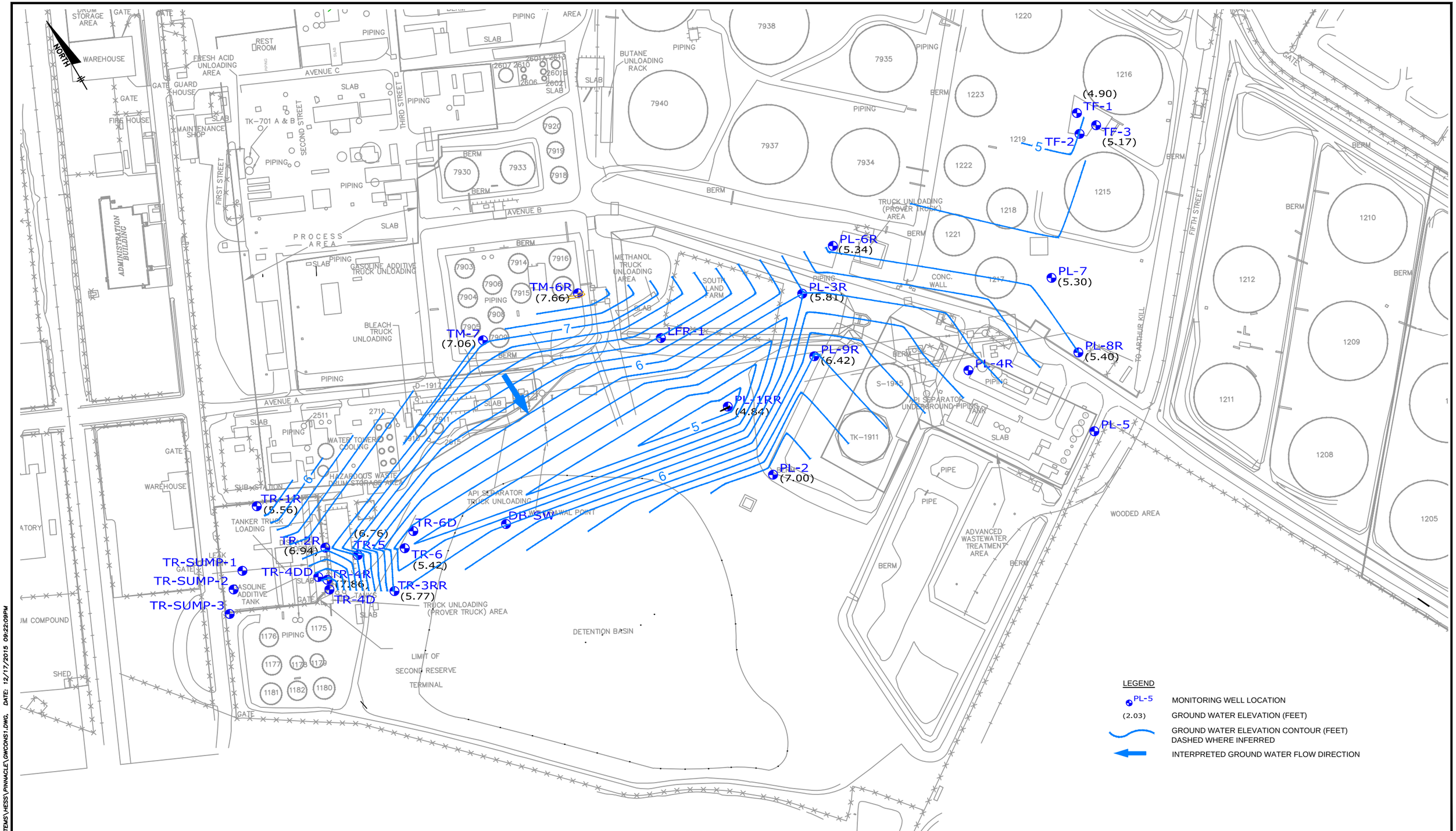


FILE: F:\CLIENTS\E\EARTHSYSTEMS\HESS\PINNACLE\GWCONS1.DWG, DATE: 12/17/2015 09:22:09PM

Earth Systems
Environmental Consulting

SCALE:
0 200
SCALE: 1"=200'

DATE:	12/2/15
DRAWN BY:	AG
CHECKED BY:	JC
FILENAME:	GWCONS1
LAYOUT:	GWCON_1015

PROJECT:

HESS CORPORATION

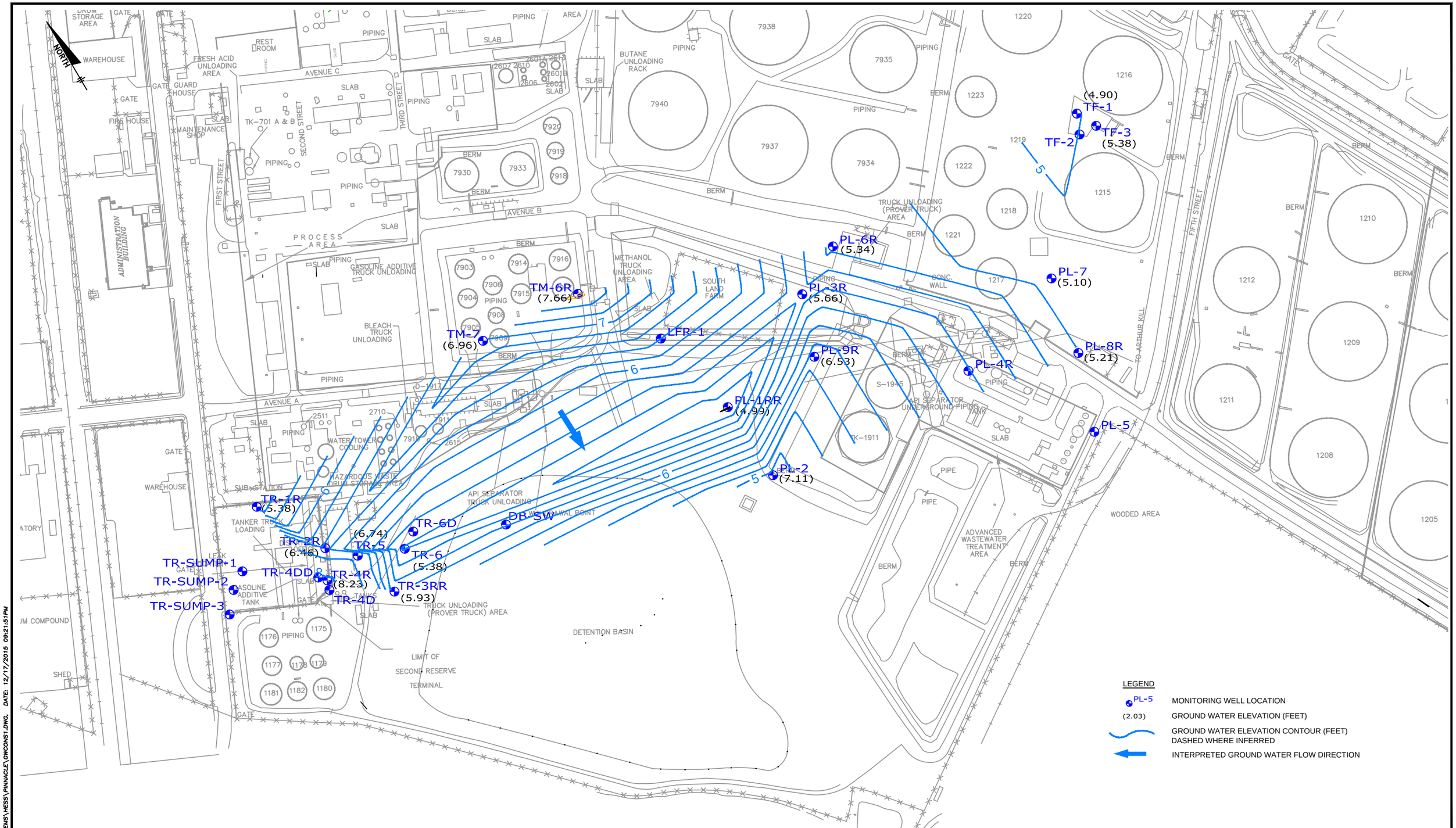
FORMER PORT READING COMPLEX (HC-PR)
750 CLIFF ROAD
PORT READING, NEW JERSEY

TITLE:

GROUNDWATER CONTOUR MAP (OCTOBER 2015)

FIGURE NO.

9



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Earth Systems
Environmental Consulting

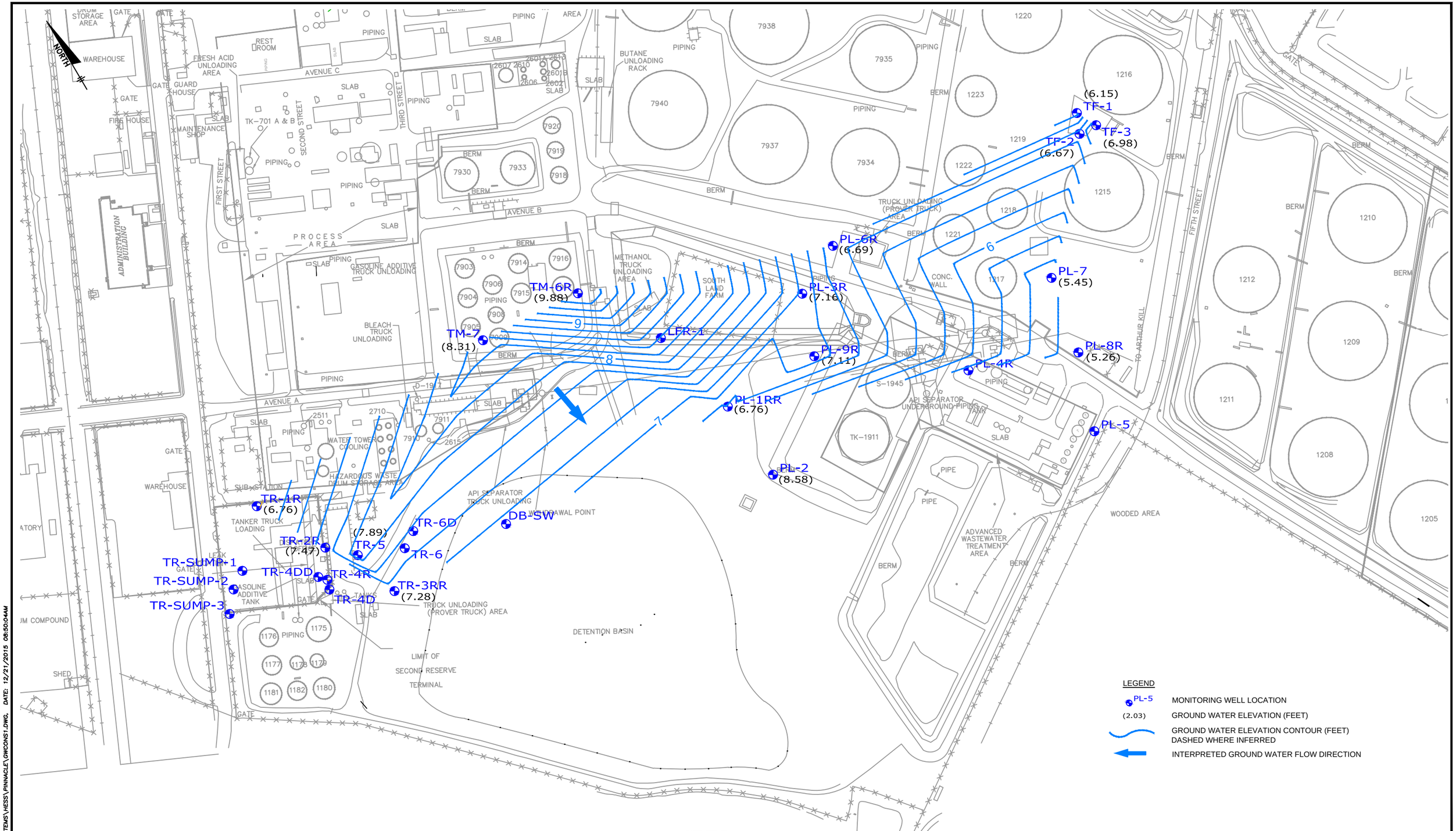
SCALE:
0 200
SCALE: 1"=200'

DATE: 12/2/15
DRAWN BY: AG
CHECKED BY: JC
FILENAME: GWCONS1
LAYOUT: GWCON_1115

PROJECT:
HESS CORPORATION
FORMER PORT READING COMPLEX (HC-PR)
750 CLIFF ROAD
PORT READING, NEW JERSEY

TITLE:
GROUNDWATER CONTOUR MAP (NOVEMBER 2015)

FIGURE NO.
10



Earth Systems

SCALE:

0 200

SCALE: 1"=200'

DATE:	12/2/15
DRAWN BY:	AG
CHECKED BY:	JC
FILENAME:	GWCONS1
LAYOUT:	GWCON_1215

PROJECT:

HESS CORPORATION

FORMER PORT READING COMPLEX (HC-PR)
750 CLIFF ROAD
PORT READING, NEW JERSEY

TITLE:

DECEMBER 2015 GROUNDWATER CONTOUR MAP

FIGURE NO.

11

FILE: D:\CLIENTS\E\EARTHSYSTEMS\HESS\PINNACLE\GWCONS1.DWG, DATE: 12/21/2015 08:50:04AM

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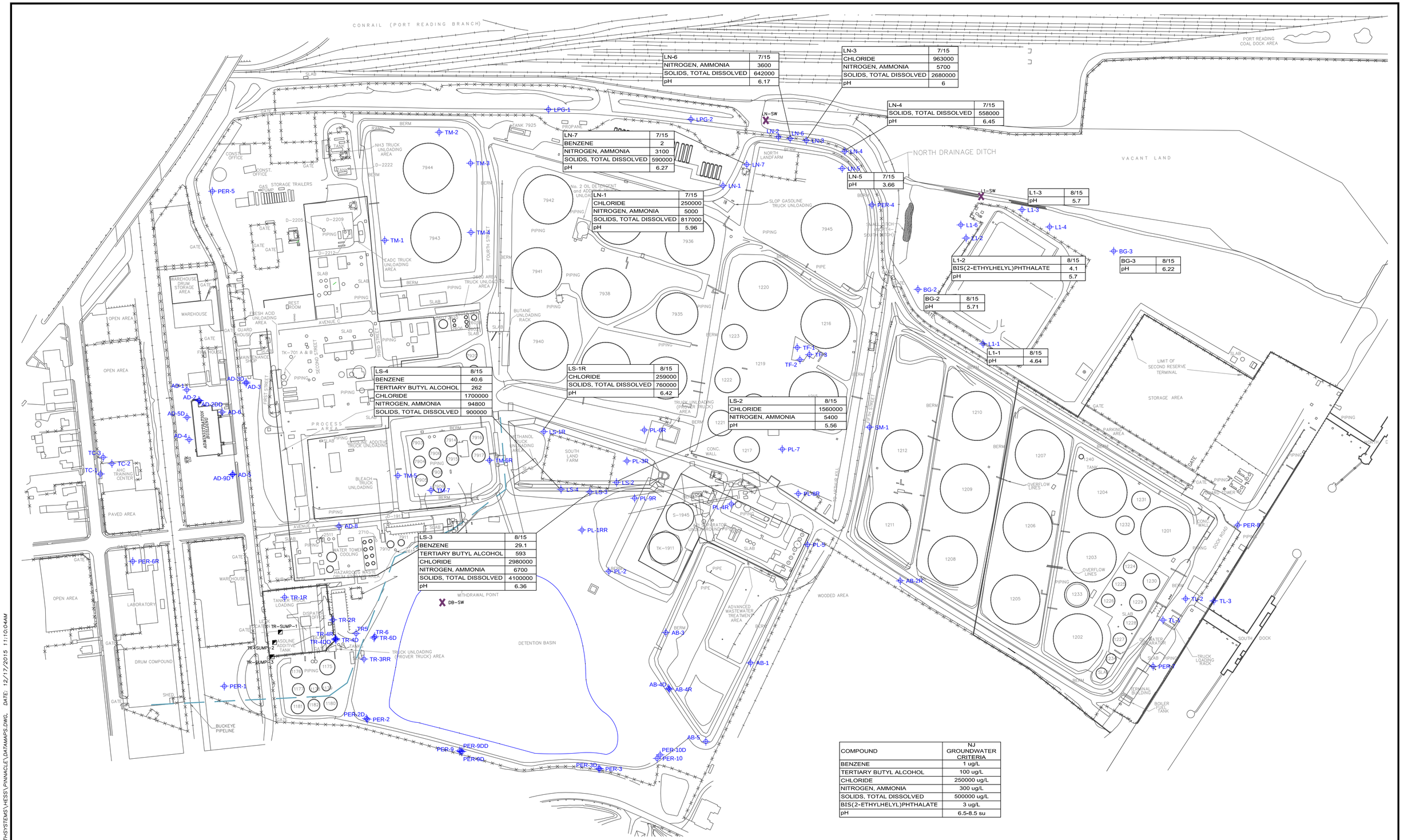

COMPOUND	NJ GROUNDWATER CRITERIA
BENZENE	1 ug/L
TERTIARY BUTYL ALCOHOL	100 ug/L
CHLORIDE	250000 ug/L
NITROGEN, AMMONIA	300 ug/L
SOLIDS, TOTAL DISSOLVED	500000 ug/L
BIS(2-ETHYLHELYL)PHTHALATE	3 ug/L
pH	6.5-8.5 su

Earth Systems

SCALE: 0 150 SCALE: 1"=150'

DATE: 12/16/15
DRAWN BY: AG
CHECKED BY: MF
FILENAME: DATAMAPS
LAYOUT: 1

PROJECT:
HESS CORPORATION
FORMER PORT READING COMPLEX (HC-PR)
750 CLIFF ROAD
PORT READING, NEW JERSEY

TITLE:
THIRD QUARTER GROUNDWATER SAMPLING RESULTS

FIGURE NO. 12

FILE: D:\CLIENTS\E\EARTHSYSTEMS\HESS\PINNACLE\DATAMAPS.DWG, DATE: 12/17/2015 11:10:04AM

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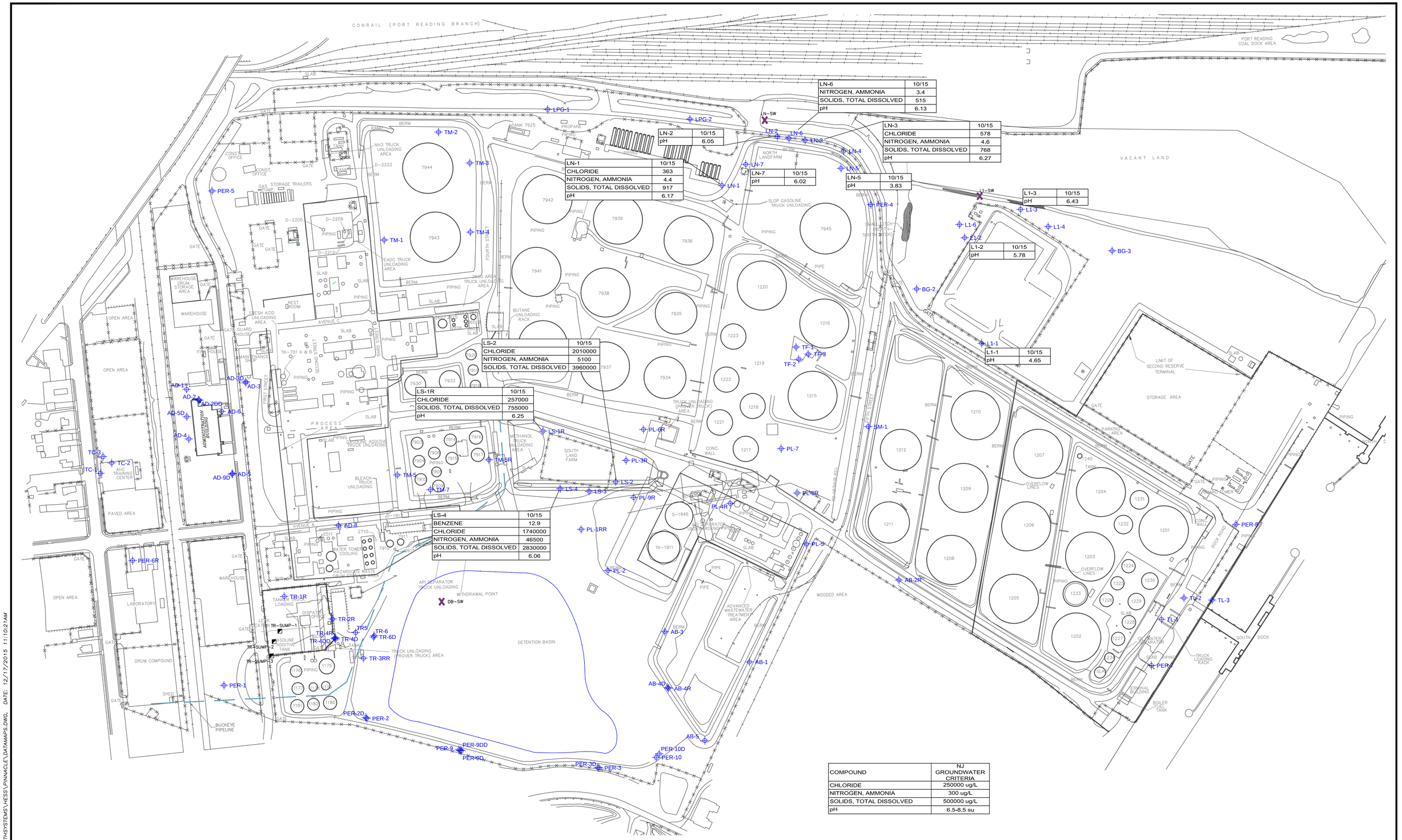


COMPOUND	NJ GROUNDWATER CRITERIA
CHLORIDE	250000 ug/L
NITROGEN, AMMONIA	300 ug/L
SOLIDS, TOTAL DISSOLVED	500000 ug/L
pH	6.5-8.5 su

Earth Systems

SCALE: 0 150 SCALE: 1"=150'

DATE: 12/16/15
DRAWN BY: AG
CHECKED BY: MF
FILENAME: DATAMAPS
LAYOUT: 2

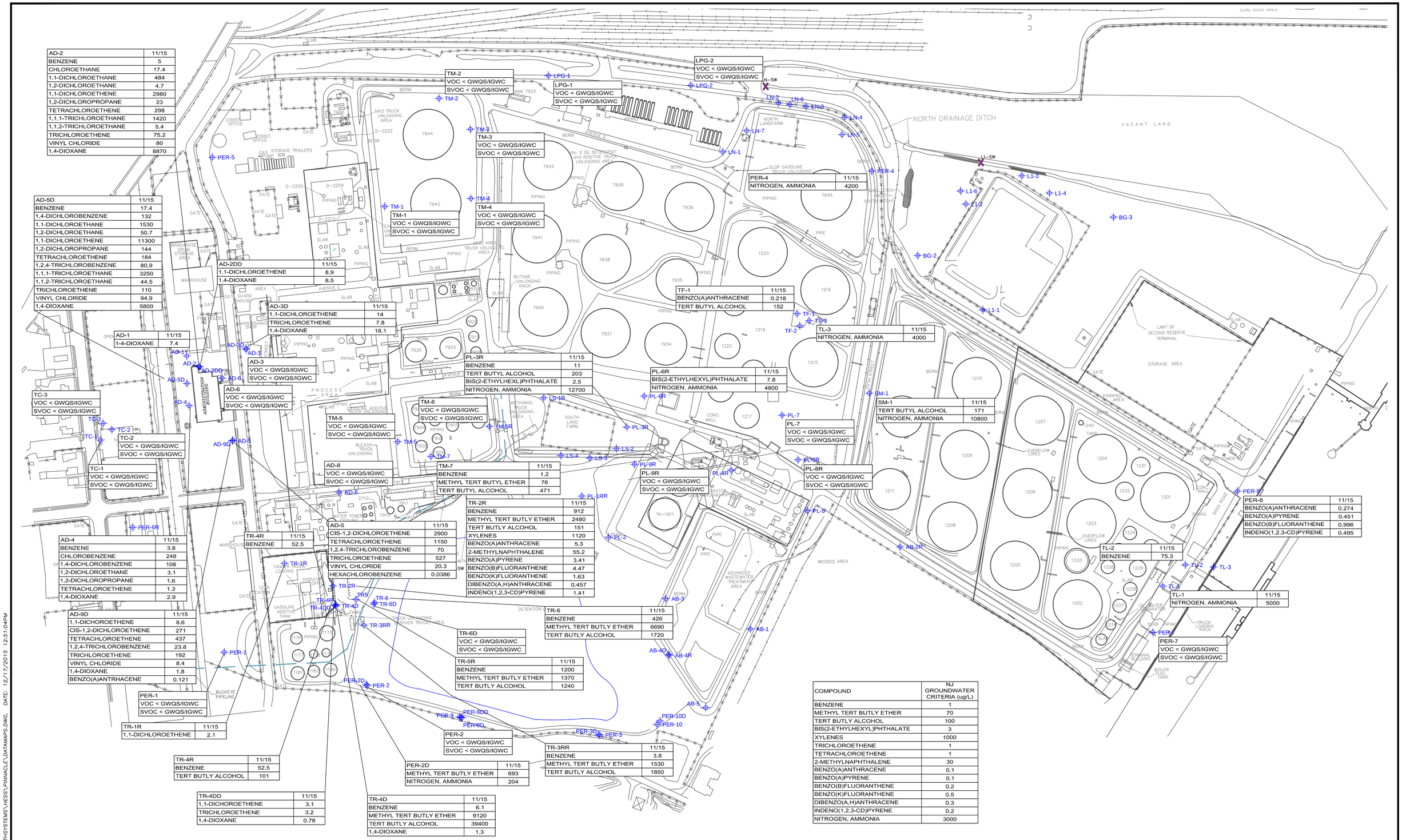
PROJECT:
HESS CORPORATION
FORMER PORT READING COMPLEX (HC-PR)
750 CLIFF ROAD
PORT READING, NEW JERSEY

TITLE:
FOURTH QUARTER GROUNDWATER SAMPLING RESULTS

FIGURE NO. 13

FILE: D:\CLIENTS\E\EARTHSYSTEMS\HESS\PINNACLE\DATAMAPS.DWG, DATE: 12/17/2015 11:10:21AM

D:\Client\EARTHSYSTEMS\HESS\PINNACLE\DATAMAPS.dwg, 2, 12/17/2015 11:10:19 AM, Pinnacle



AD-2	11/15
BENZENE	5
CHLOROETHANE	17.4
1,1-DICHLOROETHANE	484
1,2-DICHLOROETHANE	4.7
1,1-DICHLOROETHENE	2980
1,2-DICHLOROPROPANE	23
TETRACHLOROETHENE	298
1,1,1-TRICHLOROETHANE	1420
1,1,2-TRICHLOROETHANE	5.4
TRICHLOROETHENE	75.2
VINYL CHLORIDE	80
1,4-DIOXANE	8870

AD-5D	11/15
BENZENE	17.4
1,4-DICHLOROBENZENE	132
1,1-DICHLOROETHANE	1530
1,2-DICHLOROETHANE	50.7
1,1-DICHLOROETHENE	11300
1,2-DICHLOROPROPANE	144
TETRACHLOROETHENE	184
1,2,4-TRICHLOROBENZENE	80.9
1,1,1-TRICHLOROETHANE	3250
1,1,2-TRICHLOROETHANE	44.5
TRICHLOROETHENE	110
VINYL CHLORIDE	94.9
1,4-DIOXANE	5800

AD-2DD	11/15
1,1-DICHLOROETHENE	8.9
1,4-DIOXANE	8.5

AD-3D	11/15
1,1-DICHLOROETHENE	14
TRICHLOROETHENE	7.8
1,4-DIOXANE	18.1

AD-1	11/15
1-4-DIOXANE	7.4

TC-3
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

TC-2
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

TC-1
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

AD-4	11/15
BENZENE	3.8
CHLOROBENZENE	248
1,4-DICHLOROBENZENE	108
1,2-DICHLOROETHANE	3.1
1,2-DICHLOROPROPANE	1.6
TETRACHLOROETHENE	1.3
1,4-DIOXANE	2.9

AD-9D	11/15
1,1-DICHOROETHENE	8.6
CIS-1,2-DICHLOROETHENE	271
TETRACHLOROETHENE	437
1,2,4-TRICHLOROBENZENE	23.8
TRICHLOROETHENE	192
VINYL CHLORIDE	8.4
1,4-DIOXANE	1.8
BENZO(A)ANTRHACENE	0.121

PER-1
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

TR-1R	11/15
1,1-DICHLOROETHENE	2.1

TR-4R	11/15
BENZENE	52.5
TERT BUTLY ALCOHOL	101

TR-4DD	11/15
1,1-DICHOROETHENE	3.1
TRICHLOROETHENE	3.2
1,4-DIOXANE	0.78

TR-4D	11/15
BENZENE	6.1
METHYL TERT BUTLY ETHER	9120
TERT BUTLY ALCOHOL	39400
1,4-DIOXANE	1.3

TM-2
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

TM-3
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

TM-1
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

TM-4
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

AD-3
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

AD-6
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

TM-5
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

AD-8
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

TM-7	11/15
BENZENE	1.2
METHYL TERT BUTYL ETHER	76
TERT BUTYL ALCOHOL	471

AD-5	11/15
CIS-1,2-DICHLOROETHENE	2900
TETRACHLOROETHENE	1150
1,2,4-TRICHLOROBENZENE	70
TRICHLOROETHENE	527
VINYL CHLORIDE	20.3
HEXACHLOROBENZENE	0.0386

TR-4R	11/15
BENZENE	52.5

TR-2R	11/15
BENZENE	912
METHYL TERT BUTLY ETHER	2480
TERT BUTLY ALCOHOL	151
XYLENES	1120
BENZO(A)ANTHRACENE	5.3
2-METHYLNAPHTHALENE	55.2
BENZO(A)PYRENE	3.41
BENZO(B)FLUORANTHENE	4.47
BENZO(K)FLUORANTHENE	1.63
DIBENZO(A,H)ANTHRACENE	0.457
INDENO(1,2,3-CD)PYRENE	1.41

TR-6	11/15
BENZENE	426
METHYL TERT BUTLY ETHER	6690
TERT BUTLY ALCOHOL	1720

TR-6D
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

TR-5R	11/15
BENZENE	1200
METHYL TERT BUTLY ETHER	1370
TERT BUTLY ALCOHOL	1240

PER-2
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

PER-2D	11/15
METHYL TERT BUTLY ETHER	693
NITROGEN, AMMONIA	204

TR-3RR	11/15
BENZENE	3.8
METHYL TERT BUTLY ETHER	1530
TERT BUTLY ALCOHOL	1850

PL-3R	11/15
BENZENE	11
TERT BUTYL ALCOHOL	203
BIS(2-ETHYLHEXL)PHTHALATE	2.5
NITROGEN, AMMONIA	12700

PL-6R	11/15
BIS(2-ETHYLHEXYL)PHTHALATE	7.8
NITROGEN, AMMONIA	4800

PL-7
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

PL-9R
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

PL-8R
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

LPG-2
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

LPG-1
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

PER-4	11/15
NITROGEN, AMMONIA	4200

TF-1	11/15
BENZO(A)ANTHRACENE	0.218
TERT BUTYL ALCOHOL	152

TL-3	11/15
NITROGEN, AMMONIA	4000

SM-1	11/15
TERT BUTYL ALCOHOL	171
NITROGEN, AMMONIA	10800

TL-2	11/15
BENZENE	75.3

PER-8	11/15
BENZO(A)ANTHRACENE	0.274
BENZO(A)PYRENE	0.451
BENZO(B)FLUORANTHENE	0.996
INDENO(1,2,3-CD)PYRENE	0.495

TL-1	11/15
NITROGEN, AMMONIA	5000

PER-7
VOC < GWQS/IGWC
SVOC < GWQS/IGWC

COMPOUND	NJ GROUNDWATER CRITERIA (ug/L)
BENZENE	1
METHYL TERT BUTLY ETHER	70
TERT BUTLY ALCOHOL	100
BIS(2-ETHYLHEXYL)PHTHALATE	3
XYLENES	1000
TRICHLOROETHENE	1
TETRACHLOROETHENE	1
2-METHYLNAPHTHALENE	30
BENZO(A)ANTHRACENE	0.1
BENZO(A)PYRENE	0.1
BENZO(B)FLUORANTHENE	0.2
BENZO(K)FLUORANTHENE	0.5
DIBENZO(A,H)ANTHRACENE	0.3
INDENO(1,2,3-CD)PYRENE	0.2
NITROGEN, AMMONIA	3000

Earth Systems

SCALE: 0 150 SCALE: 1"=150'

