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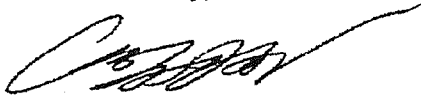
Mr. Paresh Khatri  
Alameda County Environmental Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

Re: 6310 Houston Place, Dublin, California 94568  
ACEHS Case No. RO0002862, GeoTracker ID T0600113164

Dear Mr. Khatri:

I declare, under penalty of perjury, that the information and or recommendations contained in the attached document are true and correct to the best of my knowledge.

Sincerely,



Mr. Cary Grayson



3330 Cameron Park Drive, Ste 550  
Cameron Park, California 95682  
(530) 676-6004 ~ Fax: (530) 676-6005

June 20, 2012  
Project No. 2094-6310-01

Ms. Dilan Roe, P.E.  
Alameda County Environmental Health Department  
1131 Harbor Bay Parkway  
Alameda, CA 94502

Re: **Groundwater Sampling and Laboratory Methodology/Analytical Results  
Summary**  
6310 Houston Place, Dublin, California 94568  
ACEHD Case No. RO0002862, GeoTracker ID T0600113164

Dear Ms. Roe:

Stratus Environmental, Inc. (Stratus) is pleased to provide this summary of groundwater sampling activities, laboratory methodology, and analytical results for samples collected during the second quarter 2012 at the subject site. This letter is meant to be a basis for discussion during the planned near future meeting at the offices of the Alameda County Environmental Health Department (ACEHD). The following events have occurred during the second quarter 2012:

- May 2, 2012 - Upon review of Stratus' *Quarterly Groundwater Monitoring and Sampling Report – First Quarter 2012*, dated February 17, 2012, ACEHD recommended additional post-remediation groundwater sampling to adequately evaluate groundwater concentration trends, prior to consideration for low-risk closure.
- May 2, 2012 - Stratus conducted the second quarter 2012 groundwater sampling event and collected groundwater samples from all seven monitoring wells (DW-1 through DW-7) associated with the site for laboratory analysis of petroleum hydrocarbons (DRO [with silica gel cleanup] by EPA Method 8015; and BTEX, MTBE, and naphthalene by EPA Method 8260B), as historically analyzed during quarterly groundwater sampling events. During the sampling event, the field technician (Shane Edwards) noted bubbles in the purge water collected from wells DW-1 through DW-5. Given the unexpected and unusual condition of the water samples, we recommended that the field technician purge three additional well casing volumes before collecting the samples from each well. A site map depicting the well locations is included as Attachment A.

- May 7, 2012 - ACEHD requested that the groundwater samples collected on May 2, 2012 be additionally analyzed for the dissolved metals that were monitored during the oxidant injection pilot test. The samples collected on May 2, 2012 were submitted to Alpha Analytical, Inc. (Alpha) for analysis of petroleum hydrocarbons and were not collected in sample containers appropriate for the analysis of dissolved metals.
- May 9, 2012 – Stratus returned to the site to collect groundwater samples for dissolved metals analysis. During the sampling event, the field technician (Kasey Jones) noted bubbles and soapy odor in the purge water collected from wells DW-1 through DW-5. The samples were submitted to Alpha for analysis of dissolved metals.
- May 10, 2012 - Alpha reported the petroleum hydrocarbon analytical results for the samples that Stratus collected on May 2, 2012. Upon review of the laboratory data, Stratus noticed that the analytical results for the samples collected from wells DW-1 through DW-5 indicated DRO concentrations that were uncharacteristically elevated (in some cases by two orders of magnitude) compared to the first quarter 2012 results, and that the laboratory noted increased reporting limits for the other analytes due to sample foaming.
- May 14, 2012 – To evaluate the consistency of the analytical data, and to understand if a laboratory error was occurring, Stratus collected split samples (two samples from each well) from wells DW-1 through DW-5, and duplicate samples from well DW-4, and sent the samples to Alpha and Kiff Analytical, LLC (Kiff) for analysis of petroleum hydrocarbons in order to compare results between the two labs. The field technician (Chris Hill) noted bubbles/foam in the bailer and a water odor that was not indicative of fuel. The analyses and methods requested of each lab were identical. In an attempt to prevent bias, Stratus labeled the samples collected from well DW-1 as DW-1A; the samples collected from well DW-5 were labeled DW-1B, and the duplicate samples collected from well DW-4 were labeled DW-1C.
- May 18, 2012 - Upon review of the preliminary laboratory data received from both of the labs, Stratus noticed that the DRO concentrations reported by Alpha were greatly elevated (though not nearly as high as the concentrations reported for the samples collected on May 2, 2012), compared to Kiff's DRO results. Stratus requested that both of the labs review their methodologies and explain the disparate results. Upon further discussion with both labs, Stratus determined that the silica gel cleanup methods applied by the labs were inconsistent. Both labs extracted the sample with hexane. However, prior to analysis, Alpha employed the shake-out silica gel cleanup method (shake method) while Kiff employed the

column silica gel cleanup method (column method). Once this was brought to the attention of the both laboratories, Kiff reviewed their data and issued their final report (dated May 22, 2012) without any changes; Alpha re-ran the samples using the column method. Alpha's description of the process involved, and their decision to re-run the samples using the column method, is included as Attachment B.

- June 13, 2012 - The duplicate sample (DW-1C [Kiff sample ID-06]) for well DW-4 (Kiff sample ID-01) analyzed by Kiff contained DRO at a concentration an order of magnitude greater than the sample labeled DW-4. Kiff issued the following explanation in an e-mail:

*"The samples do produce a head of foam when agitated. The bottles from sample -06 seemed to produce a slightly larger and more persistent head. From the volatiles run, 2-butoxyethanol (a surfactant) and eucalyptol (fragrance) were significant presences. The quantity of these compounds was also noted to be higher in sample -06 than in sample -04. The presence of the surfactant may have affected the relative quantities of hydrocarbons."*

- The laboratory detection limits for the volatile organic compounds (VOCs) analyzed by Alpha were elevated due to sample foaming; however, the detection limits reported by Kiff were not.

Both of the laboratories concurred that the samples collected from wells DW-1 through DW-5 contained concentrations of an ethoxalated surfactant. Both labs also agree that the concentrations of DRO reported after cleanup by the column method are valid. The laboratory analytical results are summarized on Table 1 and included as Attachment C. Laboratory analytical reports are included as Attachment D.

