

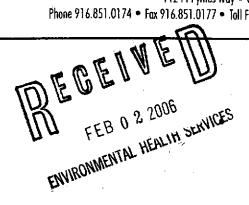
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11244 Pyrites Way • Gold River, CA 95670 Phone 916.851.0174 • Fax 916.851.0177 • Toll Free 1.800.242.5249

FEB 0 3 2006

January 18, 200 Environmental Health

Mr. Amir K. Gholami Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577



Subject:

Fourth Quarter 2005 Groundwater Monitoring Report

Former Duncan and Son Petroleum

29303 Pacific Street, Hayward, California

Apex Project No. DUN01.001

Dear Mr. Gholami:

Apex Envirotech, Inc. (Apex), has been authorized by Former Duncan and Son Petroleum (Duncan) to provide this report documenting the results of the fourth groundwater monitoring event conducted on October 25, 2005. Groundwater monitoring results are provided in the attached figures and tables. Apex standard operating procedures, field data, and analytical results are provided as attachments.

This report is based in part, on information obtained by Apex from Duncan, and is subject to modification as newly acquired information may warrant.

BACKGROUND

The Duncan site is located at 29303 Pacific Street in Hayward, Alameda County, California. The site is currently a concrete trucking facility with no fueling components on site.

1986 - Aqua Science Engineers, Inc. (ASE), of San Ramon, California, installed eight groundwater monitoring wells to investigate and evaluate the extent of petroleum hydrocarbon contamination.

July 1986 - Sampling of the wells showed three wells (MW-A, MW-B, and MW-C) contained free-product. The other five monitoring wells (MW-V, MW-W, MW-X, MW-Y, and MW-Z) had varying concentrations of dissolved total petroleum hydrocarbons (TPH), as gasoline and diesel, and the fractions benzene, toluene, ethylbenzene, and total xylenes (BTEX).

July of 1987 - A free-product recovery system was installed at the site by ASE to reduce the levels of free-product floating on the groundwater in monitoring wells MW-A, MW-B, and MW-C.

September 18, 1992 - ASE submitted a report, titled *Groundwater Monitoring Well Sampling*, dated September 18, 1992, documenting results of groundwater sampling of the eight monitoring wells on site and the overspill collection tank, as requested by the Hayward Fire Department.

May 1998 - Apex was contracted by Mr. Jerry McCrory, property manager for the site owner Ms. Dorothy Duncan, to bring the site into compliance with all underground storage tank (UST) operating permits and environmental issues. Apex completed quarterly monitoring of the eight groundwater monitoring wells located at the site on October 15, 1998.

December 15, 1998 - In a letter, Apex requested that a temporary closure be granted for the site due to "the unavailability of properly licensed and skilled subcontractors to complete 1998 upgrade work before the December 22nd deadline". This temporary closure was granted by the City of Hayward Fire Department, which allowed for a 90 day grace period. In which time, Apex was able to subcontract and schedule the UST removals with Robinson Enterprises, of Grass Valley, California.

Prior to December 22, 1998 - All known existing USTs at the site were triple rinsed and "tagged out" by Delta Oil Field Services, of Woodland, California, in compliance with the City of Hayward Fire Department, Hazardous Materials Division temporary closure guidelines and regulations.

March 22, 1999 - Apex oversaw the removal of product piping and nine USTs at the site. Apex personnel collected soil and groundwater samples as part of UST removal activities. In addition, three groundwater monitoring wells (MW-A, MW-B, and MW-C) were destroyed when the USTs were removed. Field activities and analytical results are documented in the report titled, *Underground Storage Tank Closure Report*, dated April 23, 1999.

August 2, 2000 - In a letter, the Alameda County Environmental Health Department (ACEHD) requested that additional work to be done at the site. In a report titled *Groundwater Monitoring Results Report/Workplan for Subsurface Investigation*, dated September 8, 2000, Apex proposed advancing eight Geoprobe® soil borings to groundwater to determine the vertical and lateral extent of the petroleum hydrocarbon plume. Three additional Geoprobe® soil borings were added to the proposal, per the ACEHD, in Apex's, *Workplan Addendum for Subsurface Investigation*, dated January 30, 2001.