DATE: 12/16/15
DRAWN BY: AG
CHECKED BY: MF
FILENAME: DATAMAPS
LAYOUT: 3

PROJECT:
HESS CORPORATION
FORMER PORT READING COMPLEX (HC-PR)
750 CLIFF ROAD
PORT READING, NEW JERSEY

TITLE:
ANNUAL QUARTER GROUNDWATER SAMPLING RESULTS

FIGURE NO. 14

FILE: D:\CLIENTS\E\EARTHSYSTEMS\HESS\PINNACLE\DATAMAPS.DWG, DATE: 12/17/2015 12:51:04PM

Tables

Table 1
Monthly Groundwater Guaging Data Summary Table
Hess Corporation - Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Well I.D.	Groundwater Gauging Data							
	Date	Depth to LNAPL	Depth to Water	LNAPL Thickness	DTB from TOC	TOC Elevation	Water Elevation	LNAPL Corrected Water Elevation
LFR-1	7/22/2015	*Well was covered or destroyed during demolition activities*						NA
	8/19/2015	*Not Accessible*						NA
	9/21/2015	*Not Accessible/Covered*						NA
	10/21/2015	*Not Accessible/Covered*						NA
	11/17/2015	*Not Accessible/Covered*						NA
	12/18/2015	*Not Accessible/Covered*						NA
PL1RR	7/22/2015	0.37	0.38	0.01	NM	7.36	6.98	6.99
	8/19/2015	1.21	1.22	0.01	NM	7.36	6.14	6.15
	9/21/2015	2.06	2.23	0.17	NM	7.36	5.13	5.27
	10/21/2015	2.50	2.61	0.11	NM	7.36	4.75	4.84
	11/18/2015	2.35	2.45	0.10	NM	7.36	4.91	4.99
	12/18/2015	0.60	0.61	0.01	NM	7.36	6.75	6.76
PL-2	7/22/2015	2.01	2.03	0.02	NM	9.58	7.55	7.57
	8/19/2015	2.44	2.46	0.02	NM	9.58	7.12	7.14
	9/21/2015	3.18	3.22	0.04	NM	9.58	6.36	6.39
	10/21/2015	2.58	2.60	0.02	NM	9.58	6.98	7.00
	11/18/2015	2.45	2.55	0.10	NM	9.58	7.03	7.11
	12/18/2015	2.00	2.01	0.01	NM	10.58	8.57	8.58
PL-3R	7/22/2015	--	2.71	--	18.84	10.16	7.45	NA
	8/19/2015	--	4.11	--	18.78	10.16	6.05	NA
	9/21/2015	--	4.53	--	18.95	10.16	5.63	NA
	10/21/2015	--	4.35	--	18.70	10.16	5.81	NA
	11/24/2015	--	4.50	--	18.00	10.16	5.66	NA
	12/18/2015	--	4.00	--	18.50	11.16	7.16	NA
PL-4R	7/22/2015	*Well was covered or destroyed during demolition activities*						NA
	8/19/2015	*Not Accessible*						NA
	9/21/2015	*Not Accessible/Covered*						NA
	10/21/2015	*Not Accessible/Covered*						NA
	11/17/2015	*Not Accessible/Covered*						NA
	12/18/2015	*Not Accessible/Covered*						NA
PL-5	7/22/2015	*Well was covered or destroyed during demolition activities*						NA
	8/19/2015	*Not Accessible*						NA
	9/21/2015	*Not Accessible/Covered*						NA
	10/21/2015	*Not Accessible/Covered*						NA
	11/17/2015	*Not Accessible/Covered*						NA
	12/18/2015	*Not Accessible/Covered*						NA
PL-6R	7/22/2015	--	3.60	--	21.55	9.34	5.74	NA
	8/19/2015	--	3.88	--	21.52	9.34	5.46	NA
	9/21/2015	--	4.09	--	21.40	9.34	5.25	NA
	10/21/2015	--	4.00	--	21.35	9.34	5.34	NA
	11/18/2015	--	4.00	--	21.00	9.34	5.34	NA
	12/18/2015	--	3.65	--	21.10	10.34	6.69	NA
PL-7	7/22/2015	--	5.20	--	19.60	10.75	5.55	NA
	8/19/2015	--	5.60	--	19.60	10.75	5.15	NA
	9/21/2015	--	5.61	--	19.60	10.75	5.14	NA
	10/21/2015	--	5.45	--	19.50	10.75	5.30	NA
	11/18/2015	--	5.65	--	19.50	10.75	5.10	NA
	12/18/2015	--	5.30	--	19.00	10.75	5.45	NA
PL-8R	7/22/2015	--	4.17	--	21.81	9.91	5.74	NA
	8/19/2015	--	4.55	--	21.78	9.91	5.36	NA
	9/21/2015	--	4.98	--	21.75	9.91	4.93	NA
	10/21/2015	--	4.51	--	21.60	9.91	5.40	NA
	11/18/2015	--	4.70	--	21.60	9.91	5.21	NA
	12/18/2015	--	4.65	--	21.50	9.91	5.26	NA
PL-9R	7/22/2015	--	2.04	Sheen	20.52	9.11	7.07	NA
	8/19/2015	--	2.25	Sheen	20.50	9.11	6.86	NA
	9/21/2015	--	2.79	Sheen	20.50	9.11	6.32	NA
	10/21/2015	--	2.69	Sheen	20.45	9.11	6.42	NA
	11/18/2015	--	2.58	--	20.00	9.11	6.53	NA
	12/18/2015	--	2.00	--	20.50	9.11	7.11	NA
TF-1	7/22/2015	*Inaccessible - Ongoing Construction*						NA
	8/19/2015	*Inaccessible - Ongoing Construction*						NA
	9/22/2015	--	3.69	--	12.10	8.60	4.91	NA
	10/21/2015	--	3.70	--	12.10	8.60	4.90	NA
	11/24/2015	--	3.70	--	12.00	8.60	4.90	NA
	12/18/2015	--	3.45	--	12.00	9.60	6.15	NA
TF-2*	7/22/2015	*Inaccessible - Ongoing Construction*						NA
	8/19/2015	*Inaccessible - Ongoing Construction*						NA
	9/21/2015	*Accessible - Broken from construction*						NA
	10/21/2015	*Accessible - Broken from construction*						NA
	11/24/2015	*1.06*	*1.56*	*0.50*	--	7.69	6.13	6.53
	12/18/2015	2.00	2.10	0.10	--	8.69	6.59	6.67
TF-3	7/22/2015	*Well was covered or destroyed during demolition activities*						NA
	8/19/2015	*Inaccessible - Ongoing Construction*						NA
	9/22/2015	--	3.64	--	11.82	8.58	4.94	NA
	10/21/2015	--	3.41	--	11.70	8.58	5.17	NA
	11/24/2015	--	3.20	--	11.70	8.58	5.38	NA
	12/18/2015	--	2.60	--	11.70	9.58	6.98	NA
TM-6R	7/22/2015	--	5.73	--	19.90	14.26	8.53	NA
	8/19/2015	--	6.07	--	19.89	14.26	8.19	NA
	9/21/2015	--	6.65	--	19.81	14.26	7.61	NA
	10/21/2015	--	6.60	--	19.75	14.26	7.66	NA
	11/18/2015	--	6.60	--	21.00	14.26	7.66	NA
	12/18/2015	--	5.38	--	20.90	15.26	9.88	NA
TM-7	7/22/2015	7.40	7.45	0.05	NM	14.81	7.36	7.40
	8/19/2015	7.50	7.57	0.07	NM	14.81	7.24	7.30
	9/21/2015	7.81	7.80	0.01	NM	14.81	7.01	7.00
	10/21/2015	7.75	7.76	0.01	NM	14.81	7.05	7.06
	11/18/2015	--	7.85	--	21.40	14.81	6.96	NA
	12/18/2015	--	7.50	--	21.00	15.81	8.31	NA
TR-1R	7/22/2015	--	7.90	--	15.00	14.26	6.36	NA
	8/19/2015	--	8.40	--	15.00	14.26	5.86	NA
	9/21/2015	--	8.78	--	15.00	14.26	5.48	NA
	10/21/2015	--	8.70	--	15.00	14.26	5.56	NA
	11/19/2015	--	8.88	--	15.00	14.26	5.38	NA
	12/18/2015	--	8.50	--	15.00	15.26	6.76	NA
TR-2R	7/22/2015	4.71	4.71	0.01	NM	12.47	7.76	7.76
	8/19/2015	5.20	5.21	0.01	NM	12.47	7.26	7.27
	9/21/2015	5.48	5.50	0.02	NM	12.47	6.97	6.99
	10/21/2015	5.50	5.53	0.03	NM	12.47	6.94	6.96
	11/19/2015	--	6.01	--	20.00	12.47	6.46	NA
	12/18/2015	6.00	6.01	0.01	20.00	13.47	7.46	7.47
TR-3RR	7/22/2015	--	3.10	--	14.42	9.63	6.53	NA
	8/19/2015	--	3.53	--	14.44	9.63	6.10	NA
	9/21/2015	--	3.96	--	14.40	9.63	5.67	NA
	10/21/2015	--	3.86	--	14.55	9.63	5.77	NA
	11/19/2015	--	3.70	--	14.40	9.63	5.93	NA
	12/18/2015	--	3.35	--	14.40	10.63	7.28	NA
TR-4R	7/22/2015	--	1.78	--	14.00	12.18	10.40	NA
	8/19/2015	--	2.87	--	14.05	12.18	9.31	NA
	9/21/2015	--	4.10	--	14.18	12.18	8.08	NA
	10/21/2015	--	4.32	--	13.80	12.18	7.86	NA
	11/19/2015	--	3.95	--	14.00	12.18	8.23	NA
	12/18/2015	*No Sample/Submerged due to rainfall*						
TR-4D	7/22/2015	--	7.09	--	24.33	12.48	5.39	NA
	8/19/2015	--	7.62	--	24.41	12.48	4.86	NA
	9/21/2015	--	7.79	--	21.45	12.48	4.69	NA
	10/21/2015	--	7.60	--	24.40	12.48	4.88	NA
	11/19/2015	--	8.30	--	24.00	12.48	4.18	NA
	12/18/2015	*No Sample/Submerged due to rainfall*						
TR-4DD	7/22/2015	--	7.42	--	56.68	12.58	5.16	NA
	8/19/2015	--	7.85	--	56.60	12.58	4.73	NA
	9/21/2015	--	8.25	--	56.60	12.58	4.33	NA
	10/21/2015	--	8.10	--	56.60	12.58	4.48	NA
	11/19/2015	--	8.45	--	56.50	12.58	4.13	NA
	12/18/2015	*No Sample/Submerged due to rainfall*						
TR-5	7/22/2015	--	4.24	--	10.70	11.99	7.75	NA
	8/19/2015	--	4.70	--	10.70	11.99	7.29	NA
	9/21/2015	--	5.12	--	10.70	11.99	6.87	NA
	10/21/2015	--	5.23	--	10.60	11.99	6.76	NA
	11/19/2015	--	5.25	--	11.00	11.99	6.74	NA
	12/18/2015	--	5.10	--	11.00	12.99	7.89	NA
TR-6	7/22/2015	4.52	4.53	0.01	NM	10.78	6.25	6.26
	8/19/2015	--	4.94	--	12.61	10.78	5.84	NA
	9/21/2015	--	5.51	--	12.60	10.78	5.27	NA
	10/21/2015	--	5.36	--	12.55	10.78	5.42	NA
	11/19/2015	--	5.40	--	12.60	10.78	5.38	NA
	12/18/2015	--	4.70	--	12.65	11.78	7.08	NA
TR-6D	7/22/2015	6.32	6.34	0.02	NM	10.81	4.47	4.49
	8/19/2015	--	6.81	--	28.10	10.81	4.00	NA
	9/21/2015	--	7.05	--	28.10	10.81	3.76	NA
	10/21/2015	--	7.08	--	28.10	10.81	3.73	NA
	11/19/2015	--	7.21	--	28.00	10.81	3.60	NA
	12/18/2015	--	6.20	--	28.00	11.81	5.61	NA
TR-Sump-1	7/22/2015	--	6.71	--	7.35	12.62	5.91	NA
	8/19/2015	--	6.38	--	7.40	12.62	6.24	NA
	9/21/2015	--	6.10	--	7.28	12.62	6.52	NA
	10/21/2015	--	6.00	--	7.30	12.62	6.62	NA
	11/19/2015	--	6.10	--	7.35	13.62	7.52	NA
	12/18/2015	--	5.50	--	7.30	14.62	9.12	NA
TR-Sump-2	7/22/2015	--	6.95	--	7.20	12.35	5.40	NA
	8/19/2015	--	6.10	--	7.24	12.35	6.25	NA
	9/21/2015	--	6.78	--	7.15	12.35	5.57	NA
	10/21/2015	--	5.70	--	7.10	12.35	6.65	NA
	11/19/2015	--	6.15	--	7.15	13.35	7.20	NA
	12/18/2015	--	4.95	--	7.10	14.35	9.40	NA
TR-Sump-3	7/22/2015	*Not Accessible - Removed or covered*						NA
	8/19/2015	*Not Accessible - Removed or covered*						NA
	9/21/2015	*Not Accessible - Removed or covered*						NA
	10/21/2015	*Not Accessible - Removed or covered*						NA
	11/19/2015	*Not Accessible - Removed or covered*						NA
	12/18/2015	*Not Accessible - Removed or covered*						NA
DB-SW	7/22/2015	--	6.00	--	NM	1.08	-4.92	NA
	8/19/2015	--	5.50	--	NM	1.08	-4.42	NA
	9/21/2015	--	5.50	--	NM	1.08	-4.42	NA
	10/21/2015	--	5.75	--	NM	2.08	-3.67	NA
	11/19/2015	--	5.50	--	NM	3.08	-2.42	NA
	12/18/2015	--	6.00	--	NM	4.08	-1.92	NA

-- Not Applicable DTB - Depth to Bottom LNAPL - Light non Aqueous Phase Liquids
* Monitoring well needs to be repaired TOC - Top of Casing NM - Not Measured
Note: All Measurements in feet

Table 2
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at North Landfarm - 3rd Quarter Sampling

Client Sample ID:		NJDEP Groundwater Quality Standards	FB-1	FB-1	FIELD BLANK	LN-1	LN-1	LN-2	LN-2	LN-3	LN-3	LN-4	LN-4	LN-5	LN-5	LN-6	LN-6	LN-7	LN-7	TB-1	TB-1
Lab Sample ID:			JC382-4	JC493-5	JC584-8	JC493-3	JC584-1	JC493-1	JC584-2	JC382-2	JC584-3	JC382-1	JC584-4	JC493-4	JC584-5	JC382-3	JC584-6	JC493-2	JC584-7	JC382-5	JC493-6
Date Sampled:			7/29/2015	7/30/2015	8/3/2015	7/30/2015	8/3/2015	7/30/2015	8/3/2015	7/29/2015	8/3/2015	7/29/2015	8/3/2015	7/30/2015	8/3/2015	7/29/2015	8/3/2015	7/30/2015	8/3/2015	7/29/2015	7/30/2015
Matrix:			Field Blank Water	Field Blank Water	Field Blank Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Trip Blank Water	Trip Blank Water
GC/MS Volatiles (EPA 624)																					
Acrolein	ug/l	5	ND (50)	ND (50)	-	ND (50)	-	ND (50)	-	ND (50)	-	ND (50)	-	ND (50)	-	ND (50)	-	ND (50)	-	ND (50)	ND (50)
Acrylonitrile	ug/l	2	ND (10)	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	ND (10)
Benzene	ug/l	1	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	**2**	-	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Carbon tetrachloride	ug/l	1	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Chloroethane	ug/l	-	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
2-Chloroethyl vinyl ether	ug/l	-	ND (5.0)	ND (5.0)	-	ND (5.0)	-	ND (5.0)	-	ND (5.0)	-	ND (5.0)	-	ND (5.0)	-	ND (5.0)	-	ND (5.0)	-	ND (5.0)	ND (5.0)
Chloroform	ug/l	70	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Dibromochloromethane	ug/l	1	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	ND (2.0)	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
1,2-Dichloroethane	ug/l	2	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	4.7	-	ND (1.0)	ND (1.0)
Methyl Tert Butyl Ether	ug/l	70	ND (1.0)	ND (1.0)	-	0.64 J	-	0.21 J	-	0.37 J	-	0.88 J	-	ND (1.0)	-	0.45 J	-	0.56 J	-	ND (1.0)	ND (1.0)
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Tertiary Butyl Alcohol	ug/l	100	ND (25)	ND (25)	-	ND (25)	-	24.1 J	-	ND (25)	-	8.3 J	-	ND (25)	-	5.0 J	-	14.5 J	-	ND (25)	ND (25)
1,1,2,2-Tetrachloroethane	ug/l	1	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Toluene	ug/l	600	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	ND (2.0)	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	-	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	ND (1.0)
Xylenes (total)	ug/l	1000	ND (1.0)	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	ND (1.0)	-	0.94 J	-	ND (1.0)	-	ND (1.0)	-	0.66 J	-	ND (1.0)	ND (1.0)
GC/MS Volatile TIC																					
Total TIC, Volatile	ug/l	-	0	0	-	0	-	0	-	0	-	132.2 J	-	0	-	0	-	28.5 J	-	0	0
Total Alkanes	ug/l	-	0	0	-	0	-	0	-	0	-	77.1 J	-	0	-	0	-	10.3 J	-	0	0
GC Semi-volatiles (EPA 608)																					
gamma-BHC (Lindane)	ug/l	0.03	ND (0.011)	ND (0.011)	-	ND (0.011)	-	ND (0.011)	-	ND (0.010)	-	ND (0.010)	-	ND (0.011)	-	ND (0.011)	-	ND (0.011)	-	-	-
Endrin	ug/l	2	ND (0.011)	ND (0.011)	-	ND (0.011)	-	ND (0.011)	-	ND (0.010)	-	ND (0.010)	-	ND (0.011)	-	ND (0.011)	-	ND (0.011)	-	-	-
Methoxychlor	ug/l	40	ND (0.011)	ND (0.011)	-	ND (0.011)	-	ND (0.011)	-	ND (0.010)	-	ND (0.010)	-	ND (0.011)	-	ND (0.011)	-	ND (0.011)	-	-	-
Toxaphene	ug/l	2	ND (0.14)	ND (0.13)	-	ND (0.13)	-	ND (0.13)	-	ND (0.13)	-	ND (0.13)	-	ND (0.14)	-	ND (0.13)	-	ND (0.14)	-	-	-
GC Semi-volatiles (SW846 8151)																					
2,4-D	ug/l	70	ND (0.42)	ND (0.83)	-	ND (0.83)	-	ND (0.83)	-	ND (0.42)	-	ND (0.42)	-	ND (0.83)	-	ND (0.42)	-	ND (0.83)	-	-	-
2,4,5-TP (Silvex)	ug/l	60	ND (0.083)	ND (0.17)	-	ND (0.17)	-	ND (0.17)	-	ND (0.083)	-	ND (0.083)	-	ND (0.17)	-	ND (0.083)	-	ND (0.17)	-	-	-
Metals Analysis																					
Arsenic	ug/l	3	ND (3.0)	ND (3.0)	-	ND (3.0)	-	**4.9**	-	**11.3**	-	**11.8**	-	ND (3.0)	-	**6.8**	-	**9.5**	-	-	-
Barium	ug/l	6000	ND (200)	ND (200)	-	ND (200)	-	ND (200)	-	ND (200)	-	ND (200)	-	ND (200)	-	ND (200)	-	ND (200)	-	-	-
Cadmium	ug/l	4	ND (3.0)	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	-	-
Chromium	ug/l	70	ND (10)	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	-	-
Iron	ug/l	300	ND (100)	ND (100)	-	**40400**	-	**18200**	-	**68100**	-	**20600**	-	**533**	-	**42900**	-	**27700**	-	-	-
Lead	ug/l	5	ND (3.0)	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	ND (3.0)	-	-	-
Manganese	ug/l	50	ND (15)	ND (15)	-	**847**	-	**257**	-	**756**	-	**403**	-	38.8	-	**1190**	-	**1260**	-	-	-
Mercury	ug/l	2	ND (0.20)	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	-	-
Selenium	ug/l	40	ND (10)	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	-	-
Silver	ug/l	40	ND (10)	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	-	-
Sodium	ug/l	50000	ND (10000)	ND (10000)	-	**207000**	-	**88400**	-	**511000**	-	**137000**	-	33600	-	**121000**	-	**129000**	-	-	-
General Chemistry																					
Chloride	ug/l	250000	ND (2000)	ND (2000)	-	**351000**	-	105000	-	**963000**	-	244000	-	42500	-	239000	-	248000	-	-	-
Coliform, Total	col/100ml	-	-	-	ND (1)	-	760	4		-	ND (20)	-	ND (4)	-	ND (2)	-	16	-	ND (20)	-	-
Fluoride	ug/l	2000	ND (200)	ND (200)	-	1200	-	730	-	620	-	1300	-	ND (200)	-	1400	-	970	-	-	-
Nitrogen, Ammonia	ug/l	3000	ND (200)	ND (200)	-	**5000**	-	2300	-	**5700**	-	2100	-	ND (200)	-	**3600**	-	**3100**	-	-	-
Nitrogen, Nitrate	ug/l	10000	ND (110) [a]	ND (110) [a]	-	ND (110) [a]	-	ND (110) [a]	-	ND (110) [a]	-	ND (110) [a]	-	1100 [a]	-	ND (110) [a]	-	ND (110) [a]	-	-	-
Nitrogen, Nitrate + Nitrite	ug/l	10000	ND (100)	ND (100)	-	ND (100)	-	ND (100)	-	ND (100)	-	ND (100)	-	1100	-	ND (100)	-	ND (100)	-	-	-
Nitrogen, Nitrite	ug/l	1000	ND (10)	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	ND (10)	-	-	-
Phenols	ug/l	-	ND (200)	ND (200)	-	ND (200)	-	ND (200)	-	ND (200)	-	ND (200)	-	ND (200)	-	ND (200)	-	ND (200)	-	-	-
Solids, Total Dissolved	ug/l	500000	ND (10000)	ND (10000)	-	**817000**	-	331000	-	**2680000**	-	**558000**	-	245000	-	**642000**	-	**590000**	-	-	-
Specific Conductivity	umhos/cm	-	1.6	2.4	-	1460	-	639	-	2970	-	1030	-	4.8	-	1070	-	1120	-	-	-
Sulfate	ug/l	250000	ND (10000)	ND (10000)	-	40400	-	ND (10000)	-	ND (10000)	-	ND (10000)	-	112000	-	52600	-	ND (10000)	-	-	-
Total Organic Carbon	ug/l	-	ND (1000)	ND (1000)	-	10000	-	3800	-	11100	-	4000	-	2600	-	6700	-	9100	-	-	-
Total Organic Halides	ug/l	-	ND (200)	ND (200)	-	400	-	240	-	ND (200)	-	ND (200)	-	260	-	ND (200)	-	ND (200)	-	-	-
pH	su	6.5-8.5	**5.80** [b]	**4.43** [b]	-	**5.96** [b]	-	**5.80** [b]	-	**6.00** [b]	-	**6.45** [b]	-	**3.66** [b]	-	**6.17** [b]	-	**6.27** [b]	-	-	-

Footnotes:

[a] Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

[b] Sample received out of holding time for pH analysis.

[1] **NOTE: The above also includes "generic" criteria that cannot be evaluated using LabLink regulatory limits. They are as follows: "SOCs defined as carcinogens in N.J.A.C. 7:9C-1.4 lacking specific or interim specific criteria: 5 ug/l each 25 ug/l total. SOCs defined as non-carcinogens in N.J.A.C. 7:9C-1.4 lacking specific or interim specific criteria: 100 ug/l each 500 ug/l total."**

Table 3
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at South Landfarm- 3rd Quarter Sampling

Client Sample ID:		NJDEP Groundwater Quality Standards	FB	FB	LS-1R	LS-2	LS-3	LS-4	TB
Lab Sample ID:			JC717-5	JC935-2	JC935-1	JC717-1	JC717-2	JC717-3	JC717-4
Date Sampled:			8/4/2015	8/6/2015	8/6/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015
Matrix:			Field Blank Water	Field Blank Water	Ground Water	Ground Water	Ground Water	Ground Water	Trip Blank Water
GC/MS Volatiles (EPA 624)									
Acrolein	ug/l	5	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)
Acrylonitrile	ug/l	2	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Benzene	ug/l	1	**18.8**	ND (1.0)	ND (1.0)	0.40 J	**29.1**	**40.6**	ND (1.0)
Bromodichloromethane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Carbon tetrachloride	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	ND (1.0)	ND (1.0)	0.37 J	0.21 J	ND (1.0)	ND (1.0)	ND (1.0)
Chloroethane	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Chloroethyl vinyl ether	ug/l	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Chloroform	ug/l	70	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dibromochloromethane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.39 J	ND (1.0)	ND (1.0)
1,2-Dichloroethane	ug/l	2	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.23 J	0.25 J	ND (1.0)
Methyl Tert Butyl Ether	ug/l	70	0.99 J	ND (1.0)	5.7	ND (1.0)	0.20 J	0.25 J	ND (1.0)
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tertiary Butyl Alcohol	ug/l	100	81.7	ND (25)	5.9 J	52.7	**593**	**262**	16.5 J
1,1,2,2-Tetrachloroethane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	ug/l	600	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.98 J	1.5	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Xylenes (total)	ug/l	1000	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	2.4	6.3	ND (1.0)
GC/MS Volatile TIC									
Total TIC, Volatile	ug/l	-	15.2 J	0	0	3.1 J	132.4 J	133.7 J	0
Total Alkanes	ug/l	-	0	0	0	0	31.6 J	73 J	0
Metals Analysis									
Arsenic	ug/l	3	ND (3.0)	ND (3.0)	**45.6**	**49.9**	**12.2**	**27**	-
Barium	ug/l	6000	ND (200)	ND (200)	ND (200)	1880	585	265	-
Cadmium	ug/l	4	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	-
Chromium	ug/l	70	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-
Iron	ug/l	300	ND (100)	ND (100)	**34500**	**10700**	**117000**	**20500**	-
Lead	ug/l	5	ND (3.0)	ND (3.0)	ND (3.0)	4.1	ND (3.0)	3.5	-
Manganese	ug/l	50	ND (15)	ND (15)	**9450**	**294**	**2460**	**448**	-
Mercury	ug/l	2	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	-
Selenium	ug/l	40	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-
Silver	ug/l	40	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-
Sodium	ug/l	50000	ND (10000)	ND (10000)	**136000**	**600000**	**1360000**	**984000**	-
General Chemistry									
Chloride	ug/l	250000	ND (2000)	ND (2000)	**259000**	**1560000**	**2980000**	**1700000**	-
Fluoride	ug/l	2000	ND (200)	ND (200)	700	320 [a]	510 [a]	730	-
Nitrogen, Ammonia	ug/l	3000	ND (200)	ND (200)	2200	**5400**	**6700**	**94800**	-
Nitrogen, Nitrate	ug/l	10000	ND (110) [b]	ND (110) [b]	ND (110) [b]	ND (110) [b]	ND (110) [b]	ND (110) [b]	-
Nitrogen, Nitrate + Nitrite	ug/l	10000	ND (100)	ND (100)	ND (100)	ND (100)	ND (100)	ND (100)	-
Nitrogen, Nitrite	ug/l	1000	ND (10)	ND (10)	ND (10)	19	ND (10)	ND (10)	-
Phenols	ug/l	-	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	-
Solids, Total Dissolved	ug/l	500000	ND (10000)	ND (10000)	**760000**	500000	**4100000**	**900000**	-
Specific Conductivity	umhos/cm	-	2.8	2.7	1120	4570	7280	5250	-
Sulfate	ug/l	250000	ND (10000)	ND (10000)	ND (10000)	ND (10000)	ND (10000)	ND (10000)	-
Total Organic Carbon	ug/l	-	ND (1000)	ND (1000)	11900	34700	35800	69000	-
Total Organic Halides	ug/l	-	ND (50)	ND (50)	300 [c]	380 [c]	840 [c]	680 [c]	-
pH	su	6.5-8.5	**5.60** [d]	**5.19** [d]	**6.42** [d]	**5.56** [d]	**6.36** [d]	6.82 [d]	-

Footnotes:

[a] Peak shape indicates matrix interference and possible positive bias.

[b] Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

[c] Second column analysis indicates possible matrix interference and possible high bias.

[d] Sample received out of holding time for pH analysis.

Table 2
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at No. 1 Landfarm - 3rd Quarter Sampling

Client Sample ID:		NJDEP Groundwater Quality Standards	BG-2	BG-3	FB	L1-1	L1-2	L1-3	L1-4	L1-LEACHATE	LY-1	TB
Lab Sample ID:			JC709-5	JC709-6	JC709-7	JC709-1	JC709-2	JC709-3	JC709-4	JC632-1	JC607-1	JC709-8
Date Sampled:			8/3/2015	8/3/2015	8/3/2015	8/3/2015	8/3/2015	8/3/2015	8/3/2015	7/31/2015	7/31/2015	8/3/2015
Matrix:			Ground Water	Ground Water	Field Blank Water	Ground Water	Ground Water	Ground Water	Ground Water	Water	Ground Water	Trip Blank Water
GC/MS Volatiles (EPA 624)												
Acrolein	ug/l	5	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	-	-	ND (50)
Acrylonitrile	ug/l	2	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-	-	ND (10)
Benzene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Bromodichloromethane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Bromoform	ug/l	4	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Bromomethane	ug/l	10	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Carbon tetrachloride	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Chlorobenzene	ug/l	50	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	39.2	0.40 J	ND (1.0)	-	-	ND (1.0)
Chloroethane	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
2-Chloroethyl vinyl ether	ug/l	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	-	-	ND (5.0)
Chloroform	ug/l	70	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Chloromethane	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Dibromochloromethane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.65 J	ND (1.0)	ND (1.0)	-	-	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.82 J	ND (1.0)	ND (1.0)	-	-	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	2.2	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	-	-	ND (2.0)
1,1-Dichloroethane	ug/l	50	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
1,2-Dichloroethane	ug/l	2	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
1,1-Dichloroethene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.46 J	ND (1.0)	ND (1.0)	-	-	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
1,2-Dichloropropane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Ethylbenzene	ug/l	700	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Methyl Tert Butyl Ether	ug/l	70	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Tertiary Butyl Alcohol	ug/l	100	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	-	-	ND (25)
1,1,2,2-Tetrachloroethane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Tetrachloroethene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	0.30 J	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Toluene	ug/l	600	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Trichloroethene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Trichlorofluoromethane	ug/l	2000	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	-	-	ND (2.0)
Vinyl chloride	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
Xylenes (total)	ug/l	1000	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	ND (1.0)
GC/MS Volatiles (SW846 8260C)												
Benzene	ug/l	1	-	-	-	-	-	-	-	ND (0.50)	ND (0.50)	-
Toluene	ug/l	600	-	-	-	-	-	-	-	ND (1.0)	ND (1.0)	-
Ethylbenzene	ug/l	700	-	-	-	-	-	-	-	ND (1.0)	ND (1.0)	-
Xylene (total)	ug/l	1000	-	-	-	-	-	-	-	ND (1.0)	ND (1.0)	-
Methyl Tert Butyl Ether	ug/l	70	-	-	-	-	-	-	-	1.3	ND (1.0)	-
Tert Butyl Alcohol	ug/l	100	-	-	-	-	-	-	-	ND (10)	ND (10)	-
2-Butanone (MEK)	ug/l	300	-	-	-	-	-	-	-	ND (10)	-	-
Carbon disulfide	ug/l	700	-	-	-	-	-	-	-	ND (2.0)	ND (2.0)	-
Chlorobenzene	ug/l	50	-	-	-	-	-	-	-	ND (1.0)	ND (1.0)	-
Chloroform	ug/l	70	-	-	-	-	-	-	-	ND (1.0)	-	-
1,2-Dibromoethane	ug/l	0.03	-	-	-	-	-	-	-	ND (1.0)	-	-
1,2-Dichloroethane	ug/l	2	-	-	-	-	-	-	-	ND (1.0)	-	-
1,4-Dioxane	ug/l	-	-	-	-	-	-	-	-	ND (130)	-	-
Styrene	ug/l	100	-	-	-	-	-	-	-	ND (1.0)	-	-
Vinyl chloride	ug/l	1	-	-	-	-	-	-	-	ND (1.0)	-	-
GC/MS Volatile TIC												
Total TIC, Volatile	ug/l	-	0	0	0	0	6.9 J	0	0	-	-	0
Total Alkanes	ug/l	-	0	0	0	0	0	0	0	-	-	0
GC/MS Semi-volatiles (EPA 625)												
2-Chlorophenol	ug/l	40	ND (5.3)	ND (5.0)	ND (5.1)	ND (5.4)	ND (5.0)	ND (5.6)	ND (5.6)	-	-	-
4-Chloro-3-methyl phenol	ug/l	-	ND (5.3)	ND (5.0)	ND (5.1)	ND (5.4)	ND (5.0)	ND (5.6)	ND (5.6)	-	-	-
2,4-Dichlorophenol	ug/l	20	ND (5.3)	ND (5.0)	ND (5.1)	ND (5.4)	ND (5.0)	ND (5.6)	ND (5.6)	-	-	-
2,4-Dimethylphenol	ug/l	100	ND (5.3)	ND (5.0)	ND (5.1)	ND (5.4)	ND (5.0)	ND (5.6)	ND (5.6)	-	-	-
2,4-Dinitrophenol	ug/l	40	ND (5.3)	ND (5.0)	ND (5.1)	ND (5.4)	ND (5.0)	ND (5.6)	ND (5.6)	-	-	-
4,6-Dinitro-o-cresol	ug/l	-	ND (5.3)	ND (5.0)	ND (5.1)	ND (5.4)	ND (5.0)	ND (5.6)	ND (5.6)	-	-	-
2-Nitrophenol	ug/l	-	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
4-Nitrophenol	ug/l	-	ND (11)	ND (10)	ND (10)	ND (11)	ND (10)	ND (11)	ND (11)	-	-	-
Pentachlorophenol	ug/l	0.3	ND (5.3)	ND (5.0)	ND (5.1)	ND (5.4)	ND (5.0)	ND (5.6)	ND (5.6)	-	-	-
Phenol	ug/l	2000	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
2,4,6-Trichlorophenol	ug/l	20	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
Acenaphthene	ug/l	400	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	0.66 J	ND (1.1)	-	-	-
Acenaphthylene	ug/l	-	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Anthracene	ug/l	2000	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Benzidine	ug/l	20	ND (21)	ND (20)	ND (20)	ND (22)	ND (20)	ND (22)	ND (22)	-	-	-
Benzo(a)anthracene	ug/l	0.1	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Benzo(a)pyrene	ug/l	0.1	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Benzo(b)fluoranthene	ug/l	0.2	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Benzo(g,h,i)perylene	ug/l	-	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Benzo(k)fluoranthene	ug/l	0.5	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
4-Bromophenyl phenyl ether	ug/l	-	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
Butyl benzyl phthalate	ug/l	100	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
2-Chloronaphthalene	ug/l	600	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
4-Chloroaniline	ug/l	30	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
Chrysene	ug/l	5	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
bis(2-Chloroethoxy)methane	ug/l	-	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
bis(2-Chloroethyl)ether	ug/l	7	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
bis(2-Chloroisopropyl)ether	ug/l	300	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
4-Chlorophenyl phenyl ether	ug/l	-	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
1,2-Dichlorobenzene	ug/l	600	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	0.55 J	ND (2.2)	ND (2.2)	-	-	-
1,2-Diphenylhydrazine	ug/l	20	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
1,3-Dichlorobenzene	ug/l	600	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	0.65 J	ND (2.2)	ND (2.2)	-	-	-
1,4-Dichlorobenzene	ug/l	75	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	1.7 J	ND (2.2)	ND (2.2)	-	-	-
2,4-Dinitrotoluene	ug/l	-	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
2,6-Dinitrotoluene	ug/l	-	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
3,3'-Dichlorobenzidine	ug/l	30	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
Dibenzo(a,h)anthracene	ug/l	0.3	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Di-n-butyl phthalate	ug/l	700	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
Di-n-octyl phthalate	ug/l	100	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
Diethyl phthalate	ug/l	6000	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
Dimethyl phthalate	ug/l	-	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
bis(2-Ethylhexyl)phthalate	ug/l	3	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	**4.1**	ND (2.2)	ND (2.2)	-	-	-
Fluoranthene	ug/l	300	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Fluorene	ug/l	300	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Hexachlorobenzene	ug/l	0.02	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Hexachlorobutadiene	ug/l	1	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Hexachlorocyclopentadiene	ug/l	40	ND (11)	ND (10)	ND (10)	ND (11)	ND (10)	ND (11)	ND (11)	-	-	-
Hexachloroethane	ug/l	7	ND (5.3)	ND (5.0)	ND (5.1)	ND (5.4)	ND (5.0)	ND (5.6)	ND (5.6)	-	-	-
Indeno(1,2,3-cd)pyrene	ug/l	0.2	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Isophorone	ug/l	40	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
Naphthalene	ug/l	300	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Nitrobenzene	ug/l	6	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
n-Nitrosodimethylamine	ug/l	0.8	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
N-Nitroso-di-n-propylamine	ug/l	10	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.2)	ND (2.0)	ND (2.2)	ND (2.2)	-	-	-
N-Nitrosodiphenylamine	ug/l	10	ND (5.3)	ND (5.0)	ND (5.1)	ND (5.4)	ND (5.0)	ND (5.6)	ND (5.6)	-	-	-
Phenanthrene	ug/l	-	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
Pyrene	ug/l	200	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
1,2,4-Trichlorobenzene	ug/l	9	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	-	-	-
GC/MS Semi-volatiles (SW846 8270D)												
Benzenethiol	ug/l	-	-	-	-	-	-	-	-	ND (20)	-	-
2,4-Dimethylphenol	ug/l	100	-	-	-	-	-	-	-	ND (5.1)	ND (8.1)	-
2,4-Dinitrophenol	ug/l	40	-	-	-	-	-	-	-	ND (10)	-	-
2-Methylphenol	ug/l	-	-	-	-	-	-	-	-	ND (2.0)	ND (3.2)	-
3&4-Methylphenol	ug/l	-	-	-	-	-	-	-	-	ND (2.0)	ND (3.2)	-
4-Nitrophenol	ug/l	-	-	-	-	-	-	-	-	ND (10)	-	-
Phenol	ug/l	2000	-	-	-	-	-	-	-	ND (2.0)	ND (3.2)	-
Anthracene	ug/l	2000	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
Benzo(a)anthracene	ug/l	0.1	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
Benzo(a)pyrene	ug/l	0.1	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
Benzo(b)fluoranthene	ug/l	0.2	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
Benzo(k)fluoranthene	ug/l	0.5	-	-	-	-	-	-	-	ND (1.0)	-	-
Butyl benzyl phthalate	ug/l	100	-	-	-	-	-	-	-	ND (2.0)	ND (3.2)	-
Chrysene	ug/l	5	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
bis(2-Chloroisopropyl)ether	ug/l	300	-	-	-	-	-	-	-	-	ND (3.2)	-
1,2-Dichlorobenzene	ug/l	600	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
1,3-Dichlorobenzene	ug/l	600	-	-	-	-	-	-	-	ND (1.0)	-	-
1,4-Dichlorobenzene	ug/l	75	-	-	-	-	-	-	-	ND (1.0)	-	-
7,12-Dimethylbenz(a)anthracene	ug/l	-	-	-	-	-	-	-	-	ND (5.1)	-	-
Dibenz(a,h)acridine	ug/l	-	-	-	-	-	-	-	-	ND (5.1)	ND (8.1)	-
Dibenzo(a,h)anthracene	ug/l	0.3	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
Di-n-butyl phthalate	ug/l	700	-	-	-	-	-	-	-	ND (2.0)	ND (3.2)	-
Di-n-octyl phthalate	ug/l	100	-	-	-	-	-	-	-	ND (2.0)	-	-
Diethyl phthalate	ug/l	6000	-	-	-	-	-	-	-	ND (2.0)	-	-
Dimethyl phthalate	ug/l	-	-	-	-	-	-	-	-	ND (2.0)	ND (3.2)	-
bis(2-Ethylhexyl)phthalate	ug/l	3	-	-	-	-	-	-	-	ND (2.0)	ND (3.2)	-
Fluoranthene	ug/l	300	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
Indene	ug/l	-	-	-	-	-	-	-	-	ND (5.1)	ND (8.1)	-
1-Methylnaphthalene	ug/l	-	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
6-Methyl Chrysene	ug/l	-	-	-	-	-	-	-	-	ND (5.1)	-	-
Naphthalene	ug/l	300	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
Phenanthrene	ug/l	-	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
Pyrene	ug/l	200	-	-	-	-	-	-	-	ND (1.0)	ND (1.6)	-
Pyridine	ug/l	-	-	-	-	-	-	-	-	ND (2.0)	-	-
Quinoline	ug/l	-	-	-	-	-	-	-	-	ND (5.1)	-	-
GC/MS Semi-volatile TIC												
Total TIC, Semi-Volatile	ug/l	-	31 J	19.9 J	0	95 J	38.5 J	0	27 J	-	-	-
Total Alkanes	ug/l	-	0	0	0	0	0	0	0	-	-	-
Metals Analysis												
Antimony	ug/l	6	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	-
Arsenic	ug/l	3	**4.3**	**13.8**	ND (3.0)	ND (3.0)	**29.5**	**28.4**	ND (3.0)	**8.9** [a]	ND (3.0)	-
Barium	ug/l	6000	-	-	-	-	-	-	-	ND (200)	ND (200)	-
Beryllium	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-
Cadmium	ug/l	4	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	-
Chromium	ug/l	70	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-
Cobalt	ug/l	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
Copper	ug/l	1300	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-	-	-
Lead	ug/l	5	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (6.0) [a]	ND (3.0)	-
Mercury	ug/l	2	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	-
Nickel	ug/l	100	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	**308**	41.8	-
Selenium	ug/l	40	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-
Silver	ug/l	40	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-	-	-
Thallium	ug/l	2	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	-	-	-
Vanadium	ug/l	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
Zinc	ug/l	2000	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	-	-	-
General Chemistry												
Cyanide	ug/l	100	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-	-	-
Nitrogen, Ammonia	ug/l	3000	1300	480	ND (200)	ND (200)	1700	1900	ND (200)	-	ND (200)	-
Phenols	ug/l	-	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	-	-	-
Sulfide Reactivity	ug/l	-	-	-	-	-	-	-	-	-	ND (100000)	-
pH	su	6.5-8.5	**5.71** [b]	**6.22** [b]	**4.01** [b]	**4.64** [b]	**6.36** [b]	**5.70** [b]	6.53 [b]	-	**5.72** [b]	-

