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

STRATUS
ENVIRONMENTAL, INC.

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

February 24, 2011
Project No. 2094-6310-01

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

Re: **Pilot Test Report**
6310 Houston Place, Dublin, California 94568
ACEHD Case No. RO0002862, GeoTracker ID T0600113164

Dear Mr. Khatri:

On behalf of Mr. Cary Grayson, Stratus Environmental, Inc. (Stratus) has prepared this *Pilot Test Report* for the property located at 6310 Houston Place in Dublin, California (the site; Figure 1). AEI Consultants (AEI) previously submitted a work plan[1] proposing to inject a chemical oxidant (specifically RegenOx™, manufactured by Regenesis) to evaluate its effectiveness in reducing petroleum hydrocarbon mass beneath the site. Alameda County Environmental Health Department (ACEHD) conditionally approved the work plan;[2] however, AEI did not implement it.

In July 2010, Stratus was retained by Mr. Grayson to provide environmental consulting services for this site, and Stratus informed ACEHD[3] that we would be implementing the scope of work presented in AEI's work plan. Field work associated with implementation of the approved work plan was conducted during September, November, and December 2010, and January 2011. This report summarizes the field activities associated with the advancement of twelve direct-push borings around two monitoring wells, the injection of RegenOx™ compound, and an evaluation of the effects on dissolved concentrations of diesel-range organics (DRO).

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[1] *Corrective Action Pilot Test Workplan,* AEI Consultants, dated March 19, 2008.
[2] Letter from Alameda County Environmental Health Services to Mr. Cary Grayson, dated August 27, 2008.
[3] Letter from Stratus to Paresh Khatri of ACEHD, dated July 16, 2010.

SITE DESCRIPTION

The site is located in a commercial, light industrial, and residential area of Dublin, California, on the south side of Houston Place, near the intersection with Dougherty Road (Figure 1). The subject property is currently developed as an internally-segmented tilt-up commercial building and associated parking areas, housing two automobile repair shops and storage warehousing units (Figure 2). Neighboring properties are developed as automobile repair shops, a landscaping supply yard, light industrial manufacturing, and residential apartment buildings.

BACKGROUND

The historical summary presented below is based on information presented in documents prepared by AEI and available in GeoTracker.

Previous Environmental Investigation

Two 12,000-gallon diesel, one 7,500-gallon gasoline, and one 2,000-gallon gasoline underground storage tanks (USTs) were installed on the property in 1968. A localized surface spill of used motor oil and an underground piping leak were discovered at the site prior to 1984. Approximately 156 cubic yards of contaminated soil were removed from the site to the satisfaction of the San Francisco Bay Regional Water Quality Control Board (RWQCB).

On March 31, 1989, four USTs (one 500-gallon waste oil, two 12,000-gallon diesel, and one 8,000-gallon diesel) were excavated, and three of the USTs were removed. One 12,000-gallon diesel UST was relined and reinstalled for continued use. Soil samples collected from the excavation during tank removal activities had concentrations of total petroleum hydrocarbons as diesel (TPHd) as high as 190 milligrams per kilogram (mg/kg), and total oil and grease (TOG) up to 240 mg/kg. One grab groundwater sample (collected from the diesel UST excavation) contained TPHd (380,000 micrograms per liter [µg/l]) and TOG (50,000 µg/l).

Groundwater monitoring wells MW-1, MW-2, and MW-3 were installed in August 1989, and wells MW-4, MW-5, and MW-6 were installed between May 1990 and March 1991. TPHd and TOG were reported at concentrations up to 22,000 µg/l and 8,600 µg/l, respectively, during the initial sampling of these wells. Intermittent monitoring and sampling of the wells was conducted between August 1989 and October 1994. During the October 1994 sampling event, TPHd and TOG were reported at concentrations up to 805 µg/l and 600 µg/l, respectively.

Based on gradually decreasing TPHd and TOG concentrations in the groundwater, and the remaining low concentrations of these hydrocarbons in both the soil and groundwater, ACEHD granted case closure in a letter dated February 28, 1995.

Current Environmental Investigation

AEI collected samples from monitoring wells MW-1, MW-2 and MW-5 in January 2001 at the request of a prospective purchaser of the property. TPHd was reported at concentrations up to 5,200 µg/l, but TOG was not reported in any of the wells. Between this 2001 sampling event and about 2005, the monitoring wells MW-1 through MW-6 were apparently decommissioned, but no records are currently available with details of their destruction.

In October 2004, the remaining 12,000-gallon diesel UST, fuel dispenser, and product piping were removed. Seven soil and two grab groundwater samples were collected from the UST pit bottom and sidewalls, overburden stockpile, and areas in the vicinity of the fuel dispensers and product piping. The samples were analyzed for TPHd, methyl tertiary butyl ether (MTBE), and benzene, toluene, ethylbenzene, and xylenes (BTEX). TPHd (1 mg/Kg) was reported in a soil sample from the UST excavation sidewall. TPHd was reported in a water sample collected from the UST excavation (300 µg/l) and in a water sample collected below the dispenser area (23,800 µg/l).

In March 2006, AEI advanced five soil borings (SB-1 through SB-5, Figure 2) near the former 12,000-gallon UST, the former dispenser island, the former product lines, and downgradient from the former UST.[4] One soil sample (from 8 feet below ground surface [bgs]) and a groundwater sample were collected from each boring. TPHd was only reported in the soil sample from SB-4 (53 mg/kg). TPHd was reported in all groundwater samples (4,100 to 580,000 µg/l), and MTBE was only reported in the groundwater sample from SB-4 (2.6 µg/l).

In March 2007, AEI installed seven new groundwater monitoring wells (DW-1 through DW-7, Figure 2).[5] One soil sample from between 7 and 12 feet bgs in each well boring was submitted for analysis. TPHd was reported in the soil samples from borings DW-1, DW-2, and DW-3 (2.0 to 12 mg/Kg), and total petroleum hydrocarbons as motor oil (TPHmo) was reported in the soil sample from boring DW-3 (6.2 mg/Kg). In the initial groundwater samples from these wells, TPHg was reported in DW-1, DW-2, and DW-3 (100 to 220 µg/l), TPHd was reported in wells DW-1 through DW-5 (65 to 27,000 µg/l), TPHmo was reported in wells DW-1, DW-3, and DW-5 (320 to 9,200 µg/l), and MTBE was reported in well DW-4 (0.67 µg/l).

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[4] *Soil and Groundwater Investigation Report,* AEI Consultants, dated June 28, 2006.
[5] *Monitoring Well Installation Report,* AEI Consultants, dated June 19, 2007.

GEOLOGY AND HYDROGEOLOGY

The site is situated in the southeast end of the San Ramon Valley, approximately ¾ mile south-southeast of the Dougherty Hills (foothills of Mount Diablo), approximately ½ mile east of Dougherty Creek. The site is relatively flat, at approximately 335 feet above mean sea level (msl). Surface deposits in the vicinity of the site consist of Holocene Age basin deposits. These deposits are identified by very fine silty clay to clay deposits occupying flat-floored basins at the edge of alluvial fans.[1]

During investigations conducted by AEI, the subsurface has been explored to approximately 17 feet bgs. As logged by AEI,[4,5] shallow subsurface sediments appear to consist of subequal amounts of sandy (sand, silty sand, and clayey sand) and silty clay sediments. At most boring locations, the materials encountered immediately below the pavement are the coarser, sandier sediments. These sandy sediments overlay a stratum of silty clay at depths between 4 and 10 feet bgs. This clayey stratum appears to be laterally continuous across the study area. In several borings 1 to 5 feet of sandy sediment was encountered beneath the clayey stratum at the base of the borings, and in two of the borings, thin (½- to 1-foot thick) layers of sandy sediment were observed within the clayey stratum.

Since April 2007, the depth to groundwater in wells DW-1 through DW-7 has ranged from approximately 5.9 to 9.0 feet bgs during quarterly monitoring events (historical monitoring data are summarized in Table 1). Average groundwater elevations in all seven wells have remained relatively constant since monitoring was initiated, with minor seasonal fluctuations. Based on AEI documents in GeoTracker, groundwater flow beneath the site ranges from south-southwest to west at gradients between 0.002 and 0.005 feet per foot.

REMEDIAL INJECTION PILOT TESTING

Pilot Test Setup

As originally proposed by AEI,[1] the pilot test consisted of injecting a chemical oxidant at three locations around well DW-1 and at three locations around well DW-3. AEI selected RegenOx™ as the oxidant for the pilot test. RegenOx™ ships as a two-part compound that consists of an oxidizer complex[6] and an activator complex[7] that are mixed in the field immediately prior to application. A discussion of RegenOx™, including a material safety data sheet, was included in AEI's work plan.

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[6] A mixture of sodium percarbonate [$2Na_2CO_3 \cdot 3H_2O_2$], sodium carbonate [Na_2CO_3], sodium silicate and silica gel.

[7] A mixture of sodium silicate, silica gel and ferrous sulfate.

The pilot test was conducted on September 21 through 24, and continued on November 8, 9, and 23, 2010. The pilot test consisted of advancing direct-push soil boring rods with a retractable screen at the tip, followed by the injection of the oxidant solution into the selected interval. The solution was pressure-injected using a single speed pump coupled with a pressure gauge and a flow meter. In order to inject RegenOx™ uniformly throughout the shallow saturated zone, the injection tip was raised in 2-foot intervals during injection, between a maximum depth of approximately 20 feet bgs and a minimum of 8 feet bgs.

A drilling permit (no. 2010081) for the GeoProbe™ borings was obtained from Zone 7 Water Agency. A copy of the permit is included in Appendix A.

Pre-Injection Baseline Sampling

On August 3, 2010, Stratus conducted the third quarter 2010 monitoring and sampling event. Additional measurements and analyses were performed to establish baseline conditions prior to the injection event. All wells in the monitoring well network were measured for depth to water, temperature, pH, conductivity, dissolved oxygen (DO) and oxygen-reduction potential (Redox), and samples from each well were analyzed for DRO by USEPA Method SW8015B/DHS LUFT Manual, and for BTEX, MTBE, and naphthalene by USEPA Method SW8260B. Samples from wells DW-1, DW-3, DW-5 and DW-7 were also analyzed for and copper (Cu), arsenic (As), cadmium (Cd), barium (Ba), total chromium (Cr), total Iron (Fe), Selenium (Se), and lead (Pb) by EPA Method 200.8/ICPMS, and for hexavalent chromium (Cr^{6+}) by USEPA Method 7199.

This monitoring and sampling event was previously reported.[8] Depth to water and analytical data are summarized in Tables 1 and 2.

Pilot Test Implementation

September 21, 2010

Stratus and a crew from RSI Drilling began the injection pilot test on September 21, 2010. Starting at IP-6 (refer to Figure 3 for locations of all injection points), the direct-push rods were advanced to 20 feet bgs, then the rods were retracted 2 feet to expose the injection screen (an injection interval of 18 to 20 feet). Approximately 100 gallons of 14% RegenOx™ solution were pumped into the subsurface until solution was observed emerging (daylighting) through the asphalt pavement in the vicinity of the injection point. Injection was terminated for the day, but the direct-push rods were left in the ground to attempt further injection the following day.

[8] *Quarterly Monitoring and Sampling Report – Third Quarter 2010*, Stratus Environmental, Inc., dated October 1, 2010.

September 22, 2010

Injection was initiated on IP-3. After advancing the direct-push rods to 20 feet bgs, the screen was exposed and a brief pump test using only water was performed (brief pump-tests using only water were conducted prior to each injection, hereafter). Approximately 3 gallons of water were injected before the integrity of the seal between the boring rods and the surrounding soil failed, forcing water to emerge from the borehole around the direct-push rods. The rods were then raised to 14 feet bgs (screen at 12 to 14 feet bgs) where the formation readily accepted water. Approximately 50 gallons of RegenOx™ solution were injected at this interval, then the screen was situated from 8 to 10 feet bgs and injection resumed. After approximately 35 gallons, solution was observed daylighting through the asphalt pavement approximately 20 feet northwest of the injection point. Pumping at IP-3 was terminated.

The rig and pump were moved back to IP-6, where pumping resumed. After approximately 80 gallons of solution were injected (approximately 100 gallons were injected at this location the previous day), daylighting was observed along the storm-drain trench east and northeast of the injection point. Pumping at IP-6 was terminated.

Injection was next tried at IP-2, where the screen was placed at 14 to 16 feet bgs. After approximately 150 gallons of solution were injected, daylighting was observed on the south side of the nearby property-line fence (in the yard of the landscaping materials business). Injection at IP-2 was terminated, and injection borings IP-2, IP-3, and IP-6 were backfilled with neat cement.

September 23, 2010

Injection began at IP-4. The injection screen was first set at 18 to 20 feet bgs. In an attempt to inject more RegenOx™ per gallon of solution, the mix was increased to approximately 28% by using half of the normal amount of water, but this proved to be too viscous to be pumped, and only 10 gallons could be injected. The solution was diluted back to the normal mix ratio of 14% and injection continued; 80 more gallons of the RegenOx™ solution were injected before daylighting was observed in the landscaping area to the east of the garbage compound. Injection at IP-4 was terminated.

The equipment was moved to IP-1, where the screen was initially set at 16 to 18 feet bgs. Approximately 100 gallons of solution was injected; then daylighting was observed and injection terminated.

The equipment was then moved to IP-5, and the injection screen was set at 16 to 18 feet bgs. Daylighting was observed after approximately 60 gallons of solution were injected, with an area of the pavement north of the injection point heaving due to liquid trapped

between the pavement and underlying soil. Injection at IP-5 was terminated, and injections borings IP-1, IP-4, and IP-5 were backfilled with neat cement.

September 24, 2010

Injection began with IP-7. A 4-foot long injection screen, set at 16 to 20 feet bgs, was used in an attempt to improve the injection efficiency and overcome the daylighting problem. After 45 gallons of solution were injected, daylighting was observed at the same location where it had been observed when injecting in IP-3 (approximately 15 to 20 feet northwest of the injection area). Injection at IP-7 was terminated and the borehole backfilled with neat cement.

The equipment was then moved to injection point IP-8. Following an unsuccessful water-only test injection at 20 feet bgs, the 2-foot long screen was raised to 14 to 16 feet bgs. After the start of RegenOx™ injection at that depth, only 20 gallons were injected before daylighting was observed in the same area of pavement. Injection at IP-8 was terminated and the boring backfilled with neat cement.

November 8, 2010

Injection activities resumed at IP-9 with the screen set at 16 to 14 feet bgs. Approximately 50 gallons of 14% solution were injected; the screen was then raised to 14 to 12 feet bgs, and another 50 gallons of solution was injected. Finally, the screen was raised to 12 to 10 feet bgs. The pumping rate was lowered in an attempt to reduce the possibility of daylighting, but pump backpressure indicated that additional solution could not be injected at this depth. A total of 100 gallons of solution were injected at IP-9 before pumping was terminated and the boring backfilled with neat cement.

November 9, 2010

Injection activities were initiated at IP-10 with the screen set at 16 to 14 feet bgs. After approximately 50 gallons were injected, daylighting was observed along the storm drain trench north of IP-9. Pumping resumed at injection point IP-10 with the screen set at 14 to 12 feet bgs and at a slower pumping rate. 100 gallons of solution were injected at this interval. Injection was terminated and the boring backfilled with neat cement.

The equipment was moved to injection point IP-11, and the injection screen set at 18 to 16 feet bgs. Approximately 40 gallons of solution were injected at this interval before daylighting was observed along the southern fence line. Injection was terminated and the boring backfilled with neat cement.

November 23, 2010

Injection at IP-12 was initiated with the screen set at 18 to 16 feet bgs. Approximately 87 gallons of solution were injected before daylighting was observed in the landscaping to the southeast of the injection area. Injection was terminated and the boring backfilled with neat cement.

In total, approximately 1,356 pounds of RegenOx™ were injected during the pilot test.

Post-Injection Monitoring

To evaluate the effectiveness of the RegenOx™ injections, post-injection groundwater monitoring events were conducted on October 7, October 19, and November 30, 2010, and January 13, 2011.

Prior to sampling, all wells in the monitoring well network were gauged for depth to water. Wells DW-1, DW-3, DW-5, and DW-7 were then measured for temperature, pH, conductivity, DO, and Redox, and then standard well purging and sampling protocol were used to collect groundwater samples from these wells. The samples were analyzed at a state-certified laboratory for analysis of DRO, BTEX, MTBE, naphthalene, and metals (Cu, As, Cd, Ba, Cr, Cr^{6+}, Fe, Se and Pb). Analytical methods were described above. Groundwater sampling field data sheets are included in Appendix B, and laboratory reports are included in Appendix C. Depth to water measurements and analytical data are summarized in Tables 1 and 2. Stratus' groundwater monitoring and sample handling procedures are included in Appendix D.

FINDINGS

Pre-Injection Baseline Results

Depth-to-water measurements during the pre-injection sampling event were consistent with historical data. DRO was reported in wells DW-1 through DW-5, at concentrations ranging from 370 to 6,300 µg/l, and MTBE was reported in well DW-4 (0.76 µg/L). BTEX and naphthalene were not reported in these wells. Petroleum hydrocarbons were not reported in wells DW-6 or DW-7.

Historically, DRO has been reported in wells DW-1 through DW-5, and DRO concentrations in these wells generally exhibit a downward concentration trend. It is noteworthy, though, that the DRO results for the baseline analyses in wells DW-1, DW-2, and DW-3 were substantially less than those reported just two quarters previous (first quarter 2010), by up to an order of magnitude.

Post-Injection Results

Wells DW-1, DW-3, DW-5, and DW-7 were monitored and sampled three times by themselves (October 7, October 19, and November 30, 2010), and the entire monitoring network was monitored and sampled on January 13, 2011, as part of the regularly scheduled quarterly monitoring event.

Hydrocarbon Concentrations

Throughout the post injection monitoring period, analytical results were generally consistent with historical data. In well DW-1, DRO concentrations were higher than the baseline results, but ranged only from 1,300 to 2,500 µg/l, levels less than half of those reported in January 2010. At well DW-3, post-injection DRO concentrations were less than the baseline concentration, ranging from 830 to 1,800 µg/l; again, at least an order of magnitude less than DRO concentrations reported in January 2010. These results suggest that the RegenOx™ compound has acted to reduce hydrocarbon mass in the vicinity of these wells.

DRO concentrations in well DW-5 ranged from 230 to 470 µg/l, consistent with the baseline concentration, and with historical concentrations reported for this well. DRO was not reported in well DW-7.

Metals Concentrations

With the exception of Fe, metals concentrations reported in post-injection samples did not show a significant change in concentration from pre-injection levels. Cr^{6+} was reported only once (1.6 µg/l in well DW-1, in the first sample collected after injection). These data indicate that RegenOx™ injection did not cause an unexpected increase or decrease in dissolved metals concentrations. In wells DW-1, DW-3, and DW-5, Fe concentrations show a generally steady increase, but this is not unexpected, as the RegenOx™ activator compound includes ferrous sulfate. The highest Fe concentrations were consistently reported in the samples from well DW-7, suggesting that high Fe concentrations in the groundwater in the site vicinity are not unusual.

DISCUSSION

This pilot test consisted of injecting RegenOx™ into the saturated zone beneath the subject site to evaluate the effectiveness of RegenOx™ in reducing petroleum hydrocarbon (DRO) mass. Over a total of six days of on-site injection activities, 1,356 pounds of RegenOx™ was injected in the vicinity of wells DW-1 and DW-3 (the work plan called for a total of 2,200 pounds of RegenOx™ compound to be injected). During the pilot test, DRO concentrations in observation well DW-1 increased slightly from the

pre-test sampling event, while the concentrations in observation well DW-3 appeared to decrease from the pre-test sampling event.

As illustrated by the narrative above, hydrogeologic conditions beneath the site were not ideally suited for RegenOx™ injection. At virtually all of the injection locations over the three injection events, no more than 150 gallons of the RegenOx™ solution could be injected before daylighting of the RegenOx™ material was observed at the surface. In addition, it was virtually impossible to inject the treatment solution at depths deeper than approximately 16 feet bgs. These conditions suggest that injection of a much larger quantity of RegenOx™ material that would be required to treat the entire DRO plume would require a substantial commitment of equipment and personnel (over several injection events), and a substantial investment in RegenOx™ compounds.

At well DW-1, historical DRO concentrations show a decrease from a historic high of 30,000 µg/L in July 2007 to 540 µg/L in August 2010, immediately prior to the start of the pilot test. During and after completion of the pilot test, DRO concentrations in this well rose slightly, up to 2,500 µg/L. While the concentrations reported during and after the pilot test were lower than historic highs, a decreasing trend in DRO concentrations in this well appear to have been established prior to the start of the pilot test. (Graphs illustrating the decreasing DRO concentrations in wells DW-1 through DW-5 are included in Appendix E).

At well DW-3, historical DRO concentrations show a decrease from a historic high of 210,000 µg/L in July 2007 to 6,300 µg/L in August 2010, immediately prior to the start of the pilot test. During the pilot test, DRO concentrations continued to decrease, but show only a slight increase subsequent to the last injection event. Similar to well DW-1, the historical analytical data indicate that DRO concentrations had a decreasing trend prior to the start of the pilot test, and this general trend appears to continue during the pilot test.

While these data from wells DW-1 and DW-3 suggest the observed decrease in DRO concentrations was due in part to the injection of RegenOx™ compound, it is also possible that the decrease in DRO concentrations observed in these wells was due in part to natural degradation processes in place prior to the pilot test. As discussed above, concentrations in wells DW-1 and DW-3 already showed a well-established decreasing trend prior to the start of the pilot test. This trend is also evident in historical analytical data for wells DW-2 and DW-5.

RECOMMENDATION

Subsurface conditions beneath the site do not appear to be ideal for the injection of RegenOx™ compound. During the pilot test, only 60% of the originally proposed amount of RegenOx™ was injected into the subsurface, and this required almost twice as

many injection points as originally proposed, and six days of field effort. Full implementation of a program to inject RegenOx™ compound over the current extent of the dissolved DRO plume would likely require a substantial amount of RegenOx™ injected over 25 to 30 injection points, and this would likely need to be done at least twice (maybe more). Given that the DRO concentration decreases observed in wells DW-1 and DW-3 during the pilot test appear to be due, at least in part, to natural degradation activity at the site, additional RegenOx™ injection at this site does not appear warranted in light of the likely substantial cost of implementation.

DRO is the only dissolved hydrocarbon compound of concern at this site (MTBE is reported in well DW-4, but at concentrations <1.0 µg/l). As discussed above, dissolved DRO concentrations show a generally decreasing trend in four of the five wells that are impacted (DW-1, DW-2, DW-3, and DW-5). The well that does not show an obviously decreasing DRO concentration trend (DW-4) has only low levels of impact (370 µg/L during first quarter 2011). Historical groundwater flow appears generally to the southwest, and DRO is not reported in downgradient wells DW-6 and DW-7. The dissolved DRO plume is of limited lateral extent, the plume extent has been adequately characterized, and the plume configuration appears to be stable. As shown in graphs in Appendix E, the trend line for the decreasing DRO concentrations in wells DW-1, DW-2, DW-3, and DW-5 are projected to reach the current taste and odor threshold[9] of 100 µg/L in approximately 3 to 6 years. AEI performed a conduit survey in 2006,[10] and a review of Department of Water Resources well logs in 2007.[4] AEI did not identify any utility conduits that were likely to provide preferential pathways for contaminant migration. Nine parcels with wells were identified, and all parcels were approximately 1,000 to 2,500 feet from the subject site. All identified wells were installed for monitoring or testing purposes, and none was installed deeper than 22 feet bgs. AEI concluded that these wells were not like to be impacted by hydrocarbons from the subject site. Taken together, these observations suggest that additional assessment and remediation at the site are not warranted, and the site should be considered for low-risk closure.

