March 4, 2011

Jerry Wickham, CEG
Senior Hazardous Materials Specialist
Alameda County Environmental Health
1131Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Sunol Tree Gas**
3004 Andrade Road, Sunol
Fuel Leak Case No. RO0002448

Dear Mr. Wickham:

Enclosed is the *Treatment System Test Results Report – for the T-Bear Water Supply Well,* dated February 22, 2011. In compliance with state and local regulations, electronic submittals of this report have been uploaded to the Geotracker database and the Alameda County ftp website.

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

Please call Pat Hoban at (831) 662-3100 if you have questions or comments in regards to the technical content of this report.

Very truly yours,

Khan Petroleum, Inc.

Obaid Abdullah
President

cc: Pat Hoban, Weber-Hayes Associates
Jennifer Rice, Esq
Tim Cook, Cook Environmental Services, Inc.
Jeffery Lawson, Esq..
Cheri McCaulou, RWQCB Region 2

Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Dr., Watsonville, CA 95076
(831) 722-3580 Fax (831) 722-1159
www.weber-hayes.com

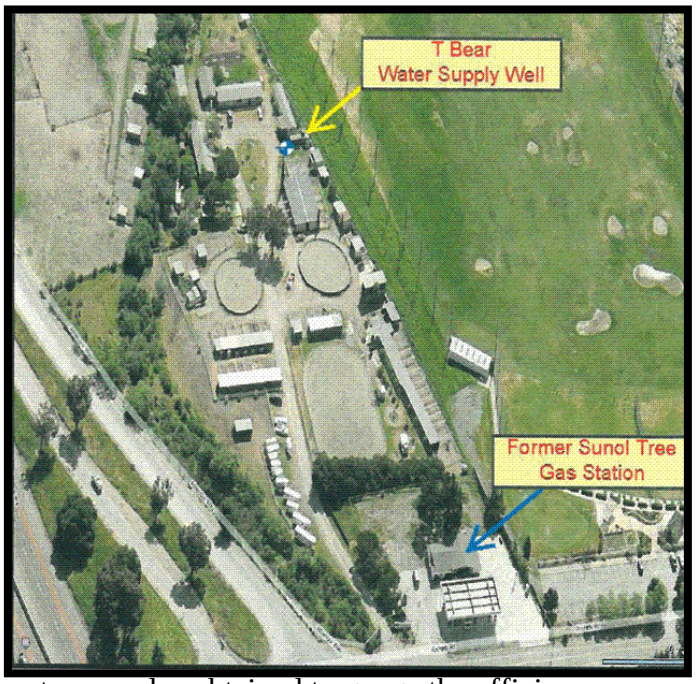
February 22, 2011

Jerry Wickham, P.G. jerry.wickham@acgov.org
Almaden County Health Care Services
Environmental Health Services, Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Treatment System Test Results**
T Bear Ranch Water Supply Well (see aerial location photo, below)

LUFT Location: **Former Sunol Tree Station, 3004 Andrade Road, Sunol**
(Case #RO000-2448)

1.0 EXECUTIVE SUMMARY



This letter report and attached support documentation provide an update of ongoing carbon system testing completed at the T Bear Ranch well ("Site"). The ongoing-check of carbon-treated groundwater has been completed to address monitoring requirements for a fuel leak that originated at the Former Sunol Tree Station in 2002 (a summary of the site background, and investigation chronology are presented in Appendix A). Specifically, tasks documented in this letter report are completed to satisfy ongoing monitoring requirements issued by Alameda County Health Care Services (December 15, 2006).

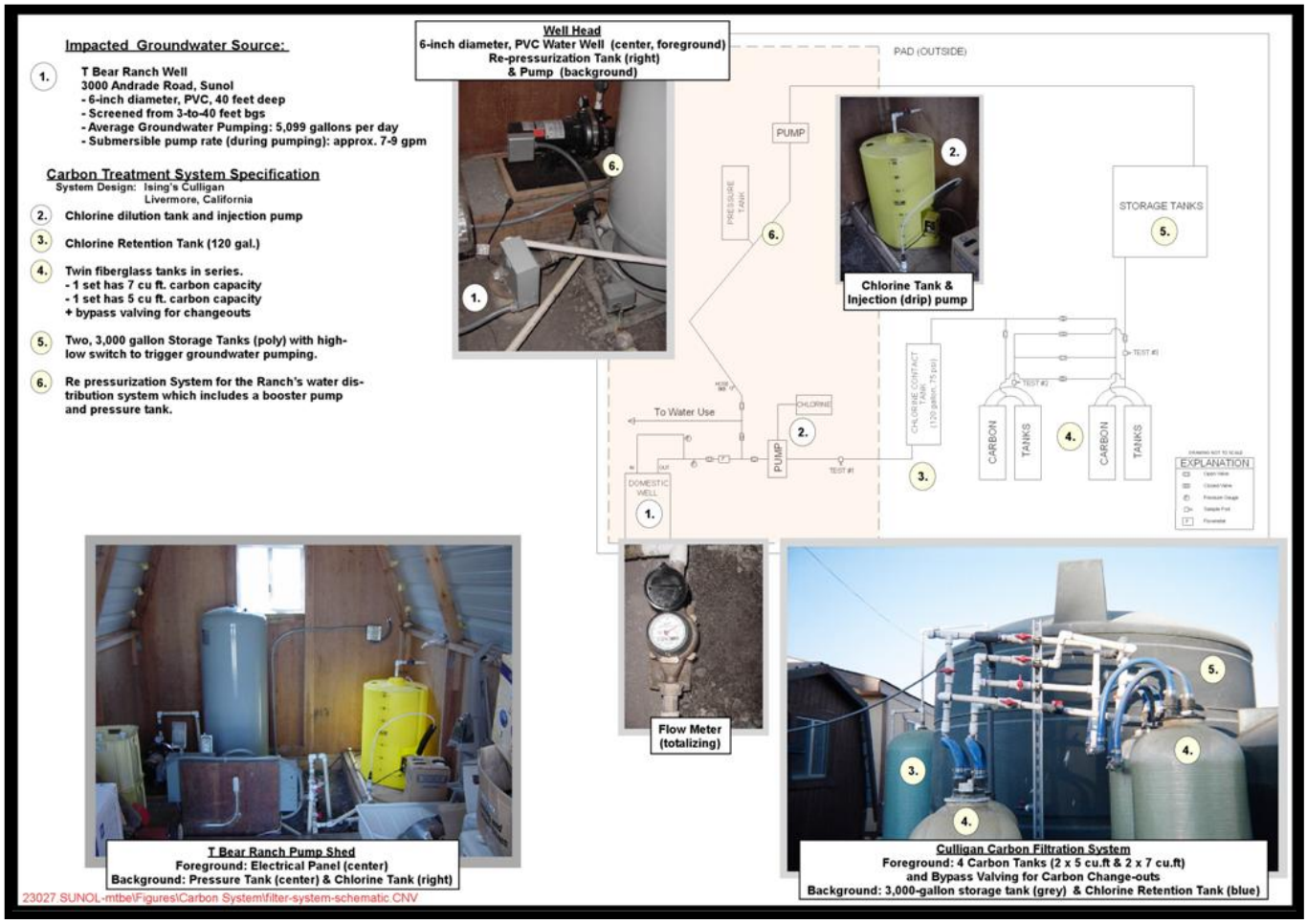
This report includes a brief overview of Site conditions, the carbon filtration design specifications, a compilation of laboratory-analyzed water samples obtained to gauge the efficiency of the filtrations system, a record of groundwater extraction from the T Bear well, and a chronological list of the carbon change outs and milestone events. Attachments include:

- Tabulation of carbon treatment system sampling results (Table 1) and a chart showing MTBE concentrations over time.
- Well head treatment system schematic (depicted on page 2).
- Location and Site Maps (Figures 1 & 2).
- A narrative of the site background and investigation chronology (Appendix A).
- Copies of field notes, sampling and decontamination protocols, and photos (Appendix B)
- A copy of the State-certified laboratory's *Certificate of Analysis* (Appendix C).

2.0 BACKGROUND:

MTBE, a constituent compound of gasoline, has been detected since February 2003 in the T Bear Ranch water supply well located approximately 550 feet downgradient from the Former Sunol Tree Gas Station (see aerial vicinity map on page 1). The source of the release was subsequently linked to contamination discovered during the April 2002 closure of underground storage tanks (UST) at the former gas station. None of six other, nearby water supply wells had detections of MTBE contamination, including the water supply well at the Fuel Leak Site.

The former owner of the Sunol Tree Gas Station (Murray Kelsoe) subsequently declared bankruptcy in 2004 and Alameda County Environmental Health (ACEH) obtained funding from the State Underground Storage Tank Cleanup Fund's Emergency, Abandoned, Recalcitrant (EAR) Account to conduct: 1) treatment and monitoring of the impacted T Bear Ranch water supply well, and 2) characterization of the vertical and horizontal extent of the residual MTBE plume impacting shallow groundwater. New owners took over fueling operations in June 2007 (Sunol Super Shop Gas Station) and are currently responsible for maintaining the carbon filtration system at the T Bear Ranch. The following graphic presents the layout of the existing filtration system.



2.1 Installation of Carbon Filtration System:

The carbon filter system was installed in November 2003 and is currently being periodically tested to check the quality of groundwater being pumped into the system and filtered water at the systems midpoint as well as post filtration. The filtration system continues to treat trace levels of MTBE, at concentrations of less than 2 parts per billion since December 2008, in the waster supply groundwater. Groundwater has been pumped at an average rate of approximately 2 gallons per minute over the last 8 years.