Footnotes:
[a] Elevated detection limit due to dilution required for high interfering element.
[b] Sample received out of holding time for pH analysis.
[c] Calculated as: (Nitrogen, Total Kjeldahl) + (Nitrogen, Nitrate + Nitrite)

Table 5

Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey

Summary of Groundwater Analytical Results at North Landfarm - 4th Quarter Sampling

Client Sample ID:		NJ Groundwater Criteria	FB	LN-1	LN-2	LN-3	LN-4	LN-5	LN-6	LN-7	TB
Lab Sample ID:			JC7178-8	JC7178-1	JC7178-2	JC7178-3	JC7178-4	JC7178-5	JC7178-6	JC7178-7	JC7178-9
Date Sampled:			10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015
Matrix:			Field Blank	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Trip Blank
GC/MS Volatiles (EPA 624)											
Benzene	mg/l	0.001	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Bromodichloromethane	mg/l	0.001	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Bromoform	mg/l	0.004	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Bromomethane	mg/l	0.01	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Carbon tetrachloride	mg/l	0.001	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Chlorobenzene	mg/l	0.05	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Chloroethane	mg/l	-	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
2-Chloroethyl vinyl ether	mg/l	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Chloroform	mg/l	0.07	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Chloromethane	mg/l	-	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Dibromochloromethane	mg/l	0.001	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
1,2-Dichlorobenzene	mg/l	0.6	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
1,3-Dichlorobenzene	mg/l	0.6	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
1,4-Dichlorobenzene	mg/l	0.075	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Dichlorodifluoromethane	mg/l	1	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)
1,1-Dichloroethane	mg/l	0.05	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
1,2-Dichloroethane	mg/l	0.002	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
1,1-Dichloroethene	mg/l	0.001	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
cis-1,2-Dichloroethene	mg/l	0.07	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
trans-1,2-Dichloroethene	mg/l	0.1	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
1,2-Dichloropropane	mg/l	0.001	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
cis-1,3-Dichloropropene	mg/l	-	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
trans-1,3-Dichloropropene	mg/l	-	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Ethylbenzene	mg/l	0.7	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Methyl Tert Butyl Ether	mg/l	0.07	ND (0.0010)	0.00080 J	0.00031 J	0.00040 J	0.00065 J	ND (0.0010)	0.00027 J	0.00054 J	ND (0.0010)
Methylene chloride	mg/l	0.003	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Tertiary Butyl Alcohol	mg/l	0.1	ND (0.025)	ND (0.025)	0.0255	0.0066 J	0.0088 J	ND (0.025)	0.0064 J	0.0047 J	ND (0.025)
1,1,2,2-Tetrachloroethane	mg/l	0.001	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Tetrachloroethene	mg/l	0.001	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Toluene	mg/l	0.6	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
1,1,1-Trichloroethane	mg/l	0.03	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
1,1,2-Trichloroethane	mg/l	0.003	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Trichloroethene	mg/l	0.001	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Trichlorofluoromethane	mg/l	2	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)
Vinyl chloride	mg/l	0.001	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Xylenes (total)	mg/l	1	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	0.00038 J	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
GC/MS Volatile TIC											
Total TIC, Volatile	mg/l	-	0	0	0	0	0.09 J	0	0	0	0
Total Alkanes	mg/l	-	0	0	0	0	0.0382 J	0	0	0	0
GC Semi-volatiles (EPA 608)											
gamma-BHC (Lindane)	mg/l	0.00003	ND (0.000016)	ND (0.0000015)	ND (0.000017)	ND (0.000015)	ND (0.000015)	ND (0.000015)	ND (0.000015)	ND (0.000016)	-
Endrin	mg/l	0.002	ND (0.000016)	ND (0.0000015)	ND (0.000017)	ND (0.000015)	ND (0.000015)	ND (0.000015)	ND (0.000015)	ND (0.000016)	-
Methoxychlor	mg/l	0.04	ND (0.000016)	ND (0.0000015)	ND (0.000017)	ND (0.000015)	ND (0.000015)	ND (0.000015)	ND (0.000015)	ND (0.000016)	-
Toxaphene	mg/l	0.002	ND (0.00020)	ND (0.000019)	ND (0.00021)	ND (0.00019)	ND (0.00019)	ND (0.00019)	ND (0.00019)	ND (0.00020)	-
GC Semi-volatiles (SW846 8151)											
2,4-D	mg/l	0.07	ND (0.00039)	ND (0.00039)	ND (0.00039)	ND (0.00039)	ND (0.00039)	ND (0.00039)	ND (0.00039)	ND (0.00039)	-
2,4,5-TP (Silvex)	mg/l	0.06	ND (0.000078)	ND (0.000078)	ND (0.000078)	ND (0.000078)	ND (0.000078)	ND (0.000078)	ND (0.000078)	ND (0.000078)	-
Metals Analysis											
Arsenic	mg/l	0.003	ND (0.0030)	ND (0.0030)	ND (0.0030)	**0.0064**	**0.0137**	ND (0.0030)	**0.0079**	**0.0067**	-
Barium	mg/l	6	ND (0.20)	0.204	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	-
Cadmium	mg/l	0.004	ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)	-
Chromium	mg/l	0.07	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	-
Iron	mg/l	0.3	ND (0.10)	**47.2**	**20.3**	**57.3**	**19.5**	**0.485**	**48.9**	**17.6**	-
Lead	mg/l	0.005	ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)	-
Manganese	mg/l	0.05	ND (0.015)	**1.17**	**0.333**	**0.802**	**0.379**	0.0355	**1.17**	**0.942**	-
Mercury	mg/l	0.002	ND (0.00020)	ND (0.00020)	ND (0.00020)	ND (0.00020)	ND (0.00020)	ND (0.00020)	ND (0.00020)	ND (0.00020)	-
Selenium	mg/l	0.04	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	-
Silver	mg/l	0.04	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	-
Sodium	mg/l	50	ND (10)	**241**	**98.2**	**363**	**130**	19.5	**116**	**123**	-
General Chemistry											
Chloride	mg/l	250	ND (2.0)	**363**	143	**578**	231	11.4	192	225	-
Coliform, Total	col/100ml	-	0	92	2900	ND (20)	ND (4)	252	2600	2400	-
Fluoride	mg/l	2	ND (0.20)	1.1	1.1	0.74	1.5	ND (0.20)	1.3 [a]	1.1	-
Nitrogen, Ammonia	mg/l	3	ND (0.20)	**4.4**	2	**4.6**	2.3	ND (0.20)	**3.4**	2.4	-
Nitrogen, Nitrate	mg/l	10	ND (0.11) [b]	ND (0.11) [b]	ND (0.11) [b]	ND (0.11) [b]	0.12 [b]	2.8 [b]	ND (0.11) [b]	0.30 [b]	-
Nitrogen, Nitrate + Nitrite	mg/l	10	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.13	2.8	ND (0.10)	0.3	-
Nitrogen, Nitrite	mg/l	1	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	-
Phenols	mg/l	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	-
Solids, Total Dissolved	mg/l	500	ND (10)	**917**	365 [c]	**768** [c]	390 [c]	106 [c]	**515** [c]	417	-
Specific Conductivity	umhos/cm	-	ND (7.5)	1450	726	1980	971	232	970	933	-
Sulfate	mg/l	250	ND (10)	18.1	13.8	ND (10)	ND (10)	65.6	56	ND (10)	-
Total Organic Carbon	mg/l	-	ND (1.0)	9.9	4.3	14.1	4.8	2.9	8.2	3.5	-
Total Organic Halides	mg/l	-	ND (0.20)	ND (0.20)	ND (0.20)	0.25 [d]	ND (0.20)	ND (0.20)	0.20 [d]	0.25 [d]	-
pH	su	6.5-8.5	**4.49** [e]	**6.17** [e]	**6.05** [e]	**6.27** [e]	6.65 [e]	**3.83** [e]	**6.13** [e]	**6.02** [e]	-

Footnotes:

[a] Peak shape indicates matrix interference and possible positive bias.

[b] Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

[c] Analysis done out of holding time.

[d] Second column analysis indicates possible matrix interference and possible high bias.

[e] Sample received out of holding time for pH analysis.

Table 6
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at South Landfarm - 4th Quarter Sampling

Client Sample ID:		NJ Groundwater Criteria	FB	LS-1R	LS-2	LS-4	TB
Lab Sample ID:			JC7269-4	JC7269-1	JC7269-2	JC7269-3	JC7269-5
Date Sampled:			10/28/2015	10/28/2015	10/28/2015	10/28/2015	10/28/2015
Matrix:			Field Blank	Ground Water	Ground Water	Ground Water	Trip Blank
GC/MS Volatiles (EPA 624)							
Benzene	ug/l	1	ND (1.0)	ND (5.0)	ND (5.0)	**12.9**	ND (1.0)
Bromodichloromethane	ug/l	1	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Carbon tetrachloride	ug/l	1	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Chloroethane	ug/l	-	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
2-Chloroethyl vinyl ether	ug/l	-	ND (5.0)	ND (25)	ND (25)	ND (5.0)	ND (5.0)
Chloroform	ug/l	70	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Dibromochloromethane	ug/l	1	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	ND (1.0)	ND (5.0)	ND (5.0)	0.27 J	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	ND (2.0)	ND (10)	ND (10)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
1,2-Dichloroethane	ug/l	2	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Methyl Tert Butyl Ether	ug/l	70	ND (1.0)	5.8	ND (5.0)	ND (1.0)	ND (1.0)
Methylene chloride	ug/l	3	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
1,1,2,2-Tetrachloroethane	ug/l	1	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Toluene	ug/l	600	ND (1.0)	ND (5.0)	ND (5.0)	0.42 J	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	ND (2.0)	ND (10)	ND (10)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	ND (1.0)	ND (5.0)	ND (5.0)	ND (1.0)	ND (1.0)
Xylenes (total)	ug/l	1000	ND (1.0)	ND (5.0)	ND (5.0)	3.1	ND (1.0)
GC/MS Volatile TIC							
Total TIC, Volatile	ug/l	-	0	0	0	167.9 J	0
Total Alkanes	ug/l	-	0	0	0	0	0
Metals Analysis							
Arsenic	ug/l	3	ND (3.0)	**25.8**	**39.2**	**20.6**	-
Barium	ug/l	6000	ND (200)	ND (200)	3410	256	-
Cadmium	ug/l	4	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	-
Chromium	ug/l	70	ND (10)	ND (10)	ND (10)	ND (10)	-
Iron	ug/l	300	ND (100)	**24000**	**3160**	**12200**	-
Lead	ug/l	5	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	-
Mercury	ug/l	2	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	-
Selenium	ug/l	40	ND (10)	ND (10)	10.3	ND (10)	-
Silver	ug/l	40	ND (10)	ND (10)	ND (10)	ND (10)	-
General Chemistry							
Chloride	ug/l	250000	3000	**257000**	**2010000**	**1740000**	-
Fluoride	ug/l	2000	ND (200)	830 [a]	ND (200)	670 [b]	-
Nitrogen, Ammonia	ug/l	3000	ND (200)	1700	**5100**	**46500**	-
Nitrogen, Nitrate	ug/l	10000	ND (110) [c]	320 [c]	ND (110) [c]	ND (110) [c]	-
Nitrogen, Nitrate + Nitrite	ug/l	10000	ND (100)	320	ND (100)	ND (100)	-
Nitrogen, Nitrite	ug/l	1000	ND (10)	ND (10)	ND (10)	ND (10)	-
Phenols	ug/l	-	ND (200)	ND (200)	ND (200)	ND (200)	-
Solids, Total Dissolved	ug/l	500000	ND (10000)	**755000**	**3960000**	**2830000**	-
Specific Conductivity	umhos/cm	-	ND (7.5)	1130	5270	4720	-
Sulfate	ug/l	250000	ND (10000)	ND (10000)	ND (10000)	ND (10000)	-
Total Organic Carbon	ug/l	-	ND (1000)	14000	43100	12500	-
Total Organic Halides	ug/l	-	ND (50)	320 [d]	530 [d]	380 [d]	-
pH	su	6.5-8.5	**4.45 [e]**	**6.25 [e]**	6.90 [e]	**6.06 [e]**	-

Footnotes:
[a] Peak shape indicates matrix interference and possible positive bias.
[b] Peak shape indicates matrix interference.
[c] Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
[d] Second column analysis indicates possible matrix interference and possible high bias.
[e] Sample received out of holding time for pH analysis.

Table 7
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at No. 1 Landfarm - 4th Quarter Sampling

Client Sample ID:		NJ Groundwater Criteria	BO-2	BO-3	FB	L1-1	L1-2	L1-3	L1-4	L1-LEACHATE	TB
Lab Sample ID:			JC7262-5	JC7262-6	JC7262-7	JC7262-1	JC7262-2	JC7262-3	JC7262-4	JC7295-1	JC7262-8
Date Sampled:			10/27/2015	10/27/2015	10/27/2015	10/27/2015	10/27/2015	10/27/2015	10/27/2015	10/27/2015	10/27/2015
Matrix:			Ground Water	Ground Water	Field Blank Water	Ground Water	Ground Water	Ground Water	Ground Water	Water	Trip Blank Water
GC/MS Volatiles (EPA 624)											
Benzene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Bromodichloromethane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Bromoform	ug/l	4	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Bromomethane	ug/l	10	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Carbon tetrachloride	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Chlorobenzene	ug/l	50	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	41.8	0.38 J	ND (1.0)	-	ND (1.0)
Chloroethane	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
2-Chloroethyl vinyl ether	ug/l	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	-	ND (5.0)
Chloroform	ug/l	70	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Chloromethane	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Dibromochloromethane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.62 J	ND (1.0)	ND (1.0)	-	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.74 J	ND (1.0)	ND (1.0)	-	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	2.1	ND (1.0)	ND (1.0)	-	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	-	ND (2.0)
1,1-Dichloroethane	ug/l	50	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
1,2-Dichloroethane	ug/l	2	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
1,1-Dichloroethene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.61 J	0.28 J	ND (1.0)	-	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
1,2-Dichloropropane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Ethylbenzene	ug/l	700	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Methyl Tert Butyl Ether	ug/l	70	0.30 J	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Tertiary Butyl Alcohol	ug/l	100	20.9 J	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	ND (25)	-	ND (25)
1,1,2,2-Tetrachloroethane	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Tetrachloroethene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	0.19 J	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Toluene	ug/l	600	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.28 J	ND (1.0)	ND (1.0)	-	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Trichloroethene	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Trichlorofluoromethane	ug/l	2000	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	-	ND (2.0)
Vinyl chloride	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
Xylenes (total)	ug/l	1000	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (1.0)
GC/MS Volatiles (SW846 8260C)											
Benzene	ug/l	1	-	-	-	-	-	-	-	ND (0.50)	-
2-Butanone (MEK)	ug/l	300	-	-	-	-	-	-	-	ND (10)	-
Carbon disulfide	ug/l	700	-	-	-	-	-	-	-	ND (2.0)	-
Chlorobenzene	ug/l	50	-	-	-	-	-	-	-	ND (1.0)	-
Chloroform	ug/l	70	-	-	-	-	-	-	-	ND (1.0)	-
1,2-Dibromoethane	ug/l	0.03	-	-	-	-	-	-	-	ND (1.0)	-
1,2-Dichloroethane	ug/l	2	-	-	-	-	-	-	-	ND (1.0)	-
1,4-Dioxane	ug/l	-	-	-	-	-	-	-	-	ND (130)	-
Ethylbenzene	ug/l	700	-	-	-	-	-	-	-	ND (1.0)	-
Methyl Tert Butyl Ether	ug/l	70	-	-	-	-	-	-	-	0.98 J	-
Styrene	ug/l	100	-	-	-	-	-	-	-	ND (1.0)	-
Tert Butyl Alcohol	ug/l	100	-	-	-	-	-	-	-	ND (10)	-
Toluene	ug/l	600	-	-	-	-	-	-	-	ND (1.0)	-
Vinyl chloride	ug/l	1	-	-	-	-	-	-	-	ND (1.0)	-
Xylene (total)	ug/l	1000	-	-	-	-	-	-	-	ND (1.0)	-
GC/MS Volatile TIC											
Total TIC, Volatile	ug/l	-	3.1 J	0	0	0	6.2 J	0	0	-	0
Total Alkanes	ug/l	-	0	0	0	0	0	0	0	-	0
GC/MS Semi-volatiles (EPA 625)											
2-Chlorophenol	ug/l	40	ND (5.0)	ND (5.3)	ND (5.2)	ND (5.6)	ND (5.5)	ND (5.0)	ND (5.0)	-	-
4-Chloro-3-methyl phenol	ug/l	-	ND (5.0)	ND (5.3)	ND (5.2)	ND (5.6)	ND (5.5)	ND (5.0)	ND (5.0)	-	-
2,4-Dichlorophenol	ug/l	20	ND (5.0)	ND (5.3)	ND (5.2)	ND (5.6)	ND (5.5)	ND (5.0)	ND (5.0)	-	-
2,4-Dimethylphenol	ug/l	100	ND (5.0)	ND (5.3)	ND (5.2)	ND (5.6)	ND (5.5)	ND (5.0)	ND (5.0)	-	-
2,4-Dinitrophenol	ug/l	40	ND (5.0)	ND (5.3)	ND (5.2)	ND (5.6)	ND (5.5)	ND (5.0)	ND (5.0)	-	-
4,6-Dinitro-o-cresol	ug/l	-	ND (5.0)	ND (5.3)	ND (5.2)	ND (5.6)	ND (5.5)	ND (5.0)	ND (5.0)	-	-
2-Nitrophenol	ug/l	-	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
4-Nitrophenol	ug/l	-	ND (10)	ND (11)	ND (10)	ND (11)	ND (11)	ND (10)	ND (10)	-	-
Pentachlorophenol	ug/l	0.3	ND (5.0)	ND (5.3)	ND (5.2)	ND (5.6)	ND (5.5)	ND (5.0)	ND (5.0)	-	-
Phenol	ug/l	2000	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
2,4,6-Trichlorophenol	ug/l	20	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
Acenaphthene	ug/l	400	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Acenaphthylene	ug/l	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Anthracene	ug/l	2000	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Benzidine	ug/l	20	ND (20)	ND (21)	ND (21)	ND (22)	ND (22)	ND (20)	ND (20)	-	-
Benzo(a)anthracene	ug/l	0.1	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Benzo(a)pyrene	ug/l	0.1	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Benzo(b)fluoranthene	ug/l	0.2	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Benzo(g,h,i)perylene	ug/l	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Benzo(k)fluoranthene	ug/l	0.5	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
4-Bromophenyl phenyl ether	ug/l	-	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
Butyl benzyl phthalate	ug/l	100	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
2-Chloronaphthalene	ug/l	600	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
4-Chloroaniline	ug/l	30	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
Chrysene	ug/l	5	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
bis(2-Chloroethoxy)methane	ug/l	-	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
bis(2-Chloroethyl)ether	ug/l	7	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
bis(2-Chloroisopropyl)ether	ug/l	300	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
4-Chlorophenyl phenyl ether	ug/l	-	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
1,2-Dichlorobenzene	ug/l	600	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
1,2-Diphenylhydrazine	ug/l	20	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
1,3-Dichlorobenzene	ug/l	600	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	0.45 J	ND (2.0)	ND (2.0)	-	-
1,4-Dichlorobenzene	ug/l	75	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	1.2 J	ND (2.0)	ND (2.0)	-	-
2,4-Dinitrotoluene	ug/l	-	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
2,6-Dinitrotoluene	ug/l	-	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
3,3'-Dichlorobenzidine	ug/l	30	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
Dibenz(a,h)anthracene	ug/l	0.3	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Di-n-butyl phthalate	ug/l	700	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
Di-n-octyl phthalate	ug/l	100	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
Diethyl phthalate	ug/l	6000	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
Dimethyl phthalate	ug/l	-	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
bis(2-Ethylhexyl)phthalate	ug/l	3	ND (2.0)	ND (2.1)	2.8	ND (2.2)	ND (2.2)	ND (2.0)	1.1 J	-	-
Fluoranthene	ug/l	300	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Fluorene	ug/l	300	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Hexachlorobenzene	ug/l	0.02	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Hexachlorobutadiene	ug/l	1	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Hexachlorocyclopentadiene	ug/l	40	ND (10)	ND (11)	ND (10)	ND (11)	ND (11)	ND (10)	ND (10)	-	-
Hexachloroethane	ug/l	7	ND (5.0)	ND (5.3)	ND (5.2)	ND (5.6)	ND (5.5)	ND (5.0)	ND (5.0)	-	-
Indeno(1,2,3-cd)pyrene	ug/l	0.2	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Isophorone	ug/l	40	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
Naphthalene	ug/l	300	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Nitrobenzene	ug/l	6	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
N-Nitrosodimethylamine	ug/l	0.8	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
N-Nitroso-di-n-propylamine	ug/l	10	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.2)	ND (2.0)	ND (2.0)	-	-
N-Nitrosodiphenylamine	ug/l	10	ND (5.0)	ND (5.3)	ND (5.2)	ND (5.6)	ND (5.5)	ND (5.0)	ND (5.0)	-	-
Phenanthrene	ug/l	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
Pyrene	ug/l	200	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
1,2,4-Trichlorobenzene	ug/l	9	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.0)	-	-
GC/MS Semi-volatiles (SW846 8270D)											
Benzaldehyde	ug/l	-	-	-	-	-	-	-	-	ND (20)	-
2,4-Dimethylphenol	ug/l	100	-	-	-	-	-	-	-	ND (5.0)	-
2,4-Dinitrophenol	ug/l	40	-	-	-	-	-	-	-	ND (10)	-
2-Methylphenol	ug/l	-	-	-	-	-	-	-	-	ND (2.0)	-
3&4-Methylphenol	ug/l	-	-	-	-	-	-	-	-	ND (2.0)	-
4-Nitrophenol	ug/l	-	-	-	-	-	-	-	-	ND (10)	-
Phenol	ug/l	2000	-	-	-	-	-	-	-	ND (2.0)	-
Anthracene	ug/l	2000	-	-	-	-	-	-	-	ND (1.0)	-
Benzo(a)anthracene	ug/l	0.1	-	-	-	-	-	-	-	ND (1.0)	-
Benzo(a)pyrene	ug/l	0.1	-	-	-	-	-	-	-	ND (1.0)	-
Benzo(b)fluoranthene	ug/l	0.2	-	-	-	-	-	-	-	ND (1.0)	-
Benzo(k)fluoranthene	ug/l	0.5	-	-	-	-	-	-	-	ND (1.0)	-
Butyl benzyl phthalate	ug/l	100	-	-	-	-	-	-	-	ND (2.0)	-
Chrysene	ug/l	5	-	-	-	-	-	-	-	ND (1.0)	-
1,2-Dichlorobenzene	ug/l	600	-	-	-	-	-	-	-	ND (1.0)	-
1,3-Dichlorobenzene	ug/l	600	-	-	-	-	-	-	-	ND (1.0)	-
1,4-Dichlorobenzene	ug/l	75	-	-	-	-	-	-	-	ND (1.0)	-
7,12-Dimethylbenz(a)anthracene	ug/l	-	-	-	-	-	-	-	-	ND (5.0)	-
Dibenz(a,h)acridine	ug/l	-	-	-	-	-	-	-	-	ND (5.0)	-
Dibenz(a,h)anthracene	ug/l	0.3	-	-	-	-	-	-	-	ND (1.0)	-
Di-n-butyl phthalate	ug/l	700	-	-	-	-	-	-	-	ND (2.0)	-
Di-n-octyl phthalate	ug/l	100	-	-	-	-	-	-	-	ND (2.0)	-
Diethyl phthalate	ug/l	6000	-	-	-	-	-	-	-	ND (2.0)	-
Dimethyl phthalate	ug/l	-	-	-	-	-	-	-	-	ND (2.0)	-
bis(2-Ethylhexyl)phthalate	ug/l	3	-	-	-	-	-	-	-	ND (2.0)	-
Fluoranthene	ug/l	300	-	-	-	-	-	-	-	ND (1.0)	-
Indene	ug/l	-	-	-	-	-	-	-	-	ND (5.0)	-
1-Methylnaphthalene	ug/l	-	-	-	-	-	-	-	-	ND (1.0)	-
6-Methyl Chrysene	ug/l	-	-	-	-	-	-	-	-	ND (5.0)	-
Naphthalene	ug/l	300	-	-	-	-	-	-	-	ND (1.0)	-
Phenanthrene	ug/l	-	-	-	-	-	-	-	-	ND (1.0)	-
Pyrene	ug/l	200	-	-	-	-	-	-	-	ND (1.0)	-
Pyridine	ug/l	-	-	-	-	-	-	-	-	ND (2.0)	-
Quinoline	ug/l	-	-	-	-	-	-	-	-	ND (5.0)	-
GC/MS Semi-volatile TIC											
Total TIC, Semi-Volatile	ug/l	-	7.6 J	0	0	0	9 J	0	0	-	-
Total Alkanes	ug/l	-	0	0	0	0	0	0	0	-	-
Metals Analysis											
Antimony	ug/l	6	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	-
Arsenic	ug/l	3	ND (3.0)	**9.1**	ND (3.0)	ND (3.0)	**38.9**	**28.2**	ND (3.0)	ND (9.0) *	-
Barium	ug/l	6000	-	-	-	-	-	-	-	ND (200)	-
Beryllium	ug/l	1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-
Cadmium	ug/l	4	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	-
Chromium	ug/l	70	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-
Cobalt	ug/l	-	-	-	-	-	-	-	-	ND (50)	-
Copper	ug/l	1300	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-	-
Lead	ug/l	5	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (9.0) *	-
Mercury	ug/l	2	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	-
Nickel	ug/l	100	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	**622**	-
Selenium	ug/l	40	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-
Silver	ug/l	40	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-	-
Thallium	ug/l	2	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	-	-
Vanadium	ug/l	-	-	-	-	-	-	-	-	ND (50)	-
Zinc	ug/l	2000	ND (20)	ND (20)	ND (20)	21.1	ND (20)	ND (20)	ND (20)	-	-
General Chemistry											
Cyanide	ug/l	100	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-	-
Nitrogen, Ammonia	ug/l	3000	1900	210	ND (200)	ND (200)	1600	1200	ND (200)	-	-
Phenols	ug/l	-	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	-	-
pH	su	6.5-8.5	**6.41** *	**5.95** *	**5.07** *	**4.65** *	**5.78** *	**6.43** *	6.52 *	-	-

Footnotes:

* Elevated detection limit due to dilution required for high interfering element.

* Sample received out of holding time for pH analysis.

Table 8
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at AOC 3 - Annual Sampling

Client Sample ID:		NJ Groundwater Quality Standards	NJ Interim Groundwater Criteria*	SP-1	SP-3
Lab Sample ID:				JC9448-5	JC9448-6
Date Sampled:				11/25/2015	11/25/2015
Matrix:				Ground Water	Ground Water
GC/MS Volatiles (SW846 8260C)					
Acetone	ug/l	6000	-	ND (10)	ND (10)
Benzene	ug/l	1	-	ND (0.50)	ND (0.50)
Bromochloromethane	ug/l	-	-	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	-	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	-	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	-	ND (2.0)	ND (2.0)
2-Butanone (MEK)	ug/l	300	-	ND (10)	ND (10)
Carbon disulfide	ug/l	700	-	ND (2.0)	ND (2.0)
Carbon tetrachloride	ug/l	1	-	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	-	ND (1.0)	ND (1.0)
Chloroethane	ug/l	-	5	ND (1.0)	ND (1.0)
Chloroform	ug/l	70	-	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	-	ND (1.0)	ND (1.0)
Cyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (2.0)	ND (2.0)
Dibromochloromethane	ug/l	1	-	ND (1.0)	ND (1.0)
1,2-Dibromoethane	ug/l	0.03	-	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	-	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	-	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	-	ND (1.0)	ND (1.0)
1,2-Dichloroethane	ug/l	2	-	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	-	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	-	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	-	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)
Freon 113	ug/l	-	20000	ND (5.0)	ND (5.0)
2-Hexanone	ug/l	-	300	ND (5.0)	ND (5.0)
Isopropylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)
Methyl Acetate	ug/l	7000	-	ND (5.0)	ND (5.0)
Methylcyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)
Methyl Tert Butyl Ether	ug/l	70	-	ND (1.0)	ND (1.0)
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (5.0)	ND (5.0)
Methylene chloride	ug/l	3	-	ND (2.0)	ND (2.0)
Styrene	ug/l	100	-	ND (1.0)	ND (1.0)
Tert Butyl Alcohol	ug/l	100	-	ND (10)	ND (10)
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	-	ND (1.0)	ND (1.0)
Toluene	ug/l	600	-	ND (1.0)	ND (1.0)
1,2,3-Trichlorobenzene	ug/l	-	-	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	-	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	-	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	-	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	-	ND (1.0)	ND (1.0)
m,p-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)
o-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)
Xylene (total)	ug/l	1000	-	ND (1.0)	ND (1.0)
GC/MS Volatile TIC					
Total TIC, Volatile	ug/l	-	-	0	0
Total Alkanes	ug/l	-	-	0	0
GC/MS Semi-volatiles (SW846 8270D)					
2-Chlorophenol	ug/l	40	-	ND (5.0)	ND (5.0)
4-Chloro-3-methyl phenol	ug/l	-	100	ND (5.0)	ND (5.0)
2,4-Dichlorophenol	ug/l	20	-	ND (2.0)	ND (2.0)
2,4-Dimethylphenol	ug/l	100	-	ND (5.0)	ND (5.0)
2,4-Dinitrophenol	ug/l	40	-	ND (10)	ND (10)
2-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)
3&4-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)
2-Nitrophenol	ug/l	-	-	ND (5.0)	ND (5.0)
4-Nitrophenol	ug/l	-	-	ND (10)	ND (10)
Phenol	ug/l	2000	-	ND (2.0)	ND (2.0)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (5.0)	ND (5.0)
2,4,5-Trichlorophenol	ug/l	700	-	ND (5.0)	ND (5.0)
2,4,6-Trichlorophenol	ug/l	20	-	ND (5.0)	ND (5.0)
Acenaphthene	ug/l	400	-	ND (1.0)	ND (1.0)
Acenaphthylene	ug/l	-	100	ND (1.0)	ND (1.0)
Acetophenone	ug/l	700	-	ND (2.0)	ND (2.0)
Anthracene	ug/l	2000	-	ND (1.0)	ND (1.0)
Atrazine	ug/l	3	-	ND (2.0)	ND (2.0)
Benzaldehyde	ug/l	-	-	ND (5.0)	ND (5.0)
Benzo(a)anthracene	ug/l	0.1	-	-	-
Benzo(g,h,i)perylene	ug/l	-	100	ND (1.0)	ND (1.0)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)
Butyl benzyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)
1,1'-Biphenyl	ug/l	400	-	ND (1.0)	ND (1.0)
2-Chloronaphthalene	ug/l	600	-	ND (2.0)	ND (2.0)
4-Chloroaniline	ug/l	30	-	ND (5.0)	ND (5.0)
Carbazole	ug/l	-	-	ND (1.0)	ND (1.0)
Caprolactam	ug/l	-	5000	13.3	3.8
Chrysene	ug/l	5	-	ND (1.0)	ND (1.0)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (2.0)	ND (2.0)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (2.0)	ND (2.0)
bis(2-Chloroisopropyl)ether	ug/l	300	-	ND (2.0)	ND (2.0)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)
2,4-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)
2,6-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (2.0)	ND (2.0)
1,4-Dioxane	ug/l	-	0.4	ND (1.0)	ND (1.0)
Dibenzofuran	ug/l	-	-	ND (5.0)	ND (5.0)
Di-n-butyl phthalate	ug/l	700	-	ND (2.0)	ND (2.0)
Di-n-octyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)
Diethyl phthalate	ug/l	6000	-	ND (2.0)	ND (2.0)
Dimethyl phthalate	ug/l	-	100	ND (2.0)	ND (2.0)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (2.0)	ND (2.0)
Fluoranthene	ug/l	300	-	ND (1.0)	ND (1.0)
Fluorene	ug/l	300	-	ND (1.0)	ND (1.0)
Hexachlorobutadiene	ug/l	1	-	ND (1.0)	ND (1.0)
Hexachlorocyclopentadiene	ug/l	40	-	ND (10)	ND (10)
Hexachloroethane	ug/l	7	-	ND (2.0)	ND (2.0)
Isophorone	ug/l	40	-	ND (2.0)	ND (2.0)
2-Methylnaphthalene	ug/l	-	30	ND (1.0)	ND (1.0)
2-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)
3-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)
4-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)
Naphthalene	ug/l	300	-	ND (1.0)	ND (1.0)
Nitrobenzene	ug/l	6	-	ND (2.0)	ND (2.0)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (2.0)	ND (2.0)
N-Nitrosodiphenylamine	ug/l	10	-	ND (5.0)	ND (5.0)
Phenanthrene	ug/l	-	-	ND (1.0)	ND (1.0)
Pyrene	ug/l	200	-	ND (1.0)	ND (1.0)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (2.0)	ND (2.0)
GC/MS Semi-volatiles (SW846 8270D BY SIM)					
4,6-Dinitro-o-cresol	ug/l	-	1	ND (0.50) [d]	ND (0.50) [d]
Pentachlorophenol	ug/l	0.3	-	ND (0.25)	ND (0.25)
Benzo(a)anthracene	ug/l	0.1	-	ND (0.050)	ND (0.050)
Benzo(a)pyrene	ug/l	0.1	-	ND (0.050)	ND (0.050)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.10)	ND (0.10)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.10)	ND (0.10)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.10)	ND (0.10)
Hexachlorobenzene	ug/l	0.02	-	ND (0.015)	ND (0.015)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.10)	ND (0.10)
GC/MS Semi-volatile TIC					
Total TIC, Semi-Volatile	ug/l	-	-	0	0
Total Alkanes	ug/l	-	-	0	0
Metals Analysis					
Aluminum	ug/l	200	-	**15000 [f]**	ND (200)
Antimony	ug/l	6	-	ND (20) [f]	ND (6.0)
Arsenic	ug/l	3	-	**25.3 [f]**	**9.7**
Barium	ug/l	6000	-	ND (670) [f]	ND (200)
Beryllium	ug/l	1	-	ND (3.3) [f]	ND (1.0)
Cadmium	ug/l	4	-	ND (10) [f]	ND (3.0)
Calcium	ug/l	-	-	ND (17000) [f]	12600
Chromium	ug/l	70	-	37.3 [f]	ND (10)
Cobalt	ug/l	-	100	ND (170) [f]	ND (50)
Copper	ug/l	1300	-	65.7 [f]	ND (10)
Iron	ug/l	300	-	**31200 [f]**	**13400**
Lead	ug/l	5	-	**109 [f]**	ND (3.0)
Magnesium	ug/l	-	-	ND (17000) [f]	6710
Manganese	ug/l	50	-	**271 [f]**	**300**
Mercury	ug/l	2	-	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	46.0 [f]	ND (10)
Potassium	ug/l	-	-	ND (33000) [f]	ND (10000)
Selenium	ug/l	40	-	ND (33) [f]	ND (10)
Silver	ug/l	40	-	ND (33) [f]	ND (10)
Sodium	ug/l	50000	-	ND (33000) [f]	**52200**
Thallium	ug/l	2	-	ND (6.7) [f]	ND (2.0)
Vanadium	ug/l	-	-	ND (170) [f]	ND (50)
Zinc	ug/l	2000	-	143 [f]	ND (20)
General Chemistry					
Nitrogen, Ammonia	ug/l	3000	-	ND (200)	620

Footnotes:
* This represents interim groundwater screening levels not yet official standards.
[a] This compound in BS is outside in house QC limits bias high. This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[b] This compound in BS is outside in house QC limits bias high. This compound is in applied status wtih NJDEP for reference method SW846 8270SIM.
[c] This compound in BS is outside in house QC limits bias high.This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[d] This compound in BS is outside in house QC limits bias high.
[e] This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[f] Elevated sample detection limit due to difficult sample matrix.
[g] Elevated detection limit due to dilution required for matrix interference.
[h] Elevated detection limit due to dilution required for high interfering element.
[i] Elevated detection limit due to dilution required for matrix interference (indicated by failing internal standard on original analysis).