Stratus researched the possibility of the ethoxalated surfactant originating from the RegenOx<sup>®</sup> injection pilot test (September through November 2011). The manufacturer of RegenOx<sup>®</sup> disclosed to Stratus that their product does not contain ethoxalated surfactants and would not likely combine with anything naturally to become an ethoxalated surfactant. Additionally, Stratus has returned to the subject site and checked all of the well head expansion caps for tightness and replaced all of the old locks with new locks under a different key.

June 20, 2012

Stratus wishes to schedule a meeting at your office to further discuss these events as well as the additional information that you have requested in relation to the subject site. If you have any questions, please contact Kasey L. Jones by telephone at (415) 516-0373 or by e-mail at [kaseyjones@stratusinc.net](mailto:kaseyjones@stratusinc.net).

Sincerely,

*STRATUS ENVIRONMENTAL, INC.*



Kasey L. Jones  
Senior Project Manager



Gowri S. Kowtha, P.E.  
Principal Engineer

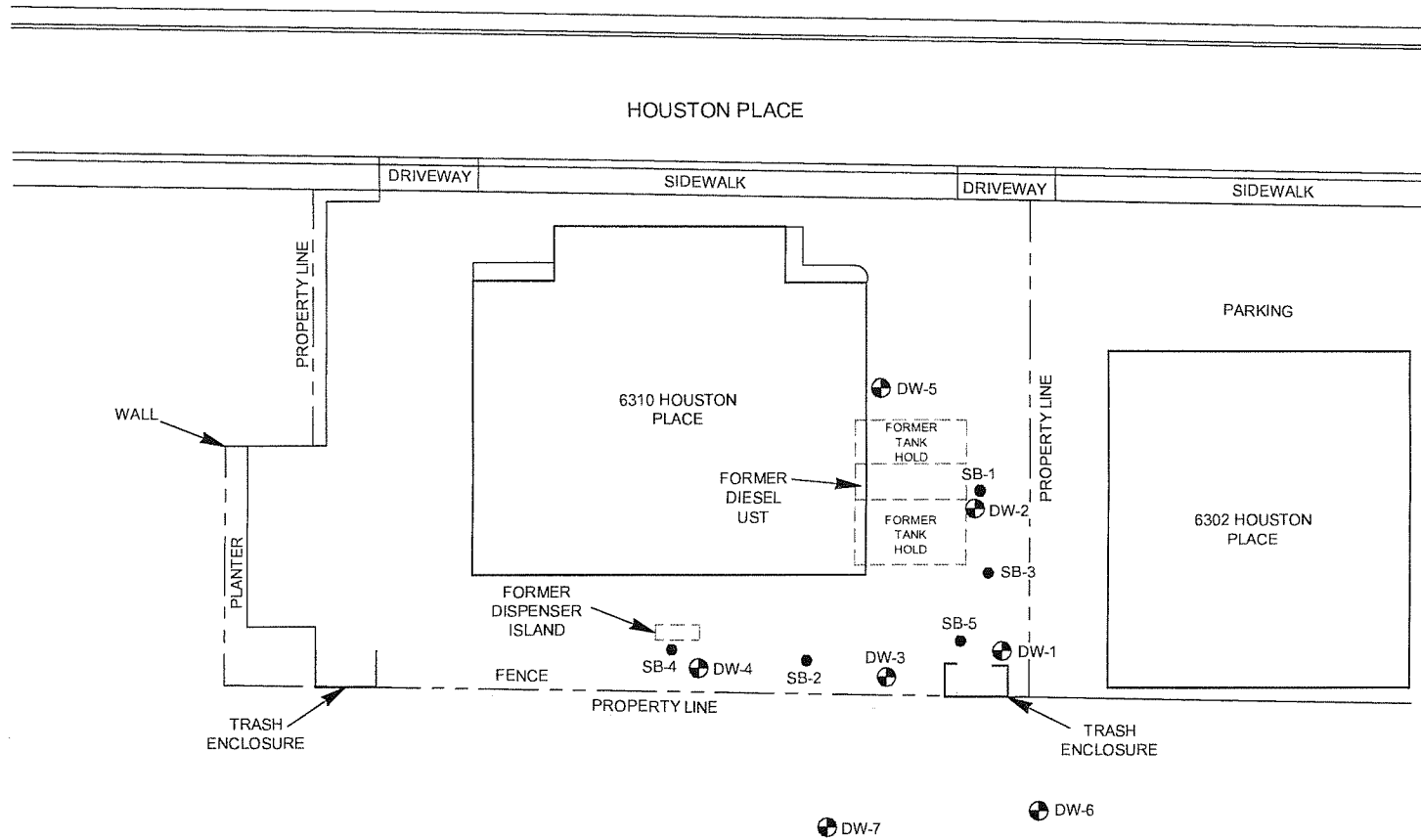


Attachments: Attachment A – Site Plan  
Attachment B – Methodology Summary Letter from Alpha  
Attachment C – Table 1 - Groundwater Elevation & Analytical Summary  
Attachment D – Laboratory Analytical Reports

cc: Mr. Cary Grayson, *via e-mail: carybgrayson@gmail.com*

**ATTACHMENT A**

**SITE PLAN**

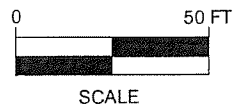


LEGEND

- ⊕ DW-1 MONITORING WELL LOCATION
- SB-1 SOIL BORING LOCATION

JMP August 25, 2010 Bay Co. Station REV

*STRATUS*  
ENVIRONMENTAL, INC.



BAY COUNTIES PETROLEUM  
6310 HOUSTON PLACE  
DUBLIN, CALIFORNIA

SITE PLAN

FIGURE

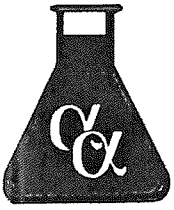
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PROJECT NO.  
2094-6301-01

**ATTACHMENT B**

**METHODOLOGY SUMMARY LETTER FROM ALPHA**





Alpha Analytical, Inc.  
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

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June 12, 2012

Kasey Jones  
Stratus Environmental, Inc.  
Senior Project Manager

RE: Bay Counties Petroleum Samples for TPH-DRO

Groundwater samples from Bay Counties Petroleum were analyzed by EPA Method 8015B for TPH-Diesel and Oil Range (DRO and ORO) hydrocarbons. The samples contained material which eluted in the diesel and oil ranges, and exhibited a series of homologous peaks. The majority of this material was later identified by GC/MS as material composed primarily of ethoxalated surfactants that elute in the DRO range, thus initially resulting in falsely-elevated DRO concentrations.