LIMITATIONS

This report was prepared in general accordance with accepted standards of care that existed at the time this report was prepared. No other warranty, expressed or implied, is made. Conclusions and recommendations are based on field observations and data obtained from this work and previous investigations. It should be recognized that definition and evaluation of geologic conditions is a difficult and somewhat inexact science. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface conditions present. More extensive

[9] *A Compilation of Water Quality Goals*, Central Valley Regional Water Quality Control Board, dated July 2008.

[10] *Monitoring Well Installation Work Plan,* AEI Consultants, dated September 19, 2006.

studies may be performed to reduce uncertainties. This report is solely for the use and information of our client, unless otherwise noted.

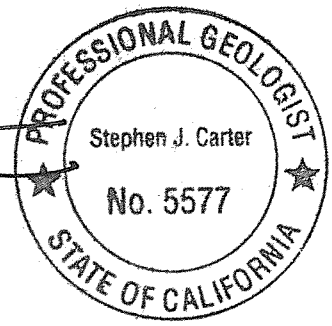
If you have any questions or comments concerning this document, please contact Kasey Jones at (415) 516-0373.

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Kasey L. Jones
Project Manager

Stephen J. Carter, P.G.
Senior Geologist



cc: Mr. Cary Grayson
Ms. Cherie McCaulou, San Francisco Bay Regional Water Quality Control Board

Attachments:

Table 1	Groundwater Elevation and Analytical Summary
Table 2	Groundwater Analytical – Dissolved Metals Summary
Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Injection Point Locations
Appendix A	Drilling Permit
Appendix B	Groundwater Sampling Field Data Sheets
Appendix C	Laboratory Analytical Reports
Appendix D	Sampling and Analyses Procedures
Appendix E	Graphs of DRO Concentrations in Wells DW-1 through DW-5

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
	10/07/10	8.06	334.23	326.17	1,700	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	10/19/10	8.11	334.23	326.12	2,500	<0.50	<0.50	<0.50	<0.50	<0.50	<4.0[3]
	11/30/10	7.60	334.23	326.63	1,300	<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
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	--
	10/07/10	7.73	334.00	326.27	--	--	--	--	--	--	--
	10/19/10	7.79	334.00	326.21	--	--	--	--	--	--	--
	11/30/10	7.34	334.00	326.66	--	--	--	--	--	--	--
	01/13/11	6.27	334.00	327.73	7,500	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
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	--	--

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-3	04/23/08	7.38	334.56	327.18	58,000	<0.5	<0.5	<0.5	<0.5	<0.5	--
(cont.)	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
	10/07/10	8.42	334.56	326.14	1,400	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	10/19/10	8.48	334.56	326.08	830	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	11/30/10	8.04	334.56	326.52	1,300	<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
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	--
	10/07/10	8.46	334.49	326.03	--	--	--	--	--	--	--
	10/19/10	8.48	334.49	326.01	--	--	--	--	--	--	--
	11/30/10	8.09	334.49	326.40	--	--	--	--	--	--	--
	01/13/11	7.08	334.49	327.41	370	<0.50	<0.50	<0.50	<0.50	0.74	<4.0[3]
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	--

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-5	08/03/10	7.32	333.91	326.59	490[1,2]	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
(cont.)	10/07/10	7.74	333.91	326.17	410[1,2]	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	10/19/10	7.85	333.91	326.06	230	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	11/30/10	7.30	333.91	326.61	340	<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
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	--
	10/07/10	7.70	334.99	327.29	--	--	--	--	--	--	--
	10/19/10	8.72	334.99	326.27	--	--	--	--	--	--	--
	11/30/10	8.31	334.99	326.68	--	--	--	--	--	--	--
	01/13/11	7.69	334.99	327.30	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
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	<2.0
	10/07/10	9.07	335.18	326.11	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	10/19/10	8.10	335.18	327.08	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
	11/30/10	8.64	335.18	326.54	<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	<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)

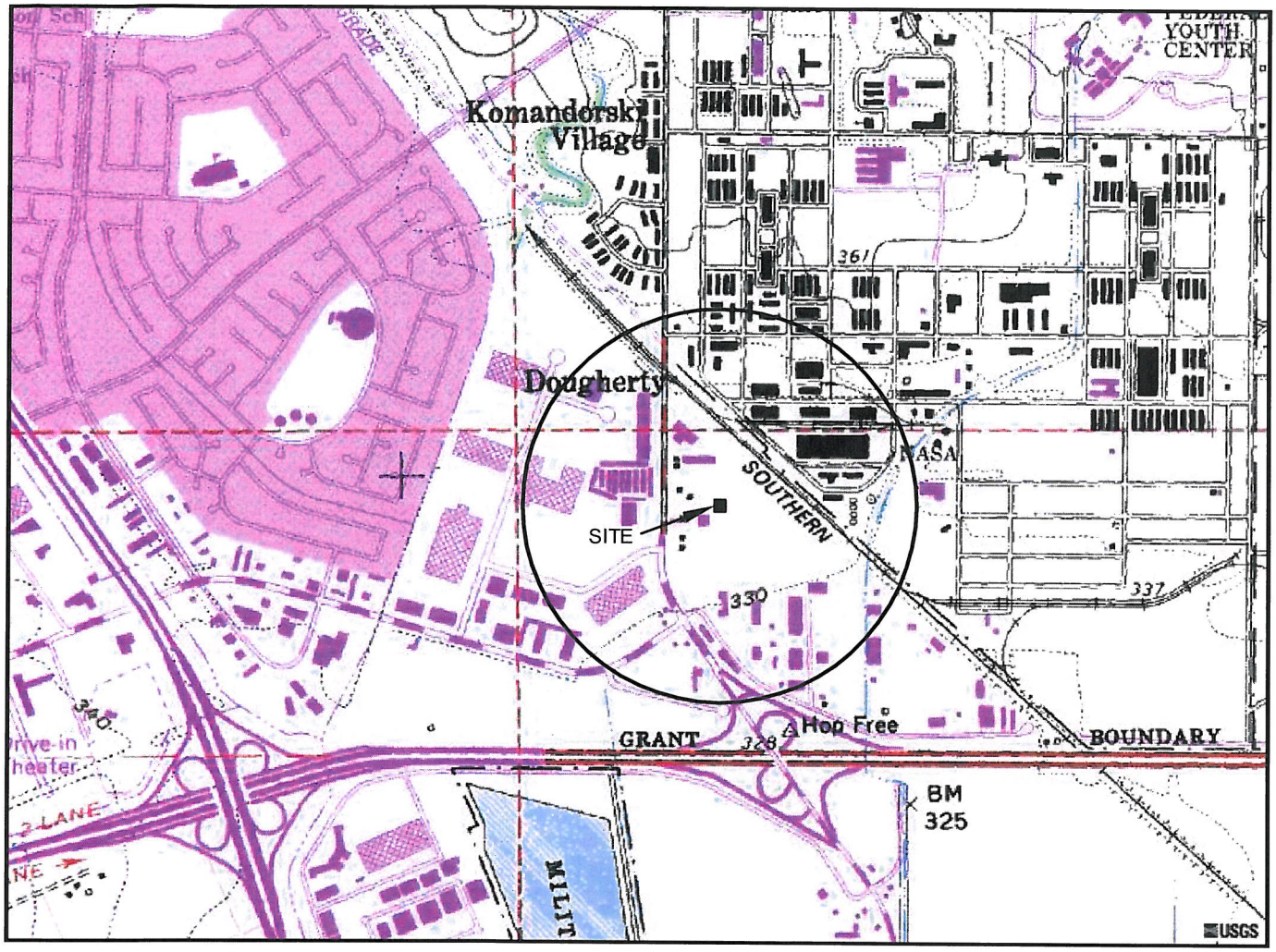
Notes:
*Data through January 11, 2010, reported by AEI Contultants.
**Prior to 8/3/10, reported as TPH-D
DRO = total petroleum hydrocarbons as diesel (C13-C-22)
MTBE = methyl-tertiary butyl ether
µg/L = micrograms per liter
[1] = reported concentration includes additional compounds uncharacteristic of 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.
-- = Not analyzed

TABLE 2
GROUNDWATER ANALYTICAL - DISSOLVED METALS SUMMARY
6310 Houston Place, Dublin, CA

Well Number	Date Collected	Cu (µg/L)	As (µg/L)	Cd (µg/L)	Ba (µg/L)	Cr^{+6} (µg/L)	Cr (µg/L)	Fe (µg/L)	Se (µg/L)	Pb (µg/L)
DW-1	08/03/10	<10	9.4	<1.0	28	<1.0	6.8	7,300	<5.0	<5.0
	10/07/10	23	87	<1.0	21	1.6	17	5,200	<5.0	<5.0
	10/19/10	28	79	<1.0	20	<1.0	22	13,000	<5.0	6.3
	11/30/10	13	43	<1.0	32	<1.0	13	3,900	<5.0	<5.0
	01/13/11	49	41	<1.0	37	<1.0	72	35,000	<5.0	16
DW-3	08/03/10	<10	<2.0	<1.0	58	<1.0	<5.0	2,300	<5.0	<5.0
	10/07/10	13	6.4	<1.0	87	<1.0	6.3	2,600	<5.0	<5.0
	10/19/10	14	6.7	<1.0	96	<1.0	16	12,000	<5.0	<5.0
	11/30/10	<10	6.7	<1.0	76	<1.0	9.4	3,000	<5.0	<5.0
	01/13/11	14	5.4	<1.0	69	<1.0	29	16,000	<5.0	7.4
DW-5	08/03/10	<10	5.8	<1.0	48	<1.0	<5.0	540	<5.0	<5.0
	10/07/10	11	5.1	<1.0	53	<1.0	<5.0	640	<5.0	<5.0
	10/19/10	<10	5.1	<1.0	53	<1.0	<5.0	1,700	<5.0	<5.0
	11/30/10	<10	5.5	<1.0	55	<1.0	8.5	1,200	<5.0	<5.0
	01/13/11	11	4.9	<1.0	69	<1.0	19	8,800	<5.0	<5.0
DW-7	08/03/10	<10	5.6	<1.0	45	<1.0	45	29,000	5.7	15
	10/07/10	71	5.7	<1.0	51	<1.0	92	57,000	5.9	25
	10/19/10	69	4.2	<1.0	49	<1.0	110	69,000	7.4	26
	11/30/10	23	<2.0	<1.0	50	<1.0	42	21,000	5.1	7.6
	01/13/11	32	6.0	<1.0	48	<1.0	79	36,000	7.8	12

Notes:

µg/L = micrograms per liter
Cu = Copper
As = Arsenic
Cd = Cadmium
Ba = Barium
Cr = Chromium
Cr^{+6} = Hexavalent Chromium
Fe = Iron
Se = Selenium
Pb = Lead
-- = Not analyzed



GENERAL NOTES:
BASE MAP FROM U.S.G.S.
DUBLIN, CA.
7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED 1989

N

QUADRANGLE LOCATION

0 1800 FT

APPROXIMATE SCALE

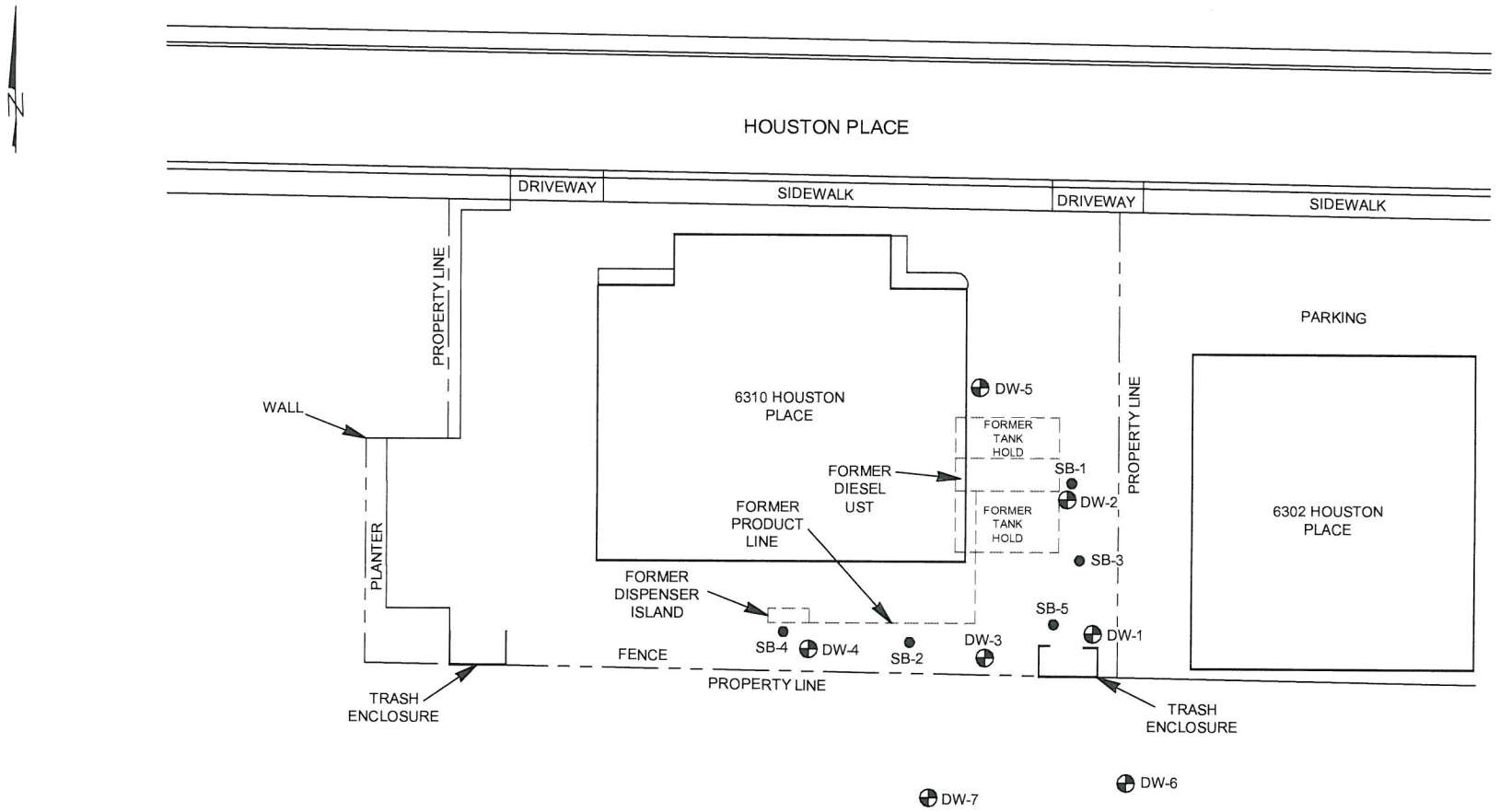
STRATUS
ENVIRONMENTAL, INC.

6310 HOUSTON PLACE
DUBLIN, CALIFORNIA

SITE LOCATION MAP

FIGURE
1

PROJECT NO.
2094-6310-01



LEGEND

DW-1 MONITORING WELL LOCATION

SB-1 SOIL BORING LOCATION

JMP REV September 20, 2010 Bay Co Siteplan

Bay Counties

STRATUS ENVIRONMENTAL, INC.

0 50 FT

SCALE

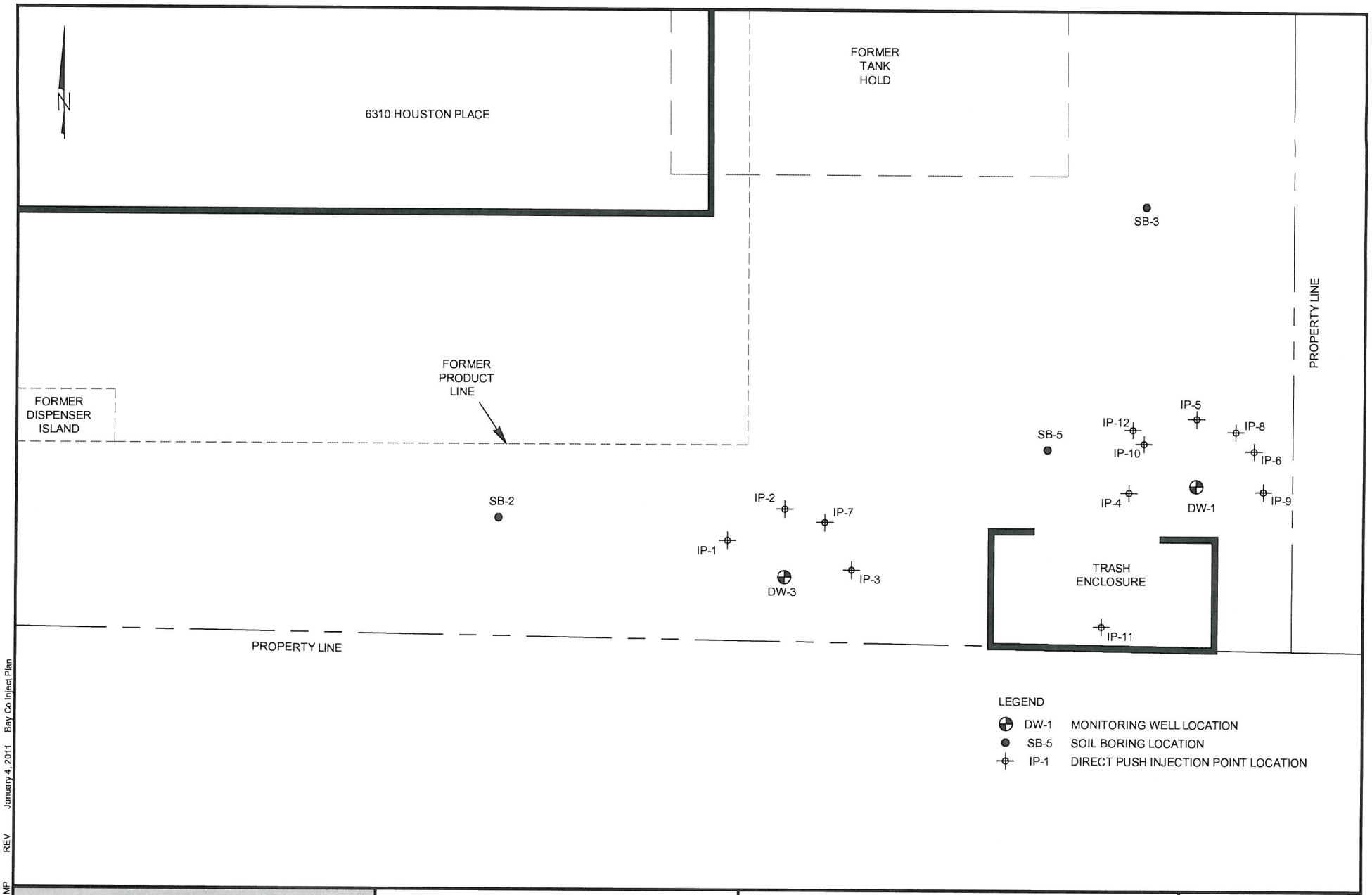
6310 HOUSTON PLACE
DUBLIN, CALIFORNIA

SITE PLAN

FIGURE

2

PROJECT NO.
2094-6301-01



Bay Counties JMP REV January 4, 2011 Bay Co Inject Plan

STRATUS ENVIRONMENTAL, INC.

0 10 FT

SCALE

6310 HOUSTON PLACE
DUBLIN, CALIFORNIA

INJECTION POINT LOCATIONS

FIGURE
3

PROJECT NO.
2094-6301-01

APPENDIX A

DRILLING PERMIT

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 6310 Houston Place
Dublin, CA

Coordinates Source _____ ft. AccuracyV _____ ft.
LAT: _____ ft. LONG: _____ ft.
APN 941-0550-067

CLIENT
Name Mr. Cary Greyson
Address 2413 Stirrup Ct. Phone 925-938-2222
City Walnut Creek, CA Zip 94596

APPLICANT
Name Stratus Environmental, Inc. / Allan Dudding
Email adudding@stratusinc.net Fax 530-676-6005
Address 3330 Cameron Park Dr. # 550 Phone 530-676-2064 or 916-837-1678
City Cameron Park, CA Zip 95682

TYPE OF PROJECT:

Well Construction	__	Geotechnical Investigation	__
Well Destruction	__	Contamination Investigation	__
Cathodic Protection	__	Other In situ remediation	X

PROPOSED WELL USE:

Domestic	__	Irrigation	__
Municipal	__	Remediation	__
Industrial	__	Groundwater Monitoring	__
Dewatering	__	Other _____	__

DRILLING METHOD:

Mud Rotary	__	Air Rotary	__	Hollow Stem Auger	__
Cable Tool	__	Direct Push	X	Other _____	__

DRILLING COMPANY RSI Drilling

DRILLER'S LICENSE NO. 802334

WELL SPECIFICATIONS:
Drill Hole Diameter _____ in. Maximum
Casing Diameter _____ in. Depth _____ ft.
Surface Seal Depth _____ ft. Number _____

SOIL BORINGS:
Number of Borings 6 Maximum
Hole Diameter 2 in. Depth 20 ft.

ESTIMATED STARTING DATE 9/20/10
ESTIMATED COMPLETION DATE 9/24/10

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE _____ Date 9/7/10

ATTACH SITE PLAN OR SKETCH

FOR OFFICE USE

PERMIT NUMBER 2010081
WELL NUMBER _____
APN _____

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.
3. Permit is void if project not begun within 90 days of approval date.
4. **Notify Zone 7 at least 24 hours before the start of work.**

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

(D.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

(G.) SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **Including all soil and water laboratory analysis results.**

Approved Wyman Hong Date 9/14/10
Wyman Hong

Revised: January 4, 2010

APPENDIX B

GROUNDWATER SAMPLING FIELD DATA SHEETS

ORIGINAL

STRATUS ENVIRONMENTAL, INC.

Site Address: 6310 Houston Place
City: Dublin
Sampled By: VZ
Signature: VZ

Site Number: Bay Counties Petroleum
Project Number:
Project PM: Steve Carter
DATE: 10-7-10

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record			Field Data	
Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Total Depth (feet)	Water Column (feet)	Diamater (inches)	Multiplier	3 casing volumes (gallons	Actual Water Purged (gallons)	No Purge	Bailer	Pump	Other	DTW at sample time (feet)	Sample I.D.	Sample Time	DO (mg/L)	
DW-1	0517		8.06	16.45	8.39	2	0.5	4.20	4.50		X			0815	DW-1	0838	16.57	*
DW-2	0509		7.73	16.50	—	2	0.5	—	—		≋		N/A	—	DW-2	—	—	
DW-3	0521		8.42	16.50	8.77	2	0.5	4.39	4.50		X			8.58	DW-3	0826	1.73	**
DW-4	0820		8.46	16.75	—	2	0.5	—	—		≋		N/A	—	DW-4	—	—	
DW-5	0512		7.74	16.80	9.06	2	0.5	4.53	4.50		X			8.05	DW-5	0812	2.74	***
DW-6	0709		7.70	16.80	—	2	0.5	—	—		≋		N/A	—	DW-6	—	—	
DW-7	0720		9.07	16.65	7.58	2	0.5	3.79	4.00		X			9.20	DW-7	0749	2.01	****

pulled all well caps 15 min. prior to guaging

Multiplier
2" = 0.5, 3" = 1.0, 4" = 2.0, 6" = 4.4

Please refer to groundwater sampling field procedures
pH/Conductivity/temperature Meter - Oakton Model)PC-10
DO Meter - Oakton 300 Series (DO is always mesured before purge)

CALIBRATION DATE
pH VZ 10-7-10
Conductivity
DO

STRATUS ENVIRONMENTAL, INC.