Table 9
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at AOC 10 - Annual Sampling

Client Sample ID:		NJ Groundwater Quality Standards	NJ Interim Groundwater Criteria[a]	TR-1R	TR-2R	TR-3RR	TR-4R	TR-4D	TR-4DD	TR-5R	TR-6	TR-6D	PER-1
Lab Sample ID:				JC8967-1	JC8967-4	JC8967-6	JC8967-8	JC8967-9	JC8967-10	JC8967-7	JC8967-2	JC8967-3	JC8967-5
Date Sampled:				11/19/2015	11/19/2015	11/19/2015	11/19/2015	11/19/2015	11/19/2015	11/19/2015	11/19/2015	11/19/2015	11/19/2015
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
GC/MS Volatiles (SW846 8260C)													
Acetone	ug/l	6000	-	ND (10)	ND (10)	ND (50)	ND (10)	ND (100)	ND (10)	ND (100)	ND (10)	ND (10)	ND (50)
Benzene	ug/l	1	-	ND (0.50)	**912**	**3.8**	**52.5**	**6.1**	ND (0.50)	**1200**	**426**	ND (0.50)	ND (0.50)
Bromochloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	-	ND (2.0)	ND (2.0)	ND (10)	ND (2.0)	ND (20)	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)
2-Butanone (MEK)	ug/l	300	-	ND (10)	11.8	ND (50)	ND (10)	ND (100)	ND (10)	ND (100)	ND (10)	ND (10)	ND (50)
Carbon disulfide	ug/l	700	-	ND (2.0)	ND (2.0)	ND (10)	ND (2.0)	ND (20)	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)
Carbon tetrachloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	-	ND (1.0)	ND (1.0)	ND (5.0)	0.19 J	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroethane	ug/l	-	5	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	ug/l	70	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Cyclohexane	ug/l	-	-	ND (5.0)	39.4	ND (25)	62	ND (50)	ND (5.0)	25.4 J	4.9 J	ND (5.0)	ND (5.0)
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (2.0)	ND (2.0)	ND (10)	ND (2.0)	ND (20)	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)
Dibromochloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromoethane	ug/l	0.03	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	0.21 J	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	-	ND (2.0)	ND (2.0)	ND (10)	ND (2.0)	ND (20)	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	-	0.31 J	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	0.77 J	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloroethane	ug/l	2	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	-	**2.1**	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	**3.1**	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	5.4	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	-	ND (1.0)	365	ND (5.0)	111	ND (10)	ND (1.0)	100	49.9	ND (1.0)	ND (1.0)
Freon 113	ug/l	-	20000	ND (5.0)	ND (5.0)	ND (25)	ND (5.0)	ND (50)	ND (5.0)	ND (50)	ND (5.0)	ND (5.0)	ND (5.0)
2-Hexanone	ug/l	-	300	ND (5.0)	ND (5.0)	ND (25)	ND (5.0)	ND (50)	ND (5.0)	ND (50)	ND (5.0)	ND (5.0)	ND (5.0)
Isopropylbenzene	ug/l	700	-	ND (1.0)	13.9	ND (5.0)	10.5	ND (10)	16.4	ND (10)	1.2	ND (1.0)	ND (1.0)
Methyl Acetate	ug/l	7000	-	ND (5.0)	ND (5.0)	ND (25)	ND (5.0)	ND (50)	ND (5.0)	ND (50)	ND (5.0)	ND (5.0)	ND (5.0)
Methylcyclohexane	ug/l	-	-	ND (5.0)	53.1	ND (25)	46.5	ND (50)	ND (5.0)	10.2 J	2.1 J	ND (5.0)	ND (5.0)
Methyl Tert Butyl Ether	ug/l	70	-	ND (1.0)	**2480**	**1530**	7.2	**9120**	8.5	**1370**	**6690**	93.5	ND (1.0)
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (5.0)	16	ND (25)	4.1 J	ND (50)	ND (5.0)	ND (50)	ND (5.0)	ND (5.0)	ND (5.0)
Methylene chloride	ug/l	3	-	ND (2.0)	ND (2.0)	ND (10)	ND (2.0)	ND (20)	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)
Styrene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Tert Butyl Alcohol	ug/l	100	-	ND (10)	**151**	**1850**	**151**	**39400**	10.4	**1240**	**1720**	ND (10)	ND (10)
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	ug/l	600	-	ND (1.0)	449	ND (5.0)	37.2	ND (10)	ND (1.0)	19.2	8.7	ND (1.0)	ND (1.0)
1,2,3-Trichlorobenzene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	-	0.78 J	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	**3.2**	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (10)	ND (2.0)	ND (20)	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (10)	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)
m-p-Xylene	ug/l	-	-	ND (1.0)	778	ND (5.0)	124	ND (10)	ND (1.0)	22.3	8.2	ND (1.0)	ND (1.0)
o-Xylene	ug/l	-	-	ND (1.0)	341	ND (5.0)	50.3	ND (10)	ND (1.0)	11.2	13.2	ND (1.0)	ND (1.0)
Xylene (total)	ug/l	1000	-	ND (1.0)	**1120**	ND (5.0)	174	ND (10)	ND (1.0)	33.5	21.3	ND (1.0)	ND (1.0)
GC/MS Volatile TIC													
Total TIC, Volatile	ug/l	-	-	0	2840 J	0	1422 J	470 J	0	645 J	210.9 J	0	0
Total Alkanes	ug/l	-	-	0	613 J	0	522 J	0	0	681 J	165.5 J	0	0
GC/MS Semi-volatiles (SW846 8270D)													
2-Chlorophenol	ug/l	40	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
2-Chloro-3-methyl phenol	ug/l	-	100	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
2,4-Dichlorophenol	ug/l	20	-	ND (2.2)	7.1	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
2,4-Dimethylphenol	ug/l	100	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
2,4-Dinitrophenol	ug/l	40	-	ND (11)	ND (11)	ND (11)	ND (10)	ND (11)	ND (11)	ND (10)	ND (11)	ND (11)	ND (10)
2-Methylphenol	ug/l	-	50	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
3&4-Methylphenol	ug/l	-	50	ND (2.2)	4.7	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
2-Nitrophenol	ug/l	-	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
4-Nitrophenol	ug/l	-	-	ND (11)	ND (11)	ND (11)	ND (10)	ND (11)	ND (11)	ND (10)	ND (11)	ND (11)	ND (10)
Phenol	ug/l	2000	-	ND (2.2)	26.1	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	24.5	7.8	ND (2.1)	ND (2.0)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
2,4,5-Trichlorophenol	ug/l	700	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
2,4,6-Trichlorophenol	ug/l	20	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
Acenaphthene	ug/l	400	-	ND (1.1)	14.2	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
Acenaphthylene	ug/l	-	100	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
Acetophenone	ug/l	700	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
Anthracene	ug/l	2000	-	ND (1.1)	7.5	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
Atrazine	ug/l	3	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
Benzaldehyde	ug/l	-	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
Benzo(a)anthracene	ug/l	0.1	-	--	**5.3**	--	--	--	--	--	--	--	--
Benzo(a)-h,i,j-perylene	ug/l	-	100	ND (1.1)	1.3	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
Butyl benzyl phthalate	ug/l	100	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
1,1'-Biphenyl	ug/l	400	-	ND (1.1)	11.9	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
2-Chloronaphthalene	ug/l	600	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
4-Chloroaniline	ug/l	30	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
Carbazole	ug/l	-	-	ND (1.1)	8.2	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
Caprolactam	ug/l	-	5000	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
Chrysene	ug/l	5	-	ND (1.1)	4.2	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
bis(2-Chloroisopropyl)ether	ug/l	300	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
2,4-Dinitrotoluene	ug/l	-	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
2,6-Dinitrotoluene	ug/l	-	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
1,4-Dioxane	ug/l	-	0.4	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)	**1.3**	**0.78 J**	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
Dibenzofuran	ug/l	-	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
Di-n-butyl phthalate	ug/l	700	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
Di-n-octyl phthalate	ug/l	100	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
Diethyl phthalate	ug/l	6000	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
Dimethyl phthalate	ug/l	-	550	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (2.2)	3	ND (2.1)	1.2 J	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
Fluoranthene	ug/l	300	-	ND (1.1)	16.3	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
Fluorene	ug/l	300	-	ND (1.1)	18.1	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
Hexachlorobutadiene	ug/l	1	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
Hexachlorocyclopentadiene	ug/l	40	-	ND (11)	ND (11)	ND (11)	ND (10)	ND (11)	ND (11)	ND (10)	ND (11)	ND (11)	ND (10)
Hexachloroethane	ug/l	7	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
Isophorone	ug/l	40	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
2-Methylnaphthalene	ug/l	-	30	ND (1.1)	**55.2**	ND (1.1)	2.6	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
2-Nitroaniline	ug/l	-	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
3-Nitroaniline	ug/l	-	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
4-Nitroaniline	ug/l	-	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
Naphthalene	ug/l	300	-	ND (1.1)	97.7	ND (1.1)	2.8	ND (1.1)	ND (1.1)	3	3	ND (1.1)	ND (1.0)
Nitrobenzene	ug/l	6	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
N-Nitrosodiphenylamine	ug/l	10	-	ND (5.5)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.1)	ND (5.3)	ND (5.3)	ND (5.0)
Phenanthrene	ug/l	-	-	ND (1.1)	41.3	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
Pyrene	ug/l	200	-	ND (1.1)	15.8	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.0)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)
GC/MS Semi-volatiles (SW846 8270D BY SIM)													
4,6-Dinitro-o-cresol	ug/l	-	1	ND (0.55)	ND (0.53)	ND (0.53)	ND (0.51)	ND (0.53)	ND (0.53)	ND (0.51)	ND (0.53)	ND (0.53)	ND (0.50)
Pentachlorophenol	ug/l	0.3	-	ND (0.27)	ND (0.27)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.27)	ND (0.25)
Benzo(a)anthracene	ug/l	0.1	-	ND (0.055)	--	ND (0.053)	ND (0.051)	ND (0.053)	ND (0.053)	ND (0.051)	ND (0.053)	ND (0.053)	ND (0.050)
Benzo(a)pyrene	ug/l	0.1	-	ND (0.055)	**3.41**	ND (0.053)	ND (0.051)	ND (0.053)	ND (0.053)	ND (0.051)	ND (0.053)	ND (0.053)	ND (0.050)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.11)	**4.47**	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)	ND (0.10)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.11)	**1.63**	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)	ND (0.10)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.11)	**0.487**	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)	ND (0.10)
Hexachlorobenzene	ug/l	0.02	-	ND (0.016)	ND (0.016)	ND (0.016)	ND (0.015)	ND (0.016)	ND (0.016)	ND (0.015)	ND (0.016)	ND (0.016)	ND (0.015)
Indeno[1,2,3-cd]pyrene	ug/l	0.2	-	ND (0.11)	**1.41**	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)	ND (0.10)
GC/MS Semi-volatile TIC													
Total TIC, Semi-Volatile	ug/l	-	-	0	1362 J	0	565.1 J	0	0	229.9 J	38.8 J	0	9.1 J
Total Alkanes	ug/l	-	-	0	291 J	0	0	0	0	0	0	0	0
Metals Analysis													
Aluminum	ug/l	200	-	**35200**[1]	**741**	**1510**	**4450**	ND (200)	**779**	**215**	**896**	**1010**	**2560**
Antimony	ug/l	6	-	ND (12)[1]	ND (8.0)	ND (8.0)	ND (8.0)	ND (8.0)	ND (8.0)	**6.1**	ND (8.0)	ND (8.0)	ND (8.0)
Arsenic	ug/l	3	-	**18.4**[1]	**3.5**	**3.3**	**18.8**	ND (3.0)	ND (3.0)	ND (3.0)	**8.4**	ND (3.0)	ND (3.0)
Barium	ug/l	6000	-	ND (400)[1]	ND (200)	ND (200)	ND (200)	258	222	ND (200)	ND (200)	ND (200)	ND (200)
Beryllium	ug/l	1	-	**2.4**[1]	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Cadmium	ug/l	4	-	ND (8.0)[1]	**4.2**	ND (3.0)	**4.6**	**6.7**	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)
Calcium	ug/l	-	-	58400[1]	25000	73800	37900	107000	39700	49100	44400	34500	48800
Chromium	ug/l	70	-	**73.4**[1]	22.2	ND (10)	13	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Cobalt	ug/l	-	100	ND (100)[1]	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)
Copper	ug/l	1300	-	51.6	10.2	ND (10)	23.5	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Iron	ug/l	300	-	**45800**[1]	**1870**	**2620**	**4610**	178	**3490**	**3280**	**3340**	**487**	**2310**
Lead	ug/l	5	-	**22.6**[1]	4.3	**5.1**	**22.8**	ND (3.0)	ND (3.0)	ND (3.0)	**5.2**	3.3	**7.3**
Magnesium	ug/l	-	-	22700[1]	ND (5000)	5080	ND (5000)	17400	17000	46400	8010	5770	7250
Manganese	ug/l	50	-	**742**[1]	**423**	**591**	**147**	**291**	**138**	**1240**	**565**	ND (15)	**873**
Mercury	ug/l	2	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	40.6[1]	12	ND (10)	18.1	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Potassium	ug/l	-	-	ND (20000)[1]	51800	ND (10000)	18200	ND (10000)	ND (10000)	ND (10000)	ND (10000)	ND (10000)	ND (10000)
Selenium	ug/l	40	-	ND (20)[1]	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Silver	ug/l	40	-	ND (20)[1]	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Sodium	ug/l	50000	-	40900	**315000**	30700	**251000**	**117000**	**57200**	**192000**	23300	20100	27900
Thallium	ug/l	2	-	ND (40)[1]	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)
Vanadium	ug/l	-	-	121[1]	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)
Zinc	ug/l	2000	-	104[1]	49.1	ND (20)	289	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)	21.8
General Chemistry													
Nitrogen, Ammonia	ug/l	3000	-	ND (200)	2900	210	1500	ND (200)	ND (200)	440	300	ND (200)	ND (200)

Footnotes:

Table 10
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at AOC 11a - Annual Sampling

Client Sample ID:		NJ Groundwater Quality Standards	NJ Interim Groundwater Criteria*	AD-1	AD-2	AD-2DD	AD-3	AD-3D	AD-4	AD-5	AD-5D	AD-6	AD-8	AD-9D
Lab Sample ID:				JC8759-1	JC8759-2	JC8759-3	JC8759-9	JC8759-10	JC8759-7	JC8759-8	JC8759-6	JC8759-4	JC8759-5	JC8759-11
Date Sampled:				11/17/2015	11/17/2015	11/17/2015	11/17/2015	11/17/2015	11/17/2015	11/17/2015	11/17/2015	11/17/2015	11/17/2015	11/17/2015
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
GC/MS Volatiles (SW846 8260C)														
Acetone	ug/l	6000	-	ND (10)	ND (100)	18.6	ND (10)	ND (10)	ND (10)	ND (200)	ND (200)	ND (10)	ND (10)	ND (10)
Benzene	ug/l	1	-	ND (0.50)	**5**	ND (0.50)	ND (0.50)	ND (0.50)	**3.8**	ND (10)	**17.4**	ND (0.50)	ND (0.50)	0.51
Bromochloromethane	ug/l	-	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	-	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (40)	ND (40)	ND (2.0)	ND (2.0)	ND (2.0)
2-Butanone (MEK)	ug/l	300	-	ND (10)	ND (100)	ND (10)	ND (10)	ND (10)	ND (10)	ND (200)	ND (200)	ND (10)	ND (10)	ND (10)
Carbon disulfide	ug/l	700	-	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (40)	ND (40)	ND (2.0)	ND (2.0)	ND (2.0)
Carbon tetrachloride	ug/l	1	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	-	ND (1.0)	3.7 J	ND (1.0)	ND (1.0)	ND (1.0)	**248**	20.1	30	ND (1.0)	ND (1.0)	26.9
Chloroethane	ug/l	-	5	ND (1.0)	**17.4**	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	ug/l	70	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	29.6	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
Cyclohexane	ug/l	-	-	ND (5.0)	ND (50)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (100)	ND (100)	ND (5.0)	ND (5.0)	ND (5.0)
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (40)	ND (40)	ND (2.0)	ND (2.0)	ND (2.0)
Dibromochloromethane	ug/l	1	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromoethane	ug/l	0.03	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (10)	0.31 J	ND (1.0)	ND (1.0)	93.7	154	467	0.44 J	ND (1.0)	90
1,3-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	52.8	ND (20)	5.8 J	ND (1.0)	ND (1.0)	3.5
1,4-Dichlorobenzene	ug/l	75	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	**108**	66.3	**132**	0.29 J	ND (1.0)	51.4
Dichlorodifluoromethane	ug/l	1000	-	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (40)	ND (40)	ND (2.0)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	-	ND (1.0)	**484**	11	ND (1.0)	12.6	1.7	ND (20)	**1530**	ND (1.0)	ND (1.0)	5.5
1,2-Dichloroethane	ug/l	2	-	ND (1.0)	**4.7 J**	0.92 J	ND (1.0)	ND (1.0)	**3.1**	ND (20)	**50.7**	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	-	ND (1.0)	**2980**	**8.9**	ND (1.0)	**14**	ND (1.0)	ND (20)	**11300**	ND (1.0)	ND (1.0)	**8.6**
cis-1,2-Dichloroethene	ug/l	70	-	ND (1.0)	26.4	0.98 J	ND (1.0)	7.3	3.5	**2900**	21.3	0.90 J	ND (1.0)	**271**
trans-1,2-Dichloroethene	ug/l	100	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	15.2 J	ND (20)	ND (1.0)	ND (1.0)	1.7
1,2-Dichloropropane	ug/l	1	-	ND (1.0)	**23**	ND (1.0)	ND (1.0)	ND (1.0)	**1.6**	ND (20)	**144**	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	-	ND (1.0)	13.5	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	21.8	ND (1.0)	ND (1.0)	ND (1.0)
Freon 113	ug/l	-	20000	ND (5.0)	ND (50)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	79.2 J	197	2.0 J	ND (5.0)	116
2-Hexanone	ug/l	-	300	ND (5.0)	ND (50)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (100)	ND (100)	ND (5.0)	ND (5.0)	ND (5.0)
Isopropylbenzene	ug/l	700	-	ND (1.0)	6.8 J	ND (1.0)	ND (1.0)	ND (1.0)	1.1	ND (20)	8.8 J	ND (1.0)	ND (1.0)	ND (1.0)
Methyl Acetate	ug/l	7000	-	ND (5.0)	ND (50)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (100)	ND (100)	ND (5.0)	ND (5.0)	ND (5.0)
Methylcyclohexane	ug/l	-	-	ND (5.0)	5.0 J	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (100)	ND (100)	ND (5.0)	ND (5.0)	ND (5.0)
Methyl Tert Butyl Ether	ug/l	70	-	ND (1.0)	ND (10)	0.30 J	ND (1.0)	2.9	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	1.1
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (5.0)	ND (50)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (100)	ND (100)	ND (5.0)	ND (5.0)	ND (5.0)
Methylene chloride	ug/l	3	-	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (40)	ND (40)	ND (2.0)	ND (2.0)	ND (2.0)
Styrene	ug/l	100	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
Tert Butyl Alcohol	ug/l	100	-	ND (10)	ND (100)	ND (10)	ND (10)	ND (10)	ND (10)	ND (200)	ND (200)	ND (10)	ND (10)	ND (10)
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	-	ND (1.0)	**298**	ND (1.0)	ND (1.0)	0.59 J	**1.3**	**1150**	**184**	ND (1.0)	ND (1.0)	**437**
Toluene	ug/l	600	-	ND (1.0)	36.3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,3-Trichlorobenzene	ug/l	-	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	0.43 J	16.9 J	17.1 J	ND (1.0)	ND (1.0)	5
1,2,4-Trichlorobenzene	ug/l	9	-	ND (1.0)	ND (10)	ND (1.0)	ND (1.0)	ND (1.0)	6.6	**70**	**80.9**	ND (1.0)	ND (1.0)	**23.8**
1,1,1-Trichloroethane	ug/l	30	-	ND (1.0)	**1420**	11.5	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	**3250**	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	-	ND (1.0)	**5.4 J**	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	**44.5**	ND (1.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	-	ND (1.0)	**75.2**	0.75 J	ND (1.0)	**7.8**	0.75 J	**527**	**110**	ND (1.0)	ND (1.0)	**192**
Trichlorofluoromethane	ug/l	2000	-	ND (2.0)	ND (20)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (40)	ND (40)	ND (2.0)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	-	ND (1.0)	**80**	0.31 J	ND (1.0)	ND (1.0)	0.44 J	**20.3**	**94.9**	ND (1.0)	ND (1.0)	**8.4**
m,p-Xylene	ug/l	-	-	ND (1.0)	8.6 J	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	15.2 J	ND (1.0)	ND (1.0)	ND (1.0)
o-Xylene	ug/l	-	-	ND (1.0)	32.1	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	88.2	ND (1.0)	ND (1.0)	ND (1.0)
Xylene (total)	ug/l	1000	-	ND (1.0)	40.7	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (20)	103	ND (1.0)	ND (1.0)	ND (1.0)
GC/MS Volatile TIC														
Total TIC, Volatile	ug/l	-	-	0	0	0	0	0	0	0	0	0	0	44 J
Total Alkanes	ug/l	-	-	0	0	0	0	0	0	0	0	0	0	0
GC/MS Semi-volatiles (SW846 8270D)														
2-Chlorophenol	ug/l	40	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
4-Chloro-3-methyl phenol	ug/l	-	100	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
2,4-Dichlorophenol	ug/l	20	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2,4-Dimethylphenol	ug/l	100	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
2,4-Dinitrophenol	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
2-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	3.4	ND (2.0)	ND (2.0)	ND (2.0)
3&4-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	1.6 J	ND (2.0)	ND (2.0)	ND (2.0)
2-Nitrophenol	ug/l	-	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
4-Nitrophenol	ug/l	-	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Phenol	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
2,4,5-Trichlorophenol	ug/l	700	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
2,4,6-Trichlorophenol	ug/l	20	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
Acenaphthene	ug/l	400	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Acenaphthylene	ug/l	-	100	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Acetophenone	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Anthracene	ug/l	2000	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Atrazine	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Benzaldehyde	ug/l	-	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
Benzo(a)anthracene	ug/l	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	ug/l	-	100	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Butyl benzyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
1,1'-Biphenyl	ug/l	400	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Chloronaphthalene	ug/l	600	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
4-Chloroaniline	ug/l	30	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
Carbazole	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Caprolactam	ug/l	-	5000	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Chrysene	ug/l	5	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
bis(2-Chloroisopropyl)ether	ug/l	300	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2,4-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2,6-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
1,4-Dioxane	ug/l	-	0.4	**7.4**	**8870**	**8.5**	ND (1.0)	**18.1**	**2.9**	ND (1.0)	**5800**	ND (1.0)	ND (1.0)	**1.8**
Dibenzofuran	ug/l	-	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
Di-n-butyl phthalate	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Di-n-octyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Diethyl phthalate	ug/l	6000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Dimethyl phthalate	ug/l	-	100	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Fluoranthene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Fluorene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Hexachlorobutadiene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Hexachlorocyclopentadiene	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Hexachloroethane	ug/l	7	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Isophorone	ug/l	40	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2-Methylnaphthalene	ug/l	-	30	ND (1.0)	0.96 J	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
3-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
4-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
Naphthalene	ug/l	300	-	ND (1.0)	9.2	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	3.8	ND (1.0)	ND (1.0)	ND (1.0)
Nitrobenzene	ug/l	6	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
N-Nitrosodiphenylamine	ug/l	10	-	ND (5.0)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.1)
Phenanthrene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Pyrene	ug/l	200	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
GC/MS Semi-volatiles (SW846 8270D BY SIM)														
4,6-Dinitro-o-cresol	ug/l	-	1	ND (0.50) [a]	ND (0.51) [a]	ND (0.51) [b]	ND (0.51) [c]	ND (0.51) [c]	ND (0.51) [a]	ND (0.50) [a]	ND (0.50) [a]	ND (0.51) [a]	ND (0.50) [a]	ND (0.51) [c]
Pentachlorophenol	ug/l	0.3	-	ND (0.25)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.25)	ND (0.26)	ND (0.25)	ND (0.25)	ND (0.26)	ND (0.25)	ND (0.25)
Benzo(a)anthracene	ug/l	0.1	-	ND (0.050)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.050)	ND (0.050)	ND (0.051)	ND (0.050)	**0.121**
Benzo(a)pyrene	ug/l	0.1	-	ND (0.050)	ND (0.051)	ND (0.051)	ND (0.051)	ND (0.051)	0.0545	ND (0.050)	ND (0.050)	ND (0.051)	ND (0.050)	0.0642
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.124
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Hexachlorobenzene	ug/l	0.02	-	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	**0.0386**	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.115	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
GC/MS Semi-volatile TIC														
Total TIC, Semi-Volatile	ug/l	-	-	6.2 J	86.2 J	10.1 J	0	0	0	0	0	6.9 J	12 J	0
Total Alkanes	ug/l	-	-	0	0	0	0	0	0	0	0	0	0	0
Metals Analysis														
Aluminum	ug/l	200	-	**503**	**624**	**5550**	**1290**	ND (200)	**288**	**779**	**404**	**459**	**544**	ND (200)
Antimony	ug/l	6	-	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)
Arsenic	ug/l	3	-	ND (3.0)	**16.4** [g]	**4.5**	ND (3.0)	ND (3.0)	**3.6**	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)
Barium	ug/l	6000	-	ND (200)	898	426	ND (200)	ND (200)	635	223	382	ND (200)	ND (200)	215
Beryllium	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Cadmium	ug/l	4	-	ND (3.0)	**8**	**7**	ND (3.0)	ND (3.0)	**52.8**	ND (3.0)	**11.1**	ND (3.0)	ND (3.0)	ND (3.0)
Calcium	ug/l	-	-	76400	368000	69300	26100	111000	142000	66800	254000	68000	37800	130000
Chromium	ug/l	70	-	ND (10)	ND (10)	16.4	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Cobalt	ug/l	-	100	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)
Copper	ug/l	1300	-	ND (10)	12.5	21.7	ND (10)	ND (10)	12.8	ND (10)	ND (10)	14.1	ND (10)	ND (10)
Iron	ug/l	300	-	**1230**	**24800**	**5160**	**1360**	ND (100)	**2140**	**1020**	**1180**	**521**	**543**	ND (100)
Lead	ug/l	5	-	ND (3.0)	3.8	**8.4**	ND (3.0)	ND (3.0)	3.5	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)
Magnesium	ug/l	-	-	9820	80200	5160	7000	23000	64000	21800	44300	10800	6330	44200
Manganese	ug/l	50	-	**634**	**18700**	**125**	**104**	**549**	**4870**	**2210**	**6170**	**174**	**809**	**1490**
Mercury	ug/l	2	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	ND (10)	54.5	11.6	ND (10)	ND (10)	25.8	ND (10)	ND (10)	ND (10)	ND (10)	10.8
Potassium	ug/l	-	-	ND (10000)	ND (10000)	165000	ND (10000)	ND (10000)	ND (10000)	ND (10000)	ND (10000)	ND (10000)	ND (10000)	ND (10000)
Selenium	ug/l	40	-	ND (10)	ND (30) [g]	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Silver	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Sodium	ug/l	50000	-	**155000**	**297000**	**333000**	12200	**190000**	**1050000**	**217000**	**79100**	39800	**242000**	**119000**
Thallium	ug/l	2	-	ND (2.0)	ND (6.0) [g]	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Vanadium	ug/l	-	-	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)

Table 11
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at AOC 11b - Annual Sampling

Client Sample ID:		NJ Groundwater Quality Standards	NJ Interim Groundwater Criteria*	TC-1	TC-2	TC-3	PER-6R
Lab Sample ID:				JC9071-3	JC9071-2	JC9071-1	JC9071-4
Date Sampled:				11/20/2015	11/20/2015	11/20/2015	11/20/2015
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water
GC/MS Volatiles (SW846 8260C)							
Acetone	ug/l	6000	-	ND (10)	ND (10)	ND (10)	ND (10)
Benzene	ug/l	1	-	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Bromochloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2-Butanone (MEK)	ug/l	300	-	ND (10)	ND (10)	ND (10)	ND (10)
Carbon disulfide	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Carbon tetrachloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroethane	ug/l	-	5	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Cyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Dibromochloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromoethane	ug/l	0.03	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloroethane	ug/l	2	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Freon 113	ug/l	-	20000	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
2-Hexanone	ug/l	-	300	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Isopropylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Methyl Acetate	ug/l	7000	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylcyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methyl Tert Butyl Ether	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylene chloride	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Styrene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tert Butyl Alcohol	ug/l	100	-	ND (10)	ND (10)	ND (10)	ND (10)
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,3-Trichlorobenzene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
m,p-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
o-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Xylene (total)	ug/l	1000	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
GC/MS Volatile TIC							
Total TIC, Volatile	ug/l	-	-	0	0	0	0
Total Alkanes	ug/l	-	-	0	0	0	0
GC/MS Semi-volatiles (SW846 8270D)							
2-Chlorophenol	ug/l	40	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
4-Chloro-3-methyl phenol	ug/l	-	100	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
2,4-Dichlorophenol	ug/l	20	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2,4-Dimethylphenol	ug/l	100	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
2,4-Dinitrophenol	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (10)
2-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
3&4-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2-Nitrophenol	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
4-Nitrophenol	ug/l	-	-	ND (10)	ND (10)	ND (10)	ND (10)
Phenol	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
2,4,5-Trichlorophenol	ug/l	700	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
2,4,6-Trichlorophenol	ug/l	20	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Acenaphthene	ug/l	400	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Acenaphthylene	ug/l	-	100	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Acetophenone	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Anthracene	ug/l	2000	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Atrazine	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Benzaldehyde	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Benzo(a)anthracene	ug/l	0.1	-	-	-	-	-
Benzo(g,h,i)perylene	ug/l	-	100	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Butyl benzyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
1,1'-Biphenyl	ug/l	400	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Chloronaphthalene	ug/l	600	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
4-Chloroaniline	ug/l	30	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Carbazole	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Caprolactam	ug/l	-	5000	4.9	6.2	11.8	7.1
Chrysene	ug/l	5	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
bis(2-Chloroisopropyl)ether	ug/l	300	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2,4-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2,6-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
1,4-Dioxane	ug/l	-	0.4	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dibenzofuran	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Di-n-butyl phthalate	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Di-n-octyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Diethyl phthalate	ug/l	6000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Dimethyl phthalate	ug/l	-	100	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Fluoranthene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Fluorene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Hexachlorobutadiene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Hexachlorocyclopentadiene	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (10)
Hexachloroethane	ug/l	7	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Isophorone	ug/l	40	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2-Methylnaphthalene	ug/l	-	30	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
3-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
4-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Naphthalene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Nitrobenzene	ug/l	6	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
N-Nitrosodiphenylamine	ug/l	10	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Phenanthrene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Pyrene	ug/l	200	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
GC/MS Semi-volatiles (SW846 8270D BY SIM)							
4,6-Dinitro-o-cresol	ug/l	-	1	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Pentachlorophenol	ug/l	0.3	-	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Benzo(a)anthracene	ug/l	0.1	-	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)
Benzo(a)pyrene	ug/l	0.1	-	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Hexachlorobenzene	ug/l	0.02	-	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
GC/MS Semi-volatile TIC							
Total TIC, Semi-Volatile	ug/l	-	-	0	0	24.1 J	0
Total Alkanes	ug/l	-	-	0	0	0	0
Metals Analysis							
Aluminum	ug/l	200	-	**392**	**792**	**348**	**546**
Antimony	ug/l	6	-	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)
Arsenic	ug/l	3	-	ND (3.0)	**53**	**12.6**	ND (3.0)
Barium	ug/l	6000	-	ND (200)	592	ND (200)	ND (200)
Beryllium	ug/l	1	-	ND (1.0)	**1.1**	ND (1.0)	ND (1.0)
Cadmium	ug/l	4	-	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)
Calcium	ug/l	-	-	35900	16500	85400	71100
Chromium	ug/l	70	-	ND (10)	ND (10)	ND (10)	ND (10)
Cobalt	ug/l	-	100	ND (50)	ND (50)	ND (50)	ND (50)
Copper	ug/l	1300	-	ND (10)	ND (10)	18.2	15.7
Iron	ug/l	300	-	226	**72500**	**9130**	**571**
Lead	ug/l	5	-	ND (3.0)	ND (3.0)	4.6	ND (3.0)
Magnesium	ug/l	-	-	16100	ND (5000)	14800	7950
Manganese	ug/l	50	-	**1100**	**561**	**4550**	ND (15)
Mercury	ug/l	2	-	ND (0.20)	ND (0.40)	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	26.1	ND (10)	11.7	ND (10)
Potassium	ug/l	-	-	ND (10000)	ND (10000)	ND (10000)	21000
Selenium	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (10)
Silver	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (10)
Sodium	ug/l	50000	-	**109000**	22700	**55600**	**90200**
Thallium	ug/l	2	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Vanadium	ug/l	-	-	ND (50)	ND (50)	ND (50)	ND (50)
Zinc	ug/l	2000	-	53.1	ND (20)	35.6	23.6
General Chemistry							
Nitrogen, Ammonia	ug/l	3000	-	ND (200)	1500	690	ND (200)

Footnotes:
* This represents interim groundwater screening levels not yet official standards.
[a] This compound in BS is outside in house QC limits bias high. This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[b] This compound in BS is outside in house QC limits bias high. This compound is in applied status wtih NJDEP for reference method SW846 8270SIM.
[c] This compound in BS is outside in house QC limits bias high.This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[d] This compound in BS is outside in house QC limits bias high.
[e] This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[f] Elevated sample detection limit due to difficult sample matrix.
[g] Elevated detection limit due to dilution required for matrix interference.
[h] Elevated detection limit due to dilution required for high interfering element.
[i] Elevated detection limit due to dilution required for matrix interference (indicated by failing internal standard on original analysis).