#### Chronology of Analytical Steps

- 1) The groundwater samples were extracted with hexane.
- 2) Before analysis, the hexane extract was mixed with approximately 0.5 gram of silica gel. This shake-out silica gel cleanup procedure is commonly used to remove low levels of biogenic material often found in groundwater samples.
- 3) After the original analysis was completed, data from a split laboratory revealed that their silica-gel results, which utilized a column-type procedure, were much more effective at removing the surfactants.
- 4) Alpha then performed the same silica gel column-type procedure where a small column was filled with silica gel and the hexane extract from the sample was rinsed through the column. This column-type procedure is appropriate for high-levels of surfactant material because more silica-gel is available for cleanup. This procedure appeared to clean up approximately 98% of the surfactant.

If you have any further questions, please call.

Sincerely,

Randy Gardner  
Laboratory Manager  
Alpha Analytical, Inc.  
800-283-1183  
randyg@alpha-analytical.com

**ATTACHMENT C**

**TABLE 1 – GROUNDWATER ELEVATION AND  
ANALYTICAL SUMMARY**

**TABLE 1**  
**GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**  
6310 Houston Place, Dublin, CA

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	**DRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)
DW-1	04/10/07	7.44	334.23	326.79	8,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/12/07	7.72	334.23	326.51	30,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/11/07	7.88	334.23	326.35	18,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	01/25/08	6.16	334.23	328.07	13,000	<0.5	<0.5	<0.5	<0.5	--	--
	04/23/08	6.96	334.23	327.27	15,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/23/08	7.55	334.23	326.68	5,200	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/30/08	8.02	334.23	326.21	11,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	01/11/10	7.58	334.23	326.65	5,600	<0.5	<0.5	<0.5	<0.5	<5.0	--
	08/03/10	7.43	334.23	326.80	540	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	01/13/11	6.81	334.23	327.42	1,700	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	07/05/11	6.47	334.23	327.76	380	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	01/04/12	8.05	334.23	326.18	390	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	05/02/12	6.40	334.23	327.83	89,000	<500[3]	<500[3]	<500[3]	<500[3]	<500[3]	<4,000[3]
	05/14/02*	6.69	334.23	327.54	71	<25[3]	<25[3]	<25[3]	<25[3]	<25[3]	<200[3]
05/14/12**	--	--	--	100	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
DW-2	04/10/07	7.09	334.00	326.91	8,200	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/12/07	7.40	334.00	326.60	34,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/11/07	7.55	334.00	326.45	14,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	01/25/08	5.89	334.00	328.11	17,000	<0.5	<0.5	<0.5	<0.5	--	--
	04/23/08	6.63	334.00	327.37	27,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/23/08	7.25	334.00	326.75	16,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/30/08	7.74	334.00	326.26	11,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	01/11/10	7.23	334.00	326.77	6,900	<0.5	<0.5	<0.5	<0.5	<5.0	--
	08/03/10	7.40	334.00	326.60	550	<0.50	<0.50	<0.50	<0.50	<0.50	--
	01/13/11	6.27	334.00	327.73	7,500	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	07/05/11	6.12	334.00	327.88	210	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	01/04/12	7.77	334.00	326.23	1,600	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	05/02/12	6.06	334.00	327.94	23,000	<250[3]	<250[3]	<250[3]	<250[3]	<250[3]	<2,000[3]
	05/14/02*	6.39	334.00	327.61	450	<10[3]	<10[3]	<10[3]	<10[3]	<10[3]	<80[3]
05/14/12**	6.39	334.00	327.61	260	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

**TABLE 1**  
**GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**  
6310 Houston Place, Dublin, CA

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	**DRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)
DW-3	04/10/07	7.90	334.56	326.66	27,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/12/07	8.19	334.56	326.37	210,000	<0.5	<1.7	<1.7	<1.7	<1.7	--
	10/11/07	8.29	334.56	326.27	71,000	<25	<25	<25	<25	<0.5	--
	01/25/08	6.63	334.56	327.93	66,000	<0.5	<0.5	<0.5	<0.5	--	--
	04/23/08	7.38	334.56	327.18	58,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/23/08	7.94	334.56	326.62	38,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/30/08	8.41	334.56	326.15	29,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
	01/11/10	8.12	334.56	326.44	29,000	<0.5	<0.5	<0.5	<0.5	<5.0	--
	08/03/10	8.02	334.56	326.54	6,300	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	01/13/11	7.06	334.56	327.50	1,800	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	07/05/11	6.88	334.56	327.68	780	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	01/04/12	8.43	334.56	326.13	9,000	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	05/02/12	6.92	334.56	327.64	53,000	<250[3]	<250[3]	<250[3]	<250[3]	<250[3]	<2,000[3]
	05/14/02*	7.13	334.56	327.43	1,300	<25[3]	<25[3]	<25[3]	<25[3]	<25[3]	<200[3]
05/14/12**	7.13	334.56	327.43	740	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
DW-4	04/10/07	7.99	334.49	326.50	65	<0.5	<0.5	<0.5	<0.5	0.67	--
	07/12/07	8.22	334.49	326.27	300	<0.5	<0.5	<0.5	<0.5	0.87	--
	10/11/07	8.33	334.49	326.16	640	<0.5	<0.5	<0.5	<0.5	0.80	--
	01/25/08	6.62	334.49	327.87	240	<0.5	<0.5	<0.5	<0.5	--	--
	04/23/08	7.39	334.49	327.10	340	<0.5	<0.5	<0.5	<0.5	0.94	--
	07/23/08	7.94	334.49	326.55	<50	<0.5	<0.5	<0.5	<0.5	0.94	--
	10/30/08	8.39	334.49	326.10	<50	<0.5	<0.5	<0.5	<0.5	0.92	--
	01/11/10	8.13	334.49	326.36	65	<1.0	<1.0	<1.0	<1.0	<5.0	--
	08/03/10	8.00	334.49	326.49	370	<0.50	<0.50	<0.50	<0.50	0.76	--
	01/13/11	7.08	334.49	327.41	370	<0.50	<0.50	<0.50	<0.50	0.74	<4.0[3]
	07/05/11	6.91	334.49	327.58	300	<0.50	<0.50	<0.50	<0.50	0.96	<2.0
	01/04/12	8.38	334.49	326.11	88	<0.50	<0.50	<0.50	<0.50	0.80	<2.0
	05/02/12	6.85	334.49	327.64	33,000	<100[3]	<100[3]	<100[3]	<100[3]	<100[3]	<800[3]
	05/14/12*	7.20	334.49	327.29	140	<10[3]	<10[3]	<10[3]	<10[3]	<10[3]	<80[3]
Duplicate	05/14/12*	7.20	334.49	327.29	<50	<25[3]	<25[3]	<25[3]	<25[3]	<25[3]	<200[3]
	05/14/12**	7.20	334.49	327.29	110[4]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	05/14/12**	7.20	334.49	327.29	4,000[5]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