2.2 Previous Subsurface Characterization

A number of investigations were completed to assess subsurface conditions and define the extent of the fuel leak. Completed work included:

1. Supply Well Assessment: Video logging of the T Bear well indicated the well had a 6-inch diameter, PVC insert, having slots from approximately 3 feet below the top of the casing (BTOC) to the base of the well that was encountered at a depth of 40-feet BTOC. Static groundwater has been measured to be approximately 7 feet BTOC. Groundwater pumping at the well has historically been activated with demand (pressure tank), but recently has been hooked up to high-low volume float-triggers positioned in one of two 3,000-gallon, water storage tanks. Transducer monitoring of groundwater in the T Bear well has shown: a) that most of the pumping occurs primarily during daytime hours, and b) groundwater drawdown is approximately 1.5 feet during pumping and has a near immediate aquifer recovery following pumping. Flow measurements taken with a totalizing flow meter showed pumping rates are generally 7-8 gallons per minute (high as 14 gallons per minute) and an average water use rate of 5,100 gallons per day.

2. Confirmation of Groundwater Flow Direction: Piezometers were initially installed to determine groundwater flow gradient in two shallow aquifer zones.

3. Water Supply Well Assessments: Well integrity and aquifer connectivity assessment was completed on the impacted T-Bear Ranch well and the gas station water supply well (geophysical inspection, discrete interval sampling and transducer-flow meter monitoring).

4. Identification of Subsurface Stratigraphy: Deep exploratory borings were continuously cored and a deep monitoring point was installed to identify the potential presence of continuous clay barrier & underlying production aquifers.

5. High-Definition Groundwater Monitoring: A transect installation of twelve 9 Multi-Level 'Wells was installed to precisely monitor the residual MTBE plume as it migrates past the property boundary.

3.0 FILTER SYSTEM SAMPLING RESULTS

Groundwater samples were obtained in clean, preserved volatile organic analysis vials and taken to a certified laboratory for testing of chemicals of concern, to monitor MTBE-removal efficiency and carbon loading. Samples were obtained from:

1. The pre-filtration sampling port ("Pre" sample),

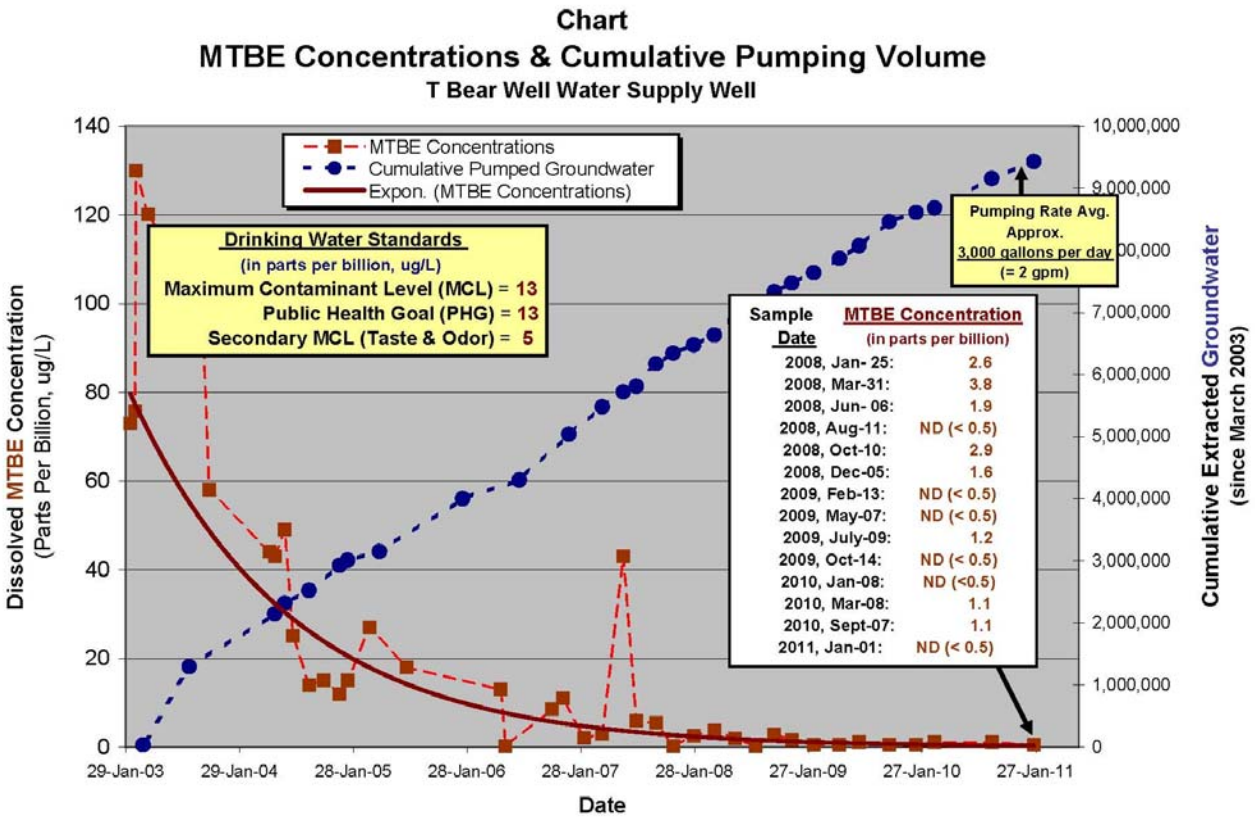
2. The sampling port between the two sets of carbon canisters ("Mid" sample); and

3. The sampling port located at the back end of the 4-canister treatment system ("Post" sample).

Each sampling event included testing of the “pre” and “mid” samples collected for fuel compounds (TPH-gas, BTEX, MTBE and fuel oxygenates by EPA Method #8260). The “post” sample is only analyzed when the “mid” sample has a confirmed detection of target contaminants. If the “mid” sample location does not contain detectable contaminant compounds, then the integrity of the filtration system is considered good as no breakthrough has occurred and the carbon is successfully filtering the trace MTBE compound, and no contaminants would be present at the “post” sampling port either (i.e. the second set of contingency carbon vessels would not be being loaded with MTBE).

System monitoring results continue to show that the existing setup of four, carbon-filled, fiberglass tanks placed in a parallel series configuration is effectively removing the trace MTBE concentrations.

- MTBE concentrations at the wellhead have dropped from a high of 130 parts per billion (ppb, March 2003) to a low of non-detect (< 1 ppb, first occurred in November 2007). The water quality goal for MTBE is 5 ppb (see Chart 1, and Table 1). **The most recent results collected in January 2011 had no detections of MTBE or other fuel compounds (TPH-gas, BTEX, fuel oxygenates).**



4.0 RESULTS AND SUPPORT

Existing data continues to show that a fairly well defined plume of dissolved MTBE concentrations is migrating from the Fuel Leak Site and remains at fairly stable concentrations. The migration of the dissolved plume appears to be controlled by the T Bear Ranch well. The concentrations in this water supply well have a consistent track record of decreasing over time (see attached Chart). The existing body of data indicates that contaminant concentrations in groundwater are decreasing. Over the last three years (since Jan-2008), six of fourteen water supply samples collected from the T-Bear well have contained no detections of MTBE, and the remaining eight detections have all been below a high of 2.9 ppb (Oct-2008). Laboratory analyses show that MTBE concentration levels in groundwater pumped from the T-Bear water supply well have not exceeded regulatory threshold level of 5 ppb since June 2007. Continued monitoring of the dissolved contaminant plume should show consistent non-detectable concentrations in the T-Bear well within a reasonable timeframe.

The following items are attached to this letter report:

- A chart (MTBE Concentrations & Cumulative Pumping Volume) presenting the volume of groundwater pumped from the T Bear water supply well since 2003 and the decreasing MTBE concentrations over time. The downward trend of MTBE concentrations detected in the T Bear well has been well below the 13 ppb regulatory limits for groundwater. Results from the current monitoring event were non-detect (Jan 2011). This consistent exponential downward trend continues to suggest the residual gasoline plume that originated at the Former Sunol Tree Station is diminishing in magnitude.

- A summary table (Carbon Treatment System Sample Results) presenting the tabulated chronology of laboratory results obtained from the T Bear Well and the carbon treatment system samples (Pre, Mid, & Post samples) obtained since August 2003. Current results show no detections of MTBE in water extracted from the T Bear pumping well (MTBE = ND < 1). The table also provides a timeline record of carbon change-out

- Field sheets documenting the system sampling and O&M. A check of the system piping and parts showed the system to be running effectively.

- The State-certified testing laboratory's Certificate of Analysis report for the tested Pre (influent) and Mid (between carbon canisters) water samples collected in January 2011. The Mid sample had no detections of MTBE or other fuel compounds (TPH-gas, BTEX, fuel oxygenates).

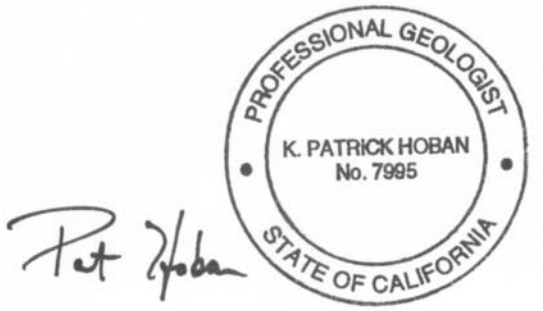
5.0 LIMITATIONS

Our service consists of professional opinions and recommendations made in accordance with generally accepted geologic and engineering principles and practices. This warranty is in lieu of all others, either expressed or implied. The analysis and conclusions in this report are based on sampling and testing which are necessarily limited. Additional data from future work may lead to modifications of the options expressed herein.

All work has be conducted by and/or under the direct supervision of a geologist registered in the State of California. If you have any questions or comments regarding this workplan, please contact us at our office.

