Quarterly Groundwater Monitoring Report – Outside (Non-Tunnel) Wells

Red Hill Fuel Storage Facility

Pearl Harbor, Oahu, Hawaii
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Longitude: 157°53'33" W

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Executive Summary

This quarterly groundwater monitoring report presents the results of groundwater sampling (i.e., RHMW04, and OWDFMW01) conducted on August 4, 2009 at the United States (US) Navy Bulk Fuel Storage Facility at Red Hill, Oahu, Hawaii (the Facility). Due to access issues, sampling of the Halawa Deep Well 2253-03 (2253-03) was postponed (see Figure 1). The sampling and reporting was conducted by TEC Inc. (TEC) for the Fleet and Industrial Supply Center (FISC) at Pearl Harbor, Hawaii. This report is part of a series of quarterly groundwater monitoring reports, supplemental to the groundwater reports for the groundwater monitoring wells within the Facility, provided by the US Navy to the State of Hawaii Department of Health (HDOH) in accordance with HDOH's release response requirements. Currently, there are 18 active and 2 inactive, 12.5 million gallon, field-constructed underground storage tanks (USTs) located at the Facility.

Background

In 2002, the US Navy installed a groundwater monitoring well (currently named RHMW01) into the basal aquifer, directly down-gradient from the Facility, within the lower access tunnel. Groundwater samples from this well indicated that petroleum from the Facility has migrated to the basal aquifer (AMEC, 2002). In 2005, the US Navy began quarterly monitoring of the aquifer to protect their down-gradient drinking water resource associated with the US Navy Well 2254-01. US Navy Well 2254-01 is located approximately 3,000 feet down-gradient from the Facility USTs and provides approximately 24 % of the potable water to the Pearl Harbor Water System (PHWS).

By September 2005, the US Navy had installed two more groundwater monitoring wells (RHMW02 and RHMW03) within the Facility UST system and a groundwater monitoring well within the US Navy Well 2254-01 infiltration gallery (RHMW2254-01). Since 2005, these wells have been sampled quarterly for Total Petroleum Hydrocarbons (TPH) quantified as Diesel-Range Organics (DRO) and Gasoline Range Organics (GRO), Volatile Organic Compounds (VOCs), Polynuclear Aromatic Hydrocarbons (PAHs), and dissolved lead.

In response to increasing concentrations of contaminants of potential concern at the groundwater monitoring wells within the facility (specifically RHMW02) during 2008, plans were made to conduct quarterly sampling at the following monitoring well locations:

- RHMW04, up-gradient of the Facility;
- Oily Waste Disposal Facility monitoring well 01 (OWDFMW01), down-gradient of the Facility; and
- Halawa Deep Well 2253-03 (2253-03)

During the summer and fall of 2008, HDOH updated their Environmental Action Levels (EALs), which resulted in significant changes to the action levels associated with methylnaphthalenes. The HDOH Drinking Water toxicity EAL for these compounds was 240 μg/L. This concentration assumed that methylnaphthalenes were not human carcinogens. Once evidence emerged and was accepted by the US Environmental Protection Agency (USEPA) that

methylnaphthalenes are carcinogenic to humans, HDOH adopted more rigorous EALs of 4.7 µg/L for 1-methylnaphthalene and 24 µg/L for 2-methylnaphthalene (HDOH, 2008).

The HDOH Drinking Water EAL for naphthalene was also updated during this process. Previously, HDOH based their naphthalene EAL on USEPA Region 9 Preliminary Remediation Goal (USEPA PRG) of 6.2 µg/L, which is associated with a non-cancer Hazard Index of 1. In deference to the California Department of Public Health's Drinking Water Notification Levels, (HDOH, 2008) HDOH updated their naphthalene drinking water EAL to 17 µg/L.

Finally, the HDOH Drinking Water EAL for TPH-DRO was increased from 100 µg/L to 210 µg/L, although the Groundwater Gross Contamination EAL for TPH-DRO remains 100 µg/L.

Current Results

On August 4, 2009, two groundwater samples (i.e., RHMW04, and OWDFMW01), along with the required quality control samples (duplicate, matrix spike, spike duplicate, and trip blank) were collected for analysis. Samples were analyzed for TPH-DRO, TPH-GRO, VOCs, PAHs, and dissolved lead.

No HDOH Drinking Water EALs were exceeded and no contaminants of concern were detected above the laboratory method detection limit (MDL), except for benzene. At RHMW04, benzene was detected below the laboratory reporting limit (RL) but above the MDL, at an estimated concentration of 0.25 µg/L in the duplicate sample only. Benzene was also detected in OWDFMW01 at 0.47 µg/L, just above the RL. The HDOH Drinking Water EAL and groundwater Gross Contamination EAL for benzene are 5 µg/L and 170 µg/L, respectively.

Conclusions and Recommendations

Based on the August 2009 sampling event, there is no indication of significant contaminant migration up-gradient and down-gradient of the Facility. Quarterly groundwater sampling for TPH-DRO, TPH-GRO, VOCs, PAHs, and dissolved lead will continue at the Facility until such time that data indicates that a different monitoring plan is warranted.

1.0 Introduction

This report presents the results of the first groundwater sampling event, conducted in August 2009 at two groundwater monitoring wells (i.e., RHMW04, and OWDFMW01), up-gradient and down-gradient from the Red Hill Fuel Storage Facility, Oahu, Hawaii (hereafter referred to as "the Facility"). The Facility consists of 18 active and 2 inactive USTs operated by FISC, Pearl Harbor. This groundwater sampling and analysis event is supplemental to the quarterly groundwater sampling and analysis at groundwater monitoring wells within the Facility (i.e., part of the groundwater monitoring program for the UST site in response to past UST releases, previous environmental investigations, and recommendations from the HDOH).

1.1 Project Objective

This groundwater sampling project was performed to evaluate the presence of chemicals of potential concern in groundwater up-gradient and down-gradient from the Facility. The project was conducted to ensure the Navy remains in compliance with HDOH UST release response requirements. The groundwater sampling program followed the procedures described in *Red Hill Bulk Fuel Storage Facility Groundwater Protection Plan* [TEC Inc. (TEC), 2008], also referred to as "the Plan".

This groundwater sampling event was conducted by TEC under US Navy Contract Number N47408-04-D-8514, Task Order No. 54, Amendment/Modification No. 01.

1.2 Previous Reports

This is the first groundwater sampling event for monitoring wells RHMW04 and OWDFMW01. Due to access issues, sampling of the Halawa Deep Well 2253-03 (2253-03) was postponed. This is a quarterly sampling event that is being conducted to supplement the quarterly groundwater sampling and analysis at groundwater monitoring wells within the Facility, which began in 2005. The following groundwater monitoring reports were previously submitted to the HDOH, for groundwater monitoring wells within the Facility:

1. Groundwater Sampling Report, First Quarter 2005 (submitted April 2005);
2. Groundwater Sampling Report, Second Quarter 2005 (submitted August 2005);
3. Groundwater Sampling Report, Third Quarter 2005 (submitted November 2005);
4. Groundwater Sampling Report, Fourth Quarter 2005 (submitted February 2006);
5. Groundwater Monitoring Results, July 2006 (submitted September 2006);
6. Groundwater Monitoring Results, December 2006 (submitted January 2007);
7. Groundwater Monitoring Results, March 2007 (submitted May 2007);
8. Groundwater Monitoring Results, June 2007 (submitted August 2007);
9. Groundwater Monitoring Results, September 2007 (submitted October 2007);
10. Groundwater Monitoring Results, January 2008 (submitted March 2008);

11. Groundwater Monitoring Results, April 2008 (submitted May 2008);
12. Groundwater Monitoring Results, July 2008 (submitted October 2008);
13. Groundwater Monitoring Results, October and December 2008 (submitted February 2009);
14. Groundwater Monitoring Results, February 2009 (submitted May 2009);
15. Groundwater Monitoring Results, May 2009 (submitted July 2009); and
16. Groundwater Monitoring Results, July 2009 (submitted September 2009)

1.3 Background

The following sections provide a description of the site and information on the Facility and USTs.

1.3.1 Site Description

The Facility is located in Halawa Heights on Oahu, Hawaii. Land adjacent to the north of the Facility is occupied by Halawa Correctional Facility and private businesses. Land to the south and west of the Facility includes the Coast Guard Reservation. Moanalua Valley is located east of the Facility (Dawson, 2006).

The Navy Public Works Department operates a potable water infiltration tunnel approximately 1,550 feet hydraulically down-gradient from the Facility (Dawson, 2006). The US Navy Well 2254-01 is located approximately 3,000 feet down-gradient (west) of the Facility and provides approximately 24% of the potable water to the Pearl Harbor Water System, which serves approximately 52,200 military consumers (TEC, 2008).

1.3.2 Facility Information

The Facility consists of 18 active and 2 inactive USTs operated by Navy FISC Pearl Harbor. Each UST has a capacity of 12.5 million gallons. The Facility is located approximately 100 feet above the basal aquifer (Dawson, 2006).

In 2002, the US Navy installed a groundwater monitoring well (currently named RHMW01) into the basal aquifer, directly down-gradient from the Facility, within the lower access tunnel. Groundwater samples from this well indicated that petroleum from the Facility has migrated to the basal aquifer (AMEC, 2002). In 2005, the US Navy began quarterly monitoring of the aquifer to protect their down-gradient drinking water resource associated with the US Navy Well 2254-01. US Navy Well 2254-01 is located approximately 3,000 feet down-gradient from the Facility USTs and provides approximately 24 % of the potable water to the PHWS.

By September 2005, the US Navy had installed two more groundwater monitoring wells (RHMW02 and RHMW03) within the Facility UST system, a background groundwater monitoring well (RHMW04) up-gradient from the Facility adjacent to the US Navy Firing Range, and a groundwater monitoring well within the US Navy Well 2254-01 infiltration gallery (RHMW2254-01). Since 2005, RHMW01, RHMW02, RHMW03, and RHMW2254-01 have been sampled quarterly for TPH-DRO, TPH-GRO, VOCs, PAHs, and dissolved lead.

Due to increasing concentrations of contaminants of potential concern at the groundwater monitoring wells within the Facility (specifically RHMW02) during 2008, response measures were warranted. In April 2009, another groundwater monitoring well (RHMW05) was installed down-gradient from the USTs, within the lower access tunnel between RHMW01 and RHMW2254-01. It was installed to identify the extent of contaminant migration down-gradient before it reaches the infiltration gallery at RHMW2254-01.

Additionally, plans were made to sample three monitoring wells RHMW04, OWDFMW01, and monitoring well 2253-03. RHMW04 is adjacent to the US Navy Firing Range, geographically up-gradient of the USTs. It was installed to provide geochemistry for water moving through the basal aquifer beneath the Facility. OWDFMW01 (originally known as MW08) was installed into the basal aquifer in 1998 for a Phase II Remedial Investigation/ Feasibility Study for the Red Hill Oily Waste Disposal Facility (Earth Tech Inc., 2000). It is located geographically down-gradient of the USTs and US Navy Well 2254-01. Monitoring well 2253-03 is controlled by the State of Hawaii Commission on Water Resource Management. It is located cross-gradient of the Facility, between the Facility and the municipal drinking water supply well run by the City and County of Honolulu Board of Water Supply (Halawa Shaft pumping station 2354-01).

Table 1 summarizes basic groundwater monitoring well information, Figure 1 shows groundwater monitoring well locations, and Appendix B includes the well construction logs for RHMW04 and OWDFMW01.

Table 1. Monitoring Well Information

Groundwater Well	TOC Elevation (ft msl)	DTW (ft)	TD (ft)
RHMW04	313.03	293	320
OWDFMW01	138.94	120	142.8
Halawa Deep (2253-03)	225	210	1,575

Notes:
DTW - Distance to water
TD - Total depth of well
TOC - Top of casing
ft – Feet
ft msl - Feet from mean sea level

1.3.3 UST Information

The USTs were constructed in the early 1940s. The tanks were constructed of steel and currently contain Jet Propulsion (JP)–5 fuel and F-76 (diesel marine fuel). Previously, several tanks stored Navy Special Fuel Oil, Navy Distillate, aviation gasoline, and motor gasoline. Each tank measures approximately 245 feet in height and 100 feet in diameter. The upper domes of the tanks lie at depths varying between approximately 100 feet and 200 feet below the existing ground surface (TEC, 2006).

1.4 Regulatory Updates

During the summer and fall of 2008, HDOH updated their EALs, which resulted in significant changes to the action levels associated with methylnaphthalenes. The drinking water toxicity EAL for these compounds was 240 μg/L. This concentration presumed that methylnaphthalenes

were non-carcinogenic. Evidence that they are human carcinogens has now been accepted by the US Environmental Protection Agency (USEPA). As a result, HDOH adopted more rigorous EALs of 4.7 μg/L for 1-methylnaphthalene and 24 μg/L for 2-methylnaphthalene, corresponding to a residential tap water scenario, and a 1 in a million cancer risk (HDOH, 2008).

The drinking water EAL for naphthalene has also been updated during this process. Previously, HDOH based their naphthalene EAL on USEPA Region 9 Preliminary Remediation Goal (USEPA PRG) of 6.2 μg/L, which is associated with a non-cancer Hazard Index of 1. HDOH has updated their naphthalene drinking water EAL to 17 μg/L, in deference to the California Department of Public Health's Drinking Water Notification Levels, a Hazard Index of 2.7 (HDOH, 2008).

Finally, the HDOH Drinking Water EAL for TPH-DRO was increased from 100 μg/L to 210 μg/L, although the HDOH Groundwater Gross Contamination EAL for TPH-DRO remains 100 μg/L.

2.0 Sample Collection and Analyses

Field activities relating to groundwater sample collection were conducted on August 4, 2009. Groundwater samples were collected from two monitoring wells, one downgradient of the Facility and one upgradient (OWDFMW01 and RHMW04, respectively). Groundwater monitoring well 2253-03 was not sampled during this round of sampling due to problems obtaining access. Sampling and analysis were conducted according to *Red Hill Bulk Fuel Storage Facility Groundwater Protection Plan* (TEC, 2008). A total of five samples were collected as follows:

- one environmental sample from RHMW04 and OWDFMW01;
- one duplicate sample from RHMW04 (sampled as RHMWA01 and reported as RHMW04D); and
- one matrix spike and matrix spike duplicate from OWDFMW01.

2.1 Monitoring Well Purging

The groundwater monitoring wells were purged and sampled using a dedicated pump system. Well purging was considered complete when no less than three successive water quality parameter measurements had stabilized within approximately 10 percent. Field parameters were measured at regular intervals during well purging and included pH, temperature, specific conductivity, dissolved oxygen, and turbidity.

2.2 Groundwater Sample Collection

Each monitoring well was sampled immediately following purging. Both wells were sampled directly from their dedicated bladder pump system. Samples were placed into sampling containers with appropriate preservatives [i.e., hydrochloric acid (HCl) for volatile organic analysis, nitric acid (HNO_3) for dissolved lead]. Dissolved lead samples were filtered in the field and placed in preserved bottles. Sample containers were labeled with the date, sample identification number, type of analysis, and sampler's name. The containers were placed on ice

in sample coolers and transported under chain-of-custody procedures to the certified laboratory for analysis.

2.3 Groundwater Sample Analyses

Groundwater samples were analyzed by SGS Environmental Service, Inc. in Anchorage, Alaska for TPH-DRO and TPH-GRO by EPA Method 8015B, VOCs by EPA Method 8260B, PAHs by EPA Method 8270C SIM, and dissolved lead by EPA Method 6020.

3.0 Groundwater Sample Analytical Results

This section provides a summary of analytical results for groundwater samples collected from two monitoring wells, one downgradient of the Facility and one upgradient (OWDFMW01 and RHMW04, respectively). Duplicate sample results from monitoring well RHMW04 are reported in this document as RHMW04D. A summary of groundwater analytical results for TPH-DRO and TPH-GRO, VOCs, PAHs, and dissolved lead is included in Table 2. Complete analytical laboratory reports are provided in Appendix A.

3.1 August 2009 Sample Analytical Results

All groundwater samples were analyzed for TPH-DRO, TPH-GRO, VOCs, PAHs, and dissolved lead. The results for each groundwater monitoring well are discussed below.

RHMW04

Benzene was detected in the duplicate sample at an estimated concentration of 0.25 µg/L (i.e., the value is below the laboratory RL, but above the MDL), well below the HDOH Drinking Water EAL (i.e., 5 µg/L). Benzene was not detected above the same laboratory MDL in the normal sample from RHMW04. No other potential chemical of concern was detected above the laboratory MDL (Table 2).

OWDFMW01

Benzene was detected at 0.47 µg/L just above the RL (i.e., 0.4 µg/L) in OWDFMW01. This concentration is well below the HDOH Drinking Water EAL (i.e., 5 µg/L). No other potential chemical of concern was detected above the laboratory MDL (Table 2).

4.0 Summary and Conclusions

Summary

No potential chemicals of concern were detected above the HDOH Drinking Water or Gross Contamination EALs at RHMW04 or OWDFMW01. Only trace detections of benzene were detected.

Conclusions/Recommendations

Based on the August 2009 sampling event, there is no indication of significant contaminant migration up-gradient or down-gradient of the Facility.