**TABLE 1**  
**GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**  
6310 Houston Place, Dublin, CA

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	**DRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)
DW-5	04/10/07	7.00	333.91	326.91	800	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/12/07	7.36	333.91	326.55	990	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/11/07	7.52	333.91	326.39	880	<0.5	<0.5	<0.5	<0.5	<0.5	--
	01/25/08	5.93	333.91	327.98	730	<0.5	<0.5	<0.5	<0.5	--	--
	04/23/08	6.52	333.91	327.39	780	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/23/08	7.24	333.91	326.67	340	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/30/08	7.68	333.91	326.23	1,200	<0.5	<0.5	<0.5	<0.5	<0.5	--
	01/11/10	7.47	333.91	326.44	130	<0.5	<0.5	<0.5	<0.5	<5.0	--
	08/03/10	7.32	333.91	326.59	490[1,2]	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	01/13/11	6.23	333.91	327.68	470	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	07/05/11	6.12	333.91	327.79	220	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	01/04/12	7.72	333.91	326.19	380	<0.50	<0.50	<0.50	<0.50	<0.50	<4.0[3]
	05/02/12	6.04	333.91	327.87	38,000	<250[3]	<250[3]	<250[3]	<250[3]	<250[3]	<2,000[3]
	05/14/02*	6.36	333.91	327.55	190	<50[3]	<50[3]	<50[3]	<50[3]	<50[3]	<400[3]
05/14/12**	6.36	333.91	327.55	250[6]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
DW-6	04/10/07	8.62	334.99	326.37	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/12/07	8.81	334.99	326.18	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/11/07	8.53	334.99	326.46	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	01/25/08	7.16	334.99	327.83	<50	<0.5	<0.5	<0.5	<0.5	--	--
	04/23/08	7.53	334.99	327.46	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	07/23/08	8.24	334.99	326.75	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	10/30/08	8.62	334.99	326.37	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
	01/11/10	8.18	334.99	326.81	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	08/03/10	8.25	334.99	326.74	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	01/13/11	7.69	334.99	327.30	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	07/05/11	7.06	334.99	327.93	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	01/04/12	8.52	334.99	326.47	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
05/02/12	7.65	334.99	327.34	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	

**TABLE 1**  
**GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**  
6310 Houston Place, Dublin, CA

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	**DRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	
DW-7	04/10/07	8.11	335.18	327.07	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	07/12/07	8.34	335.18	326.84	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	10/11/07	8.96	335.18	326.22	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	01/25/08	6.75	335.18	328.43	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	04/23/08	7.95	335.18	327.23	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	07/23/08	8.55	335.18	326.63	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	10/30/08	8.96	335.18	326.22	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	01/11/10	8.62	335.18	326.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	
	08/03/10	8.58	335.18	326.60	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	01/13/11	7.85	335.18	327.33	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	07/05/11	7.49	335.18	327.69	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	01/04/12	9.17	335.18	326.01	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<4.0[3]
	05/02/12	7.46	335.18	327.72	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0

**Notes:**

Data through January 11, 2010, reported by AEI Consultants.

Prior to 8/3/10, reported as TPH-D

\* = Sample was collected as a split grab sample. Sample was forwarded to Alpha Analytical.

\*\* = Sample was collected as a split grab sample. Sample was forwarded to Kiff Analytical.

-- = Not analyzed

NM = Not measured

DRO = total petroleum hydrocarbons as diesel (C13-C-22)

MTBE = methyl-tertiary butyl ether

µg/L = micrograms per liter

[1] = reported concentration includes additional compounds uncharacteristic of common fuels and lubricants.

[2] = DRO concentration may include contributions from heavier-end hydrocarbons that elute in the DRO range.

[3] = Reporting limits were increased due to sample foaming.

[4] = Discrete peaks in diesel range, atypical for diesel fuel.

[5] = Hydrocarbons are higher-boiling than typical diesel fuel.

[6] = Lower boiling hydrocarbons present, atypical for diesel fuel.

**ATTACHMENT D**

**LABORATORY ANALYTICAL REPORTS**



## Laboratory Results

Kasey Jones  
Stratus Environmental, Inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682

Subject : 6 Water Samples  
Project Name : Bay Counties Petroleum Dublin  
Project Number :

Dear Mr. Jones,

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 and TNI 2009 standards. 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,

Troy Turpen



Subject : 6 Water Samples  
Project Name : Bay Counties Petroleum Dublin  
Project Number :

## Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with sample DW-1A for the analyte Methyl-t-butyl ether were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

Surrogate Recovery for sample DW-1B for test method Mod. EPA 8015 was outside of control limits. This may indicate a bias in the analysis due to the sample's matrix or an interference from compounds present in the sample.