Site Address	6310 Houston Place	Site Number	Bay Counties Petroleum
City	Dublin	Project Number	
Sampled By:	VZ	Project PM	Steve Carter
Signature	VZ	DATE	10-7-10

Well ID: MW-5 | **Purge start time:** 0530 | **Odor:** Y N (N circled)

Bail	Temp C	pH	cond	gallons
time 0530	19.5	7.19	1426	0
time 0537	21.3	7.20	1548	2.5
time 0541	21.5	7.22	1521	4.5
time 0812	20.3	7.57	1457	(4.5)

purge stop time: 0541 | **ORP:** -21

Well ID: MW-1 | **Purge start time:** 0550 | **Odor:** Y N (Y circled)

Bail	Temp C	pH	cond	gallons
time 0550	20.8	9.30	5.87m	0
time 0555	21.0	9.49	6.41m	2.5
time 0600	20.9	9.54	6.08m	4.5
time 0838	20.4	9.36	5.07m	(4.5)

purge stop time: 0600 | **ORP:** -26

Well ID: MW-3 | **Purge start time:** 0606 | **Odor:** Y N (Y circled)

Bail	Temp C	pH	cond	gallons
time 0606	19.5	7.76	1505	0
time 0612	20.4	7.45	1494	2.5
time 0618	20.0	7.38	1489	4.5
time 0826	20.1	7.33	1475	(4.5)

purge stop time: 0618 | **ORP:** -36

Well ID: MW-7 | **Purge start time:** 0721 | **Odor:** Y N (N circled)

Bail	Temp C	pH	cond	gallons
time 0721	19.3	7.33	1960	0
time 0728	20.5	7.07	2.65m	2.0
time 0749	19.5	7.34	1968	4.0
time				

purge stop time: 0749 | **ORP:** 46

Well ID: | **Purge start time:** | **Odor:** Y N

	Temp C	pH	cond	gallons
time				
time				
time				
time				

purge stop time: | **ORP:**

Well ID: | **Purge start time:** | **Odor:** Y N

	Temp C	pH	cond	gallons
time				
time				
time				
time				

purge stop time: | **ORP:**

Well ID: | **Purge start time:** | **Odor:** Y N

	Temp C	pH	cond	gallons
time				
time				
time				
time				

purge stop time: | **ORP:**

Well ID: | **Purge start time:** | **Odor:** Y N

	Temp C	pH	cond	gallons
time				
time				
time				
time				

purge stop time: | **ORP:**

STRATUS ENVIRONMENTAL, INC.

Site Address: 6310 Houston Place
City: Dublin
Sampled By: VZ
Signature: VZ

Site Number: Bay Counties Petroleum
Project Number:
Project PM: Steve Carter
DATE: 10-19-10

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record			Field Data
Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Total Depth (feet)	Water Column (feet)	Diamater (inches)	Multiplier	3 casing volumes (gallons	Actual Water Purged (gallons)	No Purge	Bailer	Pump	Other	DTW at sample time (feet)	Sample I.D.	Sample Time	DO (mg/L)
DW-1	0637		8.11	16.45	8.34	2	0.5	4.17	4.00		x			8.30	DW-1	0831	2.68
DW-2	0630		7.79	16.50	~~~	2	0.5	~~~	~~~	X	~~~	~~~	~~~	~~~	DW-2	~~~	~~~
DW-3	0752		8.48	16.50	8.02	2	0.5	4.01	4.00		x			0856	DW-3	0841	2.34
DW-4	0755		8.48	16.75	~~~	2	0.5	~~~	~~~	X	~~~	~~~	~~~	~~~	DW-4	~~~	~~~
DW-5	0633		7.85	16.80	8.95	2	0.5	4.47	4.50		x			8.16	DW-5	0816	2.77
DW-6	0720		8.72	16.80	~~~	2	0.5	~~~	~~~	X	~~~	~~~	~~~	~~~	DW-6	~~~	~~~
DW-7	0717		8.10	16.65	8.55	2	0.5	4.27	4.50		x			8.87	DW-7	0743	2.23

pulled caps 15 min. prior to gauging

Multiplier
2" = 0.5, 3" = 1.0, 4" = 2.0, 6" = 4.4

Please refer to groundwater sampling field procedures
pH/Conductivity/temperature Meter - Oakton Model)PC-10
DO Meter - Oakton 300 Series (DO is always mesured before purge)

CALIBRATION DATE
pH: VZ 10-19-10
Conductivity:
DO:

STRATUS ENVIRONMENTAL, INC.

Site Address: 6310 Houston Place
City: Dublin
Sampled By: VZ
Signature: VZ

Site Number: Bay Counties Petroleum
Project Number:
Project PM: Steve Carter
DATE: 10-19-10

Well ID: DW-5
Purge start time: 0645 — **Odor:** Y (N)

Bail	Temp C	pH	cond	gallons
time 0645	20.8	6.90	1370	Ø
time 0650	21.3	7.05	1543	2.5
time 0655	—	Low	- H_2O -	4.5
time 0816	20.0	7.63	1473	(4.5)

purge stop time: 0655 — **ORP:** 121

Well ID: DW-1
Purge start time: 0700 — **Odor:** Y (N)

Bail	Temp C	pH	cond	gallons
time 0700	20.7	8.75	4.74m	Ø
time 0705	21.1	9.06	4.96m	2
time 0710	Low	-	H_2O -	4.0
time 0831	20.7	8.98	4.39m	(4.0)

purge stop time: 0710 — **ORP:** 111

Well ID: DW-7
Purge start time: 0728 — **Odor:** Y (N)

Bail	Temp C	pH	cond	gallons
time 0728	20.8	7.45	2.70m	Ø
time 0732	20.7	7.17	2.70m	2.0
time 0736	Low	-	H_2O	4.5
time 0743	20.1	7.20	2.68m	(4.5)

purge stop time: 0736 — **ORP:** 77

Well ID: DW-3 sheen
Purge start time: 0800 — **Odor:** (Y) N

Bail	Temp C	pH	cond	gallons
time 0800	19.7	9.38	1686	Ø
time 0805	19.9	7.84	1511	2.0
time 0810	Low	-	H_2O -	4.0
time 0841	18.8	8.09	1581	(4.0)

purge stop time: 0810 — **ORP:** 103

Well ID:
Purge start time: — **Odor:** Y N

	Temp C	pH	cond	gallons
time				
time				
time				
time				

purge stop time: — **ORP:**

Well ID:
Purge start time: — **Odor:** Y N

	Temp C	pH	cond	gallons
time				
time				
time				
time				

purge stop time: — **ORP:**

Well ID:
Purge start time: — **Odor:** Y N

	Temp C	pH	cond	gallons
time				
time				
time				
time				

purge stop time: — **ORP:**

Well ID:
Purge start time: — **Odor:** Y N

	Temp C	pH	cond	gallons
time				
time				
time				
time				

purge stop time: — **ORP:**

STRATUS ENVIRONMENTAL, INC.

Site Address: 6310 Houston Place
City: Dublin
Sampled By: VZ
Signature: VZ

Site Number: Bay Counties Petroleum
Project Number:
Project PM: Steve Carter
DATE: 11-30-10

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record			Field Data
Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Total Depth (feet)	Water Column (feet)	Diamater (inches)	Multiplier	3 casing volumes (gallons	Actual Water Purged (gallons)	No Purge	Bailer	Pump	Other	DTW at sample time (feet)	Sample I.D.	Sample Time	DO (mg/L)
DW-1	0749		7.60	16.45	8.85	2	0.5	4.43	4.50		x		Low	7.69	DW-1	0933	2.62
DW-2	0741		7.34	16.50	~~~	2	0.5	~~~	~~~		x			~~~	DW-2	N/S	~~~
DW-3	0745		8.04	16.50	8.46	2	0.5	4.23	4.50		x		Low	8.06	DW-3	0901	1.80
DW-4	0755		8.09	16.75	~~~	2	0.5	~~~	~~~		x			~~~	DW-4	N/S	~~~
DW-5	0759		7.30	16.80	9.50	2	0.5	4.75	5.00		x		Low	7.38	DW-5	0917	1.17
DW-6	1000		8.31	16.80	~~~	2	0.5	~~~	~~~		x			~~~	DW-6	N/S	~~~
DW-7	0955		8.64	16.65	8.01	2	0.5	4.00	4.00		x			8.71	DW-7	1020	1.01

well caps pulled 15 Min before gauging

DW-6 & 7 Buried in dirt marked Blks by DW-6

Multiplier
2" = 0.5, 3" = 1.0, 4" = 2.0, 6" = 4.4

Please refer to groundwater sampling field procedures
pH/Conductivity/temperature Meter - Oakton Model)PC-10
DO Meter - Oakton 300 Series (DO is always mesured before purge)

CALIBRATION DATE
pH VZ 11-30-10
Conductivity
DO

STRATUS ENVIRONMENTAL, INC

Site Address: 6310 Houston Place
City: Dublin
Sampled By: VZ
Signature: VZ

Site Number: Bay Counties Petroleum
Project Number:
Project PM: Steve Carter
DATE: 11-30-10

Well ID	DW-1			sheen
Purge start time	0839		Odor	(Y) N
Bail	Temp C	pH	cond	gallons
time 0839	19.7	8.21	3.96m	Ø
time 0844	20.1	8.30	3.90m	2.2
time 0849	Low	H_2O	→	4.5
time 0933	19.3	7.51	3.58m	(4.5)
purge stop time	0849		ORP	136

Well ID	DW-3			sheen
Purge start time	0810		Odor	(Y) N
Bail	Temp C	pH	cond	gallons
time 0810	18.7	6.95	1394	Ø
time 0815	19.1	7.02	1454	2.2
time 0820	Low	H_2O		4.5
time 0901	18.9	7.45	1562	(4.5)
purge stop time	0820		ORP	147

Well ID	DW-5			
Purge start time	0825		Odor	Y (N)
Bail	Temp C	pH	cond	gallons
time 0825	19.5	6.97	1587	Ø
time 0830	20.3	7.06	1602	2.5
time 0835	Low		H_2O	5.0
time 0917	19.9	7.05	1533	(5.0)
purge stop time	0835		ORP	133

Well ID	DW-7			
Purge start time	1010		Odor	Y (N)
Bail	Temp C	pH	cond	gallons
time 1010	20.0	7.01	2000	Ø
time 1015	20.7	6.74	2.65m	2.0
time 1020	20.0	6.87	1956	4.0
time				
purge stop time	1020		ORP	100

Well ID				
Purge start time			Odor	Y N
	Temp C	pH	cond	gallons
time				
time				
time				
time				
purge stop time			ORP	

Well ID				
Purge start time			Odor	Y N
	Temp C	pH	cond	gallons
time				
time				
time				
time				
purge stop time			ORP	

Well ID				
Purge start time			Odor	Y N
	Temp C	pH	cond	gallons
time				
time				
time				
time				
purge stop time			ORP	

Well ID				
Purge start time			Odor	Y N
	Temp C	pH	cond	gallons
time				
time				
time				
time				
purge stop time			ORP	

STRATUS ENVIRONMENTAL, INC.

Site Address: 6310 Houston Place
City: Dublin, CA
Sampled by: Levi Ford
Signature: [signature]

Site Number: Bay Counties
Project Number: 2094-6310-01
Project PM: Kasey Jones
DATE: 01/13/2011

ORIGINAL

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record			Field Data
Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Total Depth (feet)	Water column (feet)	Diameter (inches)	Multiplier	3 casing volumes (gallons)	Actual water purged (gallons)	No Purge	Bailer	Pump	other	DTW at sample time (feet)	Sample I.D	Sample Time	DO (mg/L)
DW-1	0805		6.81	16.52	9.71	2	0.50	4.86	5.00		X			7.81	DW-1	1044	5.15
-2	0808		6.27	16.59	10.32	"	"	5.16	5.00		X			8.05	-2	0840	6.22
-3	0812		7.06	16.67	9.61	"	"	4.81	5.00		X			8.58	-3	1155	4.90
-4	0814		7.08	16.81	9.73	"	"	4.87	5.00		X			7.62	-4	0902	4.11
-5	0810		6.23	16.84	10.61	"	"	5.31	5.50		X			7.78	-5	1123	5.23
-6	0745		7.69	16.87	9.18	"	"	4.59	4.50		X			8.47	-6	0940	5.31
-7	0743		7.85	16.72	8.87	"	"	4.44	4.50		X			7.98	-7	1005	6.37
									34.5	gallons							

Multiplier
2" = 0.5 3" = 1.0 4" = 2.0 6" = 4.4

Please refer to groundwater sampling field procedures
pH/Conductivity/temperature Meter - Oakton Model PC-10
DO Meter - Oakton 300 Series (DO is always measured before purge)

CALIBRATION DATE 12/1/2010
pH LF
Conductivity
DO

T:\Forms

ORIGINAL

STRATUS ENVIRONMENTAL, INC.

Site Address 6310 Houston Place
City Dublin
Sampled By: Levi Ford
Signature LF

Site Number Bay Counties
Project Number 2094-6310-01
Project PM Kasey Jones
DATE 01/13/2011

Well ID D.W-2 Bail Sheen
Purge start time 0830 Odor (Y) N

	Temp C	pH	cond	gallons
time 0830	19.7	6.86	1269	Ø
time 0833	19.9	7.10	1219	2.5
time 0837	19.9	7.23	1118	5
time				

purge stop time 0837 ORP 14

Well ID D.W-4 Bail
Purge start time 0848 Odor Y (N)

	Temp C	pH	cond	gallons
time 0848	18.5	6.70	4.01ms	Ø
time 0852	18.1	6.94	3.65ms	2.5
time 0858	18.1	6.85	3.79ms	5
time				

purge stop time 0858 ORP 38

Well ID D.W-6 Bail
Purge start time 0931 Odor Y (N)

	Temp C	pH	cond	gallons
time 0931	18.9	6.89	4.33ms	Ø
time 0934	18.7	6.88	4.32ms	2.5
time 0937	18.6	6.90		4.5
time				

purge stop time ORP 27

Well ID D.W-7 Bail
Purge start time 0954 Odor Y (N)

	Temp C	pH	cond	gallons
time 0954	18.9	6.83	4.45ms	Ø
time 0958	18.8	6.79	4.63ms	2.5
time 1001	18.9	6.81	4.54ms	4.5
time				

purge stop time 1001 ORP 30

Well ID DW-1 Bail Sheen
Purge start time 1033 Odor (Y) N

	Temp C	pH	cond	gallons
time 1033	17.9	8.33	6.32ms	Ø
time 1036	17.7	8.29	572ms	2.5
time 1039	17.8	8.01	5.54ms	5
time				

purge stop time 1039 ORP 20

Well ID DW-5 Bail
Purge start time 1111 Odor Y (N)

	Temp C	pH	cond	gallons
time 1111	19.4	7.03	3.05ms	Ø
time 1115	19.3	7.08	2.66ms	3
time 1119	19.3	7.05	2.77ms	5.5
time				

purge stop time 1119 ORP Ø

Well ID DW-3 Bail Sheen
Purge start time 1143 Odor (Y) N

	Temp C	pH	cond	gallons
time 1143	18.0	7.13	2.23ms	Ø
time 1147	18.1	7.10	2.35ms	2.5
time 1151	18.2	7.15	2.25ms	5
time				

purge stop time 1151 ORP -10

Well ID
Purge start time Odor Y N

	Temp C	pH	cond	gallons
time				
time				
time				
time				

purge stop time ORP

APPENDIX C

LABORATORY ANALYTICAL REPORTS

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: Steve Carter
Phone: (530) 676-6008
Fax: (530) 676-6005
Date Received : 10/07/10

Job: Bay Counties Petroleum

Dissolved Metals by ICPMS
EPA Method 200.8

Parameter		Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **MW-1**					
Lab ID : STR10100747-01A	Arsenic (As), Dissolved	87	2.0 µg/L	10/08/10 16:07	10/09/10
Date Sampled 10/07/10 08:38	Cadmium (Cd), Dissolved	ND	1.0 µg/L	10/08/10 16:07	10/09/10
	Barium (Ba), Dissolved	21	5.0 µg/L	10/08/10 16:07	10/09/10
Client ID: **MW-3**					
Lab ID : STR10100747-02A	Arsenic (As), Dissolved	6.4	2.0 µg/L	10/08/10 16:07	10/09/10
Date Sampled 10/07/10 08:26	Cadmium (Cd), Dissolved	ND	1.0 µg/L	10/08/10 16:07	10/09/10
	Barium (Ba), Dissolved	87	5.0 µg/L	10/08/10 16:07	10/09/10
Client ID: **MW-5**					
Lab ID : STR10100747-03A	Arsenic (As), Dissolved	5.1	2.0 µg/L	10/08/10 16:07	10/09/10
Date Sampled 10/07/10 08:12	Cadmium (Cd), Dissolved	ND	1.0 µg/L	10/08/10 16:07	10/09/10
	Barium (Ba), Dissolved	53	5.0 µg/L	10/08/10 16:07	10/09/10
Client ID: **MW-7**					
Lab ID : STR10100747-04A	Arsenic (As), Dissolved	5.7	2.0 µg/L	10/08/10 16:07	10/09/10
Date Sampled 10/07/10 07:49	Cadmium (Cd), Dissolved	ND	1.0 µg/L	10/08/10 16:07	10/09/10
	Barium (Ba), Dissolved	51	5.0 µg/L	10/08/10 16:07	10/09/10

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

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) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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

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.

10/15/10
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

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Steve Carter
Phone: (530) 676-6008
Fax: (530) 676-6005
Date Received : 10/07/10

Job: Bay Counties Petroleum

Metals by ICPMS
EPA Method 200.8

Parameter		Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **MW-1**					
Lab ID : STR10100747-01A	Chromium (Cr)	17	5.0 µg/L	10/12/10 09:17	10/13/10
Date Sampled 10/07/10 08:38	Iron (Fe)	5,200	100 µg/L	10/12/10 09:17	10/13/10
	Copper (Cu)	23	10 µg/L	10/12/10 09:17	10/13/10
	Selenium (Se)	ND	5.0 µg/L	10/12/10 09:17	10/13/10
	Lead (Pb)	ND	5.0 µg/L	10/12/10 09:17	10/13/10
Client ID: **MW-3**					
Lab ID : STR10100747-02A	Chromium (Cr)	6.3	5.0 µg/L	10/12/10 09:17	10/13/10
Date Sampled 10/07/10 08:26	Iron (Fe)	2,600	100 µg/L	10/12/10 09:17	10/13/10
	Copper (Cu)	13	10 µg/L	10/12/10 09:17	10/13/10
	Selenium (Se)	ND	5.0 µg/L	10/12/10 09:17	10/13/10
	Lead (Pb)	ND	5.0 µg/L	10/12/10 09:17	10/13/10
Client ID: **MW-5**					
Lab ID : STR10100747-03A	Chromium (Cr)	ND	5.0 µg/L	10/12/10 09:17	10/13/10
Date Sampled 10/07/10 08:12	Iron (Fe)	640	100 µg/L	10/12/10 09:17	10/13/10
	Copper (Cu)	11	10 µg/L	10/12/10 09:17	10/13/10
	Selenium (Se)	ND	5.0 µg/L	10/12/10 09:17	10/13/10
	Lead (Pb)	ND	5.0 µg/L	10/12/10 09:17	10/13/10
Client ID: **MW-7**					
Lab ID : STR10100747-04A	Chromium (Cr)	92	5.0 µg/L	10/12/10 09:17	10/13/10
Date Sampled 10/07/10 07:49	Iron (Fe)	57,000	100 µg/L	10/12/10 09:17	10/13/10
	Copper (Cu)	71	10 µg/L	10/12/10 09:17	10/13/10
	Selenium (Se)	5.9	5.0 µg/L	10/12/10 09:17	10/13/10
	Lead (Pb)	25	5.0 µg/L	10/12/10 09:17	10/13/10

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

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) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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

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.

10/15/10
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

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Steve Carter
Phone: (530) 676-6008
Fax: (530) 676-6005
Date Received : 10/07/10

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 :	**MW-1**						
Lab ID :	STR10100747-01A	TPH-E (DRO)	1,700		50 µg/L	10/08/10 14:44	10/09/10
Date Sampled	10/07/10 08:38	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	10/11/10	10/11/10
		Benzene	ND		0.50 µg/L	10/11/10	10/11/10
		Toluene	ND		0.50 µg/L	10/11/10	10/11/10
		Ethylbenzene	ND		0.50 µg/L	10/11/10	10/11/10
		m,p-Xylene	ND		0.50 µg/L	10/11/10	10/11/10
		o-Xylene	ND		0.50 µg/L	10/11/10	10/11/10
		Naphthalene	ND		2.0 µg/L	10/11/10	10/11/10
Client ID :	**MW-3**						
Lab ID :	STR10100747-02A	TPH-E (DRO)	1,400		50 µg/L	10/08/10 14:44	10/09/10
Date Sampled	10/07/10 08:26	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	10/11/10	10/11/10
		Benzene	ND		0.50 µg/L	10/11/10	10/11/10
		Toluene	ND		0.50 µg/L	10/11/10	10/11/10
		Ethylbenzene	ND		0.50 µg/L	10/11/10	10/11/10
		m,p-Xylene	ND		0.50 µg/L	10/11/10	10/11/10
		o-Xylene	ND		0.50 µg/L	10/11/10	10/11/10
		Naphthalene	ND		2.0 µg/L	10/11/10	10/11/10
Client ID :	**MW-5**						
Lab ID :	STR10100747-03A	TPH-E (DRO)	410	CL	50 µg/L	10/08/10 14:44	10/09/10
Date Sampled	10/07/10 08:12	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	10/11/10	10/11/10
		Benzene	ND		0.50 µg/L	10/11/10	10/11/10
		Toluene	ND		0.50 µg/L	10/11/10	10/11/10
		Ethylbenzene	ND		0.50 µg/L	10/11/10	10/11/10
		m,p-Xylene	ND		0.50 µg/L	10/11/10	10/11/10
		o-Xylene	ND		0.50 µg/L	10/11/10	10/11/10
		Naphthalene	ND		2.0 µg/L	10/11/10	10/11/10
Client ID :	**MW-7**						
Lab ID :	STR10100747-04A	TPH-E (DRO)	ND		50 µg/L	10/08/10 14:44	10/09/10
Date Sampled	10/07/10 07:49	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	10/11/10	10/11/10
		Benzene	ND		0.50 µg/L	10/11/10	10/11/10
		Toluene	ND		0.50 µg/L	10/11/10	10/11/10
		Ethylbenzene	ND		0.50 µg/L	10/11/10	10/11/10
		m,p-Xylene	ND		0.50 µg/L	10/11/10	10/11/10
		o-Xylene	ND		0.50 µg/L	10/11/10	10/11/10
		Naphthalene	ND		2.0 µg/L	10/11/10	10/11/10

Alpha Analytical, Inc.

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C = Reported concentration includes additional compounds uncharacteristic of common fuels and lubricants.

Diesel Range Organics (DRO) C13-C22

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

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

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) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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

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.

10/15/10

Report Date

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VOC Sample Preservation Report

Work Order: STR10100747 **Job:** Bay Counties Petroleum

Alpha's Sample ID	Client's Sample ID	Matrix	pH
10100747-01A	MW-1	Aqueous	6
10100747-02A	MW-3	Aqueous	2
10100747-03A	MW-5	Aqueous	2
10100747-04A	MW-7	Aqueous	2

10/15/10

Report Date

Alpha Analytical, Inc.