March 14, 2001 - Apex supervised the restoration of the existing wellhead boxes, the cleaning of MW-Z, and the removal of five conduits of unknown purpose from the site. During the cleaning of MW-Z, it was apparent that the well casing had been compromised beneath the sanitary seal.

March 22, 2001 - Apex supervised the advancing of eleven Geoprobe® soil borings at the subject property. Apex personnel collected soil and groundwater samples from the soil borings. The results of this investigation are documented in a report, titled *Results of Subsurface Investigation*, dated April 30, 2001.

August 24, 2001 - The ACEHD submitted a letter requesting a workplan for additional subsurface investigation to define the plume and subsequently install additional monitoring wells.

January 4, 2002 - Apex submitted a workplan to advance eleven geoprobe soil borings and collect soil and groundwater samples. Apex also proposed to reconstruct well MW-Z that had been damaged in the past. On October 21, 2002, ACEHD approved the workplan but also requested a feasibility study for future remediation. Quarterly sampling conducted after the January 4, 2002 workplan was submitted, showed the flushing of well MW-Z, which cleared the well and was no longer compromised.

March 1-2, 2004 - Apex supervised the installation of eleven geoprobe soil borings. Results showed soil and groundwater contamination undefined and is documented in the report, titled *Additional Subsurface Investigation Results Report*, dated October 8, 2004.

March through July 2005 - Apex made numerous attempts to contact the ACEHD for a response to the October 8, 2004 soil boring results report and a response was not made. Another attempt was made in August 2005 and Apex discussed the site with a regulator, a verbal approval was made to perform a file review of facilities surrounding the site, and correspondence would be made to the results report.

August 3, 2005 - The ACEHD issued an email to Apex requesting figures, summary tables of soil and groundwater data, boring logs, and cross sections.

GENERAL SITE INFORMATION

Site name:

Former Duncan and Son Petroleum

Site address:

29303 Pacific Street, Hayward, California

Responsible party:

Ms. Dorothy Duncan

Current site use:

Trucking Yard

Current phase of project:

Groundwater monitoring

Tanks at site:

None

Number of wells:

5 monitoring wells (all onsite)

Fourth Quarter 2005 Groundwater Monitoring Report

Former Duncan & Sons Petroleum, Inc., 29303 Pacific St., Hayward, CA

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GROUNDWATER MONITORING SUMMARY

Gauging and sampling date:

October 25, 2005

Wells gauged and sampled:

MW-V, MW-W, MW-X, MW-Y, and MW-Z

Wells gauged only:

None

Groundwater flow direction:

Southeast

Groundwater gradient:

0.0042 ft/ft

Floating liquid hydrocarbons:

None

Laboratory:

California Laboratory Services, Inc., Rancho Cordova,

California

Analysis Performed:

Analysis	Abbreviation	Designation	USEPA Method No.
Total Petroleum Hydrocarbons as Gasoline	TPHg	Gas/Diesel-	8015 Modified
Total Petroleum Hydrocarbons as Diesel	TPHd	Range Hydrocarbons	6015 Modified
Benzene Toluene Ethylbenzene Xylenes (Total)	BTEX	Aromatic Volatile Organics	
Tertiary Butyl Alcohol Methyl Tertiary Butyl Ether	TBA MTBE	Sinc Suel	8260B
Di-isopropyl Ether Ethyl Tertiary Butyl Ether	DIPE ETBE	Five Fuel Oxygenates	
Tertiary Amyl Methyl Ether	TAME		

Modifications from Standard Monitoring Program:

None

CONCLUSIONS

Based on laboratory analytical results, petroleum hydrocarbons, benzene and MTBE have impacted the subject site. TBA concentrations were above laboratory detection limits at wells MW-X and MW-Y.

Groundwater elevations decreased an average 0.37 feet this quarter compared with last quarter.

Groundwater isoconcentration maps show the dissolved contaminant concentrations in groundwater as not defined at the site.

RECOMMENDATIONS

Apex recommends continued groundwater sampling at the site. The next sampling event is scheduled for January 2006.

ADDITIONAL ACTIVITIES PERFORMED AT SITE

Apex is currently preparing a letter report in response to the email correspondence issued by the ACEHD and is scheduling a file review with ACEHD.