Project Name : **Bay Counties Petroleum Dublin**

Project Number :

Sample : **DW-1A**

Matrix : Water

Lab Number : 81252-01

Sample Date :05/14/2012

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	05/18/12 16:47
Toluene	< 0.50	0.50	ug/L	EPA 8260B	05/18/12 16:47
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	05/18/12 16:47
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	05/18/12 16:47
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	05/18/12 16:47
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	05/18/12 16:47
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	05/18/12 16:47
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	05/18/12 16:47
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	05/18/12 16:47
<b>TPH as Diesel (Silica Gel)</b>	<b>100</b>	50	ug/L	M EPA 8015	05/18/12 16:16
Octacosane (Silica Gel Surr)	94.7		% Recovery	M EPA 8015	05/18/12 16:16

Project Name : **Bay Counties Petroleum Dublin**

Project Number :

Sample : **DW-2**

Matrix : Water

Lab Number : 81252-02

Sample Date :05/14/2012

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 00:52
Toluene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 00:52
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 00:52
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 00:52
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 00:52
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 00:52
1,2-Dichloroethane-d4 (Surr)	106		% Recovery	EPA 8260B	05/17/12 00:52
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	05/17/12 00:52
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	05/17/12 00:52
<b>TPH as Diesel (Silica Gel)</b>	<b>260</b>	50	ug/L	M EPA 8015	05/18/12 16:45
Octacosane (Silica Gel Surr)	91.8		% Recovery	M EPA 8015	05/18/12 16:45

Project Name : **Bay Counties Petroleum Dublin**

Project Number :

Sample : **DW-3**

Matrix : Water

Lab Number : 81252-03

Sample Date :05/14/2012

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 01:28
Toluene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 01:28
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 01:28
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 01:28
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 01:28
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 01:28
1,2-Dichloroethane-d4 (Surr)	108		% Recovery	EPA 8260B	05/17/12 01:28
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	05/17/12 01:28
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	05/17/12 01:28
<b>TPH as Diesel (Silica Gel)</b>	<b>740</b>	50	ug/L	M EPA 8015	05/18/12 17:15
Octacosane (Silica Gel Surr)	73.8		% Recovery	M EPA 8015	05/18/12 17:15

Project Name : **Bay Counties Petroleum Dublin**

Project Number :

Sample : **DW-1C**

Matrix : Water

Lab Number : 81252-04

Sample Date :05/14/2012

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:08
Toluene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:08
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:08
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:08
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:08
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:08
1,2-Dichloroethane-d4 (Surr)	110		% Recovery	EPA 8260B	05/17/12 02:08
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	05/17/12 02:08
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	05/17/12 02:08
<b>TPH as Diesel (Silica Gel)</b>	<b>4000</b>	50	ug/L	M EPA 8015	05/18/12 17:44
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	96.0		% Recovery	M EPA 8015	05/18/12 17:44

Project Name : **Bay Counties Petroleum Dublin**

Project Number :

Sample : **DW-1B**

Matrix : Water

Lab Number : 81252-05

Sample Date :05/14/2012

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:46
Toluene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:46
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:46
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:46
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:46
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 02:46
1,2-Dichloroethane-d4 (Surr)	107		% Recovery	EPA 8260B	05/17/12 02:46
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	05/17/12 02:46
4-Bromofluorobenzene (Surr)	99.7		% Recovery	EPA 8260B	05/17/12 02:46
<b>TPH as Diesel (Silica Gel)</b>	<b>250</b>	50	ug/L	M EPA 8015	05/18/12 18:14
(Note: Lower boiling hydrocarbons present, atypical for Diesel Fuel.)					
Octacosane (Silica Gel Surr)	42.6		% Recovery	M EPA 8015	05/18/12 18:14

Project Name : **Bay Counties Petroleum Dublin**

Project Number :

Sample : **DW-4**

Matrix : Water

Lab Number : 81252-06

Sample Date :05/14/2012

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 03:24
Toluene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 03:24
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 03:24
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 03:24
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 03:24
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	05/17/12 03:24
1,2-Dichloroethane-d4 (Surr)	105		% Recovery	EPA 8260B	05/17/12 03:24
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	05/17/12 03:24
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	05/17/12 03:24
<b>TPH as Diesel (Silica Gel)</b>	<b>110</b>	50	ug/L	M EPA 8015	05/18/12 18:43
(Note: Discrete peaks in Diesel range, atypical for Diesel Fuel.)					
Octacosane (Silica Gel Surr)	87.9		% Recovery	M EPA 8015	05/18/12 18:43

**QC Report : Method Blank Data**Project Name : **Bay Counties Petroleum Dublin**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	05/15/2012
Octacosane (Silica Gel Surr)	108		%	M EPA 8015	05/15/2012
Benzene	< 0.50	0.50	ug/L	EPA 8260B	05/16/2012
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	05/16/2012
Toluene	< 0.50	0.50	ug/L	EPA 8260B	05/16/2012
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	05/16/2012
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	05/16/2012
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	05/16/2012
1,2-Dichloroethane-d4 (Surr)	104		%	EPA 8260B	05/16/2012
4-Bromofluorobenzene (Surr)	103		%	EPA 8260B	05/16/2012
Toluene - d8 (Surr)	96.6		%	EPA 8260B	05/16/2012
Benzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/2012
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	05/17/2012
Toluene	< 0.50	0.50	ug/L	EPA 8260B	05/17/2012
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	05/17/2012
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	05/17/2012
Naphthalene	< 0.50	0.50	ug/L	EPA 8260B	05/17/2012
1,2-Dichloroethane-d4 (Surr)	97.9		%	EPA 8260B	05/17/2012
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	05/17/2012
Toluene - d8 (Surr)	102		%	EPA 8260B	05/17/2012

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Bay Counties Petroleum Dublin**

Project Number :

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	848	860	ug/L	M EPA 8015	5/15/12	84.8	86.0	1.39	70-130	25
Benzene	81277-02	<0.50	39.7	39.9	39.7	39.4	ug/L	EPA 8260B	5/16/12	100	98.6	1.41	80-120	25
Ethylbenzene	81277-02	<0.50	39.7	39.9	40.8	40.2	ug/L	EPA 8260B	5/16/12	103	101	2.07	80-120	25
Methyl-t-butyl ether	81277-02	<0.50	39.7	39.9	40.3	40.2	ug/L	EPA 8260B	5/16/12	102	100	1.07	69.7-121	25
Naphthalene	81277-02	0.52	39.7	39.9	40.3	39.6	ug/L	EPA 8260B	5/16/12	100	97.9	2.34	70.0-130	25
P + M Xylene	81277-02	<0.50	39.7	39.9	40.1	39.6	ug/L	EPA 8260B	5/16/12	101	99.2	1.73	76.8-120	25
Toluene	81277-02	<0.50	39.7	39.9	40.5	40.1	ug/L	EPA 8260B	5/16/12	102	100	1.73	80-120	25
Benzene	81292-01	<0.50	39.8	39.8	40.0	40.2	ug/L	EPA 8260B	5/18/12	101	101	0.170	80-120	25
Ethylbenzene	81292-01	<0.50	39.8	39.8	40.6	41.4	ug/L	EPA 8260B	5/18/12	102	104	1.75	80-120	25

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Bay Counties Petroleum Dublin**