Respectfully submitted,

WEBER, HAYES AND ASSOCIATES
A California Corporation



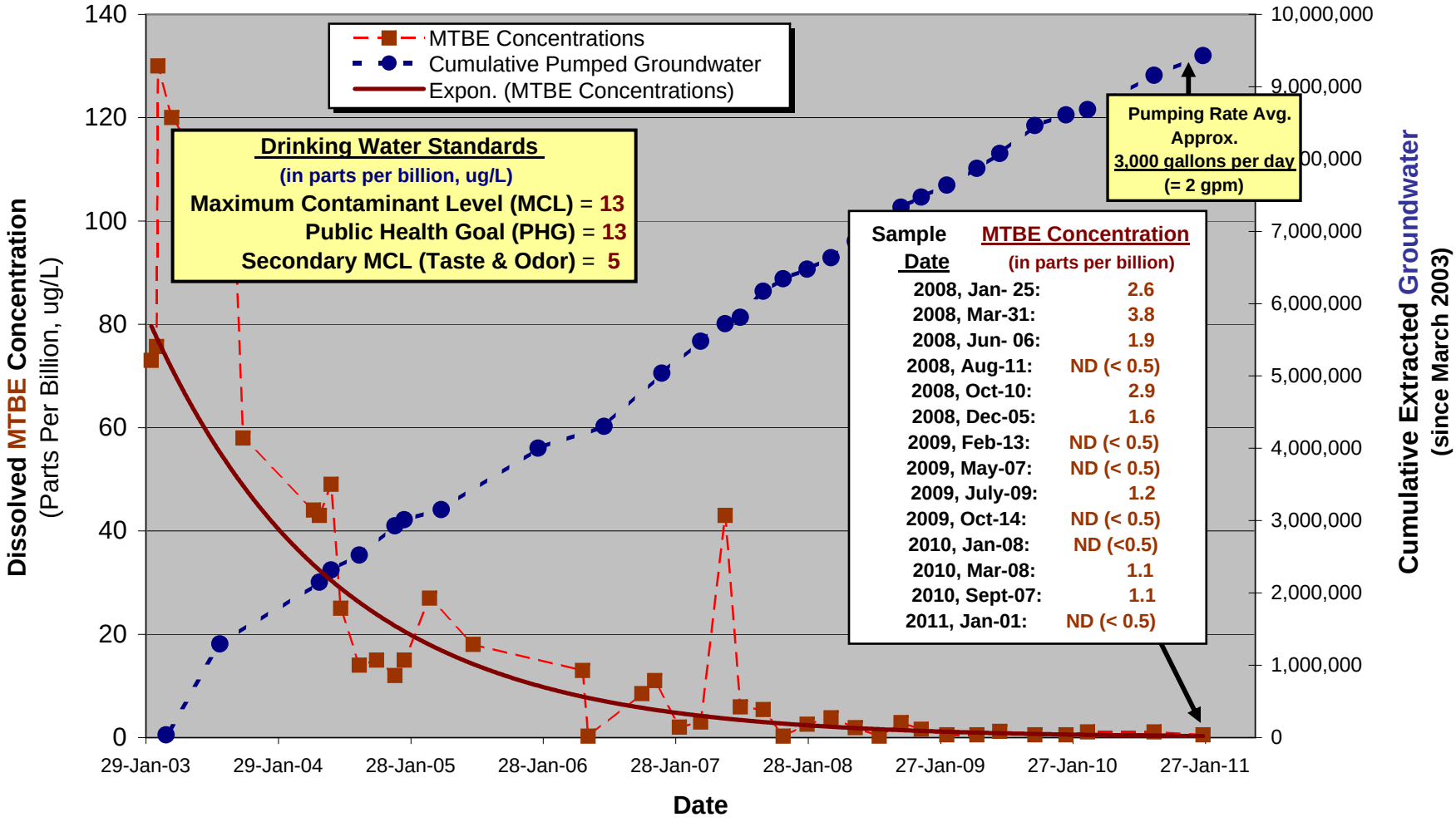
Patrick Hoban
Senior Geologist, PG #7995

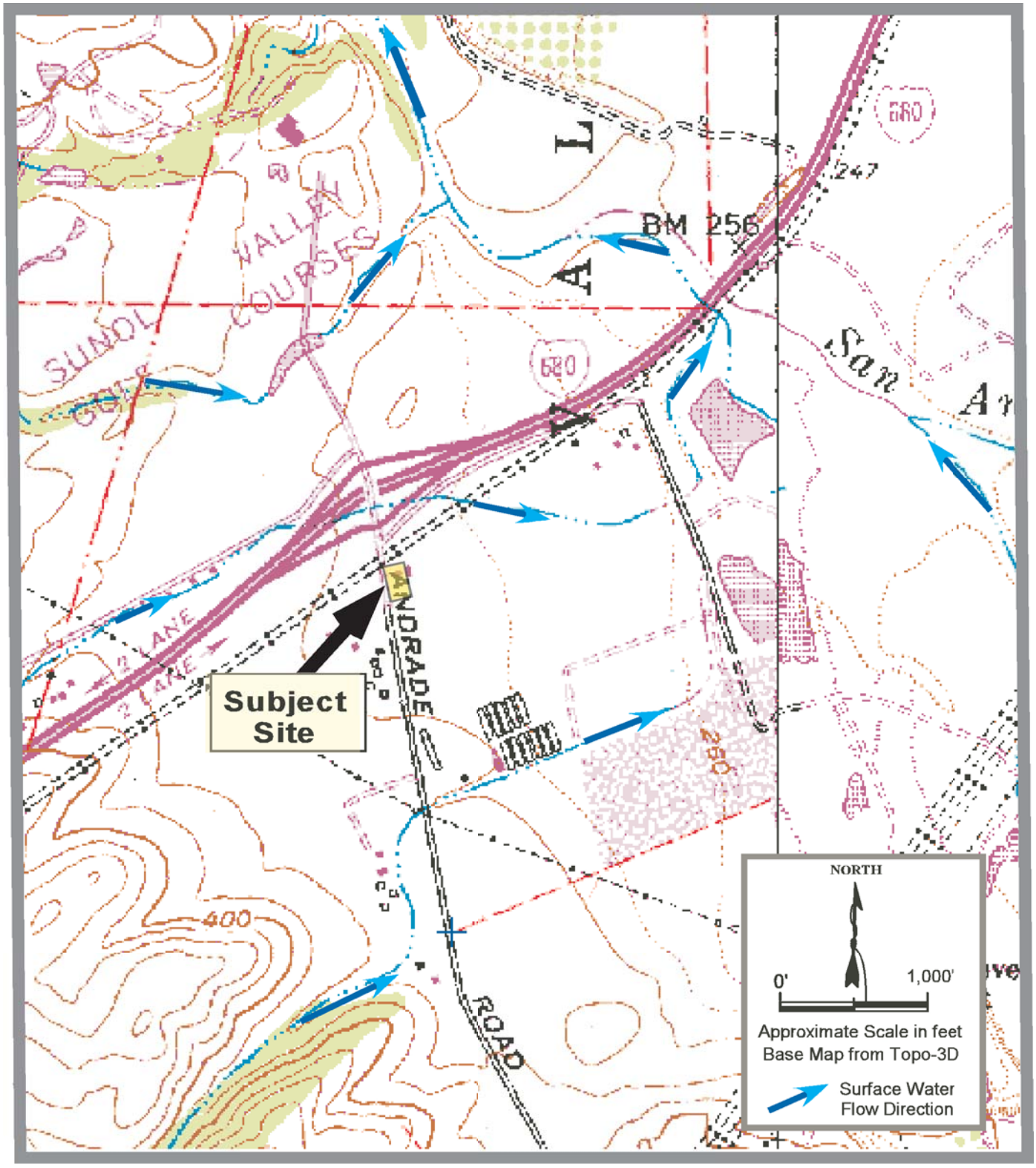
Cc: Mr. Obaid Abdullah and Mr. Eddie Fedhai
Khan Petroleum Inc.
3004 Andrade Road
Sunol, California 94586-9453

Attachments:

Chart: Chart showing MTBE removal estimates
Figure 1: Location Map
Figure 2: Site Map
Table 1: Tabulation of carbon treatment system sampling results
Appendix A: Chronology & Site Description
Appendix B: Field Logs, Photos System Design Info, and Protocol
Appendix C: State certified Analytical Laboratory, Certificate of Analysis and Chain of Custody documentation

Chart
MTBE Concentrations & Cumulative Pumping Volume
T Bear Well Water Supply Well