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

Date: *15-Oct-10*

QC Summary Report

Work Order: 10100747

Method Blank

Type: **MBLK** Test Code: **EPA Method 200.8**

File ID: **100810.B\117_M.D** Batch ID: **25230** Analysis Date: **10/09/2010 02:24**

Sample ID: **MB-25230** Units : **µg/L** Run ID: **ICP/MS_101008G** Prep Date: **10/08/2010 16:07**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	ND	2								
Cadmium (Cd), Dissolved	ND	1								
Barium (Ba), Dissolved	ND	5								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method 200.8**

File ID: **100810.B\118_M.D** Batch ID: **25230** Analysis Date: **10/09/2010 02:30**

Sample ID: **LCS-25230** Units : **µg/L** Run ID: **ICP/MS_101008G** Prep Date: **10/08/2010 16:07**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	47.4	2	50		95	80	120			
Cadmium (Cd), Dissolved	47.3	1	50		95	80	120			
Barium (Ba), Dissolved	47.3	5	50		95	80	120			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method 200.8**

File ID: **100810.B\123_M.D** Batch ID: **25230** Analysis Date: **10/09/2010 02:58**

Sample ID: **10100745-01AMS** Units : **µg/L** Run ID: **ICP/MS_101008G** Prep Date: **10/08/2010 16:07**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	48.4	2	50	0	97	75	125			
Cadmium (Cd), Dissolved	46.5	2	50	0	93	75	125			
Barium (Ba), Dissolved	69.2	5	50	21.14	96	75	125			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method 200.8**

File ID: **100810.B\124_M.D** Batch ID: **25230** Analysis Date: **10/09/2010 03:03**

Sample ID: **10100745-01AMSD** Units : **µg/L** Run ID: **ICP/MS_101008G** Prep Date: **10/08/2010 16:07**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	50.7	2	50	0	101	75	125	48.4	4.6(20)	
Cadmium (Cd), Dissolved	47.9	2	50	0	96	75	125	46.48	3.1(20)	
Barium (Ba), Dissolved	68.1	5	50	21.14	94	75	125	69.16	1.6(20)	

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 microgams per Liter, per client request.

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Date: *15-Oct-10*

QC Summary Report

Work Order: 10100747

Method Blank

Type: **MBLK** Test Code: **EPA Method 200.8**

File ID: **101310.B\020_M.D** Batch ID: **25236** Analysis Date: **10/13/2010 15:57**

Sample ID: **MB-25236** Units : **µg/L** Run ID: **ICP/MS_101013B** Prep Date: **10/12/2010 09:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	ND	5								
Iron (Fe)	ND	100								
Copper (Cu)	ND	10								
Selenium (Se)	ND	5								
Lead (Pb)	ND	5								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method 200.8**

File ID: **101310.B\021_M.D** Batch ID: **25236** Analysis Date: **10/13/2010 16:02**

Sample ID: **LCS-25236** Units : **µg/L** Run ID: **ICP/MS_101013B** Prep Date: **10/12/2010 09:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	49	5	50		98	85	115			
Iron (Fe)	5010	100	5000		100	85	115			
Copper (Cu)	51.1	10	50		102	85	115			
Selenium (Se)	50.6	5	50		101	85	115			
Lead (Pb)	47.8	5	50		96	85	115			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method 200.8**

File ID: **101310.B\026_M.D** Batch ID: **25236** Analysis Date: **10/13/2010 16:30**

Sample ID: **10100742-02AMS** Units : **µg/L** Run ID: **ICP/MS_101013B** Prep Date: **10/12/2010 09:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	50.7	5	50	0	101	70	130			
Iron (Fe)	5030	100	5000	147.4	98	70	130			
Copper (Cu)	55.9	10	50	0	112	70	130			
Selenium (Se)	53.4	5	50	0	107	70	130			
Lead (Pb)	47.3	5	50	0	95	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method 200.8**

File ID: **101310.B\027_M.D** Batch ID: **25236** Analysis Date: **10/13/2010 16:36**

Sample ID: **10100742-02AMSD** Units : **µg/L** Run ID: **ICP/MS_101013B** Prep Date: **10/12/2010 09:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	46.5	5	50	0	93	70	130	50.71	8.8(20)	
Iron (Fe)	4640	100	5000	147.4	90	70	130	5028	8.0(20)	
Copper (Cu)	52.1	10	50	0	104	70	130	55.9	7.1(20)	
Selenium (Se)	51.1	5	50	0	102	70	130	53.37	4.3(20)	
Lead (Pb)	44.5	5	50	0	89	70	130	47.34	6.2(20)	

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.

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Date: *12-Oct-10*

QC Summary Report

Work Order: 10100747

Method Blank

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

File ID: **7A10081039.D** Batch ID: **25229** Analysis Date: **10/09/2010 04:58**

Sample ID: **MBLK-25229** Units : **µg/L** Run ID: **FID_7_101008B** Prep Date: **10/08/2010 14:44**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	ND	50								
Surr: Nonane	153		150		102	57	147			

Laboratory Control Spike

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

File ID: **7A10081040.D** Batch ID: **25229** Analysis Date: **10/09/2010 05:25**

Sample ID: **LCS-25229** Units : **µg/L** Run ID: **FID_7_101008B** Prep Date: **10/08/2010 14:44**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2570	50	2500		103	67	130			
Surr: Nonane	150		150		100	57	147			

Sample Matrix Spike

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

File ID: **7A10081042.D** Batch ID: **25229** Analysis Date: **10/09/2010 06:18**

Sample ID: **10100828-21AMS** Units : **µg/L** Run ID: **FID_7_101008B** Prep Date: **10/08/2010 14:44**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2730	50	2500	0	109	49	150			
Surr: Nonane	150		150		100	57	147			

Sample Matrix Spike Duplicate

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

File ID: **7A10081043.D** Batch ID: **25229** Analysis Date: **10/09/2010 06:44**

Sample ID: **10100828-21AMSD** Units : **µg/L** Run ID: **FID_7_101008B** Prep Date: **10/08/2010 14:44**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2880	50	2500	0	115	49	150	2734	5.2(38)	
Surr: Nonane	159		150		106	57	147			

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.

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Date: 12-Oct-10

QC Summary Report

Work Order: 10100747

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS10\DATA\101011\10101109.D** Batch ID: **MS10W1011A** Analysis Date: **10/11/2010 12:24**

Sample ID: **MBLK MS10W1011A** Units : **µg/L** Run ID: **MSD_10_101011A** Prep Date: **10/11/2010 12:24**

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	8.28		10		83	70	130			
Surr: Toluene-d8	10		10		100	70	130			
Surr: 4-Bromofluorobenzene	9.94		10		99	70	130			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS10\DATA\101011\10101107.D** Batch ID: **MS10W1011A** Analysis Date: **10/11/2010 11:21**

Sample ID: **LCS MS10W1011A** Units : **µg/L** Run ID: **MSD_10_101011A** Prep Date: **10/11/2010 11:21**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	10.4	0.5	10		104	62	136			
Benzene	10.3	0.5	10		103	70	130			
Toluene	9.58	0.5	10		96	80	120			
Ethylbenzene	10.5	0.5	10		105	80	120			
m,p-Xylene	10.6	0.5	10		106	70	130			
o-Xylene	10.7	0.5	10		107	70	130			
Surr: 1,2-Dichloroethane-d4	9.84		10		98	70	130			
Surr: Toluene-d8	9.28		10		93	70	130			
Surr: 4-Bromofluorobenzene	9.58		10		96	70	130			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS10\DATA\101011\10101117.D** Batch ID: **MS10W1011A** Analysis Date: **10/11/2010 15:20**

Sample ID: **10100831-02AMS** Units : **µg/L** Run ID: **MSD_10_101011A** Prep Date: **10/11/2010 15:20**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	56.4	1.3	50	0	113	56	141			
Benzene	56.8	1.3	50	0	114	67	130			
Toluene	55.5	1.3	50	0	111	66	130			
Ethylbenzene	60.2	1.3	50	0	120	68	130			
m,p-Xylene	58.8	1.3	50	0	118	64	130			
o-Xylene	60	1.3	50	0	120	70	130			
Surr: 1,2-Dichloroethane-d4	43.9		50		88	70	130			
Surr: Toluene-d8	49		50		98	70	130			
Surr: 4-Bromofluorobenzene	47.8		50		96	70	130			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS10\DATA\101011\10101118.D** Batch ID: **MS10W1011A** Analysis Date: **10/11/2010 15:42**

Sample ID: **10100831-02AMSD** Units : **µg/L** Run ID: **MSD_10_101011A** Prep Date: **10/11/2010 15:42**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	52.3	1.3	50	0	105	56	141	56.36	7.4(20)	
Benzene	55.8	1.3	50	0	112	67	130	56.84	1.9(20)	
Toluene	55.7	1.3	50	0	111	66	130	55.45	0.4(20)	
Ethylbenzene	60.7	1.3	50	0	121	68	130	60.16	0.9(20)	
m,p-Xylene	59.2	1.3	50	0	118	64	130	58.75	0.8(20)	
o-Xylene	61.1	1.3	50	0	122	70	130	59.99	1.8(20)	
Surr: 1,2-Dichloroethane-d4	43.6		50		87	70	130			
Surr: Toluene-d8	49.9		50		99.9	70	130			
Surr: 4-Bromofluorobenzene	47.7		50		95	70	130			

Alpha Analytical, Inc.

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Date: *12-Oct-10*

QC Summary Report

Work Order: 10100747

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.

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

October 14, 2010

CLS Work Order #: CTJ0245
COC #:

Reyna Vallejo
Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project Name: STR10100747

Enclosed are the results of analyses for samples received by the laboratory on 10/07/10 13:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

10/14/10 09:57

Alpha Analytical, Inc.-Sparks	Project: STR10100747	
255 Glendale Ave.; Suite 21	Project Number: [none]	**CLS Work Order #: CTJ0245**
Sparks, NV 89431	Project Manager: Reyna Vallejo	COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
STR10100747-01A (MW-1) (CTJ0245-01) Water	**Sampled: 10/07/10 08:38**		**Received: 10/07/10 13:00**						
Hexavalent Chromium	**1.6**	1.0	µg/L	1	CT07486	10/08/10	10/08/10	EPA 7199	
STR10100747-02A (MW-3) (CTJ0245-02) Water	**Sampled: 10/07/10 08:26**		**Received: 10/07/10 13:00**						
Hexavalent Chromium	ND	1.0	µg/L	1	CT07486	10/08/10	10/08/10	EPA 7199	
STR10100747-03A (MW-5) (CTJ0245-03) Water	**Sampled: 10/07/10 08:12**		**Received: 10/07/10 13:00**						
Hexavalent Chromium	ND	1.0	µg/L	1	CT07486	10/08/10	10/08/10	EPA 7199	
STR10100747-04A (MW-7) (CTJ0245-04) Water	**Sampled: 10/07/10 07:49**		**Received: 10/07/10 13:00**						
Hexavalent Chromium	ND	1.0	µg/L	1	CT07486	10/08/10	10/08/10	EPA 7199	

CALIFORNIA LABORATORY SERVICES

Alpha Analytical, Inc.-Sparks	Project: STR10100747	
255 Glendale Ave.; Suite 21	Project Number: [none]	**CLS Work Order #: CTJ0245**
Sparks, NV 89431	Project Manager: Reyna Vallejo	COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CT07486 - General Prep										
Blank (CT07486-BLK1)				Prepared & Analyzed: 10/08/10						
Hexavalent Chromium	ND	1.0	µg/L							
LCS (CT07486-BS1)				Prepared & Analyzed: 10/08/10						
Hexavalent Chromium	4.52	1.0	µg/L	5.00		90	80-120			
LCS Dup (CT07486-BSD1)				Prepared & Analyzed: 10/08/10						
Hexavalent Chromium	4.23	1.0	µg/L	5.00		85	80-120	7	20	A-COM
Matrix Spike (CT07486-MS1)		**Source: CTJ0245-01**		Prepared & Analyzed: 10/08/10						
Hexavalent Chromium	6.16	1.0	µg/L	5.00	1.56	92	75-125			
Matrix Spike Dup (CT07486-MSD1)		**Source: CTJ0245-01**		Prepared & Analyzed: 10/08/10						
Hexavalent Chromium	8.17	1.0	µg/L	5.00	1.56	132	75-125	28	25	QM-5

Alpha Analytical, Inc.-Sparks	Project: STR10100747	
255 Glendale Ave.; Suite 21	Project Number: [none]	**CLS Work Order #: CTJ0245**
Sparks, NV 89431	Project Manager: Reyna Vallejo	COC #:

Notes and Definitions

QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
A-COM	The recovery of one CCV was 85%, slightly less than the acceptance limit.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Billing Information :

CHAIN-OF-CUSTODY RECORD

AMENDED

CA

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

WorkOrder : STR10100747

Report Due By : 5:00 PM On : 15-Oct-10

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

Report Attention	Phone Number	EMail Address
Steve Carter	(530) 676-6008 x	scarter@stratusinc.net

EDD Required : **Yes**

Sampled by : Vince Z

PO :

Client's COC # : 26452 Job : Bay Counties Petroleum

Cooler Temp	Samples Received	Date Printed
1 °C	07-Oct-10	13-Oct-10

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

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests								Sample Remarks
							METALS_CR6_SUB_W	METALS_DS	METALS_DW	TPH/E_W	VOC_W				
STR10100747-01A	MW-1	AQ	10/07/10 08:38	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				
STR10100747-02A	MW-3	AQ	10/07/10 08:26	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				
STR10100747-03A	MW-5	AQ	10/07/10 08:12	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				
STR10100747-04A	MW-7	AQ	10/07/10 07:49	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				

Comments: Chain prelogged 10/7/10 in order for Sac office to sub Low Level Cr6+ to CLS. Rest of samples received 10/8/10. Security seals intact. Frozen ice. OK to analyze Cr6+ by Method 7199, per Marty Morgan . Filter and preserve metals in lab. : Amended 10/13/10 to correct COC#, due to login error. TD.

	Signature	Print Name	Company	Date/Time
Logged in by:	Dave Dickinson	Dave Dickinson	**Alpha Analytical, Inc.**	10/13/10 908

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 :

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 : STR10100747

Report Due By : 5:00 PM On : 15-Oct-10

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

Report Attention	Phone Number	EMail Address
Steve Carter	(530) 676-6008 x	scarter@stratusinc.net

EDD Required : **Yes**

Sampled by : Vince Z

PO :

Client's COC # : 20432 Job : Bay Counties Petroleum

Cooler Temp	Samples Received	Date Printed
1 °C	07-Oct-10	**08-Oct-10**

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

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests								Sample Remarks
							METALS_CR6_SUB_W	METALS_DS	METALS_DW	TPH/E_W	VOC_W				
STR10100747-01A	MW-1	AQ	10/07/10 08:38	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				
STR10100747-02A	MW-3	AQ	10/07/10 08:26	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				
STR10100747-03A	MW-5	AQ	10/07/10 08:12	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				
STR10100747-04A	MW-7	AQ	10/07/10 07:49	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				

Comments: Chain prelogged 10/7/10 in order for Sac office to sub Low Level Cr6+ to CLS. Rest of samples received 10/8/10. Security seals intact. Frozen ice. OK to analyze Cr6+ by Method 7199, per Marty Morgan . Filter and preserve metals in lab. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Jane Dickinson	Jane Dickinson	Alpha Analytical, Inc.	10/8/10 1307

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:
Name Stratus Env.
Address 3330 Cameron Park Dr
City, State, Zip Cameron Park, CA
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

Samples Collected From Which State? AZ ___ CA X NV ___ WA ___ ID ___ OR ___ OTHER ___

26452

Page # 1 of 1

Client Name	P.O. #	Job #
Bay Counties Petroleum		
Address 6310 Houston Place	EMail Address	
City, State, Zip Dublin, CA	Phone #	Fax #

Report Attention: Steve Carter

Analyses Required: Diesel 8015M; BTEX; naphthalene; MTBE; Dissolved metals; Hex chrome

Required QC Level? I II III IV

EDD / EDF? YES X NO ___

Global ID # T0600113164

Time Sampled	Date Sampled	Matrix* See Key Below	Sampled by / Lab ID Number (Office Use Only)	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	Diesel	BTEX	naphthalene	MTBE	Dissolved metals	Hex chrome	REMARKS
0838	10/07/2010	AQ	Vince Z / STR1010074701	MW-1	Std		6v 3p	X	X	X	X	X	X	see attached analyses sheet
0826	〃	〃	-02	MW-3	〃		6v 3p	X	X	X	X	X	X	
0812	〃	〃	-03	MW-5	〃		6v 3p	X	X	X	X	X	X	
0749	10/07/2010	AQ	-04	MW-7	〃		6v 3p	X	X	X	X	X	X	

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by	Vince Zalutka	Vince Zalutka	STRATUS ENV.	10-7-10	11:25
Received by	E. Fruciano	Edana M. Fruciano	alpha	10-7-10	11:25
Relinquished by	Lisa de Silva	Lisa de Silva	ALPHA	10-7-10	1500
Received by	Tara Dickinson	Tara Dickinson	alpha	10/8/10	1133
Relinquished by					
Received by					

*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.

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ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Steve Carter
Phone: (530) 676-6008
Fax: (530) 676-6005
Date Received : 10/19/10

Job: Bay Counties Petroleum

Dissolved Metals by ICPMS
EPA Method 200.8

Parameter		Concentration		Reporting Limit	Date Extracted	Date Analyzed
Client ID: **DW-1**						
Lab ID : STR10101943-01A	Arsenic (As), Dissolved	79		2.0 µg/L	10/26/10 10:45	10/27/10
Date Sampled 10/19/10 08:31	Cadmium (Cd), Dissolved	ND	*	2.0 µg/L	10/26/10 10:45	10/27/10
	Barium (Ba), Dissolved	20		5.0 µg/L	10/26/10 10:45	10/27/10
Client ID: **DW-3**						
Lab ID : STR10101943-02A	Arsenic (As), Dissolved	6.7		2.0 µg/L	10/26/10 10:45	10/27/10
Date Sampled 10/19/10 08:41	Cadmium (Cd), Dissolved	ND	*	2.0 µg/L	10/26/10 10:45	10/27/10
	Barium (Ba), Dissolved	96		5.0 µg/L	10/26/10 10:45	10/27/10
Client ID: **DW-5**						
Lab ID : STR10101943-03A	Arsenic (As), Dissolved	5.1		2.0 µg/L	10/26/10 10:45	10/27/10
Date Sampled 10/19/10 08:16	Cadmium (Cd), Dissolved	ND	*	2.0 µg/L	10/26/10 10:45	10/27/10
	Barium (Ba), Dissolved	53		5.0 µg/L	10/26/10 10:45	10/27/10
Client ID: **DW-7**						
Lab ID : STR10101943-04A	Arsenic (As), Dissolved	4.2		2.0 µg/L	10/26/10 10:45	10/27/10
Date Sampled 10/19/10 07:43	Cadmium (Cd), Dissolved	ND	*	2.0 µg/L	10/26/10 10:45	10/27/10
	Barium (Ba), Dissolved	49		5.0 µg/L	10/26/10 10:45	10/27/10

*Analyte is ND at half the reporting limit.

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

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) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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

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.

10/28/10
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

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Steve Carter
Phone: (530) 676-6008
Fax: (530) 676-6005
Date Received : 10/19/10

Job: Bay Counties Petroleum

Metals by ICPMS
EPA Method 200.8

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **DW-1**					
Lab ID : STR10101943-01A	Chromium (Cr)	22	5.0 µg/L	10/22/10 12:50	10/26/10
Date Sampled 10/19/10 08:31	Iron (Fe)	13,000	100 µg/L	10/22/10 12:50	10/26/10
	Copper (Cu)	28	10 µg/L	10/22/10 12:50	10/26/10
	Selenium (Se)	ND	5.0 µg/L	10/22/10 12:50	10/26/10
	Lead (Pb)	6.3	5.0 µg/L	10/22/10 12:50	10/26/10
Client ID: **DW-3**					
Lab ID : STR10101943-02A	Chromium (Cr)	16	5.0 µg/L	10/22/10 12:50	10/26/10
Date Sampled 10/19/10 08:41	Iron (Fe)	12,000	100 µg/L	10/22/10 12:50	10/26/10
	Copper (Cu)	14	10 µg/L	10/22/10 12:50	10/26/10
	Selenium (Se)	ND	5.0 µg/L	10/22/10 12:50	10/26/10
	Lead (Pb)	ND	5.0 µg/L	10/22/10 12:50	10/28/10
Client ID: **DW-5**					
Lab ID : STR10101943-03A	Chromium (Cr)	ND	5.0 µg/L	10/22/10 12:50	10/26/10
Date Sampled 10/19/10 08:16	Iron (Fe)	1,700	100 µg/L	10/22/10 12:50	10/26/10
	Copper (Cu)	ND	10 µg/L	10/22/10 12:50	10/26/10
	Selenium (Se)	ND	5.0 µg/L	10/22/10 12:50	10/26/10
	Lead (Pb)	ND	5.0 µg/L	10/22/10 12:50	10/28/10
Client ID: **DW-7**					
Lab ID : STR10101943-04A	Chromium (Cr)	110	5.0 µg/L	10/22/10 12:50	10/26/10
Date Sampled 10/19/10 07:43	Iron (Fe)	69,000	100 µg/L	10/22/10 12:50	10/26/10
	Copper (Cu)	69	10 µg/L	10/22/10 12:50	10/26/10
	Selenium (Se)	7.4	5.0 µg/L	10/22/10 12:50	10/26/10
	Lead (Pb)	26	20 µg/L	10/22/10 12:50	10/28/10

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

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) 736-7522 · Carson, CA • (714) 386-2901 · info@alpha-analytical.com

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10/28/10
Report Date

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ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Steve Carter
Phone: (530) 676-6008
Fax: (530) 676-6005
Date Received : 10/19/10

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**						
Lab ID :	STR10101943-01A	TPH-E (DRO)	2,500		50 µg/L	10/21/10 13:00	10/21/10
Date Sampled	10/19/10 08:31	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	10/21/10	10/21/10
		Benzene	ND		0.50 µg/L	10/21/10	10/21/10
		Toluene	ND		0.50 µg/L	10/21/10	10/21/10
		Ethylbenzene	ND		0.50 µg/L	10/21/10	10/21/10
		m,p-Xylene	ND		0.50 µg/L	10/21/10	10/21/10
		o-Xylene	ND		0.50 µg/L	10/21/10	10/21/10
		Naphthalene	ND	O	4.0 µg/L	10/21/10	10/21/10
Client ID :	**DW-3**						
Lab ID :	STR10101943-02A	TPH-E (DRO)	830		50 µg/L	10/21/10 13:00	10/21/10
Date Sampled	10/19/10 08:41	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	10/21/10	10/21/10
		Benzene	ND		0.50 µg/L	10/21/10	10/21/10
		Toluene	ND		0.50 µg/L	10/21/10	10/21/10
		Ethylbenzene	ND		0.50 µg/L	10/21/10	10/21/10
		m,p-Xylene	ND		0.50 µg/L	10/21/10	10/21/10
		o-Xylene	ND		0.50 µg/L	10/21/10	10/21/10
		Naphthalene	ND		2.0 µg/L	10/21/10	10/21/10
Client ID :	**DW-5**						
Lab ID :	STR10101943-03A	TPH-E (DRO)	230		50 µg/L	10/21/10 13:00	10/21/10
Date Sampled	10/19/10 08:16	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	10/21/10	10/21/10
		Benzene	ND		0.50 µg/L	10/21/10	10/21/10
		Toluene	ND		0.50 µg/L	10/21/10	10/21/10
		Ethylbenzene	ND		0.50 µg/L	10/21/10	10/21/10
		m,p-Xylene	ND		0.50 µg/L	10/21/10	10/21/10
		o-Xylene	ND		0.50 µg/L	10/21/10	10/21/10
		Naphthalene	ND		2.0 µg/L	10/21/10	10/21/10
Client ID :	**DW-7**						
Lab ID :	STR10101943-04A	TPH-E (DRO)	ND		50 µg/L	10/21/10 13:00	10/21/10
Date Sampled	10/19/10 07:43	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	10/21/10	10/21/10
		Benzene	ND		0.50 µg/L	10/21/10	10/21/10
		Toluene	ND		0.50 µg/L	10/21/10	10/21/10
		Ethylbenzene	ND		0.50 µg/L	10/21/10	10/21/10
		m,p-Xylene	ND		0.50 µg/L	10/21/10	10/21/10
		o-Xylene	ND		0.50 µg/L	10/21/10	10/21/10
		Naphthalene	ND		2.0 µg/L	10/21/10	10/21/10

Alpha Analytical, Inc.