Project Number :

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
<b>Methyl-t-butyl ether</b>														
Naphthalene	81292-01	<0.50	39.8	39.8	48.4	39.6	ug/L	EPA 8260B	5/18/12	122	99.3	20.2	69.7-121	25
P + M Xylene	81292-01	<0.50	39.8	39.8	36.3	37.0	ug/L	EPA 8260B	5/18/12	91.2	93.0	1.94	70.0-130	25
Toluene	81292-01	<0.50	39.8	39.8	39.9	41.0	ug/L	EPA 8260B	5/18/12	100	103	2.60	76.8-120	25
	81292-01	<0.50	39.8	39.8	40.6	41.2	ug/L	EPA 8260B	5/18/12	102	104	1.26	80-120	25

## QC Report : Laboratory Control Sample (LCS)

Project Name : **Bay Counties Petroleum Dublin**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	5/16/12	99.1	80-120
Ethylbenzene	40.0	ug/L	EPA 8260B	5/16/12	102	80-120
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	5/16/12	99.0	69.7-121
Naphthalene	40.0	ug/L	EPA 8260B	5/16/12	91.1	70.0-130
P + M Xylene	40.0	ug/L	EPA 8260B	5/16/12	100	76.8-120
Toluene	40.0	ug/L	EPA 8260B	5/16/12	102	80-120
Benzene	40.0	ug/L	EPA 8260B	5/17/12	101	80-120
Ethylbenzene	40.0	ug/L	EPA 8260B	5/17/12	103	80-120
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	5/17/12	100	69.7-121
Naphthalene	40.0	ug/L	EPA 8260B	5/17/12	98.9	70.0-130
P + M Xylene	40.0	ug/L	EPA 8260B	5/17/12	101	76.8-120
Toluene	40.0	ug/L	EPA 8260B	5/17/12	104	80-120







# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

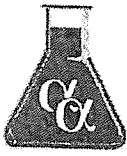
Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Kasey Jones  
Phone: (530) 676-6000  
Fax: (530) 676-6005  
Date Received : 05/15/12

Job: Bay Counties Petroleum

Total Petroleum Hydrocarbons - Extractable (TPH-E) EPA Method SW8015B  
Volatile Organic Compounds (VOCs) EPA Method SW8260B

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID : DW-1 A				
Lab ID : STR12051543-01A	TPH-E (DRO), Silica Gel	71		
Date Sampled 05/14/12 05:05	Methyl tert-butyl ether (MTBE)	ND O	50 µg/L	05/15/12 05/24/12
	Benzene	ND O	25 µg/L	05/18/12 05/18/12
	Toluene	ND O	25 µg/L	05/18/12 05/18/12
	Ethylbenzene	ND O	25 µg/L	05/18/12 05/18/12
	m,p-Xylene	ND O	25 µg/L	05/18/12 05/18/12
	o-Xylene	ND O	25 µg/L	05/18/12 05/18/12
	Naphthalene	ND O	200 µg/L	05/18/12 05/18/12
Client ID : DW-2				
Lab ID : STR12051543-02A	TPH-E (DRO), Silica Gel	450		
Date Sampled 05/14/12 05:23	Methyl tert-butyl ether (MTBE)	ND O	50 µg/L	05/15/12 05/24/12
	Benzene	ND O	10 µg/L	05/18/12 05/18/12
	Toluene	ND O	10 µg/L	05/18/12 05/18/12
	Ethylbenzene	ND O	10 µg/L	05/18/12 05/18/12
	m,p-Xylene	ND O	10 µg/L	05/18/12 05/18/12
	o-Xylene	ND O	10 µg/L	05/18/12 05/18/12
	Naphthalene	ND O	80 µg/L	05/18/12 05/18/12
Client ID : DW-3				
Lab ID : STR12051543-03A	TPH-E (DRO), Silica Gel	1,300		
Date Sampled 05/14/12 05:57	Methyl tert-butyl ether (MTBE)	ND O	50 µg/L	05/15/12 05/24/12
	Benzene	ND O	25 µg/L	05/18/12 05/18/12
	Toluene	ND O	25 µg/L	05/18/12 05/18/12
	Ethylbenzene	ND O	25 µg/L	05/18/12 05/18/12
	m,p-Xylene	ND O	25 µg/L	05/18/12 05/18/12
	o-Xylene	ND O	25 µg/L	05/18/12 05/18/12
	Naphthalene	ND O	200 µg/L	05/18/12 05/18/12
Client ID : DW-1 C				
Lab ID : STR12051543-04A	TPH-E (DRO), Silica Gel	ND		
Date Sampled 05/14/12 06:27	Methyl tert-butyl ether (MTBE)	ND O	50 µg/L	05/15/12 05/25/12
	Benzene	ND O	25 µg/L	05/18/12 05/18/12
	Toluene	ND O	25 µg/L	05/18/12 05/18/12
	Ethylbenzene	ND O	25 µg/L	05/18/12 05/18/12
	m,p-Xylene	ND O	25 µg/L	05/18/12 05/18/12
	o-Xylene	ND O	25 µg/L	05/18/12 05/18/12
	Naphthalene	ND O	200 µg/L	05/18/12 05/18/12



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID :	<b>DW-1 B</b>						
Lab ID :	STR12051543-05A	TPH-E (DRO), Silica Gel	190		50 µg/L	05/15/12	05/25/12
Date Sampled	05/14/12 05:40	Methyl tert-butyl ether (MTBE)	ND	O	50 µg/L	05/18/12	05/18/12
		Benzene	ND	O	50 µg/L	05/18/12	05/18/12
		Toluene	ND	O	50 µg/L	05/18/12	05/18/12
		Ethylbenzene	ND	O	50 µg/L	05/18/12	05/18/12
		m,p-Xylene	ND	O	50 µg/L	05/18/12	05/18/12
		o-Xylene	ND	O	50 µg/L	05/18/12	05/18/12
		Naphthalene	ND	O	400 µg/L	05/18/12	05/18/12

Client ID :	<b>DW-4</b>						
Lab ID :	STR12051543-06A	TPH-E (DRO), Silica Gel	140		50 µg/L	05/15/12	05/25/12
Date Sampled	05/14/12 06:18	Methyl tert-butyl ether (MTBE)	ND	O	10 µg/L	05/18/12	05/18/12
		Benzene	ND	O	10 µg/L	05/18/12	05/18/12
		Toluene	ND	O	10 µg/L	05/18/12	05/18/12
		Ethylbenzene	ND	O	10 µg/L	05/18/12	05/18/12
		m,p-Xylene	ND	O	10 µg/L	05/18/12	05/18/12
		o-Xylene	ND	O	10 µg/L	05/18/12	05/18/12
		Naphthalene	ND	O	80 µg/L	05/18/12	05/18/12

### Diesel Range Organics (DRO) C13-C22

Due to saturation levels of non-hydrocarbon material in the samples, the original extracts were washed through a second silica-gel column to remove the high levels of polar interferences.