Table 12
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at AOC 12 - Annual Sampling

Client Sample ID:		NJ Groundwater Quality Standards	NJ Interim Groundwater Criteria*	PER-2	PER-2D	PER-3	PER-3D	AB-4D	PER-5	PER-9	PER-9D	PER-9DD	PER-10	PER-10D
Lab Sample ID:				JC9071-8	JC9071-9	JC9218-5	JC9218-6	JC9218-4	JC9071-7	JC9218-1	JC9218-2	JC9218-3	JC9218-7	JC9218-8
Date Sampled:				11/20/2015	11/20/2015	11/23/2015	11/23/2015	11/23/2015	11/20/2015	11/23/2015	11/23/2015	11/23/2015	11/23/2015	11/23/2015
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
GC/MS Volatiles (SW846 8260C)														
Acetone	ug/l	6000	-	8.2 J	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Benzene	ug/l	1	-	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	**2**
Bromochloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	**1.5**	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2-Butanone (MEK)	ug/l	300	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Carbon disulfide	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	0.38 J	0.89 J
Carbon tetrachloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroethane	ug/l	-	5	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.66 J	6.7	1.1	ND (1.0)
Chloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Cyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Dibromochloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.23 J	ND (1.0)	ND (1.0)
1,2-Dibromoethane	ug/l	0.03	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	**0.25 J**	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	-	ND (1.0)	0.35 J	ND (1.0)	ND (1.0)	0.46 J	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.33 J
1,2-Dichloroethane	ug/l	2	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	-	ND (1.0)	0.39 J	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.28 J
Freon 113	ug/l	-	20000	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
2-Hexanone	ug/l	-	300	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Isopropylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Methyl Acetate	ug/l	7000	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylcyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	1.1 J	ND (5.0)
Methyl Tert Butyl Ether	ug/l	70	-	ND (1.0)	**693**	ND (1.0)	**77**	2.9	ND (1.0)	ND (1.0)	7.5	0.31 J	ND (1.0)	25.7
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylene chloride	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Styrene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tert Butyl Alcohol	ug/l	100	-	ND (10)	**204**	ND (10)	45.8	23	ND (10)	ND (10)	23.1	ND (10)	ND (10)	35
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,3-Trichlorobenzene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
m,p-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
o-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Xylene (total)	ug/l	1000	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
GC/MS Volatile TIC														
Total TIC, Volatile	ug/l	-	-	5.6 J	6.1 J	0	0	52 J	0	0	0	0	0	0
Total Alkanes	ug/l	-	-	0	0	0	0	0	0	0	0	0	0	0
GC/MS Semi-volatiles (SW846 8270D)														
2-Chlorophenol	ug/l	40	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
4-Chloro-3-methyl phenol	ug/l	-	100	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
2,4-Dichlorophenol	ug/l	20	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
2,4-Dimethylphenol	ug/l	100	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
2,4-Dinitrophenol	ug/l	40	-	ND (10)	ND (11)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
2-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
3&4-Methylphenol	ug/l	-	50	1.1 J	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
2-Nitrophenol	ug/l	-	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
4-Nitrophenol	ug/l	-	-	ND (10)	ND (11)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Phenol	ug/l	2000	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
2,4,5-Trichlorophenol	ug/l	700	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
2,4,6-Trichlorophenol	ug/l	20	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
Acenaphthene	ug/l	400	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Acenaphthylene	ug/l	-	100	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Acetophenone	ug/l	700	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
Anthracene	ug/l	2000	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Atrazine	ug/l	3	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
Benzaldehyde	ug/l	-	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
Benzo(a)anthracene	ug/l	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	ug/l	-	100	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
Butyl benzyl phthalate	ug/l	100	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
1,1'-Biphenyl	ug/l	400	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Chloronaphthalene	ug/l	600	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
4-Chloroaniline	ug/l	30	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
Carbazole	ug/l	-	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Caprolactam	ug/l	-	5000	8	0.87 J	3.3	ND (2.0)	10.2	4.8	16.6	8.9	1.6 J	4.2	ND (2.0)
Chrysene	ug/l	5	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
bis(2-Chloroisopropyl)ether	ug/l	300	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
2,4-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2,6-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
1,4-Dioxane	ug/l	-	0.4	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	**3.4**	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	**4.3**
Dibenzofuran	ug/l	-	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
Di-n-butyl phthalate	ug/l	700	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
Di-n-octyl phthalate	ug/l	100	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
Diethyl phthalate	ug/l	6000	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
Dimethyl phthalate	ug/l	-	100	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	2	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	**3.5**	ND (2.1)	ND (2.0)	ND (2.0)
Fluoranthene	ug/l	300	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Fluorene	ug/l	300	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Hexachlorobutadiene	ug/l	1	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Hexachlorocyclopentadiene	ug/l	40	-	ND (10)	ND (11)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Hexachloroethane	ug/l	7	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
Isophorone	ug/l	40	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
2-Methylnaphthalene	ug/l	-	30	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
3-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
4-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
Naphthalene	ug/l	300	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Nitrobenzene	ug/l	6	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
N-Nitrosodiphenylamine	ug/l	10	-	ND (5.0)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)	ND (5.0)	ND (5.2)	ND (5.0)	ND (5.0)
Phenanthrene	ug/l	-	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Pyrene	ug/l	200	-	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)	ND (2.0)
GC/MS Semi-volatiles (SW846 8270D BY SIM)														
4,6-Dinitro-o-cresol	ug/l	-	1	ND (0.50)	ND (0.53)	ND (0.50) [e]	ND (0.50) [e]	ND (0.50) [e]	ND (0.51)	ND (0.50) [e]	ND (0.50) [e]	ND (0.52) [e]	ND (0.50) [e]	ND (0.50)
Pentachlorophenol	ug/l	0.3	-	ND (0.25)	ND (0.26)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.26)	ND (0.25)	ND (0.25)
Benzo(a)anthracene	ug/l	0.1	-	ND (0.050)	ND (0.053)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.051)	ND (0.050)	ND (0.050)	ND (0.052)	ND (0.050)	ND (0.050)
Benzo(a)pyrene	ug/l	0.1	-	ND (0.050)	ND (0.053)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.051)	ND (0.050)	ND (0.050)	ND (0.052)	ND (0.050)	ND (0.050)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.10)	ND (0.11)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.10)	ND (0.11)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.10)	ND (0.11)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Hexachlorobenzene	ug/l	0.02	-	ND (0.015)	ND (0.016)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.10)	ND (0.11)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
GC/MS Semi-volatile TIC														
Total TIC, Semi-Volatile	ug/l	-	-	50.7 J	0	0	10 J	64.5 J	0	0	15.7 J	0	67.2 J	54.5 J
Total Alkanes	ug/l	-	-	0	0	0	0	0	0	0	0	0	0	0
Metals Analysis														
Aluminum	ug/l	200	-	**632**	ND (200)	ND (200)	ND (200)	**1290**	ND (200)	**2610**	ND (200)	ND (200)	ND (200)	ND (200)
Antimony	ug/l	6	-	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)
Arsenic	ug/l	3	-	ND (3.0)	ND (3.0)	ND (6.0) [h]	ND (3.0)	**13.5**	ND (3.0)	**5.6**	ND (3.0)	ND (3.0)	**4.7**	ND (3.0)
Barium	ug/l	6000	-	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)
Beryllium	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Cadmium	ug/l	4	-	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)
Calcium	ug/l	-	-	23000	113000	104000	82400	149000	45900	42400	98600	48700	66200	103000
Chromium	ug/l	70	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Cobalt	ug/l	-	100	ND (50)	ND (50)	ND (50)	ND (50)	ND (500) [i]	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)
Copper	ug/l	1300	-	27.7	ND (10)	ND (10)	ND (10)	ND (10)	11.2	23.7	ND (10)	ND (10)	13.2	ND (10)
Iron	ug/l	300	-	**2460**	ND (100)	**1010**	131	**2090**	ND (100)	**5550**	185	**896**	**2040**	123
Lead	ug/l	5	-	**5.5**	ND (3.0)	ND (6.0) [h]	ND (3.0)	ND (30) [i]	ND (3.0)	3.3	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)
Magnesium	ug/l	-	-	ND (5000)	22700	185000	130000	124000	7330	13600	38000	11900	15000	176000
Manganese	ug/l	50	-	**120**	29.4	**253**	**194**	21.4	ND (15)	**70.8**	48.5	**63.6**	**98.3**	**656**
Mercury	ug/l	2	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (100) [i]	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	15.2
Potassium	ug/l	-	-	ND (10000)	ND (10000)	55200	70100	120000	ND (10000)	ND (10000)	12300

Table 13
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at AOC 14a - Annual Sampling

Client Sample ID:		NJ Groundwater Quality Standards	NJ Interim Groundwater Criteria*	TM-1	TM-2	TM-3	TM-4
Lab Sample ID:				JC9318-2	JC9318-3	JC9318-7	JC9318-6
Date Sampled:				11/24/2015	11/24/2015	11/24/2015	11/24/2015
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water
GC/MS Volatiles (SW846 8260C)							
Acetone	ug/l	6000	-	10	ND (10)	ND (10)	ND (10)
Benzene	ug/l	1	-	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Bromochloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2-Butanone (MEK)	ug/l	300	-	ND (10)	ND (10)	ND (10)	ND (10)
Carbon disulfide	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Carbon tetrachloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroethane	ug/l	-	5	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	-	1.4	ND (1.0)	ND (1.0)	ND (1.0)
Cyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Dibromochloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromoethane	ug/l	0.03	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloroethane	ug/l	2	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Freon 113	ug/l	-	20000	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
2-Hexanone	ug/l	-	300	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Isopropylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Methyl Acetate	ug/l	7000	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylcyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methyl Tert Butyl Ether	ug/l	70	-	3.1	0.79 J	2.8	0.31 J
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylene chloride	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Styrene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tert Butyl Alcohol	ug/l	100	-	ND (10)	ND (10)	ND (10)	ND (10)
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,3-Trichlorobenzene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
m,p-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
o-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Xylene (total)	ug/l	1000	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
GC/MS Volatile TIC							
Total TIC, Volatile	ug/l	-	-	0	0	0	0
Total Alkanes	ug/l	-	-	0	0	0	0
GC/MS Semi-volatiles (SW846 8270D)							
2-Chlorophenol	ug/l	40	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
4-Chloro-3-methyl phenol	ug/l	-	100	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
2,4-Dichlorophenol	ug/l	20	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
2,4-Dimethylphenol	ug/l	100	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
2,4-Dinitrophenol	ug/l	40	-	ND (11)	ND (10)	ND (11)	ND (11)
2-Methylphenol	ug/l	-	50	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
3&4-Methylphenol	ug/l	-	50	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
2-Nitrophenol	ug/l	-	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
4-Nitrophenol	ug/l	-	-	ND (11)	ND (10)	ND (11)	ND (11)
Phenol	ug/l	2000	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
2,4,5-Trichlorophenol	ug/l	700	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
2,4,6-Trichlorophenol	ug/l	20	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
Acenaphthene	ug/l	400	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
Acenaphthylene	ug/l	-	100	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
Acetophenone	ug/l	700	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
Anthracene	ug/l	2000	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
Atrazine	ug/l	3	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
Benzaldehyde	ug/l	-	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
Benzo(a)anthracene	ug/l	0.1	-	-	-	-	-
Benzo(g,h,i)perylene	ug/l	-	100	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
Butyl benzyl phthalate	ug/l	100	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
1,1'-Biphenyl	ug/l	400	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
2-Chloronaphthalene	ug/l	600	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
4-Chloroaniline	ug/l	30	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
Carbazole	ug/l	-	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
Caprolactam	ug/l	-	5000	13.4	12.4	6.5	4.1
Chrysene	ug/l	5	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
bis(2-Chloroisopropyl)ether	ug/l	300	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
2,4-Dinitrotoluene	ug/l	-	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
2,6-Dinitrotoluene	ug/l	-	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
1,4-Dioxane	ug/l	-	0.4	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
Dibenzofuran	ug/l	-	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
Di-n-butyl phthalate	ug/l	700	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
Di-n-octyl phthalate	ug/l	100	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
Diethyl phthalate	ug/l	6000	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
Dimethyl phthalate	ug/l	-	100	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
Fluoranthene	ug/l	300	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
Fluorene	ug/l	300	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
Hexachlorobutadiene	ug/l	1	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
Hexachlorocyclopentadiene	ug/l	40	-	ND (11)	ND (10)	ND (11)	ND (11)
Hexachloroethane	ug/l	7	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
Isophorone	ug/l	40	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
2-Methylnaphthalene	ug/l	-	30	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
2-Nitroaniline	ug/l	-	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
3-Nitroaniline	ug/l	-	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
4-Nitroaniline	ug/l	-	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
Naphthalene	ug/l	300	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
Nitrobenzene	ug/l	6	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
N-Nitrosodiphenylamine	ug/l	10	-	ND (5.3)	ND (5.0)	ND (5.5)	ND (5.3)
Phenanthrene	ug/l	-	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
Pyrene	ug/l	200	-	ND (1.1)	ND (1.0)	ND (1.1)	ND (1.1)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (2.1)	ND (2.0)	ND (2.2)	ND (2.1)
GC/MS Semi-volatiles (SW846 8270D BY SIM)							
4,6-Dinitro-o-cresol	ug/l	-	1	ND (0.53)	ND (0.50)	ND (0.55)	ND (0.53)
Pentachlorophenol	ug/l	0.3	-	ND (0.26)	ND (0.25)	ND (0.27)	ND (0.27)
Benzo(a)anthracene	ug/l	0.1	-	ND (0.053)	ND (0.050)	ND (0.055)	ND (0.053)
Benzo(a)pyrene	ug/l	0.1	-	ND (0.053)	ND (0.050)	ND (0.055)	ND (0.053)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)
Hexachlorobenzene	ug/l	0.02	-	ND (0.016)	ND (0.015)	ND (0.016)	ND (0.016)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.11)	ND (0.10)	ND (0.11)	ND (0.11)
GC/MS Semi-volatile TIC							
Total TIC, Semi-Volatile	ug/l	-	-	0	0	44 J	0
Total Alkanes	ug/l	-	-	0	0	0	0
Metals Analysis							
Aluminum	ug/l	200	-	**1130**	ND (200)	ND (200)	ND (200)
Antimony	ug/l	6	-	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)
Arsenic	ug/l	3	-	ND (15) [h]	**33.4**	**7.2**	**4.2**
Barium	ug/l	6000	-	ND (200)	ND (200)	ND (200)	ND (200)
Beryllium	ug/l	1	-	**2.8**	ND (1.0)	ND (1.0)	ND (1.0)
Cadmium	ug/l	4	-	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)
Calcium	ug/l	-	-	104000	70000	37000	14500
Chromium	ug/l	70	-	ND (10)	ND (10)	ND (10)	ND (10)
Cobalt	ug/l	-	100	54.2	ND (50)	ND (50)	ND (50)
Copper	ug/l	1300	-	ND (10)	ND (10)	ND (10)	ND (10)
Iron	ug/l	300	-	**2050**	**60300**	**55700**	**12900**
Lead	ug/l	5	-	ND (15) [h]	ND (3.0)	ND (3.0)	ND (3.0)
Magnesium	ug/l	-	-	52200	33800	14500	5640
Manganese	ug/l	50	-	**18200** [h]	**3490**	**3780**	**421**
Mercury	ug/l	2	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	**121**	ND (10)	ND (10)	ND (10)
Potassium	ug/l	-	-	ND (10000)	ND (10000)	12800	ND (10000)
Selenium	ug/l	40	-	11.1	ND (10)	ND (10)	ND (10)
Silver	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (10)
Sodium	ug/l	50000	-	**383000**	**90400**	**54500**	15600
Thallium	ug/l	2	-	ND (10) [h]	ND (4.0) [h]	ND (2.0)	ND (2.0)
Vanadium	ug/l	-	-	ND (50)	ND (50)	ND (50)	ND (50)
Zinc	ug/l	2000	-	104	21.9	ND (20)	ND (20)
General Chemistry							
Nitrogen, Ammonia	ug/l	3000	-	640	1800	3000	250

Footnotes:
* This represents interim groundwater screening levels not yet official standards.
[a] This compound in BS is outside in house QC limits bias high. This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[b] This compound in BS is outside in house QC limits bias high. This compound is in applied status wtih NJDEP for reference method SW846 8270SIM.
[c] This compound in BS is outside in house QC limits bias high.This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[d] This compound in BS is outside in house QC limits bias high.
[e] This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[f] Elevated sample detection limit due to difficult sample matrix.
[g] Elevated detection limit due to dilution required for matrix interference.
[h] Elevated detection limit due to dilution required for high interfering element.
[i] Elevated detection limit due to dilution required for matrix interference (indicated by failing internal standard on original analysis).

Table 14
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at AOC 14b - Annual Sampling

Lab Sample ID:		NJ Groundwater Quality Standards	NJ Interim Groundwater Criteria*	LPG-1	LPG-2	PER-4
Lab Sample ID:				JC9071-5	JC9071-6	JC9071-10
Date Sampled:				11/20/2015	11/20/2015	11/20/2015
Matrix:				Ground Water	Ground Water	Ground Water
GC/MS Volatiles (SW846 8260C)						
Acetone	ug/l	6000	-	ND (10)	ND (10)	ND (10)
Benzene	ug/l	1	-	ND (0.50)	ND (0.50)	ND (0.50)
Bromochloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	-	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.0)
2-Butanone (MEK)	ug/l	300	-	ND (10)	ND (10)	ND (10)
Carbon disulfide	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)
Carbon tetrachloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)
Chloroethane	ug/l	-	5	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
Cyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (2.0)	ND (2.0)	ND (2.0)
Dibromochloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromoethane	ug/l	0.03	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	-	ND (1.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	-	ND (2.0)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloroethane	ug/l	2	-	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)
Freon 113	ug/l	-	20000	ND (5.0)	ND (5.0)	ND (5.0)
2-Hexanone	ug/l	-	300	ND (5.0)	ND (5.0)	ND (5.0)
Isopropylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)
Methyl Acetate	ug/l	7000	-	ND (5.0)	ND (5.0)	ND (5.0)
Methylcyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)
Methyl Tert Butyl Ether	ug/l	70	-	ND (1.0)	ND (1.0)	1.6
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)
Methylene chloride	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)
Styrene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)
Tert Butyl Alcohol	ug/l	100	-	ND (10)	ND (10)	31.5
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2,3-Trichlorobenzene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (1.0)	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	-	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	-	ND (1.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
m,p-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
o-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	0.27 J
Xylene (total)	ug/l	1000	-	ND (1.0)	ND (1.0)	0.46 J
GC/MS Volatile TIC						
Total TIC, Volatile	ug/l	-	-	0	0	122.9 J
Total Alkanes	ug/l	-	-	0	0	0
GC/MS Semi-volatiles (SW846 8270D)						
2-Chlorophenol	ug/l	40	-	ND (5.1)	ND (5.0)	ND (5.0)
4-Chloro-3-methyl phenol	ug/l	-	100	ND (5.1)	ND (5.0)	ND (5.0)
2,4-Dichlorophenol	ug/l	20	-	ND (2.0)	ND (2.0)	ND (2.0)
2,4-Dimethylphenol	ug/l	100	-	ND (5.1)	ND (5.0)	ND (5.0)
2,4-Dinitrophenol	ug/l	40	-	ND (10)	ND (10)	ND (10)
2-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)	ND (2.0)
3&4-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)	ND (2.0)
2-Nitrophenol	ug/l	-	-	ND (5.1)	ND (5.0)	ND (5.0)
4-Nitrophenol	ug/l	-	-	ND (10)	ND (10)	ND (10)
Phenol	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.0)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (5.1)	ND (5.0)	ND (5.0)
2,4,5-Trichlorophenol	ug/l	700	-	ND (5.1)	ND (5.0)	ND (5.0)
2,4,6-Trichlorophenol	ug/l	20	-	ND (5.1)	ND (5.0)	ND (5.0)
Acenaphthene	ug/l	400	-	ND (1.0)	ND (1.0)	5.3
Acenaphthylene	ug/l	-	100	ND (1.0)	ND (1.0)	ND (1.0)
Acetophenone	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)
Anthracene	ug/l	2000	-	ND (1.0)	ND (1.0)	ND (1.0)
Atrazine	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)
Benzaldehyde	ug/l	-	-	ND (5.1)	ND (5.0)	ND (5.0)
Benzo(a)anthracene	ug/l	0.1	-	-	-	-
Benzo(g,h,i)perylene	ug/l	-	100	ND (1.0)	ND (1.0)	ND (1.0)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)
Butyl benzyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)	ND (2.0)
1,1'-Biphenyl	ug/l	400	-	ND (1.0)	ND (1.0)	ND (1.0)
2-Chloronaphthalene	ug/l	600	-	ND (2.0)	ND (2.0)	ND (2.0)
4-Chloroaniline	ug/l	30	-	ND (5.1)	ND (5.0)	ND (5.0)
Carbazole	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
Caprolactam	ug/l	-	5000	9.1	7.7	5.8
Chrysene	ug/l	5	-	ND (1.0)	ND (1.0)	ND (1.0)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (2.0)	ND (2.0)	ND (2.0)
bis(2-Chloroisopropyl)ether	ug/l	300	-	ND (2.0)	ND (2.0)	ND (2.0)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)
2,4-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
2,6-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (2.0)	ND (2.0)	ND (2.0)
1,4-Dioxane	ug/l	-	0.4	ND (1.0)	ND (1.0)	ND (1.0)
Dibenzofuran	ug/l	-	-	ND (5.1)	ND (5.0)	ND (5.0)
Di-n-butyl phthalate	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)
Di-n-octyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)	ND (2.0)
Diethyl phthalate	ug/l	6000	-	ND (2.0)	ND (2.0)	ND (2.0)
Dimethyl phthalate	ug/l	-	100	ND (2.0)	ND (2.0)	ND (2.0)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (2.0)	ND (2.0)	**64.4**
Fluoranthene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.0)
Fluorene	ug/l	300	-	ND (1.0)	ND (1.0)	0.47 J
Hexachlorobutadiene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Hexachlorocyclopentadiene	ug/l	40	-	ND (10)	ND (10)	ND (10)
Hexachloroethane	ug/l	7	-	ND (2.0)	ND (2.0)	ND (2.0)
Isophorone	ug/l	40	-	ND (2.0)	ND (2.0)	ND (2.0)
2-Methylnaphthalene	ug/l	-	30	ND (1.0)	ND (1.0)	ND (1.0)
2-Nitroaniline	ug/l	-	-	ND (5.1)	ND (5.0)	ND (5.0)
3-Nitroaniline	ug/l	-	-	ND (5.1)	ND (5.0)	ND (5.0)
4-Nitroaniline	ug/l	-	-	ND (5.1)	ND (5.0)	ND (5.0)
Naphthalene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.0)
Nitrobenzene	ug/l	6	-	ND (2.0)	ND (2.0)	ND (2.0)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.0)
N-Nitrosodiphenylamine	ug/l	10	-	ND (5.1)	ND (5.0)	ND (5.0)
Phenanthrene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
Pyrene	ug/l	200	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.0)
GC/MS Semi-volatiles (SW846 8270D BY SIM)						
4,6-Dinitro-o-cresol	ug/l	-	1	ND (0.51)	ND (0.50)	ND (0.50)
Pentachlorophenol	ug/l	0.3	-	ND (0.25)	ND (0.25)	ND (0.25)
Benzo(a)anthracene	ug/l	0.1	-	ND (0.051)	ND (0.050)	ND (0.050)
Benzo(a)pyrene	ug/l	0.1	-	ND (0.051)	ND (0.050)	ND (0.050)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.10)	ND (0.10)	ND (0.10)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.10)	ND (0.10)	ND (0.10)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.10)	ND (0.10)	ND (0.10)
Hexachlorobenzene	ug/l	0.02	-	ND (0.015)	ND (0.015)	ND (0.015)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.10)	ND (0.10)	ND (0.10)
GC/MS Semi-volatile TIC						
Total TIC, Semi-Volatile	ug/l	-	-	0	9.1 J	119.5 J
Total Alkanes	ug/l	-	-	0	0	0
Metals Analysis						
Aluminum	ug/l	200	-	**5120**	**300**	**1090**
Antimony	ug/l	6	-	ND (6.0)	ND (6.0)	ND (6.0)
Arsenic	ug/l	3	-	ND (3.0)	ND (3.0)	**26.7**
Barium	ug/l	6000	-	ND (200)	ND (200)	236
Beryllium	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Cadmium	ug/l	4	-	ND (3.0)	ND (3.0)	**37.7**
Calcium	ug/l	-	-	ND (5000)	14000	27600
Chromium	ug/l	70	-	ND (10)	ND (10)	ND (10)
Cobalt	ug/l	-	100	ND (50)	ND (50)	ND (50)
Copper	ug/l	1300	-	23.7	ND (10)	12.8
Iron	ug/l	300	-	**6910**	**18300**	**27800**
Lead	ug/l	5	-	**15.9**	ND (3.0)	**9.6**
Magnesium	ug/l	-	-	ND (5000)	6770	21600
Manganese	ug/l	50	-	**72.1**	**288**	**298**
Mercury	ug/l	2	-	ND (0.20)	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	ND (10)	ND (10)	ND (10)
Potassium	ug/l	-	-	ND (10000)	ND (10000)	19300
Selenium	ug/l	40	-	ND (10)	ND (10)	ND (10)
Silver	ug/l	40	-	ND (10)	ND (10)	ND (10)
Sodium	ug/l	50000	-	24600	**58200**	**259000**
Thallium	ug/l	2	-	ND (2.0)	ND (2.0)	ND (2.0)
Vanadium	ug/l	-	-	ND (50)	ND (50)	ND (50)
Zinc	ug/l	2000	-	50	ND (20)	47.2
General Chemistry						
Nitrogen, Ammonia	ug/l	3000	-	ND (200)	750	**4200**

Footnotes:
* This represents interim groundwater screening levels not yet official standards.
[a] This compound in BS is outside in house QC limits bias high. This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[b] This compound in BS is outside in house QC limits bias high. This compound is in applied status wtih NJDEP for reference method SW846 8270SIM.
[c] This compound in BS is outside in house QC limits bias high.This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[d] This compound in BS is outside in house QC limits bias high.
[e] This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[f] Elevated sample detection limit due to difficult sample matrix.
[g] Elevated detection limit due to dilution required for matrix interference.
[h] Elevated detection limit due to dilution required for high interfering element.
[i] Elevated detection limit due to dilution required for matrix interference (indicated by failing internal standard on original analysis).

Table 15
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at AOC 16b - Annual Sampling

Client Sample ID:		NJ Groundwater Quality Standards	NJ Interim Groundwater Criteria*	PER-7	PER-8	TL-1	TL-2
Lab Sample ID:				JC9448-2	JC9448-1	JC9448-3	JC9448-4
Date Sampled:				11/25/2015	11/25/2015	11/25/2015	11/25/2015
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water
GC/MS Volatiles (SW846 8260C)							
Acetone	ug/l	6000	-	ND (10)	ND (10)	ND (10)	18.7
Benzene	ug/l	1	-	ND (0.50)	ND (0.50)	ND (0.50)	**75.3**
Bromochloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2-Butanone (MEK)	ug/l	300	-	ND (10)	ND (10)	ND (10)	ND (10)
Carbon disulfide	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Carbon tetrachloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)	1.5
Chloroethane	ug/l	-	5	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Cyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	23.8
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Dibromochloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromoethane	ug/l	0.03	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	0.27 J
1,3-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	-	ND (1.0)	ND (1.0)	ND (1.0)	3.3
Dichlorodifluoromethane	ug/l	1000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)	1.9
1,2-Dichloroethane	ug/l	2	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)	3.2
Freon 113	ug/l	-	20000	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
2-Hexanone	ug/l	-	300	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Isopropylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)	15.4
Methyl Acetate	ug/l	7000	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylcyclohexane	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	3.6 J
Methyl Tert Butyl Ether	ug/l	70	-	ND (1.0)	ND (1.0)	2.4	2
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylene chloride	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Styrene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tert Butyl Alcohol	ug/l	100	-	ND (10)	ND (10)	64.1	20.4
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	5.7
1,2,3-Trichlorobenzene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
m,p-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	24.9
o-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	15.8
Xylene (total)	ug/l	1000	-	ND (1.0)	ND (1.0)	ND (1.0)	40.7
GC/MS Volatile TIC							
Total TIC, Volatile	ug/l	-	-	0	0	5.7 J	560 J
Total Alkanes	ug/l	-	-	0	0	0	137 J
GC/MS Semi-volatiles (SW846 8270D)							
2-Chlorophenol	ug/l	40	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
4-Chloro-3-methyl phenol	ug/l	-	100	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
2,4-Dichlorophenol	ug/l	20	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
2,4-Dimethylphenol	ug/l	100	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
2,4-Dinitrophenol	ug/l	40	-	ND (11)	ND (11)	ND (11)	ND (10)
2-Methylphenol	ug/l	-	50	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
3&4-Methylphenol	ug/l	-	50	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
2-Nitrophenol	ug/l	-	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
4-Nitrophenol	ug/l	-	-	ND (11)	ND (11)	ND (11)	ND (10)
Phenol	ug/l	2000	-	ND (2.1)	3.2	ND (2.2)	ND (2.0)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
2,4,5-Trichlorophenol	ug/l	700	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
2,4,6-Trichlorophenol	ug/l	20	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
Acenaphthene	ug/l	400	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
Acenaphthylene	ug/l	-	100	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
Acetophenone	ug/l	700	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
Anthracene	ug/l	2000	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
Atrazine	ug/l	3	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
Benzaldehyde	ug/l	-	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
Benzo(a)anthracene	ug/l	0.1	-	-	-	-	-
Benzo(g,h,i)perylene	ug/l	-	100	ND (1.1)	0.53 J	ND (1.1)	ND (1.0)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
Butyl benzyl phthalate	ug/l	100	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
1,1'-Biphenyl	ug/l	400	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
2-Chloronaphthalene	ug/l	600	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
4-Chloroaniline	ug/l	30	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
Carbazole	ug/l	-	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
Caprolactam	ug/l	-	5000	8.3	5.4	12.9	17.1
Chrysene	ug/l	5	-	ND (1.1)	0.67 J	ND (1.1)	ND (1.0)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
bis(2-Chloroisopropyl)ether	ug/l	300	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
2,4-Dinitrotoluene	ug/l	-	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
2,6-Dinitrotoluene	ug/l	-	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
1,4-Dioxane	ug/l	-	0.4	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
Dibenzofuran	ug/l	-	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
Di-n-butyl phthalate	ug/l	700	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
Di-n-octyl phthalate	ug/l	100	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
Diethyl phthalate	ug/l	6000	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
Dimethyl phthalate	ug/l	-	100	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (2.1)	ND (2.1)	ND (2.2)	2.1
Fluoranthene	ug/l	300	-	ND (1.1)	0.85 J	ND (1.1)	ND (1.0)
Fluorene	ug/l	300	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
Hexachlorobutadiene	ug/l	1	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
Hexachlorocyclopentadiene	ug/l	40	-	ND (11)	ND (11)	ND (11)	ND (10)
Hexachloroethane	ug/l	7	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
Isophorone	ug/l	40	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
2-Methylnaphthalene	ug/l	-	30	ND (1.1)	ND (1.1)	ND (1.1)	1.1
2-Nitroaniline	ug/l	-	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
3-Nitroaniline	ug/l	-	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
4-Nitroaniline	ug/l	-	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
Naphthalene	ug/l	300	-	ND (1.1)	ND (1.1)	ND (1.1)	8.1
Nitrobenzene	ug/l	6	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
N-Nitrosodiphenylamine	ug/l	10	-	ND (5.3)	ND (5.3)	ND (5.4)	ND (5.0)
Phenanthrene	ug/l	-	-	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.0)
Pyrene	ug/l	200	-	ND (1.1)	0.76 J	ND (1.1)	ND (1.0)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (2.1)	ND (2.1)	ND (2.2)	ND (2.0)
GC/MS Semi-volatiles (SW846 8270D BY SIM)							
4,6-Dinitro-o-cresol	ug/l	-	1	ND (0.53) [d]	ND (0.53) [d]	ND (0.54) [d]	ND (0.50) [d]
Pentachlorophenol	ug/l	0.3	-	ND (0.26)	ND (0.26)	ND (0.27)	ND (0.25)
Benzo(a)anthracene	ug/l	0.1	-	ND (0.053)	**0.274**	ND (0.054)	ND (0.050)
Benzo(a)pyrene	ug/l	0.1	-	ND (0.053)	**0.451**	ND (0.054)	ND (0.050)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.11)	**0.996**	ND (0.11)	ND (0.10)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.11)	0.403	ND (0.11)	ND (0.10)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.10)
Hexachlorobenzene	ug/l	0.02	-	ND (0.016)	ND (0.016)	ND (0.016)	ND (0.015)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.11)	**0.495**	ND (0.11)	ND (0.10)
GC/MS Semi-volatile TIC							
Total TIC, Semi-Volatile	ug/l	-	-	90 J	0	5.2 J	371.4 J
Total Alkanes	ug/l	-	-	0	0	0	0
Metals Analysis							
Aluminum	ug/l	200	-	**13100** [f]	**941**	**305**	**1550**
Antimony	ug/l	6	-	ND (20) [f]	ND (6.0)	ND (6.0)	ND (6.0)
Arsenic	ug/l	3	-	**23.3** [f]	**5**	**6**	**10.8**
Barium	ug/l	6000	-	ND (670) [f]	ND (200)	ND (200)	ND (200)
Beryllium	ug/l	1	-	ND (3.3) [f]	ND (1.0)	ND (1.0)	ND (1.0)
Cadmium	ug/l	4	-	ND (10) [f]	ND (3.0)	ND (3.0)	ND (3.0)
Calcium	ug/l	-	-	ND (17000) [f]	13200	90200	8410
Chromium	ug/l	70	-	ND (33) [f]	ND (10)	ND (10)	ND (10)
Cobalt	ug/l	-	100	ND (170) [f]	ND (50)	ND (50)	ND (50)
Copper	ug/l	1300	-	33.0 [f]	12.2	ND (10)	ND (10)
Iron	ug/l	300	-	**29800** [f]	**8180**	**7900**	**11800**
Lead	ug/l	5	-	**51.0** [f]	**16.7**	ND (3.0)	ND (3.0)
Magnesium	ug/l	-	-	ND (17000) [f]	ND (5000)	75400	11200
Manganese	ug/l	50	-	**136** [f]	**130**	**1610**	**119**
Mercury	ug/l	2	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	ND (33) [f]	11.1	ND (10)	ND (10)
Potassium	ug/l	-	-	ND (33000) [f]	ND (10000)	46800	13100
Selenium	ug/l	40	-	ND (33) [f]	ND (10)	ND (10)	ND (10)
Silver	ug/l	40	-	ND (33) [f]	ND (10)	ND (10)	ND (10)
Sodium	ug/l	50000	-	**165000** [f]	**108000**	**1280000**	**351000**
Thallium	ug/l	2	-	ND (6.7) [f]	ND (2.0)	ND (2.0)	ND (2.0)
Vanadium	ug/l	-	-	ND (170) [f]	ND (50)	ND (50)	ND (50)
Zinc	ug/l	2000	-	79.0 [f]	117	ND (20)	23.3
General Chemistry							
Nitrogen, Ammonia	ug/l	3000	-	ND (200)	250	**5000**	630

Footnotes:
* This represents interim groundwater screening levels not yet official standards.
[a] This compound in BS is outside in house QC limits bias high. This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[b] This compound in BS is outside in house QC limits bias high. This compound is in applied status wtih NJDEP for reference method SW846 8270SIM.
[c] This compound in BS is outside in house QC limits bias high.This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[d] This compound in BS is outside in house QC limits bias high.
[e] This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[f] Elevated sample detection limit due to difficult sample matrix.
[g] Elevated detection limit due to dilution required for matrix interference.
[h] Elevated detection limit due to dilution required for high interfering element.
[i] Elevated detection limit due to dilution required for matrix interference (indicated by failing internal standard on original analysis).

Table 16
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at TRMU - Annual Sampling

Client Sample ID:		NJ Groundwater Quality Standards	NJ Interim Groundwater Criteria*	TF-1	TF-3	SM-1
Lab Sample ID:				JC9318-4	JC9318-8	JC9318-1
Date Sampled:				11/24/2015	11/24/2015	11/24/2015
Matrix:				Ground Water	Ground Water	Ground Water
GC/MS Volatiles (SW846 8260C)						
Acetone	ug/l	6000	-	ND (10)	ND (10)	ND (10)
Benzene	ug/l	1	-	0.30 J	ND (0.50)	ND (0.50)
Bromochloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	-	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.0)
2-Butanone (MEK)	ug/l	300	-	ND (10)	ND (10)	ND (10)
Carbon disulfide	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)
Carbon tetrachloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	-	0.56 J	0.67 J	3.5
Chloroethane	ug/l	-	5	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
Cyclohexane	ug/l	-	-	3.1 J	ND (5.0)	1.1 J
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (2.0)	ND (2.0)	ND (2.0)
Dibromochloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromoethane	ug/l	0.03	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	0.27 J
1,4-Dichlorobenzene	ug/l	75	-	ND (1.0)	ND (1.0)	1.3
Dichlorodifluoromethane	ug/l	1000	-	ND (2.0)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloroethane	ug/l	2	-	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)
Freon 113	ug/l	-	20000	ND (5.0)	ND (5.0)	ND (5.0)
2-Hexanone	ug/l	-	300	ND (5.0)	ND (5.0)	ND (5.0)
Isopropylbenzene	ug/l	700	-	5.1	5.4	ND (1.0)
Methyl Acetate	ug/l	7000	-	ND (5.0)	ND (5.0)	ND (5.0)
Methylcyclohexane	ug/l	-	-	1.8 J	ND (5.0)	0.31 J
Methyl Tert Butyl Ether	ug/l	70	-	3.3	ND (1.0)	5.5
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)
Methylene chloride	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)
Styrene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)
Tert Butyl Alcohol	ug/l	100	-	**152**	ND (10)	**171**
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	ug/l	600	-	0.48 J	ND (1.0)	0.21 J
1,2,3-Trichlorobenzene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (1.0)	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	-	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	-	ND (1.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
m,p-Xylene	ug/l	-	-	1.6	ND (1.0)	0.59 J
o-Xylene	ug/l	-	-	1.2	ND (1.0)	0.27 J
Xylene (total)	ug/l	1000	-	2.8	ND (1.0)	0.86 J
GC/MS Volatile TIC						
Total TIC, Volatile	ug/l	-	-	214.9 J	16.5 J	22.3 J
Total Alkanes	ug/l	-	-	0	0	0
GC/MS Semi-volatiles (SW846 8270D)						
2-Chlorophenol	ug/l	40	-	ND (5.0)	ND (5.0)	ND (5.3)
4-Chloro-3-methyl phenol	ug/l	-	100	ND (5.0)	ND (5.0)	ND (5.3)
2,4-Dichlorophenol	ug/l	20	-	ND (2.0)	ND (2.0)	ND (2.1)
2,4-Dimethylphenol	ug/l	100	-	ND (5.0)	ND (5.0)	ND (5.3)
2,4-Dinitrophenol	ug/l	40	-	ND (10)	ND (10)	ND (11)
2-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)	ND (2.1)
3&4-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)	ND (2.1)
2-Nitrophenol	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.3)
4-Nitrophenol	ug/l	-	-	ND (10)	ND (10)	ND (11)
Phenol	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.1)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (5.0)	ND (5.0)	ND (5.3)
2,4,5-Trichlorophenol	ug/l	700	-	ND (5.0)	ND (5.0)	ND (5.3)
2,4,6-Trichlorophenol	ug/l	20	-	ND (5.0)	ND (5.0)	ND (5.3)
Acenaphthene	ug/l	400	-	5	2	5.3
Acenaphthylene	ug/l	-	100	ND (1.0)	ND (1.0)	ND (1.1)
Acetophenone	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.1)
Anthracene	ug/l	2000	-	ND (1.0)	ND (1.0)	0.71 J
Atrazine	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.1)
Benzaldehyde	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.3)
Benzo(a)anthracene	ug/l	0.1	-	-	-	-
Benzo(g,h,i)perylene	ug/l	-	100	ND (1.0)	ND (1.0)	ND (1.1)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.1)
Butyl benzyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)	ND (2.1)
1,1'-Biphenyl	ug/l	400	-	ND (1.0)	ND (1.0)	ND (1.1)
2-Chloronaphthalene	ug/l	600	-	ND (2.0)	ND (2.0)	ND (2.1)
4-Chloroaniline	ug/l	30	-	2.9 J	ND (5.0)	ND (5.3)
Carbazole	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.1)
Caprolactam	ug/l	-	5000	ND (2.0)	8.4	15
Chrysene	ug/l	5	-	ND (1.0)	ND (1.0)	ND (1.1)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.1)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (2.0)	ND (2.0)	ND (2.1)
bis(2-Chloroisopropyl)ether	ug/l	300	-	ND (2.0)	ND (2.0)	ND (2.1)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.1)
2,4-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.1)
2,6-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.1)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (2.0)	ND (2.0)	ND (2.1)
1,4-Dioxane	ug/l	-	0.4	ND (1.0)	ND (1.0)	ND (1.1)
Dibenzofuran	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.3)
Di-n-butyl phthalate	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.1)
Di-n-octyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)	ND (2.1)
Diethyl phthalate	ug/l	6000	-	ND (2.0)	ND (2.0)	ND (2.1)
Dimethyl phthalate	ug/l	-	100	ND (2.0)	ND (2.0)	ND (2.1)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.1)
Fluoranthene	ug/l	300	-	ND (1.0)	ND (1.0)	0.73 J
Fluorene	ug/l	300	-	2.2	1.1	3
Hexachlorobutadiene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.1)
Hexachlorocyclopentadiene	ug/l	40	-	ND (10)	ND (10)	ND (11)
Hexachloroethane	ug/l	7	-	ND (2.0)	ND (2.0)	ND (2.1)
Isophorone	ug/l	40	-	ND (2.0)	ND (2.0)	ND (2.1)
2-Methylnaphthalene	ug/l	-	30	ND (1.0)	ND (1.0)	ND (1.1)
2-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.3)
3-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.3)
4-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.3)
Naphthalene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.1)
Nitrobenzene	ug/l	6	-	ND (2.0)	ND (2.0)	ND (2.1)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.1)
N-Nitrosodiphenylamine	ug/l	10	-	ND (5.0)	ND (5.0)	ND (5.3)
Phenanthrene	ug/l	-	-	ND (1.0)	ND (1.0)	3.2
Pyrene	ug/l	200	-	ND (1.0)	ND (1.0)	0.49 J
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.1)
GC/MS Semi-volatiles (SW846 8270D BY SIM)						
4,6-Dinitro-o-cresol	ug/l	-	1	ND (0.50)	ND (0.50)	ND (0.53)
Pentachlorophenol	ug/l	0.3	-	ND (0.25)	ND (0.25)	ND (0.26)
Benzo(a)anthracene	ug/l	0.1	-	**0.218**	ND (0.050)	ND (0.053)
Benzo(a)pyrene	ug/l	0.1	-	0.0914	ND (0.050)	ND (0.053)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.10)	ND (0.10)	ND (0.11)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.10)	ND (0.10)	ND (0.11)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.10)	ND (0.10)	ND (0.11)
Hexachlorobenzene	ug/l	0.02	-	ND (0.015)	ND (0.015)	ND (0.016)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.10)	ND (0.10)	ND (0.11)
GC/MS Semi-volatile TIC						
Total TIC, Semi-Volatile	ug/l	-	-	407 J	5.2 J	32 J
Total Alkanes	ug/l	-	-	0	0	0
Metals Analysis						
Aluminum	ug/l	200	-	ND (200)	ND (200)	**636**
Antimony	ug/l	6	-	ND (6.0)	ND (6.0)	ND (6.0)
Arsenic	ug/l	3	-	**30.4**	**8.7**	**81.7**
Barium	ug/l	6000	-	ND (200)	ND (200)	281
Beryllium	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)
Cadmium	ug/l	4	-	ND (3.0)	ND (3.0)	ND (3.0)
Calcium	ug/l	-	-	50200	17100	42900
Chromium	ug/l	70	-	ND (10)	ND (10)	ND (10)
Cobalt	ug/l	-	100	ND (50)	ND (50)	ND (50)
Copper	ug/l	1300	-	ND (10)	ND (10)	ND (10)
Iron	ug/l	300	-	**27500**	**6380**	**30400**
Lead	ug/l	5	-	ND (3.0)	4.7	ND (3.0)
Magnesium	ug/l	-	-	28800	6060	48500
Manganese	ug/l	50	-	**425**	**191**	**117**
Mercury	ug/l	2	-	ND (0.20)	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	ND (10)	ND (10)	ND (10)
Potassium	ug/l	-	-	16000	ND (10000)	34800
Selenium	ug/l	40	-	ND (10)	ND (10)	ND (10)
Silver	ug/l	40	-	ND (10)	ND (10)	ND (10)
Sodium	ug/l	50000	-	**255000**	**58700**	**561000**
Thallium	ug/l	2	-	ND (2.0)	ND (2.0)	ND (2.0)
Vanadium	ug/l	-	-	ND (50)	ND (50)	ND (50)
Zinc	ug/l	2000	-	ND (20)	25.6	ND (20)
General Chemistry						
Nitrogen, Ammonia	ug/l	3000	-	470	**4000**	**10800**

Footnotes:
* This represents interim groundwater screening levels not yet official standards.
[a] This compound in BS is outside in house QC limits bias high. This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[b] This compound in BS is outside in house QC limits bias high. This compound is in applied status wtih NJDEP for reference method SW846 8270SIM.
[c] This compound in BS is outside in house QC limits bias high.This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[d] This compound in BS is outside in house QC limits bias high.
[e] This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[f] Elevated sample detection limit due to difficult sample matrix.
[g] Elevated detection limit due to dilution required for matrix interference.
[h] Elevated detection limit due to dilution required for high interfering element.
[i] Elevated detection limit due to dilution required for matrix interference (indicated by failing internal standard on original analysis).