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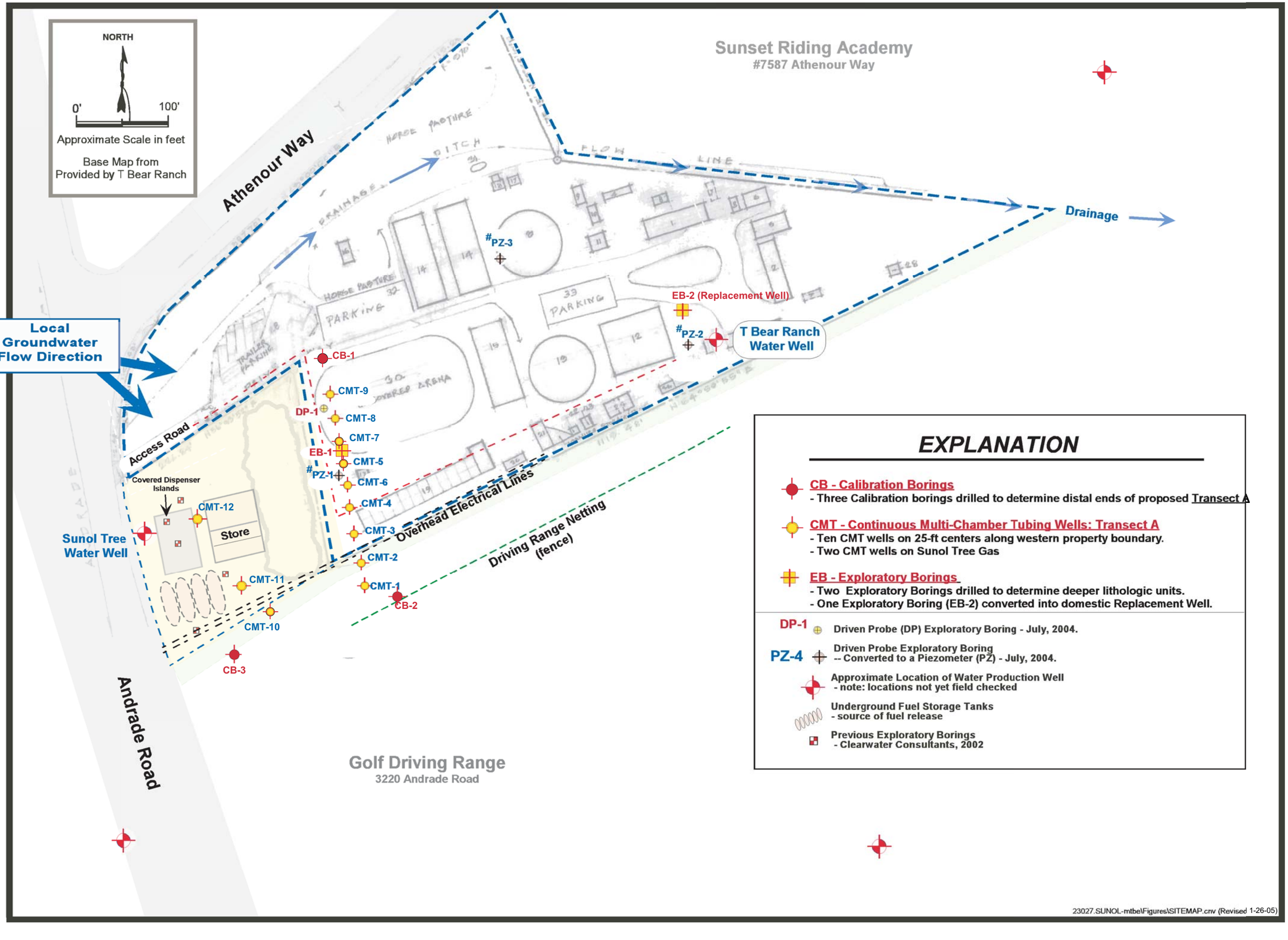
Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

Topographic Location Map

SUNOL TREE GAS STATION
3004 Andrade Road
Sunol, Alameda County

FIGURE 1
Job # 27004



23027.SUNOL-mtbe\Figures\SITEMAP.cnv (Revised 1-26-05)

FIGURE 2
Job # 23027

Site Map and Monitoring Well Locations
SUNOL TREE GAS STATION
3004 Andrade Road
Sunol, Alameda County

Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

Table

Carbon Treatment System Sample Results

T Bear Ranch Domestic Well

3000 Andrade Road, Sunol

Date	*Extracted Groundwater (gallons)*	*Sample Location (ID#)*	*Total Petroleum Hydrocarbons as GASOLINE*	*Volatile Organic Compounds*											*FLOW METER READINGS (gal) COMMENTS*
				Benzene	*Toluene*	*Ethyl-benzene*	*Xylenes*	FUEL OXYGENATES							
								MTBE (2)	*TBA*	*ETBE*	*DIPE*	*TAME*	*Ethanol*		
20-Jan-11	**9,429,627**	Pre	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		T-Bear meter = 8,852,292 Backup Well Meter = 577,335
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		
		Post	---	---	---	---	---	---	---	---	---	---	---		
27-Sep-10	**9,221,605**	**Carbon Change-out of Front Set of Carbon Cannisters**													**T-Bear meter = 8,644,270. Backup Well Meter = 577,335.**
7-Sep-10	**9,158,590**	Pre	ND	ND	ND	ND	ND	**1.1**	ND	ND	ND	ND	---		T-Bear meter = 8,581,251 Backup Well Meter = 577,335
		Mid	ND	ND	ND	ND	ND	**2.2**	ND	ND	ND	ND	---		
		Post	ND	ND	ND	ND	ND	**2.3**	ND	ND	ND	ND	---		
8-Mar-10	**8,682,419**	Pre	ND	ND	ND	ND	ND	**1.1**	ND	ND	ND	ND	---		T-Bear meter = 8,105,080 Backup Well Meter = 577,339
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		
		Post	---	---	---	---	---	---	---	---	---	---	---		
8-Jan-10	**8,610,839**	Pre	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		T-Bear meter = 8,033,500 Backup Well Meter = 577,339
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		
		Post	---	---	---	---	---	---	---	---	---	---	---		
14-Oct-09	**8,462,838**	Pre	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		T-Bear meter = 7,885,499 Backup Well Meter = 577,339..
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		
		Post	---	---	---	---	---	---	---	---	---	---	---		
9-Jul-09	**8,078,011**	Pre	ND	ND	ND	ND	ND	**1.2**	ND	ND	ND	ND	---		T-Bear meter = 7,500,690 Backup Well Meter = 577,321.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		
		Post	---	---	---	---	---	---	---	---	---	---	---		
7-May-09	**7,869,070**	Pre	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		T-Bear meter = 7,291,750. Backup Well Meter = 577,320.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		
		Post	---	---	---	---	---	---	---	---	---	---	---		
13-Feb-09	**7,639,510**	Pre	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		T-Bear meter = 7,062,190. Backup Well Meter = 577,320.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---		
		Post	---	---	---	---	---	---	---	---	---	---	---		

Table

Carbon Treatment System Sample Results

T Bear Ranch Domestic Well

3000 Andrade Road, Sunol

Date	*Extracted Groundwater (gallons)*	*Sample Location (ID#)*	*Total Petroleum Hydrocarbons as GASOLINE*	*Volatile Organic Compounds*										*FLOW METER READINGS (gal) COMMENTS*
				Benzene	*Toluene*	*Ethyl-benzene*	*Xylenes*	FUEL OXYGENATES						
								MTBE (2)	*TBA*	*ETBE*	*DIPE*	*TAME*	*Ethanol*	
5-Dec-08	**7,474,490**	Pre	ND	ND	ND	ND	ND	**1.6**	ND	ND	ND	ND	---	T-Bear meter = 6,897,170. Backup Well Meter = 577,320.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	
		Post	---	---	---	---	---	---	---	---	---	---	---	
10-Oct-08	**7,333,410**	Pre	ND	ND	ND	ND	ND	**2.9**	ND	ND	ND	ND	---	T-Bear meter = 6,756,090 Backup Well Meter = 577,320.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	
		Post	---	---	---	---	---	---	---	---	---	---	---	
11-Aug-08	**7,123,140**	Pre	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	T-Bear meter = 6,545,820. Backup Well Meter = 577,320.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
		Post	---	---	---	---	---	---	---	---	---	---	---	
6-Jun-08	**6,861,570**	Pre	ND	ND	ND	ND	ND	**1.9**	ND	ND	ND	ND	ND	T-Bear meter = 6,284,250. Backup Well Meter = 577,320.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
		Post	---	---	---	---	---	---	---	---	---	---	---	
31-Mar-08	**6,636,090**	Pre	ND	ND	ND	ND	ND	**3.8**	ND	ND	ND	ND	ND	T-Bear meter = 6,058,790. Backup Well Meter = 577,300.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
		Post	---	---	---	---	---	---	---	---	---	---	---	
25-Jan-08	**6,477,620**	Pre	ND	ND	ND	ND	ND	**2.6**	ND	ND	ND	ND	ND	T-Bear meter = 5,900,310 . Backup Well Meter = 577,310.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
		Post	---	---	---	---	---	---	---	---	---	---	---	
20-Nov-07	**6,343,780**	Pre	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	T-Bear meter = 5,766,480 . Backup Well Meter = 577,300.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
		Post	---	---	---	---	---	---	---	---	---	---	---	
26-Sep-07	**6,170,150**	Pre	ND	ND	ND	ND	ND	**5.4**	ND	ND	ND	ND	ND	T-Bear meter = 5,592,880 . Backup Well Meter = 577,270.
		Mid	ND	ND	0.54	ND	ND	**1.0**	ND	ND	ND	ND	ND	
		Post	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
31-Jul-07	**5,921,710**	**Carbon Change-out of Front Set of Carbon Cannisters**												**T-Bear meter = 5,344,440 . Backup Well Meter = 577,270.**