O = Reporting Limits were increased due to sample foaming.

This replaces the report signed 5/22/12. TPH-E samples were re-analyzed, per client request.

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

5/30/12

Report Date



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## VOC Sample Preservation Report

Work Order: STR12051543

Job: Bay Counties Petroleum

Alpha's Sample ID	Client's Sample ID	Matrix	pH
12051543-01A	DW-1 A	Aqueous	2
12051543-02A	DW-2	Aqueous	2
12051543-03A	DW-3	Aqueous	2
12051543-04A	DW-1 C	Aqueous	2
12051543-05A	DW-1 B	Aqueous	2
12051543-06A	DW-4	Aqueous	2

5/22/12  
Report Date





# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
21-May-12

## QC Summary Report

Work Order:  
12051543

### Method Blank

File ID: 7A05101273.D

Type: MBLK Test Code: EPA Method SW8015B / E / SG

Sample ID: MBLK-28738

Batch ID: 28738SG

Analysis Date: 05/16/2012 10:26

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO), Silica Gel	ND	50								
Surr: Nonane, Silica Gel	159		150		106	49	145			

### Laboratory Control Spike

File ID: 7A05101274.D

Type: LCS Test Code: EPA Method SW8015B / E / SG

Sample ID: LCS-28738

Batch ID: 28738SG

Analysis Date: 05/16/2012 10:53

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO), Silica Gel	2420	50	2500		97	70	130			
Surr: Nonane, Silica Gel	164		150		109	49	145			

### Sample Matrix Spike

File ID: 7A05101282.D

Type: MS Test Code: EPA Method SW8015B / E / SG

Sample ID: 12051541-07AMS

Batch ID: 28738SG

Analysis Date: 05/16/2012 14:26

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO), Silica Gel	3050	50	2500		0	122	53	150		
Surr: Nonane, Silica Gel	169		150		113	49	145			

### Sample Matrix Spike Duplicate

File ID: 7A05101284.D

Type: MSD Test Code: EPA Method SW8015B / E / SG

Sample ID: 12051541-07AMSD

Batch ID: 28738SG

Analysis Date: 05/16/2012 15:21

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO), Silica Gel	2630	50	2500		0	105	53	150	3054	15.1(47)
Surr: Nonane, Silica Gel	141		150		94	49	145			

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per Liter, per client request.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:

21-May-12

## QC Summary Report

Work Order:

12051543

### Method Blank

File ID: 12051805.D

Type: MBLK Test Code: EPA Method SW8260B

Batch ID: MS09W0518A

Analysis Date: 05/18/2012 12:12

Sample ID: MBLK MS09W0518A

Units: µg/L

Run ID: MSD\_09\_120518A

Prep Date: 05/18/2012 12:12

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.5								
Benzene	ND	0.5								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
o-Xylene	ND	0.5								
Naphthalene	ND	2								
Surr: 1,2-Dichloroethane-d4	11.6		10		116	70	130			
Surr: Toluene-d8	10.2		10		102	70	130			
Surr: 4-Bromofluorobenzene	9.39		10		94	70	130			

### Laboratory Control Spike

File ID: 12051803.D

Type: LCS Test Code: EPA Method SW8260B

Batch ID: MS09W0518A

Analysis Date: 05/18/2012 11:26

Sample ID: LCS MS09W0518A

Units: µg/L

Run ID: MSD\_09\_120518A

Prep Date: 05/18/2012 11:26

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	10.7	0.5	10		107	65	140			
Benzene	9.27	0.5	10		93	70	130			
Toluene	9.6	0.5	10		96	80	120			
Ethylbenzene	10.2	0.5	10		102	80	120			
m,p-Xylene	10.7	0.5	10		107	70	130			
o-Xylene	9.81	0.5	10		98	70	130			
Surr: 1,2-Dichloroethane-d4	11.4		10		114	70	130			
Surr: Toluene-d8	9.9		10		99	70	130			
Surr: 4-Bromofluorobenzene	8.75		10		88	70	130			

### Sample Matrix Spike

File ID: 12051819.D

Type: MS Test Code: EPA Method SW8260B

Batch ID: MS09W0518A

Analysis Date: 05/18/2012 18:00

Sample ID: 12051642-02AMS

Units: µg/L

Run ID: MSD\_09\_120518A

Prep Date: 05/18/2012 18:00

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	50.4	1.3	50	0	101	47	150			
Benzene	48	1.3	50	0	96	59	138			
Toluene	47.9	1.3	50	0	96	68	130			
Ethylbenzene	53.2	1.3	50	0	106	68	130			
m,p-Xylene	54.5	1.3	50	0	109	68	131			
o-Xylene	50.2	1.3	50	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	61.6		50		123	70	130			
Surr: Toluene-d8	47.8		50		96	70	130			
Surr: 4-Bromofluorobenzene	42.2		50		84	70	130			

### Sample Matrix Spike Duplicate

File ID: 12051820.D

Type: MSD Test Code: EPA Method SW8260B

Batch ID: MS09W0518A

Analysis Date: 05/18/2012 18:23

Sample ID: 12051642-02AMSD

Units: µg/L

Run ID: MSD\_09\_120518A

Prep Date: 05/18/2012 18:23

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	53.6	1.3	50	0	107	47	150	50.39	6.1(40)	
Benzene	48.3	1.3	50	0	97	59	138	48.03	0.5(21)	
Toluene	48.8	1.3	50	0	98	68	130	47.89	1.9(20)	
Ethylbenzene	53.6	1.3	50	0	107	68	130	53.16	0.8(20)	
m,p-Xylene	55.2	1.3	50	0	110	68	131	54.5	1.3(20)	
o-Xylene	51	1.3	50	0	102	70	130	50.18	1.6(20)	
Surr: 1,2-Dichloroethane-d4	59.6		50		119	70	130			
Surr: Toluene-d8	48.5		50		97	70	130			
Surr: 4-Bromofluorobenzene	42.7		50		85	70	130			