Table 17
Hess Corporation - Former Port Reading Complex - 750 Cliff Road, Port Reading, New Jersey
Summary of Groundwater Analytical Results at SRMU - Annual Sampling

Client Sample ID:		NJ Groundwater Quality Standards	NJ Interim Groundwater Criteria*	PL-9R	PL-6R	PL-7	PL-8R	TM-7	TM-5	TM-6	PL-3R
Lab Sample ID:				JC8870-1	JC8870-2	JC8870-6	JC8870-7	JC8870-3	JC8870-4	JC8870-5	JC9318-5
Date Sampled:				11/18/2015	11/18/2015	11/18/2015	11/18/2015	11/18/2015	11/18/2015	11/18/2015	11/24/2015
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
GC/MS Volatiles (SW846 8260C)											
Acetone	ug/l	6000	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	6.2 J
Benzene	ug/l	1	-	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	**1.2**	ND (0.50)	**123**	**11**
Bromochloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromodichloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromoform	ug/l	4	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Bromomethane	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
2-Butanone (MEK)	ug/l	300	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Carbon disulfide	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Carbon tetrachloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chlorobenzene	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	1	ND (1.0)	ND (1.0)	1.7
Chloroethane	ug/l	-	5	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroform	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.52 J	ND (1.0)	ND (1.0)	ND (1.0)
Chloromethane	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Cyclohexane	ug/l	-	-	ND (5.0)	0.75 J	ND (5.0)	ND (5.0)	10.2	ND (5.0)	5.8	11.5
1,2-Dibromo-3-chloropropane	ug/l	0.02	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Dibromochloromethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dibromoethane	ug/l	0.03	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.32 J
1,3-Dichlorobenzene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	ug/l	75	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Dichlorodifluoromethane	ug/l	1000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
1,1-Dichloroethane	ug/l	50	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.57 J	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloroethane	ug/l	2	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1-Dichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,2-Dichloroethene	ug/l	70	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,2-Dichloroethene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2-Dichloropropane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
cis-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
trans-1,3-Dichloropropene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.48 J	ND (1.0)	29.8	ND (1.0)
Freon 113	ug/l	-	20000	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
2-Hexanone	ug/l	-	300	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Isopropylbenzene	ug/l	700	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	9	ND (1.0)	14.3	4.7
Methyl Acetate	ug/l	7000	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Methylcyclohexane	ug/l	-	-	ND (5.0)	0.49 J	ND (5.0)	ND (5.0)	5.6	ND (5.0)	2.0 J	4.9 J
Methyl Tert Butyl Ether	ug/l	70	-	ND (1.0)	1.7	ND (1.0)	2.6	**76**	0.48 J	ND (1.0)	12
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)	2.5 J	ND (5.0)
Methylene chloride	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Styrene	ug/l	100	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tert Butyl Alcohol	ug/l	100	-	ND (10)	ND (10)	ND (10)	6.0 J	**471**	ND (10)	8.2 J	**203**
1,1,2,2-Tetrachloroethane	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Tetrachloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.49 J	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	ug/l	600	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.28 J	ND (1.0)	0.65 J	0.69 J
1,2,3-Trichlorobenzene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4-Trichlorobenzene	ug/l	9	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,1-Trichloroethane	ug/l	30	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,1,2-Trichloroethane	ug/l	3	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Trichloroethene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.29 J	ND (1.0)	ND (1.0)	ND (1.0)
Trichlorofluoromethane	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Vinyl chloride	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
m,p-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.59 J	ND (1.0)	ND (1.0)	5
o-Xylene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	0.31 J	ND (1.0)	0.31 J	1.7
Xylene (total)	ug/l	1000	-	ND (1.0)	ND (1.0)	0.31 J	ND (1.0)	0.90 J	ND (1.0)	0.63 J	6.7
GC/MS Volatile TIC											
Total TIC, Volatile	ug/l	-	-	0	0	0	0	180.6 J	0	260.8 J	181.7 J
Total Alkanes	ug/l	-	-	0	0	0	0	45 J	0	153.9 J	0
GC/MS Semi-volatiles (SW846 8270D)											
2-Chlorophenol	ug/l	40	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
4-Chloro-3-methyl phenol	ug/l	-	100	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
2,4-Dichlorophenol	ug/l	20	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
2,4-Dimethylphenol	ug/l	100	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
2,4-Dinitrophenol	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (11)	ND (10)	ND (10)	ND (10)	ND (10)
2-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
3&4-Methylphenol	ug/l	-	50	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
2-Nitrophenol	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
4-Nitrophenol	ug/l	-	-	ND (10)	ND (10)	ND (10)	ND (11)	ND (10)	ND (10)	ND (10)	ND (10)
Phenol	ug/l	2000	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
2,3,4,6-Tetrachlorophenol	ug/l	200	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
2,4,5-Trichlorophenol	ug/l	700	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
2,4,6-Trichlorophenol	ug/l	20	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
Acenaphthene	ug/l	400	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	0.64 J	ND (1.0)	0.47 J	0.96 J
Acenaphthylene	ug/l	-	100	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Acetophenone	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	0.49 J
Anthracene	ug/l	2000	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Atrazine	ug/l	3	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
Benzaldehyde	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
Benzo(a)anthracene	ug/l	0.1	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	ug/l	-	100	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
4-Bromophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
Butyl benzyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
1,1'-Biphenyl	ug/l	400	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2-Chloronaphthalene	ug/l	600	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
4-Chloroaniline	ug/l	30	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
Carbazole	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Caprolactam	ug/l	-	5000	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
Chrysene	ug/l	5	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
bis(2-Chloroethoxy)methane	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
bis(2-Chloroethyl)ether	ug/l	7	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
bis(2-Chloroisopropyl)ether	ug/l	300	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
4-Chlorophenyl phenyl ether	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
2,4-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
2,6-Dinitrotoluene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
3,3'-Dichlorobenzidine	ug/l	30	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
1,4-Dioxane	ug/l	-	0.4	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	**2.5**
Dibenzofuran	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	0.57 J	ND (5.0)	ND (5.1)	ND (5.0)
Di-n-butyl phthalate	ug/l	700	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
Di-n-octyl phthalate	ug/l	100	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
Diethyl phthalate	ug/l	6000	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
Dimethyl phthalate	ug/l	-	100	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
bis(2-Ethylhexyl)phthalate	ug/l	3	-	ND (2.0)	**7.8**	1.8 J	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
Fluoranthene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Fluorene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	1	ND (1.0)	ND (1.0)	ND (1.0)
Hexachlorobutadiene	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Hexachlorocyclopentadiene	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (11)	ND (10)	ND (10)	ND (10)	ND (10)
Hexachloroethane	ug/l	7	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
Isophorone	ug/l	40	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
2-Methylnaphthalene	ug/l	-	30	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	2.2	ND (1.0)	ND (1.0)	3.6
2-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
3-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
4-Nitroaniline	ug/l	-	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
Naphthalene	ug/l	300	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	2.2	ND (1.0)	ND (1.0)	ND (1.0)
Nitrobenzene	ug/l	6	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
N-Nitroso-di-n-propylamine	ug/l	10	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
N-Nitrosodiphenylamine	ug/l	10	-	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.3)	ND (5.0)	ND (5.0)	ND (5.1)	ND (5.0)
Phenanthrene	ug/l	-	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Pyrene	ug/l	200	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.1)	ND (2.0)	ND (2.0)	ND (2.1)	ND (2.0)
GC/MS Semi-volatiles (SW846 8270D BY SIM)											
4,6-Dinitro-o-cresol	ug/l	-	1	ND (0.50) [d]	ND (0.50) [d]	ND (0.51)	ND (0.53)	ND (0.50) [d]	ND (0.50) [d]	ND (0.51) [d]	ND (0.50)
Pentachlorophenol	ug/l	0.3	-	ND (0.25)	ND (0.25)	ND (0.26)	ND (0.26)	ND (0.25)	ND (0.25)	ND (0.26)	ND (0.25)
Benzo(a)anthracene	ug/l	0.1	-	ND (0.050)	ND (0.050)	ND (0.051)	ND (0.053)	ND (0.050)	ND (0.050)	ND (0.051)	ND (0.050)
Benzo(a)pyrene	ug/l	0.1	-	ND (0.050)	0.0707	ND (0.051)	ND (0.053)	ND (0.050)	ND (0.050)	ND (0.051)	ND (0.050)
Benzo(b)fluoranthene	ug/l	0.2	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.11)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Benzo(k)fluoranthene	ug/l	0.5	-	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.11)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Dibenzo(a,h)anthracene	ug/l	0.3	-	ND (0.10)	0.155	ND (0.10)	ND (0.11)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
Hexachlorobenzene	ug/l	0.02	-	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.016)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	-	ND (0.10)	0.143	ND (0.10)	ND (0.11)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)
GC/MS Semi-volatile TIC											
Total TIC, Semi-Volatile	ug/l	-	-	24 J	22.2 J	0	130.3 J	306 J	0	244.5 J	244 J
Total Alkanes	ug/l	-	-	0	0	0	0	0	0	0	0
Metals Analysis											
Aluminum	ug/l	200	-	**383**	**920**	**215**	ND (200)	ND (200)	**276**	**245**	ND (200)
Antimony	ug/l	6	-	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)
Arsenic	ug/l	3	-	**4**	**22.2**	ND (3.0)	ND (3.0)	**6.4**	ND (3.0)	ND (3.0)	**13.5**
Barium	ug/l	6000	-	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)
Beryllium	ug/l	1	-	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Cadmium	ug/l	4	-	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)
Calcium	ug/l	-	-	51800	43000	10400	52200	153000	55000	26100	46400
Chromium	ug/l	70	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Cobalt	ug/l	-	100	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)
Copper	ug/l	1300	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Iron	ug/l	300	-	**922**	**58600**	**1340**	**17100**	**17500**	**313**	**13400**	**15700**
Lead	ug/l	5	-	ND (3.0)	ND (6.0) [h]	ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	3.1	ND (3.0)
Magnesium	ug/l	-	-	14100	13700	ND (5000)	18100	51300	42900	5890	142000
Manganese	ug/l	50	-	47.3	**879**	**170**	**201**	**12700**	**5060**	**1210**	**153**
Mercury	ug/l	2	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Nickel	ug/l	100	-	ND (10)	ND (10)	ND (10)	ND (10)	18.3	ND (10)	ND (10)	ND (10)
Potassium	ug/l	-	-	ND (10000)	16600	ND (10000)	10900	ND (10000)	ND (10000)	ND (10000)	59900
Selenium	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Silver	ug/l	40	-	ND (10)	ND (10)	ND (10)	ND (10)	10.3	ND (10)	ND (10)	ND (10)
Sodium	ug/l	50000	-	**65300**	**354000**	ND (10000)	**533000**	**186000**	**619000**	40400	**1140000**
Thallium	ug/l	2	-	ND (2.0)	ND (4.0) [h]	ND (2.0)	ND (10) [g]	ND (4.0) [h]	ND (2.0)	ND (2.0)	ND (2.0)
Vanadium	ug/l	-	-	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)	ND (50)
Zinc	ug/l	2000	-	ND (20)	ND (20)	ND (20)	ND (20)	30.6	ND (20)	ND (20)	ND (20)
General Chemistry											
Nitrogen, Ammonia	ug/l	3000	-	ND (200)	**4800**	ND (200)	2600	520	ND (200)	1800	**12700**

Footnotes:
* This represents interim groundwater screening levels not yet official standards.
[a] This compound in BS is outside in house QC limits bias high. This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[b] This compound in BS is outside in house QC limits bias high. This compound is in applied status wtih NJDEP for reference method SW846 8270SIM.
[c] This compound in BS is outside in house QC limits bias high.This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[d] This compound in BS is outside in house QC limits bias high.
[e] This compound is in applied status with NJDEP for reference method SW846 8270SIM.
[f] Elevated sample detection limit due to difficult sample matrix.
[g] Elevated detection limit due to dilution required for matrix interference.
[h] Elevated detection limit due to dilution required for high interfering element.
[i] Elevated detection limit due to dilution required for matrix interference (indicated by failing internal standard on original analysis).

Appendix 1

Low Flow Groundwater Sampling Sheets

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Port Reading Hess
DATE: 7/29/15
WEATHER: Hot, humid, sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Jay Tracy / Chris Roschuck

MONITOR WELL #: LN-6
WELL DEPTH: 17.05'
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm): BACKGROUND: ____ BENEATH OUTER CAP: ____ BENEATH INNER CAP: ____
PUMP INTAKE DEPTH: 16.05' ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 8.90' ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) 0.10 READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) 0.02 READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) 10 READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) 0.64 READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) 3.0 READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) 0.79 READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1:25	X		6.35	NA	0.556	NA	-129	NA	6.38	NA	30.4	NA	26.32	NA		
1:30	X		6.21	0.14	0.782	0.226	-115	14	1.10	5.28	20.6	9.8	25.41	0.91		
1:35	X		6.23	0.02	0.742	0.040	-115	—	1.05	0.05	18.0	2.6	25.65	0.24		
1:40	X		6.13	0.10	0.823	0.081	-111	4	1.05	—	13.1	4.9	25.14	0.51		
1:45	X		6.16	0.03	0.833	0.010	-113	2	0.92	0.13	11.6	1.5	25.55	0.41		
1:50	X		6.01	0.15	0.901	0.068	-111	2	0.88	0.04	10.9	0.7	24.89	0.66		
1:55	X		6.12	0.11	0.818	0.083	-113	2	0.79	0.09	10.8	0.1	26.98	2.09		
2:00	X		6.13	0.01	0.833	0.015	-114	1	0.79	—	10.2	0.6	27.44	0.46		
2:05	X		6.14	0.01	0.829	0.004	-116	2	0.64	0.15	10.8	0.6	28.17	0.73		
2:10	X		6.12	0.02	0.823	0.006	-114	2	0.68	0.04	10.6	0.2	28.64	0.47		
2:15		X														8:95

COMMENTS: Odor and sheen

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Port Reading
DATE: 7/29/15
WEATHER: Hot, humid, sunny
CONSULTING FIRM: Cash Systems
FIELD PERSONNEL: Jay Tracy / Chris Posclock

MONITOR WELL #: LN-3
WELL DEPTH: 13.13
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 12.13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.81 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) 0.10 READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) .044 READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) 10 READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) 0.07 READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) 7.1 READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) 0.94 READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
11:45	X		6.97	NA	1.47	NA	-150	NA	0.67	NA	71.4	NA	31.44	NA		5.83
11:50	X		6.94	0.03	1.46	0.01	-145	5	0.64	0.03	95.0	23.6	32.42	0.98		
11:55	X		6.92	0.02	1.48	0.02	-137	8	0.56	0.08	102	7.0	32.98	0.56		
12:00	X		6.90	0.02	1.50	0.02	-129	8	0.54	0.02	104	2.0	33.65	0.67		
12:05	X		6.90	—	1.52	0.02	-132	3	0.51	0.03	106	6	34.23	0.58		
12:10	X		6.89	0.01	1.55	0.03	-140	8	0.54	0.03	110	4	34.98	0.75		5.91
12:15		X														

COMMENTS: Cal Check @ 12:10 Ph: 7.18 *no recalibration

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Port Reading Hess
DATE: 7/29/15
WEATHER: Hot, humid, sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Jay Tracy / Chris Peschock

MONITOR WELL #: LN-4
WELL DEPTH: 14.38'
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 13.38 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 7.76 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) ±.1 READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) ±.04 READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) ±10 READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) ±.14 READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) ±2.2 READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) ±.76 READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
10:05	X		6.9	NA	1.25	NA	-112	NA	1.42	NA	22	NA	25.22	NA		7.78
10:10	X		7.2	0.3	1.17	0.08	-167	55	0.65	0.77	18.9	3.1	24.03	1.19		
10:15	X		7.28	0.08	1.15	0.02	-185	18	0.53	0.12	17.9	1.0	23.85	0.18		
10:20	X		7.28	—	1.16	0.01	-191	6	0.48	0.05	16.3	1.6	23.73	0.12		
10:25	X		7.32	0.04	1.16	—	-200	9	0.46	0.02	15.9	0.4	23.89	0.16		7.77
10:30	X		7.33	0.01	1.16	—	-203	3	0.44	0.02	14.3	1.6	23.81	0.08		
10:35		X														

COMMENTS: Sheen on water

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Port Reading Hess
DATE: 7/30/15
WEATHER: Overcast, hot, humid, rain past 12 hours

CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Jay Tracy / Chris Peschke

MONITOR WELL #: LN-5
WELL PERMIT #:
WELL DEPTH: 17.0'
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 16.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 7.30 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) .1		SPECIFIC CONDUCTIVITY (mS/cm) .01		REDOX POTENTIAL (mv) 10		DISSOLVED OXYGEN (mg/l) .56		TURBIDITY (NTU) 1.14		TEMPERATURE (degrees C) 0.7		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1:55	X		3.77	NA	0.351	NA	152	NA	5.60	NA	11.4	NA	21.30	NA		7.30
2:00	X		3.85	0.08'	0.352	0.001'	151	1'	4.83	0.77	10.3	1.1'	21.33	0.03'		
2:05	X		3.79	0.06'	0.353	0.001'	159	8'	4.59	0.24'	9.7	0.6'	21.35	0.02'		
2:10	X		3.87	0.08'	0.354	0.001'	158	1'	4.50	0.09'	8.8	0.9'	21.27	0.08'		
2:15	X		3.86	0.01'	0.355	0.001'	162	4'	4.26	0.24'	8.3	0.5'	21.38	0.11'		
2:20		X														7:31

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: 4169 - Port Reading Mess
DATE: 7/30/15
WEATHER: cloudy high 80's

CONSULTING FIRM: Environtactics
FIELD PERSONNEL: Jay Tracy / Chris Peschock

MONITOR WELL #: LW-1
WELL DEPTH: 11.37
WELL PERMIT #:
WELL DIAMETER: ____ inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 10.37 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.28 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) .1		SPECIFIC CONDUCTIVITY (mS/cm) .05		REDOX POTENTIAL (mv) 10		DISSOLVED OXYGEN (mg/l) .04		TURBIDITY (NTU) 1.31		TEMPERATURE (degrees C) 0.73		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:05	X		6.37	NA	1.81	NA	-138	NA	0.47	NA	13.1	NA	24.43	NA		5.28
12:10	X		6.35	0.02	1.82	0.01	-136	2	0.37	0.04	23.8	10.7	24.47	0.04		
12:15	X		6.34	0.01	1.83	0.01	-135	1	0.36	0.01	31.7	7.9	24.36	0.09		
12:20	X		6.35	0.01	1.84	0.01	-136	1	0.35	0.01	37.7	6.0	24.94	0.58		
12:25	X		6.36	0.01	1.84	—	-136	—	0.35	—	37.5	0.2	24.99	0.05		
12:30	X		6.35	0.01	1.82	0.02	-135	1	0.34	0.01	36.3	1.2	25.43	0.44		4.96
12:35	X		6.34	0.01	1.81	0.01	-135	—	0.35	0.01	36.7	0.1	25.18	0.25		
12:40		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Port Reading Hess
DATE: 7/30/15
WEATHER: Overcast, hot, humid, rain over past 6 hours
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Jay Tracy / Chris Pesdrick

MONITOR WELL #: LN-7
WELL DEPTH: 17.14
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 16.14 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 9.42 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) 0.10		SPECIFIC CONDUCTIVITY (mS/cm) 0.033		REDOX POTENTIAL (mv) 10		DISSOLVED OXYGEN (mg/l) 0.06		TURBIDITY (NTU) 2-1		TEMPERATURE (degrees C) 0.7		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:30	X		6.62	NA	1.09	NA	-150	NA	0.56	NA	20.5	NA	23.28	NA		9.42
10:35	X		6.68	0.06	1.14	0.05	-164	14	0.48	0.08	14.8	5.7	23.24	0.04		
10:40	X		6.74	0.06	1.21	0.07	-177	13	0.43	0.05	12.5	2.3	23.29	0.05		
10:45	X		6.75	0.01	1.23	0.02	-181	4	0.43	—	10.5	2.0	23.05	0.24		
10:50	X		6.76	0.01	1.26	0.03	-184	3	0.45	0.02	9.7	0.8	22.83	0.22		
10:55	X		6.76	—	1.28	0.02	-186	2	0.42	0.03	9.4	0.3	22.90	0.07		9.41
11:00		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Port Reading Hess
DATE: 7/30/15
WEATHER: Overcast, humid, rain over past 6 hours
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Jay Tracy / Chris Roschke

MONITOR WELL #: LW-2
WELL DEPTH: 11.49'
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 10.49 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.23 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) .1		SPECIFIC CONDUCTIVITY (mS/cm) .02		REDOX POTENTIAL (mv) 10		DISSOLVED OXYGEN (mg/l) .68		TURBIDITY (NTU) 1.65		TEMPERATURE (degrees C) .07		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:05	X		6.49	NA	0.535	NA	-72	NA	6.82	NA	16.5	NA	23.28	NA		6.23'
9:10	X		6.39	0.10'	0.575	0.04'	-82	10'	6.12	0.70	11.1	5.4	23.07	0.21'		
9:15	X		6.33	0.06'	0.584	0.009'	-80	2'	5.80	0.32'	10.4	0.7'	23.01	0.06'		
9:20	X		6.25	0.08'	0.607	0.023'	-74'	6'	5.29	0.51'	9.4	1.0'	22.93	0.08'		6.24'
9:25	X		6.16	0.09'	0.625	0.018'	-74	-'	4.84	0.45'	8.6	0.8'	22.83	0.10'		
9:30		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 6 OF 6

SITE: 4169-Port Reading
DATE: 8/3/15
WEATHER: Sunny 80's
CONSULTING FIRM: Envirotactics
FIELD PERSONNEL: JT/MK

MONITOR WELL #: CI-2
WELL DEPTH: 11.0
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: inches

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 10.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.4 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
3:15	X		6.72	NA	1.18	NA	-63	NA	0.49	NA	331	NA	22.64	NA		6.4
3:20	X		6.72		1.17		-73		0.48		276		22.23			6.42
3:25	X		6.80		1.17		-98		0.43		167		21.74			6.42
3:30	X		6.81		1.14		-108		0.39		124		22.04			6.43
3:35	X		6.80		1.12		-118		0.37		102		21.49			6.43
3:40	X		6.83		1.09		-118		0.36		75.6		21.78			6.43
3:45	X	X	6.83		1.09		-120		0.35		53.4		21.91			6.42
3:50		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 5 OF 6

SITE: 4169- Port Reading
DATE: 8/3/15
WEATHER: Sunny 80's
CONSULTING FIRM: Envirotactics
FIELD PERSONNEL: JT/MK

MONITOR WELL #: B4-2
WELL DEPTH: 11.06'
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: inches

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 10' ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.94' ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
2:10	X		5.72	NA	0.550	NA	103	NA	0.42	NA	99.8	NA	26.66	NA		4.94
2:15	X		5.84		0.541		92		0.37		101		28.12			5.06
2:20	X		5.85		0.537		82		0.34		100		28.82			5.08
2:25	X		5.85		0.536		77		0.30		104		29.50			5.08
2:30	X		5.84		0.537		72		0.29		107		30.20			5.08
2:35		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 4 OF ____

SITE: 4169- Port Reading
DATE: 8/3/15
WEATHER: sunny 80's
CONSULTING FIRM: Envisotactics
FIELD PERSONNEL: JT/MK

MONITOR WELL #: CL-1
WELL DEPTH: 15.00
SCREENED/OPEN INTERVAL: ____
WELL PERMIT #: ____
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND: ____
BENEATH OUTER CAP: ____
BENEATH INNER CAP: ____
PUMP INTAKE DEPTH: ____ ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 7.74 ft below TOC

TIME	PURGING	SAMPLING	pH 0.10 (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY .004 (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL 10 (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN 0.4 (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY 0.0 (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE 0.7 (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
12:55	X		4.78	NA	0.134	NA	91	NA	3.82	NA	0.0	NA	23.33	NA		7.74
1:00	X		4.77	0.01	0.135	0.001	99	8	3.88	0.06	0.0	—	23.16	0.17		
1:05	X		4.53	0.24	0.135	—	89	10	3.99	0.10	0.0	—	23.23	0.07		8.71
1:10	X		4.29	0.24	0.134	0.001	141		3.91	0.08	0.0	—	23.38	0.15		
1:15	X		4.34	0.05	0.135	0.001	147	6	3.82	0.09	0.0	—	23.32	0.06		8.89
1:20	X		4.30	0.04	0.136	0.001	142	~	3.69	0.13	0.0	—	23.68	0.32		8.89
1:25	X		4.40	0.10	0.137	0.001	140	7	3.82	0.13	0.0	—	24.08	0.44		8.89
1:30		X														

COMMENTS: No field calibration. Out of ph 7.0

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 3 OF ____

SITE: 4168 - Port Reading
DATE: 8/3/15
WEATHER: Sunny 80's
CONSULTING FIRM: Envirotactics
FIELD PERSONNEL: JT/MK

MONITOR WELL #: CI-3 WELL DEPTH: 11.0' SCREENED/OPEN INTERVAL: ____
WELL PERMIT #: ____ WELL DIAMETER: ____ inches

PID/FID READINGS (ppm): BACKGROUND: ____
BENEATH OUTER CAP: ____
BENEATH INNER CAP: ____
PUMP INTAKE DEPTH: 10.0' ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.48 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) 0.10 READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) 0.041 READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) 10 READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) 0.09 READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) 1.3 READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) 0.73 READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
11:50	X		6.60	NA	1.36	NA	-71	NA	0.86	NA	13.4	NA	24.34	NA		6.48
11:55	X		6.22	0.38	1.36	—	-46	25	0.65	0.21	12.1	1.3	23.84	0.50		6.52
12:00	X		5.99	0.23	1.37	0.01	-32	14	0.52	0.13	12.2	0.1	24.18	0.34		6.56
12:05	X		5.89	0.10	1.37	—	-22	10	0.46	0.06	11.5	0.7	24.20	0.02		6.56
12:10	X		5.80	0.09	1.38	0.01	-17	5	0.46	—	11.2	0.3	24.34	0.14		6.56
12:15	X		5.78	0.02	1.37	0.01	-15	2	0.41	0.05	11.2	—	24.75	0.41		6.56
12:20		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 2 OF ____

SITE: 1169 - Port Reading
DATE: 8/3/15
WEATHER: cloudy 80's

CONSULTING FIRM: Envirotactics
FIELD PERSONNEL: JT/MK

MONITOR WELL #: C1-4
WELL DEPTH: 11.0
SCREENED/OPEN INTERVAL: ____
WELL PERMIT #: ____
WELL DIAMETER: ____ inches

PID/FID READINGS (ppm):
BACKGROUND: ____
BENEATH OUTER CAP: ____
BENEATH INNER CAP: ____

PUMP INTAKE DEPTH: 10.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 8.24 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) 0.10		SPECIFIC CONDUCTIVITY (mS/cm) 0.012		REDOX POTENTIAL (mv) 10		DISSOLVED OXYGEN (mg/l) 0.5		TURBIDITY (NTU) 0.13		TEMPERATURE (degrees C) 0.7		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:55	X		6.82	NA	0.396	NA	-14	NA	4.65	NA	1.3	NA	23.31	NA		8.24
11:00	X		6.81	0.01	0.397	0.001	-10	4	4.20	0.45	0.4	0.9	23.91	0.06		8.32
11:05	X		6.78	0.03	0.398	0.001	-4	6	3.89	0.31	0.4	–	~~[illegible]~~ 23.38	~~[illegible]~~ 0.53		8.37
11:10	X		6.80	0.02	0.400	0.002	-3	1	3.82	0.07	0.8	0.4	23.12	0.26		8.31
11:15	X		6.74	0.06	0.400	–	4	7	3.51	0.31	0.5	0.3	22.71	0.41		8.31
11:20		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF ____

SITE: 4169-Port Reading
DATE: 8/3/15
WEATHER: Sunny 90's
CONSULTING FIRM: Envirotactics
FIELD PERSONNEL: JT/MK

MONITOR WELL #: B4-3
WELL DEPTH: 10.77
SCREENED/OPEN INTERVAL: ____
WELL PERMIT #: ____
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND: ____
BENEATH OUTER CAP: ____
BENEATH INNER CAP: ____
PUMP INTAKE DEPTH: 9.77 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.32 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
9:30	X		6.91	NA	0.274	NA	-31	NA	1.04	NA	33.3	NA	19.32	NA		5.32
9:35	X		6.82	.09	0.255	.019	-30	-1	1.25	.21	29.3	4.0	19.50	0.18		6.27
9:40	X		6.49	.33	0.252	.003	-27	-3	1.56	0.31	28.3	1.0	19.76	0.26		6.43
9:45	X		6.36	.13	0.258	.006	-24	-3	1.69	0.13	26.3	2.0	19.90	0.14		6.54
9:50	X		6.39	.03	0.266	.008	-27	-3	1.53	0.16	25.3	1.0	19.94	0.04		6.61
9:55	X		6.42	.03	0.296	.030	-26	-1	1.53	0.00	23.3	2.0	20.04	0.10		6.68
10:00	X	X	6.43	.01	0.310	0.014	-30	-4	1.50	0.03	21.9	1.4	20.10	0.06		6.78
10:05		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169 Port Reading
DATE: 3/4/15
WEATHER: 35° Sunny
CONSULTING FIRM: Envirotechtics
FIELD PERSONNEL: Mike Kronkelu

MONITOR WELL #: LS-2
WELL DEPTH: 12.00
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 Inches

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 2.40 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:25	X		6.20	NA	5.03	NA	-6	NA	1.94	NA	56.7	NA	26.50	NA		2.40
11:30	X		5.88	0.32	5.10	0.07	-5	-1	1.11	0.83	61.4	4.7	25.34	0.16		2.50
11:35	X		5.78	0.10	5.21	0.11	-5	0	0.73	0.38	63.7	2.3	25.25	0.09		2.62
11:40	X		5.73	0.05	5.24	0.03	-4	-1	0.65	0.08	70.5	6.8	25.35	0.10		3.01
11:45	X		5.68	0.05	5.23	0.01	-3	-1	0.58	0.07	71.0	0.5	25.38	0.03		3.46
11:50	X		5.67	0.01	5.26	0.03	-3	0	0.49	0.09	70.0	1.0	25.38	0.0		3.70
11:55		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169 Port Reading
DATE: 8-4-15
WEATHER: 85° Sunny

CONSULTING FIRM: Envirotecting
FIELD PERSONNEL: Mike Kronfeld

MONITOR WELL #: LS-3
WELL PERMIT #:
WELL DEPTH: 12.79
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 11 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 1.12 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
12:20	✓		6.50	NA	8.44	NA	-132	NA	1.81	NA	18.5	NA	23.66	NA		1.12
12:25	✓		6.61	0.10	9.10	0.66	-149	-17	0.89	0.92	7.2	11.3	21.48	2.18		1.47
12:30	✓		6.63	0.02	9.30	0.20	-156	7	0.47	0.42	7.1	0.1	21.01	0.47		1.89
12:35	✓		6.62	0.01	9.29	0.01	-156	0	0.44	0.03	7.6	0.5	20.91	0.10		2.15
12:40	✓		6.60	0.02	9.21	0.08	-155	1	0.35	0.09	8.4	0.8	20.98	0.07		2.36
12:45	✓		6.59	0.01	9.18	0.03	-153	2	0.33	0.02	9.0	0.6	20.93	0.05		2.49
12:50																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity.