Table

Carbon Treatment System Sample Results

T Bear Ranch Domestic Well

3000 Andrade Road, Sunol

Date	*Extracted Groundwater (gallons)*	*Sample Location (ID#)*	*Total Petroleum Hydrocarbons as GASOLINE*	*Volatile Organic Compounds*										*FLOW METER READINGS (gal) COMMENTS*
				Benzene	*Toluene*	*Ethyl-benzene*	*Xylenes*	FUEL OXYGENATES						
								MTBE (2)	*TBA*	*ETBE*	*DIPE*	*TAME*	*Ethanol*	
25-Jul-07	**5,809,980**	Pre	ND	ND	ND	ND	ND	**5.9**	ND	ND	ND	ND	ND	T-Bear meter = 5,232,710 . Backup Well Meter = 577,270.
		Mid	ND	ND	0.54	ND	ND	**2.5**	ND	ND	ND	ND	ND	
		Post	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
13-Jun-07	**5,721,860**	Pre	**42**	ND	ND	ND	ND	**43**	ND	ND	ND	ND	ND	T-Bear Well Meter = 5,232,020. Backup Well Meter = 489,840.
		Mid	ND	ND	ND	ND	ND	**11**	0	ND	ND	ND	ND	
		Post	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
7-Apr-07	**5,478,284**	Pre	ND	ND	ND	ND	ND	**3.0**	ND	ND	ND	ND	---	T-Bear Well Meter = 5,282,650. Backup Well Meter = 195,6340.
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	
		Post	---	---	---	---	---	---	---	---	---	---	---	
20-Feb-07	**5,363,900**	**Carbon Change-out in all Vessels**												**T-Bear meter = 5,168,260 . Backup Well Meter = 195,640.**
7-Feb-07	**---**	Pre	ND	ND	ND	ND	ND	**2.0**	ND	ND	ND	ND	---	
		Mid	ND	1.7	2.6	0.68	2.8	**1.6**	ND	ND	ND	ND	---	
		Post	ND	0.67	1.8	0.77	4.6	ND	ND	ND	ND	ND	---	
Dec-01, 2006 (Confirmation)	**---**	Pre	ND	ND	ND	ND	ND	**11**	ND	ND	ND	ND	ND	
		Mid	ND	ND	ND	ND	ND	ND	Nn	ND	ND	ND	ND	
27-Oct-06	**---**	Pre	ND	ND	ND	ND	ND	**8.5**	ND	ND	ND	ND	---	
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	
15-Jul-06	**4,498,630**	**Carbon Change-out in all Vessels (carbon into distribution system, repaired)**												**T-Bear meter = 4,303,130 . Backup Well Meter = 195,500.**
1-Jun-06	**---**	Pre	**280**	ND	**140**	ND	**1.4**	ND	ND	ND	ND	ND	ND	Backup Well Meter = 108,810.
		Mid	**33**	ND	ND	ND	ND	**2.5**	ND	ND	ND	ND	ND	
		Post	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
16-May-06	**---**	Pre	**36**	ND	**12**	ND	ND	**13**	ND	ND	ND	ND	ND	Backup well pumping (temporarily) - Pre-sample from RW well
		Post	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
14-Jan-06	**4,059,750**	**Carbon Change-out in all Vessels**												**T-Bear meter = 4,009,620. Backup Well Meter = 505,130.**

Table

Carbon Treatment System Sample Results

T Bear Ranch Domestic Well

3000 Andrade Road, Sunol

Date	*Extracted Groundwater (gallons)*	*Sample Location (ID#)*	*Total Petroleum Hydrocarbons as GASOLINE*	*Volatile Organic Compounds*										*FLOW METER READINGS (gal) COMMENTS*
				Benzene	*Toluene*	*Ethyl-benzene*	*Xylenes*	FUEL OXYGENATES						
								MTBE (2)	*TBA*	*ETBE*	*DIPE*	*TAME*	*Ethanol*	
6-Jan-06	**3,990,000**	Pre	**28**	ND	ND	ND	ND	**16**	ND	ND	ND	ND	ND	* install prefilter on August 22, 2005
		Mid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
		Post	**41**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
26-Jul-05	**3,479,320**	**Carbon Change-out of Front Set of Carbon Cannisters**												**T-Bear meter = 3,479,260. Backup Well Meter = 60.**
Jul-19, 2005 (Confirmation Sample)	**3,453,135**	Pre	**28**	ND	ND	ND	ND	**18**	ND	ND	ND	ND	ND	
		Mid	ND	ND	ND	ND	ND	**2.4**	ND	ND	ND	ND	ND	
		Post	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
12-Jul-05	**---**	Pre	ND	ND	ND	ND	ND	**19**	ND	ND	ND	ND	---	
		Mid	ND	ND	ND	ND	ND	**1.0**	ND	ND	ND	ND	---	
		Post	ND	ND	ND	ND	ND	**18**	ND	ND	ND	ND	---	
22-Apr-05	**3,153,100**	**Carbon Change-out of Front Set of Carbon Cannisters**												
21-Mar-05	**3,398,820**	Pre	**36**	ND	ND	ND	ND	**27**	ND	ND	ND	ND	ND	
		Mid	ND	ND	ND	ND	ND	**1.9**	ND	ND	ND	ND	ND	
		Post	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
3-Feb-05		**Carbon Change-out of Front Set of Carbon Cannisters**												
10-Jan-05	**3,010,609**	Pre	< 25	< 0.5	< 0.5	< 0.5	< 0.5	**15**	< 10	< 5	< 5	< 5	< 100	
		Mid	< 25	< 0.5	< 0.5	< 0.5	< 0.5	1.6	< 10	< 5	< 5	< 5	< 100	
		Post	< 25	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 10	< 5	< 5	< 5	< 100	
15-Dec-05	**2,928,540**	Influent	79	< 0.5	< 0.5	< 0.5	< 1	12	< 5	< 0.5	< 1	< 0.5	< 25	Weiss Associates Sampling
		Mid	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 0.5	< 1	< 0.5	< 25	
8-Nov-04		**Carbon Change-out**												
26-Oct-04	**'---**	Influent	ND	ND	ND	ND	ND	**15**	ND	ND	ND	ND	ND	Weiss Associates Sampling
		Mid	ND	ND	ND	ND	ND	0.57	ND	ND	ND	ND	ND	
8-Sep-04	**2,703,174**	Influent (Pre)	< 25	< 0.5	< 0.5	< 0.5	<1	**14**	< 10	<5	<5	<5	<100	Residual Chlorine = 0.15 ppm (at Retention Tank)
		Mid	< 25	< 0.5	< 0.5	< 0.5	<1	<1	< 10	<5	<5	<5	<100	
2-Aug-04	**2,524,230**	**Carbon Change-out of Front Set of Carbon Cannisters**												

Table

Carbon Treatment System Sample Results

T Bear Ranch Domestic Well

3000 Andrade Road, Sunol

Date	Extracted Groundwater (gallons)	Sample Location (ID#)	Total Petroleum Hydrocarbons as GASOLINE	Volatile Organic Compounds										FLOW METER READINGS (gal) COMMENTS
				Benzene	Toluene	Ethyl-benzene	Xylenes	FUEL OXYGENATES						
								MTBE (2)	TBA	ETBE	DIPE	TAME	Ethanol	
19-Jul-04	'---	Influent	---	ND	ND	ND	ND	**25**	<10	<5	<5	<5	---	Initial breakthrough of MTBE at "mid" following changeout (between 35-76 days)
		Mid	<25	**0.59**	ND	ND	<1	**17**	<10	<5	<5	<5	---	
		Effluent (Post)	<25	ND	ND	ND	<1	<1	<10	<5	<5	<5	---	
22-Jun-04	2,315,310	Influent (Pre)	---	ND	ND	ND	<1	**49**	< 10	<5	<5	<5	---	Residual Chlorine = 0.15 ppm (at Retention Tank)
		Mid	---	ND	ND	ND	<1	<1	< 10	<5	<5	<5	---	
25-May-04				**Complete Carbon change-out of both sets of Carbon Cannisters**										
21-May-04	2,146,750	Influent	ND	ND	ND	ND	<1	**43**	<10	<5	<5	<5	---	
		Mid	ND	ND	ND	ND	<1	3	<10	<5	<5	<5	---	
		Effluent (Post)	ND	ND	ND	ND	<1	<1	<10	<5	<5	<5	---	
5-May-04	'---	Influent	ND	ND	ND	ND	ND	**44**	**13**	ND	ND	ND	<50	Initial breakthrough of MTBE at effluent end of carbon system (between 138-202 days)
		Mid	ND	ND	ND	ND	ND	6	ND	ND	ND	ND	<50	
		Effluent	ND	ND	ND	ND	ND	2	ND	ND	ND	ND	<50	
9-Mar-04	'---	Influent	ND - Sample obtained from incorrect sampling port											Sequoia Lab Sampling/Testing
		Mid	ND	ND	ND	ND	ND	3	**<20**	ND	ND	ND	<100	
		Effluent	ND	ND	ND	ND	ND	ND	**<20**	ND	ND	ND	<100	
17-Feb-04	'---	Influent	ND - Sample obtained from incorrect sampling port											Sequoia Lab Sampling/Testing
		Mid	ND	ND	ND	ND	ND	2	ND	ND	ND	ND	<50	
		Effluent	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<50	
27-Jan-04	'---	Influent	ND - Sample obtained from incorrect sampling port											Initial breakthrough of MTBE at "mid" following changeout, between 68-89 days (Sequoia Lab Sampling/Testing)
		Mid	ND	ND	ND	ND	ND	1	**<20**	ND	ND	ND	<100	
6-Jan-04	'---	Influent	ND - Sample obtained from incorrect sampling port											Sequoia Lab Sampling/Testing
		Mid	ND	ND	ND	ND	ND	ND	**<20**	ND	ND	ND	<100	
2-Dec-03	'---	"Hose Bib "	ND	ND	ND	ND	<1	ND	ND	ND	<1.0	ND	---	Cerco Lab Sampling/Testing
6-Nov-03			**CARBON SYSTEM STARTUP**											
Aug-21-03	1,293,740		---	---	---	---	---	---	---	---	---	---	---	
Regulatory Limits for Groundwater (AIs or MCLs)			Not Established	1	150	300	1,750	13	12	Not Established				
Laboratory's Reporting Limits (RL's)			*50*	*1*	*1*	*1*	*2*	*1*	*5 / 10*	*5*	*5*	*5*	*100*	

NOTES:

Bold Print = *Bold Print indicates concentrations are above regulatory Action Levels.*

< # = *Detection limit elevated due to sample dilution and compound not detected at or above detection limit reported.*

ND = *Not detected at or above the lab's practical quantitation limit.*

AL= *Action Level*

--- = *Sample not analyzed for this compound(s).*

MTBE = Methyl-tert-Butyl Ether

TAME = Tert-amyl methyl ether

ETBE = Ethyl tert-butyl ether

DIPE = Di-isopropyl ether

TBA = Tert-butyl alcohol

EtOH = Ethanol

MCL= *Maximum Contaminant Levels specified in the California Code of Regulations (Title 22).*

APPENDIX A

Site Background & Chronology

Regional Setting: The subject site is situated in the southwestern portion of the Sunol Groundwater Basin (in a "subbasin" identified as the Sunol subbasin, see http://aceh.intranets.com/~docs/Group Documents/FIGURES/2-Topograph-3D.pdf?id=28390&ord=040200 Figure 1)). The Sunol Valley is a structural trough surrounded by Diablo Range hills. Unconsolidated surface soils at the subject site have previously been mapped as water-bearing, alluvium deposits (Qal). Underlying the shallow alluvial deposits is the Livermore Formation (Tlo), significant water-bearing strata for the region. Non-water bearing, marine shale and sandstone deposits (JK) underlie the Livermore Formation. The Livermore and Sunol region is offset by a number of faults including the nearby Sinbad fault, which is buried beneath Alameda Creek-deposited alluvium, approximately 2,000 feet northwest of the site.