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Diesel Range Organics (DRO) C13-C22

O = Reporting Limits were increased due to sample foaming.

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

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) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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

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.

10/27/10

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: STR10101943 **Job:** Bay Counties Petroleum

Alpha's Sample ID	Client's Sample ID	Matrix	pH
10101943-01A	DW-1	Aqueous	2
10101943-02A	DW-3	Aqueous	2
10101943-03A	DW-5	Aqueous	2
10101943-04A	DW-7	Aqueous	2

10/27/10

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: *29-Oct-10*

QC Summary Report

Work Order: 10101943

Method Blank

Type: **MBLK** Test Code: **EPA Method 200.8**

File ID: **102510.B\105_M.D** Batch ID: **25311** Analysis Date: **10/26/2010 10:55**

Sample ID: **MB-25311** Units : **µg/L** Run ID: **ICP/MS_101026A** Prep Date: **10/22/2010 12:50**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	ND	5								
Iron (Fe)	ND	100								
Copper (Cu)	ND	10								
Selenium (Se)	ND	5								
Lead (Pb)	ND	5								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method 200.8**

File ID: **102510.B\106_M.D** Batch ID: **25311** Analysis Date: **10/26/2010 11:01**

Sample ID: **LCS-25311** Units : **µg/L** Run ID: **ICP/MS_101026A** Prep Date: **10/22/2010 12:50**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	52.5	5	50		105	85	115			
Iron (Fe)	5030	100	5000		101	85	115			
Copper (Cu)	48.7	10	50		97	85	115			
Selenium (Se)	49.9	5	50		99.8	85	115			
Lead (Pb)	48	5	50		96	85	115			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method 200.8**

File ID: **102510.B\111_M.D** Batch ID: **25311** Analysis Date: **10/26/2010 11:28**

Sample ID: **10101943-01AMS** Units : **µg/L** Run ID: **ICP/MS_101026A** Prep Date: **10/22/2010 12:50**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	92.5	5	50	22.25	141	70	130			M1
Iron (Fe)	24200	100	5000	12770	228	70	130			M1
Copper (Cu)	72.3	10	50	27.67	89	70	130			
Selenium (Se)	48.9	5	50	0	98	70	130			
Lead (Pb)	55.4	5	50	6.329	98	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method 200.8**

File ID: **102510.B\112_M.D** Batch ID: **25311** Analysis Date: **10/26/2010 11:34**

Sample ID: **10101943-01AMSD** Units : **µg/L** Run ID: **ICP/MS_101026A** Prep Date: **10/22/2010 12:50**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	96.4	5	50	22.25	148	70	130	92.52	4.1(20)	M1
Iron (Fe)	26000	100	5000	12770	264	70	130	24180	7.1(20)	M1
Copper (Cu)	81.6	10	50	27.67	108	70	130	72.26	12.2(20)	
Selenium (Se)	47.8	5	50	0	96	70	130	48.91	2.3(20)	
Lead (Pb)	55.7	5	50	6.329	99	70	130	55.43	0.5(20)	

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.

M1 = Matrix spike recovery was high, the method control sample recovery was acceptable.

Reported in micrograms per Liter, per client request.

Alpha Analytical, Inc.

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Date: *28-Oct-10*

QC Summary Report

Work Order: 10101943

Method Blank

Type: **MBLK** Test Code: **EPA Method 200.8**

File ID: **102610.B\161_M.D** Batch ID: **25326** Analysis Date: **10/27/2010 07:39**

Sample ID: **MB-25326** Units : **µg/L** Run ID: **ICP/MS_101027F** Prep Date: **10/26/2010 10:45**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	ND	2								
Cadmium (Cd), Dissolved	ND	1								
Barium (Ba), Dissolved	ND	5								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method 200.8**

File ID: **102610.B\162_M.D** Batch ID: **25326** Analysis Date: **10/27/2010 07:45**

Sample ID: **LCS-25326** Units : **µg/L** Run ID: **ICP/MS_101027F** Prep Date: **10/26/2010 10:45**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	49.2	2	50		98	80	120			
Cadmium (Cd), Dissolved	47.8	1	50		96	80	120			
Barium (Ba), Dissolved	45.8	5	50		92	80	120			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method 200.8**

File ID: **102610.B\167_M.D** Batch ID: **25326** Analysis Date: **10/27/2010 08:12**

Sample ID: **10102002-01AMS** Units : **µg/L** Run ID: **ICP/MS_101027F** Prep Date: **10/26/2010 10:45**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	53.9	2	50	0	108	75	125			
Cadmium (Cd), Dissolved	47.8	2	50	0	96	75	125			
Barium (Ba), Dissolved	200	5	50	151.4	96	75	125			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method 200.8**

File ID: **102610.B\168_M.D** Batch ID: **25326** Analysis Date: **10/27/2010 08:18**

Sample ID: **10102002-01AMSD** Units : **µg/L** Run ID: **ICP/MS_101027F** Prep Date: **10/26/2010 10:45**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	55.3	2	50	0	111	75	125	53.88	2.5(20)	
Cadmium (Cd), Dissolved	49.3	2	50	0	99	75	125	47.77	3.2(20)	
Barium (Ba), Dissolved	204	5	50	151.4	106	75	125	199.6	2.3(20)	

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: *26-Oct-10*

QC Summary Report

Work Order: 10101943

Method Blank

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

File ID: **1A10201033.D** Batch ID: **25301** Analysis Date: **10/21/2010 14:34**

Sample ID: **MBLK-25301** Units : **µg/L** Run ID: **FID_1_101021A** Prep Date: **10/21/2010 13:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	ND	50								
Surr: Nonane	162		150		108	57	147			

Laboratory Control Spike

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

File ID: **1A10201034.D** Batch ID: **25301** Analysis Date: **10/21/2010 14:59**

Sample ID: **LCS-25301** Units : **µg/L** Run ID: **FID_1_101021A** Prep Date: **10/21/2010 13:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2630	50	2500		105	67	130			
Surr: Nonane	149		150		99	57	147			

Sample Matrix Spike

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

File ID: **1A10201037.D** Batch ID: **25301** Analysis Date: **10/21/2010 16:14**

Sample ID: **10102042-02AMS** Units : **µg/L** Run ID: **FID_1_101021A** Prep Date: **10/21/2010 13:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	3160	50	2500	0	126	49	150			
Surr: Nonane	119		150		79	57	147			

Sample Matrix Spike Duplicate

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

File ID: **1A10201063.D** Batch ID: **25301** Analysis Date: **10/22/2010 13:51**

Sample ID: **10102042-02AMSD** Units : **µg/L** Run ID: **FID_1_101021A** Prep Date: **10/21/2010 13:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	3410	50	2500	0	136	49	150	3156	7.6(38)	
Surr: Nonane	128		150		85	57	147			

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: 26-Oct-10

QC Summary Report

Work Order: 10101943

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8260B**

File ID: **10102104.D** Batch ID: **MS09W1021A** Analysis Date: **10/21/2010 10:13**

Sample ID: **MBLK MS09W1021A** Units : **µg/L** Run ID: **MSD_09_101021A** Prep Date: **10/21/2010 10:13**

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	10.3		10		103	70	130			
Surr: Toluene-d8	9.91		10		99	70	130			
Surr: 4-Bromofluorobenzene	10.1		10		101	70	130			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8260B**

File ID: **10102103.D** Batch ID: **MS09W1021A** Analysis Date: **10/21/2010 09:49**

Sample ID: **LCS MS09W1021A** Units : **µg/L** Run ID: **MSD_09_101021A** Prep Date: **10/21/2010 09:49**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	10.5	0.5	10		105	62	136			
Benzene	9.74	0.5	10		97	70	130			
Toluene	9.18	0.5	10		92	80	120			
Ethylbenzene	9.65	0.5	10		97	80	120			
m,p-Xylene	10.2	0.5	10		102	70	130			
o-Xylene	9.76	0.5	10		98	70	130			
Surr: 1,2-Dichloroethane-d4	10.5		10		105	70	130			
Surr: Toluene-d8	9.7		10		97	70	130			
Surr: 4-Bromofluorobenzene	9.6		10		96	70	130			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8260B**

File ID: **10102119.D** Batch ID: **MS09W1021A** Analysis Date: **10/21/2010 15:59**

Sample ID: **10102028-03AMS** Units : **µg/L** Run ID: **MSD_09_101021A** Prep Date: **10/21/2010 15:59**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	57.3	1.3	50	0	115	56	141			
Benzene	50.3	1.3	50	0	101	67	130			
Toluene	46	1.3	50	0	92	66	130			
Ethylbenzene	48.5	1.3	50	0	97	68	130			
m,p-Xylene	51.5	1.3	50	0	103	64	130			
o-Xylene	49.3	1.3	50	0	99	70	130			
Surr: 1,2-Dichloroethane-d4	52.2		50		104	70	130			
Surr: Toluene-d8	48.4		50		97	70	130			
Surr: 4-Bromofluorobenzene	48		50		96	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8260B**

File ID: **10102120.D** Batch ID: **MS09W1021A** Analysis Date: **10/21/2010 16:22**

Sample ID: **10102028-03AMSD** Units : **µg/L** Run ID: **MSD_09_101021A** Prep Date: **10/21/2010 16:22**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	52.8	1.3	50	0	106	56	141	57.27	8.1(20)	
Benzene	47.8	1.3	50	0	96	67	130	50.25	5.1(20)	
Toluene	44.8	1.3	50	0	90	66	130	45.99	2.7(20)	
Ethylbenzene	47.1	1.3	50	0	94	68	130	48.54	3.1(20)	
m,p-Xylene	49.7	1.3	50	0	99	64	130	51.49	3.5(20)	
o-Xylene	47.9	1.3	50	0	96	70	130	49.28	2.8(20)	
Surr: 1,2-Dichloroethane-d4	51.7		50		103	70	130			
Surr: Toluene-d8	48.9		50		98	70	130			
Surr: 4-Bromofluorobenzene	47.5		50		95	70	130			

Alpha Analytical, Inc.

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

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

Date: *26-Oct-10*

QC Summary Report

Work Order: 10101943

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.

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

October 26, 2010

CLS Work Order #: CTJ0745
COC #:

Reyna Vallejo
Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project Name: STR10101943

Enclosed are the results of analyses for samples received by the laboratory on 10/19/10 11:25. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

10/26/10 08:33

Alpha Analytical, Inc.-Sparks	Project: STR10101943	
255 Glendale Ave.; Suite 21	Project Number: STR10101943	**CLS Work Order #: CTJ0745**
Sparks, NV 89431	Project Manager: Reyna Vallejo	COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
STR10101943-01A (DW-1) (CTJ0745-01) Water Sampled: 10/19/10 08:31 Received: 10/19/10 11:25									
Hexavalent Chromium	ND	1.0	µg/L	1	CT07781	10/20/10	10/20/10	EPA 7199	
STR10101943-02A (DW-3) (CTJ0745-02) Water Sampled: 10/19/10 08:41 Received: 10/19/10 11:25									
Hexavalent Chromium	ND	1.0	µg/L	1	CT07781	10/20/10	10/20/10	EPA 7199	
STR10101943-03A (DW-5) (CTJ0745-03) Water Sampled: 10/19/10 08:16 Received: 10/19/10 11:25									
Hexavalent Chromium	ND	1.0	µg/L	1	CT07781	10/20/10	10/20/10	EPA 7199	
STR10101943-04A (DW-7) (CTJ0745-04) Water Sampled: 10/19/10 07:43 Received: 10/19/10 11:25									
Hexavalent Chromium	ND	1.0	µg/L	1	CT07781	10/20/10	10/20/10	EPA 7199	

CALIFORNIA LABORATORY SERVICES

10/26/10 08:33

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: STR10101943
Project Number: STR10101943
Project Manager: Reyna Vallejo

CLS Work Order #: CTJ0745
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CT07781 - General Prep										
Blank (CT07781-BLK1)				Prepared & Analyzed: 10/20/10						
Hexavalent Chromium	ND	1.0	µg/L							
LCS (CT07781-BS1)				Prepared & Analyzed: 10/20/10						
Hexavalent Chromium	5.36	1.0	µg/L	5.00		107	80-120			
LCS Dup (CT07781-BSD1)				Prepared & Analyzed: 10/20/10						
Hexavalent Chromium	4.63	1.0	µg/L	5.00		93	80-120	15	20	
Matrix Spike (CT07781-MS1)		Source: CTJ0745-01		Prepared & Analyzed: 10/20/10						
Hexavalent Chromium	5.18	1.0	µg/L	5.00	0.937	85	75-125			
Matrix Spike Dup (CT07781-MSD1)		Source: CTJ0745-01		Prepared & Analyzed: 10/20/10						
Hexavalent Chromium	5.21	1.0	µg/L	5.00	0.937	86	75-125	0.7	25	

CALIFORNIA LABORATORY SERVICES

10/26/10 08:33

Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks, NV 89431	Project: STR10101943 Project Number: STR10101943 Project Manager: Reyna Vallejo	**CLS Work Order #: CTJ0745** COC #:

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Billing Information :

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 : STR10101943

Report Due By : 5:00 PM On : 27-Oct-10

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

Report Attention	Phone Number	EMail Address
Steve Carter	(530) 676-6008 x	scarter@stratusinc.net

EDD Required : **Yes**

Sampled by : Vince Z.

PO :

Client's COC # : 26448 Job : Bay Counties Petroleum

Cooler Temp	Samples Received	Date Printed
1 °C	19-Oct-10	**20-Oct-10**

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

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests							Sample Remarks
							METALS_CR6_SUB_W	METALS_DS	METALS_DW	TPH/E_W	VOC_W			
STR10101943-01A	DW-1	AQ	10/19/10 08:31	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C			
STR10101943-02A	DW-3	AQ	10/19/10 08:41	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C			
STR10101943-03A	DW-5	AQ	10/19/10 08:16	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C			
STR10101943-04A	DW-7	AQ	10/19/10 07:43	8	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C			

Comments: Chain prelogged 10/19/10 in order for Sac office to sub Low Level Cr6+ to CLS. Rest of samples received 10/20/10. Security seals intact. Frozen ice. Analyze Cr6+ by Method 7199 and all metals per previous work order, per Steve Carter. Filter and preserve : metals in lab.

	Signature	Print Name	Company	Date/Time
Logged in by:	Jane Dickinson	Jane Dickinson	**Alpha Analytical, Inc.**	10/20/10 1240

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:

Name STRATUS ENV.
Address 3330 Cameron Park Dr.
City, State, Zip Cameron Park, CA
Phone Number 530-676-6001 Fax 530-676-6005

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

Samples Collected From Which State? AZ ___ CA X NV ___ WA ___ ID ___ OR ___ OTHER ___

26448

Page # 1 of 1

Client Name	P.O. #	Job #
Bay Counties Petroleum		
Address 6310 Houston	EMail Address	
City, State, Zip Dublin, CA	Phone #	Fax #

Analyses Required

Required QC Level? I II III IV

EDD / EDF? YES ___ NO ___

Global ID # T0600113164

Time Sampled	Date Sampled 2010	Matrix* See Key Below	Sampled by Vince Z / Lab ID Number (Office Use Only)	Report Attention Steve. C. / Sample Description	TAT	Field Filtered	Total and type of containers ** See below	Diesel 8015M	BTEX	naphthalene	MTBE	Dissolved Metals	Hexchrome	Total Metals	REMARKS
0831	10/19	AQ	STR1010943-01	DW-1	std		6vom 3p	X	X	X	X	X	X	X	
0841	〃	〃	-02	-3	〃		〃	〃	〃	〃	〃	〃	〃	〃	
0816	〃	〃	-03	-5	〃		〃	〃	〃	〃	〃	〃	〃	〃	
0743	10/19	AQ	-04	DW-7	〃		6vom 3p	X	X	X	X	X	X	X	
															Hex Chrome
															sub to CLS
															# 1010943

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by	Vince Zalutka	Vince Zalutka	STRATUS	10-19-10	11:10
Received by	Lisa de Silva	Lisa de Silva	ALPHA	10-19-10	11:10
Relinquished by	Lisa de Silva	Lisa de Silva	ALPHA	10-19-10	1500
Received by	Tara Dickinson	Tara Dickinson	Alpha	10/20/10	1231
Relinquished by					
Received by					

*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.

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: Steve Carter
Phone: (530) 676-6008
Fax: (530) 676-6005
Date Received : 11/30/10

Job: Bay Counties Petroleum

Dissolved Metals by ICPMS
EPA Method 200.8

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **DW-1**					
Lab ID : STR10113046-01A	Arsenic (As), Dissolved	43	2.0 µg/L	12/01/10 13:44	12/02/10
Date Sampled 11/30/10 09:33	Cadmium (Cd), Dissolved	ND	1.0 µg/L	12/01/10 13:44	12/02/10
	Barium (Ba), Dissolved	32	5.0 µg/L	12/01/10 13:44	12/02/10
Client ID: **DW-3**					
Lab ID : STR10113046-02A	Arsenic (As), Dissolved	6.7	2.0 µg/L	12/01/10 13:44	12/02/10
Date Sampled 11/30/10 09:01	Cadmium (Cd), Dissolved	ND	1.0 µg/L	12/01/10 13:44	12/02/10
	Barium (Ba), Dissolved	76	5.0 µg/L	12/01/10 13:44	12/02/10
Client ID: **DW-5**					
Lab ID : STR10113046-03A	Arsenic (As), Dissolved	5.5	2.0 µg/L	12/01/10 13:44	12/03/10
Date Sampled 11/30/10 09:17	Cadmium (Cd), Dissolved	ND	1.0 µg/L	12/01/10 13:44	12/03/10
	Barium (Ba), Dissolved	55	5.0 µg/L	12/01/10 13:44	12/03/10
Client ID: **DW-7**					
Lab ID : STR10113046-04A	Arsenic (As), Dissolved	ND	2.0 µg/L	12/01/10 13:44	12/03/10
Date Sampled 11/30/10 10:20	Cadmium (Cd), Dissolved	ND	1.0 µg/L	12/01/10 13:44	12/03/10
	Barium (Ba), Dissolved	50	5.0 µg/L	12/01/10 13:44	12/03/10

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

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) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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

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.

12/8/10
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

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Steve Carter
Phone: (530) 676-6008
Fax: (530) 676-6005
Date Received : 11/30/10

Job: Bay Counties Petroleum

Metals by ICPMS
EPA Method 200.8

Parameter		Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **DW-1**					
Lab ID : STR10113046-01A	Chromium (Cr)	13	5.0 µg/L	12/01/10 10:00	12/01/10
Date Sampled 11/30/10 09:33	Iron (Fe)	3,900	100 µg/L	12/01/10 10:00	12/01/10
	Copper (Cu)	13	10 µg/L	12/01/10 10:00	12/01/10
	Selenium (Se)	ND	5.0 µg/L	12/01/10 10:00	12/01/10
	Lead (Pb)	ND	5.0 µg/L	12/01/10 10:00	12/01/10
Client ID: **DW-3**					
Lab ID : STR10113046-02A	Chromium (Cr)	9.4	5.0 µg/L	12/01/10 10:00	12/01/10
Date Sampled 11/30/10 09:01	Iron (Fe)	3,000	100 µg/L	12/01/10 10:00	12/01/10
	Copper (Cu)	ND	10 µg/L	12/01/10 10:00	12/01/10
	Selenium (Se)	ND	5.0 µg/L	12/01/10 10:00	12/01/10
	Lead (Pb)	ND	5.0 µg/L	12/01/10 10:00	12/01/10
Client ID: **DW-5**					
Lab ID : STR10113046-03A	Chromium (Cr)	8.5	5.0 µg/L	12/01/10 10:00	12/01/10
Date Sampled 11/30/10 09:17	Iron (Fe)	1,200	100 µg/L	12/01/10 10:00	12/01/10
	Copper (Cu)	ND	10 µg/L	12/01/10 10:00	12/01/10
	Selenium (Se)	ND	5.0 µg/L	12/01/10 10:00	12/01/10
	Lead (Pb)	ND	5.0 µg/L	12/01/10 10:00	12/01/10
Client ID: **DW-7**					
Lab ID : STR10113046-04A	Chromium (Cr)	42	5.0 µg/L	12/01/10 10:00	12/01/10
Date Sampled 11/30/10 10:20	Iron (Fe)	21,000	100 µg/L	12/01/10 10:00	12/01/10
	Copper (Cu)	23	10 µg/L	12/01/10 10:00	12/01/10
	Selenium (Se)	5.1	5.0 µg/L	12/01/10 10:00	12/01/10
	Lead (Pb)	7.6	5.0 µg/L	12/01/10 10:00	12/01/10

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

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) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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

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.

12/8/10
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

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Steve Carter
Phone: (530) 676-6008
Fax: (530) 676-6005
Date Received : 11/30/10

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**					
Lab ID :	STR10113046-01A	TPH-E (DRO)	1,300	50 µg/L	12/06/10	12/06/10
Date Sampled	11/30/10 09:33	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	12/02/10	12/02/10
		Benzene	ND	0.50 µg/L	12/02/10	12/02/10
		Toluene	ND	0.50 µg/L	12/02/10	12/02/10
		Ethylbenzene	ND	0.50 µg/L	12/02/10	12/02/10
		m,p-Xylene	ND	0.50 µg/L	12/02/10	12/02/10
		o-Xylene	ND	0.50 µg/L	12/02/10	12/02/10
		Naphthalene	ND	2.0 µg/L	12/02/10	12/02/10
Client ID :	**DW-3**					
Lab ID :	STR10113046-02A	TPH-E (DRO)	1,300	50 µg/L	12/06/10	12/06/10
Date Sampled	11/30/10 09:01	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	12/02/10	12/02/10
		Benzene	ND	0.50 µg/L	12/02/10	12/02/10
		Toluene	ND	0.50 µg/L	12/02/10	12/02/10
		Ethylbenzene	ND	0.50 µg/L	12/02/10	12/02/10
		m,p-Xylene	ND	0.50 µg/L	12/02/10	12/02/10
		o-Xylene	ND	0.50 µg/L	12/02/10	12/02/10
		Naphthalene	ND	2.0 µg/L	12/02/10	12/02/10
Client ID :	**DW-5**					
Lab ID :	STR10113046-03A	TPH-E (DRO)	340	50 µg/L	12/06/10	12/06/10
Date Sampled	11/30/10 09:17	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	12/02/10	12/02/10
		Benzene	ND	0.50 µg/L	12/02/10	12/02/10
		Toluene	ND	0.50 µg/L	12/02/10	12/02/10
		Ethylbenzene	ND	0.50 µg/L	12/02/10	12/02/10
		m,p-Xylene	ND	0.50 µg/L	12/02/10	12/02/10
		o-Xylene	ND	0.50 µg/L	12/02/10	12/02/10
		Naphthalene	ND	2.0 µg/L	12/02/10	12/02/10
Client ID :	**DW-7**					
Lab ID :	STR10113046-04A	TPH-E (DRO)	ND	50 µg/L	12/06/10	12/06/10
Date Sampled	11/30/10 10:20	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	12/02/10	12/02/10
		Benzene	ND	0.50 µg/L	12/02/10	12/02/10
		Toluene	ND	0.50 µg/L	12/02/10	12/02/10
		Ethylbenzene	ND	0.50 µg/L	12/02/10	12/02/10
		m,p-Xylene	ND	0.50 µg/L	12/02/10	12/02/10
		o-Xylene	ND	0.50 µg/L	12/02/10	12/02/10
		Naphthalene	ND	2.0 µg/L	12/02/10	12/02/10

Alpha Analytical, Inc.

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Diesel Range Organics (DRO) C13-C22

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

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) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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

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.

12/8/10
Report Date

Alpha Analytical, Inc.