Table 2. Analytical Results for Quarterly Groundwater Sampling (August 4, 2009)
Red Hill Fuel Storage Facility, Pearl Harbor, Hawaii

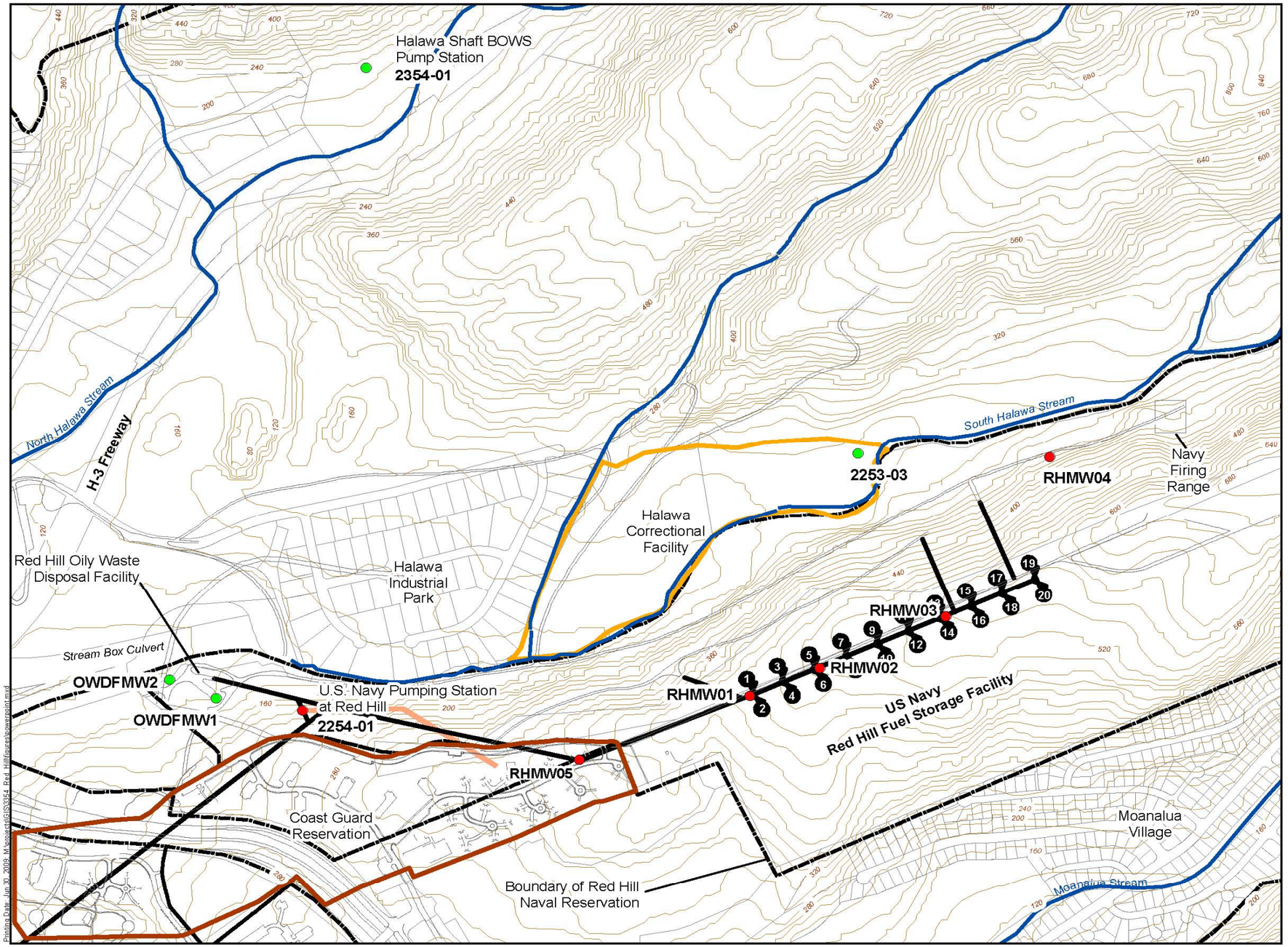
Method	Chemical	HDOH Drinking Water EALs[1] for Human Toxicity UG/L	HDOH Groundwater Gross Contamination EALs[2] UG/L	OWDFMW01 UG/L August 4, 2009				RHMW04 UG/L August 4, 2009				RHMW04D UG/L August 4, 2009			
				Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL
8015B (Petroleum)	TPH as DIESEL RANGE ORGANICS	210	100	ND	U	171	457	ND	U	157	419	ND	U	161	430
	TPH as GASOLINE RANGE ORGANICS	100	100	ND	U	30	100	ND	U	30	100	ND	U	30	100
8270C SIM (PAHs)	1-METHYLNAPHTHALENE	4.7	10	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	2-METHYLNAPHTHALENE	24	10	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	ACENAPHTHENE	370	20	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	ACENAPHTHYLENE	240	2000	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	ANTHRACENE	1800	22	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	BENZO(a)ANTHRACENE	0.092	4.7	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	BENZO(a)PYRENE	0.2	0.81	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	BENZO(b)FLUORANTHENE	0.092	0.75	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	BENZO(g,h,i)PERYLENE	1500	0.13	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	BENZO(k)FLUORANTHENE	0.92	0.4	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	CHRYSENE	9.2	1	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	DIBENZ(a,h)ANTHRACENE	0.0092	0.52	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	FLUORANTHENE	1500	130	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	FLUORENE	240	950	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	INDENO(1,2,3-c,d)PYRENE	0.092	0.095	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	NAPHTHALENE	17	21	ND	U	0.0339	0.109	ND	U	0.0335	0.108	ND	U	0.0344	0.111
	PHENANTHRENE	240	410	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
	PYRENE	180	68	ND	U	0.0164	0.0546	ND	U	0.0162	0.0541	ND	U	0.0167	0.0556
8260B (VOCs)	1,1,1,2-TETRACHLOROETHANE	0.52	50000	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	1,1,1-TRICHLOROETHANE	200	970	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,1,2,2-TETRACHLOROETHANE	0.067	500	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	1,1,2-TRICHLOROETHANE	5	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,1-DICHLOROETHANE	2.4	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,2,3-TRICHLOROPROPANE (TCP)	0.6	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,2,4-TRICHLOROBENZENE	70	3000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.04	10	ND	U	0.62	2	ND	U	0.62	2	ND	U	0.62	2
	1,2-DIBROMOETHANE (EDB)	0.0065	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,2-DICHLOROBENZENE	600	10	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,2-DICHLOROETHANE	0.15	7000	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	1,2-DICHLOROPROPANE	5	10	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,3-DICHLOROBENZENE	180	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,4-DICHLOROBENZENE	75	5	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	ACETONE	22000	20000	ND	U	3.1	10	ND	U	3.1	10	ND	U	3.1	10
	BENZENE	5	170	0.47		0.12	0.4	ND	U	0.12	0.4	0.25	F	0.12	0.4
	BROMODICHLOROMETHANE	0.22	50000	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	BROMOFORM	100	510	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	BROMOMETHANE	8.7	50000	ND	U	0.94	3	ND	U	0.94	3	ND	U	0.94	3
	CARBON TETRACHLORIDE	5	520	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	CHLOROBENZENE	100	50	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	CHLOROETHANE	8600	16	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	CHLOROFORM	70	2400	ND	U	0.3	1	ND	U	0.3	1	ND	U	0.3	1
	CHLOROMETHANE	1.8	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	cis-1,2-DICHLOROETHYLENE	70	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	cis-1,3-DICHLOROPROPENE	0.43	50000	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	DIBROMOCHLOROMETHANE	0.16	50000	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	ETHYLBENZENE	700	30	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	HEXACHLOROBUTADIENE	0.86	6	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	M,P-XYLENE (SUM OF ISOMERS)	10000	20	ND	U	0.62	2	ND	U	0.62	2	ND	U	0.62	2
	METHYL ETHYL KETONE (2-BUTANONE)	7100	8400	ND	U	3.1	10	ND	U	3.1	10	ND	U	3.1	10
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	2000	1300	ND	U	3.1	10	ND	U	3.1	10	ND	U	3.1	10
	METHYLENE CHLORIDE	4.8	9100	ND	U	1	5	ND	U	1	5	ND	U	1	5
	NAPHTHALENE	17	21	ND	U	0.62	2	ND	U	0.62	2	ND	U	0.62	2
	STYRENE	100	10	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	TETRACHLOROETHYLENE(PCE)	5	170	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	TOLUENE	1000	40	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	trans-1,2-DICHLOROETHENE	100	260	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	TRICHLOROETHYLENE (TCE)	5	310	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	VINYL CHLORIDE	2	3400	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
6020	LEAD	15	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1

PAHs - Polynuclear aromatic hydrocarbons
VOCs - Volatile organic compounds
ND - Indicates that the compound was not detected above the stated method detection limit
Q - Data qualifier
U - Indicates that the compound was analyzed for but not detected at or above the stated limit
F - Indicates that the compound was identified but the concentration was above the MDL and below the RL
200 - Result exceeds one or both HDOH EALs

MDL - Method detection limit
RL - Reporting limit
TPH - Total petroleum hydrocarbons
UG/L - Micrograms per Liter

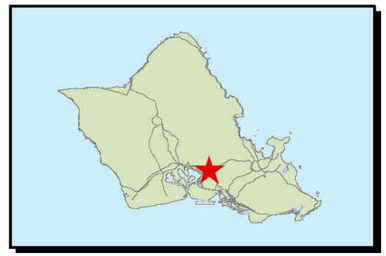
[1] Final Drinking Water Action Levels for Human Toxicity, Table D-3a, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, HDOH, 2009

[2] Groundwater Gross Contamination Action Levels, Table G-1, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, HDOH, 2009



Legend

- Red Hill UST ID Number
- Parcel
- 40-foot Interval Contour Line
- Road
- Stream
- Red Hill Navy Installation Boundary
- Red Hill Tunnels
- 2254-01 Infiltration Gallery
- Halawa Correctional Facility Boundary
- Coast Guard Reservation



N

Meters
0 185 370
0 340 680 1,360
Feet

Figure 1
Groundwater Monitoring Well Locations
Red Hill Fuel Storage Facility
Oahu, Hawaii

5.0 References

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Dawson Group, Inc. *Fourth Quarter 2005 Groundwater Sampling Report, Red Hill Fuel Storage Facility, Hawaii.* February 2006.

Earth Tech, Inc. *Remedial Investigation Phase II, Volume I, Technical Report, Red Hill Oily Waste Disposal Facility, Halawa, Oahu, Hawaii*. September 2000.

Hawaii Administrative Rules, Title 11, Chapter 281, Subchapter 7.

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TEC, Inc. *Red Hill Bulk Fuel Storage Facility, Final – Addendum Planning Documents, Pearl Harbor, Hawaii.* May 2006.

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Appendix A
Laboratory Analytical Reports

SGS North America Inc.
Alaska Division
Level II Laboratory Data Report

Project:	3354-003 Red Hill BFSF
Client:	The Environmental Company, Inc. (TEC)
SGS Work Order:	1094021

Released by:

Contents:

Note:
Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the standards set forth by the proper regulatory authority, the SGS Quality Assurance Program Plan, and the National Environmental Accreditation Conference.

Client Name: The Environmental Company, Inc. (TEC)
Project Name: 3354-003 Red Hill BFSF
Workorder No.: 1094021

Sample Comments

Refer to the sample receipt form for information on sample condition.

Lab Sample ID	Sample Type	Client Sample ID
1094021002	BMS	OWDFMW01-WG01 MS
	8260B - MS/MSD recoveries for chloroethane and bromomethane do not meet QC criteria. These analytes were not detected above the PQL in the associated samples	
1094021003	BMSD	OWDFMW01-WG01 MSD
	8260B - MS/MSD recoveries for chloroethane and bromomethane do not meet QC criteria. These analytes were not detected above the PQL in the associated samples	
915596	LCS	LCS for HBN 218335 [VXX/19797]
	8260B - LCS recovery for acetone does not meet QC criteria. This analyte was not detected above the PQL in the associated samples	
915597	LCSD	LCSD for HBN 218335 [VXX/19797
	8260B - LCS recovery for acetone does not meet QC criteria. This analyte was not detected above the PQL in the associated samples	
915601	CCV	CCV for HBN 218337 [VMS/10724]
	8260B - CCV recoveries for several analytes do not meet QC criteria. These analytes were not detected above the PQL in the associated samples	
915947	LCS	LCS for HBN 218403 [VXX/19810]
	8260B - LCS recovery for 1,1-dichloropropene does not meet QC criteria. This analyte was not detected above the PQL in the associated samples	
915948	LCSD	LCSD for HBN 218403 [VXX/19810
	8260B - LCS recovery for 1,1-dichloropropene does not meet QC criteria. This analyte was not detected above the PQL in the associated samples	
915950	CCV	CCV for HBN 218404 [VMS/10730]
	8260B - CCV recoveries for 1,1-dichloropropene and bromomethane do not meet QC criteria. These analytes were not detected above the PQL in the associated samples	
916342	CCV	CCV for HBN 218479 [VMS/10736]
	8260B - CCV recoveries for several analytes do not meet QC criteria. These analytes were not detected above the PQL in the associated samples	

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Report of Manual Integrations

Print Date: 8/20/2009 1:51 pm

Laboratory ID	Client Sample ID	Analytical Batch	Method	Analyte	Reason
914031	LCS for HBN 218011 [XXX/21374]	XMS5029	8270D SIMS	Benzo[g,h,i]perylene	RSP

Manual Integration Reason Code Descriptions

Code	Description
O	Original Chromatogram
M	Modified Chromatogram
SS	Skimmed surrogate
BLG	Closed baseline gap
RP	Reassign peak name
PIR	Pattern integration required
IT	Included tail
SP	Split peak
RSP	Removed split peak
FPS	Forced peak start/stop
BLC	Baseline correction
PNF	Peak not found by software

All DRO/RRO analysis are integrated per SOP.

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Laboratory Analytical Report

Client: **The Environmental Company, Inc.**
1001 Bishop Street, Suite 1400
Honolulu, HI 96813

Attn: **Rick Adkisson**
T: (808)528-1445 F:(808)528-0768

Project: **3354-003 Red Hill BFSF**

Workorder No.: **1094021**

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

If you have any questions regarding this report, or if we can be of further assistance, please contact your SGS Project Manager.

Tamara Rentz

tamara.rentz@sgs.com

Project Manager

SGS North America Inc. | Alaska Division 200 West Potter Drive Anchorage Alaska 99518
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Enclosed are the analytical results associated with this workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by SGS. A copy of our Quality Assurance Plan (QAP), which outlines this program is available at your request.

The Laboratory certification numbers are AK971-05 (DW), UTS-005 (CS) and AK00971 (Micro) for ADEC and AK100001 for NELAP (RCRA methods: 1020A, 1311, 6010B, 7470A, 7471A, 9040B, 9045C, 9056, 9060, 8015B, 8021B, 8081A/8082, 8260B, 8270C).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP, the National Environmental Laboratory Accreditation Program and, when applicable, other regulatory authorities.

If you have any questions regarding this report or if we can be of any assistance, please contact your SGS Project Manager at 907-562-2343. All work is being provided under SGS general terms and conditions (http://www.sgs.com/terms_and_conditions.htm)

The following descriptors may be found on your report which will serve to further qualify the data.

MDL	Method Detection Limit
PQL	Practical Quantitation Limit (reporting limit).
CL	Control Limit
U	Indicates the analyte was analyzed for but not detected.
F	Indicates value that is greater than or equal to the MDL.
J	The quantitation is an estimation.
ND	Indicates the analyte is not detected
B	Indicates the analyte is found in a blank associated with the sample.
*	The analyte has exceeded allowable regulatory or control limits.
D	The analyte concentration is the result of dilution.
GT	Greater Than
LT	Less Than
Q	QC parameter out of acceptance range.
M	A matrix effect was present.
E	The analyte result is above the calibrated range.
R	Rejected
DF	Analytical Dilution Factor
JL	The analyte was positively identified, but the quantitation is a low estimation.
<Surr>	Surrogate QC spiked standard
<Surr/IS>	Surrogate / Internal Standard QC spiked standard
QC	Quality Control
QA	Quality Assurance
MB	Method Blank
LCS (D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
BMS(D)	Site Specific Matrix Spike (Duplicate)
RPD	Relative Percent Difference
ICV	Initial Calibration Verification
CCV	Continuous Calibration Verification
MSA	Method of Standard Addition

Notes: Soil samples are reported on a dry weight basis unless otherwise specified
All DRO/RRO analyses are integrated per SOP.