The general direction of regional groundwater movement is from the upland areas toward Alameda Creek and then westward toward the outlet of the basin (see Figure 1). The main surface water drainage in the Sunol subbasin is the northwest-flowing Alameda Creek located approximately 2,000 feet north of the subject site. Locally, groundwater is reported to be both confined and unconfined and generally flows to the northwest. Recharge occurs by infiltration of the surface water along Alameda Creek. The northwest trending Sinbad fault is likely to act as a barrier to the lateral movement of groundwater. Regional geologic cross-sections indicate the subject site is on the up-gradient side of the Sinbad fault where groundwater levels reportedly stand higher

The Sunol Valley contains two water-bearing geologic formations that are documented to yield adequate to large quantities of groundwater from production wells. They include Plio-Plesistocene sediments of the Livermore Formation (Tlo) and more recent Quaternary alluvium (Qal). These aquifer sediments are composed largely of sand and gravel with discontinuous layers of clay, and are underlain at a shallow depth by nonwater-bearing rocks that are exposed in the bordering highlands. Specifically, the total thickness of these water-bearing sediments is reported to be less than 200 feet in the vicinity of the site. Drillers logs completed during the drilling of two nearby water production wells indicate non-water bearing shale was logged at a depth of approximately 140' although, given soil descriptions of other borings in the area suggest it is likely to be blue clay.

Logs of local water wells installed in the vicinity of the fuel leak site suggests some continuity in the shallow aquifer containing upwards of 50 feet of sand and gravel with limited clay. The stratigraphy underlying the shallow aquifer is less consistent due to the logged description of shale in two well logs but discontinuous sand and gravel lenses appearing at varying depths could indicate aquifer connectivity by river channel deposition.

- Drinking Water Well Testing: Testing was completed on the Sunol Tree Gas Station well and the 5 downgradient/sidegradient water wells in May 2003 following the discovery of MTBE in the T Bear Ranch well. Off-site water production wells were located between approximately 550-1,700 feet downgradient from the former underground fuel storage tanks (USTs). Additional sampling was also completed on two upgradient water production wells (July 2004). The results indicate the T Bear Ranch was the only well that was significantly impacted (130 ppb MTBE).

- Drinking Water Well Testing: Testing was completed on the Sunol Tree Gas Station well and the 5 downgradient/sidegradient water wells in May 2003 following the discovery of MTBE in the T Bear Ranch well. Off-site water production wells were located between approximately 550-1,700 feet downgradient from the former underground fuel storage tanks (USTs). Additional sampling was also completed on two upgradient water production wells (July 2004). The results indicate:

The T Bear Ranch was the only well that was significantly impacted (130 ppb MTBE). No driller's log is available for this well although a video log is scheduled for June 29, 2004.

Preferential Pathways

Active/Abandoned Wells: A water well survey appears to have been completed based on DWR drilling logs and maps provided by Zone 7 Water District but it is unclear whether a detailed site reconnaissance was completed. A follow-up testing program included collection of water samples from a number of local wells but accurate mapping and sampling protocols have not been documented.

On-Site Water Well: The Sunol Tree Gas Station has a production well on the premises and the well construction is unclear, as no log exists. A video log was completed which has cryptic information on the well screen. Specifically, first screens appear at 60 feet, and "water movement was noted at 62', 67', 101', & 103') At this point we assume the well is perforated from 60' to 153 below ground surface.

T Bear Well: The MTBE-impacted T Bear Ranch well was fully characterized using video logging, geophysical & discrete testing. However, recent communication from a local driller indicates the PVC casing may be an insert to a deeper cable tool drilled well (metal cased), so unusual preferential flow paths may exist.

Utility Survey: No utility survey has yet been completed in the immediate vicinity of the fuel release site (i.e., utility trenches with gas, sewer, water, storm drain, telephone, and electric lines).

Site Setting: The fuel release occurred at Sunol Tree Gas Station, an operating facility selling gasoline and diesel. The site located at 3004 Andrade Road, in Sunol, California, near the northbound exit ramp of Highway 680.The relatively flat-lying site contains 6 USTs

The fuel release was discovered on April 12, 2002, during the removal of five, 15,000-gallon underground fuel tanks (USTs) and piping at the Sunol Tree Gas Station. The USTs were reported to be in good condition having no observable holes or corrosion. The consultant on-site noted hydrocarbon odor and soil staining in excavated soils. Ten sidewall samples and a water sample were obtained from the tank pit. Trace to non-detectable levels of TPH (gas-diesel)+BTEX-MTBE were found in the sidewall samples (ND-to-0.25 mg/kg MTBE). The pit water sample contained 84 ug/L MTBE. Sampling beneath the dispensers (12 samples) and piping trenches (3 samples) revealed generally low concentrations of gas and BTEX. A single elevated diesel hit was detected beneath dispenser #7 (1,300 mg/kg) and trace to elevated MTBE concentrations were detected in nine of the 14 samples (0.0058 to 5.9 mg/kg).

Approximately 3-500-4,000 cubic yards of soil was excavated, stockpiled on-site, and covered with plastic sheeting. Stockpile screening (four composite samples) revealed only trace concentrations of diesel/motor oil and no detections of gas-BTEX-MTBE. In addition, 160,000 gallons of contaminated water were pumped out during installation of replacement tanks. The containerized water samples had MTBE detections ranging from 73 to 190 ug/L.

- **Source Area:** TPH and MTBE were detected in soil sidewalls during the UST closure operations in May 2002 when five, 15,000-gallon USTs were replaced. Pit sidewall and dispenser samples generally contained low concentrations of fuel contaminants (gas/diesel) and volatile constituent compounds. Specifically, soil concentrations ranged from non-detect to 150 ppm for gasoline, non-detect to 5.9 ppm for MTBE, trace TBA, and no DIPE, "ETBE or TAME.

Groundwater samples were subsequently obtained from driven probe borings cored at 5 locations targeting the dispensers and USTs. Groundwater samples contained up to 17,000 ppb gasoline and 43 ppb MTBE (Nov-2002).

Dissolved plume: The dissolved plume appears to be fully characterized. During the May 2002 UST Closure Operations, collected pit water contained no detectable gasoline concentrations but did contain 84 ppb MTBE. Disposal acceptance testing of 160,000 gallons of fuel-impacted groundwater pumped from the open pit containerized in storage tanks contained up to 170 ppb gasoline and 190 ppb MTBE.

Chronology of the Sunol Tree Gas Station Fuel Release + Impact to the T-Bear Ranch Well

2002

- April 12, 2002: Contamination discovered during removal of 5 underground fuel tanks at the Sunol Tree Gas Station
    - 4,000 cubic yards of contaminated removed and stockpiled on-site.
    - 160,000 gallons of contaminated water were pumped out during installation of new tanks
- June 27, 2002: AC-HCSA directive requiring workplan.
- Aug-20, 2002: Clearwater Consultants sampled water from a faucet on the Kelso property- results came back clean.
- Aug-23, 2002: *PRELIMINARY SITE ASSESSMENT* (PSA) *WORKPLAN* submitted by Clearwater Consultants. PSA work tasks were completed in Aug-Dec, including:
    - Nov-27, 2002: Five borings were drilled on-site. Groundwater encountered at depths between 16-19' (approx). Relatively low soil contamination but elevated groundwater contamination.
    - Dec-12, 2002: Video log of Kelso well showed total depth to be 153 feet and "Mils Knife perforations located at 60', 62', 67', 101', & 103'. The well pump was located at a depth 100'. Depth to water was at 20 feet. Apparently no discrete samples were obtained from within the well.
    - Mar-14, 2003: Summary Report concluded more delineation was necessary including placement of wells.
- Aug-27, 2002: AC-HCSA approval of workplan.

2003

- Feb-12, 2003: T-Bear property refinance rejected by Washington Mutual Bank due to perceived financial liability associated with the Kelsoe gasoline contamination. Washington termed the T-Bear Ranch "Unacceptable Collateral at the present time". The bank's environmental appraisal statement included the following rationale for rejection of the bank financing:
    - "The subject parcel (T-Bear Ranch) adjoins a chevron gas station. The underground tanks at the station have been identified as leaking per the EPA (really - AC-HCSA). The tanks and a significant amount of adjoining earth and soil have been removed. .....The subject parcel (T-Bear Ranch) derives it's water from two wells - obvious concerns regarding this.....This could cost multiple thousands of dollars and dictate that the Owner of the parcel (i.e.. Hayes,

Tovani, lender) clean and dispose of any contaminated soil. Phase II report might lead to a Phase III report if sufficient contaminants are found to be present....."