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169 Port Reading
DATE: 8-4-14
WEATHER: 85° sunny
CONSULTING FIRM: Enviroteering
FIELD PERSONNEL: Mike Krankel

MONITOR WELL #: LS-4
WELL DEPTH: 13.05
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 Inches

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 11 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 1.71 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
13:20	✓		7.18	NA	6.71	NA	-184	NA	0.94	NA	38.3	NA	21.08	NA		1.71
13:25	✓		7.21	0.03	6.95	0.24	-193	9	0.45	0.49	17.3	21.0	18.97	2.11		2.09
13:30	✓		7.22	0.01	6.79	0.16	-194	1	0.32	0.13	12.7	4.6	18.57	0.40		2.65
13:35	✓		7.16	0.06	6.49	0.30	-188	6	0.29	0.03	10.7	2.0	18.61	0.04		2.90
13:40	✓		7.13	0.03	6.37	0.12	-185	3	0.26	0.03	11.5	0.8	18.69	0.08		3.25
13:45	✓		7.10	0.03	6.20	0.03	-182	3	0.24	0.02	12.0	0.5	18.79	0.10		3.49
13:50		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Hess Port Reading
DATE: 8/6/15
WEATHER: 80° Sunny

CONSULTING FIRM: Envirotechs
FIELD PERSONNEL: Mike Kronfeld

MONITOR WELL #: LS-1R
WELL DEPTH: 16.00
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 Inches

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.66 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:23	X		7.27	NA	1.48	NA	-172	NA	0.11	NA	0.0	NA	21.81	NA		3.66
13:28	X		7.20	0.07	1.47	0.01	-179	7	0.00	0.11	0.0	—	21.09	0.72		3.67
13:33	X		7.18	0.02	1.44	0.03	-183	4	0.00	—	0.0	—	21.18	0.09		3.68
13:38	X		7.15	0.03	1.42	0.02	-187	4	0.00	—	0.0	—	21.31	0.13		3.69
13:43	X		7.17	0.02	1.40	0.02	-185	2	0.00	—	0.0	—	21.40	0.09		3.70
13:48		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: PORT READING - FORMER HESS TERMINAL
DATE: 10/26/15
WEATHER: PARTLY CLOUDY 50°F

CONSULTING FIRM: EARTH SYSTEMS INC.
FIELD PERSONNEL: SCOTT MAYES, MIKE KRONFELD

MONITOR WELL #: CN-4
WELL PERMIT #:
WELL DEPTH: 14.35
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 12 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.55 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
8:45	X		7.15	NA	1.20	NA	-89	NA	0.52	NA	149	NA	17.88	NA		7.55
8:50	X		7.12	0.03	1.18	0.02	-112	23	0.25	0.27	114	35	18.57	0.69		7.56
8:55	X		7.12	0	1.20	0.02	-124	12	0.17	0.08	94	20	18.58	0.01		7.57
9:00	X		7.11	0.01	1.22	0.02	-130	6	0.12	0.05	80	14	18.60	0.02		7.58
9:05	X		7.10	0.01	1.20	0.02	-135	5	0.07	0.05	72	8	18.79	0.19		7.59
9:10	X		7.09	0.01	1.20	—	-138	3	0.05	0.02	69	3	19.02	0.23		7.61
9:15		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169- Post Reading
DATE: 10/26/15
WEATHER: Partly Cloudy 50°
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Mike Kronfeld

MONITOR WELL #: LN-3
WELL DEPTH: 12.20
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.60 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:00	X		6.57	NA	3.64	NA	-76	NA	0.48	NA	184	NA	18.60	NA		5.60
10:05	X		6.53	0.04	3.61	0.03	-86	10	0.19	0.29	163	21	19.60	1.00		5.66
10:10	X		6.48	0.05	3.51	0.10	-93	7	0.11	0.08	120	43	19.90	0.30		5.72
10:15	X		6.47	0.01	3.45	0.06	-94	1	0.10	0.01	102	18	20.07	0.17		5.78
10:20	X		6.45	0.02	3.36	0.09	-94	—	0.05	0.05	94	8	20.30	0.23		5.84
10:25	X		6.46	0.01	3.27	0.09	-95	1	0.00	0.05	85	9	20.39	0.09		5.90
10:30	X		6.46	—	3.20	0.07	-96	1	0.00	—	80	5	20.50	0.11		5.95
10:35		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169 Port Reading
DATE: 10/26/15
WEATHER: 60° Partly Cloudy

CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Mike Kranteler

MONITOR WELL #: LN-6
WELL DEPTH: 16.90
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: _____ ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : _____ ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:20	X		6.68	NA	1.27	NA	-121	NA	0.51	NA	100.0	NA	20.61	NA		8.85
11:25	X		6.48	0.20	1.21	0.06	-103	18	0.46	0.05	78.0	22	20.41	0.20		8.88
11:30	X		6.42	0.06	1.21	—	-94	9	0.40	0.06	10.0	68	20.26	0.15		8.91
11:35	X		6.38	0.04	1.22	0.01	-91	3	0.36	0.04	10.2	0.2	20.22	0.04		8.94
11:40	X		6.35	0.03	1.23	0.01	-88	3	0.34	0.02	10.1	0.1	20.21	0.01		8.97
11:45	X		6.36	0.01	1.23	—	-86	2	0.25	0.09	9.9	0.2	20.24	0.03		8.99
11:50		X														

COMMENTS: PH check 7.01 Cond. Check 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: PORT READING - FORMER HESS TERMINAL
DATE: 10/26/15
WEATHER: SUNNY 60°F
CONSULTING FIRM: EARTH SYSTEMS INC
FIELD PERSONNEL: SCOTT MAYES, MIKE KRONFELD

MONITOR WELL #: LN-2
WELL DEPTH: 11.5
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0
PUMP INTAKE DEPTH: 9.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.28 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:10	X		8.93	NA	0.925	NA	-69	NA	0.86	NA	210	NA	19.68	NA		6.28
12:20	X		7.62	1.31	0.927	0.02	-72	3	0.71	0.05	153	57	20.61	0.07		6.35
12:25	X		7.50	0.12	0.928	0.01	-71	1	0.65	0.06	128	25	20.54	0.07		6.42
12:30	X		7.22	0.28	0.930	0.02	-71	0	0.60	0.05	96.7	31.3	20.58	0.04		6.49
12:35	X		6.90	0.32	0.931	0.01	-70	1	0.50	0.10	90.1	6.6	20.60	0.02		6.56
12:40	X		6.89	0.01	0.935	0.04	-69	1	0.49	0.01	88.9	1.2	20.59	0.01		6.62
12:45	X		6.87	0.02	0.937	0.02	-68	1	0.47	0.02	88.1	0.8	20.62	0.03		6.69
12:50	X		6.82	0.05	0.940	0.03	-68	0	0.45	0.02	80.2	7.9	20.65	0.03		6.77
12:55		X														

COMMENTS:

pH Check 7.01 Sp. CONDUCTIVITY CHECK 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4/69 Post Reading
DATE: 10/26/15
WEATHER: 60° Partly Cloudy
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Mike Kronfeld

MONITOR WELL #: LN-5
WELL DEPTH: 16.91
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.2
BENEATH OUTER CAP: 0.2
BENEATH INNER CAP: 0.2
PUMP INTAKE DEPTH: 13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.35 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:40	X		5.10	NA	0.250	NA	273	NA	6.72	NA	19.2	NA	19.50	NA		7.35
12:45	X		4.42	0.68	0.237	0.013	315	42	6.22	0.50	14.0	5.2	19.10	0.40		7.37
12:50	X		4.17	0.25	0.240	0.003	358	43	5.22	1.0	13.5	0.5	18.60	0.50		7.40
12:55	X		4.08	0.09	0.244	0.004	372	14	4.73	0.49	12.9	0.6	18.53	0.07		7.44
13:00	X		4.06	0.02	0.245	0.001	378	6	4.43	0.30	11.9	1.0	18.49	0.04		7.48
13:05	X		4.02	0.04	0.247	0.062	382	4	4.15	0.28	11.2	0.7	18.59	0.10		7.52
13:10		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 1069 Port Reading
DATE: 10/26/15
WEATHER: 60° Sunny

CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Mike Kronfeld

MONITOR WELL #: LN-1
WELL PERMIT #:
WELL DEPTH: 13.75
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0
BENEATH OUTER CAP: 0
BENEATH INNER CAP: 3.1

PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 5.6 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
14:00	X		6.46	NA	1.90	NA	-84	NA	0.73	NA	22.0	NA	21.24	NA		5.60
14:05	X		6.46	–	1.93	0.03	-88	4	0.33	0.40	20.0	2.0	20.90	0.34		5.63
14:10	X		6.45	0.01	1.93	–	-89	1	0.20	0.13	20.6	0.6	20.80	0.10		5.67
14:15	X		6.46	0.01	1.93	–	-89	–	0.11	0.09	21.0	0.4	20.66	0.14		5.71
14:20	X		6.46	–	1.94	0.01	-88	1	0.14	0.03	21.5	0.5	20.58	0.08		5.75
14:25		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 13

SITE: PORT READING - FORMER HESS TERMINAL
DATE: 10/26/15
WEATHER: SUNNY 65°F

CONSULTING FIRM: EARTH SYSTEMS INC
FIELD PERSONNEL: SCOTT MAYES, MIKE FRONFELD

MONITOR WELL #: LN-7
WELL PERMIT #:
WELL DEPTH: 17.15
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 15.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 9.62 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
14:00	X		6.83	NA	1.13	NA	-97	NA	1.21	NA	30.8	NA	20.83	NA		9.62
14:10	X		6.80	0.03	1.13	0	-93	4	0.53	0.68	33.2	2.4	20.89	0.06		9.62
14:15	X		6.70	0.10	1.14	0.01	-80	7	0.43	0.10	29.1	4.1	21.00	0.11		9.63
14:20	X		6.65	0.05	1.15	0.01	-78	2	0.38	0.05	28.3	0.8	21.02	0.02		9.64
14:25	X		6.63	0.02	1.15	0	-71	7	0.32	0.06	27.9	0.4	21.00	0.0		9.65
14:30	X		6.59	0.04	1.15	0	-76	5	0.30	0.02	28.3	0.4	20.95	0.05		9.65
14:35		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169 Port Reading
DATE: 10/27/15
WEATHER: 60° Partly Cloudy
CONSULTING FIRM: Earth System
FIELD PERSONNEL: Mike Kranfeld

MONITOR WELL #: L1-3
WELL DEPTH: 11.10
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0
PUMP INTAKE DEPTH: 8 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.24 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:50	X		6.92	NA	4.18	NA	-116	NA	1.64	NA	16.3	NA	16.08	NA		6.24
9:55	X		6.68	0.24	3.57	0.61	-99	17	1.88	0.14	11.3	5	16.59	0.51		6.27
10:00	X		6.63	0.05	3.41	0.16	-88	11	1.75	0.13	6.3	5	16.71	0.12		6.29
10:05	X		6.56	0.07	3.44	0.03	-80	8	1.60	0.15	5.5	0.8	16.74	0.03		6.31
10:10	X		6.50	0.06	3.45	0.01	-71	9	1.69	0.09	5.1	0.4	16.75	0.01		6.33
10:15	X		6.48	0.02	3.45	—	-66	5	1.66	0.03	4.8	0.3	16.75	—		6.35
10:20		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169 Port Reading
DATE: 10/27/15
WEATHER: 60° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Mike Kronfeld

MONITOR WELL #: LT-4
WELL DEPTH: 11.08
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 8.11 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:55	X		6.80	NA	0.490	NA	54	NA	5.53	NA	3.0	NA	16.88	NA		8.11
11:00	X		6.54	0.26	0.448	0.042	133	79	5.23	0.30	1.9	1.1	17.58	1.30		8.13
11:05	X		6.48	0.06	0.452	0.004	140	7	4.87	0.36	2.0	0.1	17.61	0.03		8.15
11:10	X		6.50	0.02	0.453	0.001	146	6	4.63	0.24	1.5	0.5	17.70	0.09		8.18
11:15	X		6.46	0.04	0.457	0.004	147	1	4.63	—	1.1	0.4	17.78	0.08		8.21
11:20		X														

COMMENTS: Pt Check 7.01 Cond. Check 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: HESS PORT READING
DATE: 10/27/15
WEATHER: SUNNY 65°F

CONSULTING FIRM: EARTH SYSTEMS INC.
FIELD PERSONNEL: SCOTT MAYERS, MIKE KRONFELD

MONITOR WELL #: PG-3
WELL PERMIT #:
WELL DEPTH: 10.75
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 9 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 4.86 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:50	X		8.93	NA	0.517	NA	176	NA	2.88	NA	71.6	NA	15.39	NA		4.86
10:55	X		8.50	0.43	0.519	0.002	175	1	2.87	0.01	70.1	0.5	15.38	0.01		4.87
11:00	X		7.00	1.50	0.521	0.002	160	15	2.38	0.49	58.1	12	15.37	0.01		4.89
11:05	X		6.20	0.8	0.550	0.029	142	18	2.02	0.36	50.7	7.4	15.37	0		4.90
11:10	X		6.05	0.15	0.558	0.008	140	2	1.99	0.03	49.9	0.8	15.39	0.02		4.91
11:15	X		5.90	0.15	0.560	0.002	131	9	1.88	0.11	47.1	2.8	15.41	0.02		4.92
11:20	X		5.83	0.07	0.565	0.005	126	5	1.80	0.08	46.8	0.3	15.43	0.02		4.93
11:25	X		5.79	0.04	0.571	0.006	120	6	1.78	0.02	46.1	0.7	15.45	0.02		4.94
11:30	X		5.70	0.09	0.575	0.004	118	2	1.71	0.07	45.8	0.3	15.41	0.04		4.95
11:35		X														

COMMENTS:

pH CHECK 7.01 SP. CONDUCTIVITY CHECK 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: ~~[illegible]~~ PORT READING - HESS
DATE: 10/27/15
WEATHER: CLOUDY - 60°F

CONSULTING FIRM: EARTH SYSTEMS INC.
FIELD PERSONNEL: SCOTT MAYES, MIKE KRONFELD

MONITOR WELL #: L1-1
WELL PERMIT #:
WELL DEPTH: 14.5
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 12.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 7.90 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:30	X		4.80	NA	0.134	NA	103	NA	3.80	NA	50.4	NA	20.22	NA		7.90
12:40	X		4.35	0.45	0.135	0.01	122	19	3.79	0.01	1.4	49	20.30	0.08		7.97
12:45	X		4.28	0.07	0.136	0.01	127	5	3.69	0.10	1.2	0.2	20.38	0.08		8.09
12:50	X		4.20	0.08	0.138	0.02	130	3	3.61	0.08	0.8	0.4	20.40	0.02		8.15
12:55	X		4.15	0.05	0.139	0.01	133	3	3.59	0.02	0.4	0.4	20.41	0.01		8.21
13:00		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4164 Port Reading
DATE: 10/27/15
WEATHER: 60° Partly Cloudy

CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Mike Kronfeld

MONITOR WELL #: B6-2
WELL DEPTH: 11.00
WELL PERMIT #: –
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: –

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 9 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 5.19 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
13:20	X		6.32	NA	1.90	NA	-33	NA	1.27	NA	37.2	NA	19.40	NA		5.19
13:25	X		6.28	0.04	1.92	0.02	-56	23	0.29	0.98	34.2	3	19.52	0.12		5.23
13:30	X		6.28	–	1.92	–	-60	4	0.30	0.01	33.6	0.8	19.58	0.06		5.27
13:35	X		6.28	–	1.92	–	-65	5	0.31	0.01	32.8	0.8	19.57	0.01		5.29
13:40	X		6.28	–	1.94	0.02	-70	5	0.27	0.04	30.8	2.0	19.59	0.02		5.31
13:45		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: HESS PORT READING
DATE: 10/27/15
WEATHER: CLOUDY 60°F

CONSULTING FIRM: EARTH SYSTEMS INC.
FIELD PERSONNEL: SCOTT MAYES, MIKE KRONFELD

MONITOR WELL #: L1-2
WELL PERMIT #:
WELL DEPTH: 14.5
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 12.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.50 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:35	X		6.20	NA	1.53	NA	33	NA	0.80	NA	170	NA	18.69	NA		6.50
13:45	X		6.24	0.04	1.54	0.01	31	2	0.60	0.20	158	12	18.67	0.02		6.58
13:50	X		6.20	0.04	1.54	0.00	35	4	0.30	0.30	140	18	18.63	0.04		6.66
13:55	X		6.18	0.02	1.54	0.00	35	0	0.27	0.03	135	5	18.65	0.02		6.74
14:00	X		6.10	0.08	1.53	0.01	39	4	0.20	0.07	128	7	18.65	0.0		6.80
14:05	X		6.08	0.02	1.53	0.00	40	1	0.18	0.02	120	8	18.64	0.01		6.85
14:10																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169 Port Reading
DATE: 10/23/15
WEATHER: 55° Rain
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Mike Kronfeld

MONITOR WELL #: LS-2
WELL DEPTH: 12.00
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 Inches

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.22 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
9:00	X		7.08	NA	7.35	NA	191	NA	0.97	NA	49.5	NA	18.11	NA		4.22
9:05	X		7.04	0.04	7.33	0.02	156	35	0.41	0.56	52.9	3.4	18.29	0.18		4.26
9:10	X		7.00	0.04	7.35	0.02	111	45	0.20	0.21	33.9	19	18.36	0.07		4.30
9:15	X		7.03	0.03	7.37	0.02	1	10	0.11	0.09	34.8	0.9	18.37	0.01		4.34
9:20	X		7.05	0.02	7.37	0.00	1	0	0.04	0.07	35.8	1.0	18.45	0.08		4.37
9:25		X														

COMMENTS:

***INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature;**

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: HESS - PORT READING
DATE: 10/20/15
WEATHER: RAIN 55°F

CONSULTING FIRM: EARTH SYSTEMS INC
FIELD PERSONNEL: SCOTT MAYCS, MIKE KRONPELD

MONITOR WELL #: LS-4
WELL PERMIT #:
WELL DEPTH: 13.15
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 11.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : _____ ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:20	X		8.12	NA	5.93	NA	126	NA	1.15	NA	187	NA	16.12	NA		2.65
9:25	X		7.51	0.61	6.00	0.07	53	73	0.50	0.65	180	7	16.10	0.02		2.70
9:30	X		7.48	0.03	6.05	0.05	50	3	0.48	0.02	179	1	16.10	0.0		2.75
9:35	X		7.10	0.38	6.10	0.05	48	2	0.40	0.08	171	8	16.11	0.01		2.80
9:40	X		6.80	0.30	6.15	0.05	46	2	0.35	0.05	168	3	16.13	0.02		2.84
9:45	X		6.55	0.25	6.17	0.02	45	1	0.30	0.05	160	8	16.15	0.02		2.88
9:50	X		6.52	0.03	6.16	0.01	42	3	0.23	0.07	153	7	16.17	0.02		2.92
9:55	X		6.50	0.02	6.15	0.03	42	0	0.20	0.03	150	3	16.17	0.00		2.96
10:00	X		6.47	0.03	6.16	0.01	40	2	0.15	0.05	145	5	16.16	0.01		3.00
10:05																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SITE: 4164 Port Reading
DATE: 10/22/15
WEATHER: 60° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Mike Kranbeck
SHEET 1 OF 1

MONITOR WELL #: LS-1R
WELL DEPTH: 16.10
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 4.36 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
9:55	X		6.81	NA	1.62	NA	-99	NA	0.92	NA	111	NA	17.34	NA		4.36
10:00	X		6.70	0.11	1.42	0.20	-89	10	0.00	0.92	161	50	17.53	0.19		4.40
10:05	X		6.63	0.07	1.41	0.01	-74	15	0.00	—	176	15	17.41	0.12		4.44
10:10	X		6.58	0.05	1.39	0.02	-59	15	0.00	—	179	3	17.32	0.09		4.47
10:15	X		6.51	0.07	1.39	—	-49	10	0.00	—	174	5	17.33			4.51
10:20	X		6.50		1.41	0.02	-42	7	0.00	—	166	8	17.32			4.54
10:25		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: PORT READING - HESS TERMINAL
DATE: 10/28/15
WEATHER: CLOUDY / RAIN 55°F
CONSULTING FIRM: EARTH SYSTEMS INC.
FIELD PERSONNEL: SCOTT MAYES, MIKE KRONFELD

MONITOR WELL #: LS-3
WELL PERMIT #:
WELL DEPTH: N/A
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 1.0
BENEATH INNER CAP: 3.5

PUMP INTAKE DEPTH: _____ ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : _____ ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:00				NA		NA		NA		NA		NA		NA		PRODUCT AT 3.20

COMMENTS:

DID NOT SAMPLE, PRODUCT AT 3.20 / PID - 3.5

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/17/15
WEATHER: 50° Sunny
CONSULTING FIRM: Earth System
FIELD PERSONNEL: MK

MONITOR WELL #: AD-1
WELL DEPTH: 11.00
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 8-9 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.19 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:20	X		6.75	NA	1.16	NA	167	NA	3.39	NA	107	NA	17.99	NA		7.19
9:25	X		6.50	0.25	1.15	0.01	171	4	3.15	0.24	101	6	18.35	0.36		7.34
9:30	X		6.42	0.08	1.15	—	170	1	2.88	0.27	94.1	6.9	18.59	0.24		7.68
9:35	X		6.39	0.03	1.15	—	171	1	2.60	0.28	86.1	8.0	18.66	0.07		7.94
9:40	X		6.36	0.03	1.15	—	171	—	2.47	0.13	79.5	6.6	18.63	0.03		8.19
9:45		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/17/15
WEATHER: SUNNY 50°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: AD-5D
WELL PERMIT #:
WELL DEPTH: 28.65
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 25.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 9.80 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:20	X		8.40	NA	2.01	NA	25	NA	0.90	NA	155	NA	16.66	NA		9.80
9:25	X		7.40	1.00	2.05	0.04	21	4	0.66	0.24	120	35	16.90	0.24		9.85
9:30	X		7.20	0.20	2.05	0.00	22	1	0.50	0.16	123	3	16.93	0.03		9.95
9:35	X		6.45	0.75	2.05	0.00	25	3	0.45	0.05	65.3	57.7	17.00	0.07		9.98
9:40	X		6.40	0.05	2.07	0.02	26	1	0.40	0.05	60.1	5.2	16.97	0.03		10.01
9:45	X		6.37	0.03	2.09	0.02	28	2	0.35	0.05	58.2	1.9	16.95	0.02		10.02
9:50	X		6.32	0.04	2.10	0.01	29	1	0.30	0.05	58.8	0.6	16.92	0.03		10.10
9:55		X														10.25

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/17/11
WEATHER: 50° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: HD-2
WELL DEPTH: 16.80
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm): BACKGROUND: 0.0
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.42 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
10:10	X		6.31	NA	3.60	NA	-38	NA	0.98	NA	290	NA	16.02	NA		7.42
10:15	X		6.05	0.26	3.64	0.04	-8	30	0.28	0.70	220	70	17.90	1.88		7.93
10:20	X		5.92	0.13	3.63	0.01	4	12	0.04	0.24	202	18	18.48	0.58		8.42
10:25	X		5.89	0.03	3.60	0.03	7	3	0.00	0.04	192	10	18.54	0.06		8.95
10:30	X		5.86	0.03	3.63	0.03	11	4	0.00	—	182	10	18.58	0.04		9.40
10:35	X		5.84	0.02	3.62	0.01	12	1	0.00	—	169	13	18.63	0.05		9.79
10:40		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER MESS
DATE: 11/17/15
WEATHER: SUNNY 50°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: AD-4
WELL PERMIT #:
WELL DEPTH: 14.35
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 12.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 8.85 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:20	X		5.63	NA	5.78	NA	122	NA	0.25	NA	81.8	NA	18.30	NA		8.85
10:25			5.62	0.01	5.77	0.01	122	0	0.22	0.03	78.9	2.9	18.60	0.30		9.35
10:30			5.61	0.01	5.76	0.01	122	0	0.21	0.01	75.2	3.7	18.70	0.10		9.58
10:35			5.61	0.00	5.76	0.00	122	0	0.19	0.02	70.0	5.2	18.68	0.02		10.32
10:40			5.60	0.01	5.76	0.00	123	1	0.16	0.03	68.0	2.0	18.70	0.02		10.51
10:45		X														10.60

COMMENTS:
EXCESS SAND AROUND WELL HEAD, UP TO TOC

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 10/17/15
WEATHER: 50° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: MW-2DD
WELL PERMIT #:
WELL DEPTH: 48.00
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm): BACKGROUND: 0.0
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 45 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : [illegible] ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
11:05	X		12.01	NA	7.80	NA	-183	NA	2.35	NA	76.0	NA	17.07	NA		11.32
11:10	X		12.60	0.59	7.36	0.44	-213	30	1.55	0.80	233	157	17.33	0.26		11.34
11:15	X		12.70	0.10	6.66	0.70	-218	5	1.03	0.52	372	139	17.40	0.07		11.37
11:20	X		12.69	0.01	6.10	0.56	-213	5	0.93	0.10	386	14	17.18	0.22		11.40
11:25	X		12.62	0.07	5.33	0.77	-203	10	0.70	0.23	510	124	17.10	0.08		11.43
11:30	X		11.40	1.22	3.33	2.00	-193	10	0.56	0.14	680	170	17.10	—		11.48
11:35	X		11.30	0.10	3.13	0.20	-183	10	0.46	0.10	694	14	17.10	—		11.51
11:40	X		11.15	0.15	3.00	0.13	-173	10	0.36	0.10	704	10	17.10	—		11.56
11:45		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/17/15
WEATHER: SUNNY 60°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: AD-5
WELL PERMIT #:
WELL DEPTH: 14.6
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 12.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 7.65 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:30	X		6.22	NA	1.67	NA	140	NA	0.45	NA	122	NA	20.12	NA		7.65
11:35			6.10	0.12	1.70	0.03	138	2	0.42	0.03	110	12	20.20	0.08		7.71
11:40			6.05	0.05	1.73	0.03	138	0	0.38	0.04	108	2	20.28	0.08		7.78
11:45			6.01	0.04	1.75	0.02	138	0	0.31	0.07	103	5	20.31	0.03		7.79
11:50			5.96	0.05	1.80	0.05	138	0	0.25	0.06	98	5	20.39	0.08		7.80
11:55		X														7.80

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING
DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/17/15
WEATHER: 50° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: AD-6
WELL DEPTH: 11
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 8.72 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:05	✓		8.60	NA	0.796	NA	60	NA	4.50	NA	162	NA	17.08	NA		8.72
12:10	✓		7.50	1.10	0.776	0.020	97	37	3.20	1.30	89.0	73	17.58	0.50		8.73
12:15	✓		6.50	1.00	0.768	0.008	150	53	2.70	0.50	26.0	53	17.88	0.30		8.74
12:20	✓		6.25	0.25	0.775	0.005	170	20	2.20	0.50	21.0	5	17.99	0.11		8.76
12:25	✓		6.16	0.09	0.775	0.002	175	5	1.80	0.30	20.2	0.8	18.11	0.12		8.78
12:30	✓		6.09	0.08	0.785	0.010	180	5	1.60	0.20	18.2	2.0	18.14	0.03		8.79
12:35	✓		6.07	0.02	0.792	0.007	182	2	1.47	0.13	20.2	2.0	18.15	0.01		8.80
12:40		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/17/15
WEATHER: SUNNY 60°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: AD-9D
WELL PERMIT #:
WELL DEPTH: 26.50
WELL DIAMETER: ___ Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 23.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 10.10 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:15	X		6.08	NA	1.74	NA	111	NA	1.06	NA	4.4	NA	20.00	NA		10.10
12:20	X		5.90	0.18	1.74	0.0	95	16	0.40	0.66	2.8	1.6	20.01	0.01		10.18
12:25	X		5.88	0.02	1.74	0.0	90	5	0.30	0.10	2.2	0.6	19.99	0.02		10.21
12:30	X		5.80	0.08	1.74	0.0	85	5	0.20	0.10	2.0	0.2	19.95	0.04		10.28
12:35	X		5.78	0.02	1.74	0.0	81	4	0.15	0.05	1.6	0.4	19.90	0.05		10.32
12:40		X														10.35

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER MESS
DATE: 11/17/15
WEATHER: SUNNY 60°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: AD-3
WELL PERMIT #:
WELL DEPTH: 13.85
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 12.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 11.20 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:30	X		7.19	NA	0.269	NA	130	NA	7.64	NA	50.9	NA	17.64	NA		11.20
13:35	X		7.18	0.01	0.264	0.005	134	4	7.60	0.04	48.9	2.0	17.70	0.06		11.60
13:40	X		7.17	0.01	0.265	0.001	138	4	7.68	0.08	48.1	0.8	17.78	0.08		11.90
13:45	X		7.20	0.03	0.265	0.000	140	2	7.69	0.01	49.3	1.2	17.77	0.01		12.25
13:50		X														12.45

COMMENTS:
WELL VERY LOW/ LOW QUANTITY OF WATER.

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/17/15
WEATHER: 50° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: MW-8
WELL DEPTH: 15
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: 13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 7.45 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:30	X		6.63	NA	1.55	NA	160	NA	3.20	NA	63.0	NA	18.51	NA		7.45
13:35	X		6.70	0.13	1.51	0.04	152	8	2.18	1.02	42.0	21	18.55	0.04		7.70
13:40	X		6.64	0.06	1.50	0.01	151	1	1.78	0.40	38.0	4	18.35	0.20		8.00
13:45	X		6.62	0.02	1.50	–	151	–	1.68	0.10	37.5	0.5	18.30	0.05		8.29
13:50	X		6.61	0.01	1.50	–	152	1	1.63	0.05	34.5	3.0	18.20	0.10		8.49
13:55	X		6.61	–	1.50	–	151	1	1.61	0.02	31.5	3.0	18.10	0.10		8.70
14:00		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/17/15
WEATHER: SUNNY 60°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: AD-3D
WELL PERMIT #:
WELL DEPTH: 28.50
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 25.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 11.35 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
14:15	X		6.33	NA	1.69	NA	178	NA	0.63	NA	3.6	NA	17.77	NA		11.35
14:20	X		6.32	0.01	1.70	0.01	176	2	0.56	0.07	3.4	0.2	17.80	0.03		
14:25	X		6.31	0.01	1.70	0.00	176	0	0.49	0.07	3.3	0.1	17.81	0.01		
14:30	X		6.29	0.02	1.71	0.01	174	2	0.42	0.07	3.0	0.3	17.85	0.04		
14:35		X														11.55

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/18/15
WEATHER: CLOUDY 50°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: PL-8R
WELL PERMIT #:
WELL DEPTH: 21.6
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 19.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 4.70 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:30	X		7.35	NA	2.43	NA	-98	NA	1.59	NA	5.7	NA	16.21	NA		4.70
11:35	X		7.31	0.04	2.41	0.02	-95	3	1.60	0.01	5.8	0.1	16.20	0.01		4.78
11:40	X		7.30	0.01	2.41	0.00	-92	3	1.60	0.00	5.7	0.1	16.20	0.00		4.85
11:45	X		7.27	0.03	2.50	0.09	-96	4	1.55	0.05	4.9	0.6	16.28	0.08		4.89
11:50	X		7.22	0.05	2.59	0.09	-98	2	1.48	0.07	4.9	0.0	16.32	0.04		4.70
11:55		X														4.95

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4/69
DATE: 11/18/15
WEATHER: 50° Sunny

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: MK
CERTIFICATION #: 13040

MONITOR WELL #: PL-9R
WELL PERMIT #:
WELL DEPTH: 15
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 6.9

PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 2.58 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:25	X		7.77	NA	0.745	NA	111	NA	1.88	NA	32.8	NA	14.60	NA		2.58
11:30	X		7.17	0.60	0.740	0.005	113	2	0.88	1	22.8	10	14.45	0.15		2.70
11:35	X		6.92	0.25	0.742	0.002	100	13	0.50	0.38	22.0	0.8	14.41	0.04		2.82
11:40	X		6.84	0.08	0.741	0.001	91	9	0.35	0.15	22.0	–	14.38	0.03		2.94
11:45	X		6.81	0.03	0.742	0.001	81	10	0.26	0.09	21.8	0.2	14.32	0.06		3.06
11:50	X		6.75	0.06	0.741	0.001	71	10	0.16	0.10	22.8	1.0	14.25	0.07		3.18
11:55		X														

COMMENTS:
pH check 7.01 Cond. check 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: 4169
DATE: 11/18/15
WEATHER: 50° Sunny

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: MK
CERTIFICATION #: 13040

MONITOR WELL #: PL-6R
WELL PERMIT #:
WELL DEPTH: 15
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 12 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.00 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:10	X		6.42	NA	1.99	NA	-85	NA	1.89	NA	79.0	NA	16.10	NA		4.00
12:15	X		6.36	0.06	1.98	0.01	-100	15	1.09	0.80	116	37	16.91	0.81		4.04
12:20	X		6.41	0.05	1.98	—	-109	9	0.70	0.39	80.0	36	16.88	0.03		4.08
12:25	X		6.39	0.02	1.99	0.01	-109	—	0.40	0.30	45.0	35	16.88	—		4.12
12:30	X		6.40	0.01	1.99	—	-113	4	0.20	0.20	40.0	5	16.86	0.02		4.16
12:35	X		6.39	0.01	2.00	0.01	-114	1	0.18	0.02	35.0	5	16.84	0.02		4.20
12:40																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/18/15
WEATHER: CLOUDY 50°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: PL-7
WELL PERMIT #:
WELL DEPTH: 19.50
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 17.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.65 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:15	X		6.16	NA	0.156	NA	97	NA	0.43	NA	24.4	NA	16.98	NA		5.65
12:20	X		5.29	0.87	0.154	0.002	102	5	0.39	0.04	23.7	0.7	16.99	0.01		5.71
12:25	X		5.30	0.01	0.152	0.002	110	8	0.31	0.08	22.5	1.2	16.97	0.02		5.80
12:30	X		5.28	0.02	0.150	0.002	119	9	0.26	0.05	20.8	1.7	16.99	0.02		5.85
12:35	X		5.25	0.03	0.151	0.001	123	4	0.20	0.06	19.7	1.1	16.96	0.03		5.88
12:40	X		5.20	0.05	0.151	0.000	126	3	0.18	0.02	18.8	0.9	16.94	0.02		5.90
12:45		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/18/15
WEATHER: CLOUDY 50°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: TM-6
WELL PERMIT #:
WELL DEPTH: 21.0
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 5.0
BENEATH INNER CAP: 95.2

PUMP INTAKE DEPTH: 18.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.60 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:25	X		5.52	NA	0.504	NA	-6	NA	0.01	NA	11.3	NA	17.27	NA		6.60
13:30	X		5.53	0.01	0.504	0.000	-7	1	0.01	0.00	11.1	0.2	17.30	0.03		6.73
13:35	X		5.52	0.01	0.504	0.000	-8	1	0.00	0.01	11.0	0.1	17.29	0.01		6.80
13:40	X		5.51	0.01	0.504	0.000	-10	2	0.00	0.00	10.7	0.3	17.28	0.01		6.95
13:45		X														7.00

COMMENTS:

pH CHECK 7.02 COND. CHECK 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: 4169
DATE: 11/9/15
WEATHER: 50° Partly Sunny

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: MK
CERTIFICATION #: 13040

MONITOR WELL #: TM-7
WELL PERMIT #:
WELL DEPTH: 21.40
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 19 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.85 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:30	X		6.25	NA	2.19	NA	-13	NA	2.01	NA	5.7	NA	15.60	NA		7.85
13:35	X		6.19	0.06	2.32	0.13	-13	—	0.49	1.52	3.7	2	16.20	0.60		7.95
13:40	X		6.17	0.02	2.26	0.06	-19	6	0.21	0.28	3.0	0.7	16.25	0.05		8.05
13:45	X		6.17	—	2.20	0.06	-25	6	0.05	0.16	1.3	1.7	16.23	0.02		8.19
13:50	X		6.17	—	2.20	—	-28	3	0.01	0.04	1.3	—	16.22	0.01		8.30
13:55		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/18/15
WEATHER: CLOUDY - 50°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: TM-5
WELL PERMIT #:
WELL DEPTH: 22.0
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 20 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 8.90 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
14:15	x		5.75	NA	4.80	NA	10	NA	0.50	NA	31.0	NA	18.27	NA		8.90
14:20	x		5.90	0.15	4.65	0.15	13	3	0.58	0.08	28.5	2.5	18.31	0.04		8.95
14:25	x		5.97	0.07	3.55	1.10	20	7	0.65	0.07	25.0	3.5	18.40	0.09		8.99
14:30	x		5.99	0.02	3.60	0.05	28	8	0.70	0.05	22.5	2.5	18.44	0.04		9.15
14:35	x		5.91	0.08	3.61	0.01	35	7	0.78	0.08	21.8	0.7	18.43	0.01		9.25
14:40	x		5.88	0.03	3.59	0.02	40	5	0.82	0.04	21.5	0.3	18.44	0.01		9.28
14:45		x														9.30

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/19/15
WEATHER: CLOUDY / RAIN 60°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: TR-5
WELL PERMIT #:
WELL DEPTH: 11.0
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 96.9

PUMP INTAKE DEPTH: 9.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.25 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:00	X		7.93	NA	1.74	NA	-68	NA	0.16	NA	13.5	NA	17.50	NA	400/min	5.25
9:05	X		7.86	0.07	1.73	0.01	-69	1	0.13	0.03	12.9	0.04	17.49	0.01		5.32
9:10	X		7.79	0.05	1.71	0.02	-70	1	0.09	0.04	12.0	0.09	17.48	0.01		5.41
9:15	X		7.70	0.09	1.68	0.03	-69	1	0.01	0.08	11.5	0.05	17.45	0.03		5.62
9:20	X		7.65	0.05	1.60	0.08	-67	2	0.00	0.01	11.0	0.05	17.39	0.06		5.78
9:25		X														5.80

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/19/15
WEATHER: 50° Rain/Cloudy

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: MK
CERTIFICATION #: 13040

MONITOR WELL #: TR-6
WELL PERMIT #:
WELL DEPTH: 12.60
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.6
BENEATH OUTER CAP: 0.8
BENEATH INNER CAP: 6.6

PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 5.40 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) (SM 4500OG) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) (EPA 180.1) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) (SM 2550) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
9:10	✓		6.75	NA	0.431	NA	6	NA	1.01	NA	58.7	NA	16.88	NA		5.40
9:15	✓		6.35	0.40	0.427	0.004	4	2	0.11	0.90	48.7	10	17.08	0.20		5.65
9:20	✓		6.34	0.01	0.426	0.001	0	4	0.00	0.11	38.2	10.5	17.10	0.02		5.90
9:25	✓		6.34	—	0.426	—	-2	2	0.00	—	35.2	3	17.10	—		5.10
9:30	✓		6.35	0.01	0.427	0.001	-4	2	0.00	—	32.2	3	17.10	—		6.30
9:35																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER MESS
DATE: 11/19/15
WEATHER: RAIN 60°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: TR-3RR
WELL PERMIT #:
WELL DEPTH: 14.4
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 12.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.7 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:40	X		7.31	NA	0.588	NA	10	NA	0.08	NA	39.9	1.3 NA	16.87	NA	400/min	3.70
9:45	X		7.28	0.03	0.588	0.000	11	1	0.05	0.03	38.6		16.87	0.00		3.81
9:50	X		7.20	0.08	0.590	0.002	15	4	0.01	0.04	38.5	0.1	16.86	0.01		4.23
9:55	X		7.15	0.05	0.591	0.001	18	3	0.00	0.01	38.8	0.3	16.84	0.02		4.48
10:00		X														4.65

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/19/15
WEATHER: 50° Cloudy/Rain

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: MK
CERTIFICATION #: 13040

MONITOR WELL #: TR-6D
WELL PERMIT #:
WELL DEPTH: 28.00
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 36

PUMP INTAKE DEPTH: 25 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.21 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:45	✓		6.27	NA	0.317	NA	30	NA	4.01	NA	28.7	NA	17.15	NA		7.21
9:50	✓		5.50	0.77	0.324	0.007	142	112	3.95	0.06	29.7	1.0	17.28	0.13		
9:55	✓		5.30	0.20	0.331	0.007	174	32	3.55	0.40	29.2	0.5	17.28	—		
10:00	✓		5.24	0.06	0.344	0.013	184	10	3.25	0.30	28.2	1.0	17.26	0.02		
10:05	✓		5.18	0.06	0.349	0.005	194	10	3.00	0.25	27.7	0.5	17.26	—		7.21
10:10		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/19/15
WEATHER: 50° Rain

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: MK
CERTIFICATION #: 13040

MONITOR WELL #: TR-1R
WELL PERMIT #:
WELL DEPTH: 13
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 11 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 8.88 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) (SM 4500OG) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) (EPA 180.1) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) (SM 2550) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
10:40	✓		7.01	NA	0.602	NA	121	NA	2.05	NA	125	NA	19.49	NA		8.88
10:45	✓		6.97	0.04	0.604	0.002	111	10	1.25	0.80	1000	875	19.70	0.21		8.96
10:50	✓		6.95	0.02	0.609	0.005	110	1	0.99	0.26	0.0	1000	19.70	—		9.04
10:55	✓		6.97	0.02	0.610	0.001	106	4	0.89	0.10	0.0	—	19.65	0.05		9.12
11:00	✓		6.97	—	0.613	0.003	106	—	0.79	0.10	0.0	—	19.64	0.01		9.19
11:05		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE:	PORT READING - FORMER MGPS	CONSULTING FIRM:	EARTH SYSTEMS
DATE:	11/19/15	FIELD PERSONNEL:	SCOTT MAYES
WEATHER:	RAIN 60°F	CERTIFICATION #:	13040

MONITOR WELL #: TR-4R WELL DEPTH: 14.0 SCREENED/OPEN INTERVAL:

WELL PERMIT #: WELL DIAMETER: 4 Inches

PID/FID READINGS (ppm): BACKGROUND: 0.0

BENEATH OUTER CAP: 0.0

BENEATH INNER CAP: 141.8

PUMP INTAKE DEPTH: 12.0 ft below TOC

DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.95 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:50	x		7.14	NA	1.66	NA	-89	NA	0.16	NA	150	NA	17.73	NA		3.95
10:55	x		7.16	0.02	1.65	0.01	-90	1	0.10	0.06	149	1	17.74	0.01		3.99
11:00	x		7.20	0.04	1.65	0.00	-95	5	0.05	0.05	148	2	17.75	0.01		4.28
11:05	x		7.26	0.06	1.65	0.00	-101	6	0.00	0.05	146	2	17.75	0.00		4.39
11:10		x														4.55

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 469
DATE: 11/19/15
WEATHER: 50° Rain
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: TR-2R
WELL PERMIT #:
WELL DEPTH: 20.00
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 189.6

PUMP INTAKE DEPTH: 15 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.01 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
11:25	✓		6.60	NA	1.72	NA	-53	NA	0.44	NA	58.8	NA	18.45	NA		6.01
11:30	✓		6.15	0.45	1.73	0.01	-18	35	6.04	0.40	42.8	16	18.42	0.03		6.12
11:35	✓		6.08	0.07	1.74	0.01	~~[illegible]~~ 8	~~[illegible]~~ 10	0.00	0.04	42.3	0.5	18.45	0.03		6.23
11:40	✓		6.00	0.08	1.74	—	0	8	0.00	—	38.3	4	18.44	0.01		6.36
11:45	✓		5.96	0.04	1.74	—	1	1	0.00	—	34.3	4	18.42	0.02		6.51
11:50		✓														

COMMENTS:
11:15 check 7.01 Ph 1.41 cond.