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Client Name: The Environmental Company, Inc. (TEC)
Project Name: 3354-003 Red Hill BFSF
Workorder No.: 1094021

Analytical Methods

Method Description	Analytical Method
8270 PAH SIM Semi-Vol GC/MS Liq/Liq ext.	8270D SIMS
AFCEE 3.1 8260 (W)	SW8260B
Dissolved Metals by ICP-MS	SW6020
DRO by 8015B (W)	SW8015C
GRO (W)	SW8015C

Sample ID Cross Reference

Lab Sample ID	Client Sample ID
1094021001	OWDFMW01-WG01
1094021002	OWDFMW01-WG01 MS
1094021003	OWDFMW01-WG01 MSD
1094021004	RHMW04-WG01
1094021005	RHMWA01-WG01
1094021006	TB01-WG01

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Client Sample ID: **OWDFMW01-WG01**
SGS Ref. #: 1094021001
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 15:45
Receipt Date/Time: 08/06/09 11:30

Dissolved Metals by ICP/MS

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Lead	ND	1.00	0.310	ug/L	5	MMS6032	MXX22033	

Batch Information

Analytical Batch: MMS6032
Analytical Method: SW6020
Analysis Date/Time: 08/18/09 19:35
Dilution Factor: 5

Prep Batch: MXX22033
Prep Method: SW3010A
Prep Date/Time: 08/12/09 19:00

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID:1094021001-G
Analyst: NRB

Client Sample ID: **OWDFMW01-WG01**
SGS Ref. #: 1094021001
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 15:45
Receipt Date/Time: 08/06/09 11:30

Volatile Fuels Department

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Gasoline Range Organics	ND	100	30.0	ug/L	1	VFC9606	VXX19837	
4-Bromofluorobenzene <surr>	95.2	50-150		%	1	VFC9606	VXX19837	

Batch Information

Analytical Batch: VFC9606
Analytical Method: SW8015C
Analysis Date/Time: 08/14/09 17:20
Dilution Factor: 1

Prep Batch: VXX19837
Prep Method: SW5030B
Prep Date/Time: 08/14/09 13:16

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1094021001-B
Analyst: KPW

Client Sample ID: **OWDFMW01-WG01**
SGS Ref. #: 1094021001
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 15:45
Receipt Date/Time: 08/06/09 11:30

Semivolatile Organic Fuels Department

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Diesel Range Organics	ND	0.457	0.171	mg/L	1	XFC8762	XXX21370	
5a Androstane <surr>	78.7	50-150		%	1	XFC8762	XXX21370	

Batch Information

Analytical Batch: XFC8762
Analytical Method: SW8015C
Analysis Date/Time: 08/08/09 11:01
Dilution Factor: 1

Prep Batch: XXX21370
Prep Method: SW3520C
Prep Date/Time: 08/07/09 09:25

Initial Prep Wt./Vol.: 875 mL
Prep Extract Vol.: 1 mL
Container ID:1094021001-J
Analyst: KDC

Client Sample ID: **OWDFMW01-WG01**
SGS Ref. #: 1094021001
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 15:45
Receipt Date/Time: 08/06/09 11:30

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	0.470	0.400	0.120	ug/L	1	VMS10730	VXX19810	
Toluene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Ethylbenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
n-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	1	VMS10730	VXX19810	
1,2-Dichloroethane	ND	0.500	0.150	ug/L	1	VMS10730	VXX19810	
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
4-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Chlorobenzene	ND	0.500	0.150	ug/L	1	VMS10730	VXX19810	
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	1	VMS10730	VXX19810	
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
4-Isopropyltoluene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	1	VMS10730	VXX19810	
n-Propylbenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Styrene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Dibromomethane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Acetone	ND	10.0	3.10	ug/L	1	VMS10730	VXX19810	
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS10730	VXX19810	
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	1	VMS10730	VXX19810	
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	1	VMS10730	VXX19810	
Tetrachloroethene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Dibromochloromethane	ND	0.500	0.150	ug/L	1	VMS10730	VXX19810	
1,3-Dichloropropane	ND	0.400	0.120	ug/L	1	VMS10730	VXX19810	
1,2-Dibromoethane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Carbon tetrachloride	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS10730	VXX19810	
Chloroform	ND	1.00	0.300	ug/L	1	VMS10730	VXX19810	
Bromobenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Chloromethane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Bromomethane	ND	3.00	0.940	ug/L	1	VMS10730	VXX19810	
Bromochloromethane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Vinyl chloride	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	

Client Sample ID: **OWDFMW01-WG01**
SGS Ref. #: 1094021001
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 15:45
Receipt Date/Time: 08/06/09 11:30

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
sec-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Bromodichloromethane	ND	0.500	0.150	ug/L	1	VMS10730	VXX19810	
1,1-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
2-Butanone (MEK)	ND	10.0	3.10	ug/L	1	VMS10730	VXX19810	
Methylene chloride	ND	5.00	1.00	ug/L	1	VMS10730	VXX19810	
Trichlorofluoromethane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
P & M -Xylene	ND	2.00	0.620	ug/L	1	VMS10730	VXX19810	
Naphthalene	ND	2.00	0.620	ug/L	1	VMS10730	VXX19810	
o-Xylene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Bromoform	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1-Chlorohexane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
tert-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,1-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
2-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Trichloroethene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
2,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Hexachlorobutadiene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,1-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10730	VXX19810	
1,2-Dichloroethane-D4 <surr>	118	73-120		%	1	VMS10730	VXX19810	
Toluene-d8 <surr>	99.9	80-120		%	1	VMS10730	VXX19810	
4-Bromofluorobenzene <surr>	104	76-120		%	1	VMS10730	VXX19810	

Batch Information

Analytical Batch: VMS10730
Analytical Method: SW8260B
Analysis Date/Time: 08/13/09 22:27
Dilution Factor: 1

Prep Batch: VXX19810
Prep Method: SW5030B
Prep Date/Time: 08/13/09 08:26

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1094021001-A
Analyst: SCL

Client Sample ID: **OWDFMW01-WG01**
SGS Ref. #: 1094021001
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 15:45
Receipt Date/Time: 08/06/09 11:30

Polynuclear Aromatics GC/MS

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Acenaphthylene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Acenaphthene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Fluorene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Phenanthrene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Anthracene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Fluoranthene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Pyrene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Benzo(a)Anthracene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Chrysene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Benzo[b]Fluoranthene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Benzo[k]fluoranthene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Benzo[a]pyrene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Indeno[1,2,3-c,d] pyrene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Dibenzo[a,h]anthracene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Benzo[g,h,i]perylene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Naphthalene	ND	0.109	0.0339	ug/L	1	XMS5029	XXX21374	
1-Methylnaphthalene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
2-Methylnaphthalene	ND	0.0546	0.0164	ug/L	1	XMS5029	XXX21374	
Terphenyl-d14 <surr>	102	50-135		%	1	XMS5029	XXX21374	

Batch Information

Analytical Batch: XMS5029
Analytical Method: 8270D SIMS
Analysis Date/Time: 08/12/09 02:10
Dilution Factor: 1

Prep Batch: XXX21374
Prep Method: SW3520C
Prep Date/Time: 08/07/09 10:00

Initial Prep Wt./Vol.: 915 mL
Prep Extract Vol.: 1 mL
Container ID:1094021001-H
Analyst: JDH

Client Sample ID: **RHMW04-WG01**
SGS Ref. #: 1094021004
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:35
Receipt Date/Time: 08/06/09 11:30

Dissolved Metals by ICP/MS

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Lead	ND	1.00	0.310	ug/L	5	MMS6032	MXX22033	

Batch Information

Analytical Batch: MMS6032
Analytical Method: SW6020
Analysis Date/Time: 08/18/09 19:48
Dilution Factor: 5

Prep Batch: MXX22033
Prep Method: SW3010A
Prep Date/Time: 08/12/09 19:00

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID:1094021004-G
Analyst: NRB

Client Sample ID: **RHMW04-WG01**
SGS Ref. #: 1094021004
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:35
Receipt Date/Time: 08/06/09 11:30

Volatile Fuels Department

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Gasoline Range Organics	ND	100	30.0	ug/L	1	VFC9606	VXX19837	
4-Bromofluorobenzene <surr>	99.8	50-150		%	1	VFC9606	VXX19837	

Batch Information

Analytical Batch: VFC9606
Analytical Method: SW8015C
Analysis Date/Time: 08/14/09 16:23
Dilution Factor: 1

Prep Batch: VXX19837
Prep Method: SW5030B
Prep Date/Time: 08/14/09 13:16

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1094021004-B
Analyst: KPW

Client Sample ID: **RHMW04-WG01**
SGS Ref. #: 1094021004
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:35
Receipt Date/Time: 08/06/09 11:30

Semivolatile Organic Fuels Department

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Diesel Range Organics	ND	0.419	0.157	mg/L	1	XFC8762	XXX21370	
5a Androstane <surr>	82.2	50-150		%	1	XFC8762	XXX21370	

Batch Information

Analytical Batch: XFC8762
Analytical Method: SW8015C
Analysis Date/Time: 08/08/09 11:38
Dilution Factor: 1

Prep Batch: XXX21370
Prep Method: SW3520C
Prep Date/Time: 08/07/09 09:25

Initial Prep Wt./Vol.: 955 mL
Prep Extract Vol.: 1 mL
Container ID:1094021004-J
Analyst: KDC

Client Sample ID: **RHMW04-WG01**
SGS Ref. #: 1094021004
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:35
Receipt Date/Time: 08/06/09 11:30

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.400	0.120	ug/L	1	VMS10724	VXX19797	
Toluene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Ethylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
n-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
1,2-Dichloroethane	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
4-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Chlorobenzene	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	1	VMS10724	VXX19797	
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
4-Isopropyltoluene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
n-Propylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Styrene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Dibromomethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Acetone	ND	10.0	3.10	ug/L	1	VMS10724	VXX19797	
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	1	VMS10724	VXX19797	
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	1	VMS10724	VXX19797	
Tetrachloroethene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Dibromochloromethane	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
1,3-Dichloropropane	ND	0.400	0.120	ug/L	1	VMS10724	VXX19797	
1,2-Dibromoethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Carbon tetrachloride	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
Chloroform	ND	1.00	0.300	ug/L	1	VMS10724	VXX19797	
Bromobenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Chloromethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Bromomethane	ND	3.00	0.940	ug/L	1	VMS10724	VXX19797	
Bromochloromethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Vinyl chloride	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	

Client Sample ID: **RHMW04-WG01**
SGS Ref. #: 1094021004
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:35
Receipt Date/Time: 08/06/09 11:30

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
sec-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Bromodichloromethane	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
1,1-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
2-Butanone (MEK)	ND	10.0	3.10	ug/L	1	VMS10724	VXX19797	
Methylene chloride	ND	5.00	1.00	ug/L	1	VMS10724	VXX19797	
Trichlorofluoromethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
P & M -Xylene	ND	2.00	0.620	ug/L	1	VMS10724	VXX19797	
Naphthalene	ND	2.00	0.620	ug/L	1	VMS10724	VXX19797	
o-Xylene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Bromoform	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1-Chlorohexane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
tert-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,1-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
2-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Trichloroethene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
2,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Hexachlorobutadiene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,1-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2-Dichloroethane-D4 <surr>	109	73-120		%	1	VMS10724	VXX19797	
Toluene-d8 <surr>	99.8	80-120		%	1	VMS10724	VXX19797	
4-Bromofluorobenzene <surr>	107	76-120		%	1	VMS10724	VXX19797	

Batch Information

Analytical Batch: VMS10724
Analytical Method: SW8260B
Analysis Date/Time: 08/13/09 00:01
Dilution Factor: 1

Prep Batch: VXX19797
Prep Method: SW5030B
Prep Date/Time: 08/12/09 08:21

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1094021004-A
Analyst: SCL

Client Sample ID: **RHMW04-WG01**
SGS Ref. #: 1094021004
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:35
Receipt Date/Time: 08/06/09 11:30

Polynuclear Aromatics GC/MS

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Acenaphthylene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Acenaphthene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Fluorene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Phenanthrene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Anthracene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Fluoranthene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Pyrene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Benzo(a)Anthracene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Chrysene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Benzo[b]Fluoranthene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Benzo[k]fluoranthene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Benzo[a]pyrene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Indeno[1,2,3-c,d] pyrene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Dibenzo[a,h]anthracene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Benzo[g,h,i]perylene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Naphthalene	ND	0.108	0.0335	ug/L	1	XMS5029	XXX21374	
1-Methylnaphthalene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
2-Methylnaphthalene	ND	0.0541	0.0162	ug/L	1	XMS5029	XXX21374	
Terphenyl-d14 <surr>	103	50-135		%	1	XMS5029	XXX21374	

Batch Information

Analytical Batch: XMS5029
Analytical Method: 8270D SIMS
Analysis Date/Time: 08/12/09 03:54
Dilution Factor: 1

Prep Batch: XXX21374
Prep Method: SW3520C
Prep Date/Time: 08/07/09 10:00

Initial Prep Wt./Vol.: 925 mL
Prep Extract Vol.: 1 mL
Container ID:1094021004-H
Analyst: JDH

Client Sample ID: **RHMWA01-WG01**
SGS Ref. #: 1094021005
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:05
Receipt Date/Time: 08/06/09 11:30

Dissolved Metals by ICP/MS

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Lead	ND	1.00	0.310	ug/L	5	MMS6032	MXX22033	

Batch Information

Analytical Batch: MMS6032
Analytical Method: SW6020
Analysis Date/Time: 08/18/09 19:50
Dilution Factor: 5

Prep Batch: MXX22033
Prep Method: SW3010A
Prep Date/Time: 08/12/09 19:00

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID:1094021005-G
Analyst: NRB

Client Sample ID: **RHMWA01-WG01**
SGS Ref. #: 1094021005
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:05
Receipt Date/Time: 08/06/09 11:30

Volatile Fuels Department

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Gasoline Range Organics	ND	100	30.0	ug/L	1	VFC9606	VXX19837	
4-Bromofluorobenzene <surr>	94.2	50-150		%	1	VFC9606	VXX19837	

Batch Information

Analytical Batch: VFC9606
Analytical Method: SW8015C
Analysis Date/Time: 08/14/09 16:42
Dilution Factor: 1

Prep Batch: VXX19837
Prep Method: SW5030B
Prep Date/Time: 08/14/09 13:16

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1094021005-B
Analyst: KPW

Client Sample ID: **RHMWA01-WG01**
SGS Ref. #: 1094021005
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:05
Receipt Date/Time: 08/06/09 11:30

Semivolatile Organic Fuels Department

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Diesel Range Organics	ND	0.430	0.161	mg/L	1	XFC8762	XXX21370	
5a Androstane <surr>	79.9	50-150		%	1	XFC8762	XXX21370	

Batch Information

Analytical Batch: XFC8762
Analytical Method: SW8015C
Analysis Date/Time: 08/08/09 11:48
Dilution Factor: 1

Prep Batch: XXX21370
Prep Method: SW3520C
Prep Date/Time: 08/07/09 09:25

Initial Prep Wt./Vol.: 930 mL
Prep Extract Vol.: 1 mL
Container ID:1094021005-J
Analyst: KDC

Client Sample ID: **RHMWA01-WG01**
SGS Ref. #: 1094021005
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:05
Receipt Date/Time: 08/06/09 11:30

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	0.250 J	0.400	0.120	ug/L	1	VMS10724	VXX19797	
Toluene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Ethylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
n-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
1,2-Dichloroethane	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
4-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Chlorobenzene	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	1	VMS10724	VXX19797	
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
4-Isopropyltoluene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
n-Propylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Styrene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Dibromomethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Acetone	ND	10.0	3.10	ug/L	1	VMS10724	VXX19797	
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	1	VMS10724	VXX19797	
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	1	VMS10724	VXX19797	
Tetrachloroethene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Dibromochloromethane	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
1,3-Dichloropropane	ND	0.400	0.120	ug/L	1	VMS10724	VXX19797	
1,2-Dibromoethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Carbon tetrachloride	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
Chloroform	ND	1.00	0.300	ug/L	1	VMS10724	VXX19797	
Bromobenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Chloromethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Bromomethane	ND	3.00	0.940	ug/L	1	VMS10724	VXX19797	
Bromochloromethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Vinyl chloride	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	

Client Sample ID: **RHMWA01-WG01**
SGS Ref. #: 1094021005
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:05
Receipt Date/Time: 08/06/09 11:30

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
sec-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Bromodichloromethane	ND	0.500	0.150	ug/L	1	VMS10724	VXX19797	
1,1-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
2-Butanone (MEK)	ND	10.0	3.10	ug/L	1	VMS10724	VXX19797	
Methylene chloride	ND	5.00	1.00	ug/L	1	VMS10724	VXX19797	
Trichlorofluoromethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
P & M -Xylene	ND	2.00	0.620	ug/L	1	VMS10724	VXX19797	
Naphthalene	ND	2.00	0.620	ug/L	1	VMS10724	VXX19797	
o-Xylene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Bromoform	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1-Chlorohexane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
tert-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,1-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
2-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Trichloroethene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
2,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Hexachlorobutadiene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,1-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10724	VXX19797	
1,2-Dichloroethane-D4 <surr>	106	73-120		%	1	VMS10724	VXX19797	
Toluene-d8 <surr>	101	80-120		%	1	VMS10724	VXX19797	
4-Bromofluorobenzene <surr>	103	76-120		%	1	VMS10724	VXX19797	

Batch Information

Analytical Batch: VMS10724
Analytical Method: SW8260B
Analysis Date/Time: 08/13/09 02:49
Dilution Factor: 1

Prep Batch: VXX19797
Prep Method: SW5030B
Prep Date/Time: 08/12/09 08:21

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1094021005-A
Analyst: SCL

Client Sample ID: **RHMWA01-WG01**
SGS Ref. #: 1094021005
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 12:05
Receipt Date/Time: 08/06/09 11:30