- Feb-13, 2003: T-Bear Ranch well water sampled and tested by RJ Lee Group, Inc (Pennsylvania). MTBE detected at a concentration of 73 parts per billion (ppb).

- Feb-27, 2003: T-Bear Ranch well water sampled from "Kitchen Sink" and tested by Cerco Analytical (Pleasanton). MTBE detected at a concentration of 87.3 ppb

- Mar-3, 2003: T-Bear Ranch well water re-sampled and tested by Zone 7 Water District. MTBE detected at a concentration of 130 ppb.

- Mar-14, 2003: Clearwater Consultants submitted *PRELIMINARY SITE ASSESSMENT* (PSA) *SUMMARY REPORT* to AC-HCSA. As noted above, the report summarized fieldwork completed in Aug-Dec, 2002, and concluded that more delineation was necessary including placement of wells.

- Mar-20, 2003: AC-HCSA 1) response to the *PSA Summary Report*, and 2) directive requiring further expedited work. AC-HCSA directed Mr. Kelso to submit a *Soil and Water Investigation (SWI) Workplan* by April 4, 202 for completing an intensive subsurface investigation, which included the following tasks:

    - Collecting and testing water from domestic/commercial water wells in the vicinity of the Kelose gas station.
    - Removal of the 4,000 cubic yard stockpile at the Kelose gas station
    - Developing a full understanding of site conditions ("site conceptual model") by completing investigative work tasks including: on-site soil logging to at least 60 feet, installation of wells to characterize the full, 3-dimensional extent of contamination, survey of utilities and wells in the vicinity, video logging of the T-Bear well, and reporting.

- Apr-4, 2003: Request for extension of *SWI Workplan* submittal due date.

- Apr-7, 2003: AC-HCSA granted extension for the submittal of the *SWI Workplan* to April 25th.

- Apr-11, 2003: T-Bear Ranch well water re-sampled by Clearwater Consultants. MTBE detected at a concentration of 120 ppb.

- May-6, 2003: *WELL SAMPLING REPORT* submitted by Clearwater Consultants. The report documents the sampling of 5 production wells located downgradient of the station, including the T-Bear Ranch well. Two of the wells had detections of MTBE including T-Bear Ranch well (120 ppb) and the adjacent golf driving range well (at the detection limit of 0.5 ppb, tested by Zone 7 on 3-4-02). The adjacent golf range well was resampled on April 11, 2003 by Clearwater Consultants and no MTBE was detected by their lab.

- May-8, 2003: *WORK PLAN FOR SOIL AND WATER INVESTIGATION (SWI)* submitted by Clearwater Consultants.

- May-12, 2003: State Underground Storage Tank Fund (State FUND) rejected Murray Kelsoe's application for acceptance on the grounds that he failed to comply with permit requirements. If accepted to the State FUND, Mr. Kelsoe would have been eligible for up to $1.5 million dollars toward characterization and cleanup of the fuel release.

- Jun-13, 2003: AC-HCSA 1) rejection of the May-8 *SWI Workplan* (above) due to "substantial deficiencies" and required immediate re-submittal of an amended workplan.
    - AC-HCSA rejected the proposal to provide water to the T-Bear Ranch via the Kelsoe well, located at the gas station due to concerns of pulling the fuel release downward to the well screens.
    - Deficiencies noted by AC-HCSA included:
        - Inadequate presentation of site-specific subsurface conditions (i.e.. "Site Conceptual Model") which is the rationale for initial installation of piezometers and subsequent installation of monitoring wells.
        - nested wells construction problems;
        - removal of the stockpile.
- Jul-3, 2003: Mr. Kelsoe's attorney submitted a letter appealing the State FUND's rejection.
- Aug-2003: State FUND rejected the appeal.
- Nov-6, 2003: A non-standard, carbon filtration system was installed to remove MTBE from groundwater pumped at the T Bear Ranch well.
    - initial breakthrough of first set of carbon vessels occurred after 89 days (Jan-27th) = 0.63 ppb MTBE.
    - initial breakthrough of second set of carbon vessels occurred after 202 days (May-5th) @ 1.6 ppb.
    - Carbon Change-out of all vessels occurred after 221 days (May-25th).
- 2003 to present: Ongoing Carbon System Monitoring (trace MTBE influent into the system does not require significant carbon change outs – see table for details).

APPENDIX B

Field Logs, Photos and Protocol

Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Dr . Watsonville, CA 95076
(831) 722-3580 (831) 662-3100
Fax (831) 722-1159

Text Page 1/1

INDICATE ATTACHMENTS THAT APPLY
- ___ Site Map
- ___ Data Sheets
- ___ Geologic Logs
- ___ Photo Sheets
- ___ COC's
- ___ Chargeable Materials

Client: T- Bear Ranch	Date: 1-20-11
Site Location: Andrade RD. Sunol CA	Study #: 27004
Field Tasks: ☐ Drilling ☒ Sampling ☐ Other (see below):	Weather Conditions: Clear, Warm
Personnel / Company On-Site: Josh Pritchard (Weber, Hayes and Associates: WHA)	

TIME:

1400	JP on Site to Sample water system.
	will collect Pre, MID, & Post Samples & deliver to Accutest.
	Inside well Flow Meter reading : 8852292
	outside well Flow Meter reading : 577335
	Pressures : Pre : 20
	Post: 19
	Chlorine drip tank @ ~ 9 gallons
	Post Sample Tap Clogged with debris → Clear blockage re install.
1430	Mob to Accutest
1530	Drop Samples → Leave Accutest

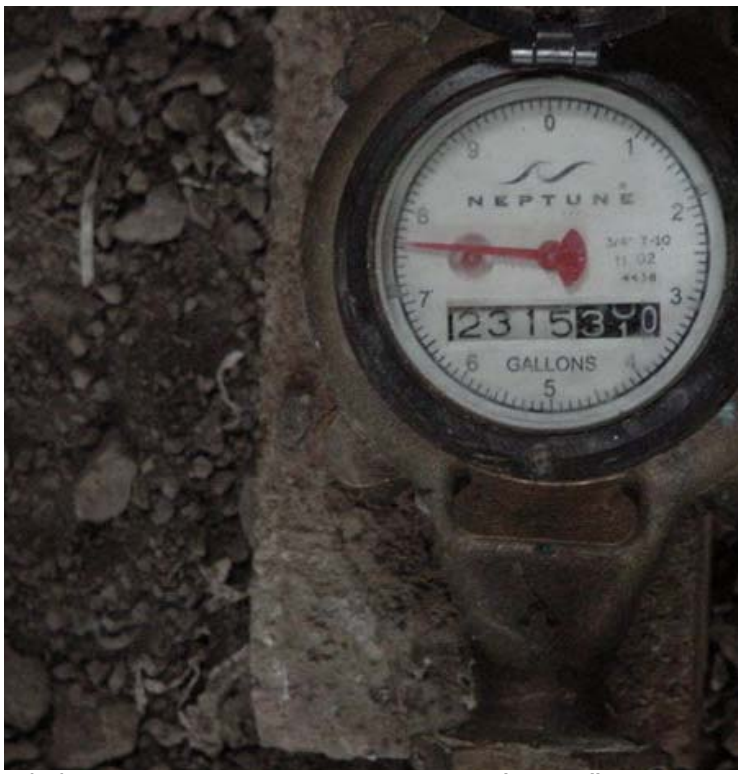
JP 1-20-11

1-20-11
Signature of Field Personel & Date

06/22/2004 a--Well Shed

08/21/2003 b--Flow Totalizer Aug-21-03

07/27/2004 bipass piping



06/22/2004 c--Flow Totalizer Jun-22-04

06/22/2004 **d--Chlorine Injectiion**

06/22/2004 **e--Chlorine Retention Sampling**

08/21/2003 **f--Submersible Pump Specs**

05/21/2004 **g--Bypass piping-Initial Setup**

06/22/2004 **h--Bypass piping-following Carbon changeout**

05/21/2004 **i--PRE - Sampling Port**

06/22/2004 **j--POST - Sampling Port**

05/21/2004 **k--Repressurization Pump and Air Bladder Tank**

APPENDIX C

AccuTest Analytical Laboratory

Certificates of Analysis
Chain of Custody documentation

Northern California ACCUTEST LABORATORIES

01/28/11

Technical Report for

Weber,Hayes & Associates

Khan Petroleum - TBear

Accutest Job Number: C14270

Sampling Date: 01/20/11

Report to:

Weber,Hayes & Associates
120 Westgate Drive
Watsonville, CA 95076
pat@weber-hayes.com

ATTN: Pat Hoban

Total number of pages in report: **14**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Simon Hague 408-588-0200

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

Sections: 1 2 3 4

Table of Contents

Sample Summary

Weber,Hayes & Associates

Khan Petroleum - TBear

Job No: C14270

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C14270-1	01/20/11	00:00	JP	01/20/11	AQ	Ground Water	PRE
C14270-2	01/20/11	00:00	JP	01/20/11	AQ	Ground Water	MID

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	PRE		
Lab Sample ID:	C14270-1	**Date Sampled:**	01/20/11
Matrix:	AQ - Ground Water	**Date Received:**	01/20/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Khan Petroleum - TBear		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L4567.D	1	01/24/11	TF	n/a	n/a	VL152
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

BTEX, Oxygenates

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	5.0	ug/l	
64-17-5	Ethyl Alcohol	ND	100	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		60-130%
2037-26-5	Toluene-D8	104%		60-130%
460-00-4	4-Bromofluorobenzene	101%		60-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MID		
Lab Sample ID:	C14270-2	**Date Sampled:**	01/20/11
Matrix:	AQ - Ground Water	**Date Received:**	01/20/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Khan Petroleum - TBear		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L4568.D	1	01/24/11	TF	n/a	n/a	VL152
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