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VOC Sample Preservation Report

Work Order: STR10113046 **Job:** Bay Counties Petroleum

Alpha's Sample ID	Client's Sample ID	Matrix	pH
10113046-01A	DW-1	Aqueous	2
10113046-02A	DW-3	Aqueous	2
10113046-03A	DW-5	Aqueous	2
10113046-04A	DW-7	Aqueous	2

12/8/10

Report Date

Alpha Analytical, Inc.

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Date: *08-Dec-10*

QC Summary Report

Work Order: 10113046

Method Blank

Type: **MBLK** Test Code: **EPA Method 200.8**

File ID: **120210.B\070_M.D** Batch ID: **25572** Analysis Date: **12/02/2010 18:20**

Sample ID: **MB-25572** Units : **µg/L** Run ID: **ICP/MS_101202A** Prep Date: **12/01/2010 13:44**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	ND	2								
Cadmium (Cd), Dissolved	ND	1								
Barium (Ba), Dissolved	ND	5								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method 200.8**

File ID: **120210.B\071_M.D** Batch ID: **25572** Analysis Date: **12/02/2010 18:26**

Sample ID: **LCS-25572** Units : **µg/L** Run ID: **ICP/MS_101202A** Prep Date: **12/01/2010 13:44**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	49.6	2	50		99	80	120			
Cadmium (Cd), Dissolved	49.3	1	50		99	80	120			
Barium (Ba), Dissolved	48.9	5	50		98	80	120			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method 200.8**

File ID: **120210.B\076_M.D** Batch ID: **25572** Analysis Date: **12/02/2010 18:54**

Sample ID: **10112920-01AMS** Units : **µg/L** Run ID: **ICP/MS_101202A** Prep Date: **12/01/2010 13:44**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	53.7	2	50	0	107	75	125			
Cadmium (Cd), Dissolved	49.9	2	50	0	99.7	75	125			
Barium (Ba), Dissolved	906	5	50	863.9	85	75	125			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method 200.8**

File ID: **120210.B\077_M.D** Batch ID: **25572** Analysis Date: **12/02/2010 18:59**

Sample ID: **10112920-01AMSD** Units : **µg/L** Run ID: **ICP/MS_101202A** Prep Date: **12/01/2010 13:44**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	48.9	2	50	0	98	75	125	53.65	9.4(20)	
Cadmium (Cd), Dissolved	46.8	2	50	0	94	75	125	49.87	6.4(20)	
Barium (Ba), Dissolved	877	5	50	863.9	26	75	125	906.2	3.3(20)	M3

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.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

Reported in micrograms per Liter, per client request.

Alpha Analytical, Inc.

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Date: *08-Dec-10*

QC Summary Report

Work Order: 10113046

Method Blank

Type: **MBLK** Test Code: **EPA Method 200.8**

File ID: **113010.B\52_M.D** Batch ID: **25566** Analysis Date: **12/01/2010 13:15**

Sample ID: **MB-25566** Units : **µg/L** Run ID: **ICP/MS_101201B** Prep Date: **12/01/2010 10:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	ND	5								
Iron (Fe)	ND	100								
Copper (Cu)	ND	10								
Selenium (Se)	ND	5								
Lead (Pb)	ND	5								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method 200.8**

File ID: **113010.B\53_M.D** Batch ID: **25566** Analysis Date: **12/01/2010 13:20**

Sample ID: **LCS-25566** Units : **µg/L** Run ID: **ICP/MS_101201B** Prep Date: **12/01/2010 10:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	47	5	50		94	85	115			
Iron (Fe)	5400	100	5000		108	85	115			
Copper (Cu)	51.2	10	50		102	85	115			
Selenium (Se)	52.4	5	50		105	85	115			
Lead (Pb)	46.8	5	50		94	85	115			

Laboratory Control Spike Duplicate

Type: **LCSD** Test Code: **EPA Method 200.8**

File ID: **113010.B\56_M.D** Batch ID: **25566** Analysis Date: **12/01/2010 13:37**

Sample ID: **LCSD-25566** Units : **µg/L** Run ID: **ICP/MS_101201B** Prep Date: **12/01/2010 10:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	46.3	5	50		93	85	115	46.98	1.6(20)	
Iron (Fe)	5210	100	5000		104	85	115	5402	3.6(20)	
Copper (Cu)	51.5	10	50		103	85	115	51.2	0.6(20)	
Selenium (Se)	51.1	5	50		102	85	115	52.43	2.5(20)	
Lead (Pb)	47.3	5	50		95	85	115	46.83	1.1(20)	

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method 200.8**

File ID: **113010.B\58_M.D** Batch ID: **25566** Analysis Date: **12/01/2010 13:49**

Sample ID: **10112403-01AMS** Units : **µg/L** Run ID: **ICP/MS_101201B** Prep Date: **12/01/2010 10:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	70.2	5	50	19.38	102	70	130			
Iron (Fe)	6130	100	5000	1004	102	70	130			
Copper (Cu)	52.8	10	50	0	106	70	130			
Selenium (Se)	51.6	5	50	0	103	70	130			
Lead (Pb)	49.2	5	50	0	98	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method 200.8**

File ID: **113010.B\61_S.D** Batch ID: **25566** Analysis Date: **12/01/2010 14:18**

Sample ID: **10112403-01AMSD** Units : **µg/L** Run ID: **ICP/MS_101201B** Prep Date: **12/01/2010 10:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	75.4	5	50	19.38	112	70	130	70.15	7.2(20)	
Iron (Fe)	6450	100	5000	1004	109	70	130	6126	5.2(20)	
Copper (Cu)	57.1	10	50	0	114	70	130	52.79	7.8(20)	
Selenium (Se)	53.1	5	50	0	106	70	130	51.57	2.9(20)	
Lead (Pb)	50.8	5	50	0	102	70	130	49.17	3.3(20)	

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.

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Date: *07-Dec-2010*

QC Summary Report

Work Order: 10113046

Method Blank

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

File ID: **2A12011085.D** Batch ID: **25594** Analysis Date: **12/06/2010 15:38**

Sample ID: **MBLK-25594** Units : **µg/L** Run ID: **FID_2_101206A** Prep Date: **12/06/2010 12:52**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	ND	50								
Surr: Nonane	152		150		101	57	147			

Laboratory Control Spike

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

File ID: **2A12011087.D** Batch ID: **25594** Analysis Date: **12/06/2010 16:27**

Sample ID: **LCS-25594** Units : **µg/L** Run ID: **FID_2_101206A** Prep Date: **12/06/2010 12:52**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2230	50	2500		89	67	130			
Surr: Nonane	141		150		94	57	147			

Sample Matrix Spike

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

File ID: **2A12011106.D** Batch ID: **25594** Analysis Date: **12/07/2010 00:26**

Sample ID: **10120302-01AMS** Units : **µg/L** Run ID: **FID_2_101206A** Prep Date: **12/06/2010 12:52**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2360	50	2500	0	95	49	150			
Surr: Nonane	105		150		70	57	147			

Sample Matrix Spike Duplicate

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

File ID: **2A12011107.D** Batch ID: **25594** Analysis Date: **12/07/2010 00:51**

Sample ID: **10120302-01AMSD** Units : **µg/L** Run ID: **FID_2_101206A** Prep Date: **12/06/2010 12:52**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2670	50	2500	0	107	49	150	2364	12.2(38)	
Surr: Nonane	110		150		73	57	147			

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.

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Date: *07-Dec-2010*

QC Summary Report

Work Order: 10113046

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **10120204.D** Batch ID: **MS12W1202A** Analysis Date: **12/02/2010 09:49**

Sample ID: **MBLK MS12W1202A** Units : **µg/L** Run ID: **MSD_12_101202A** Prep Date: **12/02/2010 09:49**

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	11.2		10		112	70	130			
Surr: Toluene-d8	9.68		10		97	70	130			
Surr: 4-Bromofluorobenzene	8.47		10		85	70	130			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **10120203.D** Batch ID: **MS12W1202A** Analysis Date: **12/02/2010 09:26**

Sample ID: **LCS MS12W1202A** Units : **µg/L** Run ID: **MSD_12_101202A** Prep Date: **12/02/2010 09:26**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	7.88	0.5	10		79	62	136			
Benzene	8.14	0.5	10		81	70	130			
Toluene	8.09	0.5	10		81	80	120			
Ethylbenzene	8.39	0.5	10		84	80	120			
m,p-Xylene	8.18	0.5	10		82	70	130			
o-Xylene	8.52	0.5	10		85	70	130			
Surr: 1,2-Dichloroethane-d4	11		10		110	70	130			
Surr: Toluene-d8	9.61		10		96	70	130			
Surr: 4-Bromofluorobenzene	8.57		10		86	70	130			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8260B**

File ID: **10120217.D** Batch ID: **MS12W1202A** Analysis Date: **12/02/2010 14:59**

Sample ID: **10120102-03AMS** Units : **µg/L** Run ID: **MSD_12_101202A** Prep Date: **12/02/2010 14:59**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	47.3	1.3	50	0	95	56	141			
Benzene	48	1.3	50	0	96	67	130			
Toluene	44.3	1.3	50	0	89	66	130			
Ethylbenzene	46.8	1.3	50	0	94	68	130			
m,p-Xylene	45.7	1.3	50	0	91	64	130			
o-Xylene	47.5	1.3	50	0	95	70	130			
Surr: 1,2-Dichloroethane-d4	54		50		108	70	130			
Surr: Toluene-d8	47.9		50		96	70	130			
Surr: 4-Bromofluorobenzene	42.7		50		85	70	130			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **10120218.D** Batch ID: **MS12W1202A** Analysis Date: **12/02/2010 15:21**

Sample ID: **10120102-03AMSD** Units : **µg/L** Run ID: **MSD_12_101202A** Prep Date: **12/02/2010 15:21**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	45.3	1.3	50	0	91	56	141	47.34	4.5(20)	
Benzene	46.4	1.3	50	0	93	67	130	48.02	3.5(20)	
Toluene	45.6	1.3	50	0	91	66	130	44.3	2.9(20)	
Ethylbenzene	48.2	1.3	50	0	96	68	130	46.79	3.0(20)	
m,p-Xylene	46.4	1.3	50	0	93	64	130	45.65	1.5(20)	
o-Xylene	48.5	1.3	50	0	97	70	130	47.54	2.0(20)	
Surr: 1,2-Dichloroethane-d4	51.9		50		104	70	130			
Surr: Toluene-d8	48.3		50		97	70	130			
Surr: 4-Bromofluorobenzene	43.6		50		87	70	130			

Alpha Analytical, Inc.

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Date: *07-Dec-2010*

QC Summary Report

Work Order: 10113046

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.

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

December 07, 2010

CLS Work Order #: CTK1171
COC #:

Reyna Vallejo
Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project Name: STR10113046

Enclosed are the results of analyses for samples received by the laboratory on 11/30/10 16:15. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

Alpha Analytical, Inc.-Sparks	Project: STR10113046	
255 Glendale Ave.; Suite 21	Project Number: [none]	**CLS Work Order #: CTK1171**
Sparks, NV 89431	Project Manager: Reyna Vallejo	COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
STR10113046-01A (DW-1) (CTK1171-01) Water	**Sampled: 11/30/10 09:33**		**Received: 11/30/10 16:15**						
Hexavalent Chromium	ND	1.0	µg/L	1	CT08909	12/01/10	12/01/10	EPA 7199	
STR10113046-02A (DW-3) (CTK1171-02) Water	**Sampled: 11/30/10 09:01**		**Received: 11/30/10 16:15**						
Hexavalent Chromium	ND	1.0	µg/L	1	CT08909	12/01/10	12/01/10	EPA 7199	
STR10113046-03A (DW-5) (CTK1171-03) Water	**Sampled: 11/30/10 09:17**		**Received: 11/30/10 16:15**						
Hexavalent Chromium	ND	1.0	µg/L	1	CT08909	12/01/10	12/01/10	EPA 7199	
STR10113046-04A (DW-7) (CTK1171-04) Water	**Sampled: 11/30/10 10:20**		**Received: 11/30/10 16:15**						
Hexavalent Chromium	ND	1.0	µg/L	1	CT08909	12/01/10	12/01/10	EPA 7199	

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: STR10113046
Project Number: [none]
Project Manager: Reyna Vallejo

CLS Work Order #: CTK1171
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CT08909 - General Prep										
Blank (CT08909-BLK1)				Prepared & Analyzed: 12/01/10						
Hexavalent Chromium	ND	1.0	µg/L							
LCS (CT08909-BS1)				Prepared & Analyzed: 12/01/10						
Hexavalent Chromium	5.04	1.0	µg/L	5.00		101	80-120			
LCS Dup (CT08909-BSD1)				Prepared & Analyzed: 12/01/10						
Hexavalent Chromium	5.41	1.0	µg/L	5.00		108	80-120	7	20	
Matrix Spike (CT08909-MS1)		**Source: CTK1171-04**		Prepared & Analyzed: 12/01/10						
Hexavalent Chromium	5.26	1.0	µg/L	5.00	ND	105	75-125			
Matrix Spike Dup (CT08909-MSD1)		**Source: CTK1171-04**		Prepared & Analyzed: 12/01/10						
Hexavalent Chromium	4.84	1.0	µg/L	5.00	ND	97	75-125	8	25	

CALIFORNIA LABORATORY SERVICES

12/07/10 10:41

Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks, NV 89431	Project: STR10113046 Project Number: [none] Project Manager: Reyna Vallejo	**CLS Work Order #: CTK1171** COC #:

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

AMENDED

CHAIN-OF-CUSTODY RECORD

CA

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

WorkOrder : STR10113046

Report Due By : 5:00 PM On : 08-Dec-10

Billing Information :

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

Report Attention	Phone Number	EMail Address
Steve Carter	(530) 676-6008 x	scarter@stratusinc.net

EDD Required : **Yes**

Sampled by : Vince Z.

PO :

Client's COC # : 32852 Job : Bay Counties Petroleum

Cooler Temp	Samples Received	Date Printed
4 °C	30-Nov-10	03-Dec-10

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

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests METALS_CR6_SUB_W	METALS_DS	METALS_DW	TPH/E_W	VOC_W				Sample Remarks
STR10113046-01A	DW-1	AQ	11/30/10 09:33	10	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				
STR10113046-02A	DW-3	AQ	11/30/10 09:01	10	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				
STR10113046-03A	DW-5	AQ	11/30/10 09:17	10	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				
STR10113046-04A	DW-7	AQ	11/30/10 10:20	10	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C				

Comments: Chain prelogged 11/30/10 in order for Sac office to sub Low Level Cr6+ by method 7199 to CLS. Rest of samples received 12/1/10. Security seals intact. Frozen ice. Filter and preserve metals in lab. Amended 12/3/10 to add COC # due to login error. TD. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Tare Dickson	Tare Dickson	Alpha Analytical, Inc.	12/3/10 1652

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 :

CHAIN-OF-CUSTODY RECORD

CA

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

WorkOrder : STR10113046

Report Due By : 5:00 PM On : 08-Dec-10

Report Attention	Phone Number	EMail Address
Steve Carter	(530) 676-6008 x	scarter@stratusinc.net

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

EDD Required : **Yes**

Sampled by : Vince Z.

PO :

Client's COC # : none Job : Bay Counties Petroleum

Cooler Temp	Samples Received	Date Printed
4 °C	30-Nov-10	01-Dec-10

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

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests: METALS_CR6_SUB_W	METALS_DS	METALS_DW	TPH/E_W	VOC_W	Sample Remarks
STR10113046-01A	DW-1	AQ	11/30/10 09:33	10	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C	
STR10113046-02A	DW-3	AQ	11/30/10 09:01	10	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C	
STR10113046-03A	DW-5	AQ	11/30/10 09:17	10	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C	
STR10113046-04A	DW-7	AQ	11/30/10 10:20	10	1	5	Cr6+ by 7199	As, Ba, Cd	Cu, Fe, Pb, Se, Cr	TPH/E_C	BTXE/M/Naphthalene_C	

Comments: Chain prelogged 11/30/10 in order for Sac office to sub Low Level Cr6+ by method 7199 to CLS. Rest of samples received 12/1/10. Security seals intact. Frozen ice. Filter and preserve metals in lab. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Tara Dickinson	Tara Dickinson	**Alpha Analytical, Inc.**	12/1/10 1253

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:

Name STRATUS
Address 3330 Cameron Park Dr.
City, State, Zip Cameron Park, CA
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

Samples Collected From Which State? AZ ___ CA X NV ___ WA ___ ID ___ OR ___ OTHER ___

26443

Page # 1 of 1

Client Name	P.O. #	Job #
Bay Country's Petroleum		
Address 6310 Houston	EMail Address	
City, State, Zip Dublin, CA	Phone #	Fax #

Report Attention: Steve C.

Time Sampled	Date Sampled 2010	Matrix* See Key Below	Sampled by Vince Z / Lab ID Number (Office Use Only)	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	Diesel 8015m	BTEX	naphthalene	MTBE	Dissolved Metals	Hexchrome	Total Metals	REMARKS
0933	11/30	AQ	SJR1011304E-01	DW-1	Std		8v 3p	X	X	X	X	X	X	X	
0901	11/30	AQ	-02	DW-3	3		3	3	3	3	3	3	3	3	
0917	11/30	AQ	-03	DW-5	3		3	3	3	3	3	3	3	3	
1020	11/30	AQ	-04	DW-7	3		8v 3p	X	X	X	X	X	X	X	
															Hex Chrome Sub to CLS

Required QC Level? I II III IV

EDD / EDF? YES X NO ___

Global ID # T0600113164

Analyses Required

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by		Vincent Zalutka	Stratus Env.	11-30-10	1300
Received by		Lisa de Silva	ALPHA	11-30-10	1300
Relinquished by		Lisa de Silva	ALPHA	11-30-10	1530
Received by		Jan Hickinson	Alpha	12/1/10	1243
Relinquished by					
Received by					

*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.

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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 : 01/13/11

Job: 2094-6310-01/ Bay Counties Petroleum

Dissolved Metals by ICPMS
EPA Method SW6020 / SW6020A

Parameter		Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **DW-1**					
Lab ID : STR11011307-01A	Arsenic (As), Dissolved	41	2.0 µg/L	01/14/11	01/14/11
Date Sampled 01/13/11 10:44	Cadmium (Cd), Dissolved	ND	1.0 µg/L	01/14/11	01/14/11
	Barium (Ba), Dissolved	37	5.0 µg/L	01/14/11	01/14/11
Client ID: **DW-3**					
Lab ID : STR11011307-03A	Arsenic (As), Dissolved	5.4	2.0 µg/L	01/14/11	01/14/11
Date Sampled 01/13/11 11:55	Cadmium (Cd), Dissolved	ND	1.0 µg/L	01/14/11	01/14/11
	Barium (Ba), Dissolved	69	5.0 µg/L	01/14/11	01/14/11
Client ID: **DW-5**					
Lab ID : STR11011307-05A	Arsenic (As), Dissolved	4.9	2.0 µg/L	01/14/11	01/17/11
Date Sampled 01/13/11 11:23	Cadmium (Cd), Dissolved	ND	1.0 µg/L	01/14/11	01/17/11
	Barium (Ba), Dissolved	69	5.0 µg/L	01/14/11	01/17/11
Client ID: **DW-7**					
Lab ID : STR11011307-07A	Arsenic (As), Dissolved	6.0	2.0 µg/L	01/14/11	01/14/11
Date Sampled 01/13/11 10:05	Cadmium (Cd), Dissolved	ND	1.0 µg/L	01/14/11	01/14/11
	Barium (Ba), Dissolved	48	5.0 µg/L	01/14/11	01/14/11

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

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) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com
Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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.

1/20/11
Report Date

Alpha Analytical, Inc.

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(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 : 01/13/11

Job: 2094-6310-01/ Bay Counties Petroleum

Metals by ICPMS
EPA Method SW6020 / SW6020A

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: **DW-1**					
Lab ID : STR11011307-01A	Chromium (Cr)	72	5.0 µg/L	01/14/11	01/14/11
Date Sampled 01/13/11 10:44	Iron (Fe)	35,000	300 µg/L	01/14/11	01/14/11
	Copper (Cu)	49	10 µg/L	01/14/11	01/14/11
	Selenium (Se)	ND	5.0 µg/L	01/14/11	01/14/11
	Lead (Pb)	16	5.0 µg/L	01/14/11	01/14/11
Client ID: **DW-3**					
Lab ID : STR11011307-03A	Chromium (Cr)	29	5.0 µg/L	01/14/11	01/14/11
Date Sampled 01/13/11 11:55	Iron (Fe)	16,000	300 µg/L	01/14/11	01/14/11
	Copper (Cu)	14	10 µg/L	01/14/11	01/14/11
	Selenium (Se)	ND	5.0 µg/L	01/14/11	01/14/11
	Lead (Pb)	7.4	5.0 µg/L	01/14/11	01/14/11
Client ID: **DW-5**					
Lab ID : STR11011307-05A	Chromium (Cr)	19	5.0 µg/L	01/14/11	01/14/11
Date Sampled 01/13/11 11:23	Iron (Fe)	8,800	300 µg/L	01/14/11	01/14/11
	Copper (Cu)	11	10 µg/L	01/14/11	01/14/11
	Selenium (Se)	ND	5.0 µg/L	01/14/11	01/14/11
	Lead (Pb)	ND	5.0 µg/L	01/14/11	01/14/11
Client ID: **DW-7**					
Lab ID : STR11011307-07A	Chromium (Cr)	79	5.0 µg/L	01/14/11	01/14/11
Date Sampled 01/13/11 10:05	Iron (Fe)	36,000	300 µg/L	01/14/11	01/14/11
	Copper (Cu)	32	10 µg/L	01/14/11	01/14/11
	Selenium (Se)	7.8	5.0 µg/L	01/14/11	01/14/11
	Lead (Pb)	12	5.0 µg/L	01/14/11	01/14/11

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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1/20/11
Report Date

Alpha Analytical, Inc.