ATTACHMENTS:

Figure 1: Site Vicinity Map Figure 2: Site Plan Map

Figure 3: Groundwater Contour Map: October 25, 2005
Figure 4: TPHg Isoconcentration Map: October 25, 2005
Figure 5: TPHd Isoconcentration Map: October 25, 2005
Figure 6: Benzene Isoconcentration Map: October 25, 2005

Figure 7: MTBE Isoconcentration Map: October 25, 2005

Table 1: Well Construction Details
Table 2: Groundwater Elevation Data
Table 3: Groundwater Analytical Data

Appendix A: Apex Standard Operating Procedures

Appendix B: Field Data Sheets

Appendix C: Laboratory Analytical Report and Chain-of-Custody Form

REPORT DISTRIBUTION

A copy of this report in its final form was submitted to:

Regulatory Oversight: Mr. H

Mr. Hugh Murphy

City of Hayward Fire Department

777 B Street

Hayward, California 94541-5007

(510) 583-4930

Mr. Amir K. Gholami

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

(510) 567-6876

Responsible Party:

(Not Copied)

Ms. Dorothy Duncan

Property Manager:

Mr. Jerry McCrory

REMARKS AND SIGNATURES

The interpretations and/or conclusions contained in this report represent our professional opinions. These opinions are based on currently available information and were developed in accordance with currently accepted geologic, hydrogeologic, and engineering practices at this time and for this specific site.

The work described herein was performed under the direct supervision of the professional geologist, registered with the State of California, whose signature appears below.

We appreciate the opportunity to provide Duncan geologic, engineering and environmental consulting services and trust this report meets your needs. If you have any questions or concerns, please call us at (916) 851-0174.

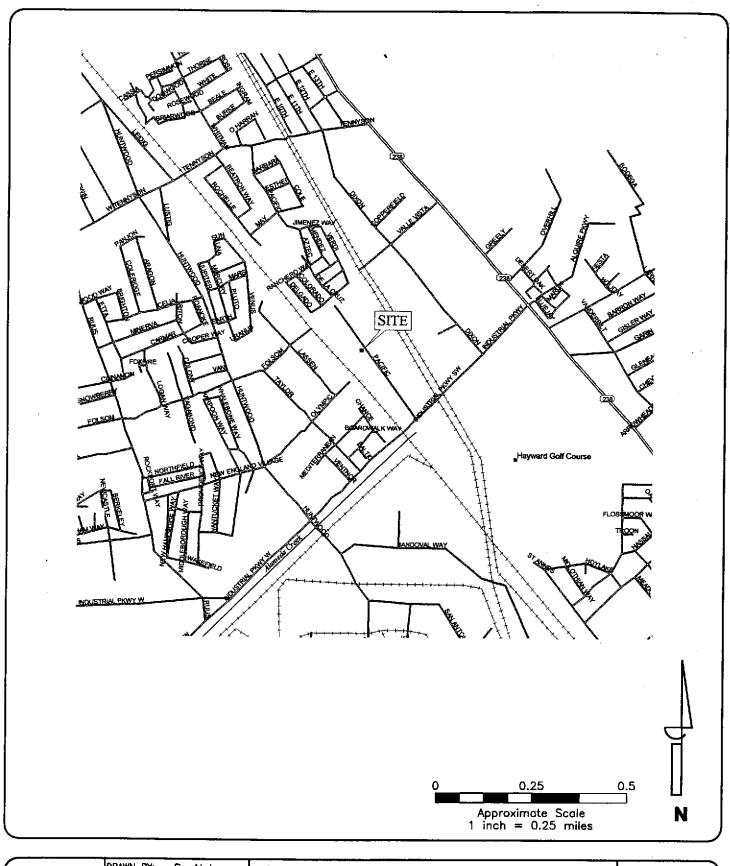
Sincerely,

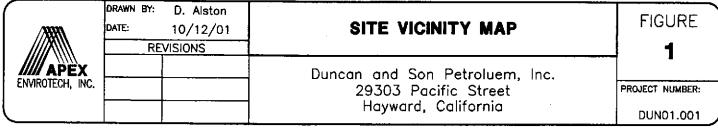
APEX ENVIROTECH, INC.