BTEX, Oxygenates

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	5.0	ug/l	
64-17-5	Ethyl Alcohol	ND	100	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		60-130%
2037-26-5	Toluene-D8	104%		60-130%
460-00-4	4-Bromofluorobenzene	103%		60-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Dr., Watsonville, CA 95076
(831) 722-3580 (831) 662-3100
Fax: (831) 722-1159

"WHACAW29A"

CHAIN -OF-CUSTODY RECORD

C14270

1 OF 1

PROJECT NAME AND JOB #: Khan Petroleum - TBear
SEND CERTIFIED RESULTS TO: Weber, Hayes & Associates - Attention: Pat Hoban
ELECTRONIC DELIVERABLE FORMAT: ☐ YES ☒ NO
Sampler: Josh Pritchard
Date: 1-20-11

LABORATORY: AccuTest
TURNAROUND TIME: Standard Five-Day 48hr Rush 72hr Rush
GLOBAL I.D.: na

Field Point Name (Geo Tracker)	Sample Identification	Date Sampled	Matrix	SAMPLE CONTAINERS: 40 mL VOAs (preserved)	1 Liter Amber Jars	____mL Poly Bottle	Liner Acetate or Brass	REQUESTED ANALYSIS: Total Petroleum Hydrocarbons: TPH-Diesel EPA Method# 8015M	Total Recoverable Petroleum Hydrocarbons	TPH-Gas by EPA Method GC/MS	Volatile Organics: MtBE, BTEX & Fuel Oxys (inc. ethanol) EPA Method# 8260	EDB EPA Method# 8260	1,2-DCA EPA Method# 8260	Additional Analysis: Total Lead	
-1	Pre	1-20-11	W	3						X	X				
-2	Mid	↓	W	3						X	X				
-3	Post		W	3				HOLD							

	RELEASED BY:	Date & Time		RECEIVED BY:	Date & Time	SAMPLE CONDITION: (circle 1)		
1.)	[signature]	1-20-11 / 1415	→	[signature]	1-20-11 14:13	Ambient	Refrigerated	Frozen
2.)			→			Ambient	Refrigerated	Frozen
3.)			→			Ambient	Refrigerated	Frozen
4.)			→			Ambient	Refrigerated	Frozen
5.)			→			Ambient	Refrigerated	Frozen

NOTES: 3vials each (w/HCl); TEMP | 19.9-0.2 = 19.7°C

☒ Please use MDL (Minimum Detection Limit) for any diluted samples.

ADDITIONAL COMMENTS

Please run "Post" sample if there are any detections in the "mid" sample

JC Fieldsg COC - COC 1 of 1 Weber, Hayes and Associates

C14270: Chain of Custody
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Accutest Laboratories Northern California Sample Receiving Check List Job# : C14270 Initial: EK|JM

Review Chain of Custody — **Chain of Custody is to be complete and legible.**

- ☑ Are these regulatory ~~(NPDES)~~ samples? ~~CWA~~ — (Yes) / No
- ☑ Is pH requested? — Yes / (No)
- N/A ☒ Was Client informed that hold time is 15 min? Yes / No — Continue Yes / No
- ☒ Was ortho-Phosphate filtered with in 15 min? Yes / No — Continue Yes / No
- ☑ Are sample within hold time? — (Yes) / No
- Are sample in danger of exceeding hold-time — Yes / (No)
- ☑ Existing Client? (Yes) / No — Existing Project? (Yes) / No
- If No: Is Report to info complete and legible, including;
  - □ deliverable □ Name □ Address □ phone □ e-mail
  - Is Bill to info complete and legible, including;
  - □ PO# □ Credit card □ Contact □address □ phone □ e-mail
  - Is Contact and/or Project Manager identified, including;
  - □ phone □ e-mail
  - □ Project name / number
- ☑ Special requirements? — Yes / (No)
- ☑ Sample IDs / date & time of collection provided? — (Yes) / No
- ☑ Is Matrix listed and correct? — (Yes) / No
- ☑ Analyses listed, we do, or client has authorized a subcontract? — (Yes) / No
- ☑ Chain is signed and dated by both client and sample custodian? — (Yes) / No
- ☑ TAT requested available? (Yes) / No — Approved by PM

Review Coolers:

- ☑ Were all Coolers temperatures measured at ~~≤6°C?~~ 19.7°C — Yes / (No)
  - If cooler is outside the ≤6°C; note down the affected bottles in that cooler on the left
- ☑ Are samples on Ice? — (Yes) / No

Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)

- ☑ Shipment Received Method walk In
- ☑ Custody Seals: Present: Yes / (No) — If Yes; Unbroken: Yes / No

Review of Sample Bottles; If you answer no, explain to the side

- ☑ Chain matches bottle labels? (Yes) / No — ☑ Sample bottle intact? (Yes) / No
- ☑ Is there enough sample volume in proper bottle for requested analyses? — (Yes) / No
- ☑ Proper Preservatives? (Yes) / No
  - Check pH on preserved samples except 1664, 625, 8270 and (VOAs); make notes on left.
- ☑ Headspace-VOAs? **Greater than 6mm in diameter** — Yes / (No)
  - **List sample ID and affected container**

Client Sample ID	pH Check	Other Comments/Issues

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

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C14270: Chain of Custody
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Northern California ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C14270
Account: WHACAW Weber,Hayes & Associates
Project: Khan Petroleum - TBear

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL152-MB	L4562.D	1	01/24/11	TF	n/a	n/a	VL152

The QC reported here applies to the following samples: **Method:** SW846 8260B

C14270-1, C14270-2

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
64-17-5	Ethyl Alcohol	ND	100	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
	TPH-GRO (C6-C10)	ND	50	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	60-130%
2037-26-5	Toluene-D8	106%	60-130%
460-00-4	4-Bromofluorobenzene	102%	60-130%

Blank Spike Summary

Job Number: C14270
Account: WHACAW Weber,Hayes & Associates
Project: Khan Petroleum - TBear

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL152-BS1	L4565.D	1	01/24/11	TF	n/a	n/a	VL152

The QC reported here applies to the following samples: **Method:** SW846 8260B

C14270-1, C14270-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	TPH-GRO (C6-C10)	125	135	108	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	60-130%
2037-26-5	Toluene-D8	106%	60-130%
460-00-4	4-Bromofluorobenzene	106%	60-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C14270
Account: WHACAW Weber,Hayes & Associates
Project: Khan Petroleum - TBear

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL152-BS	L4563.D	1	01/24/11	TF	n/a	n/a	VL152
VL152-BSD	L4564.D	1	01/24/11	TF	n/a	n/a	VL152

The QC reported here applies to the following samples: **Method:** SW846 8260B

C14270-1, C14270-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.6	98	19.5	98	1	60-130/30
108-20-3	Di-Isopropyl ether	20	23.0	115	22.7	114	1	60-130/30
100-41-4	Ethylbenzene	20	20.2	101	20.4	102	1	60-130/30
64-17-5	Ethyl Alcohol	400	338	85	391	98	15	60-130/30
637-92-3	Ethyl Tert Butyl Ether	20	23.3	117	23.2	116	0	60-130/30
1634-04-4	Methyl Tert Butyl Ether	20	21.8	109	21.6	108	1	60-130/30
994-05-8	Tert-Amyl Methyl Ether	20	21.9	110	21.9	110	0	60-130/30
75-65-0	Tert-Butyl Alcohol	100	103	103	107	107	4	60-130/30
108-88-3	Toluene	20	19.9	100	19.9	100	0	60-130/30
1330-20-7	Xylene (total)	60	59.4	99	59.8	100	1	60-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	101%	101%	60-130%
2037-26-5	Toluene-D8	103%	103%	60-130%
460-00-4	4-Bromofluorobenzene	103%	103%	60-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C14270
Account: WHACAW Weber,Hayes & Associates
Project: Khan Petroleum - TBear

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C14270-2MS	L4580.D	1	01/24/11	TF	n/a	n/a	VL152
C14270-2MSD	L4581.D	1	01/24/11	TF	n/a	n/a	VL152
C14270-2	L4568.D	1	01/24/11	TF	n/a	n/a	VL152

The QC reported here applies to the following samples: **Method:** SW846 8260B

C14270-1, C14270-2

CAS No.	Compound	C14270-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	19.6	98	18.5	93	6	60-130/25
108-20-3	Di-Isopropyl ether	ND		20	23.5	118	22.1	111	6	60-130/25
100-41-4	Ethylbenzene	ND		20	20.4	102	19.0	95	7	60-130/25
64-17-5	Ethyl Alcohol	ND		400	412	103	392	98	5	60-130/25
637-92-3	Ethyl Tert Butyl Ether	ND		20	23.8	119	22.5	113	6	60-130/25
1634-04-4	Methyl Tert Butyl Ether	ND		20	21.8	109	20.6	103	6	60-130/25
994-05-8	Tert-Amyl Methyl Ether	ND		20	22.1	111	20.9	105	6	60-130/25
75-65-0	Tert-Butyl Alcohol	ND		100	84.3	84	102	102	19	60-130/25
108-88-3	Toluene	ND		20	20.1	101	18.8	94	7	60-130/25
1330-20-7	Xylene (total)	ND		60	60.3	101	55.9	93	8	60-130/25

CAS No.	Surrogate Recoveries	MS	MSD	C14270-2	Limits
1868-53-7	Dibromofluoromethane	100%	101%	98%	60-130%
2037-26-5	Toluene-D8	103%	102%	104%	60-130%
460-00-4	4-Bromofluorobenzene	103%	102%	103%	60-130%