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(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 : 01/13/11

Job: 2094-6310-01/ 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**						
Lab ID :	STR11011307-01A	TPH-E (DRO)	1,700		50 µg/L	01/14/11	01/15/11
Date Sampled	01/13/11 10:44	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	01/18/11	01/18/11
		Benzene	ND		0.50 µg/L	01/18/11	01/18/11
		Toluene	ND		0.50 µg/L	01/18/11	01/18/11
		Ethylbenzene	ND		0.50 µg/L	01/18/11	01/18/11
		m,p-Xylene	ND		0.50 µg/L	01/18/11	01/18/11
		o-Xylene	ND		0.50 µg/L	01/18/11	01/18/11
		Naphthalene	ND		2.0 µg/L	01/18/11	01/18/11
Client ID :	**DW-2**						
Lab ID :	STR11011307-02A	TPH-E (DRO)	7,500		50 µg/L	01/14/11	01/15/11
Date Sampled	01/13/11 08:40	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	01/18/11	01/18/11
		Benzene	ND		0.50 µg/L	01/18/11	01/18/11
		Toluene	ND		0.50 µg/L	01/18/11	01/18/11
		Ethylbenzene	ND		0.50 µg/L	01/18/11	01/18/11
		m,p-Xylene	ND		0.50 µg/L	01/18/11	01/18/11
		o-Xylene	ND		0.50 µg/L	01/18/11	01/18/11
		Naphthalene	ND		2.0 µg/L	01/18/11	01/18/11
Client ID :	**DW-3**						
Lab ID :	STR11011307-03A	TPH-E (DRO)	1,800		50 µg/L	01/14/11	01/15/11
Date Sampled	01/13/11 11:55	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	01/18/11	01/18/11
		Benzene	ND		0.50 µg/L	01/18/11	01/18/11
		Toluene	ND		0.50 µg/L	01/18/11	01/18/11
		Ethylbenzene	ND		0.50 µg/L	01/18/11	01/18/11
		m,p-Xylene	ND		0.50 µg/L	01/18/11	01/18/11
		o-Xylene	ND		0.50 µg/L	01/18/11	01/18/11
		Naphthalene	ND		2.0 µg/L	01/18/11	01/18/11
Client ID :	**DW-4**						
Lab ID :	STR11011307-04A	TPH-E (DRO)	370		50 µg/L	01/14/11	01/15/11
Date Sampled	01/13/11 09:02	Methyl tert-butyl ether (MTBE)	0.74		0.50 µg/L	01/18/11	01/18/11
		Benzene	ND		0.50 µg/L	01/18/11	01/18/11
		Toluene	ND		0.50 µg/L	01/18/11	01/18/11
		Ethylbenzene	ND		0.50 µg/L	01/18/11	01/18/11
		m,p-Xylene	ND		0.50 µg/L	01/18/11	01/18/11
		o-Xylene	ND		0.50 µg/L	01/18/11	01/18/11
		Naphthalene	ND	O	4.0 µg/L	01/18/11	01/18/11

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Client ID :	**DW-5**					
Lab ID :	STR11011307-05A	TPH-E (DRO)	470	50 µg/L	01/14/11	01/15/11
Date Sampled	01/13/11 11:23	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	01/18/11	01/18/11
		Benzene	ND	0.50 µg/L	01/18/11	01/18/11
		Toluene	ND	0.50 µg/L	01/18/11	01/18/11
		Ethylbenzene	ND	0.50 µg/L	01/18/11	01/18/11
		m,p-Xylene	ND	0.50 µg/L	01/18/11	01/18/11
		o-Xylene	ND	0.50 µg/L	01/18/11	01/18/11
		Naphthalene	ND	2.0 µg/L	01/18/11	01/18/11
Client ID :	**DW-6**					
Lab ID :	STR11011307-06A	TPH-E (DRO)	ND	50 µg/L	01/14/11	01/15/11
Date Sampled	01/13/11 09:40	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	01/18/11	01/18/11
		Benzene	ND	0.50 µg/L	01/18/11	01/18/11
		Toluene	ND	0.50 µg/L	01/18/11	01/18/11
		Ethylbenzene	ND	0.50 µg/L	01/18/11	01/18/11
		m,p-Xylene	ND	0.50 µg/L	01/18/11	01/18/11
		o-Xylene	ND	0.50 µg/L	01/18/11	01/18/11
		Naphthalene	ND	2.0 µg/L	01/18/11	01/18/11
Client ID :	**DW-7**					
Lab ID :	STR11011307-07A	TPH-E (DRO)	ND	50 µg/L	01/14/11	01/15/11
Date Sampled	01/13/11 10:05	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	01/18/11	01/18/11
		Benzene	ND	0.50 µg/L	01/18/11	01/18/11
		Toluene	ND	0.50 µg/L	01/18/11	01/18/11
		Ethylbenzene	ND	0.50 µg/L	01/18/11	01/18/11
		m,p-Xylene	ND	0.50 µg/L	01/18/11	01/18/11
		o-Xylene	ND	0.50 µg/L	01/18/11	01/18/11
		Naphthalene	ND	2.0 µg/L	01/18/11	01/18/11

Diesel Range Organics (DRO) C13-C22

O = Reporting Limits were increased due to sample foaming.

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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

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.

1/20/11

Report Date

Alpha Analytical, Inc.

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VOC Sample Preservation Report

Work Order: STR11011307 **Job:** 2094-6310-01/ Bay Counties Petroleum

Alpha's Sample ID	Client's Sample ID	Matrix	pH
11011307-01A	DW-1	Aqueous	2
11011307-02A	DW-2	Aqueous	2
11011307-03A	DW-3	Aqueous	2
11011307-04A	DW-4	Aqueous	6
11011307-05A	DW-5	Aqueous	2
11011307-06A	DW-6	Aqueous	2
11011307-07A	DW-7	Aqueous	2

1/20/11

Report Date

Alpha Analytical, Inc.

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Date: *18-Jan-11*

QC Summary Report

Work Order: 11011307

Method Blank

Type **MBLK** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **011411.B\038_M.D** Batch ID: **25805** Analysis Date: **01/14/2011 15:23**

Sample ID: **MB-25805** Units : **µg/L** Run ID: **ICP/MS_110114C** Prep Date: **01/14/2011 09:55**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	ND	5								
Iron (Fe)	ND	300								
Copper (Cu)	ND	10								
Selenium (Se)	ND	5								
Lead (Pb)	ND	5								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **011411.B\039_M.D** Batch ID: **25805** Analysis Date: **01/14/2011 15:29**

Sample ID: **LCS-25805** Units : **µg/L** Run ID: **ICP/MS_110114C** Prep Date: **01/14/2011 09:55**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	254	5	250		102	80	120			
Iron (Fe)	51200	300	50000		102	80	120			
Copper (Cu)	256	10	250		102	80	120			
Selenium (Se)	247	5	250		99	80	120			
Lead (Pb)	250	5	250		100	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **011411.B\044_M.D** Batch ID: **25805** Analysis Date: **01/14/2011 15:57**

Sample ID: **11011341-01AMS** Units : **µg/L** Run ID: **ICP/MS_110114C** Prep Date: **01/14/2011 09:55**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	258	5	250	0	103	75	125			
Iron (Fe)	76800	300	50000	516800	-880	75	125			M3
Copper (Cu)	257	10	250	0	103	75	125			
Selenium (Se)	255	5	250	0	102	75	125			
Lead (Pb)	254	5	250	0	101	75	125			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **011411.B\045_M.D** Batch ID: **25805** Analysis Date: **01/14/2011 16:02**

Sample ID: **11011341-01AMSD** Units : **µg/L** Run ID: **ICP/MS_110114C** Prep Date: **01/14/2011 09:55**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr)	256	5	250	0	102	75	125	258.3	0.9(20)	
Iron (Fe)	76500	300	50000	516800	-880	75	125	76810	0.5(20)	M3
Copper (Cu)	254	10	250	0	102	75	125	256.6	1.0(20)	
Selenium (Se)	253	5	250	0	101	75	125	254.6	0.8(20)	
Lead (Pb)	249	5	250	0	99	75	125	253.5	1.9(20)	

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.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

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: *18-Jan-11*

QC Summary Report

Work Order: 11011307

Method Blank

Type **MBLK** Test Code: **EPA Method 200.8**

File ID: **011411.B\068_M.D** Batch ID: **25813** Analysis Date: **01/14/2011 18:41**

Sample ID: **MB-25813** Units : **µg/L** Run ID: **ICP/MS_110114B** Prep Date: **01/14/2011 14:48**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	ND	2								
Cadmium (Cd), Dissolved	ND	1								
Barium (Ba), Dissolved	ND	5								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method 200.8**

File ID: **011411.B\069_M.D** Batch ID: **25813** Analysis Date: **01/14/2011 18:47**

Sample ID: **LCS-25813** Units : **µg/L** Run ID: **ICP/MS_110114B** Prep Date: **01/14/2011 14:48**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	49.5	2	50		99	80	120			
Cadmium (Cd), Dissolved	49.3	1	50		99	80	120			
Barium (Ba), Dissolved	49	5	50		98	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method 200.8**

File ID: **011411.B\073_M.D** Batch ID: **25813** Analysis Date: **01/14/2011 19:15**

Sample ID: **11011307-03AMS** Units : **µg/L** Run ID: **ICP/MS_110114B** Prep Date: **01/14/2011 14:48**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	61.8	2	50	5.395	113	75	125			
Cadmium (Cd), Dissolved	53.5	2	50	0	107	75	125			
Barium (Ba), Dissolved	122	5	50	68.81	107	75	125			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method 200.8**

File ID: **011411.B\074_M.D** Batch ID: **25813** Analysis Date: **01/14/2011 19:21**

Sample ID: **11011307-03AMSD** Units : **µg/L** Run ID: **ICP/MS_110114B** Prep Date: **01/14/2011 14:48**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Arsenic (As), Dissolved	59	2	50	5.395	107	75	125	61.78	4.6(20)	
Cadmium (Cd), Dissolved	51.2	2	50	0	102	75	125	53.48	4.4(20)	
Barium (Ba), Dissolved	119	5	50	68.81	101	75	125	122.2	2.5(20)	

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.

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

Date: *19-Jan-11*

QC Summary Report

Work Order: 11011307

Method Blank

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

File ID: **2A01141106.D** Batch ID: **25812** Analysis Date: **01/14/2011 16:00**

Sample ID: **MBLK-25812** Units : **µg/L** Run ID: **FID_1_110114A** Prep Date: **01/14/2011 13:47**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	ND	50								
Surr: Nonane	148		150		99	57	147			

Laboratory Control Spike

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

File ID: **2A01141107.D** Batch ID: **25812** Analysis Date: **01/14/2011 16:25**

Sample ID: **LCS-25812** Units : **µg/L** Run ID: **FID_1_110114A** Prep Date: **01/14/2011 13:47**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2550	50	2500		102	67	130			
Surr: Nonane	157		150		105	57	147			

Sample Matrix Spike

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

File ID: **2A01141110.D** Batch ID: **25812** Analysis Date: **01/14/2011 17:42**

Sample ID: **11011305-02AMSD** Units : **µg/L** Run ID: **FID_1_110114A** Prep Date: **01/14/2011 13:47**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2900	50	2500	0	116	49	150			
Surr: Nonane	163		150		109	57	147			

Sample Matrix Spike Duplicate

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

File ID: **2A01141111.D** Batch ID: **25812** Analysis Date: **01/14/2011 18:08**

Sample ID: **11011305-02AMSD** Units : **µg/L** Run ID: **FID_1_110114A** Prep Date: **01/14/2011 13:47**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	3080	50	2500	0	123	49	150	2902	5.9(38)	
Surr: Nonane	164		150		109	57	147			

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.

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

Date: *19-Jan-11*

QC Summary Report

Work Order: 11011307

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **11011804.D** Batch ID: **MS12W0118A** Analysis Date: **01/18/2011 09:42**

Sample ID: **MBLK MS12W0118A** Units : **µg/L** Run ID: **MSD_12_110118A** Prep Date: **01/18/2011 09:42**

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	8.63		10		86	70	130			
Surr: Toluene-d8	10.4		10		104	70	130			
Surr: 4-Bromofluorobenzene	8.81		10		88	70	130			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **11011803.D** Batch ID: **MS12W0118A** Analysis Date: **01/18/2011 09:19**

Sample ID: **LCS MS12W0118A** Units : **µg/L** Run ID: **MSD_12_110118A** Prep Date: **01/18/2011 09:19**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	8.59	0.5	10		86	62	136			
Benzene	9.4	0.5	10		94	70	130			
Toluene	9.49	0.5	10		95	80	120			
Ethylbenzene	9.94	0.5	10		99	80	120			
m,p-Xylene	10	0.5	10		100	70	130			
o-Xylene	10.3	0.5	10		103	70	130			
Surr: 1,2-Dichloroethane-d4	8.38		10		84	70	130			
Surr: Toluene-d8	10.4		10		104	70	130			
Surr: 4-Bromofluorobenzene	9.57		10		96	70	130			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8260B**

File ID: **11011814.D** Batch ID: **MS12W0118A** Analysis Date: **01/18/2011 13:43**

Sample ID: **11011402-01AMS** Units : **µg/L** Run ID: **MSD_12_110118A** Prep Date: **01/18/2011 13:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	40.9	1.3	50	0	82	56	141			
Benzene	40.6	1.3	50	0	81	67	130			
Toluene	40.1	1.3	50	0	80	66	130			
Ethylbenzene	41.9	1.3	50	0	84	68	130			
m,p-Xylene	41.9	1.3	50	0	84	64	130			
o-Xylene	43.8	1.3	50	0	88	70	130			
Surr: 1,2-Dichloroethane-d4	43.4		50		87	70	130			
Surr: Toluene-d8	51.4		50		103	70	130			
Surr: 4-Bromofluorobenzene	48.5		50		97	70	130			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **11011815.D** Batch ID: **MS12W0118A** Analysis Date: **01/18/2011 14:06**

Sample ID: **11011402-01AMSD** Units : **µg/L** Run ID: **MSD_12_110118A** Prep Date: **01/18/2011 14:06**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	42.1	1.3	50	0	84	56	141	40.87	2.9(20)	
Benzene	42.1	1.3	50	0	84	67	130	40.61	3.7(20)	
Toluene	41.6	1.3	50	0	83	66	130	40.09	3.6(20)	
Ethylbenzene	43.7	1.3	50	0	87	68	130	41.87	4.3(20)	
m,p-Xylene	43.7	1.3	50	0	87	64	130	41.93	4.0(20)	
o-Xylene	45.7	1.3	50	0	91	70	130	43.84	4.2(20)	
Surr: 1,2-Dichloroethane-d4	41.7		50		83	70	130			
Surr: Toluene-d8	51.2		50		102	70	130			
Surr: 4-Bromofluorobenzene	48.4		50		97	70	130			

Alpha Analytical, Inc.

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

Date: *19-Jan-11*

QC Summary Report

Work Order: 11011307

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.

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

January 19, 2011

CLS Work Order #: CUA0506
COC #:

Reyna Vallejo
Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project Name: STR11011307

Enclosed are the results of analyses for samples received by the laboratory on 01/13/11 16:35. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

Alpha Analytical, Inc.-Sparks	Project: STR11011307	
255 Glendale Ave.; Suite 21	Project Number: STR11011307	**CLS Work Order #: CUA0506**
Sparks, NV 89431	Project Manager: Reyna Vallejo	COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
STR11011307-01A (DW-1) (CUA0506-01) Aqueous	**Sampled: 01/13/11 10:44**		**Received: 01/13/11 16:35**						
Hexavalent Chromium	ND	1.0	µg/L	1	CU00298	01/14/11	01/14/11	EPA 7199	
STR11011307-03A (DW-3) (CUA0506-02) Aqueous	**Sampled: 01/13/11 11:55**		**Received: 01/13/11 16:35**						
Hexavalent Chromium	ND	1.0	µg/L	1	CU00298	01/14/11	01/14/11	EPA 7199	
STR11011307-05A (DW-5) (CUA0506-03) Aqueous	**Sampled: 01/13/11 11:23**		**Received: 01/13/11 16:35**						
Hexavalent Chromium	ND	1.0	µg/L	1	CU00298	01/14/11	01/14/11	EPA 7199	
STR11011307-07A (DW-7) (CUA0506-04) Aqueous	**Sampled: 01/13/11 10:05**		**Received: 01/13/11 16:35**						
Hexavalent Chromium	ND	1.0	µg/L	1	CU00298	01/14/11	01/14/11	EPA 7199	

CALIFORNIA LABORATORY SERVICES

Alpha Analytical, Inc.-Sparks
255 Glendale Ave.; Suite 21
Sparks, NV 89431

Project: STR11011307
Project Number: STR11011307
Project Manager: Reyna Vallejo

CLS Work Order #: CUA0506
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CU00298 - General Prep										
Blank (CU00298-BLK1)				Prepared & Analyzed: 01/14/11						
Hexavalent Chromium	ND	1.0	µg/L							
LCS (CU00298-BS1)				Prepared & Analyzed: 01/14/11						
Hexavalent Chromium	4.62	1.0	µg/L	5.00		92	80-120			
LCS Dup (CU00298-BSD1)				Prepared & Analyzed: 01/14/11						
Hexavalent Chromium	4.96	1.0	µg/L	5.00		99	80-120	7	20	
Matrix Spike (CU00298-MS1)	**Source: CUA0506-01**			Prepared & Analyzed: 01/14/11						
Hexavalent Chromium	5.20	1.0	µg/L	5.00	ND	104	75-125			
Matrix Spike Dup (CU00298-MSD1)	**Source: CUA0506-01**			Prepared & Analyzed: 01/14/11						
Hexavalent Chromium	5.10	1.0	µg/L	5.00	ND	102	75-125	2	25	

CALIFORNIA LABORATORY SERVICES

 01/19/11 09:24

Alpha Analytical, Inc.-Sparks	Project: STR11011307	
255 Glendale Ave.; Suite 21	Project Number: STR11011307	**CLS Work Order #: CUA0506**
Sparks, NV 89431	Project Manager: Reyna Vallejo	COC #:

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

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

WorkOrder : STR11011307

Report Due By : 5:00 PM On : 20-Jan-2011

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

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

EDD Required : **Yes**

Sampled by : Levi

PO :

Client's COC # : 27237 Job : 2094-6310-01/ Bay Counties Petroleum

Cooler Temp	Samples Received	Date Printed
3 °C	13-Jan-2011	**14-Jan-2011**

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

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests METALS_AQ	METALS_CR6_SUB_W	METALS_DS	TPH/E_W	VOC_W				Sample Remarks
STR11011307-01A	DW-1	AQ	01/13/11 10:44	10	1	5	Cr, Fe, Cu, Se, Pb	Cr6+ by 7199	As, Cd, Ba	TPH/E_C	BTEX/MTBE /Naphthalene_C				
STR11011307-02A	DW-2	AQ	01/13/11 08:40	8	0	5				TPH/E_C	BTEX/MTBE /Naphthalene_C				
STR11011307-03A	DW-3	AQ	01/13/11 11:55	10	1	5	Cr, Fe, Cu, Se, Pb	Cr6+ by 7199	As, Cd, Ba	TPH/E_C	BTEX/MTBE /Naphthalene_C				
STR11011307-04A	DW-4	AQ	01/13/11 09:02	8	0	5				TPH/E_C	BTEX/MTBE /Naphthalene_C				
STR11011307-05A	DW-5	AQ	01/13/11 11:23	10	1	5	Cr, Fe, Cu, Se, Pb	Cr6+ by 7199	As, Cd, Ba	TPH/E_C	BTEX/MTBE /Naphthalene_C				
STR11011307-06A	DW-6	AQ	01/13/11 09:40	8	0	5				TPH/E_C	BTEX/MTBE /Naphthalene_C				
STR11011307-07A	DW-7	AQ	01/13/11 10:05	10	1	5	Cr, Fe, Cu, Se, Pb	Cr6+ by 7199	As, Cd, Ba	TPH/E_C	BTEX/MTBE /Naphthalene_C				

Comments: Samples prelogged in order for Sac office to sub Cr+6 to CLS. Security seals intact. Frozen ice. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Adcox	Elizabeth Adcox	**Alpha Analytical, Inc.**	1-14-11 1035

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:

Name Stratus Environmental
Address 3330 Cameron Park Dr. #550
City, State, Zip Cameron Park, CA.
Phone Number 676 6004 Fax 676 6005

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

Samples Collected From Which State? AZ ___ CA X NV ___ WA ___ ID ___ OR ___ OTHER ___

27237

Page # 1 of 1

Client Name	P.O. #	Job #
Bay Counties Petroleum		2094-6310-01
Address	EMail Address	
6310 Houston Place		
City, State, Zip	Phone #	Fax #
Dublin, CA		

Report Attention: Kjones@stratusinc.net

Analyses Required

Required QC Level? I II III IV

EDD / EDF? YES ___ NO ___

Global ID # T0600113164

Time Sampled	Date Sampled 2011	Matrix* See Key Below	Sampled by: levi Lab ID Number (Office Use Only)	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	Diesel - 8015M	BTEX	Naphthalene	MTBE	Dissolved Metals	Hex Chrome	Total Metals	REMARKS
1044	1/13	AQ	STR1101307-01	DW-1	5 DAY	N/A	8V, 3P	X	X	X	X	X	X	X	DW-1, DW-3
0840			-02	-2											DW-5 and DW-7
1155			-03	-3								X	X	X	are samples for
0902			-04	-4											Hex. Chrome and
1123			-05	-5								X	X	X	total Metals
0940			-06	-6											
1005			-07	-7								X	X	X	
														X	* Hex Chrome Sub to CLS

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by		Levi Ford	Stratus Env	1/13/2011	1540
Received by		Lisa deSilva	ALPHA	1-13-11	1540
Relinquished by		Lisa deSilva	ALPHA	1-13-11	1600
Received by	Elizabeth Adcox	Elizabeth Adcox	Alpha	1-14-11	1035
Relinquished by					
Received by					

*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.

APPENDIX D

SAMPLING AND ANALYSES PROCEDURES

SAMPLING AND ANALYSES PROCEDURES

The sampling and analyses procedures as well as the quality assurance plan are contained in this appendix. The procedures and adherence to the quality assurance plan will provide for consistent and reproducible sampling methods; proper application of analytical methods; accurate and precise analytical results; and finally, these procedures will provide guidelines so that the overall objectives of the monitoring program are achieved.

Ground Water and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

A water/hydrocarbon interface probe is used to assess the liquid-phase petroleum hydrocarbon (LPH) thickness, if present, and a water level indicator is used to measure the ground water depth in monitoring wells that do not contain LPH. Depth to ground water or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typical a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for hydrocarbon sheen.

Subjective Analysis of Ground Water

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

Monitoring Well Purging and Sampling

Monitoring wells are purged using a pump or bailer until pH, temperature, and conductivity of the purge water has stabilized and a minimum of three well volumes of water have been removed. If three well volumes can not be removed in one half hour's time, the well is allowed to recharge to 80% of original level. After recharging, a ground water sample is then removed from each of the wells using a disposable bailer.

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These bottles will be filled completely to prevent air from remaining in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped.

The water sample is collected, labeled, and handled according to the Quality Assurance Plan. Water generated during the monitoring event is disposed of accruing to regulatory accepted method pertaining to the site.

QUALITY ASSURANCE PLAN

Procedures to provide data quality should be established and documented so that conditions adverse to quality, such as deficiencies, deviations, nonconforments, defective material, services, and/or equipment, can be promptly identified and corrected.

General Sample Collection and Handling Procedures

Proper collection and handling are essential to ensure the quality of a sample. Each sample is collected in a suitable container, preserved correctly for the intended analysis, and stored prior to analysis for no longer than the maximum allowable holding time. Details on the procedures for collection and handling of samples used on this project can be found in this section.

Soil and Water Sample Labeling and Preservation

Label information includes a unique sample identification number, job identification number, date, and time. After labeling all soil and water samples are placed in a Ziploc® type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Stratus' office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain-of-custody form. Trip blanks supplied by the laboratory accompany the groundwater sample containers and groundwater samples.

Upon recovery, the sample container is sealed to minimize the potential of volatilization and cross-contamination prior to chemical analysis. Soil sampling tubes are typically closed at each end with Teflon® sheeting and plastic caps. The sample is then placed in a Ziploc® type bag and sealed. The sample is labeled and refrigerated at approximately 4° Celsius for delivery, under strict chain-of-custody, to the analytical laboratory.

Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, is recorded on the borehole log or in the field records. The samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and

noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

Equipment Cleaning

Sample bottles, caps, and septa used in sampling for volatile and semivolatile organics will be triple rinsed with high-purity deionized water. After being rinsed, sample bottles will be dried overnight at a temperature of 200°C. Sample caps and septa will be dried overnight at a temperature of 60°C. Sample bottles, caps, and septa will be protected from solvent contact between drying and actual use at the sampling site. Sampling containers will be used only once and discarded after analysis is complete.

Plastic bottles and caps used in sampling for metals will be soaked overnight in a 1-percent nitric acid solution. Next, the bottles and caps will be triple rinsed with deionized water. Finally, the bottles and caps will be air dried before being used at the site. Plastic bottles and caps will be constructed of linear polyethylene or polypropylene. Sampling containers will be used only once and discarded after analysis is complete. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Before the sampling event is started, equipment that will be placed in the well or will come in contact with groundwater will be disassembled and cleaned thoroughly with detergent water, and then steam cleaned with deionized water. Any parts that may absorb contaminants, such as plastic pump valves, etc. will be cleaned as described above or replaced.

During field sampling, equipment surfaces that are placed in the well or contact groundwater will be steam cleaned with deionized water before the next well is purged or sampled. Equipment blanks will be collected and analyzed from non-disposable sampling equipment that is used for collecting groundwater samples at the rate of one blank per twenty samples collected.