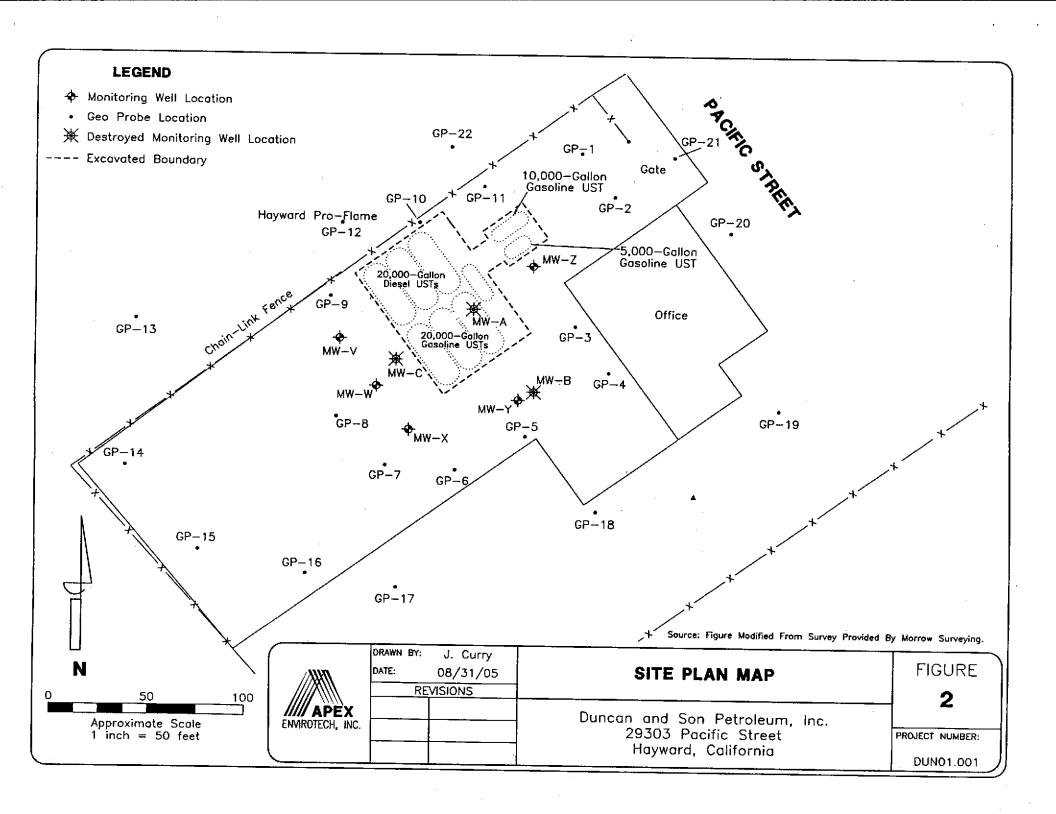
Jennifer Worsley Project Manager

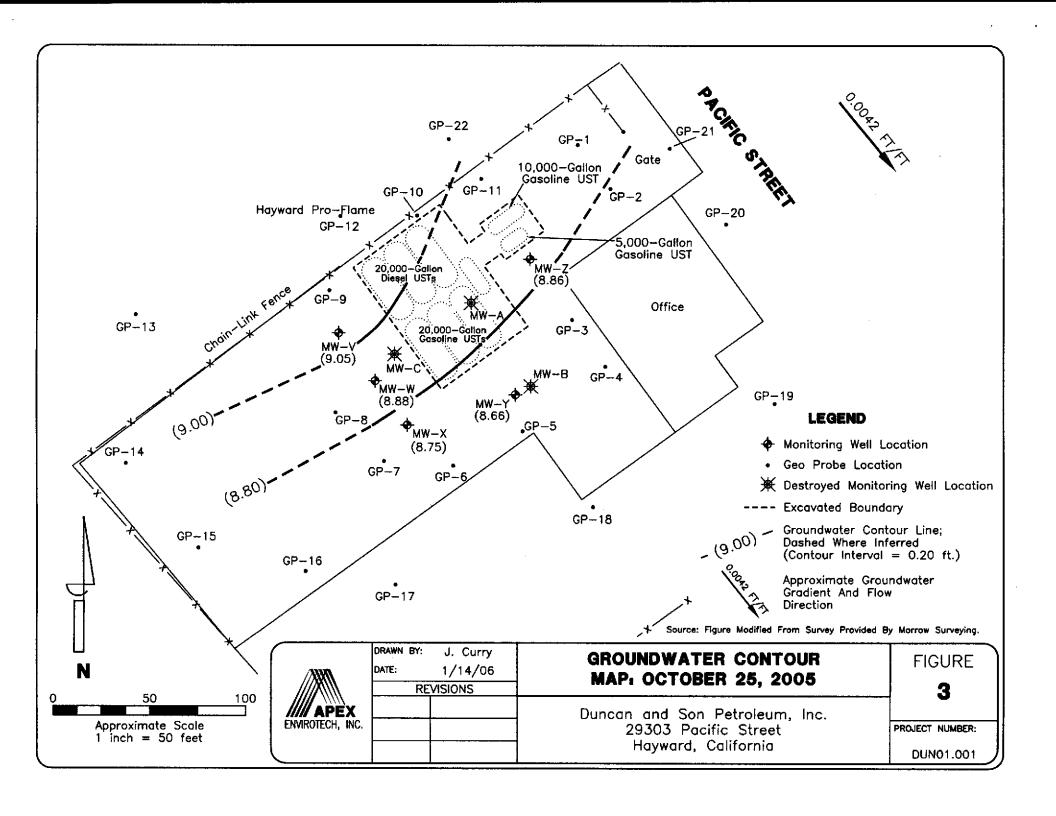
Michael S. Sgourakis, P.G.