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

# CHAIN-OF-CUSTODY RECORD

AMENDED  
Page 1 of 1

# CA

WorkOrder : STR12051543  
Report Due By : 5:00 PM On : 22-May-12

## Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client:  
Stratus Environmental  
3330 Cameron Park Drive  
Suite 550  
Cameron Park, CA 95682-8861

Report Attention	Phone Number	E-Mail Address
Kasey Jones	(530) 676-6000 x	kaseyjones@stratusinc.net

EDD Required : Yes

Sampled by : C. Hill


PO :  
Client's COC # : 57693 Job : Bay Counties Petroleum

Cooler Temp	Samples Received	Date Printed
2 °C	15-May-12	16-May-12

QC Level : S3 = Final Rpt. MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests						Sample Remarks		
				Alpha	Sub	TAT	TPH/E SG W	VOC W							
STR12051543-01A	DW-1 A	AQ	05/14/12 05:05	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene_ C							
STR12051543-02A	DW-2	AQ	05/14/12 05:23	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene_ C							
STR12051543-03A	DW-3	AQ	05/14/12 05:57	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene_ C							
STR12051543-04A	DW-1 C	AQ	05/14/12 06:27	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene_ C							
STR12051543-05A	DW-1 B	AQ	05/14/12 05:40	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene_ C							
STR12051543-06A	DW-4	AQ	05/14/12 06:18	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene_ C							

Comments: Security seals intact. Frozen ice. Sample -01A labeled DW-1A, logged in per COC. Amended 5/16/12 to change sample -01A ID per Renee. SN :

Signature	Print Name	Company	Date/Time
	Sarah Neri	Alpha Analytical, Inc.	5/16/12 1153

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

# CHAIN-OF-CUSTODY RECORD

**Alpha Analytical, Inc.**  
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778  
 TEL: (775) 355-1044 FAX: (775) 355-0406

# CA

**WorkOrder : STR12051543**  
**Report Due By : 5:00 PM On : 22-May-12**

Client:  
 Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

Report Attention	Phone Number	EMail Address
Kasey Jones	(530) 676-6000 x	kaseyjones@stratusinc.net

EDD Required : Yes

Sampled by : C. Hill

PO :  
 Client's COC # : 57693                      Job : Bay Counties Petroleum

<u>Cooler Temp</u>	<u>Samples Received</u>	<u>Date Printed</u>
2 °C	15-May-12	15-May-12

QC Level : S3                      = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests				Sample Remarks		
				Alpha	Sub	TAT	TPHE_SG_W	VOC W					
STR12051543-01A	DW-1	AQ	05/14/12 05:05	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene, C					
STR12051543-02A	DW-2	AQ	05/14/12 05:23	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene, C					
STR12051543-03A	DW-3	AQ	05/14/12 05:57	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene, C					
STR12051543-04A	DW-1 C	AQ	05/14/12 06:27	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene, C					
STR12051543-05A	DW-1 B	AQ	05/14/12 05:40	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene, C					
STR12051543-06A	DW-4	AQ	05/14/12 06:18	6	0	5	Silica Gel (C)	BTXE MTBE Naphthalene, C					

Comments:                      Security seals intact. Frozen ice. Sample -01A labeled DW-1A, logged in per COC. :

<b>Logged in by:</b>	<b>Signature</b> 	<b>Print Name</b> Sarah New	<b>Company</b> Alpha Analytical, Inc.	<b>Date/Time</b> 5/15/12 1110
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NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)                      Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

**Billing Information:**

Company Name STRATUS  
 Attn: Kasey Jones  
 Address 3330 Cameron Pk DR  
 City, State, Zip Cameron Pk  
 Phone Number 530 676 6004 Fax 530 676 6005



**Alpha Analytical, Inc.**  
 255 Glendale Avenue, Suite 21  
 Sparks, Nevada 89431-5778  
 Phone (775) 355-1044  
 Fax (775) 355-0406

57693

Samples Collected From Which State?

AZ  CA  NV  WA  DOD Site   
 ID  OR  OTHER  Page # 1 of 1

Consultant / Client Name <u>BAY Counties Petroleum</u>				Job #		Job Name				Data Validation Level: III or IV	
Address				Name: <u>Kasey</u>		Report Attention / Project Manager				EDD / EDF? YES <input type="checkbox"/> NO <input type="checkbox"/>	
City, State, Zip <u>Dublin</u>				Email:						Global ID #	
Time Sampled	Date Sampled	Matrix* See Key Below	P.O. #	Lab ID Number	Office (Use Only)	Sample Description	TAT	Field Filtered	# Containers**	REMARKS	
<u>0505</u>	<u>5/14</u>	<u>AQ</u>		<u>STR12051543-0A</u>		<u>DW-1</u>	<u>STD</u>		<u>6-V</u>	<u>X</u>	<u>X</u>
<u>0523</u>				<u>02A</u>		<u>DW-2</u>	<u>STD</u>		<u>6-V</u>	<u>X</u>	<u>X</u>
<u>0527</u>				<u>03A</u>		<u>DW-3</u>	<u>STD</u>		<u>6-V</u>	<u>X</u>	<u>X</u>
<u>0627</u>				<u>02A</u>		<u>DW-1C</u>	<u>STD</u>		<u>6-V</u>	<u>X</u>	<u>X</u>
<u>0540</u>				<u>05A</u>		<u>DW-1B</u>	<u>STD</u>		<u>6-V</u>	<u>X</u>	<u>X</u>
<u>0615</u>				<u>06A</u>		<u>DW-4</u>	<u>STD</u>		<u>6-V</u>	<u>X</u>	<u>X</u>

DRO 511.00  
 BTEX: MTBE 8240B  
 Naphthalene 8240B

**ADDITIONAL INSTRUCTIONS:**

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by A Hill

Relinquished by: (Signature/Affiliation) <u>[Signature]</u>	Received by: (Signature/Affiliation) <u>[Signature]</u>	Date: <u>5-14-12</u>	Time: <u>9:35</u>
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation) <u>[Signature]</u>	Date: <u>5/15/12</u>	Time: <u>11:00</u>
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation) <u>Alpha</u>	Date:	Time:

\*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air \*\*: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other  
 NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.