Internal Quality Assurance Checks

Internal quality assurance procedures are designed to provide reliability of monitoring and measurement of data. Both field and laboratory quality assurance checks are necessary to evaluate the reliability of sampling and analysis results. Internal quality assurance procedures generally include:

- Laboratory Quality Assurance

- Documentation of instrument performance checks
- Documentation of instrument calibration
- Documentation of the traceability of instrument standards, samples, and data
- Documentation of analytical and QC methodology (QC methodology includes use of spiked samples, duplicate samples, split samples, use of reference blanks, and check standards to check method accuracy and precision)

- Field Quality Assurance

- Documentation of sample preservation and transportation
- Documentation of field instrument calibration and irregularities in performance

Internal laboratory quality assurance checks will be the responsibility of the contract laboratories. Data and reports submitted by field personnel and the contract laboratory will be reviewed and maintained in the project files.

Types of Quality Control Checks

Samples are analyzed using analytical methods outlined in EPA Manual SW 846 and approved by the California Regional Water Quality Control Board-Central Valley Region in the Leaking Underground Fuel Tanks (LUFT) manual and appendices. Standard contract laboratory quality control may include analysis or use of the following:

- Method blanks – reagent water used to prepare calibration standards, spike solutions, etc. is analyzed in the same manner as the sample to demonstrate that analytical interferences are under control.
- Matrix spiked samples – a known amount of spike solution containing selected constituents is added to the sample at concentrations at which the accuracy of the analytical method is to satisfactorily monitor and evaluate laboratory data quality.
- Split samples – a sample is split into two separate aliquots before analysis to assess the reproducibility of the analysis.
- Surrogate samples – samples are spiked with surrogate constituents at known concentrations to monitor both the performance of the analytical system and the effectiveness of the method in dealing with the sample matrix.
- Control charts – graphical presentation of spike or split sample results used to track the accuracy or precision of the analysis.
- Quality control check samples – when spiked sample analysis indicates atypical instrument performance, a quality check sample, which is prepared independently of the calibration standards and contains the constituents of interest, is analyzed to confirm that measurements were performed accurately.

- Calibration standards and devices – traceable standards or devices to set instrument response so that sample analysis results represent the absolute concentration of the constituent.

Field QA samples will be collected to assess sample handling procedures and conditions. Standard field quality control may include the use of the following, and will be collected and analyzed as outlined in EPA Manual SW 846.

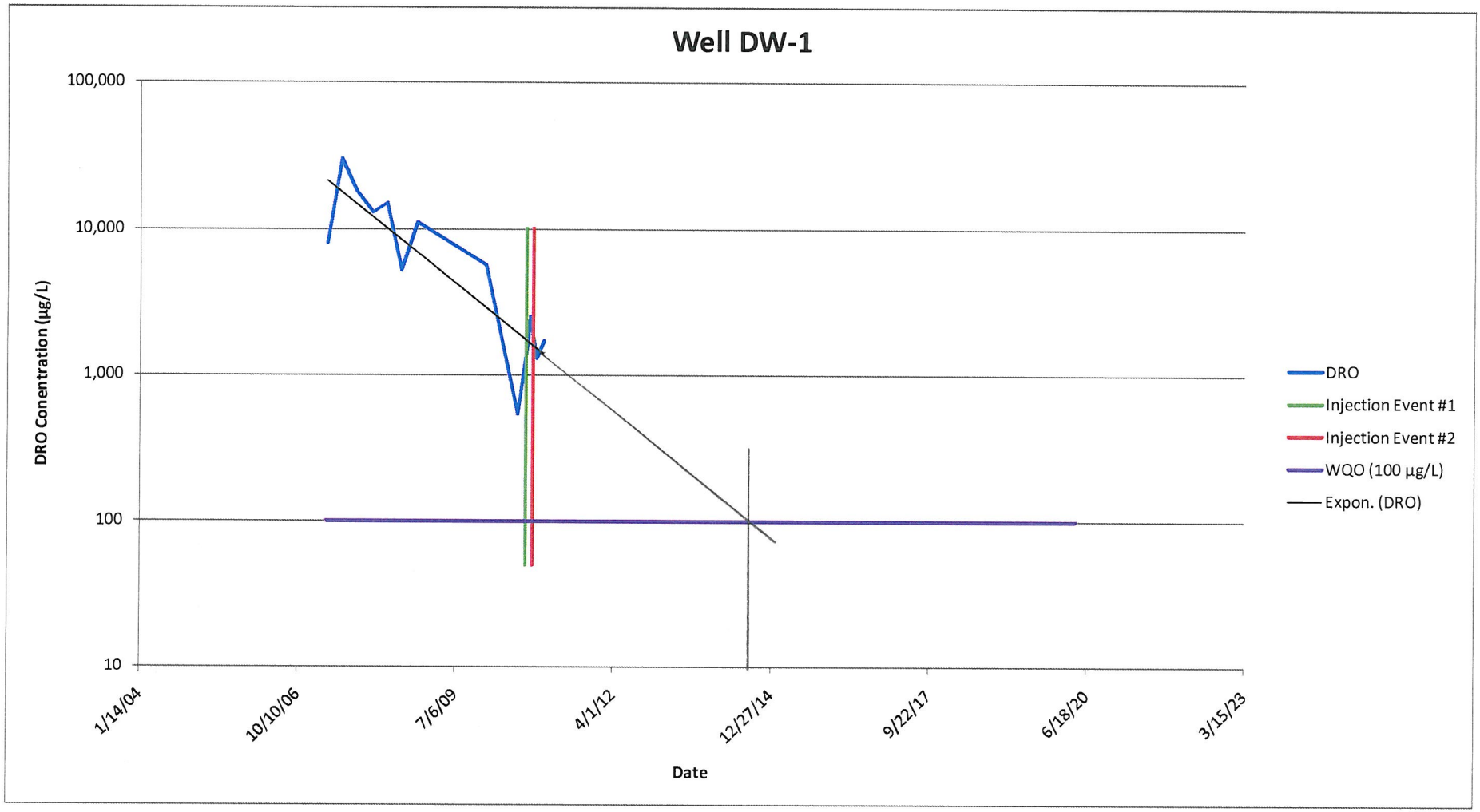
- Field blanks – reagent water samples are prepared at the sampling location by the same procedure used to collect field groundwater samples and analyzed with the groundwater samples to assess the impact of sampling techniques on data quality. Typically, one field blank per twenty groundwater samples collected will be analyzed per sampling event.
- Field replicates – duplicate or triplicate samples are collected and analyzed to assess the reproducibility of the analytical data. One replicate groundwater sample per twenty samples collected will be analyzed per sampling event, unless otherwise specified. Triplicate samples will be collected only when specific conditions warrant and generally are sent to an alternate laboratory to confirm the accuracy of the routinely used laboratory.
- Trip blanks – reagent water samples are prepared before field work, transported and stored with the samples and analyzed to assess the impact of sample transport and storage for data quality. In the event that any analyte is detected in the field blank, a trip blank will be included in the subsequent groundwater sampling event.

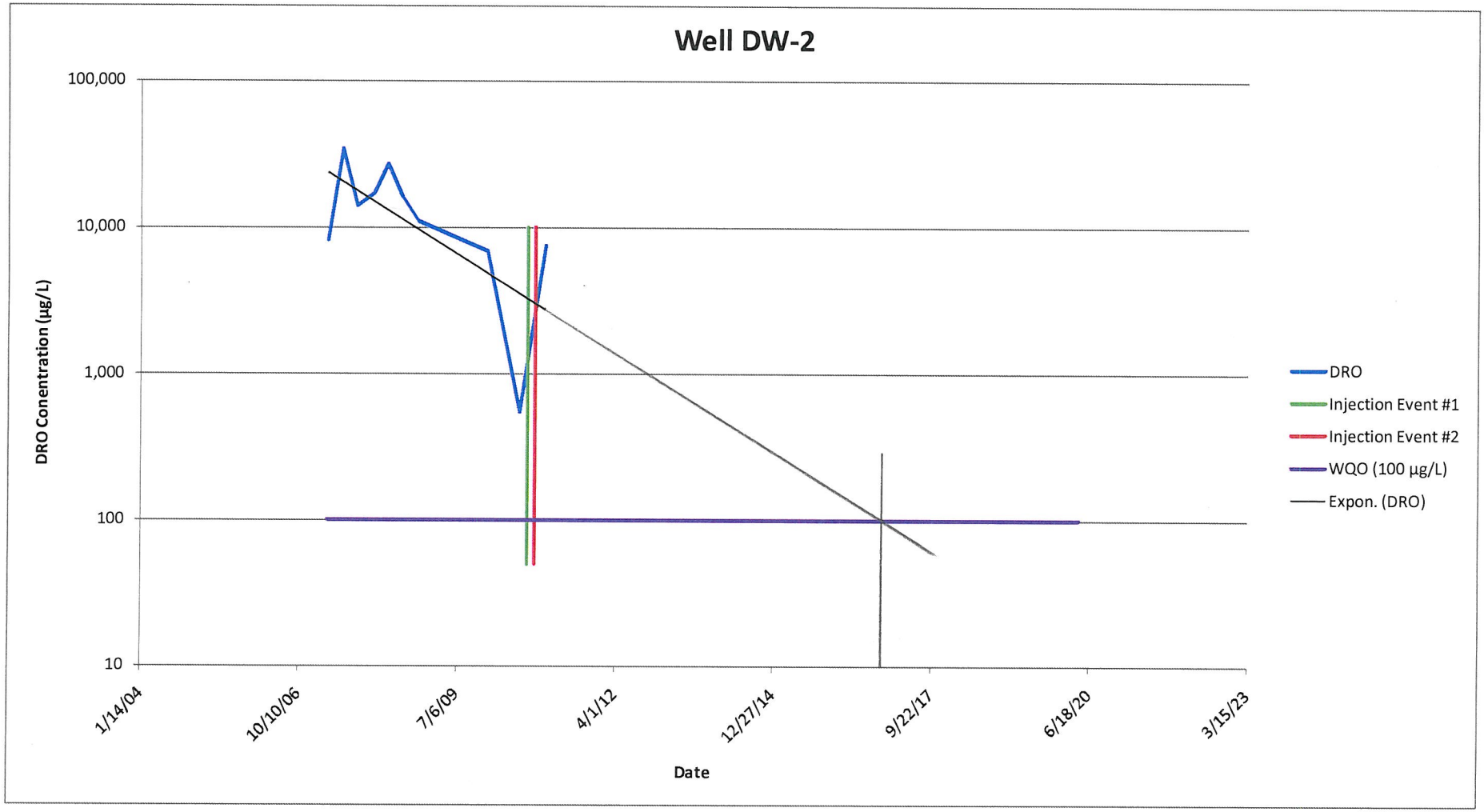
Data reliability will be evaluated by the certified laboratory and reported on a cover sheet attached to the laboratory data report. Analytical data resulting from the testing of field or trip blanks will be included in the laboratory's report. Results from matrix spike, surrogate, and method blank testing will be reported, along with a statement of whether the samples were analyzed within the appropriate holding time.

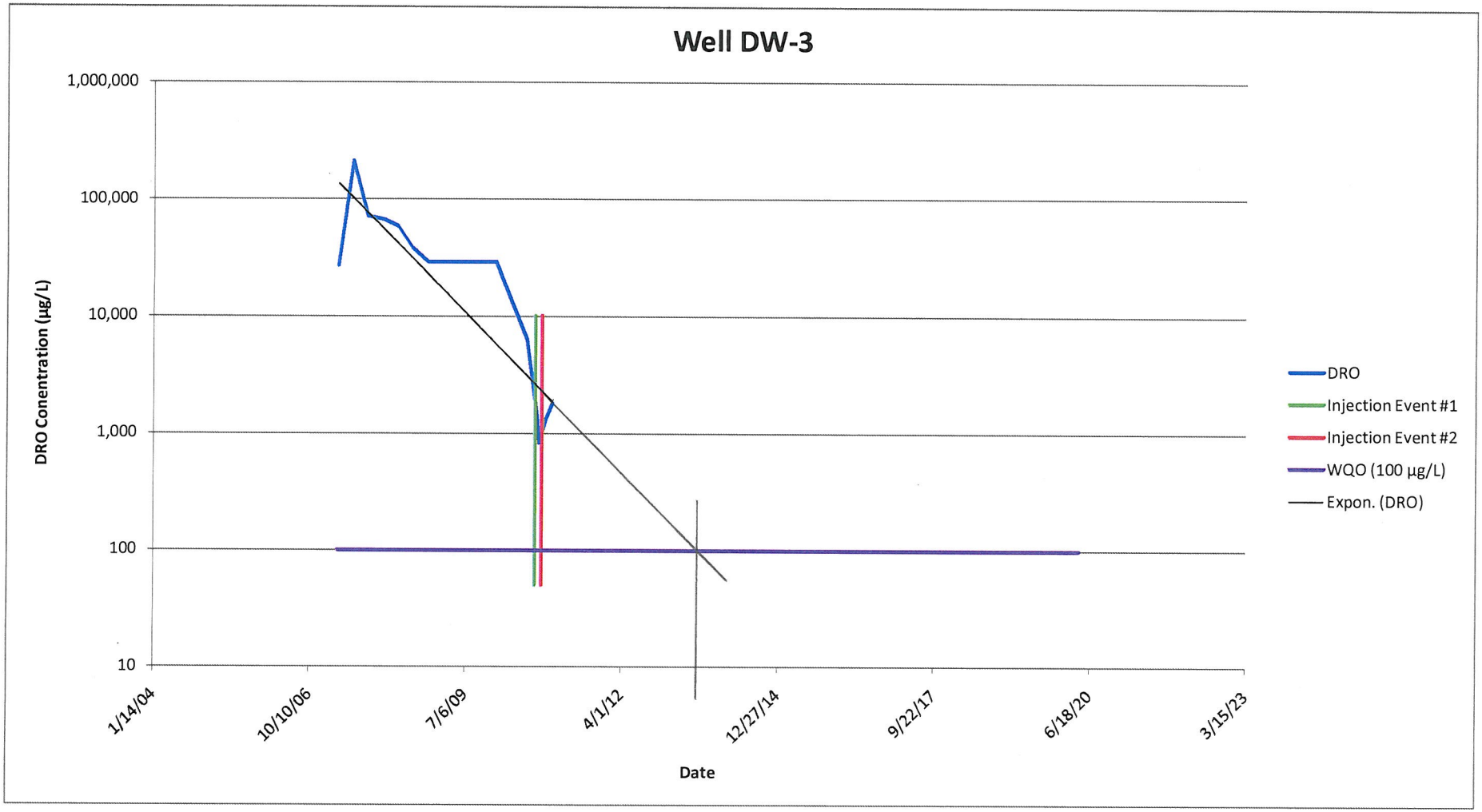
Stratus will evaluate the laboratory's report on data reliability and note significant QC results that may make the data biased or unacceptable. Data viability will be performed as outlined in EPA Manual SW 846. If biased or unacceptable data is noted, corrective actions (including re-sample/re-analyze, etc.) will be evaluated on a site-specific basis.

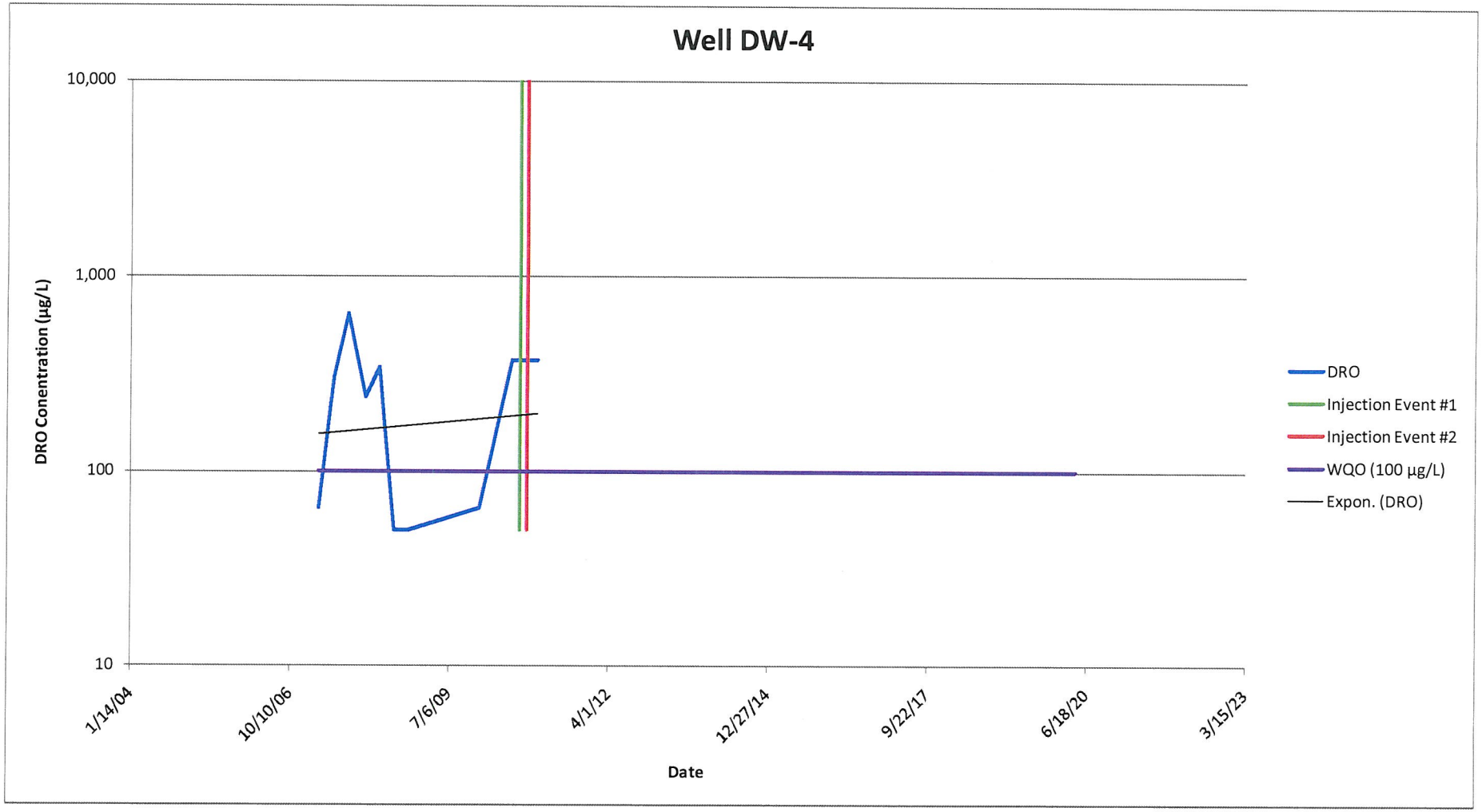
APPENDIX E

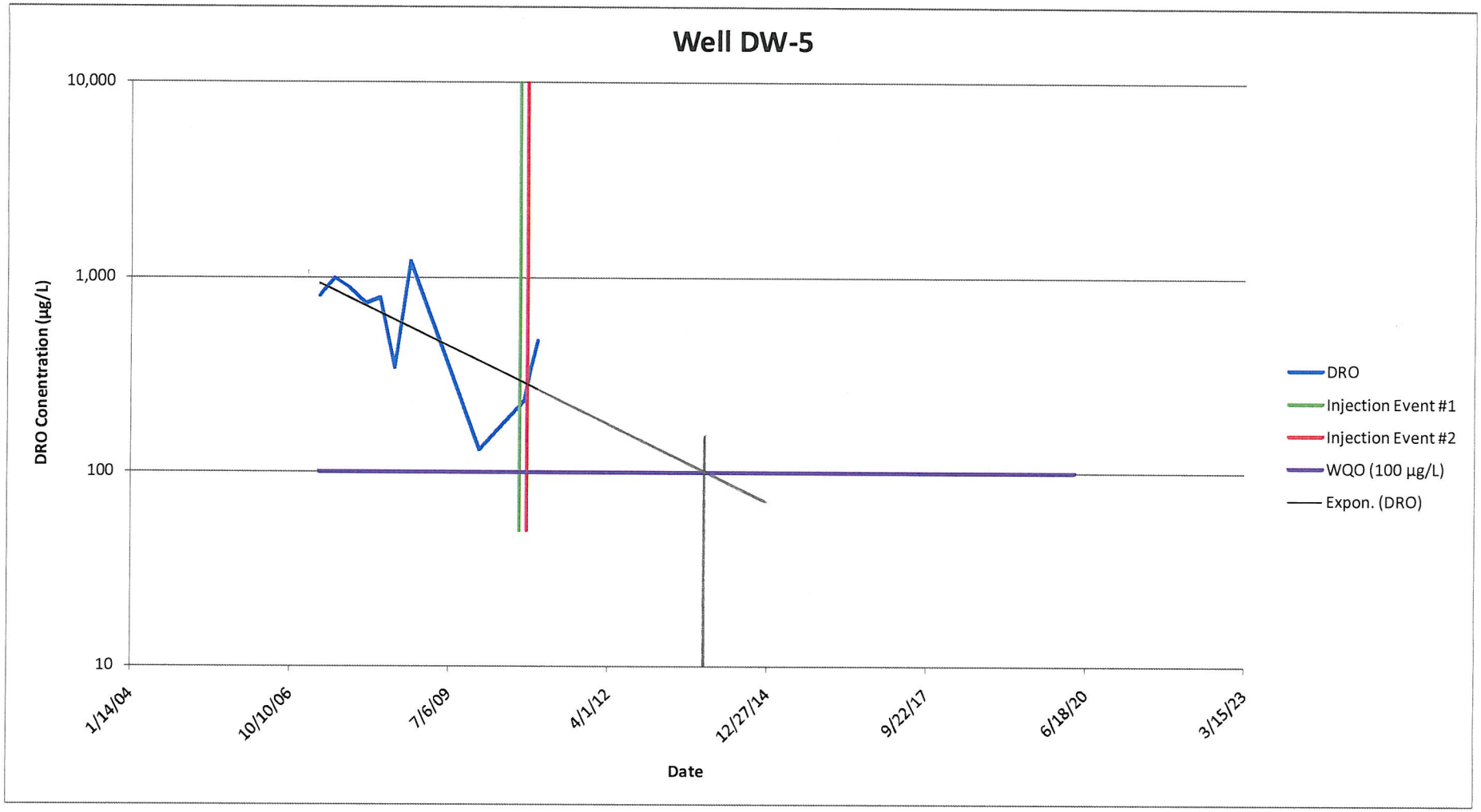
GRAPHS OF DRO CONCENTRATIONS IN WELLS DW-1 THROUGH DW-5


Well DW-1
100,000
10,000
1,000
100
10
DRO Conentration (µg/L)
1/14/04
10/10/06
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
3/15/23
Date
DRO
Injection Event #1
Injection Event #2
WQO (100 µg/L)
Expon. (DRO)


Well DW-2
100,000
10,000
1,000
100
10
DRO Conentration (µg/L)
1/14/04
10/10/06
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
3/15/23
Date
DRO
Injection Event #1
Injection Event #2
WQO (100 µg/L)
Expon. (DRO)


Well DW-3
1,000,000
100,000
10,000
1,000
100
10
DRO Conentration (µg/L)
1/14/04
10/10/06
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
3/15/23
Date
DRO
Injection Event #1
Injection Event #2
WQO (100 µg/L)
Expon. (DRO)


Well DW-4
10,000
1,000
100
10
DRO Conentration (µg/L)
1/14/04
10/10/06
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
3/15/23
Date
DRO
Injection Event #1
Injection Event #2
WQO (100 µg/L)
Expon. (DRO)


Well DW-5
10,000
1,000
100
10
DRO Conentration (µg/L)
1/14/04
10/10/06
7/6/09
4/1/12
12/27/14
9/22/17
6/18/20
3/15/23
Date
DRO
Injection Event #1
Injection Event #2
WQO (100 µg/L)
Expon. (DRO)