Polynuclear Aromatics GC/MS

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Acenaphthylene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Acenaphthene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Fluorene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Phenanthrene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Anthracene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Fluoranthene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Pyrene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Benzo(a)Anthracene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Chrysene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Benzo[b]Fluoranthene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Benzo[k]fluoranthene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Benzo[a]pyrene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Indeno[1,2,3-c,d] pyrene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Dibenzo[a,h]anthracene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Benzo[g,h,i]perylene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Naphthalene	ND	0.111	0.0344	ug/L	1	XMS5029	XXX21374	
1-Methylnaphthalene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
2-Methylnaphthalene	ND	0.0556	0.0167	ug/L	1	XMS5029	XXX21374	
Terphenyl-d14 <surr>	99.7	50-135		%	1	XMS5029	XXX21374	

Batch Information

Analytical Batch: XMS5029
Analytical Method: 8270D SIMS
Analysis Date/Time: 08/12/09 04:28
Dilution Factor: 1

Prep Batch: XXX21374
Prep Method: SW3520C
Prep Date/Time: 08/07/09 10:00

Initial Prep Wt./Vol.: 900 mL
Prep Extract Vol.: 1 mL
Container ID:1094021005-H
Analyst: JDH

Client Sample ID: **TB01-WG01**
SGS Ref. #: 1094021006
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 08:00
Receipt Date/Time: 08/06/09 11:30

Volatile Fuels Department

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Gasoline Range Organics	ND	100	30.0	ug/L	1	VFC9606	VXX19837	
4-Bromofluorobenzene <surr>	93.9	50-150		%	1	VFC9606	VXX19837	

Batch Information

Analytical Batch: VFC9606
Analytical Method: SW8015C
Analysis Date/Time: 08/14/09 17:01
Dilution Factor: 1

Prep Batch: VXX19837
Prep Method: SW5030B
Prep Date/Time: 08/14/09 13:16

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1094021006-C
Analyst: KPW

Client Sample ID: **TB01-WG01**
SGS Ref. #: 1094021006
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 08:00
Receipt Date/Time: 08/06/09 11:30

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.400	0.120	ug/L	1	VMS10728	VXX19797	
Toluene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Ethylbenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
n-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	1	VMS10728	VXX19797	
1,2-Dichloroethane	ND	0.500	0.150	ug/L	1	VMS10728	VXX19797	
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
4-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Chlorobenzene	ND	0.500	0.150	ug/L	1	VMS10728	VXX19797	
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	1	VMS10728	VXX19797	
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
4-Isopropyltoluene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	1	VMS10728	VXX19797	
n-Propylbenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Styrene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Dibromomethane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Acetone	3.33 J	10.0	3.10	ug/L	1	VMS10736	VXX19816	
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS10728	VXX19797	
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	1	VMS10728	VXX19797	
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	1	VMS10728	VXX19797	
Tetrachloroethene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Dibromochloromethane	ND	0.500	0.150	ug/L	1	VMS10728	VXX19797	
1,3-Dichloropropane	ND	0.400	0.120	ug/L	1	VMS10728	VXX19797	
1,2-Dibromoethane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Carbon tetrachloride	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS10728	VXX19797	
Chloroform	ND	1.00	0.300	ug/L	1	VMS10728	VXX19797	
Bromobenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Chloromethane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Bromomethane	ND	3.00	0.940	ug/L	1	VMS10728	VXX19797	
Bromochloromethane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Vinyl chloride	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	

Client Sample ID: **TB01-WG01**
SGS Ref. #: 1094021006
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 08:00
Receipt Date/Time: 08/06/09 11:30

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
sec-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Bromodichloromethane	ND	0.500	0.150	ug/L	1	VMS10728	VXX19797	
1,1-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
2-Butanone (MEK)	ND	10.0	3.10	ug/L	1	VMS10736	VXX19816	
Methylene chloride	ND	5.00	1.00	ug/L	1	VMS10728	VXX19797	
Trichlorofluoromethane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
P & M -Xylene	ND	2.00	0.620	ug/L	1	VMS10728	VXX19797	
Naphthalene	ND	2.00	0.620	ug/L	1	VMS10728	VXX19797	
o-Xylene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Bromoform	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1-Chlorohexane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
tert-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,1-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
2-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Trichloroethene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
2,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Hexachlorobutadiene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,1-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS10728	VXX19797	
1,2-Dichloroethane-D4 <surr>	106	73-120		%	1	VMS10728	VXX19797	
Toluene-d8 <surr>	101	80-120		%	1	VMS10728	VXX19797	
4-Bromofluorobenzene <surr>	102	76-120		%	1	VMS10728	VXX19797	

Client Sample ID: **TB01-WG01**
SGS Ref. #: 1094021006
Project ID: 3354-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 08/04/09 08:00
Receipt Date/Time: 08/06/09 11:30

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Batch Information								
Analytical Batch: VMS10728		Prep Batch: VXX19797				Initial Prep Wt./Vol.: 5 mL		
Analytical Method: SW8260B		Prep Method: SW5030B				Prep Extract Vol.: 5 mL		
Analysis Date/Time: 08/14/09 03:46		Prep Date/Time: 08/12/09 08:21				Container ID:1094021006-B		
Dilution Factor: 1						Analyst: SCL		
Analytical Batch: VMS10736		Prep Batch: VXX19816				Initial Prep Wt./Vol.: 5 mL		
Analytical Method: SW8260B		Prep Method: SW5030B				Prep Extract Vol.: 5 mL		
Analysis Date/Time: 08/14/09 22:41		Prep Date/Time: 08/14/09 08:51				Container ID:1094021006-A		
Dilution Factor: 1						Analyst: SCL		

SGS Ref.#	914006 Method Blank	**Printed Date/Time**	08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	XXX21370
Project Name/#	3354-003 Red Hill BFSF	**Method**	SW3520C
Matrix	Water (Surface, Eff., Ground)	**Date**	08/07/2009

QC results affect the following production samples:

1094021001, 1094021004, 1094021005

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	0.190 J	0.400	0.150	mg/L	08/08/09
Surrogates					
5a Androstane <surr>	88.5	60-120		%	08/08/09
Batch XFC8762					
Method SW8015C					
Instrument HP 6890 Series II FID SV D R					

SGS Ref.#	914030 Method Blank	**Printed Date/Time**	08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	XXX21374
Project Name/#	3354-003 Red Hill BFSF	**Method**	SW3520C
Matrix	Water (Surface, Eff., Ground)	**Date**	08/07/2009

QC results affect the following production samples:

1094021001, 1094021004, 1094021005

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Polynuclear Aromatics GC/MS					
Acenaphthylene	ND	0.0500	0.0150	ug/L	08/12/09
Acenaphthene	ND	0.0500	0.0150	ug/L	08/12/09
Fluorene	ND	0.0500	0.0150	ug/L	08/12/09
Phenanthrene	ND	0.0500	0.0150	ug/L	08/12/09
Anthracene	ND	0.0500	0.0150	ug/L	08/12/09
Fluoranthene	ND	0.0500	0.0150	ug/L	08/12/09
Pyrene	ND	0.0500	0.0150	ug/L	08/12/09
Benzo(a)Anthracene	ND	0.0500	0.0150	ug/L	08/12/09
Chrysene	ND	0.0500	0.0150	ug/L	08/12/09
Benzo[b]Fluoranthene	ND	0.0500	0.0150	ug/L	08/12/09
Benzo[k]fluoranthene	ND	0.0500	0.0150	ug/L	08/12/09
Benzo[a]pyrene	ND	0.0500	0.0150	ug/L	08/12/09
Indeno[1,2,3-c,d] pyrene	ND	0.0500	0.0150	ug/L	08/12/09
Dibenzo[a,h]anthracene	ND	0.0500	0.0150	ug/L	08/12/09
Benzo[g,h,i]perylene	ND	0.0500	0.0150	ug/L	08/12/09
Naphthalene	ND	0.100	0.0310	ug/L	08/12/09
1-Methylnaphthalene	ND	0.0500	0.0150	ug/L	08/12/09
2-Methylnaphthalene	ND	0.0500	0.0150	ug/L	08/12/09
Surrogates					
Terphenyl-d14 <surr>	105	50-135		%	08/12/09

Batch	XMS5029
Method	8270D SIMS
Instrument	HP 6890/5973 MS SVQA

SGS Ref.#	915442 Method Blank	**Printed Date/Time**	08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	MXX22033
Project Name/#	3354-003 Red Hill BFSF	**Method**	SW3010A
Matrix	Water (Surface, Eff., Ground)	**Date**	08/12/2009

QC results affect the following production samples:

1094021001, 1094021004, 1094021005

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Metals by ICP/MS					
Lead	ND	1.00	0.310	ug/L	08/18/09
Batch	MMS6032				
Method	SW6020				
Instrument	Perkin Elmer Sciex ICP-MS P3				

SGS Ref.#	915595 Method Blank	**Printed Date/Time**		08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep**	**Batch**	VXX19797
Project Name/#	3354-003 Red Hill BFSF		**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)		**Date**	08/12/2009

QC results affect the following production samples:

1094021004, 1094021005, 1094021006

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

SGS Ref.#	915595 Method Blank	**Printed Date/Time**	08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	VXX19797
Project Name/#	3354-003 Red Hill BFSF	**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)	**Date**	08/12/2009

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
Benzene	ND	0.400	0.120	ug/L	08/12/09
Toluene	ND	1.00	0.310	ug/L	08/12/09
Ethylbenzene	ND	1.00	0.310	ug/L	08/12/09
n-Butylbenzene	ND	1.00	0.310	ug/L	08/12/09
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	08/12/09
1,2-Dichloroethane	ND	0.500	0.150	ug/L	08/12/09
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	08/12/09
4-Chlorotoluene	ND	1.00	0.310	ug/L	08/12/09
Chlorobenzene	ND	0.500	0.150	ug/L	08/12/09
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	08/12/09
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	08/12/09
4-Isopropyltoluene	ND	1.00	0.310	ug/L	08/12/09
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	08/12/09
n-Propylbenzene	ND	1.00	0.310	ug/L	08/12/09
Styrene	ND	1.00	0.310	ug/L	08/12/09
Dibromomethane	ND	1.00	0.310	ug/L	08/12/09
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	08/12/09
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	08/12/09
Acetone	ND	10.0	3.10	ug/L	08/12/09
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	08/12/09
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	08/12/09
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	08/12/09
Tetrachloroethene	ND	1.00	0.310	ug/L	08/12/09
Dibromochloromethane	ND	0.500	0.150	ug/L	08/12/09
1,3-Dichloropropane	ND	0.400	0.120	ug/L	08/12/09
1,2-Dibromoethane	ND	1.00	0.310	ug/L	08/12/09
Carbon tetrachloride	ND	1.00	0.310	ug/L	08/12/09
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	08/12/09
Chloroform	ND	1.00	0.300	ug/L	08/12/09
Bromobenzene	ND	1.00	0.310	ug/L	08/12/09
Chloromethane	ND	1.00	0.310	ug/L	08/12/09
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	08/12/09
Bromomethane	ND	3.00	0.940	ug/L	08/12/09
Bromochloromethane	ND	1.00	0.310	ug/L	08/12/09
Vinyl chloride	ND	1.00	0.310	ug/L	08/12/09
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	08/12/09
Chloroethane	ND	1.00	0.310	ug/L	08/12/09
sec-Butylbenzene	ND	1.00	0.310	ug/L	08/12/09
Bromodichloromethane	ND	0.500	0.150	ug/L	08/12/09

SGS Ref.#	915595 Method Blank	**Printed Date/Time**	08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	VXX19797
Project Name/#	3354-003 Red Hill BFSF	**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)	**Date**	08/12/2009

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
1,1-Dichloroethene	ND	1.00	0.310	ug/L	08/12/09
2-Butanone (MEK)	ND	10.0	3.10	ug/L	08/12/09
Methylene chloride	ND	5.00	1.00	ug/L	08/12/09
Trichlorofluoromethane	ND	1.00	0.310	ug/L	08/12/09
P & M -Xylene	ND	2.00	0.620	ug/L	08/12/09
Naphthalene	ND	2.00	0.620	ug/L	08/12/09
o-Xylene	ND	1.00	0.310	ug/L	08/12/09
Bromoform	ND	1.00	0.310	ug/L	08/12/09
1-Chlorohexane	ND	1.00	0.310	ug/L	08/12/09
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	08/12/09
tert-Butylbenzene	ND	1.00	0.310	ug/L	08/12/09
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	08/12/09
1,1-Dichloroethane	ND	1.00	0.310	ug/L	08/12/09
2-Chlorotoluene	ND	1.00	0.310	ug/L	08/12/09
Trichloroethene	ND	1.00	0.310	ug/L	08/12/09
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	08/12/09
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	08/12/09
2,2-Dichloropropane	ND	1.00	0.310	ug/L	08/12/09
Hexachlorobutadiene	ND	1.00	0.310	ug/L	08/12/09
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	08/12/09
1,2-Dichloropropane	ND	1.00	0.310	ug/L	08/12/09
1,1-Dichloropropene	ND	1.00	0.310	ug/L	08/12/09
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	08/12/09
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	08/12/09
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	08/12/09
Surrogates					
1,2-Dichloroethane-D4 <surr>	108	73-120		%	08/12/09
Toluene-d8 <surr>	101	80-120		%	08/12/09
4-Bromofluorobenzene <surr>	103	76-120		%	08/12/09

Batch VMS10724
Method SW8260B
Instrument HP 5890 Series II MS3 VNA

SGS Ref.#	915946 Method Blank	**Printed Date/Time**	08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	VXX19810
Project Name/#	3354-003 Red Hill BFSF	**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)	**Date**	08/13/2009

QC results affect the following production samples:

1094021001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

SGS Ref.#	915946 Method Blank	**Printed Date/Time**	08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	VXX19810
Project Name/#	3354-003 Red Hill BFSF	**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)	**Date**	08/13/2009

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
Benzene	ND	0.400	0.120	ug/L	08/13/09
Toluene	ND	1.00	0.310	ug/L	08/13/09
Ethylbenzene	ND	1.00	0.310	ug/L	08/13/09
n-Butylbenzene	ND	1.00	0.310	ug/L	08/13/09
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	08/13/09
1,2-Dichloroethane	ND	0.500	0.150	ug/L	08/13/09
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	08/13/09
4-Chlorotoluene	ND	1.00	0.310	ug/L	08/13/09
Chlorobenzene	ND	0.500	0.150	ug/L	08/13/09
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	08/13/09
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	08/13/09
4-Isopropyltoluene	ND	1.00	0.310	ug/L	08/13/09
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	08/13/09
n-Propylbenzene	ND	1.00	0.310	ug/L	08/13/09
Styrene	ND	1.00	0.310	ug/L	08/13/09
Dibromomethane	ND	1.00	0.310	ug/L	08/13/09
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	08/13/09
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	08/13/09
Acetone	ND	10.0	3.10	ug/L	08/13/09
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	08/13/09
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	08/13/09
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	08/13/09
Tetrachloroethene	ND	1.00	0.310	ug/L	08/13/09
Dibromochloromethane	ND	0.500	0.150	ug/L	08/13/09
1,3-Dichloropropane	ND	0.400	0.120	ug/L	08/13/09
1,2-Dibromoethane	ND	1.00	0.310	ug/L	08/13/09
Carbon tetrachloride	ND	1.00	0.310	ug/L	08/13/09
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	08/13/09
Chloroform	ND	1.00	0.300	ug/L	08/13/09
Bromobenzene	ND	1.00	0.310	ug/L	08/13/09
Chloromethane	ND	1.00	0.310	ug/L	08/13/09
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	08/13/09
Bromomethane	ND	3.00	0.940	ug/L	08/13/09
Bromochloromethane	ND	1.00	0.310	ug/L	08/13/09
Vinyl chloride	ND	1.00	0.310	ug/L	08/13/09
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	08/13/09
Chloroethane	ND	1.00	0.310	ug/L	08/13/09
sec-Butylbenzene	ND	1.00	0.310	ug/L	08/13/09
Bromodichloromethane	ND	0.500	0.150	ug/L	08/13/09

SGS Ref.#	915946 Method Blank	**Printed Date/Time**	08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	VXX19810
Project Name/#	3354-003 Red Hill BFSF	**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)	**Date**	08/13/2009

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
1,1-Dichloroethene	ND	1.00	0.310	ug/L	08/13/09
2-Butanone (MEK)	ND	10.0	3.10	ug/L	08/13/09
Methylene chloride	ND	5.00	1.00	ug/L	08/13/09
Trichlorofluoromethane	ND	1.00	0.310	ug/L	08/13/09
P & M -Xylene	ND	2.00	0.620	ug/L	08/13/09
Naphthalene	ND	2.00	0.620	ug/L	08/13/09
o-Xylene	ND	1.00	0.310	ug/L	08/13/09
Bromoform	ND	1.00	0.310	ug/L	08/13/09
1-Chlorohexane	ND	1.00	0.310	ug/L	08/13/09
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	08/13/09
tert-Butylbenzene	ND	1.00	0.310	ug/L	08/13/09
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	08/13/09
1,1-Dichloroethane	ND	1.00	0.310	ug/L	08/13/09
2-Chlorotoluene	ND	1.00	0.310	ug/L	08/13/09
Trichloroethene	ND	1.00	0.310	ug/L	08/13/09
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	08/13/09
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	08/13/09
2,2-Dichloropropane	ND	1.00	0.310	ug/L	08/13/09
Hexachlorobutadiene	ND	1.00	0.310	ug/L	08/13/09
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	08/13/09
1,2-Dichloropropane	ND	1.00	0.310	ug/L	08/13/09
1,1-Dichloropropene	ND	1.00	0.310	ug/L	08/13/09
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	08/13/09
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	08/13/09
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	08/13/09
Surrogates					
1,2-Dichloroethane-D4 <surr>	117	73-120		%	08/13/09
Toluene-d8 <surr>	99.3	80-120		%	08/13/09
4-Bromofluorobenzene <surr>	103	76-120		%	08/13/09

Batch VMS10730
Method SW8260B
Instrument HP 5890 Series II MS3 VNA

SGS Ref.#	916338 Method Blank	**Printed Date/Time**	08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	VXX19816
Project Name/#	3354-003 Red Hill BFSF	**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)	**Date**	08/14/2009

QC results affect the following production samples:

1094021006

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
Acetone	ND	10.0	3.10	ug/L	08/14/09
2-Butanone (MEK)	ND	10.0	3.10	ug/L	08/14/09
Surrogates					
1,2-Dichloroethane-D4 <surr>	108	73-120		%	08/14/09
Toluene-d8 <surr>	99.1	80-120		%	08/14/09
4-Bromofluorobenzene <surr>	103	76-120		%	08/14/09

Batch VMS10736
Method SW8260B
Instrument HP 5890 Series II MS3 VNA

SGS Ref.#	917244 Method Blank	**Printed Date/Time**	08/20/2009 13:51
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	VXX19837
Project Name/#	3354-003 Red Hill BFSF	**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)	**Date**	08/14/2009

QC results affect the following production samples:

1094021001, 1094021004, 1094021005, 1094021006

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Fuels Department					
Gasoline Range Organics	ND	100	30.0	ug/L	08/14/09
Surrogates					
4-Bromofluorobenzene <surr>	93.7	50-150		%	08/14/09

Batch VFC9606
Method SW8015C
Instrument HP 5890 Series II PID+HECD VBA

SGS Ref.#	914008	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	914009	Lab Control Sample Duplicate	**Prep Batch**	XXX21370	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3520C	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/07/2009	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1094021001, 1094021004, 1094021005

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Semivolatile Organic Fuels Department								
Diesel Range Organics	LCS	4.40	88	(75-125)			5 mg/L	08/08/2009
	LCSD	4.25	85		4	(< 20)	5 mg/L	08/08/2009
Surrogates								
5a Androstane <surr>	LCS		93	(60-120)				08/08/2009
	LCSD		90		3			08/08/2009

Batch XFC8762
Method SW8015C
Instrument HP 6890 Series II FID SV D R

SGS Ref.#	914031	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
			Prep Batch	XXX21374	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3520C	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/07/2009	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1094021001, 1094021004, 1094021005

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date

Polynuclear Aromatics GC/MS

SGS Ref.#	914031 Lab Control Sample	**Printed Date/Time**		08/20/2009	13:51
		Prep	**Batch**	XXX21374	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3520C	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/07/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polynuclear Aromatics GC/MS								
Acenaphthylene	LCS	0.429	86	(50-105)			0.5 ug/L	08/12/2009
Acenaphthene	LCS	0.415	83	(45-110)			0.5 ug/L	08/12/2009
Fluorene	LCS	0.452	90	(50-110)			0.5 ug/L	08/12/2009
Phenanthrene	LCS	0.453	91	(50-115)			0.5 ug/L	08/12/2009
Anthracene	LCS	0.480	96	(55-110)			0.5 ug/L	08/12/2009
Fluoranthene	LCS	0.510	102	(55-125)			0.5 ug/L	08/12/2009
Pyrene	LCS	0.486	97	(50-130)			0.5 ug/L	08/12/2009
Benzo(a)Anthracene	LCS	0.536	107	(55-120)			0.5 ug/L	08/12/2009
Chrysene	LCS	0.489	98	(55-120)			0.5 ug/L	08/12/2009
Benzo[b]Fluoranthene	LCS	0.524	105	(46-130)			0.5 ug/L	08/12/2009
Benzo[k]fluoranthene	LCS	0.518	104	(60-125)			0.5 ug/L	08/12/2009
Benzo[a]pyrene	LCS	0.515	103	(55-120)			0.5 ug/L	08/12/2009
Indeno[1,2,3-c,d] pyrene	LCS	0.479	96	(45-125)			0.5 ug/L	08/12/2009
Dibenzo[a,h]anthracene	LCS	0.483	97	(41-140)			0.5 ug/L	08/12/2009
Benzo[g,h,i]perylene	LCS	0.503	101	(46-125)			0.5 ug/L	08/12/2009
Naphthalene	LCS	0.391	78	(42-100)			0.5 ug/L	08/12/2009
1-Methylnaphthalene	LCS	0.387	78	(46-115)			0.5 ug/L	08/12/2009
2-Methylnaphthalene	LCS	0.389	78	(45-105)			0.5 ug/L	08/12/2009
Surrogates								
Terphenyl-d14 <surr>	LCS		98	(50-135)				08/12/2009

SGS Ref.#	914031 Lab Control Sample		**Printed Date/Time**	08/20/2009	13:51
			Prep Batch	XXX21374	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3520C	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/07/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date

Polynuclear Aromatics GC/MS

Batch	XMS5029
Method	8270D SIMS
Instrument	HP 6890/5973 MS SVQA

SGS Ref.#	915443	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
			Prep Batch	MXX22033	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3010A	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/12/2009	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1094021001, 1094021004, 1094021005

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Metals by ICP/MS								
Lead	LCS	1030	103	(80-120)			1000 ug/L	08/18/2009

Batch MMS6032
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3

SGS Ref.#	915596	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915597	Lab Control Sample Duplicate	**Prep Batch**	VXX19797	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/12/2009	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1094021004, 1094021005, 1094021006

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

SGS Ref.#	915596	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915597	Lab Control Sample Duplicate	**Prep Batch**	VXX19797	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/12/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Benzene	LCS	28.8	96	(80-120)			30 ug/L	08/12/2009
	LCSD	27.9	93		3	(< 20)	30 ug/L	08/12/2009
Toluene	LCS	29.7	99	(77-120)			30 ug/L	08/12/2009
	LCSD	28.8	96		3	(< 20)	30 ug/L	08/12/2009
Ethylbenzene	LCS	32.0	107	(80-120)			30 ug/L	08/12/2009
	LCSD	30.6	102		5	(< 20)	30 ug/L	08/12/2009
n-Butylbenzene	LCS	33.7	112	(80-124)			30 ug/L	08/12/2009
	LCSD	33.2	111		1	(< 20)	30 ug/L	08/12/2009
1,4-Dichlorobenzene	LCS	29.8	99	(80-120)			30 ug/L	08/12/2009
	LCSD	29.5	98		1	(< 20)	30 ug/L	08/12/2009
1,2-Dichloroethane	LCS	31.7	106	(80-129)			30 ug/L	08/12/2009
	LCSD	30.6	102		4	(< 20)	30 ug/L	08/12/2009
1,3,5-Trimethylbenzene	LCS	31.4	105	(80-128)			30 ug/L	08/12/2009
	LCSD	30.7	102		2	(< 20)	30 ug/L	08/12/2009
4-Chlorotoluene	LCS	30.4	101	(79-128)			30 ug/L	08/12/2009
	LCSD	30.0	100		2	(< 20)	30 ug/L	08/12/2009
Chlorobenzene	LCS	30.2	101	(80-120)			30 ug/L	08/12/2009
	LCSD	29.7	99		1	(< 20)	30 ug/L	08/12/2009
4-Methyl-2-pentanone (MIBK)	LCS	81.9	91	(69-134)			90 ug/L	08/12/2009
	LCSD	84.5	94		3	(< 20)	90 ug/L	08/12/2009
cis-1,2-Dichloroethene	LCS	29.7	99	(80-125)			30 ug/L	08/12/2009
	LCSD	29.1	97		2	(< 20)	30 ug/L	08/12/2009
4-Isopropyltoluene	LCS	32.7	109	(80-125)			30 ug/L	08/12/2009
	LCSD	31.9	106		3	(< 20)	30 ug/L	08/12/2009
cis-1,3-Dichloropropene	LCS	28.7	96	(80-120)			30 ug/L	08/12/2009
	LCSD	28.2	94		2	(< 20)	30 ug/L	08/12/2009
n-Propylbenzene	LCS	31.3	104	(80-129)			30 ug/L	08/12/2009
	LCSD	30.9	103		1	(< 20)	30 ug/L	08/12/2009

SGS Ref.#	915596	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915597	Lab Control Sample Duplicate	**Prep Batch**	VXX19797	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/12/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov		LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Styrene	LCS	32.4	108		(80-120)			30 ug/L	08/12/2009
	LCSD	31.6	105			3	(< 20)	30 ug/L	08/12/2009
Dibromomethane	LCS	30.2	101		(80-120)			30 ug/L	08/12/2009
	LCSD	29.1	97			4	(< 20)	30 ug/L	08/12/2009
trans-1,3-Dichloropropene	LCS	29.2	97		(80-124)			30 ug/L	08/12/2009
	LCSD	28.6	95			2	(< 20)	30 ug/L	08/12/2009
1,2,4-Trichlorobenzene	LCS	27.9	93		(80-120)			30 ug/L	08/12/2009
	LCSD	28.4	95			2	(< 20)	30 ug/L	08/12/2009
Acetone	LCS	146	162	*	(50-135)			90 ug/L	08/12/2009
	LCSD	126	140	*		14	(< 20)	90 ug/L	08/12/2009
1,1,2,2-Tetrachloroethane	LCS	28.8	96		(76-123)			30 ug/L	08/12/2009
	LCSD	28.7	96			0	(< 20)	30 ug/L	08/12/2009
1,2-Dibromo-3-chloropropane	LCS	26.4	88		(73-130)			30 ug/L	08/12/2009
	LCSD	28.1	94			6	(< 20)	30 ug/L	08/12/2009
Methyl-t-butyl ether	LCS	43.2	96		(80-120)			45 ug/L	08/12/2009
	LCSD	43.5	97			1	(< 20)	45 ug/L	08/12/2009
Tetrachloroethene	LCS	31.4	105		(79-122)			30 ug/L	08/12/2009
	LCSD	30.7	102			2	(< 20)	30 ug/L	08/12/2009
Dibromochloromethane	LCS	28.5	95		(80-120)			30 ug/L	08/12/2009
	LCSD	28.8	96			1	(< 20)	30 ug/L	08/12/2009
1,3-Dichloropropane	LCS	30.1	100		(80-121)			30 ug/L	08/12/2009
	LCSD	29.6	99			2	(< 20)	30 ug/L	08/12/2009
1,2-Dibromoethane	LCS	30.7	102		(80-120)			30 ug/L	08/12/2009
	LCSD	30.6	102			0	(< 20)	30 ug/L	08/12/2009
Carbon tetrachloride	LCS	31.2	104		(80-126)			30 ug/L	08/12/2009
	LCSD	29.6	99			5	(< 20)	30 ug/L	08/12/2009
1,1,1,2-Tetrachloroethane	LCS	34.4	115		(80-120)			30 ug/L	08/12/2009

SGS Ref.#	915596	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915597	Lab Control Sample Duplicate	**Prep Batch**	VXX19797	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/12/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
	LCSD	33.1	110		4	(< 20)	30 ug/L	08/12/2009
Chloroform	LCS	31.4	105	(80-124)			30 ug/L	08/12/2009
	LCSD	30.5	102		3	(< 20)	30 ug/L	08/12/2009
Bromobenzene	LCS	28.8	96	(80-120)			30 ug/L	08/12/2009
	LCSD	28.7	96		0	(< 20)	30 ug/L	08/12/2009
Chloromethane	LCS	35.1	117	(67-125)			30 ug/L	08/12/2009
	LCSD	33.4	111		5	(< 20)	30 ug/L	08/12/2009
1,2,3-Trichloropropane	LCS	28.9	96	(80-120)			30 ug/L	08/12/2009
	LCSD	28.8	96		0	(< 20)	30 ug/L	08/12/2009
Bromomethane	LCS	39.2	131	(30-140)			30 ug/L	08/12/2009
	LCSD	37.9	126		3	(< 20)	30 ug/L	08/12/2009
Bromochloromethane	LCS	31.1	104	(77-129)			30 ug/L	08/12/2009
	LCSD	30.0	100		4	(< 20)	30 ug/L	08/12/2009
Vinyl chloride	LCS	38.9	130	(72-145)			30 ug/L	08/12/2009
	LCSD	37.5	125		4	(< 20)	30 ug/L	08/12/2009
Dichlorodifluoromethane	LCS	40.3	134	(62-153)			30 ug/L	08/12/2009
	LCSD	38.9	130		4	(< 20)	30 ug/L	08/12/2009
Chloroethane	LCS	38.1	127	(67-133)			30 ug/L	08/12/2009
	LCSD	34.2	114		11	(< 20)	30 ug/L	08/12/2009
sec-Butylbenzene	LCS	32.4	108	(80-120)			30 ug/L	08/12/2009
	LCSD	31.5	105		3	(< 20)	30 ug/L	08/12/2009
Bromodichloromethane	LCS	35.0	117	(80-120)			30 ug/L	08/12/2009
	LCSD	33.8	113		4	(< 20)	30 ug/L	08/12/2009
1,1-Dichloroethene	LCS	32.9	110	(76-130)			30 ug/L	08/12/2009
	LCSD	31.8	106		4	(< 20)	30 ug/L	08/12/2009
2-Butanone (MEK)	LCS	104	116	(66-136)			90 ug/L	08/12/2009
	LCSD	96.4	107		8	(< 20)	90 ug/L	08/12/2009

SGS Ref.#	915596	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915597	Lab Control Sample Duplicate	**Prep Batch**	VXX19797	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/12/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Methylene chloride	LCS	32.9	110	(63-131)			30 ug/L	08/12/2009
	LCSD	32.4	108		2	(< 20)	30 ug/L	08/12/2009
Trichlorofluoromethane	LCS	40.5	135	(68-145)			30 ug/L	08/12/2009
	LCSD	38.3	128		6	(< 20)	30 ug/L	08/12/2009
P & M -Xylene	LCS	64.4	107	(80-120)			60 ug/L	08/12/2009
	LCSD	62.5	104		3	(< 20)	60 ug/L	08/12/2009
Naphthalene	LCS	26.4	88	(75-120)			30 ug/L	08/12/2009
	LCSD	27.3	91		4	(< 20)	30 ug/L	08/12/2009
o-Xylene	LCS	30.9	103	(80-120)			30 ug/L	08/12/2009
	LCSD	30.3	101		2	(< 20)	30 ug/L	08/12/2009
Bromoform	LCS	30.6	102	(80-120)			30 ug/L	08/12/2009
	LCSD	30.9	103		1	(< 20)	30 ug/L	08/12/2009
1-Chlorohexane	LCS	50.9	113	(70-125)			45 ug/L	08/12/2009
	LCSD	47.8	106		6	(< 20)	45 ug/L	08/12/2009
1,2,4-Trimethylbenzene	LCS	31.2	104	(80-125)			30 ug/L	08/12/2009
	LCSD	30.5	102		2	(< 20)	30 ug/L	08/12/2009
tert-Butylbenzene	LCS	31.3	104	(80-122)			30 ug/L	08/12/2009
	LCSD	30.6	102		2	(< 20)	30 ug/L	08/12/2009
1,1,1-Trichloroethane	LCS	33.3	111	(80-122)			30 ug/L	08/12/2009
	LCSD	31.9	106		4	(< 20)	30 ug/L	08/12/2009
1,1-Dichloroethane	LCS	33.1	110	(80-120)			30 ug/L	08/12/2009
	LCSD	31.9	106		4	(< 20)	30 ug/L	08/12/2009
2-Chlorotoluene	LCS	30.2	101	(80-125)			30 ug/L	08/12/2009
	LCSD	29.8	100		1	(< 20)	30 ug/L	08/12/2009
Trichloroethene	LCS	31.3	104	(80-125)			30 ug/L	08/12/2009
	LCSD	29.8	100		5	(< 20)	30 ug/L	08/12/2009
trans-1,2-Dichloroethene	LCS	31.6	105	(79-132)			30 ug/L	08/12/2009
	LCSD	30.4	101		4	(< 20)	30 ug/L	08/12/2009

SGS Ref.#	915596	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915597	Lab Control Sample Duplicate	**Prep Batch**	VXX19797	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/12/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
1,2-Dichlorobenzene	LCS	29.6	99	(80-120)			30 ug/L	08/12/2009
	LCSD	29.0	97		2	(< 20)	30 ug/L	08/12/2009
2,2-Dichloropropane	LCS	36.0	120	(80-132)			30 ug/L	08/12/2009
	LCSD	33.7	112		7	(< 20)	30 ug/L	08/12/2009
Hexachlorobutadiene	LCS	32.3	108	(77-125)			30 ug/L	08/12/2009
	LCSD	31.9	106		1	(< 20)	30 ug/L	08/12/2009
Isopropylbenzene (Cumene)	LCS	33.0	110	(80-121)			30 ug/L	08/12/2009
	LCSD	31.7	106		4	(< 20)	30 ug/L	08/12/2009
1,2-Dichloropropane	LCS	30.4	101	(80-121)			30 ug/L	08/12/2009
	LCSD	29.7	99		2	(< 20)	30 ug/L	08/12/2009
1,1-Dichloropropene	LCS	32.1	107	(80-122)			30 ug/L	08/12/2009
	LCSD	30.5	102		5	(< 20)	30 ug/L	08/12/2009
1,1,2-Trichloroethane	LCS	29.2	98	(77-120)			30 ug/L	08/12/2009
	LCSD	28.8	96		2	(< 20)	30 ug/L	08/12/2009
1,3-Dichlorobenzene	LCS	29.5	99	(80-120)			30 ug/L	08/12/2009
	LCSD	29.4	98		1	(< 20)	30 ug/L	08/12/2009
1,2,3-Trichlorobenzene	LCS	27.1	90	(77-120)			30 ug/L	08/12/2009
	LCSD	27.5	92		1	(< 20)	30 ug/L	08/12/2009
Surrogates								
1,2-Dichloroethane-D4 <surr>	LCS		106	(73-120)				08/12/2009
	LCSD		104		2			08/12/2009
Toluene-d8 <surr>	LCS		99	(80-120)				08/12/2009
	LCSD		99		1			08/12/2009
4-Bromofluorobenzene <surr>	LCS		96	(76-120)				08/12/2009
	LCSD		98		2			08/12/2009

SGS Ref.#	915596	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915597	Lab Control Sample Duplicate	**Prep Batch**	VXX19797	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/12/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

Batch	VMS10724
Method	SW8260B
Instrument	HP 5890 Series II MS3 VNA

SGS Ref.#	915947	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915948	Lab Control Sample Duplicate	**Prep Batch**	VXX19810	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/13/2009	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1094021001

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

SGS Ref.#	915947	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915948	Lab Control Sample Duplicate	**Prep Batch**	VXX19810	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/13/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Benzene	LCS	29.5	99	(80-120)			30 ug/L	08/13/2009
	LCSD	28.4	95		4	(< 20)	30 ug/L	08/13/2009
Toluene	LCS	30.9	103	(77-120)			30 ug/L	08/13/2009
	LCSD	29.6	99		4	(< 20)	30 ug/L	08/13/2009
Ethylbenzene	LCS	32.5	108	(80-120)			30 ug/L	08/13/2009
	LCSD	31.0	103		5	(< 20)	30 ug/L	08/13/2009
n-Butylbenzene	LCS	34.0	113	(80-124)			30 ug/L	08/13/2009
	LCSD	32.3	108		5	(< 20)	30 ug/L	08/13/2009
1,4-Dichlorobenzene	LCS	31.0	103	(80-120)			30 ug/L	08/13/2009
	LCSD	29.3	98		6	(< 20)	30 ug/L	08/13/2009
1,2-Dichloroethane	LCS	32.0	107	(80-129)			30 ug/L	08/13/2009
	LCSD	31.8	106		1	(< 20)	30 ug/L	08/13/2009
1,3,5-Trimethylbenzene	LCS	32.6	109	(80-128)			30 ug/L	08/13/2009
	LCSD	31.4	105		4	(< 20)	30 ug/L	08/13/2009
4-Chlorotoluene	LCS	31.3	104	(79-128)			30 ug/L	08/13/2009
	LCSD	30.2	101		4	(< 20)	30 ug/L	08/13/2009
Chlorobenzene	LCS	31.3	104	(80-120)			30 ug/L	08/13/2009
	LCSD	30.2	101		3	(< 20)	30 ug/L	08/13/2009
4-Methyl-2-pentanone (MIBK)	LCS	84.8	94	(69-134)			90 ug/L	08/13/2009
	LCSD	78.1	87		8	(< 20)	90 ug/L	08/13/2009
cis-1,2-Dichloroethene	LCS	30.7	102	(80-125)			30 ug/L	08/13/2009
	LCSD	30.5	102		1	(< 20)	30 ug/L	08/13/2009
4-Isopropyltoluene	LCS	33.7	112	(80-125)			30 ug/L	08/13/2009
	LCSD	32.4	108		4	(< 20)	30 ug/L	08/13/2009
cis-1,3-Dichloropropene	LCS	32.5	108	(80-120)			30 ug/L	08/13/2009
	LCSD	32.7	109		1	(< 20)	30 ug/L	08/13/2009
n-Propylbenzene	LCS	32.3	108	(80-129)			30 ug/L	08/13/2009
	LCSD	31.1	104		4	(< 20)	30 ug/L	08/13/2009

SGS Ref.#	915947	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915948	Lab Control Sample Duplicate	**Prep Batch**	VXX19810	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/13/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Styrene	LCS	33.3	111	(80-120)			30 ug/L	08/13/2009
	LCSD	32.3	108		3	(< 20)	30 ug/L	08/13/2009
Dibromomethane	LCS	30.3	101	(80-120)			30 ug/L	08/13/2009
	LCSD	30.6	102		1	(< 20)	30 ug/L	08/13/2009
trans-1,3-Dichloropropene	LCS	33.3	111	(80-124)			30 ug/L	08/13/2009
	LCSD	32.9	110		1	(< 20)	30 ug/L	08/13/2009
1,2,4-Trichlorobenzene	LCS	30.1	100	(80-120)			30 ug/L	08/13/2009
	LCSD	28.3	94		6	(< 20)	30 ug/L	08/13/2009
Acetone	LCS	90.6	101	(50-135)			90 ug/L	08/13/2009
	LCSD	87.0	97		4	(< 20)	90 ug/L	08/13/2009
1,1,2,2-Tetrachloroethane	LCS	30.4	101	(76-123)			30 ug/L	08/13/2009
	LCSD	28.4	95		7	(< 20)	30 ug/L	08/13/2009
1,2-Dibromo-3-chloropropane	LCS	29.1	97	(73-130)			30 ug/L	08/13/2009
	LCSD	27.9	93		4	(< 20)	30 ug/L	08/13/2009
Methyl-t-butyl ether	LCS	44.5	99	(80-120)			45 ug/L	08/13/2009
	LCSD	43.3	96		3	(< 20)	45 ug/L	08/13/2009
Tetrachloroethene	LCS	31.3	104	(79-122)			30 ug/L	08/13/2009
	LCSD	30.2	101		4	(< 20)	30 ug/L	08/13/2009
Dibromochloromethane	LCS	31.6	105	(80-120)			30 ug/L	08/13/2009
	LCSD	30.8	103		3	(< 20)	30 ug/L	08/13/2009
1,3-Dichloropropane	LCS	31.2	104	(80-121)			30 ug/L	08/13/2009
	LCSD	30.6	102		2	(< 20)	30 ug/L	08/13/2009
1,2-Dibromoethane	LCS	31.1	104	(80-120)			30 ug/L	08/13/2009
	LCSD	30.6	102		2	(< 20)	30 ug/L	08/13/2009
Carbon tetrachloride	LCS	34.4	115	(80-126)			30 ug/L	08/13/2009
	LCSD	34.4	115		0	(< 20)	30 ug/L	08/13/2009
1,1,1,2-Tetrachloroethane	LCS	30.0	100	(80-120)			30 ug/L	08/13/2009

SGS Ref.#	915947	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915948	Lab Control Sample Duplicate	**Prep Batch**	VXX19810	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/13/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
	LCSD	29.6	99		1	(< 20)	30 ug/L	08/13/2009
Chloroform	LCS	33.2	111	(80-124)			30 ug/L	08/13/2009
	LCSD	32.8	109		1	(< 20)	30 ug/L	08/13/2009
Bromobenzene	LCS	29.5	98	(80-120)			30 ug/L	08/13/2009
	LCSD	28.3	94		4	(< 20)	30 ug/L	08/13/2009
Chloromethane	LCS	31.2	104	(67-125)			30 ug/L	08/13/2009
	LCSD	27.8	93		11	(< 20)	30 ug/L	08/13/2009
1,2,3-Trichloropropane	LCS	29.7	99	(80-120)			30 ug/L	08/13/2009
	LCSD	28.0	93		6	(< 20)	30 ug/L	08/13/2009
Bromomethane	LCS	38.8	129	(30-140)			30 ug/L	08/13/2009
	LCSD	40.7	136		5	(< 20)	30 ug/L	08/13/2009
Bromochloromethane	LCS	31.0	103	(77-129)			30 ug/L	08/13/2009
	LCSD	30.2	101		3	(< 20)	30 ug/L	08/13/2009
Vinyl chloride	LCS	32.9	110	(72-145)			30 ug/L	08/13/2009
	LCSD	30.2	101		8	(< 20)	30 ug/L	08/13/2009
Dichlorodifluoromethane	LCS	32.1	107	(62-153)			30 ug/L	08/13/2009
	LCSD	30.2	101		6	(< 20)	30 ug/L	08/13/2009
Chloroethane	LCS	34.5	115	(67-133)			30 ug/L	08/13/2009
	LCSD	31.6	105		9	(< 20)	30 ug/L	08/13/2009
sec-Butylbenzene	LCS	33.3	111	(80-120)			30 ug/L	08/13/2009
	LCSD	32.0	107		4	(< 20)	30 ug/L	08/13/2009
Bromodichloromethane	LCS	32.1	107	(80-120)			30 ug/L	08/13/2009
	LCSD	32.6	109		2	(< 20)	30 ug/L	08/13/2009
1,1-Dichloroethene	LCS	33.1	110	(76-130)			30 ug/L	08/13/2009
	LCSD	32.4	108		2	(< 20)	30 ug/L	08/13/2009
2-Butanone (MEK)	LCS	87.2	97	(66-136)			90 ug/L	08/13/2009
	LCSD	89.6	100		3	(< 20)	90 ug/L	08/13/2009

SGS Ref.#	915947	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915948	Lab Control Sample Duplicate	**Prep Batch**	VXX19810	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/13/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Methylene chloride	LCS	31.3	104	(63-131)			30 ug/L	08/13/2009
	LCSD	29.6	99		5	(< 20)	30 ug/L	08/13/2009
Trichlorofluoromethane	LCS	35.6	119	(68-145)			30 ug/L	08/13/2009
	LCSD	32.9	110		8	(< 20)	30 ug/L	08/13/2009
P & M -Xylene	LCS	65.6	109	(80-120)			60 ug/L	08/13/2009
	LCSD	63.7	106		3	(< 20)	60 ug/L	08/13/2009
Naphthalene	LCS	28.5	95	(75-120)			30 ug/L	08/13/2009
	LCSD	26.7	89		7	(< 20)	30 ug/L	08/13/2009
o-Xylene	LCS	32.7	109	(80-120)			30 ug/L	08/13/2009
	LCSD	31.7	106		3	(< 20)	30 ug/L	08/13/2009
Bromoform	LCS	31.8	106	(80-120)			30 ug/L	08/13/2009
	LCSD	31.2	104		2	(< 20)	30 ug/L	08/13/2009
1-Chlorohexane	LCS	52.3	116	(70-125)			45 ug/L	08/13/2009
	LCSD	49.7	110		5	(< 20)	45 ug/L	08/13/2009
1,2,4-Trimethylbenzene	LCS	32.6	109	(80-125)			30 ug/L	08/13/2009
	LCSD	31.0	103		5	(< 20)	30 ug/L	08/13/2009
tert-Butylbenzene	LCS	32.7	109	(80-122)			30 ug/L	08/13/2009
	LCSD	31.6	105		3	(< 20)	30 ug/L	08/13/2009
1,1,1-Trichloroethane	LCS	33.7	112	(80-122)			30 ug/L	08/13/2009
	LCSD	33.9	113		1	(< 20)	30 ug/L	08/13/2009
1,1-Dichloroethane	LCS	34.9	116	(80-120)			30 ug/L	08/13/2009
	LCSD	33.7	112		4	(< 20)	30 ug/L	08/13/2009
2-Chlorotoluene	LCS	31.5	105	(80-125)			30 ug/L	08/13/2009
	LCSD	30.0	100		5	(< 20)	30 ug/L	08/13/2009
Trichloroethene	LCS	31.1	104	(80-125)			30 ug/L	08/13/2009
	LCSD	30.4	101		2	(< 20)	30 ug/L	08/13/2009
trans-1,2-Dichloroethene	LCS	31.9	106	(79-132)			30 ug/L	08/13/2009
	LCSD	31.5	105		1	(< 20)	30 ug/L	08/13/2009

SGS Ref.#	915947	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915948	Lab Control Sample Duplicate	**Prep Batch**	VXX19810	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/13/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov		LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,2-Dichlorobenzene	LCS	30.3	101		(80-120)			30 ug/L	08/13/2009
	LCSD	29.0	97			5	(< 20)	30 ug/L	08/13/2009
2,2-Dichloropropane	LCS	33.0	110		(80-132)			30 ug/L	08/13/2009
	LCSD	33.3	111			1	(< 20)	30 ug/L	08/13/2009
Hexachlorobutadiene	LCS	31.3	104		(77-125)			30 ug/L	08/13/2009
	LCSD	30.5	102			3	(< 20)	30 ug/L	08/13/2009
Isopropylbenzene (Cumene)	LCS	34.5	115		(80-121)			30 ug/L	08/13/2009
	LCSD	33.2	111			4	(< 20)	30 ug/L	08/13/2009
1,2-Dichloropropane	LCS	31.0	103		(80-121)			30 ug/L	08/13/2009
	LCSD	30.0	100			3	(< 20)	30 ug/L	08/13/2009
1,1-Dichloropropene	LCS	37.7	126	*	(80-122)			30 ug/L	08/13/2009
	LCSD	37.0	123	*		2	(< 20)	30 ug/L	08/13/2009
1,1,2-Trichloroethane	LCS	31.5	105		(77-120)			30 ug/L	08/13/2009
	LCSD	30.6	102			3	(< 20)	30 ug/L	08/13/2009
1,3-Dichlorobenzene	LCS	30.4	101		(80-120)			30 ug/L	08/13/2009
	LCSD	29.2	97			4	(< 20)	30 ug/L	08/13/2009
1,2,3-Trichlorobenzene	LCS	29.2	97		(77-120)			30 ug/L	08/13/2009
	LCSD	27.8	93			5	(< 20)	30 ug/L	08/13/2009
Surrogates									
1,2-Dichloroethane-D4 <surr>	LCS		103		(73-120)				08/13/2009
	LCSD		108			5			08/13/2009
Toluene-d8 <surr>	LCS		100		(80-120)				08/13/2009
	LCSD		101			1			08/13/2009
4-Bromofluorobenzene <surr>	LCS		98		(76-120)				08/13/2009
	LCSD		98			1			08/13/2009

SGS Ref.#	915947	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	915948	Lab Control Sample Duplicate	**Prep Batch**	VXX19810	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/13/2009	
Matrix	Water (Surface, Eff., Ground)				

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

Batch	VMS10730
Method	SW8260B
Instrument	HP 5890 Series II MS3 VNA

SGS Ref.#	916339	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	916340	Lab Control Sample Duplicate	**Prep Batch**	VXX19816	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/14/2009	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1094021006

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Acetone	LCS	104	116	(50-135)			90 ug/L	08/14/2009
	LCSD	97.6	108		7	(< 20)	90 ug/L	08/14/2009
2-Butanone (MEK)	LCS	84.6	94	(66-136)			90 ug/L	08/14/2009
	LCSD	81.8	91		3	(< 20)	90 ug/L	08/14/2009
Surrogates								
1,2-Dichloroethane-D4 <surr>	LCS		106	(73-120)				08/14/2009
	LCSD		103		2			08/14/2009
Toluene-d8 <surr>	LCS		99	(80-120)				08/14/2009
	LCSD		99		0			08/14/2009
4-Bromofluorobenzene <surr>	LCS		94	(76-120)				08/14/2009
	LCSD		95		1			08/14/2009

Batch VMS10736
Method SW8260B
Instrument HP 5890 Series II MS3 VNA

SGS Ref.#	917245	Lab Control Sample	**Printed Date/Time**	08/20/2009	13:51
	917246	Lab Control Sample Duplicate	**Prep Batch**	VXX19837	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-003 Red Hill BFSF		**Date**	08/14/2009	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1094021001, 1094021004, 1094021005, 1094021006

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Fuels Department								
Gasoline Range Organics	LCS	197	98	(79-108)			200 ug/L	08/14/2009
	LCSD	193	96		2	(< 20)	200 ug/L	08/14/2009
Surrogates								
4-Bromofluorobenzene <surr>	LCS		96	(50-150)				08/14/2009
	LCSD		97		2			08/14/2009

Batch VFC9606
Method SW8015C
Instrument HP 5890 Series II PID+HECD VBA

SGS Ref.#	1094021002	Billable Matrix Spike	**Printed Date/Time**	08/20/2009 13:51
	1094021003	Billable Matrix Spike Dup.	**Prep Batch**	MXX22033
			Method	3010 H20 Digest for Metals ICI
			Date	08/12/2009
Original	1094021001			
Matrix	Water (Surface, Eff., Ground)			

QC results affect the following production samples:

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount		Analysis Date
Dissolved Metals by ICP/MS										
Lead	BMS	ND	999	100	(80-120)			1000	ug/L	08/18/2009
	BMSD		989	99		1	(< 15)	1000	ug/L	08/18/2009
Batch	MMS6032									
Method	SW6020									
Instrument	Perkin Elmer Sciex ICP-MS P3									
Volatile Fuels Department										
Gasoline Range Organics	BMS	ND	432	96	(79-108)			450	ug/L	08/14/2009
	BMSD		455	101		5	(< 20)	450	ug/L	08/14/2009
Surrogates										
4-Bromofluorobenzene <surr>	BMS		50.8	102	(50-150)					08/14/2009
	BMSD		50.4	101		1				08/14/2009
Batch	VFC9606									
Method	SW8015C									
Instrument	HP 5890 Series II PID+HECD VBA									
Semivolatile Organic Fuels Department										
Diesel Range Organics	BMS	ND	4.82	81	(75-125)			5.99	mg/L	08/08/2009
	BMSD		4.89	82		1	(< 30)	5.99	mg/L	08/08/2009
Surrogates										
5a Androstane <surr>	BMS		.1	84	(50-150)					08/08/2009
	BMSD		0.103	86		3				08/08/2009
Batch	XFC8762									
Method	SW8015C									
Instrument	HP 6890 Series II FID SV D R									
Volatile Gas Chromatography/Mass Spectroscopy										

SGS Ref.#	1094021002	Billable Matrix Spike	**Printed Date/Time**	08/20/2009 13:51
	1094021003	Billable Matrix Spike Dup.	**Prep Batch**	VXX19810
			Method	Volatiles Extraction AFCEE 3.1
			Date	08/13/2009
Original	1094021001			
Matrix	Water (Surface, Eff., Ground)			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	BMS	0.470	29.2	96	(80-120)			30.0	ug/L 08/13/2009
	BMSD		28.3	93		3	(< 20)	30.0	ug/L 08/13/2009
Toluene	BMS	ND	29.8	99	(77-120)			30.0	ug/L 08/13/2009
	BMSD		28.9	96		3	(< 20)	30.0	ug/L 08/13/2009
Ethylbenzene	BMS	ND	31.3	104	(80-120)			30.0	ug/L 08/13/2009
	BMSD		30.3	101		3	(< 20)	30.0	ug/L 08/13/2009
n-Butylbenzene	BMS	ND	33.3	111	(80-124)			30.0	ug/L 08/13/2009
	BMSD		32.7	109		2	(< 20)	30.0	ug/L 08/13/2009
1,4-Dichlorobenzene	BMS	ND	29.7	99	(80-120)			30.0	ug/L 08/13/2009
	BMSD		29.5	98		1	(< 20)	30.0	ug/L 08/13/2009
1,2-Dichloroethane	BMS	ND	32.5	108	(80-129)			30.0	ug/L 08/13/2009
	BMSD		31.9	106		2	(< 20)	30.0	ug/L 08/13/2009
1,3,5-Trimethylbenzene	BMS	ND	31.6	105	(80-128)			30.0	ug/L 08/13/2009
	BMSD		30.6	102		3	(< 20)	30.0	ug/L 08/13/2009
4-Chlorotoluene	BMS	ND	30.5	102	(79-128)			30.0	ug/L 08/13/2009
	BMSD		29.8	99		3	(< 20)	30.0	ug/L 08/13/2009
Chlorobenzene	BMS	ND	30.1	100	(80-120)			30.0	ug/L 08/13/2009
	BMSD		29.6	99		2	(< 20)	30.0	ug/L 08/13/2009
4-Methyl-2-pentanone (MIBK)	BMS	ND	84.3	94	(69-134)			90.0	ug/L 08/13/2009
	BMSD		85.4	95		1	(< 20)	90.0	ug/L 08/13/2009
cis-1,2-Dichloroethene	BMS	ND	30.7	102	(80-125)			30.0	ug/L 08/13/2009
	BMSD		30.0	100		2	(< 20)	30.0	ug/L 08/13/2009
4-Isopropyltoluene	BMS	ND	32.8	109	(80-125)			30.0	ug/L 08/13/2009
	BMSD		32.1	107		2	(< 20)	30.0	ug/L 08/13/2009
cis-1,3-Dichloropropene	BMS	ND	32.7	109	(80-120)			30.0	ug/L 08/13/2009
	BMSD		32.3	108		1	(< 20)	30.0	ug/L 08/13/2009
n-Propylbenzene	BMS	ND	32	107	(80-129)			30.0	ug/L 08/13/2009
	BMSD		31.0	103		3	(< 20)	30.0	ug/L 08/13/2009
Styrene	BMS	ND	28.3	94	(80-120)			30.0	ug/L 08/13/2009
	BMSD		26.9	90		5	(< 20)	30.0	ug/L 08/13/2009
Dibromomethane	BMS	ND	31.5	105	(80-120)			30.0	ug/L 08/13/2009
	BMSD		31.6	105		0	(< 20)	30.0	ug/L 08/13/2009
trans-1,3-Dichloropropene	BMS	ND	32.6	109	(80-124)			30.0	ug/L 08/13/2009
	BMSD		32.4	108		1	(< 20)	30.0	ug/L 08/13/2009
1,2,4-Trichlorobenzene	BMS	ND	29.6	99	(80-120)			30.0	ug/L 08/13/2009
	BMSD		28.7	96		3	(< 20)	30.0	ug/L 08/13/2009
Acetone	BMS	ND	91	101	(50-135)			90.0	ug/L 08/13/2009
	BMSD		90.0	100		1	(< 20)	90.0	ug/L 08/13/2009
1,1,2,2-Tetrachloroethane	BMS	ND	29.7	99	(76-123)			30.0	ug/L 08/13/2009
	BMSD		29.6	99		0	(< 20)	30.0	ug/L 08/13/2009

SGS Ref.#	1094021002	Billable Matrix Spike	**Printed Date/Time**	08/20/2009 13:51
	1094021003	Billable Matrix Spike Dup.	**Prep Batch**	VXX19810
			Method	Volatiles Extraction AFCEE 3.1
			Date	08/13/2009
Original	1094021001			
Matrix	Water (Surface, Eff., Ground)			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,2-Dibromo-3-chloropropane	BMS	ND	29	97	(73-130)			30.0 ug/L	08/13/2009
	BMSD		28.4	95		2	(< 20)	30.0 ug/L	08/13/2009
Methyl-t-butyl ether	BMS	ND	45	100	(80-120)			45.0 ug/L	08/13/2009
	BMSD		44.4	99		1	(< 20)	45.0 ug/L	08/13/2009
Tetrachloroethene	BMS	ND	30	100	(79-122)			30.0 ug/L	08/13/2009
	BMSD		29.4	98		2	(< 20)	30.0 ug/L	08/13/2009
Dibromochloromethane	BMS	ND	31.4	105	(80-120)			30.0 ug/L	08/13/2009
	BMSD		30.7	102		2	(< 20)	30.0 ug/L	08/13/2009
1,3-Dichloropropane	BMS	ND	30.7	102	(80-121)			30.0 ug/L	08/13/2009
	BMSD		29.6	99		4	(< 20)	30.0 ug/L	08/13/2009
1,2-Dibromoethane	BMS	ND	30.7	102	(80-120)			30.0 ug/L	08/13/2009
	BMSD		30.2	101		2	(< 20)	30.0 ug/L	08/13/2009
Carbon tetrachloride	BMS	ND	35.8	119	(80-126)			30.0 ug/L	08/13/2009
	BMSD		34.4	115		4	(< 20)	30.0 ug/L	08/13/2009
1,1,1,2-Tetrachloroethane	BMS	ND	29.3	98	(80-120)			30.0 ug/L	08/13/2009
	BMSD		29.2	97		0	(< 20)	30.0 ug/L	08/13/2009
Chloroform	BMS	ND	33.2	111	(80-124)			30.0 ug/L	08/13/2009
	BMSD		32.8	109		1	(< 20)	30.0 ug/L	08/13/2009
Bromobenzene	BMS	ND	28.9	96	(80-120)			30.0 ug/L	08/13/2009
	BMSD		28.3	94		2	(< 20)	30.0 ug/L	08/13/2009
Chloromethane	BMS	ND	28.7	96	(67-125)			30.0 ug/L	08/13/2009
	BMSD		28.4	95		1	(< 20)	30.0 ug/L	08/13/2009
1,2,3-Trichloropropane	BMS	ND	29.8	99	(80-120)			30.0 ug/L	08/13/2009
	BMSD		28.8	96		4	(< 20)	30.0 ug/L	08/13/2009
Bromomethane	BMS	ND	44.2	147*	(30-140)			30.0 ug/L	08/13/2009
	BMSD		45.9	153*		4	(< 20)	30.0 ug/L	08/13/2009
Bromochloromethane	BMS	ND	30.8	103	(77-129)			30.0 ug/L	08/13/2009
	BMSD		30.1	100		3	(< 20)	30.0 ug/L	08/13/2009
Vinyl chloride	BMS	ND	30.6	102	(72-145)			30.0 ug/L	08/13/2009
	BMSD		29.9	100		2	(< 20)	30.0 ug/L	08/13/2009
Dichlorodifluoromethane	BMS	ND	31.7	106	(62-153)			30.0 ug/L	08/13/2009
	BMSD		30.2	101		5	(< 20)	30.0 ug/L	08/13/2009
Chloroethane	BMS	ND	46.1	154*	(67-133)			30.0 ug/L	08/13/2009
	BMSD		44.5	148*		4	(< 20)	30.0 ug/L	08/13/2009
sec-Butylbenzene	BMS	ND	32.4	108	(80-120)			30.0 ug/L	08/13/2009
	BMSD		31.8	106		2	(< 20)	30.0 ug/L	08/13/2009
Bromodichloromethane	BMS	ND	33.3	111	(80-120)			30.0 ug/L	08/13/2009
	BMSD		32.6	109		2	(< 20)	30.0 ug/L	08/13/2009
1,1-Dichloroethene	BMS	ND	31.6	105	(76-130)			30.0 ug/L	08/13/2009
	BMSD		31.2	104		1	(< 20)	30.0 ug/L	08/13/2009

SGS Ref.#	1094021002	Billable Matrix Spike	**Printed Date/Time**	08/20/2009 13:51
	1094021003	Billable Matrix Spike Dup.	**Prep Batch**	VXX19810
			Method	Volatiles Extraction AFCEE 3.1
			Date	08/13/2009
Original	1094021001			
Matrix	Water (Surface, Eff., Ground)			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
2-Butanone (MEK)	BMS	ND	94.1	105	(66-136)			90.0 ug/L	08/13/2009
	BMSD		93.9	104		0	(< 20)	90.0 ug/L	08/13/2009
Methylene chloride	BMS	ND	29.6	99	(63-131)			30.0 ug/L	08/13/2009
	BMSD		28.8	96		3	(< 20)	30.0 ug/L	08/13/2009
Trichlorofluoromethane	BMS	ND	36.7	122	(68-145)			30.0 ug/L	08/13/2009
	BMSD		35.8	119		3	(< 20)	30.0 ug/L	08/13/2009
P & M -Xylene	BMS	ND	62.8	105	(80-120)			60.0 ug/L	08/13/2009
	BMSD		61.7	103		2	(< 20)	60.0 ug/L	08/13/2009
Naphthalene	BMS	ND	28.6	95	(75-120)			30.0 ug/L	08/13/2009
	BMSD		27.9	93		2	(< 20)	30.0 ug/L	08/13/2009
o-Xylene	BMS	ND	31.5	105	(80-120)			30.0 ug/L	08/13/2009
	BMSD		30.7	102		3	(< 20)	30.0 ug/L	08/13/2009
Bromoform	BMS	ND	32	107	(80-120)			30.0 ug/L	08/13/2009
	BMSD		31.5	105		1	(< 20)	30.0 ug/L	08/13/2009
1-Chlorohexane	BMS	ND	50.7	113	(70-125)			45.0 ug/L	08/13/2009
	BMSD		48.2	107		5	(< 20)	45.0 ug/L	08/13/2009
1,2,4-Trimethylbenzene	BMS	ND	31.3	104	(80-125)			30.0 ug/L	08/13/2009
	BMSD		30.5	102		3	(< 20)	30.0 ug/L	08/13/2009
tert-Butylbenzene	BMS	ND	32.2	107	(80-122)			30.0 ug/L	08/13/2009
	BMSD		31.3	104		3	(< 20)	30.0 ug/L	08/13/2009
1,1,1-Trichloroethane	BMS	ND	34.8	116	(80-122)			30.0 ug/L	08/13/2009
	BMSD		34.0	113		3	(< 20)	30.0 ug/L	08/13/2009
1,1-Dichloroethane	BMS	ND	34.1	114	(80-120)			30.0 ug/L	08/13/2009
	BMSD		32.9	110		3	(< 20)	30.0 ug/L	08/13/2009
2-Chlorotoluene	BMS	ND	30.6	102	(80-125)			30.0 ug/L	08/13/2009
	BMSD		29.8	99		3	(< 20)	30.0 ug/L	08/13/2009
Trichloroethene	BMS	ND	31.1	104	(80-125)			30.0 ug/L	08/13/2009
	BMSD		30.0	100		4	(< 20)	30.0 ug/L	08/13/2009
trans-1,2-Dichloroethene	BMS	ND	32.2	107	(79-132)			30.0 ug/L	08/13/2009
	BMSD		31.4	105		3	(< 20)	30.0 ug/L	08/13/2009
1,2-Dichlorobenzene	BMS	ND	29.1	97	(80-120)			30.0 ug/L	08/13/2009
	BMSD		28.6	95		2	(< 20)	30.0 ug/L	08/13/2009
2,2-Dichloropropane	BMS	ND	35.3	118	(80-132)			30.0 ug/L	08/13/2009
	BMSD		34.0	113		4	(< 20)	30.0 ug/L	08/13/2009
Hexachlorobutadiene	BMS	ND	31.1	104	(77-125)			30.0 ug/L	08/13/2009
	BMSD		30.8	103		1	(< 20)	30.0 ug/L	08/13/2009
Isopropylbenzene (Cumene)	BMS	ND	33.4	111	(80-121)			30.0 ug/L	08/13/2009
	BMSD		32.5	108		3	(< 20)	30.0 ug/L	08/13/2009
1,2-Dichloropropane	BMS	ND	30.5	102	(80-121)			30.0 ug/L	08/13/2009
	BMSD		29.7	99		3	(< 20)	30.0 ug/L	08/13/2009

SGS Ref.#	1094021002	Billable Matrix Spike	**Printed Date/Time**		08/20/2009 13:51
	1094021003	Billable Matrix Spike Dup.	**Prep**	**Batch**	VXX19810
				Method	Volatiles Extraction AFCEE 3.1
				Date	08/13/2009

Original 1094021001

Matrix Water (Surface, Eff., Ground)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,1-Dichloropropene	BMS	ND	32.5	108	(80-122)			30.0 ug/L	08/13/2009
	BMSD		32.1	107		1	(< 20)	30.0 ug/L	08/13/2009
1,1,2-Trichloroethane	BMS	ND	30.7	102	(77-120)			30.0 ug/L	08/13/2009
	BMSD		30.2	101		1	(< 20)	30.0 ug/L	08/13/2009
1,3-Dichlorobenzene	BMS	ND	29.4	98	(80-120)			30.0 ug/L	08/13/2009
	BMSD		28.9	96		2	(< 20)	30.0 ug/L	08/13/2009
1,2,3-Trichlorobenzene	BMS	ND	29	97	(77-120)			30.0 ug/L	08/13/2009
	BMSD		29.1	97		0	(< 20)	30.0 ug/L	08/13/2009
Surrogates									
1,2-Dichloroethane-D4 <surr>	BMS		33.3	111	(73-120)				08/13/2009
	BMSD		34.2	114		3			08/13/2009
Toluene-d8 <surr>	BMS		29.5	98	(80-120)				08/13/2009
	BMSD		29.7	99		1			08/13/2009
4-Bromofluorobenzene <surr>	BMS		29.6	99	(76-120)				08/13/2009
	BMSD		29.1	97		2			08/13/2009

Batch VMS10730
Method SW8260B
Instrument HP 5890 Series II MS3 VNA

Polynuclear Aromatics GC/MS

SGS Ref.#	1094021002	Billable Matrix Spike	**Printed Date/Time**		08/20/2009 13:51
	1094021003	Billable Matrix Spike Dup.	**Prep**	**Batch**	XXX21374
				Method	3520 Liquid/Liquid Ext for 827
				Date	08/07/2009
Original	1094021001				
Matrix	Water (Surface, Eff., Ground)				

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polynuclear Aromatics GC/MS									
Acenaphthylene	BMS	ND	.539	92	(50-105)			0.585 ug/L	08/12/2009
	BMSD		0.541	96		0	(< 30)	0.565 ug/L	08/12/2009
Acenaphthene	BMS	ND	.497	85	(45-110)			0.585 ug/L	08/12/2009
	BMSD		0.487	86		2	(< 30)	0.565 ug/L	08/12/2009
Fluorene	BMS	ND	.539	92	(50-110)			0.585 ug/L	08/12/2009
	BMSD		0.532	94		1	(< 30)	0.565 ug/L	08/12/2009
Phenanthrene	BMS	ND	.544	93	(50-115)			0.585 ug/L	08/12/2009
	BMSD		0.549	97		1	(< 30)	0.565 ug/L	08/12/2009
Anthracene	BMS	ND	.596	102	(55-110)			0.585 ug/L	08/12/2009
	BMSD		0.583	103		2	(< 30)	0.565 ug/L	08/12/2009
Fluoranthene	BMS	ND	.603	103	(55-125)			0.585 ug/L	08/12/2009
	BMSD		0.589	104		2	(< 30)	0.565 ug/L	08/12/2009
Pyrene	BMS	ND	.58	99	(50-130)			0.585 ug/L	08/12/2009
	BMSD		0.562	100		3	(< 30)	0.565 ug/L	08/12/2009
Benzo(a)Anthracene	BMS	ND	.649	111	(55-120)			0.585 ug/L	08/12/2009
	BMSD		0.609	108		6	(< 30)	0.565 ug/L	08/12/2009
Chrysene	BMS	ND	.587	100	(55-120)			0.585 ug/L	08/12/2009
	BMSD		0.545	97		8	(< 30)	0.565 ug/L	08/12/2009
Benzo[b]Fluoranthene	BMS	ND	.63	108	(46-130)			0.585 ug/L	08/12/2009
	BMSD		0.596	105		6	(< 30)	0.565 ug/L	08/12/2009
Benzo[k]fluoranthene	BMS	ND	.605	103	(60-125)			0.585 ug/L	08/12/2009
	BMSD		0.608	108		1	(< 30)	0.565 ug/L	08/12/2009
Benzo[a]pyrene	BMS	ND	.64	109	(55-120)			0.585 ug/L	08/12/2009
	BMSD		0.638	113		0	(< 30)	0.565 ug/L	08/12/2009
Indeno[1,2,3-c,d] pyrene	BMS	ND	.591	101	(45-125)			0.585 ug/L	08/12/2009
	BMSD		0.584	103		1	(< 30)	0.565 ug/L	08/12/2009
Dibenzo[a,h]anthracene	BMS	ND	.6	103	(41-140)			0.585 ug/L	08/12/2009
	BMSD		0.605	107		1	(< 30)	0.565 ug/L	08/12/2009
Benzo[g,h,i]perylene	BMS	ND	.598	102	(46-125)			0.585 ug/L	08/12/2009
	BMSD		0.604	107		1	(< 30)	0.565 ug/L	08/12/2009
Naphthalene	BMS	ND	.494	84	(42-100)			0.585 ug/L	08/12/2009
	BMSD		0.472	84		5	(< 30)	0.565 ug/L	08/12/2009
1-Methylnaphthalene	BMS	ND	.492	84	(46-115)			0.585 ug/L	08/12/2009
	BMSD		0.486	86		1	(< 30)	0.565 ug/L	08/12/2009
2-Methylnaphthalene	BMS	ND	.459	78	(45-105)			0.585 ug/L	08/12/2009
	BMSD		0.462	82		1	(< 30)	0.565 ug/L	08/12/2009
Surrogates									
Terphenyl-d14 <surr>	BMS		.596	102	(50-135)				08/12/2009
	BMSD		0.568	101		5			08/12/2009

SGS Ref.#	1094021002	Billable Matrix Spike	**Printed Date/Time**		08/20/2009 13:51
	1094021003	Billable Matrix Spike Dup.	**Prep**	**Batch**	XXX21374
				Method	3520 Liquid/Liquid Ext for 827
				Date	08/07/2009
Original	1094021001				
Matrix	Water (Surface, Eff., Ground)				

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date

Polynuclear Aromatics GC/MS

Batch	XMS5029
Method	8270D SIMS
Instrument	HP 6890/5973 MS SVQA

SGS

CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

1094021

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CLIENT:	TEC INC.	SGS Reference #:	page ____ of ____
CONTACT:	**Rick Adkisson**	PHONE NO:	808.528.1445
PROJECT:	**3354-003**	SITE/PWSID#:	Red Hill BFSF
REPORTS TO:	Rick Adkisson	email	rkadkisson@tecinc.com
		cc	wmcwhitman@tecinc.com
INVOICE TO:	TEC INC	QUOTE #:	
		P.O. NUMBER:	

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv. Used	SAMPLE TYPE C = COMP G = GRAB	TPH-GRO (8015B)	TPH-DRO (8015B)	VOC's (8260B)	PAH's (8270C-SIMS)	Diss Pb (6020)	REMARKS
(1)(2)(3) A-F	OWDFMW01-WG01	8/4/2009	1545	Water	23			X		X			3x Volume sent in 2 coolers
(4) A-F	RHMW04-WG01	8/4/2009	1235	Water	6			X		X			
(5) A-F	RHMWA01-WG 01	8/4/2009	1205	Water	6			X		X			
(6) A-C	TB01-WG01	8/4/2009	0800	Water	3					X			

Collected/Relinquished By: (1)	Date: 8/5/09	Time: 0920	Received By:
Relinquished By: (2)	Date: 8/6/09	Time: 1200	Received By:
Relinquished By: (3)	Date:	Time:	Received By:
Relinquished By: (4)	Date: 8/6/09	Time: 1130	Received For Laboratory By:

Shipping Carrier:

Shipping Ticket No:

Special Deliverable Requirements:

See Contract

Samples Received Cold? YES NO

Temperature °C:

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Requested Turnaround Time and-or Special Instructions:

See Contract

7d

Cooler #1 2.1
#2 1.7
#3 0.9

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301

☐ 3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685

☐ 255 Sand Island Access Rd., Unit 1B **Honolulu, HI 96819** Tel: (808) 224-6217 Fax: (808) 845-2287

☐ 151 James Drive West **St Rose, LA 70087** Tel: (504) 469-6401 Fax: (504) 463-3304

☐ 1258 Greenbrier Street **Charleston, WV 25311** Tel: (304) 346-0725 Fax: (304) 346-0761

☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

SGS

CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations Nationwide

Alaska Hawaii
Maryland Louisiana
New Jersey West Virginia
North Carolina

www.us.sgs.com

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CLIENT:	TEC INC.	SGS Reference #:	page _____ of _____
CONTACT:	**Rick Adkisson**	PHONE NO: 808.528.1445	
PROJECT:	**3354-003**	SITE/PWSID#: Red Hill BFSF	
REPORTS TO:	Rick Adkisson	email rkadkisson@tecinc.com cc wmcwhitman@tecinc.com	
INVOICE TO:	TEC INC	QUOTE #: P.O. NUMBER:	

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv. Used	SAMPLE TYPE C = COMP G = GRAB	TPH-GRO (8015B)	TPH-DRO (8015B)	VOC's (8260B)	PAH's (8270C-SIMS)	Diss Pb (6020)	H3	REMARKS
① G-M	**OWDFMW01-WG01**	**8/4/2009**	1545	**Water**	**10**				**X**		**X**	**X**		3x Volume sent in 2 coolers
② G-K														
③ G-K														

Collected/Relinquished By: (1)	Date: 8/5/09	Time: 0920	Received By:
Relinquished By: (2)	Date: 8/6/09	Time: 1200	Received By:
Relinquished By: (3)	Date:	Time:	Received By:
Relinquished By: (4)	Date: 8/6/09	Time: 1130	Received For Laboratory By:

Shipping Carrier:	Samples Received Cold? YES NO
Shipping Ticket No:	Temperature °C:
Special Deliverable Requirements: **See Contract**	Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Requested Turnaround Time and-or Special Instructions: **See Contract**	

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685
☐ 255 Sand Island Access Rd., Unit 1B **Honolulu, HI 96819** Tel: (808) 224-6217 Fax: (808) 845-2287
☐ 151 James Drive West **St Rose, LA 70087** Tel: (504) 469-6401 Fax: (504) 463-3304
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CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations Nationwide

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North Carolina

www.us.sgs.com

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CLIENT:	TEC INC.	SGS Reference #:	page _____ of _____
CONTACT:	**Rick Adkisson**	PHONE NO:	808.528.1445
PROJECT:	**3354-003**	SITE/PWSID#:	Red Hill BFSF
REPORTS TO:	Rick Adkisson	email	rkadkisson@tecinc.com
		cc	wmcwhitman@tecinc.com
INVOICE TO:	TEC INC	QUOTE #:	
		P.O. NUMBER:	

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv. Used	SAMPLE TYPE C = COMP G = GRAB	TPH-GRO (8015B)	TPH-DRO (8015B)	VOC's (8260B)	PAH's (8270C-SIMS)	Diss Pb (6020)	REMARKS
(5) G-K	**RHMWA01-WG01**	**8/4/2009**	1205	**Water**	**5**				X		X	X	
(4) G-K	**RHMW04-WG01**	**8/4/2009**	1235	**Water**	**5**				X		X	X	

Collected/Relinquished By: (1)	Date: 8/5/09	Time: 0920	Received By:
Relinquished By: (2)	Date: 8/5/09	Time: 1200	Received By:
Relinquished By: (3)	Date:	Time:	Received By:
Relinquished By: (4)	Date: 8/6/09	Time: 1130	Received For Laboratory By:

Shipping Carrier:	Samples Received Cold? YES NO
Shipping Ticket No:	Temperature °C:
Special Deliverable Requirements: **See Contract**	Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Requested Turnaround Time and-or Special Instructions:

See Contract

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
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☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

SGS

1094021

SGS

SAMPLE RECEIPT FORM FOR TRANSFERS

From

* ~~FAIRBANKS, ALASKA~~ HAWAII

To

ANCHORAGE, AK

TO BE COMPLETED IN ANCHORAGE UPON ARRIVAL FROM FAIRBANKS.

NOTES RECORDED BELOW ARE ACTIONS NEEDED UPON ARRIVAL IN ANCHORAGE.

Notes: _____

_____

_____

_____

_____

Receipt Date / Time: 8-6-09 1130

Delivery method to Anchorage (*circle all that apply*):

Alert Courier / UPS / (FedEx) / USPS / AA Goldstreak / NAC / ERA / PenAir / Carlile / Lynden / SGS

Other: _____

Airbill # _____

COOLER AND TEMP BLANK READINGS* 7d

Cooler ID	Temp Blank (°C)	Cooler (°C)	Cooler ID	Temp Blank (°C)	Cooler (°C)
1	2.1				
2	1.7				
3	1.9				

CUSTODY SEALS INTACT: YES / NO

#'s WHERE: _____

COMPLETED BY: _____

**Temperature readings include thermometer correction factors.*

1094021

SGS

SAMPLE RECEIPT FORM

SGS WO#:

Yes	No	NA		
	X		Are samples **RUSH**, priority or *w/in 72 hrs* of **hold time**?	
		X	If yes, have you done *e-mail ALERT notification*?	
	X		Are samples *within 24 hrs.* of **hold time** or **due date**?	
		NA	If yes, have you also *spoken with* supervisor?	
	X		Archiving bottles: Are lids marked w/ red "X"?	
X			Were samples collected with proper preservative?	
	X		**Any problems (ID, cond'n, HT, etc)? Explain:**	
	X		If this is for PWS, provide **PWSID:**_____	
		NA	Payment received: $_____ by Check or Credit Card	
	X		Will courier charges apply?	
X			Data package required? (Level: 1 / 2 / 3 / (4))	
			Notes: _____	
X			Is this a DoD project? (USACE, Navy, AFCEE)	

TAT (circle one): (Standard) -or- Rush

Received Date: 8-5-09

Received Time: 09:20

Cooler ID	Temperature	Measured w/ (Therm/IR ID#)
#1	3 °C	IR THERM
#2	5 °C	↓
#3	3 °C	↓
	°C	

Note: Temperature readings include thermometer correction factors

Delivery method (circle all that apply):

(Client) / Alert Courier / Lynden / SGS
UPS / FedEx / USPS / DHL / Carlile
AkAir Goldstreak / NAC / ERA / PenAir
Other: _____

Additional Sample Remarks: *(√ if applicable)*

_____ Extra Sample Volume?
_____ Limited Sample Volume?
_____ Multi-Incremental Samples?
_____ Lab-filtered for dissolved_____
_____ Ref Lab required for_____
_____ Foreign Soil?

This section must be filled out for DoD projects (USACE, Navy, AFCEE):

Yes	No	
X		Is received temperature ≤6°C?
X		Were containers ice-free? *Notify PM **immediately** of any ice in samples.* If some cooler temperatures are non-compliant, see form FS-0029 (attached) for samples/analyses affected.
	X	Was there an airbill? *(If "yes," see attached.)*
	X	Was cooler sealed with custody seals & were they intact? # / where: _____
X		Was there a COC with cooler?
	X	Was COC sealed in plastic bag & taped inside lid of cooler?
X		Was the COC filled out properly? Did labels correspond?
X		Did the COC indicate USACE / Navy / AFCEE project?
		Samples were packed to prevent breakage with *(circle one)*: (Bubble Wrap) Vermiculite Other (specify): _____
	X	Were all samples sealed in separate plastic bags?
X		Were all VOCs free of headspace and/or MeOH preserved?
X		Were correct container / sample sizes submitted?
X		Was the PM notified of arrival so they can send Sample Receipt Acknowledgement to client?

This section must be completed if problems are noted.

Was client notified of problems? Yes / No

By (SGS PM): _____

Individual contacted: _____

Via: Phone / Fax / E-mail (*circle one*)

Date/Time: _____

Reason for contact: _____

Change Order Required? Yes / No

Notes: TEMP RECEIPT AT LOWER SGS Cooler #1 2.1 Td
#2 1.7 "
#3 0.9 "

Completed by (sign): _____ **(print):** MIKE ASC

Login proof: Self-check completed ✓ **Peer-reviewer's Initials** _____

SGS

1094021

SAMPLE RECEIPT FORM (page 2)

SGS WO#:

#	Container ID	Matrix	Test	QC	TB	Container Volume: 1 L	500 mL	250 mL or 8oz	125 mL or 4oz	60 mL	40 mL	Other (specify)	Container Type: AG	CG	HDPE	Nalgene	Coli	Septa	Other (specify)	Preservative: None	HCl	HNO_3	H_2SO_4	MeOH	$Na_2S_2O_3$	NaOH	NaOH+ZnAc	Other (specify)	* Notes
1	A-C	1	GRO								3		✓					✓			✓								
	D-F		VOC								3		✓					✓			✓								
	G		Diss P6				1								✓							✓							
	H,I		PAH			2							✓							✓									
	J,K		DRO			2		1G					✓								✓								
	L,M		EXTRA VOL				2	1							✓							✓							
2	A-C		GRO	MS							3		✓					✓											
	D-F		VOC	MS							3		✓					✓			✓								
	G		Diss P6	MS					5	J	A	1G																	
	H,I		PAH	MS		2							✓							✓									
	J,K		DRO	MS		2							✓								✓								
3	A-C		GRO	MSD							3		✓					✓			✓								
	D-F		VOC	MSD							3		✓					✓			✓								
	G		Diss P6	MSD					5	J	A	1G																	
	H,I		PAH	MSD		2							✓							✓									
Bottle Totals						10	3	2			18																		

* Note: Containers which require (additional) chemical preservation upon receipt must be documented per SOP#106.

Completed by: _____ Date: 5-6-09

SGS

1094021

SAMPLE RECEIPT FORM (page 2)

SGS WO#

#	Container ID	Matrix	Test	QC	TB	Container Volume: 1 L	500 mL	250 mL or 8oz	125 mL or 4oz	60 mL	40 mL	Other (specify)	Container Type: AG	CG	HDPE	Nalgene	Coli	Septa	Other (specify)	Preservative: None	HCl	HNO_3	H_2SO_4	MeOH	$Na_2S_2O_3$	NaOH	NaOH+ZnAc	Other (specify)	* Notes
3	J,K	1	DRO	3rd		2							✓								✓								
4,5	A-C	1	GRO							6	~~5~~	~~Vc~~	✓					✓			✓								
	D-F		VOC							6	~~6~~		✓					✓			✓								
	G		Diss P6				2	~~2~~	~~HCl~~						✓							✓							
	H,I		PAH			4							✓							✓									
	J,K		DRO			4							✓								✓								
6	~~A~~	1	GRO		✓						1		✓					✓			✓								
	B		VOC		✓						1		✓					✓			✓								
	C		EXTRA VOC		✓						1		✓					✓			✓								
Bottle Totals						10		2		12	15																		

* Note: Containers which require (additional) chemical preservation upon receipt must be documented per SOP#106.

Completed by: _____ Date: 8.6.09

FedEx Express **US Airbill**

FedEx Tracking Number 8635 9151 1462

0200 **Recipient's Copy**

1 From

Date

Sender's Name Phone

Company

Address

Dept./Floor/Suite/Room

City State ZIP

2 Your Internal Billing Reference

3 To

Recipient's Name Phone

Company

Recipient's Address 200 W Potter Dr.

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City State ZIP 9

8635 9151 1462

4a Express Package Service *Packages up to 150 lbs.*

- FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx Envelope rate not available.

1094021

4b Express Freight Servic

- FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

shipments will be delivered on Monday unless SATURDAY Delivery is selected.

Saturday Delivery NOT available.

* Call for Confirmation: ** To most locations.

5 Packaging

- FedEx Envelope*
- FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- FedEx Box
- FedEx Tube
- Other

* Declared value limit $500.

6 Special Handling — Include FedEx address in Section 3.

- **SATURDAY Delivery** — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- **HOLD Weekday at FedEx Location** — Not available for FedEx First Overnight.
- **HOLD Saturday at FedEx Location** — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

- No
- Yes — As per attached Shipper's Declaration.
- Yes — Shipper's Declaration not required.
- Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

- Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No.

- Sender — Acct. No. in Section 1 will be billed.
- Recipient
- Third Party
- Credit Card
- Cash/Check

Total Packages Total Weight Total Declared Value†

$ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details.

Credit Card Auth.

8 Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

- No Signature Required — Package may be left without obtaining a signature for delivery.
- Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*
- Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. *Fee applies.*

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