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE:	PORT READING - FORMER MGSS	CONSULTING FIRM:	EARTH SYSTEMS
DATE:	11/19/15	FIELD PERSONNEL:	SCOTT MAYES
WEATHER:	RAIN 60°F	CERTIFICATION #:	13040

MONITOR WELL #:	TR-4D	WELL DEPTH:	21.0	SCREENED/OPEN INTERVAL:	
WELL PERMIT #:		WELL DIAMETER:	4 Inches		

PID/FID READINGS (ppm): BACKGROUND:	0.0	PUMP INTAKE DEPTH:	18 ft below TOC
BENEATH OUTER CAP:	0.0	DEPTH TO WATER BEFORE PUMP INSTALLATION :	8.3 ft below TOC
BENEATH INNER CAP:	20.8		

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:30	X		7.36	NA	1.30	NA	~~8~~ -86	NA	0.25	NA	5.0	NA	17.77	NA		8.30
11:35	X		7.25	0.05	1.31	0.01	-87	1	0.20	0.05	4.8	0.2	17.78	0.01		8.35
11:40	X		7.20	0.05	1.31	0.00	-90	3	0.15	0.05	4.5	0.3	17.80	0.02		8.52
11:45	X		7.12	0.08	1.30	0.01	-96	6	0.10	0.05	4.1	0.4	17.81	0.01		8.75
11:50	X		7.05	0.07	1.30	0.00	-97	1	0.04	0.06	3.9	0.2	17.79	0.03		8.83
11:55		X														8.95

COMMENTS:

pH CHECK : 7.03 COND. CHECK 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 of ___

SITE: 4169
DATE: 11/14/15
WEATHER: 50° Rain

CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: PeR-1
WELL DEPTH: 17.5
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: _____ ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : _____ ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:15	X		6.30	NA	0.294	NA	30	NA	3.02	NA	154	NA	18.11	NA		12.35
12:20	X		5.65	0.65	0.296	0.002	105	75	2.98	0.04	114	30	18.46	0.35		12.45
12:25	X		5.68	0.03	0.325	0.031	121	16	2.88	0.10	123	9	18.51	0.05		12.55
12:30	X		5.76	0.16	0.387	0.062	127	6	3.00	0.12	150	27	18.53	0.02		12.65
12:35	X		5.94	0.08	0.403	0.016	127	—	2.95	0.05	137	13	18.53	—		12.75
12:40	X		5.99	0.05	0.440	0.037	125	2	2.85	0.10	127	10	18.52	0.01		12.85
12:45																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/19/15
WEATHER: RAIN 60°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: TR-4DD
WELL PERMIT #:
WELL DEPTH: 56.5
WELL DIAMETER: 2 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 45 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 8.45 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:15	X		7.35	NA	1.010	NA	-94	NA	0.68	NA	15.0	NA	17.00	NA		8.45
12:20	X		7.28	0.07	0.994	0.006	-97	3	0.20	0.48	13.0	2.0	16.93	0.07		8.58
12:25	X		7.00	0.28	0.994	0.000	-97	0	0.17	0.03	11.0	2.0	16.85	0.08		8.63
12:30	X		6.99	0.01	0.996	0.002	-97	0	0.10	0.07	10.7	0.3	16.78	0.07		8.85
12:35	X		6.98	0.01	1.000	0.004	-96	1	0.04	0.06	10.5	0.2	16.69	0.09		9.10
12:40	X		6.97	0.01	1.00	0.00	-94	2	0.00	0.04	10.8	0.3	16.61	0.08		9.38
12:45		X														9.50

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/20/15
WEATHER: 60° Partly Cloudy
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: TC-2
WELL DEPTH: 15
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 10.51 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:20	X		6.18	NA	0.420	NA	-11	NA	2.21	NA	0.0	NA	16.29	NA		10.51
9:25	X		6.23	0.05	0.304	0.111	-46	35	1.22	0.99	280	280	16.80	0.51		
9:30	X		6.17	0.06	0.302	0.007	-41	5	0.80	0.42	140	140	16.90	0.10		
9:35	X		6.17	—	0.302	—	-46	5	0.72	0.08	130	10	16.96	0.06		
9:40	X		6.21		0.303		-48	2	0.65	0.07	120	10	16.89	0.07		10.99
9:45																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/20/15
WEATHER: SUNNY 60°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: TC-1
WELL PERMIT #:
WELL DEPTH: 17.5
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 14.5 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 11.70 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:15	X		7.70	NA	1.15	NA	158	NA	4.52	NA	110	NA	17.00	NA		11.70
9:20	X		7.61	0.09	1.15	0.00	160	2	4.60	0.08	108	2	17.03	0.03		11.85
9:25	X		7.52	0.09	1.16	0.01	162	2	4.51	0.09	103	5	17.10	0.07		11.98
9:30	X		6.86	0.66	1.15	0.00	165	3	4.45	0.06	96.5	6.5	17.07	0.03		12.13
9:35	X		6.77	0.09	1.14	0.01	171	6	4.39	0.06	26.0	70.5	17.11	0.04		12.31
9:40	X		6.69	0.08	1.14	0.00	173	2	4.30	0.09	25.8	0.02	17.19	0.08		12.45
9:45	X		6.60	0.09	1.12	0.02	177	4	4.22	0.08	25.0	0.08	17.21	0.02		12.60
9:50	X		6.52	0.08	1.08	0.04	180	3	4.36	0.06	24.3	0.07	17.21	0.00		12.73
9:55																12.85

COMMENTS:
DIRT/GRASS AROUND CAP

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/20/15
WEATHER: 60° Sunny
CONSULTING FIRM: Cash Systems
FIELD PERSONNEL: MK

MONITOR WELL #: TC-3
WELL DEPTH: 17.50
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 15 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 10.65 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:05	✓		6.08	NA	0.932	NA	-3	NA	8.36	NA	56.4	NA	16.28	NA		10.65
10:10	✓		6.00	0.08	0.927	0.005	1	4	6.36	2.0	22.4	34	16.37	0.09		10.75
10:15	✓		6.01	0.01	0.917	0.010	-6	7	5.92	0.44	21.8	0.6	16.42	0.05		10.86
10:20	✓		6.03	0.02	0.907	0.010	-10	4	5.72	0.20	22.8	1.0	16.50	0.08		10.95
10:25	✓		6.02	0.01	0.900	0.007	-11	1	5.52	0.20	23.4	0.6	16.53	0.03		11.06
10:30	✓	✓	6.04	0.02	0.893	0.007	-11	—	5.32	0.20	24.0	0.6	16.50	0.03		11.15
10:35		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/20/15
WEATHER: SUNNY 65°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: PER-6R
WELL PERMIT #:
WELL DEPTH: 21.5
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 19.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 2.8 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:25	X		6.59	NA	1.09	NA	160	NA	7.40	NA	30.0	NA	15.29	NA		2.80
10:30	X		6.62	0.03	1.08	0.01	160	0	7.45	0.05	26.0	4.0	15.31	0.02		2.88
10:35	X		6.70	0.08	1.08	0.00	163	3	7.39	0.06	25.2	0.8	15.34	0.03		2.89
10:40	X		6.72	0.02	1.08	0.00	164	1	7.30	0.09	20.2	5.0	15.35	0.01		3.00
10:45	X		6.73	0.01	1.08	0.00	165	1	7.21	0.09	19.5	0.7	15.35	0.00		3.05
10:50	X		6.72	0.01	1.08	0.00	165	0	7.12	0.09	18.6	0.9	15.33	0.02		3.07
10:55	X	X	6.72	0.00	1.08	0.00	166	1	7.05	0.07	17.8	0.8	15.30	0.03		3.09
11:00		X														3.10

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/2/2015
WEATHER: 60° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: LP6-2
WELL DEPTH: 9.39
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0
PUMP INTAKE DEPTH: 7 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 3.21 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:55	✓		6.60	NA	0.363	NA	-20	NA	2.03	NA	414	NA	17.85	NA		3.21
12:00	✓		6.50	.10	0.360	0.003	-3	17	6.30	4.27	313	101	17.90	0.05		3.35
12:05	✓		6.50	—	0.360	—	-10	13	6.20	0.10	112	201	17.92	0.02		3.50
12:10	✓		6.46	0.04	0.380	0.020	0	10	6.05	0.15	122	10	17.93	0.01		3.64
12:15	✓		6.49	0.03	0.390	0.010	-10	10	5.90	0.15	132	10	17.90	0.03		3.88
12:20		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING
DATE: 11/20/15
WEATHER: SUNNY 65°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: LPG-1
WELL PERMIT #:
WELL DEPTH: 8.0
WELL DIAMETER: ___ Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 6.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.7 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:55	X		6.00	NA	0.172	NA	138	NA	5.19	NA	126	NA	17.60	NA		4.70
12:00	X		5.92	0.08	0.167	0.004	143	5	5.23	0.04	130	4	17.55	0.05		4.89
12:05	X		5.86	0.06	0.163	0.004	150	7	5.15	0.08	139	9	17.52	0.03		5.31
12:10	X		5.79	0.07	0.165	0.002	158	8	5.10	0.05	147	8	17.49	0.03		5.55
12:15	X		5.70	0.09	0.164	0.001	162	4	5.19	0.09	149	2	17.42	0.07		5.86
12:20		X														6.0

COMMENTS:

pH CHECK: 7.03 COND. CHECK: 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/20/15
WEATHER: 60° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: PER-4
WELL DEPTH: 15.8
WELL PERMIT #:
WELL DIAMETER: inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 2.0

PUMP INTAKE DEPTH: 12 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.95 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:10	✓		6.00	NA	1.60	NA	-7	NA	0.57	NA	54.1	NA	17.99	NA		6.95
13:15	✓		5.99	0.4	1.71	0.11	-8	1	0.17	0.30	51.1	3.0	18.05	0.06		7.10
13:20	✓		6.01	0.02	1.71	—	-15	7	0.07	0.10	54.1	3.0	18.16	0.11		7.22
13:25	✓		6.05	0.04	1.76	0.05	-20	5	0.00	0.07	51.1	3.0	18.26	0.10		7.34
13:30	✓		6.05	—	1.77	0.01	-21	1	0.00	—	49.1	2.0	18.36	0.10		7.47
13:35		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/20/15
WEATHER: SUNNY 60°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MYERS
CERTIFICATION #: 13040

MONITOR WELL #: MER-5
WELL PERMIT #:
WELL DEPTH: 14.3
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 12.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 9.6 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:25	X		6.70	NA	0.390	NA	148	NA	4.60	NA	1.5	NA	19.45	NA		9.60
13:30	X		6.76	0.06	0.391	0.001	149	1	4.52	0.08	1.8	0.3	19.46	0.01		9.72
13:35	X		6.73	0.03	0.393	0.002	151	3	4.49	0.03	1.7	0.1	19.40	0.06		9.83
13:40	X		6.70	0.03	0.394	0.001	152	1	4.55	0.06	1.9	0.2	19.40	0.00		9.95
13:45		X														10.05

COMMENTS:
NO METAL CAP ON SURFACE

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS 4169
DATE: 11/20/15
WEATHER: SUNNY 60°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: PER-2D
WELL PERMIT #:
WELL DEPTH: 32
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 28 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 10.05 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
14:20	X		6.95	NA	1.17	NA	151	NA	0.48	NA	1.0	NA	16.20	NA		10.05
14:25	X		6.90	0.05	1.19	0.02	154	3	0.46	0.02	0.8	0.2	15.70	0.50		10.25
14:30	X		6.89	0.01	1.23	0.04	154	0	0.37	0.09	0.9	0.1	15.68	0.02		10.38
14:35	X		6.90	0.01	1.25	0.02	150	4	0.28	0.09	0.9	0.0	15.60	0.08		10.50
14:40		X														10.55

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: 4169
DATE: 11/20/15
WEATHER: 60° rainy
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: PER-2
WELL PERMIT #:
WELL DEPTH: 12.00
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.4

PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 5.00 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
14:20	X		5.88	NA	0.356	NA	24	NA	0.49	NA	46.0	NA	18.83	NA		5.00
14:25	X		5.77	0.11	0.351	0.005	30	6	0.03	0.46	43.0	3	18.20	0.63		
14:30	X		5.75	0.02	0.347	0.004	30	—	0.00	0.03	39.3	3.7	17.55	0.65		
14:35	X		5.73	0.02	0.337	0.010	30	—	0.00	—	37.3	2.0	17.30	0.25		
14:40	X		5.73	—	0.331	0.006	30	—	0.00	—	35.7	1.6	17.27	0.03		
14:45																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF ___

SITE: 4169
DATE: 11/23/15
WEATHER: 45° sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: Per-4DD
WELL PERMIT #:
WELL DEPTH: 70
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 60 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.10 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
10:05	X		7.54	NA	0.985	NA	152	NA	5.84	NA	26.9	NA	12.45	NA		6.10
10:10	X		6.54	1.00	1.02	0.017	168	16	3.44	2.40	34.9	8	13.75	1.30		6.29
10:15	X		6.08	0.46	1.06	0.04	178	10	2.55	0.89	26.4	8.5	13.66	0.09		6.41
10:20	✓		6.03	0.05	1.07	0.01	178	—	2.25	0.30	8.4	18.0	13.46	0.20		6.60
10:25	X		6.00	0.03	1.06	0.01	176	2	2.05	0.20	5.4	3.0	13.26	0.20		6.75
10:30	X		5.99	0.01	1.09	0.03	172	4	1.95	0.10	4.8	0.8	13.25	0.01		6.90
10:35		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: Port Reading - Former HBS
DATE: 11/23/15
WEATHER: Sunny 40°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: Scott Mayes
CERTIFICATION #: 13040

MONITOR WELL #: PER-3D
WELL PERMIT #:
WELL DEPTH: 31
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 27 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.0 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:10	X		8.76	NA	6.70	NA	140	NA	0.11	NA	2.0	NA	13.98	NA		6.00
10:15	X		8.68	0.02	6.65	0.05	136	4	0.08	0.03	1.5	0.5	13.99	0.01		6.25
10:20	X		8.65	0.03	6.64	0.01	133	3	0.04	0.04	1.1	0.4	13.99	0.00		6.30
10:25	X		8.61	0.04	6.64	0.00	132	1	0.00	0.04	0.8	0.3	14.00	0.01		6.38
10:30	X		8.55	0.06	6.63	0.01	130	2	0.00	0.00	0.2	0.6	14.01	0.01		6.45
10:35		X														6.50

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/23/15
WEATHER: 45° sunny
CONSULTING FIRM: Geosyntec
FIELD PERSONNEL: MK

MONITOR WELL #: PCE-9D
WELL PERMIT #:
WELL DEPTH: 36
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: _____ ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.20 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:45	X		6.27	NA	1.84	NA	169	NA	2.88	NA	8.0	NA	12.40	NA		6.20
10:50	X		5.94	0.33	1.90	0.06	175	6	0.78	2.10	16.0	8	13.50	1.10		6.40
10:55	X		5.92	0.02	1.91	0.01	177	2	0.38	0.40	10.0	6	13.72	0.22		6.59
11:00	X		5.91	0.01	1.92	0.01	177	—	0.28	0.10	8.5	1.5	13.62	0.10		6.68
11:05	X		5.90	0.01	1.92	—	170	7	0.15	0.13	8.6	0.1	13.42	0.20		6.77
11:10		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING - FORMER HESS
DATE: 11/23/15
WEATHER: SUNNY 40°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYERS
CERTIFICATION #: 13040

MONITOR WELL #: PER-3
WELL PERMIT #:
WELL DEPTH: 12.2
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 10.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.30 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:50	X		7.45	NA	12.30	NA	-52	NA	0.00	NA	6.1	NA	14.94	NA		4.30
10:55	X		7.42	0.03	11.60	0.07	-32	20	0.00	0.0	5.3	0.8	14.25	0.69		4.45
11:00	X		7.35	0.07	9.40	2.2	-2	30	0.00	0.0	4.5	0.8	14.20	0.05		4.61
11:05	X		7.05	0.30	9.20	0.2	25	23	0.05	0.05	2.5	2.0	14.18	0.02		4.78
11:10	X		6.90	0.15	8.80	0.4	30	5	0.10	0.05	2.0	0.5	14.10	0.08		4.82
11:15	X		6.85	0.05	8.85	0.05	38	8	0.19	0.09	1.4	0.6	13.93	0.07		5.05
11:20	X		6.78	0.07	8.93	0.08	45	7	0.25	0.06	0.9	0.5	13.85	0.08		5.16
11:25	X		6.69	0.09	9.01	0.08	50	5	0.31	0.06	0.1	0.8	13.80	0.05		5.23
11:30		X														5.30

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/23/15
WEATHER: 45° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MW

MONITOR WELL #: PGW 9
WELL PERMIT #:
WELL DEPTH: 17
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 15 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 3.00 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
11:25	✓		5.88	NA	1.46	NA	110	NA	0.00	NA	970	NA	13.00	NA		3.00
11:30	✓		6.04	0.16	1.44	0.02	91	19	0.00	—	1000	30	13.17	0.17		3.16
11:35	✓		6.26	0.22	1.43	0.01	75	16	0.00	—	877	123	12.93	0.24		3.31
11:40	✓		6.22	0.04	1.41	0.02	85	10	0.00	—	340	537	11.73	1.20		3.44
11:45	✓		6.13	0.09	1.41	—	86	1	0.00	—	200	140	11.72	0.01		3.60
11:50	✓		6.06	0.07	1.40	0.01	89	3	0.00	—	180	20	11.95	0.23		3.75
11:55	✓		6.00	0.06	1.40	—	91	2	0.00	—	162	18	11.95	—		3.92
12:00		✓														

COMMENTS:
Check 11:20 pH = 7.01 Cond. = 1.42

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING
DATE: 11/23/15
WEATHER: SUNNY 45°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: PER-10 D
WELL PERMIT #:
WELL DEPTH: 31.0
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 8.2

PUMP INTAKE DEPTH: 28 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 11.40 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:50	X		8.63	NA	7.45	NA	-131	NA	0.15	NA	46.6	NA	14.65	NA		11.40
11:55	X		8.55	0.08	7.51	0.06	-128	3	0.08	0.08	45.8	0.08	14.64	0.01		11.55
12:00	X		8.54	0.01	7.58	0.07	-125	3	0.03	0.05	44.6	0.12	14.63	0.01		11.81
12:05	X		8.53	0.01	7.63	0.05	-123	2	0.00	0.03	44.5	0.01	14.64	0.01		11.97
12:10	X	Y	8.54	0.01	7.65	0.02	-121	2	0.00	0.0	43.5	0.10	14.59	0.05		12.15
12:15		X														12.20

COMMENTS:

pH CHECK 7.03 COND. CHECK 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/23/15
WEATHER: 45° Sunny
CONSULTING FIRM: Geosyntec Consultants
FIELD PERSONNEL: MK

MONITOR WELL #: HG-40
WELL DEPTH: 33
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 30 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 11.17 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:25	X		7.00	NA	12.9	NA	-203	NA	9.51	NA	33.0	NA	12.93	NA		11.17
12:30	X		6.68	0.32	19.9	7	-270	67	3.51	6 –	52.0	20	13.93	1.00		11.27
12:35	X		6.04	0.64	18.0	1.9	-298	28	2.10	1.41	49.2	3.8	13.91	0.02		11.37
12:40	X		5.91	0.13	17.6	0.4	-296	2	1.91	0.19	42.2	7	14.00	0.09		11.47
12:45	X		5.82	0.09	17.1	0.5	-293	3	1.73	0.18	38.2	4	14.07	0.07		11.57
12:50	X		5.78	0.04	16.7	0.4	-292	1	1.53	0.20	35.2	3	14.10	0.03		11.67
12:55		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING
DATE: 11/23/15
WEATHER: SUNNY 45°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: PER-10
WELL PERMIT #:
WELL DEPTH: 18.5
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 4.8

PUMP INTAKE DEPTH: ____ ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 7.80 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:35	X		8.60	NA	1.35	NA	-88	NA	0.23	NA	14.0	NA	16.01	NA		7.80
12:40	X		7.85	0.75	1.34	0.01	-89	1	0.05	0.18	13.6	0.4	16.10	0.09		7.89
12:45	X		7.80	0.05	1.33	0.01	-90	1	0.01	0.04	13.0	0.6	16.19	0.09		7.95
12:50	X		7.78	0.02	1.34	0.01	-90	0	0.00	0.01	12.7	0.3	16.22	0.03		8.30
12:55	X		7.69	0.09	1.35	0.01	-89	1	0.00	0.00	12.3	0.4	16.30	0.08		8.43
13:00		X														8.65

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT READING
DATE: 11/24/15
WEATHER: CLOUDY - 35°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MYERS
CERTIFICATION #: 13040

MONITOR WELL #: TF-3
WELL PERMIT #:
WELL DEPTH: 11.70
WELL DIAMETER: 2 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.4

PUMP INTAKE DEPTH: 9.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 3.2 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:10	X		8.80	NA	0.400	NA	60	NA	0.29	NA	175	NA	13.58	NA		3.20
10:15	X		8.10	0.70	0.400	0.000	30	30	0.20	0.09	60.0	115	13.95	0.37		3.35
10:20	X		7.50	0.60	0.404	0.004	21	9	0.00	0.20	40.0	20	14.00	0.05		3.52
10:25	X		6.50	1.00	0.410	0.006	15	6	0.00	0.00	35.5	4.5	14.09	0.09		3.78
10:30	X		6.45	0.05	0.415	0.005	10	5	0.00	0.00	34.5	1.0	14.15	0.06		4.10
10:35	X		6.44	0.01	0.420	0.005	6	4	0.01	0.01	33.6	0.9	14.21	0.06		4.47
10:40	X		6.40	0.04	0.422	0.002	-1	7	0.01	0.00	32.8	0.8	14.28	0.07		4.68
10:45		X														4.85

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4/64
DATE: 11/24/15
WEATHER: 45° Cloudy
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: 1F-1
WELL DEPTH: 12
WELL PERMIT #:
WELL DIAMETER: 2 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 48.4

PUMP INTAKE DEPTH: 10 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 3.70 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
10:15	X		6.44	NA	0.862	NA	-105	NA	5.05	NA	140	NA	14.89	NA		3.70
10:20	X		6.43	0.01	0.862	—	-120	15	3.05	2	163	23	15.19	0.30		3.80
10:25	X		6.42	0.01	0.865	0.003	-120	—	2.35	0.70	223	60	15.44	0.25		3.90
10:30	X		6.43	0.01	0.897	0.032	-127	7	1.55	0.80	137	86	15.84	0.40		4.01
10:35	X		6.48	0.05	0.894	0.002	-132	5	1.35	0.20	127	10	15.90	0.06		4.11
10:40	X		6.51	0.03	0.908	0.009	-134	2	1.30	0.05	130	3	15.87	0.03		4.20
10:45		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/24/15
WEATHER: 45° cloudy
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: TM-2
WELL DEPTH: 21.00
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0
PUMP INTAKE DEPTH: 19 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 12.25 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
11:25	X		6.30	NA	1.14	NA	-54	NA	1.94	NA	711	NA	14.58	NA		12.25
11:30	X		6.10	0.20	1.13	0.01	-21	33	1.74	0.20	660	51	14.70	0.12		12.75
11:35	X		6.00	0.10	1.12	0.01	-8	13	0.54	1.20	500	160	14.77	0.07		13.27
11:40	X		5.96	0.04	1.11	0.01	-6	2	0.34	0.20	460	40	14.90	0.13		13.70
11:45	X		5.93	0.03	1.10	0.01	-4	2	0.22	0.12	440	20	14.87	0.03		14.20
11:50		X														

COMMENTS:
Check pH: 7.01 Cond. 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

Earth Systems
Environmental Engineering

LOW FLOW SAMPLING DATA SHEET

SHEET ___ OF ___

SITE: PORT PLEASANT
DATE: 11/24/15
WEATHER: SUNNY 50°F

CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES
CERTIFICATION #: 13040

MONITOR WELL #: TM-3
WELL PERMIT #:
WELL DEPTH: 20.5
WELL DIAMETER: 4 Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 18.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 12.30 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) (SM 4500H+B)		SPECIFIC CONDUCTIVITY (mS/cm) (EPA 120.1)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l) (SM 4500OG)		TURBIDITY (NTU) (EPA 180.1)		TEMPERATURE (degrees C) (SM 2550)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:25	X		6.35	NA	0.664	NA	5	NA	0.08	NA	180	NA	14.98	NA		12.30
11:30	X		6.34	0.01	0.664	0.00	1	4	0.07	0.01	183	3	15.05	0.07		12.41
11:35	X		6.29	0.05	0.670	0.06	-5	6	0.00	0.07	78.5	104.5	15.14	0.09		12.65
11:40	X		6.28	0.01	0.678	0.08	-10	5	0.00	0.00	76.2	2.3	15.20	0.06		12.85
11:45	X		6.30	0.02	0.685	0.07	-19	9	0.00	0.00	70.2	6.0	15.29	0.09		13.10
11:50	X		6.31	0.01	0.690	0.05	-23	4	0.00	0.00	69.9	0.3	15.32	0.03		13.28
11:55		X														13.45

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/24/15
WEATHER: 40° cloudy
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: TM-1
WELL DEPTH: 20
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 18 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 11.60 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:20	Y		5.23	NA	2.72	NA	185	NA	2.00	NA	33.0	NA	15.00	NA		11.60
12:25	Y		5.07	0.16	2.68	0.04	225	40	0.70	1.30	45.0	12	15.50	0.50		12.05
12:30	Y		4.97	0.10	2.67	0.01	249	24	0.10	0.60	52.0	7	15.74	0.24		12.60
12:35	Y		4.93	0.04	2.67	—	256	7	0.00	0.10	47.0	5	15.88	0.14		13.00
12:40	Y		4.91	0.02	2.66	0.01	258	2	0.00	—	43.0	4	15.86	0.02		13.40
12:45		Y														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: PORT READING
DATE: 11/24/15
WEATHER: SUNNY 55°F
CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTTMAYES

MONITOR WELL #: TM-4
WELL DEPTH: 14.5
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0
PUMP INTAKE DEPTH: 12.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 10.7 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:25	X		6.33	NA	0.194	NA	75	NA	3.94	NA	215	NA	15.45	NA		10.70
12:30	X		6.27	0.06	0.193	0.001	83	8	3.89	0.05	150	65	15.40	0.05		10.85
12:35	X		6.23	0.04	0.192	0.001	90	7	3.95	0.06	70	80	15.38	0.02		11.05
12:40	X		6.19	0.04	0.193	0.01	98	8	3.93	0.02	65	5	15.41	0.03		11.28
12:45	X		6.17	0.02	0.194	0.01	98	0	3.85	0.06	71	6	15.44	0.03		11.43
12:50	X		6.15	0.02	0.194	0.00	97	1	3.80	0.05	74	7	15.46	0.02		11.67
12:55		X														11.80

COMMENTS:

pH Check 7.03 COND. Check 1.42

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: PORT READING
DATE: 11/24/15
WEATHER: SUNNY 50°F
CONSULTING FIRM: EARTH SYSTEMS
FIELD PERSONNEL: SCOTT MAYES

MONITOR WELL #: PL-3R
WELL DEPTH: ____
SCREENED/OPEN INTERVAL: ____
WELL PERMIT #: ____
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 80.5

PUMP INTAKE DEPTH: ____ ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 4.50 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:30	X		6.55	NA	6.25	NA	-87	NA	0.10	NA	3.4	NA	15.60	NA		4.50
13:35	X		6.61	0.06	6.31	0.06	-95	8	0.05	0.05	2.9	0.5	15.68	0.08		4.91
13:40	X		6.70	0.09	6.39	0.08	-104	9	0.01	0.04	2.1	0.8	15.77	0.09		5.40
13:45	X		6.79	0.09	6.45	0.06	-110	6	0.00	0.01	2.2	0.1	15.85	0.08		5.65
13:50		X														5.80

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 4/24/15
WEATHER: 40° clear
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: SM-1
WELL DEPTH: 15
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 4 inches

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0
PUMP INTAKE DEPTH: 12 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 5.31 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:30	X		6.61	NA	4.69	NA	-124	NA	10.52	NA	212	NA	16.80	NA		5.31
13:35	X		6.71	0.10	4.03	0.66	-133	9	3.02	7.50	218	6	17.15	0.35		5.50
13:40	X		6.67	0.04	3.71	0.32	-129	4	1.02	2	130	88	17.45	0.30		5.69
13:45	X		6.65	0.02	3.70	0.01	-131	2	4.00	3.02	120	10	17.52	0.07		5.89
13:50	X		6.66	0.01	3.71	0.01	-132	1	3.70	0.30	108	12	17.53	0.01		6.09
13:55	X		6.65	0.01	3.71	—	-133	1	3.60	0.10	100	8	17.53	—		6.29
14:00		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/25/15
WEATHER: 55° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MHL

MONITOR WELL #: TL-2
WELL DEPTH: 10
WELL PERMIT #:
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 10.0

PUMP INTAKE DEPTH: 8.00 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 6.60 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
9:30	✓		6.68	NA	2.38	NA	-94	NA	3.25	NA	350	NA	16.60	NA		6.60
9:35	✓		6.32	0.36	2.12	0.26	-74	20	1.25	2.00	290	60	18.60	2.0		6.60
9:40	✓		6.11	0.21	2.05	0.07	-54	20	0.50	0.75	235	55	18.55	0.05		6.60
9:45	✓		6.00	0.11	2.14	0.09	-40	14	0.10	0.40	232	3	18.75	0.20		6.60
9:50	✓		5.91	0.09	2.18	0.04	-32	8	0.08	0.02	220	12	18.73	0.02		6.60
9:55	✓		5.87	0.04	2.24	0.06	-28	4	0.00	0.08	202	18	18.80	0.07		6.60
10:00		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/25/15
WEATHER: 55° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: TL-1
WELL PERMIT #:
WELL DEPTH: 10
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 8 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.01 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:20	✓		6.61	NA	6.70	NA	-50	NA	4.20	NA	68.0	NA	17.75	NA		7.01
10:25	✓		6.71	0.10	7.25	0.55	-68	18	1.20	3.00	84.0	16.00	18.82	1.07		7.32
10:30	✓		6.76	0.05	7.42	0.17	-72	4	0.50	0.70	84.9	0.9	19.02	0.20		7.59
10:35	✓		6.76	–	7.48	0.06	-74	2	0.21	0.29	80.9	4.0	19.11	0.09		7.73
10:40	✓		6.76	–	7.50	0.02	-77	3	0.17	0.04	72.9	8.0	19.18	0.07		7.90
10:45		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/25/15
WEATHER: 55° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: PER 7
WELL PERMIT #:
WELL DEPTH: 15
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 13 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.01 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/l) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
11:00	X		5.66	NA	0.927	NA	120	NA	4.02	NA	1000	NA	17.40	NA		7.01
11:05	X		4.86	0.80	0.781	146	260	140	1.12	2.90	297	703	17.92	0.52		
11:10	X		4.86	—	0.775	0.006	273	13	0.69	0.43	253	44	17.94	0.02		
11:15	X		4.85	0.01	0.772	0.003	278	5	0.63	0.06	233	20	17.94	—		
11:20	X		4.86	0.01	0.771	0.001	280	2	0.61	0.02	223	10	17.92	0.02		7.56
11:25		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Port Reading
DATE: 11/25/15
WEATHER: Sunny 50°F

CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Scott Mayes

MONITOR WELL #: SP-3
WELL PERMIT #:
WELL DEPTH: 11.6
WELL DIAMETER: 2.0 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 8 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 4.4 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:40	X		6.44	NA	0.460	NA	12	NA	0.10	NA	25.0	NA	14.50	NA		4.4 ~~4.0~~
11:45	X		6.45	0.01	0.450	0.01	10	2	0.05	0.05	16.0	9.0	14.51	0.01		4.6
11:50	X		6.43	0.02	0.460	0.01	11	1	0.02	0.03	14.5	1.5	14.48	0.03		4.8
11:55	X		6.42	0.01	0.465	0.005	9	2	0.00	0.02	13.6	0.9	14.47	0.01		4.9
12:00		X														5.0

COMMENTS:

pH check 7.02 Cond. check 1.41

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 4169
DATE: 11/25/11
WEATHER: 55° Sunny
CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: MK

MONITOR WELL #: PER-8
WELL PERMIT #:
WELL DEPTH: 10.00
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND: 0.0
BENEATH OUTER CAP: 0.0
BENEATH INNER CAP: 0.0

PUMP INTAKE DEPTH: 9 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.01 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
11:45	X		5.98	NA	0.580	NA	71	NA	1.20	NA	88.0	NA	18.00	NA		6.09
11:50	X		6.09	0.11	0.570	0.010	40	31	1.01	0.19	80.0	8.0	18.30	0.30		6.27
11:55	X		6.26	0.17	0.604	0.034	-4	44	0.90	0.11	76.0	4.0	18.64	0.34		6.46
12:00	X		6.18	0.08	0.644	0.040	-8	4	0.60	0.30	69.0	7.0	18.78	0.14		6.63
12:05	X		6.21	0.03	0.671	0.027	-17	9	0.30	0.30	65.1	3.9	18.76	0.02		6.81
12:10		X														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET ____ OF ____

SITE: Port Reading
DATE: 11/25/15
WEATHER: Sunny 50°F

CONSULTING FIRM: Earth Systems
FIELD PERSONNEL: Scott Mayes

MONITOR WELL #: SP-1
WELL DEPTH: 11.5
SCREENED/OPEN INTERVAL:
WELL PERMIT #:
WELL DIAMETER: 2 inches

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:

PUMP INTAKE DEPTH: 8.0 ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : 4.4 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:15	X		6.14	NA	0.096	NA	79	NA	4.10	NA	680	NA	17.64	NA		4.4
12:20	X		6.12	0.02	0.100	0.004	30	49	4.12	0.02	689	9	17.60	0.04		4.8
12:25	X		6.05	0.07	0.109	0.009	27	3	4.08	0.04	695	6	17.62	0.02		5.5
12:30	X		5.96	0.09	0.110	0.001	20	7	4.12	0.04	703	8	17.64	0.02		6.0
12:35		X														6.4

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity