May 5, 2011

Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Rolls-Royce Engine Services Test Facility**
6701 Old Earhart Road
Oakland, California
Alameda County Site #RO0002606

I have reviewed the attached routine groundwater monitoring report dated May 10, 2011.

I agree with the conclusions and recommendation presented in the referenced report. The information is this report is accurate to the best of my knowledge. This report was prepared by Gettler-Ryan Incorporated, whose assistance and advice I have relied upon.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Dave Goldberg
Facilities HS&E Specialist

140193.11

GETTLER-RYAN INC.

May 10, 2011

Ms. Donna Drogos
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Ste. 250
Alameda, California 94502

Subject: **First Semi-Annual 2011 Event**
Groundwater Monitoring and Sampling Report
Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road, Oakland, California
Alameda County Site #RO0002606

Ms. Drogos,

On behalf of Rolls-Royce Engine Services-Oakland Inc. (R-R), Gettler-Ryan Inc. (GR) has prepared this First Semi-Annual 2011 Event, Groundwater Monitoring and Sampling Report for the site referenced above. This report describes the field and analytical methods, provides a summary of groundwater monitoring results, and presents conclusions and recommendations regarding groundwater conditions at the site.

SITE LOCATION AND DESCRIPTION

The subject site is located at 6701 Old Earhart Road, adjacent to the Metropolitan Oakland International Airport (MOIA)-North Field, Oakland, California (Figure 1). Topography in the vicinity of the subject site is relatively flat at an average elevation of approximately 7.5 feet above mean sea level. The closest surface water is within the tidal wetlands bordering the site to the east.

Pertinent site features consist of six engine test cells with auxiliary structures (sheds, pumphouse, waste water sumps, aboveground oil/water separator, control buildings, gas conditioning facility, air receivers, cooling towers, flare stack, etc), one 30,000-gallon aboveground liquefied petroleum fuel tank, one 10,000-gallon jet A fuel underground storage tank (UST) and two paired 8,000-gallon jet A fuel USTs. Pertinent site features and the location of the USTs are shown on Figure 2.

For site background and previous environmental investigation, please refer to GR report No. 25-948218.07, *Well Installation Report*, dated January 11, 2008.

GROUNDWATER MONITORING

On March 21, 2011, GR personnel conducted quarterly groundwater monitoring of nineteen wells (MW-1 through MW-15, MW-17, MW-18, NPORD MW-3 and NPORD MW-4). Work at the site included measuring static groundwater levels, evaluating groundwater in the wells for the presence of petroleum hydrocarbons, and purging and sampling the wells for laboratory analysis. Groundwater monitoring and sampling were performed in accordance with GR Field Methods and Procedures, Groundwater Sampling (attached).

On March 21, 2011, GR collected depth to groundwater measurements in nineteen wells (MW-1 through MW-15, MW-17, MW-18, NPORD MW-3 and NPORD MW-4) and checked groundwater for the presence of Separate-Phase Hydrocarbons (SPH). Approximately 0.15 ft of SPH were observed in well MW-18. Approximately 0.03 gallon (100 milliliters) of SPH was bailed from well MW-18 and stored onsite in a 55-gallon DOT approved drum pending disposal. Water level data, groundwater elevations, and SPH thicknesses are presented in attached Table 1. SPH thicknesses and approximate SPH volumes purged are summarized in Table 3. Field data sheets for this event are attached.

At the request of R-R, PES Environmental, Incorporated (PES) has been periodically removing SPH present in well MW-18 through the use of absorbent socks. SPH removal logs prepared by PES for the most recent events are attached to this report.

Groundwater monitoring wells MW-1 through MW-15, MW-17, NPORD MW-3 and NPORD MW-4 were purged and sampled on the same date they were monitored. Well MW-18 was not sampled due to presence of 0.15 feet of SPH. Groundwater samples were submitted under chain-of-custody protocol to Kiff Analytical (NELAP #08263CA) of Davis, California. A copy of the laboratory analytical reports and chain-of-custody documents are attached. Purge water generated from the sampling activities was stored onsite in 55-gallon DOT approved drums pending disposal. GR understands that the disposal of water generated will be handled by R-R.

ANALYTICAL METHODS

Groundwater samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX), Methyl-tert Butyl Ether (MtBE), and naphthalene by EPA Method 8260B, and for Total Petroleum Hydrocarbons as diesel (TPHd), Total Petroleum Hydrocarbons as motor oil (TPHmo), and Total Petroleum Hydrocarbons as jet fuel (TPHjf) by modified EPA Method 8015. Current and historic groundwater analytical results are presented in Tables 1 and 2.

RESULTS

Groundwater Gradient

On March 21, 2011, the groundwater flow direction was toward the south with a hydraulic gradient of 0.03 ft/ft. A Potentiometric Map is presented as Figure 3.

Analytical Results

Concentrations of TPHg, TPHd, TPHmo, TPHjf, BTEX, MtBE and naphthalene were reported below the laboratory method detection limits in groundwater samples collected from wells MW-1, MW-2, MW-8, MW-12, MW-17 and NPORD MW-3.

TPHg was detected in the water sample collected from well MW-13 at a concentration of 260 parts per billion (ppb). Concentrations of TPHg were reported below the laboratory method detection limits in water samples collected from the remaining wells.

TPHd was detected in four wells at concentrations ranging from 76 ppb in well MW-13 to 670 ppb in well MW-5. Concentrations of TPHmo were detected in seven wells at levels ranging from 160 ppb in well MW-7 to 1,600 ppb in well MW-5. TPHjf was detected in twelve wells at concentrations ranging from 100 ppb in well MW-6 to 2,400 ppb in well MW-13.

BTEX constituents were reported as below the laboratory method detection limits in all of the wells, except for benzene detected in well MW-13 at a concentration of 1.0 ppb. MtBE was detected in wells

MW-13 and MW-14 at concentrations of 1.7 ppb and 1.3 ppb, respectively. Naphthalene was detected in well MW-13 at a concentration of 3.3 ppb. TPHg, TPHd, TPHmo and TPHjf concentrations are presented on Figure 4.

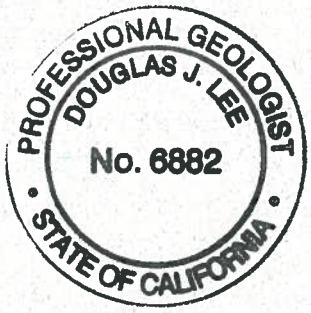
CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this groundwater monitoring and sampling event, GR concludes and recommends the following:

- Non-detectable concentrations of petroleum hydrocarbons were present in wells MW-1, MW-2, MW-12, and NPORD MW-3 located along the northeast edge of the site, and in wells MW-8 and MW-17;
- Detectable concentrations of TPHg appear limited to the vicinity of well MW-13;
- Separate-phase hydrocarbons continue to be limited to the vicinity of MW-18;
- Detectable concentrations of TPHd and TPHmo have predominantly decreased in the wells since the prior sampling event;
- TPHjf was present in a majority of the site wells at concentrations that mostly decreased since the prior event. The highest concentrations have historically been detected in the vicinity of Test Cells 1, 5, 6, and 7; and
- GR recommends the continuation of the current semi-annual monitoring and sampling program for the site. SPH will continue to be removed from well MW-18 on a periodic basis.

If you have any questions, please feel free to contact our Dublin office at (925) 551-7555.

Sincerely,
Gettler-Ryan Inc.



Douglas J. Lee
Project Manager, P.G. No. 6882

Attachments:
Table 1, Groundwater Monitoring Results
Table 2, Field Measurements and Groundwater Analytical Results
Table 3, SPH Thickness and Volumes Purged - MW-18
Figure 1, Vicinity Map
Figure 2, Site Plan
Figure 3, Potentiometric Map
Figure 4, Concentration Map
GR Field Methods and Procedures
Field Data Sheets
SPH Removal Logs
Laboratory Analytical Report and Chain of Custody

CC: Dave Goldberg, Rolls-Royce Engine Services-Oakland Inc
Dale Klettke, Port of Oakland

Table 1

Groundwater Monitoring Data and Analytical Results

Rolls-Royce Engine Services Test Facility

6701 Old Earhart Road

Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	SPHT (ft.)	GWE (msl)	TPH-G (µg/L)	TPH-D[1] (µg/L)	TPH-MO (µg/L)	TPH-JF (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Napthalene (µg/L)	SVOC (µg/L)
MW-1															
10/03/07	7.17	3.04	0.00	4.13	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/14/08	7.17	3.02	0.00	4.15	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/26/08	7.17	3.38	0.00	3.79	<50	<50	<100	51[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	7.17	3.03	0.00	4.14	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	7.17	2.82	0.00	4.35	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	7.17	3.30	0.00	3.87	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	7.17	2.57	0.00	4.60	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	7.17	3.08	0.00	4.09	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	7.17	2.21	0.00	4.96	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/09/10	7.17	2.95	0.00	4.22	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**7.17**	**2.31**	**0.00**	**4.86**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-2															
10/03/07	7.03	2.80	0.00	4.23	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/14/08	7.03	2.94	0.00	4.09	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/26/08	7.03	3.32	0.00	3.71	<50	<50	<100	97[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	7.03	2.75	0.00	4.28	<50	<50	<100	410[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	7.03	2.54	0.00	4.49	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	7.03	3.15	0.00	3.88	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	7.03	2.52	0.00	4.51	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	7.03	2.87	0.00	4.16	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	7.03	2.15	0.00	4.88	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/09/10	7.03	2.79	0.00	4.24	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**7.03**	**1.92**	**0.00**	**5.11**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-3															
10/02/07	6.73	4.56	0.00	2.17	<50	<50	<100	410	<0.50	<0.50	<0.50	<0.50	1.6[4]	<0.50	NA
03/14/08	6.73	3.98	0.00	2.75	<50	<50	<100	120[9]	<0.50	<0.50	<0.50	<0.50	0.99	<0.50	NA
06/26/08	6.73	4.21	0.00	2.52	<50	<50	<100	610[7]	<0.50	1.7	<0.50	<0.50	0.93	<0.50	NA
09/25/08	6.73	4.25	0.00	2.48	<50	<50	<100	650[16]	<0.50	<0.50	<0.50	<0.50	1.2	<0.50	NA
12/19/08	6.73	4.25	0.00	2.48	<50	<50	<100	520[18]	<0.50	<0.50	<0.50	<0.50	1.2	<0.50	NA
03/26/09	6.73	3.82	0.00	2.91	<50	<50	<100	400[18]	<0.50	<0.50	<0.50	<0.50	0.69	<0.50	NA
06/24/09	6.73	4.21	0.00	2.52	<50	<50	<100	460	<0.50	<0.50	<0.50	<0.50	0.80	<0.50	NA
09/24/09	6.73	4.33	0.00	2.40	<50	<50	<100	400	<0.50	<0.50	<0.50	<0.50	0.70	<0.50	NA

Table 1
Groundwater Monitoring Data and Analytical Results
Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	SPHT (ft.)	GWE (msl)	TPH-G (µg/L)	TPH-D[1] (µg/L)	TPH-MO (µg/L)	TPH-JF (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Napthalene (µg/L)	SVOC (µg/L)
MW-3 (cont.)															
01/15/10	6.73	3.92	0.00	2.81	<50	<50	110	420[18]	<0.50	<0.50	<0.50	<0.50	0.70	<0.50	NA
09/09/10	6.73	4.52	0.00	2.21	<50	<50	<100	450	<0.50	<0.50	<0.50	<0.50	0.62	<0.50	NA
03/21/11	**6.73**	**3.20**	**0.00**	**3.53**	**<50**	**<50**	**500**	**400**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-4															
10/2/07[4]	9.79	5.81	0.00	3.98	<50	86	<100	280	<0.50	0.63	<0.50	<0.50	<0.50	<0.50	NA
03/14/08	9.79	5.82	0.00	3.97	<50	3,300	2,400	3,400[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/26/08	9.79	6.08	0.00	3.71	<50	2,300	1,900	2,700[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	9.79	5.98	0.00	3.81	<50	1,600	1,400	2,100[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	9.79	5.93	0.00	3.86	<50	<50[19]	<100[19]	440[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	9.79	5.65	0.00	4.14	<50	720	550	1,000[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	9.79	5.72	0.00	4.07	<50	<50	<100	480[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	9.79	5.85	0.00	3.94	<50	1,300	1,100	1,700[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	9.79	4.86	0.00	4.93	<50	210	280	580[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10 - <50[21,22]
09/09/10	9.79	5.75	0.00	4.04	<50	380[6]	510	680[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**9.79**	**4.95**	**0.00**	**4.84**	**<50**	**<50**	**<100**	**220**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-5															
10/02/07	8.35	4.75	0.00	3.60	<50	5,600	11,000	5,300	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/14/08	8.35	4.40	0.00	3.95	<50	1,200[6]	1,700	1,100[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/26/08	8.35	4.68	0.00	3.67	<50	1,400[6]	3,200	2,000[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	8.35	4.52	0.00	3.83	<50	670[6]	1,200	940[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	8.35	4.43	0.00	3.92	<50	2,100[6]	4,100	1,900[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	8.35	4.25	0.00	4.10	<50	2,400[6]	5,500	2,600[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	8.35	4.38	0.00	3.97	<50	1,300[6]	2,700	990[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	8.35	4.47	0.00	3.88	<50	1,400[6]	3,000	1,400[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	8.35	3.47	0.00	4.88	<50	450[6]	1,800	870[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/09/10	8.35	4.34	0.00	4.01	<50	890[6]	2,200	600[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**8.35**	**3.59**	**0.00**	**4.76**	**<50**	**670[6]**	**1,600**	**460[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**

Table 1

Groundwater Monitoring Data and Analytical Results

Rolls-Royce Engine Services Test Facility

6701 Old Earhart Road

Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	SPHT (ft.)	GWE (msl)	TPH-G (µg/L)	TPH-D[1] (µg/L)	TPH-MO (µg/L)	TPH-JF (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Napthalene (µg/L)	SVOC (µg/L)
MW-6															
10/02/07	9.51	5.90	0.00	3.61	<50	3,000[6]	7,700	2,500[7]	<0.50	<0.50	0.86	1.1	<0.50	0.53	NA
03/14/08	9.51	5.55	0.00	3.96	<50	3,600[10]	7,600	2,800[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/26/08	9.51	5.80	0.00	3.71	<50	3,200[10]	9,400	3,200[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	9.51	5.69	0.00	3.82	<50	3,500[10]	8,800	3,800[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	9.51	5.43	0.00	4.08	<50	1,500[10]	5,500	1,200[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	9.51	5.38	0.00	4.13	<50	2,400[6]	6,800	1,800[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	9.51	5.46	0.00	4.05	<50	490[6]	1,600	450[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	9.51	5.60	0.00	3.91	<50	1,100[10]	3,400	860[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	9.51	4.57	0.00	4.94	<50	450[6]	2,700	790[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10 - <50[21,22]
09/09/10	9.51	5.45	0.00	4.06	<50	620[6]	2,800	370[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**9.51**	**4.68**	**0.00**	**4.83**	**<50**	**<50**	**200**	**100[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-7															
10/02/07	9.23	5.68	0.00	3.55	<50	12,000[6]	34,000	9,100[7]	<0.50	<0.50	<0.50	<0.50	<0.50	0.76	NA
03/14/08	9.23	5.32	0.00	3.91	<50	7,900[6]	20,000	5,500[11]	<0.50	<0.50	<0.50	<0.50	<0.50	3.5	NA
06/26/08	9.23	5.56	0.00	3.67	<50	3,300[6]	10,000	3,300[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	9.23	5.46	0.00	3.77	<50	5,300[10]	13,000	6,000[16]	<0.50	<0.50	<0.50	<0.50	<0.50	0.98	NA
12/19/08	9.23	5.38	0.00	3.85	<50	<50[19]	<100[19]	350[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	9.23	5.11	0.00	4.12	<50	710[6]	2,300	790[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	9.23	5.22	0.00	4.01	<50	<50	<100	390	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	9.23	5.38	0.00	3.85	<50	950[6]	2,600	980[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	9.23	4.38	0.00	4.85	<50	910[6]	4,900	1,200[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10 - <50[21,22]
09/09/10	9.23	5.25	0.00	3.98	<50	1,800[6]	6,800	850[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**9.23**	**4.49**	**0.00**	**4.74**	**<50**	**<50**	**160**	**240[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-8															
09/14/07	8.25	4.65	0.00	3.60	<50	790[3]	2,700	1,000[2]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/14/08	Not able to sample well-no access agreement between Rolls-Royce and Port of Oakland														
07/03/04	8.25	4.49	0.00	3.76	<50	1,200[6]	4,400	1,800[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	8.25	4.41	0.00	3.84	<50	<50	130	140[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	8.25	4.31	0.00	3.94	<50	160[6]	840	340[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	8.25	4.05	0.00	4.20	<50	470[3]	1,500	570[2]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	8.25	4.21	0.00	4.04	<50	<50	<100	650[2]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	8.25	4.32	0.00	3.93	<50	130[10]	330	340[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA

Table 1
Groundwater Monitoring Data and Analytical Results
Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	SPHT (ft.)	GWE (msl)	TPH-G (µg/L)	TPH-D[1] (µg/L)	TPH-MO (µg/L)	TPH-JF (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Napthalene (µg/L)	SVOC (µg/L)
MW-8 (cont.)															
01/15/10	8.25	3.57	0.00	4.68	<50	120[6]	640	410[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/09/10	8.25	4.17	0.00	4.08	<50	82[6]	430	260[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**8.25**	**3.38**	**0.00**	**4.87**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-9															
10/03/07	9.44	5.81	0.00	3.63	<50	7,700	10,000	6,700	<0.50	<0.50	<0.50	<0.50	<0.50[4]	<0.50	NA
03/14/08	9.44	5.51	0.00	3.93	<50	6,400	8,000	4,000[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/26/08	9.44	5.72	0.00	3.72	<50	1,600[10]	1,800	1,800[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	9.44	5.59	0.00	3.85	<50	5,900[10]	9,300	6,300[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	9.44	5.43	0.00	4.01	<50	4,100[6]	8,500	4,000[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	9.44	5.26	0.00	4.18	<50	6,900[6]	9,700	5,600[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	9.44	5.42	0.00	4.02	<50	2,900[6]	5,200	1,800[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	9.44	5.53	0.00	3.91	<50	600[10]	1,100	720[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	9.44	4.69	0.00	4.75	<50	1,300[6]	3,100	1,600[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10 - <50[21,22]
09/09/10	9.44	5.43	0.00	4.01	<50	1,900[6]	4,500	960[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**9.44**	**4.58**	**0.00**	**4.86**	**<50**	**280[6]**	**780**	**460[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-10															
10/03/07	7.51	3.89	0.00	3.62	110	4,200	1,300	4,500	<0.50	<0.50	<0.50	<0.50	<0.50[4]	<0.50	NA
03/14/08	7.51	3.68	0.00	3.83	53	420	270	420[7]	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	NA
06/26/08	7.51	3.80	0.00	3.71	120	1,200	1,000	2,000	<0.50	<0.50	<0.50	<0.50	<0.50	5.0	NA
09/25/08	7.51	3.68	0.00	3.83	<50	3,100[10]	2,200	3,600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	7.51	3.54	0.00	3.97	<50	1,700	1,200	1,900[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	7.51	3.36	0.00	4.15	53	1,500[8]	1,300	2,900	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	NA
06/24/09	7.51	3.54	0.00	3.97	<50	710[8]	750	1,400	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	7.51	3.61	0.00	3.90	<50	480[10]	600	1,100[18]	<0.50	<0.50	<0.50	0.69	<0.50	<0.50	NA
01/15/10	7.51	2.81	0.00	4.70	<50	180	210	500[18]	<0.50	<0.50	0.66	3.5	<0.50	3.4	<10 - <50[21,22]
09/09/10	7.51	3.48	0.00	4.03	<50	66[8]	<100	380[18]	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	NA
03/21/11	**7.51**	**2.70**	**0.00**	**4.81**	**<50**	**<50**	**<100**	**610[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-11															
10/03/07	7.60	4.01	0.00	3.59	80	250	490	610	<0.50	<0.50	<0.50	<0.50	<0.50[4]	<0.50	NA
03/14/08	7.60	3.71	0.00	3.89	61	410[6]	1,200	520[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA

Table 1
Groundwater Monitoring Data and Analytical Results
Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	SPHT (ft.)	GWE (msl)	TPH-G (µg/L)	TPH-D[1] (µg/L)	TPH-MO (µg/L)	TPH-JF (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Napthalene (µg/L)	SVOC (µg/L)
MW-11 (cont.)															
06/26/08	7.60	3.92	0.00	3.68	<50	2,700[10]	7,300	3,600[15]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	7.60	3.82	0.00	3.78	<50	2,800[10]	5,900	3,800[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	7.60	3.71	0.00	3.89	<50	1,500[6]	3,700	1,800[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	7.60	3.49	0.00	4.11	<50	2,300[6]	4,200	2,800[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	7.60	3.70	0.00	3.90	<50	1,100[6]	2,600	1,200[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	7.60	3.37	0.00	4.23	<50	1,400[10]	3,800	1,800[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	7.60	3.02	0.00	4.58	<50	260[6]	860	620[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10 - <50[21,22]
09/09/10	7.60	3.63	0.00	3.97	<50	510[10]	1,200	520[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**7.60**	**2.85**	**0.00**	**4.75**	**<50**	**83[6]**	**280**	**410[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-12															
10/03/07	7.32	3.61	0.00	3.71	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50[4]	<0.50	NA
03/14/08	7.32	3.35	0.00	3.97	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/26/08	7.32	3.60	0.00	3.72	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	7.32	3.50	0.00	3.82	<50	<50	<100	51[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	7.32	3.09	0.00	4.23	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	7.32	3.13	0.00	4.19	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	7.32	3.21	0.00	4.11	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	7.32	3.38	0.00	3.94	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	7.32	2.80	0.00	4.52	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/09/10	7.32	3.39	0.00	3.93	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**7.32**	**2.30**	**0.00**	**5.02**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-13															
10/03/07	6.10	2.86	0.00	3.24	160	70[8]	<100	660	<0.50	<0.50	<0.50	<0.50	1.2[4]	1.7	NA
03/14/08	6.10	1.96	0.00	4.14	350[12]	490	130[13]	1,200	0.89	<0.50	<0.50	<0.50	2.0	8.9	NA
06/26/08	6.10	2.57	0.00	3.53	720	200[8]	<100	4,100[15]	2.0	<0.50	<0.50	0.60	3.3	3.3	NA
09/25/08	6.10	2.48	0.00	3.62	600	<200[17]	130[13]	1,900[16]	1.2	<0.50	<0.50	<0.50	2.9	11	NA
12/19/08	6.10	2.68	0.00	3.42	280	130[8]	<100	1,300[18]	0.89	<0.50	<0.50	<0.50	1.7	4.8	NA
03/26/09	6.10	2.44	0.00	3.66	310	86	120[13]	1,800[18]	0.81	<0.50	<0.50	<0.50	1.7	2.2	NA
06/24/09	6.10	2.91	0.00	3.19	330	170[8]	<100	2,000[19]	1.0	<0.50	<0.50	<0.50	1.9	5.2	NA
09/24/09	6.10	2.81	0.00	3.29	380	180	130[13]	5,400[18]	1.5	<0.50	<0.50	<0.50	2.5	6.8	NA
01/15/10	6.10	1.58	0.00	4.52	230	140	<100	1,600[18]	0.58	<0.50	<0.50	<0.50	1.4	3.1	NA

Table 1

Groundwater Monitoring Data and Analytical Results

Rolls-Royce Engine Services Test Facility

6701 Old Earhart Road

Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	SPHT (ft.)	GWE (msl)	TPH-G (µg/L)	TPH-D[1] (µg/L)	TPH-MO (µg/L)	TPH-JF (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Napthalene (µg/L)	SVOC (µg/L)
MW-13 (cont.)															
09/09/10	6.10	2.20	0.00	3.90	230	180[8]	<100	1,400[18]	0.95	<0.50	<0.50	<0.50	2.3	3.6	NA
03/21/11	**6.10**	**1.10**	**0.00**	**5.00**	**260**	**76[8]**	**<100**	**2,400[18]**	**1.0**	**<0.50**	**<0.50**	**<0.50**	**1.7**	**3.1**	**NA**
MW-14															
10/02/07	6.42	2.40	0.00	4.02	67	300	870	1,400	<0.50	<0.50	<0.50	<0.50	1.4[4]	6.1	NA
03/14/08	6.42	2.44	0.00	3.98	50	250[6]	350	500[7]	<0.50	<0.50	<0.50	<0.50	1.7	5.0	NA
06/26/08	6.42	2.62	0.00	3.80	<50	570[10]	2,700	2,000[15]	<0.50	<0.50	<0.50	<0.50	1.4	3.1	NA
09/25/08	6.42	2.58	0.00	3.84	<50	510[10]	1,700	1,800[16]	<0.50	<0.50	<0.50	<0.50	1.0	<0.50	NA
12/19/08	6.42	2.14	0.00	4.28	<50	480[6]	2,100	1,200[18]	<0.50	<0.50	<0.50	<0.50	1.2	<0.50	NA
03/26/09	6.42	2.23	0.00	4.19	<50	79[6]	540	1,000[18]	<0.50	<0.50	<0.50	<0.50	0.89	<0.50	NA
06/24/09	6.42	2.33	0.00	4.09	<50	<50	290	1,100[18]	<0.50	<0.50	<0.50	<0.50	1.2	0.52	NA
09/24/09	6.42	2.47	0.00	3.95	<50	88[10]	350	1,200[18]	<0.50	<0.50	<0.50	<0.50	0.83	<0.50	NA
01/15/10	6.42	1.95	0.00	4.47	<50	60[6]	490	1,100[18]	<0.50	<0.50	<0.50	<0.50	1.0	<0.50	NA
09/09/10	6.42	2.52	0.00	3.90	<50	150[10]	500	890[18]	<0.50	<0.50	<0.50	<0.50	1.2	<0.50	NA
03/21/11	**6.42**	**1.40**	**0.00**	**5.02**	**<50**	**<50**	**230**	**730[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.3**	**<0.50**	**NA**
MW-15															
10/02/07	7.51	4.85	0.00	2.66	<50	99	<100	120	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/14/08	7.51	4.62	0.00	2.89	<50	<50	<100	88[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/26/08	7.51	4.81	0.00	2.70	<50	<50	<100	84[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	7.51	4.81	0.00	2.70	<50	<50	<100	53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	7.51	4.67	0.00	2.84	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	7.51	4.45	0.00	3.06	<50	<50	<100	110[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	7.51	4.68	0.00	2.83	<50	<50	<100	59	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	7.51	4.75	0.00	2.76	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	7.51	4.29	0.00	3.22	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/09/10	7.51	4.78	0.00	2.73	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**7.51**	**2.71**	**0.00**	**4.80**	**<50**	**<50**	**<100**	**200[18]**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-17															
09/14/07	0.04	4.10	0.00	-4.06	<50	<50	220	150[2]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/14/08	Not able to sample well-no access agreement between Rolls-Royce and Port of Oakland														
07/03/08	0.04	1.98	0.00	-1.94	<50	<50	<100	84[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA

Table 1
Groundwater Monitoring Data and Analytical Results
Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	SPHT (ft.)	GWE (msl)	TPH-G (µg/L)	TPH-D[1] (µg/L)	TPH-MO (µg/L)	TPH-JF (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Napthalene (µg/L)	SVOC (µg/L)
MW-17 (cont.)															
9/25/08[14]	0.04	4.77	0.00	-4.73	<50	<50	120	110[16]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	0.04	2.24	0.00	-2.20	<50	<50	<100	54	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	0.04	1.85	0.00	-1.81	<50	<50	<100	71[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	Not able to sample well-Oakland Airport security failed to provide access to well														
09/24/09	0.04	2.97	0.00	-2.93	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
1/15/10[14]	0.04	2.49	0.00	-2.45	<50	<50	<100	59[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/09/10	0.04	2.79	0.00	-2.75	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**0.04**	**2.25**	**0.00**	**-2.21**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
MW-18															
10/02/07	7.05	4.15	0.55	3.34**	Not developed or sampled due to presence of SPH										
03/14/08	7.05	3.62	0.63	3.93**	Not sampled due to presence of SPH				--	--	--	--	--	--	--
06/26/08	7.05	4.11	1.14	3.85**	Not sampled due to presence of SPH				--	--	--	--	--	--	--
09/25/08	7.05	3.77	0.56	3.73**	Not sampled due to presence of SPH				--	--	--	--	--	--	--
12/19/08	7.05	3.30	0.36	4.04**	Not sampled due to presence of SPH				--	--	--	--	--	--	--
03/26/09	7.05	3.28	0.55	4.21**	Not sampled due to presence of SPH				--	--	--	--	--	--	--
06/24/09	7.05	3.53	0.48	3.90**	Not sampled due to presence of SPH				--	--	--	--	--	--	--
09/24/09	7.05	3.57	0.46	3.85**	Not sampled due to presence of SPH				--	--	--	--	--	--	--
01/15/10	7.05	3.02	0.66	4.56**	Not sampled due to presence of SPH				--	--	--	--	--	--	--
09/09/10	7.05	3.18	0.10	3.95**	Not sampled due to presence of SPH				--	--	--	--	--	--	--
03/21/11	**7.05**	**1.99**	**0.15**	**5.18****	**Not sampled due to presence of SPH**				**--**	**--**	**--**	**--**	**--**	**--**	**--**
NPORD MW-3															
09/14/07	8.11	4.43	0.00	3.68	<50	<50	<100	64[2]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/14/08	Not able to sample well-no access agreement between Rolls-Royce and Port of Oakland														
07/03/08	8.11	3.96	0.00	4.15	<50	<50	<100	99[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	8.11	4.06	0.00	4.05	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	8.11	3.78	0.00	4.33	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	8.11	4.22	0.00	3.89	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	8.11	4.02	0.00	4.09	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	8.11	4.19	0.00	3.92	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	8.11	3.51	0.00	4.60	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/09/10	8.11	3.96	0.00	4.15	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**8.11**	**3.28**	**0.00**	**4.83**	**<50**	**<50**	**<100**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**

Table 1

Groundwater Monitoring Data and Analytical Results

Rolls-Royce Engine Services Test Facility

6701 Old Earhart Road

Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	SPHT (ft.)	GWE (msl)	TPH-G (µg/L)	TPH-D[1] (µg/L)	TPH-MO (µg/L)	TPH-JF (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Napthalene (µg/L)	SVOC (µg/L)
NPORD MW-4															
09/14/07	10.06	6.48	0.00	3.58	50	1,000[3]	1,400	2,000[2]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/14/08	Not able to sample well-no access agreement between Rolls-Royce and Port of Oakland														
07/03/08	10.06	6.26	0.00	3.80	<50	360[6]	700	960[7]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	10.06	6.28	0.00	3.78	<50	150[6]	240	820[16]	<0.50	<0.50	<0.50	<0.50	<0.50[4]	<0.50	NA
12/19/08	10.06	6.15	0.00	3.91	<50	320[10]	640	1,400[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	10.06	5.91	0.00	4.15	<50	95	160	520[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	10.06	6.10	0.00	3.96	<50	200[6]	100	1,000	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	10.06	6.20	0.00	3.86	<50	200[10,20]	180[20]	500[18,20]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	10.06	5.45	0.00	4.61	<50	93	<100	770[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/09/10	10.06	6.06	0.00	4.00	<50	<50	<100	290[18]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	**10.06**	**5.31**	**0.00**	**4.75**	**<50**	**<50**	**<100**	**270**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**
QA															
09/14/07	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
10/02/07	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/14/08	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
6/26/08[14]	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
07/03/08	--	--	--	--	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/25/08	--	--	--	--	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
12/19/08	--	--	--	--	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/26/09	--	--	--	--	<50	<50	<100	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
06/24/09	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/24/09	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
01/15/10	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
09/09/10	--	--	--	--	<50	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA
03/21/11	--	--	--	--	**<50**	**NA**	**NA**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**

Table 1

Groundwater Monitoring Data and Analytical Results

Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, California

EXPLANATIONS:

TOC = Top of Casing Elevation
DTW = Depth to Water
GWE = Groundwater Elevation
ft = feet
SPHT = Separate Phase Hydrocarbon Thickness
TPH-G= Total Petroleum Hydrocarbons as Gasoline
TPH-D = Total Petroleum Hydrocarbons as Diesel
TPH-MO = Total Petroleum Hydrocarbons as Motor Oil
TPH-JF = Total Petroleum Hydrocarbons as Jet Fuel
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
MTBE = Methyl Tertiary Butyl Ether
SVOC = Semi-Volatile Organic Compounds
(µg/L) = Micrograms per liter
NA = Not Analyzed
-- = Not Measured
QA = Trip Blank

ANALYTICAL METHODS:

Kiff Analytical LLC (NELAP #08263CA)
TPH-G, BTEX, MTBE, and Napthalene by EPA Method 8260B
TPH-D, TPH-MO, and TPH-JF by modified EPA Method 8015
SVOC by EPA Method 8270C

* TOC elevations surveyed relative to mean sea level by Morrow Surveying (PLS #5161) on October 8, 2007
** = GWE corrected for the presence of SPH [(TOC-DTW) + (SPH thickness x SPH specific gravity)]. Specific gravity of SPH is assumed to be 0.8.

[1] Analyzed with Silica Gel Cleanup
[2] Discrete peaks, higher boiling hydrocarbons present in sample that are atypical for Jet Fuel
[3] Discrete peaks, higher boiling hydrocarbons present in sample that are atypical for Diesel Fuel
[4] Matrix spike/matrix spike duplicate results associated with these samples for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.
[5] Due to the formation of an emulsion in this sample, the sample was centrifruged and decanted prior to extraction.
[6] Hydrocarbons present in this sample are higher-boiling than typical Diesel Fuel.
[7] Hydrocarbons present in this sample are higher-boiling than typical Jet Fuel.
[8] Lower boiling hydrocarbons are present in this sample that are atypical for Diesel Fuel.
[9] Discrete peaks present in this sample that are atypical for Jet Fuel.
[10] Some lower-boiling hydrocarbons than Diesel and some higher-boiling hydrocarbons than Diesel are present in this sample.
[11] Both lower-boiling and higher-boiling hydrocarbons than Jet Fuel are present in this sample.
[12] Sample contained primarily compounds not found in typical Gasoline.
[13] Hydrocarbons present in this sample are lower-boiling than typical Motor Oil
[14] Sample was analyzed by EPA Method 8260B using bottles that contained headspace bubbles greater than 1/4-inch in diameter.
[15] Lower boiling hydrocarbons are present in this sample that are atypical for Jet Fuel.
[16] Chromatographic pattern not typical for Jet Fuel.
[17] Diesel method reporting limit for this sample was increased due to interference from Gasoline range hydrocarbons.
[18] Higher-boiling hydrocarbons are present in this sample that are atypical for Jet Fuel.
[19] Laboratory confirmed results

Table 1

Groundwater Monitoring Data and Analytical Results

Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, California

EXPLANATIONS:

[20] Repeat analysis by Modified EPA Method 8015 yielded inconsistent results for sample NPORD MW-4. The concentrations appear to vary between bottles. The highest concentration results are reported.

[21] All analytes were ND or less than their respective reporting limits

[22] Analysis for SVOC requested by Client.

Table 2

Field Measurements and Groundwater Analytical Results

Rolls-Royce Engine Services Test Facility

6701 Old Earhart Road

Oakland, California

WELL ID/ DATE	D.O. Pre-Purge (mg/L)	D.O. Post-Purge (mg/L)	ORP Pre-Purge (mV)	ORP Post-Purge (mV)	Ferric Iron (mg/L)	Ferrous Iron (mg/L)	Nitrate as NO_3 (mg/L)	Sulfate as SO_4 (mg/L)	Methane (µg/L)
MW-1									
09/09/10	0.00	0.74	-462.4	-124.7	3.2	0.81	<10	2,000	117
MW-2									
09/09/10	0.03	0.29	-261.9	-233.5	--	--	--	--	--
MW-3									
09/09/10	0.38	0.24	-149.2	-123.5	--	--	--	--	--
MW-4									
09/09/10	0.09	0.06	-295.2	-299.4	91	2.4	<2.5	8.6	6,590
MW-5									
09/09/10	0.84	0.05	-374	-459	68	12	<2.5	<2.5	4,760
MW-6									
09/09/10	0.22	0.20	-271.8	-273.5	40	<0.10	<2.5	540	3,280
MW-7									
09/09/10	0.07	0.09	-260.7	-257.4	340	18	<2.5	<2.5	6,350
MW-8									
09/09/10	0.14	0.11	-276	-281	23	2.1	<2.5	3.9	8,500
MW-9									
09/09/10	0.00	0.65	-548.1	-501.4	13	<0.10	<2.5	23	8,310
MW-10									
09/09/10	0.11	0.58	-333.3	-391.2	--	--	--	--	--
MW-11									
09/09/10	0.84	0.96	-399.4	-370.1	--	--	--	--	--
MW-12									
09/09/10	0.15	0.49	-340.1	-348.2	--	--	--	--	--
MW-13									
09/09/10	0.45	0.82	-142.9	-130.5	--	--	--	--	--
MW-14									
09/09/10	0.20	0.14	-264.6	-223.9	--	--	--	--	--

Table 2

Field Measurements and Groundwater Analytical Results

Rolls-Royce Engine Services Test Facility

6701 Old Earhart Road

Oakland, California

WELL ID/ DATE	D.O. Pre-Purge (mg/L)	D.O. Post-Purge (mg/L)	ORP Pre-Purge (mV)	ORP Post-Purge (mV)	Ferric Iron (mg/L)	Ferrous Iron (mg/L)	Nitrate as NO_3 (mg/L)	Sulfate as SO_4 (mg/L)	Methane (µg/L)
MW-15									
09/09/10	0.51	0.63	196.1	180.2	--	--	--	--	--
MW-17									
09/09/10	0.40	0.51	168.4	149.1	--	--	--	--	--
NPORD MW-3									
09/09/10	0.46	0.50	-208.2	-211.6	3.2	3.2	<10	1,200	27.8

Table 2

Field Measurements and Groundwater Analytical Results

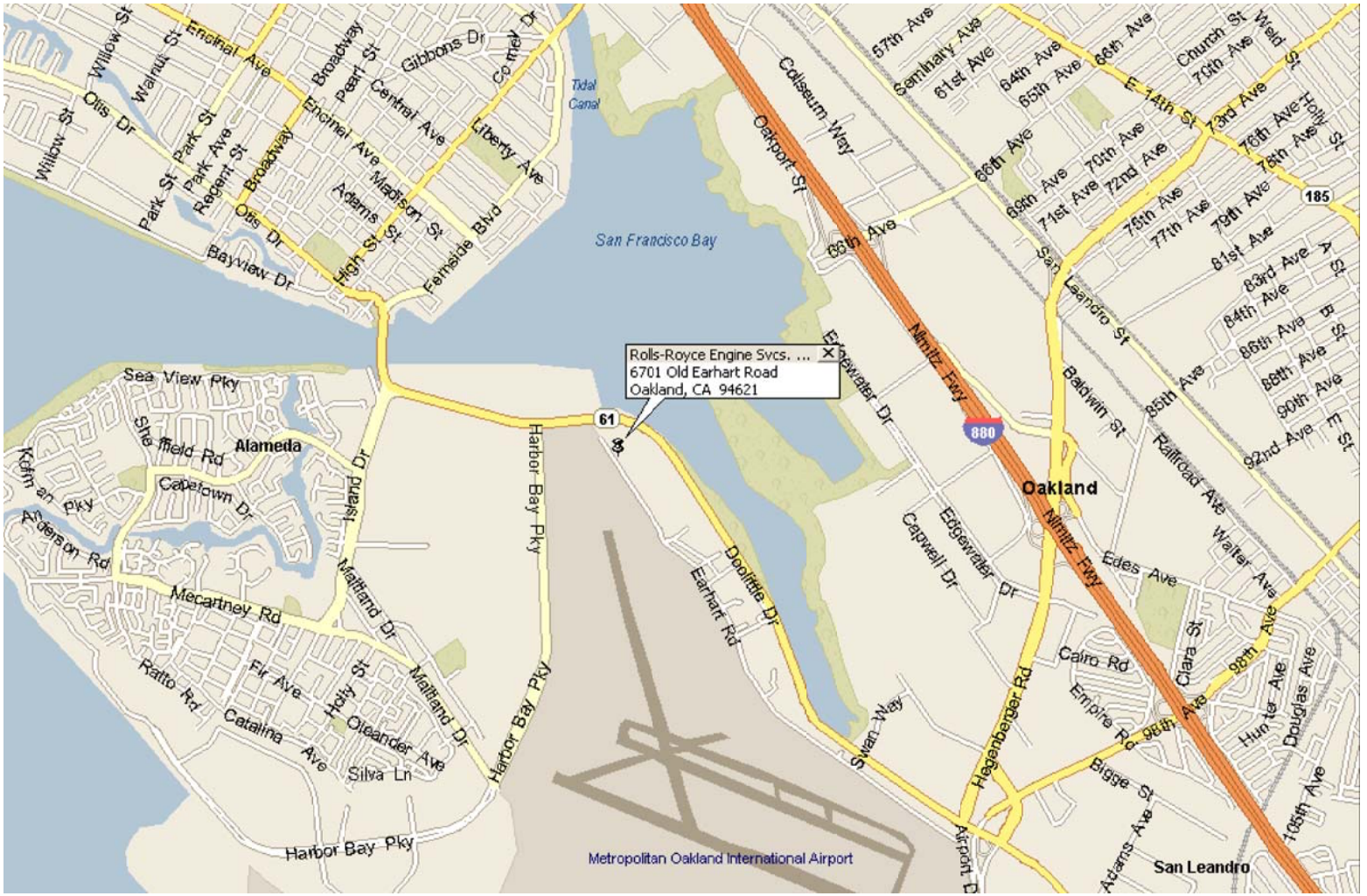
Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, California

EXPLANATIONS:

ORP = Oxidation Reduction Potential
D.O. = Dissolved Oxygen
(mV) = Millivolts
(µg/L) = Micrograms per liter
(mg/L) = Milligrams per liter
-- = Not Measured

ANALYTICAL METHODS:

Nitratre as NO_3 and Sulfate as SO_3 by EPA Method 300.0
Ferric Iron by 200.7/SM 3500 Fe D
Ferrous Iron by SM 3500 Fe D
Methane by Method RSK-175M



SITE LOCATION MAP
ROLLS–ROYCE ENGINE SERVICES TEST FACILITY
6701 OLD EARHART RD.
OAKLAND, CA

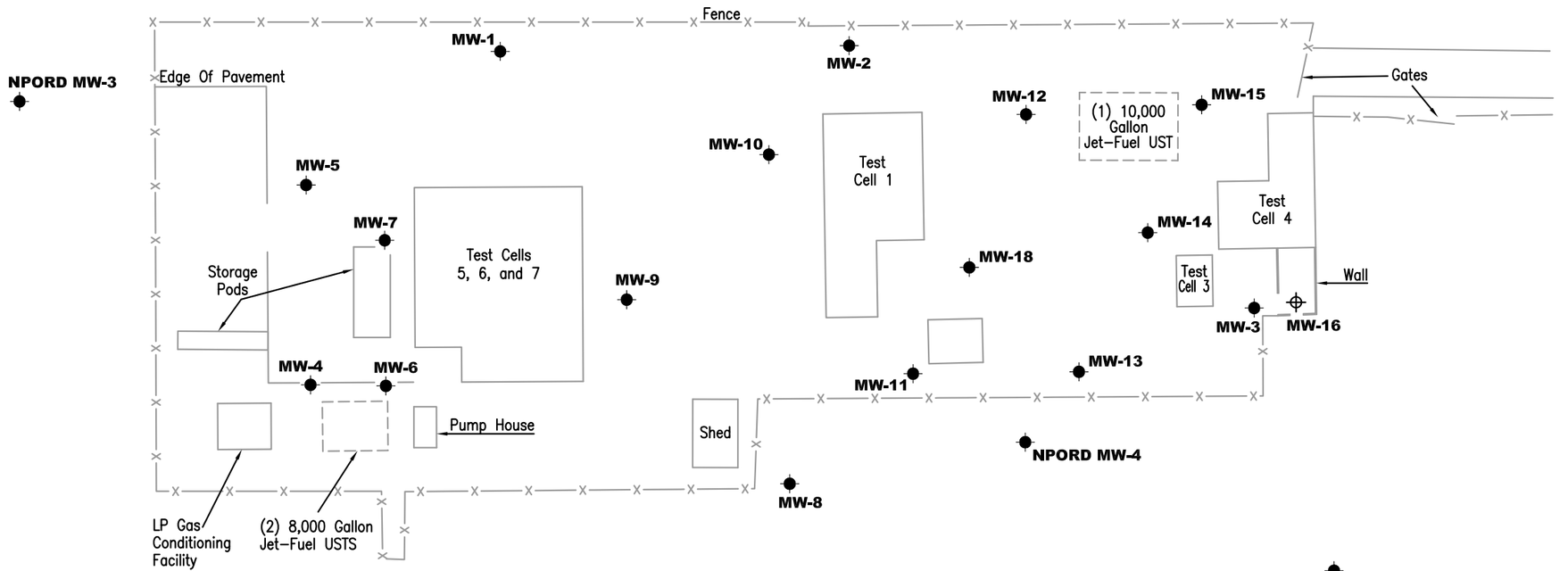
FIGURE
1

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
25–948218.7		11/13/07	

FILE NAME: P:\Enviro\Rolls Royce\1–Site Location Map.dwg | Layout Tab: Vicinity Map

EXPLANATION

- Groundwater monitoring well
- Proposed monitoring well – not installed location inaccessible by drill rig



Source: Figure modified from drawing provided by Morrow Surveying, Dated: 10/8/07.

FIGURE 2

SITE PLAN
Rolls–Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, CA

REVISED DATE

GETTLER-RYAN INC.
6747 Sierra Court, Suite J
Dublin, CA 94568
(925) 551-7555

PROJECT NUMBER 948218.2

REVIEWED BY

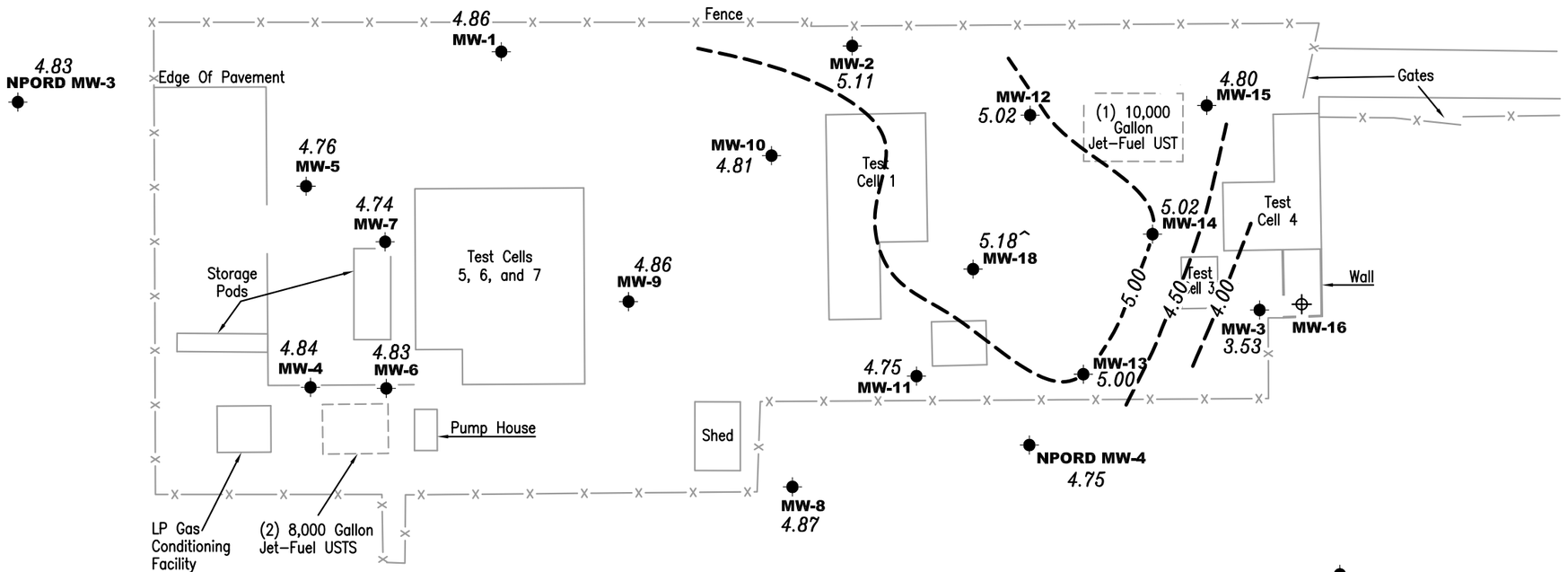
DATE 11/07

FILE NAME: P:\Enviro\Rolls Royce\Q10-Rolls Royce.dwg | Layout Tab: Site Plan

FIGURE 3

EXPLANATION

- ● Groundwater monitoring well
- ⊕ Proposed monitoring well – not installed location inaccessible by drill rig
- *99.99* Groundwater elevation in feet referenced to Mean Sea Level
- -99.99- Groundwater elevation contour, dashed where inferred
- *[99.99]* Not used in contouring
- ^ Groundwater elevation corrected for the presence of separate-phase hydrocarbons



Source: Figure modified from drawing provided by Morrow Surveying, Dated: 10/8/07.

POTENTIOMETRIC MAP
Rolls-Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, CA

DATE
March 21, 2011

REVISED DATE

REVIEWED BY

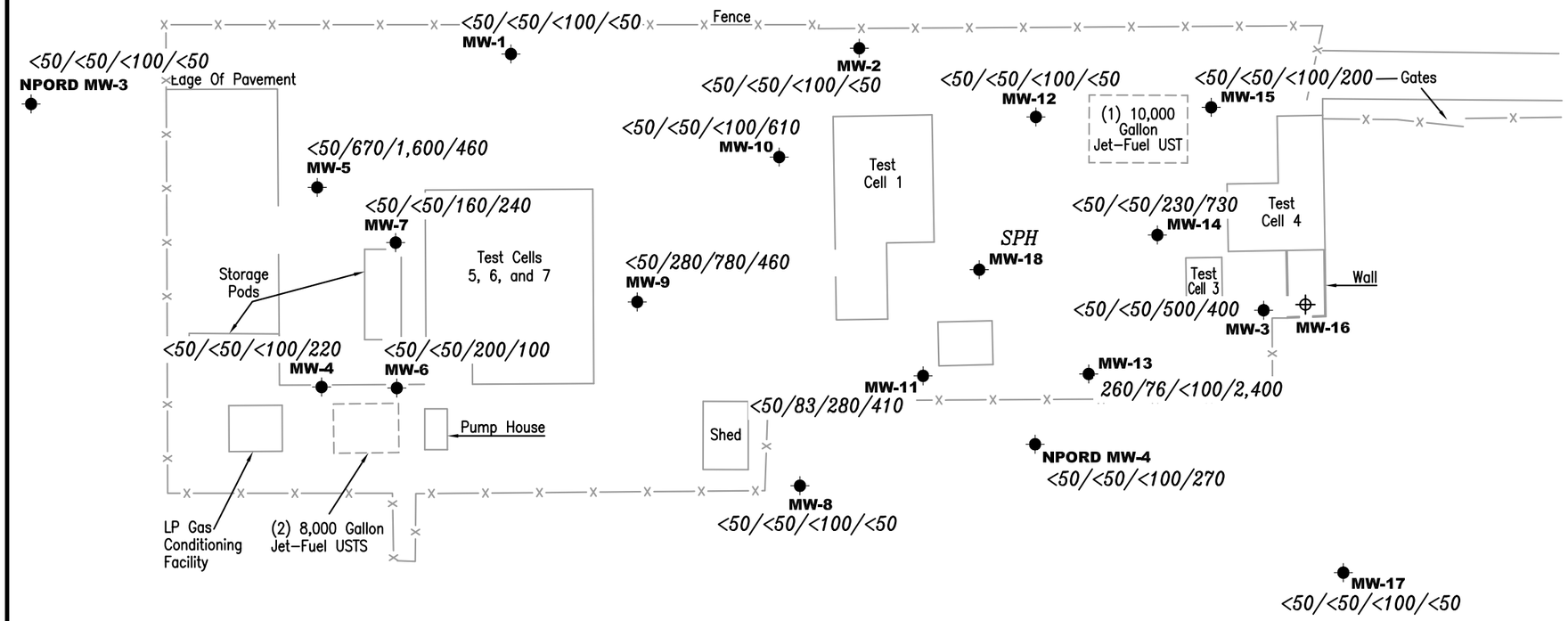
PROJECT NUMBER
948218

GETTLER-RYAN INC.
6747 Sierra Court, Suite J
Dublin, CA 94568
(925) 551-7555

FILE NAME: P:\Enviro\Rolls Royce\Q11-Rolls Royce.dwg | Layout Tab: Pot1

EXPLANATION

- ● Groundwater monitoring well
- ⊕ Proposed monitoring well – not installed location inaccessible by drill rig
- ***A/B/C/D*** Total Petroleum Hydrocarbons (TPH) as Gasoline/TPH as Diesel/ TPH as Motor Oil/TPH as Jet Fuel concentrations in µg/L
- ***SPH*** Separate Phase Hydrocarbons



Source: Figure modified from drawing provided by Morrow Surveying, Dated: 10/8/07.

FIGURE 4

CONCENTRATION MAP
Rolls–Royce Engine Services Test Facility
6701 Old Earhart Road
Oakland, CA

DATE March 21, 2011

REVISED DATE

REVIEWED BY

PROJECT NUMBER 948218

GETTLER-RYAN INC.
6747 Sierra Court, Suite J
Dublin, CA 94568
(925) 551-7555

FILE NAME: P:\Enviro\Rolls Royce\Q11-Rolls Royce.dwg | Layout Tab: Con1

GR FIELD METHODS AND PROCEDURES - GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

WELL CONDITION STATUS SHEET

Client/Facility #: **Rolls Royce Engine Test**
Site Address: **6701 Old Earhart Road**
City: **Oakland, CA**

Job #: **25-948218.1**
Event Date: 3-21-11
Sampler: Joe

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-1	O.K	O.K	O.K	3-S	O.K	O.K	O.K	N	N	8" Boart. Long. / 3	NO
MW-2	↓	↓	↓	3-S	↑	↓	↓	↓	↓	8" Boart. Long / 3	
MW-5	↓	↓	↓	O.K	↑	↓	↓	↓	↓	8" Morrison / 2	
MW-9	↓	↓	↓	↓	↑	↓	↓	↓	↓	" "	
MW-10	↓	↓	↓	↓	↑	↓	↓	↓	↓	" "	
MW-11	↓	↓	↓	↓	↓	↓	↓	↓	↓	" "	↓

Comments

WELL CONDITION STATUS SHEET

Client/Facility #: Rolls Royce Engine Test
Site Address: 6701 Old Earhart Road
City: Oakland, CA

Job #: 25-948218.1
Event Date: 3/21/11
Sampler: HAIG KEVORK

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-12	OK						OK	N	N	MORRISON - 8" / 2	NO
MW-13	OK						OK			MORRISON - 12" / 2	
MW-14	OK						OK			MORRISON - 8" / 2	
MW-15	OK						OK			MORRISON - 8" / 2	
MW-3	OK	OK	2-M	2-BROKEN BOLTS IN FLANGES	OK	OK	OK			BOART LONGYEAR - 8" / 3	
MW-18	OK	OK	2-M	2-B	OK	OK	OK			MORRISON - 8" / 2	
MW-17	OK	OK	OK	1-S	OK	OK	OK			MORRISON - 8" / 2	

Comments

WELL CONDITION STATUS SHEET

Client/Facility #: Rolls Royce Engine Test
Site Address: 6701 Old Earhart Road
City: Oakland, CA

Job #: 25-948218.1
Event Date: 3/21/4
Sampler: JK

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-7	ok							N	N	8" MORRISON / 2	N
MW-6	ok										
MW-4	ok										
MW-8	ok										
NPORLMW3	ok									12" MORRISON / 2	
NPORLMW4	ok	N/A			ok					Monument	

Comments

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 3-21-11 (inclusive)

City: **Oakland, CA** Sampler: Joe

Well ID: MW-1 Date Monitored: 3-21-11

Well Diameter: 2 4 in.

Total Depth: 8.51 ft.

Depth to Water: 2.31 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

6.20 xVF 0.17 = 1.05 x3 case volume = Estimated Purge Volume: 3.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.55

Purge Equipment:

Disposable Bailer	✓
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1235 Weather Conditions: showers

Sample Time/Date: 1300 / 3-21-11 Water Color: light grey Odor: Y / (N)

Approx. Flow Rate: — gpm. Sediment Description: none

Did well de-water? no If yes, Time: — Volume: — gal. DTW @ Sampling: 2.63

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (S))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1241	1	7.36	Out of range	15.2		
1245	2	7.41	Out of range	15.6		
1248	3.5	7.54	out of range	15.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 3-21-11 (inclusive)

City: **Oakland, CA** Sampler: Joe

Well ID mw-2 Date Monitored: 3-21-11

Well Diameter (2) 4 in.

Total Depth 11.78 ft.

Depth to Water 1.92 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

9.86 xVF 0.17 = 1.67 x3 case volume = Estimated Purge Volume: 5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.89

Purge Equipment:

Disposable Bailer	✓
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1200 Weather Conditions: cloudy

Sample Time/Date: 1225 / 3-21-11 Water Color: light brown Odor: Y / (N)

Approx. Flow Rate: — gpm. Sediment Description: slightly silty

Did well de-water? no If yes, Time: — Volume: — gal. DTW @ Sampling: 2.15

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1206	1.5	6.94	out of range	16.1		
1210	3	6.96	out of range	15.8		
1215	5	7.15	out of range	15.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
mw-2	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test
Site Address: 6701 Old Earhart Road
City: Oakland, CA

Job Number: 25-948218.1
Event Date: 3/21/11 (inclusive)
Sampler: HAIG K.

Well ID: MW-3
Well Diameter: (2) 4 in.
Total Depth: 12.10 ft.
Depth to Water: 3.20 ft.

Date Monitored: 3/21/11

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.90 xVF 0.17 = 1.5 x3 case volume = Estimated Purge Volume: 4.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.98

Purge Equipment:

Disposable Bailer	✓
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: ~~0~~ _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____
Product Transferred to: _____

Start Time (purge): 1230
Sample Time/Date: 1245 / 3/21/11
Approx. Flow Rate: _____ gpm.
Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 4.16

Weather Conditions: CLOUDY
Water Color: CLEAR Odor: (Y) N VERY SLIGHT
Sediment Description: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1233	1.5	6.96	73999	15.5		
1237	3	6.94	OUT OF	15.7		
1241	4.5	6.91	RANGE	15.8		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	9 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 3/21/11 (inclusive)
City: Oakland, CA | Sampler: JH

Well ID: MW-4 | Date Monitored: 3/21/11
Well Diameter: (2) 4 in.
Total Depth: 10.10 ft.
Depth to Water: 4.95 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.15 xVF .17 = .87 x3 case volume = Estimated Purge Volume: 2.62 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.98

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____
Product Transferred to: _____

Start Time (purge): 1335 | Weather Conditions: Cloudy
Sample Time/Date: 1400 / 3/21/11 | Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: — gpm. | Sediment Description: Low
Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 5.94

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1338	1	6.88	off of Rule	15.2		
1342	2	6.71	1	15.0		
1346	2.5	6.65		14.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 3-21-11 (inclusive)

City: **Oakland, CA** Sampler: Joe

Well ID MW-5

Well Diameter (2)4 in.

Total Depth 9.84 ft.

Depth to Water 3.59 ft.

Date Monitored: 3-21-11

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.25 xVF 0.17 = 1.06 x3 case volume = Estimated Purge Volume: 3.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.84

Purge Equipment:

Disposable Bailer	✓
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1125 Weather Conditions: cloudy/showers

Sample Time/Date: 1145 / 3-21-11 Water Color: dark grey Odor: Y / (N)

Approx. Flow Rate: ~ gpm. Sediment Description: none

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 4.10

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1130	1	6.83	out of range	16.2		
1134	2.5	6.85	out-of-range	16.3		
1138	3.5	6.87	out-of-range	16.4		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	3 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 3/21/11 (inclusive)
City: Oakland, CA | Sampler: JH

Well ID: MW-6 | Date Monitored: 3/21/11
Well Diameter: (2) 4 in.
Total Depth: 10.10 ft.
Depth to Water: 4.68 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.42 xVF .17 = .92 x3 case volume = Estimated Purge Volume: 2.76 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.76

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1250 | Weather Conditions: Cloudy
Sample Time/Date: 1320 / 3/21/11 | Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: — gpm. | Sediment Description: Light
Did well de-water? no If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 5.40

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1254	1	6.93	out of Range	14.7		
1258	2	6.87	↓	14.4		
1302	3	6.80	↓	14.6		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 3/21/11 (inclusive)

City: **Oakland, CA** Sampler: JH

Well ID MW-7 Date Monitored: 3/21/11

Well Diameter (2)4 in.

Total Depth 10.08 ft.

Depth to Water 4.49 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

5.59 xVF .17 = .95 x3 case volume = Estimated Purge Volume: 2.85 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.60

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____
Product Transferred to: _____

Start Time (purge): 1410 Weather Conditions: Cloudy

Sample Time/Date: 1430 / 3/21/11 Water Color: Cloud, Odor: Y / (N)

Approx. Flow Rate: — gpm. Sediment Description: Lt Silt

Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 5.40

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1413	1	6.83	out of Range	14.7		
1416	2	6.78	↓	14.3		
1419	3	6.71	↓	14.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 3/21/11 (inclusive)
City: Oakland, CA | Sampler: JH

Well ID: MW-8 | Date Monitored: 3/21/11
Well Diameter: (2) 4 in.
Total Depth: 9.80 ft.
Depth to Water: 3.38 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.42 xVF .17 = 1.09 x3 case volume = Estimated Purge Volume: 3.27 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.66

Purge Equipment:
- Disposable Bailer: X
- Stainless Steel Bailer:
- Stack Pump:
- Suction Pump:
- Grundfos:
- Peristaltic Pump:
- QED Bladder Pump:
- Other:

Sampling Equipment:
- Disposable Bailer: X
- Pressure Bailer:
- Discrete Bailer:
- Peristaltic Pump:
- QED Bladder Pump:
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1110 | Weather Conditions: Cloudy
Sample Time/Date: 1145 / 3/21/11 | Water Color: Clay | Odor: Y / (N)
Approx. Flow Rate: — gpm. | Sediment Description: Lt. Brn
Did well de-water? NO | If yes, Time: ____ Volume: ____ gal. | DTW @ Sampling: 4.20

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1113	1	7.39	out of Range	16.2		
1117	2	7.30	↓	16.0		
1121	3.5	7.05	↓	15.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: Due to wet/mudy conditions not able to access well with sampling truck.

Add/Replaced Lock: ____ Add/Replaced Plug: ____ Add/Replaced Bolt: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 3-21-11 (inclusive)

City: **Oakland, CA** Sampler: Joe

Well ID MW-9 Date Monitored: 3-21-11

Well Diameter 2/4 in.

Total Depth 9.96 ft.

Depth to Water 4.58 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.38 xVF 0.17 = 0.91 x3 case volume = Estimated Purge Volume: 3 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.65

Purge Equipment:

Disposable Bailer	✓
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1045 Weather Conditions: cloudy

Sample Time/Date: 1112 / 3-21-11 Water Color: light grey Odor: Y / (N)

Approx. Flow Rate: — gpm. Sediment Description: none

Did well de-water? no If yes, Time: — Volume: — gal. DTW @ Sampling: 4.69

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1050	1	6.71	out of range	15.2		
1058	2	6.78	out of range	15.6		
1103	3	6.81	out-of-range	15.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 3-21-11 (inclusive)

City: **Oakland, CA** Sampler: Joe

Well ID MW-10 Date Monitored: 3-21-11

Well Diameter (2) 4 in.

Total Depth 10.13 ft.

Depth to Water 2.70 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

7.43 xVF 0.17 = 1.26 x3 case volume = Estimated Purge Volume: 4 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.18

Purge Equipment:

Disposable Bailer	✓
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1016 Weather Conditions: cloudy

Sample Time/Date: 1038 / 3-21-11 Water Color: light grey Odor: Y / (N)

Approx. Flow Rate: gpm. Sediment Description: none

Did well de-water? no If yes, Time: — Volume: — gal. DTW @ Sampling: 3.11

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1021	1	6.82	out of range	15.6		
1026	2.5	6.81	out of range	15.2		
1030	4	6.77	out of range	15.4		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 3-21-11 (inclusive)

City: **Oakland, CA** Sampler: Joe

Well ID mw-11 Date Monitored: 3-21-11

Well Diameter 2 1/4 in.

Total Depth 10.02 ft.

Depth to Water 2.85 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.17 xVF 0.17 = 1.22 x3 case volume = Estimated Purge Volume: 4 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.28

Purge Equipment:

Disposable Bailer	✓
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0945 Weather Conditions: cloudy

Sample Time/Date: 1010 3-21-11 Water Color: light grey Odor: Y / N

Approx. Flow Rate: — gpm. Sediment Description: none

Did well de-water? no If yes, Time: — Volume: — gal. DTW @ Sampling: 3.16

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0950	1	6.88	out of range	16.1		
0955	2.5	6.84	out of range	15.6		
1000	4	6.86	out of range	15.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
mw-11	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**
Site Address: **6701 Old Earhart Road** Event Date: 3/21/11 (inclusive)
City: **Oakland, CA** Sampler: HAIG K.

Well ID MW-12 Date Monitored: 3/21/11
Well Diameter (2)4 in.
Total Depth 9.90 ft.
Depth to Water 2.30 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.60 xVF 0.17 = 1.2 x3 case volume = Estimated Purge Volume: 3.75 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.82

Purge Equipment:
Disposable Bailer ✓
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer ✓
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1103
Sample Time/Date: 1120 / 3/21/11
Approx. Flow Rate: gpm.
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 3.28

Weather Conditions: CLOUDY
Water Color: CLEAR Odor: (Y) N SLIGHT
Sediment Description:

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)
1107	1.5	7.15	>3999	14.7		
1110	2.5	7.13	OUT OF	14.8		
1113	3.75	7.10	RANGE	15.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12	4 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**

Site Address: **6701 Old Earhart Road** Event Date: 3/21/11 (inclusive)

City: **Oakland, CA** Sampler: HAG K.

Well ID MW-13 Date Monitored: 3/21/11

Well Diameter 2 (4) in.

Total Depth 9.48 ft.

Depth to Water 1.10 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.38 xVF 0.66 = 5.5 x3 case volume = Estimated Purge Volume: 16.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 2.77

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	✓
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1210 Weather Conditions: CLOUDY

Sample Time/Date: 1300/3/21/11 Water Color: CLEAR Odor: (Y) N MODERATE

Approx. Flow Rate: 1.5 gpm. Sediment Description:

Did well de-water? YES If yes, Time: 1219 Volume: 13.5 gal. DTW @ Sampling: 2.75

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C) / F)	D.O. (mg/L)	ORP (mV)
1214	6	6.83	>3999	15.2		
1218	12	6.80	OUT OF RANGE	15.4		
1219	13.5 DE WATERED, MOVED TO MW-3 THEN CAME BACK AND SAMPLED					

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-13	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 3/21/11 (inclusive)
City: Oakland, CA | Sampler: HAIG K.

Well ID: MW-14 | Date Monitored: 3/21/11
Well Diameter: (2) 4 in.
Total Depth: 10.03 ft.
Depth to Water: 1.40 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.63 xVF 0.17 = 1.4 x3 case volume = Estimated Purge Volume: 4.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.12

Purge Equipment:
- Disposable Bailer: ✓
- Stainless Steel Bailer:
- Stack Pump:
- Suction Pump:
- Grundfos:
- Peristaltic Pump:
- QED Bladder Pump:
- Other:

Sampling Equipment:
- Disposable Bailer: ✓
- Pressure Bailer:
- Discrete Bailer:
- Peristaltic Pump:
- QED Bladder Pump:
- Other:

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: (0) ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____
Product Transferred to: _____

Start Time (purge): 1135
Sample Time/Date: 1155 / 3/21/11
Approx. Flow Rate: _____ gpm.
Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 2.47

Weather Conditions: CLOUDY
Water Color: CLEAR Odor: (Y) / N MODERATE
Sediment Description:

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)
1138	1.5	6.91	73999	14.9		
1142	3	6.88	OUT OF	15.2		
1146	4.5	6.87	RANGE	15.1		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-14	9 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**
Site Address: **6701 Old Earhart Road** Event Date: 3/21/11 (inclusive)
City: **Oakland, CA** Sampler: HAIG K

Well ID MW-15 Date Monitored: 3/21/11
Well Diameter (2) 4 in.
Total Depth 9.97 ft.
Depth to Water 2.71 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.26 xVF 0.17 = 1.2 x3 case volume = Estimated Purge Volume: 3.75 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.16

Purge Equipment:
Disposable Bailer ✓
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer ✓
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1032 Weather Conditions: CLOUDY
Sample Time/Date: 1050 / 3/21/11 Water Color: CLEAR Odor: Y (N)
Approx. Flow Rate: gpm. Sediment Description:
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 3.55

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1035	1.5	7.22	3480	14.1		
1038	2.5	7.18	3512	14.3		
1042	3.75	7.19	3526	14.3		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-15	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**
Site Address: **6701 Old Earhart Road** Event Date: 3/21/11 (inclusive)
City: **Oakland, CA** Sampler: HAIG K.

Well ID MW-1M Date Monitored: 3/21/11
Well Diameter (2) 4 in.
Total Depth 9.81 ft.
Depth to Water 2.25 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.56 xVF 0.17 = 1.28 x3 case volume = Estimated Purge Volume: 4 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.76

Purge Equipment:
- Disposable Bailer ✓
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other:

Sampling Equipment:
- Disposable Bailer ✓
- Pressure Bailer
- Discrete Bailer
- Peristaltic Pump
- QED Bladder Pump
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1305 Weather Conditions: CLOUDY
Sample Time/Date: 1325 / 3/21/11 Water Color: CLOUDY Odor: Y / (N)
Approx. Flow Rate: gpm. Sediment Description:
Did well de-water? YES If yes, Time: 1308 Volume: 1.5 gal. DTW @ Sampling: 3.75

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1308	1.5	7.18	OUT OF RANGE	15.1	STARTED	DEWATERING

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1M	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 3/21/11 (inclusive)
City: Oakland, CA | Sampler: HAIG K.

Well ID: MW-18
Well Diameter: (2) 4 in.
Total Depth: 9.95 ft.
Depth to Water: 1.99 ft.
4.96 xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Date Monitored: 3/21/11

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: N/A

Purge Equipment:
- Disposable Bailer: ✓
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other:

Sampling Equipment: N/A
- Disposable Bailer
- Pressure Bailer
- Discrete Bailer
- Peristaltic Pump
- QED Bladder Pump
- Other:

Time Started: 1005 (2400 hrs)
Time Completed: 1018 (2400 hrs)
Depth to Product: 1.84 ft
Depth to Water: 1.99 ft
Hydrocarbon Thickness: 0.15 ft
Visual Confirmation/Description: DARK BROWN OILY
Skimmer (Absorbant Sock) (circle one)
Amt Removed from Skimmer: N/A gal.
Amt Removed from Well: 100 milliliter
Water Removed: ONE LITER
Product Transferred to: DRUMS ON-SITE

Start Time (purge): _____ Weather Conditions: CLOUDY
Sample Time/Date: N/A / _____ Water Color: _____ Odor: Y / N _____
Approx. Flow Rate: _____ gpm. Sediment Description: _____
Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: N/A

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: NOT SAMPLED DUE TO THE PRESENCE OF SPH (0.15'). ONE ABSORBANT SOCK IN WELL.

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Rolls Royce Engine Test** Job Number: **25-948218.1**
Site Address: **6701 Old Earhart Road** Event Date: 3/21/11 (inclusive)
City: **Oakland, CA** Sampler: JH

Well ID NPORd MW-3 Date Monitored: 3/21/11
Well Diameter 2 (4) in.
Total Depth 16.44 ft.
Depth to Water 3.28 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

13.16 xVF .66 = 8.68 x3 case volume = Estimated Purge Volume: 26.05 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.91

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump X
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer X
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1200 Weather Conditions: Cloudy
Sample Time/Date: 1230 / 3/21/11 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: 3 gpm. Sediment Description: Low
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 4.97

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (ms))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1203	9	6.81	out of Range	14.3		
1206	18	6.61	↓	14.2		
1209	26	6.45	↓	14.1		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
NPortMW3	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: (2) TUBes in well

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Rolls Royce Engine Test | Job Number: 25-948218.1
Site Address: 6701 Old Earhart Road | Event Date: 3/21/11 (inclusive)
City: Oakland, CA | Sampler: JH

Well ID: NPORd MW-4 | Date Monitored: 3/28/11
Well Diameter: (2) 4 in.
Total Depth: 18.83 ft.
Depth to Water: 5.31 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

13.52 xVF .17 = 2.29 x3 case volume = Estimated Purge Volume: 6.89 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.01

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 1000 | Weather Conditions: Cloudy
Sample Time/Date: 1050 / 3/21/11 | Water Color: Cloudy | Odor: Y / (N)
Approx. Flow Rate: — gpm. | Sediment Description: Lt Brn
Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 6.40

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1006	2	6.91	out of Range	14.9		
1013	4	6.84	↓	14.3		
1020	7	6.82	↓	14.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
NPortMW-4	7 x voa vial	YES	HCL	KIFF	TPH-JET FUEL/TPH-MO/TPH-DROw/sgc(8015)/ TPH-GRO/BTEX/MTBE/NAPHTHALENE(8260)

COMMENTS: (2) tubes in well Due to wet/muddy conditions, not able to access well with sampling truck
Management

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

BAG WEIGHT 20.5 GRAMS

PES Environmental, Inc.
Engineering & Environmental Services

LOCATION: TESTCAL M
PROJECT:
JOB NO.:

SEPARATE-PHASE HYDROCARBON REMOVAL LOG

Date	Time	Well ID	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness (feet)	Amount of Product Removed	Notes
8/5/10	11:30	MW18				395 GRAMS	
8/12/10	07:30	MW18				418 GRAMS	
8/23/10	13:45	MW18				413 GRAMS	
9/8/10	12:25	MW18				441 GRAMS	
9/15/10	10:35	MW18				373 GRAMS	
9/22/10	7:00	MW18				401 GRAMS	
9/29/10	9:30	MW18				396 GRAMS	
10/6/10	12:20	MW18				400 GRAMS	
10/20/10	10:10	MW18				422 GRAMS	
10/27/10	0700	MW18				432 GRAMS	
11/3/10	0820	MW18				141 GRAMS	
11/22/10	0935	MW18				372 GRAMS	

BAG WEIGHT 20.5 GRAMS

PES Environmental, Inc.
Engineering & Environmental Services

LOCATION: TEXACO M
PROJECT:
JOB NO.:

SEPARATE-PHASE HYDROCARBON REMOVAL LOG

Date	Time	Well ID	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness (feet)	Amount of Product Removed	Notes
12/8/10	0930	MW18				421.5 GRAMS	
12/16/10	1045	MW18				396 GRAMS	
12/24/10	0940	MW18				403 GRAMS	
1/12/11	1310	MW18				417 GRAMS	
1/27/11	0845	MW18				400 GRAMS	
2/14/11	1320	MW18				421 GRAMS	
3/2/11	0910	MW18				418 GRAMS	
3/14/11	1145	MW18				410 GRAMS	
3/25/11	0845	MW18				427 GRAMS	
4/4/11	1320	MW18				416 GRAMS	

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Laboratory Results

Doug Lee
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, CA 94568

Subject : 19 Water Samples
Project Name : Rolls-Royce Engine Test Facility
Project Number : 25-948218.1

Dear Mr. Lee,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **QA** Matrix : Water Lab Number : 76860-01
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:54
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:54
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:54
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:54
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:54
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/24/11 22:54
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:54
4-Bromofluorobenzene (Surr)	94.6		% Recovery	EPA 8260B	03/24/11 22:54
1,2-Dichloroethane-d4 (Surr)	98.8		% Recovery	EPA 8260B	03/24/11 22:54
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	03/24/11 22:54

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-1** Matrix : Water Lab Number : 76860-02
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:48
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:48
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:48
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:48
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:48
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/24/11 20:48
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:48
4-Bromofluorobenzene (Surr)	90.7		% Recovery	EPA 8260B	03/24/11 20:48
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	03/24/11 20:48
Toluene - d8 (Surr)	110		% Recovery	EPA 8260B	03/24/11 20:48
TPH as Jet Fuel	< 50	50	ug/L	M EPA 8015	03/25/11 11:09
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/25/11 14:48
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/11 11:09
Octacosane (Diesel Surrogate)	93.1		% Recovery	M EPA 8015	03/25/11 11:09
Octacosane (Silica Gel Surr)	99.6		% Recovery	M EPA 8015	03/25/11 14:48

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-2** Matrix : Water Lab Number : 76860-03
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:58
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:58
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:58
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:58
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:58
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/24/11 20:58
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 20:58
4-Bromofluorobenzene (Surr)	96.4		% Recovery	EPA 8260B	03/24/11 20:58
1,2-Dichloroethane-d4 (Surr)	98.4		% Recovery	EPA 8260B	03/24/11 20:58
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	03/24/11 20:58
TPH as Jet Fuel	< 50	50	ug/L	M EPA 8015	03/25/11 11:44
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/25/11 15:18
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/11 11:44
Octacosane (Diesel Surrogate)	85.7		% Recovery	M EPA 8015	03/25/11 11:44
Octacosane (Silica Gel Surr)	89.6		% Recovery	M EPA 8015	03/25/11 15:18

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-3** Matrix : Water Lab Number : 76860-04
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:04
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:04
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:04
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:04
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:04
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/24/11 22:04
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 22:04
4-Bromofluorobenzene (Surr)	98.4		% Recovery	EPA 8260B	03/24/11 22:04
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	03/24/11 22:04
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	03/24/11 22:04
TPH as Jet Fuel	**400**	50	ug/L	M EPA 8015	03/25/11 12:19
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/25/11 15:47
TPH as Motor Oil	**500**	100	ug/L	M EPA 8015	03/25/11 12:19
Octacosane (Diesel Surrogate)	89.5		% Recovery	M EPA 8015	03/25/11 12:19
Octacosane (Silica Gel Surr)	89.4		% Recovery	M EPA 8015	03/25/11 15:47

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-4** Matrix : Water Lab Number : 76860-05
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:00
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:00
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:00
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:00
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:00
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 04:00
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:00
4-Bromofluorobenzene (Surr)	96.0		% Recovery	EPA 8260B	03/25/11 04:00
1,2-Dichloroethane-d4 (Surr)	98.4		% Recovery	EPA 8260B	03/25/11 04:00
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	03/25/11 04:00
TPH as Jet Fuel	**220**	50	ug/L	M EPA 8015	03/25/11 12:54
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/25/11 16:16
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/11 12:54
Octacosane (Diesel Surrogate)	81.4		% Recovery	M EPA 8015	03/25/11 12:54
Octacosane (Silica Gel Surr)	94.7		% Recovery	M EPA 8015	03/25/11 16:16

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-5** Matrix : Water Lab Number : 76860-06
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 23:57
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 23:57
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 23:57
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 23:57
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 23:57
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/24/11 23:57
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/24/11 23:57
4-Bromofluorobenzene (Surr)	94.5		% Recovery	EPA 8260B	03/24/11 23:57
1,2-Dichloroethane-d4 (Surr)	99.3		% Recovery	EPA 8260B	03/24/11 23:57
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	03/24/11 23:57
TPH as Jet Fuel	**460**	50	ug/L	M EPA 8015	03/25/11 16:58
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel.)					
TPH as Diesel (Silica Gel)	**670**	50	ug/L	M EPA 8015	03/25/11 16:46
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	**1600**	100	ug/L	M EPA 8015	03/25/11 16:58
Octacosane (Diesel Surrogate)	99.6		% Recovery	M EPA 8015	03/25/11 16:58
Octacosane (Silica Gel Surr)	109		% Recovery	M EPA 8015	03/25/11 16:46

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-6** Matrix : Water Lab Number : 76860-07
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 00:28
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 00:28
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 00:28
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 00:28
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 00:28
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 00:28
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 00:28
4-Bromofluorobenzene (Surr)	93.6		% Recovery	EPA 8260B	03/25/11 00:28
1,2-Dichloroethane-d4 (Surr)	98.7		% Recovery	EPA 8260B	03/25/11 00:28
Toluene - d8 (Surr)	108		% Recovery	EPA 8260B	03/25/11 00:28
TPH as Jet Fuel	**100**	50	ug/L	M EPA 8015	03/25/11 13:28
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel.)					
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/25/11 17:15
TPH as Motor Oil	**200**	100	ug/L	M EPA 8015	03/25/11 13:28
Octacosane (Diesel Surrogate)	93.2		% Recovery	M EPA 8015	03/25/11 13:28
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	03/25/11 17:15

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-7** Matrix : Water Lab Number : 76860-08
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:00
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:00
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:00
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:00
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:00
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 01:00
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:00
4-Bromofluorobenzene (Surr)	93.2		% Recovery	EPA 8260B	03/25/11 01:00
1,2-Dichloroethane-d4 (Surr)	98.3		% Recovery	EPA 8260B	03/25/11 01:00
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	03/25/11 01:00
TPH as Jet Fuel	**240**	50	ug/L	M EPA 8015	03/25/11 14:03
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel.)					
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/25/11 17:44
TPH as Motor Oil	**160**	100	ug/L	M EPA 8015	03/25/11 14:03
Octacosane (Diesel Surrogate)	93.5		% Recovery	M EPA 8015	03/25/11 14:03
Octacosane (Silica Gel Surr)	93.9		% Recovery	M EPA 8015	03/25/11 17:44

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-8** Matrix : Water Lab Number : 76860-09
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:31
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:31
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:31
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:31
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:31
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 01:31
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 01:31
4-Bromofluorobenzene (Surr)	90.6		% Recovery	EPA 8260B	03/25/11 01:31
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	03/25/11 01:31
Toluene - d8 (Surr)	109		% Recovery	EPA 8260B	03/25/11 01:31
TPH as Jet Fuel	< 50	50	ug/L	M EPA 8015	03/25/11 14:38
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/26/11 03:14
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/11 14:38
Octacosane (Diesel Surrogate)	94.4		% Recovery	M EPA 8015	03/25/11 14:38
Octacosane (Silica Gel Surr)	90.8		% Recovery	M EPA 8015	03/26/11 03:14

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-9** Matrix : Water Lab Number : 76860-10
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:02
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:02
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:02
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:02
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:02
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 02:02
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:02
4-Bromofluorobenzene (Surr)	91.7		% Recovery	EPA 8260B	03/25/11 02:02
1,2-Dichloroethane-d4 (Surr)	98.8		% Recovery	EPA 8260B	03/25/11 02:02
Toluene - d8 (Surr)	110		% Recovery	EPA 8260B	03/25/11 02:02
TPH as Jet Fuel	**460**	50	ug/L	M EPA 8015	03/25/11 15:13
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel.)					
TPH as Diesel (Silica Gel)	**280**	50	ug/L	M EPA 8015	03/25/11 22:23
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	**780**	100	ug/L	M EPA 8015	03/25/11 15:13
Octacosane (Diesel Surrogate)	103		% Recovery	M EPA 8015	03/25/11 15:13
Octacosane (Silica Gel Surr)	103		% Recovery	M EPA 8015	03/25/11 22:23

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-10** Matrix : Water Lab Number : 76860-11
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:34
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:34
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:34
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:34
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:34
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 02:34
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:34
4-Bromofluorobenzene (Surr)	92.0		% Recovery	EPA 8260B	03/25/11 02:34
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	03/25/11 02:34
Toluene - d8 (Surr)	110		% Recovery	EPA 8260B	03/25/11 02:34
TPH as Jet Fuel	**610**	50	ug/L	M EPA 8015	03/25/11 15:48
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel.)					
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/25/11 22:52
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/11 15:48
Octacosane (Diesel Surrogate)	96.8		% Recovery	M EPA 8015	03/25/11 15:48
Octacosane (Silica Gel Surr)	96.2		% Recovery	M EPA 8015	03/25/11 22:52

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-11** Matrix : Water Lab Number : 76860-12
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:05
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:05
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:05
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:05
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:05
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 03:05
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:05
4-Bromofluorobenzene (Surr)	90.4		% Recovery	EPA 8260B	03/25/11 03:05
1,2-Dichloroethane-d4 (Surr)	99.6		% Recovery	EPA 8260B	03/25/11 03:05
Toluene - d8 (Surr)	110		% Recovery	EPA 8260B	03/25/11 03:05
TPH as Jet Fuel	**410**	50	ug/L	M EPA 8015	03/25/11 16:23
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel.)					
TPH as Diesel (Silica Gel)	**83**	50	ug/L	M EPA 8015	03/25/11 23:21
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
TPH as Motor Oil	**280**	100	ug/L	M EPA 8015	03/25/11 16:23
Octacosane (Diesel Surrogate)	100		% Recovery	M EPA 8015	03/25/11 16:23
Octacosane (Silica Gel Surr)	104		% Recovery	M EPA 8015	03/25/11 23:21

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-12** Matrix : Water Lab Number : 76860-13
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:36
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:36
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:36
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:36
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:36
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 03:36
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:36
4-Bromofluorobenzene (Surr)	92.3		% Recovery	EPA 8260B	03/25/11 03:36
1,2-Dichloroethane-d4 (Surr)	98.9		% Recovery	EPA 8260B	03/25/11 03:36
Toluene - d8 (Surr)	110		% Recovery	EPA 8260B	03/25/11 03:36
TPH as Jet Fuel	< 50	50	ug/L	M EPA 8015	03/25/11 21:37
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/25/11 23:50
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/11 21:37
Octacosane (Diesel Surrogate)	92.6		% Recovery	M EPA 8015	03/25/11 21:37
Octacosane (Silica Gel Surr)	96.6		% Recovery	M EPA 8015	03/25/11 23:50

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-13** Matrix : Water Lab Number : 76860-14
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**1.0**	0.50	ug/L	EPA 8260B	03/25/11 04:08
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:08
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:08
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:08
Methyl-t-butyl ether (MTBE)	**1.7**	0.50	ug/L	EPA 8260B	03/25/11 04:08
TPH as Gasoline	**260**	50	ug/L	EPA 8260B	03/25/11 04:08
Naphthalene	**3.1**	0.50	ug/L	EPA 8260B	03/25/11 04:08
4-Bromofluorobenzene (Surr)	90.1		% Recovery	EPA 8260B	03/25/11 04:08
1,2-Dichloroethane-d4 (Surr)	97.8		% Recovery	EPA 8260B	03/25/11 04:08
Toluene - d8 (Surr)	110		% Recovery	EPA 8260B	03/25/11 04:08
TPH as Jet Fuel	**2400**	50	ug/L	M EPA 8015	03/26/11 03:32
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel.)					
TPH as Diesel (Silica Gel)	**76**	50	ug/L	M EPA 8015	03/26/11 00:19
(Note: Lower boiling hydrocarbons present, atypical for Diesel Fuel.)					
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/26/11 03:32
Octacosane (Diesel Surrogate)	109		% Recovery	M EPA 8015	03/26/11 03:32
Octacosane (Silica Gel Surr)	92.0		% Recovery	M EPA 8015	03/26/11 00:19

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-14** Matrix : Water Lab Number : 76860-15
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:39
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:39
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:39
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:39
Methyl-t-butyl ether (MTBE)	**1.3**	0.50	ug/L	EPA 8260B	03/25/11 04:39
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 04:39
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 04:39
4-Bromofluorobenzene (Surr)	94.7		% Recovery	EPA 8260B	03/25/11 04:39
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	03/25/11 04:39
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	03/25/11 04:39
TPH as Jet Fuel	**730**	50	ug/L	M EPA 8015	03/26/11 00:32
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel.)					
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/26/11 00:48
TPH as Motor Oil	**230**	100	ug/L	M EPA 8015	03/26/11 00:32
Octacosane (Diesel Surrogate)	99.4		% Recovery	M EPA 8015	03/26/11 00:32
Octacosane (Silica Gel Surr)	96.7		% Recovery	M EPA 8015	03/26/11 00:48

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-15** Matrix : Water Lab Number : 76860-16
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 05:10
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 05:10
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 05:10
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 05:10
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 05:10
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 05:10
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 05:10
4-Bromofluorobenzene (Surr)	93.4		% Recovery	EPA 8260B	03/25/11 05:10
1,2-Dichloroethane-d4 (Surr)	97.4		% Recovery	EPA 8260B	03/25/11 05:10
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	03/25/11 05:10
TPH as Jet Fuel	**200**	50	ug/L	M EPA 8015	03/25/11 23:57
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel.)					
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/26/11 01:17
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/11 23:57
Octacosane (Diesel Surrogate)	94.9		% Recovery	M EPA 8015	03/25/11 23:57
Octacosane (Silica Gel Surr)	99.9		% Recovery	M EPA 8015	03/26/11 01:17

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **MW-17** Matrix : Water Lab Number : 76860-17
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:15
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:15
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:15
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:15
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:15
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 02:15
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:15
4-Bromofluorobenzene (Surr)	95.0		% Recovery	EPA 8260B	03/25/11 02:15
1,2-Dichloroethane-d4 (Surr)	99.0		% Recovery	EPA 8260B	03/25/11 02:15
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	03/25/11 02:15
TPH as Jet Fuel	< 50	50	ug/L	M EPA 8015	03/25/11 23:22
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/26/11 01:47
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/11 23:22
Octacosane (Diesel Surrogate)	92.4		% Recovery	M EPA 8015	03/25/11 23:22
Octacosane (Silica Gel Surr)	91.2		% Recovery	M EPA 8015	03/26/11 01:47

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **NPORDMW-3** Matrix : Water Lab Number : 76860-18
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:50
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:50
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:50
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:50
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:50
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 02:50
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 02:50
4-Bromofluorobenzene (Surr)	96.3		% Recovery	EPA 8260B	03/25/11 02:50
1,2-Dichloroethane-d4 (Surr)	99.0		% Recovery	EPA 8260B	03/25/11 02:50
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	03/25/11 02:50
TPH as Jet Fuel	< 50	50	ug/L	M EPA 8015	03/25/11 22:47
(Note: Higher boiling hydrocarbons present, atypical for Jet Fuel.)					
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/26/11 02:16
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/11 22:47
Octacosane (Diesel Surrogate)	93.4		% Recovery	M EPA 8015	03/25/11 22:47
Octacosane (Silica Gel Surr)	100		% Recovery	M EPA 8015	03/26/11 02:16

KIFF Analytical LLC

Report Number : 76860
Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**
Project Number : **25-948218.1**

Sample : **NPORDMW-4** Matrix : Water Lab Number : 76860-19
Sample Date :03/21/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:25
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:25
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:25
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:25
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:25
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/25/11 03:25
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/25/11 03:25
4-Bromofluorobenzene (Surr)	95.8		% Recovery	EPA 8260B	03/25/11 03:25
1,2-Dichloroethane-d4 (Surr)	98.8		% Recovery	EPA 8260B	03/25/11 03:25
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	03/25/11 03:25
TPH as Jet Fuel	**270**	50	ug/L	M EPA 8015	03/25/11 22:12
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/26/11 02:45
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/11 22:12
Octacosane (Diesel Surrogate)	94.2		% Recovery	M EPA 8015	03/25/11 22:12
Octacosane (Silica Gel Surr)	99.1		% Recovery	M EPA 8015	03/26/11 02:45

Report Number : 76860

Date : 03/28/2011

QC Report : Method Blank Data

Project Name : **Rolls-Royce Engine Test Facility**

Project Number : **25-948218.1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	03/25/2011
TPH as Jet Fuel	< 50	50	ug/L	M EPA 8015	03/25/2011
TPH as Motor Oil	< 100	100	ug/L	M EPA 8015	03/25/2011
Octacosane (Diesel Surrogate)	90.6		%	M EPA 8015	03/25/2011
Octacosane (Silica Gel Surr)	92.6		%	M EPA 8015	03/25/2011
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/24/2011
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
1,2-Dichloroethane-d4 (Surr)	99.7		%	EPA 8260B	03/24/2011
4-Bromofluorobenzene (Surr)	91.0		%	EPA 8260B	03/24/2011
Toluene - d8 (Surr)	108		%	EPA 8260B	03/24/2011
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/24/2011
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	03/24/2011
4-Bromofluorobenzene (Surr)	94.3		%	EPA 8260B	03/24/2011
Toluene - d8 (Surr)	99.9		%	EPA 8260B	03/24/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/24/2011
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	03/24/2011
1,2-Dichloroethane-d4 (Surr)	100		%	EPA 8260B	03/24/2011
4-Bromofluorobenzene (Surr)	96.8		%	EPA 8260B	03/24/2011
Toluene - d8 (Surr)	100		%	EPA 8260B	03/24/2011

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**

Project Number : **25-948218.1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)														
	BLANK	<50	1000	1000	974	990	ug/L	M EPA 8015	3/25/11	97.4	99.0	1.66	70-130	25
TPH as Diesel														
	BLANK	<50	1000	1000	1120	1120	ug/L	M EPA 8015	3/25/11	112	112	0.549	70-130	25
Benzene														
	76860-02	<0.50	40.0	40.0	39.5	38.1	ug/L	EPA 8260B	3/24/11	98.8	95.2	3.66	80-120	25
Ethylbenzene														
	76860-02	<0.50	40.0	40.0	40.9	40.2	ug/L	EPA 8260B	3/24/11	102	100	1.91	80-120	25
Methyl-t-butyl ether														
	76860-02	<0.50	39.9	39.9	39.3	39.3	ug/L	EPA 8260B	3/24/11	98.6	98.6	0.0273	69.7-121	25
Naphthalene														
	76860-02	<0.50	40.0	40.0	40.8	40.0	ug/L	EPA 8260B	3/24/11	102	100	1.95	70.0-130	25
P + M Xylene														
	76860-02	<0.50	40.0	40.0	40.2	39.4	ug/L	EPA 8260B	3/24/11	100	98.4	2.16	76.8-120	25
Toluene														
	76860-02	<0.50	40.0	40.0	44.0	41.1	ug/L	EPA 8260B	3/24/11	110	103	6.78	80-120	25
Benzene														
	76860-04	<0.50	40.0	40.0	41.2	40.4	ug/L	EPA 8260B	3/24/11	103	101	2.09	80-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Rolls-Royce Engine Test Facility**

Project Number : **25-948218.1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Ethylbenzene														
	76860-04	<0.50	40.0	40.0	41.6	41.4	ug/L	EPA 8260B	3/24/11	104	103	0.605	80-120	25
Methyl-t-butyl ether														
	76860-04	<0.50	39.9	39.9	40.7	40.1	ug/L	EPA 8260B	3/24/11	102	100	1.50	69.7-121	25
Naphthalene														
	76860-04	<0.50	40.0	40.0	43.1	42.9	ug/L	EPA 8260B	3/24/11	108	107	0.408	70.0-130	25
P + M Xylene														
	76860-04	<0.50	40.0	40.0	42.1	42.1	ug/L	EPA 8260B	3/24/11	105	105	0.0670	76.8-120	25
Toluene														
	76860-04	<0.50	40.0	40.0	41.2	40.8	ug/L	EPA 8260B	3/24/11	103	102	1.15	80-120	25
Benzene														
	76860-03	<0.50	40.0	40.0	39.6	38.1	ug/L	EPA 8260B	3/24/11	99.1	95.4	3.83	80-120	25
Ethylbenzene														
	76860-03	<0.50	40.0	40.0	39.0	38.1	ug/L	EPA 8260B	3/24/11	97.5	95.3	2.34	80-120	25
Methyl-t-butyl ether														
	76860-03	<0.50	39.9	39.9	39.7	39.0	ug/L	EPA 8260B	3/24/11	99.6	98.0	1.62	69.7-121	25
Naphthalene														
	76860-03	<0.50	40.0	40.0	40.7	39.3	ug/L	EPA 8260B	3/24/11	102	98.3	3.43	70.0-130	25

Report Number : 76860

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 03/28/2011

Project Name : **Rolls-Royce Engine Test Facility**

Project Number : **25-948218.1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
P + M Xylene														
	76860-03	<0.50	40.0	40.0	39.4	38.1	ug/L	EPA 8260B	3/24/11	98.4	95.3	3.20	76.8-120	25
Toluene														
	76860-03	<0.50	40.0	40.0	39.9	38.2	ug/L	EPA 8260B	3/24/11	99.8	95.4	4.51	80-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **Rolls-Royce Engine Test Facility**

Project Number : **25-948218.1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	39.8	ug/L	EPA 8260B	3/24/11	100	80-120
Ethylbenzene	39.8	ug/L	EPA 8260B	3/24/11	105	80-120
Methyl-t-butyl ether	39.7	ug/L	EPA 8260B	3/24/11	98.5	69.7-121
Naphthalene	39.8	ug/L	EPA 8260B	3/24/11	101	70.0-130
P + M Xylene	39.8	ug/L	EPA 8260B	3/24/11	102	76.8-120
TPH as Gasoline	499	ug/L	EPA 8260B	3/24/11	88.6	70.0-130
Toluene	39.8	ug/L	EPA 8260B	3/24/11	112	80-120
Benzene	40.0	ug/L	EPA 8260B	3/24/11	102	80-120
Ethylbenzene	40.0	ug/L	EPA 8260B	3/24/11	104	80-120
Methyl-t-butyl ether	39.9	ug/L	EPA 8260B	3/24/11	100	69.7-121
Naphthalene	40.0	ug/L	EPA 8260B	3/24/11	106	70.0-130
P + M Xylene	40.0	ug/L	EPA 8260B	3/24/11	106	76.8-120
TPH as Gasoline	501	ug/L	EPA 8260B	3/24/11	97.6	70.0-130
Toluene	40.0	ug/L	EPA 8260B	3/24/11	103	80-120
Benzene	39.9	ug/L	EPA 8260B	3/24/11	100	80-120
Ethylbenzene	39.9	ug/L	EPA 8260B	3/24/11	100	80-120
Methyl-t-butyl ether	39.8	ug/L	EPA 8260B	3/24/11	100	69.7-121
Naphthalene	39.9	ug/L	EPA 8260B	3/24/11	103	70.0-130
P + M Xylene	39.9	ug/L	EPA 8260B	3/24/11	99.9	76.8-120
TPH as Gasoline	501	ug/L	EPA 8260B	3/24/11	100	70.0-130

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **Rolls-Royce Engine Test Facility**

Project Number : **25-948218.1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	39.9	ug/L	EPA 8260B	3/24/11	100	80-120

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

76860

Global ID #: T06019775776

☐ Yes
☐ No

Chain-of-Custody-Record

Direct Bill To:
Douglas Lee
Gettler-Ryan Inc.
6747 Sierra Court
Sutie J
Dublin, CA 94568

Facility: Rolls-Royce Engine Test Facility
Facility Address: 6701 Old Earhart Road, Oakland, CA
Consultant Project #: 25-948218.1
Consultant Name: GETTLER-RYAN INC.
Address: 6747 Sierra Court Suite J, Dublin, CA 94568
Project Contact: (Name) Douglas Lee
(Phone) 925-551-7444 x123 (e-mail) dlee@grinc.com

(Name) Douglas Lee
(Phone) 925-551-7444 x123
Laboratory Name: Kiff Analytical
Laboratory Service Order:
Laboratory Service Code:
Samples Collected by: (Name) HAIG K. / JIM H. / JOE A.
Signature:

State Method: ☑ CA ☐ OR ☐ WA ☐ NW Series ☐ CO ☐ UT ☐ ID

Sample I.D.	Number of Containers	Matrix S= Soil A=Air W=Water C=Charcoal	DATE/SAMPLE COLLECTION TIME	TPH-Jet A Fuel (8015) (HCL)	TPH-MO (8015) (HCL)	TPH-DRO with Silica Gel Cleanup (8015) (HCL)	TPH-GRO/BTEX/MTBE/ Naphthalene (8260) (HCL)	TPH-Jet A Fuel (8015) (NP)	TPH-MO (8015) (NP)	TPH-DRO with Silica Gel Cleanup (8015) (NP)	TPH-GRO/BTEX/MTBE/ Naphthalene (8260) (NP)	Remarks / Lab Sample No.
QA	2	W	3/21/11				X					01
MW-1	7	W	1300	X	X	X	X					02
MW-2	7	W	1225	X	X	X	X					03
MW-3	7	W	1245	X	X	X	X					04
MW-4	7	W	1400	X	X	X	X					05
MW-5	7	W	1145	X	X	X	X					06
MW-6	7	W	1320	X	X	X	X					07
MW-7	7	W	1430	X	X	X	X					08
MW-8	7	W	1145	X	X	X	X					09
MW-9	7	W	1112	X	X	X	X					10
MW-10	7	W	1038	X	X	X	X					11
MW-11	7	W	1010	X	X	X	X					12
MW-12	7	W	1120	X	X	X	X					13
MW-13	7	W	1300	X	X	X	X					14

EDF NEEDED

Page 1 of 2

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)
	Gettler-Ryan	3/22/11 0700	GETTLER-RYAN FRIDGE	G-R	03-22-11 0700	(Y)
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)
	G-R	3/23/11				
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	Iced (Y/N)
			Kiff Analytical		032311 1425	

Turn Around Time (Circle Choice)

24 Hrs.
48 Hrs.
5 Days
~~10 Days~~
As Contracted

76860

Global ID #: T06019775776

☐ Yes
☐ No

Chain-of-Custody-Record

Direct Bill To:
Douglas Lee
Gettler-Ryan Inc.
6747 Sierra Court
Sutie J
Dublin, CA 94568

Facility: Rolls-Royce Engine Test Facility
Facility Address: 6701 Old Earhart Road, Oakland, CA
Consultant Project #: 25-948218.1
Consultant Name: GETTLER-RYAN INC.
Address: 6747 Sierra Court Suite J, Dublin, CA 94568
Project Contact: (Name) Douglas Lee
(Phone) 925-551-7444 x123 (e-mail) dlee@grinc.com

(Name) Douglas Lee
(Phone) 925-551-7444 x123
Laboratory Name: Kiff Analytical
Laboratory Service Order:
Laboratory Service Code:
Samples Collected by: (Name) HAIG K. / JIM H. / JOEA.
Signature:

State Method: ☑ CA ☐ OR ☐ WA ☐ NW Series ☐ CO ☐ UT ☐ ID

Sample I.D.	Number of Containers	Matrix S=Soil A=Air W=Water C=Charcoal	DATE/SAMPLE COLLECTION TIME	TPH-Jet A Fuel (8015) (HCL)	TPH-MO (8015) (HCL)	TPH-DRO with Silica Gel Cleanup (8015) (HCL)	TPH-GRO/BTEX/MTBE/ Naphthalene (8260) (HCL)	TPH-Jet A Fuel (8015) (NP)	TPH-MO (8015) (NP)	TPH-DRO with Silica Gel Cleanup (8015) (NP)	TPH-GRO/BTEX/MTBE/ Naphthalene (8260) (NP)	Remarks	Lab Sample No.
MW-14	9	W	3/21/11, 1155	X	X	X	X					EDF NEEDED	15
MW-15	↓	W	1050	X	X	X	X					Page 2 of 2	16
MW-17	↓	W	1325	X	X	X	X						17
NPORDMW-3		W	1230	X	X	X	X						18
NPORDMW-4		W	↓ 1050	X	X	X	X						19

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)
	Gettler-Ryan	3/22/11	GETTLER-RYAN FRIDGE	G-R	03-22-11 0700	(Y)
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)
	G-R	3/23/11				
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	Iced (Y/N)
			Kiff Analytical		032311 1425	

Turn Around Time (Circle Choice)

24 Hrs.
48 Hrs.
5 Days
~~10 Days~~
As Contracted

KIFF Analytical LLC

SAMPLE RECEIPT CHECKLIST

RECEIVER LJR Initials

SRG#: 76860 Date: 032311

Project ID: Rolls-Royce Engine Test Facility

Method of Receipt: ☒ Courier ☐ Over-the-counter ☐ Shipper

COC Inspection

Is COC present?	☒ Yes	☐ No	
Custody seals on shipping container?	☐ Intact	☐ Broken	☐ Not present ☒ N/A
Is COC Signed by Relinquisher? ☒ Yes ☐ No Dated?	☒ Yes	☐ No	
Is sampler name legibly indicated on COC?	☒ Yes	☐ No	
Is analysis or hold requested for all samples	☒ Yes	☐ No	
Is the turnaround time indicated on COC?	☒ Yes	☐ No	
Is COC free of whiteout and uninitialed cross-outs?	☒ Yes	☐ No, Whiteout	☐ No, Cross-outs

Sample Inspection

Coolant Present: ☒ Yes ☐ No (includes water)

Temperature °C 5.0 Therm. ID# IR-5 Initial LJR Date/Time 032311/1842 ☐ N/A

Are there custody seals on sample containers?	☒ Intact (on TB)	☐ Broken	~~☒ Not present~~ TJB	
Do containers match COC? ☒ Yes ☐ No ☐ No, COC lists absent sample(s)	☐ No, Extra sample(s) present			
Are there samples matrices other than soil, water, air or carbon?	☐ Yes	☒ No		
Are any sample containers broken, leaking or damaged?	☐ Yes	☒ No		
Are preservatives indicated? ☐ Yes, on sample containers	☒ Yes, on COC	☐ Not indicated	☐ N/A	
Are preservatives correct for analyses requested?	☒ Yes	☐ No	☐ N/A	
Are samples within holding time for analyses requested?	☒ Yes	☐ No		
Are the correct sample containers used for the analyses requested?	☒ Yes	☐ No		
Is there sufficient sample to perform testing?	☒ Yes	☐ No		

Does any sample contain product, have strong odor or are otherwise suspected to be hot? ☐ Yes ☒ No

Receipt Details

Matrix WA	Container type VOA	# of containers received 128
Matrix	Container type	# of containers received
Matrix	Container type	# of containers received

Date and Time Sample Put into Temp Storage Date: 032311 Time: 1853

Quicklog

Are the Sample ID's indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If Sample ID's are listed on both COC and containers, do they all match?	☒ Yes	☐ No	☐ N/A	
Is the Project ID indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If project ID is listed on both COC and containers, do they all match?	☒ Yes	☐ No	☐ N/A	
Are the sample collection dates indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If collection dates are listed on both COC and containers, do they all match?	☐ Yes	☒ No	☐ N/A	
Are the sample collection times indicated:	☐ On COC	☐ On sample container(s)	☒ On Both	☐ Not indicated
If collection times are listed on both COC and containers, do they all match?	☒ Yes	☐ No	☐ N/A	

COMMENTS: Some of the labels for sample -12 (MW-11) list the collection date as 3-2-11; SR will log in the date as per the COC (032111). TJB 032411 1104