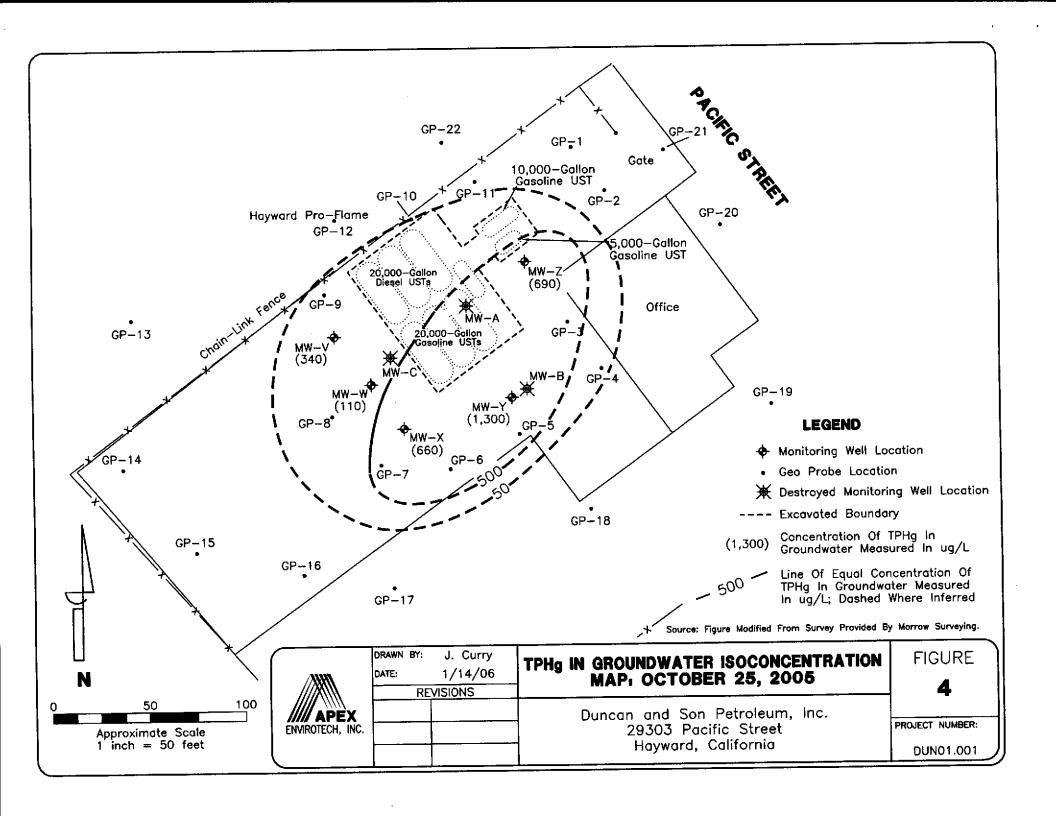
Senior Geologist CPG No. 7194

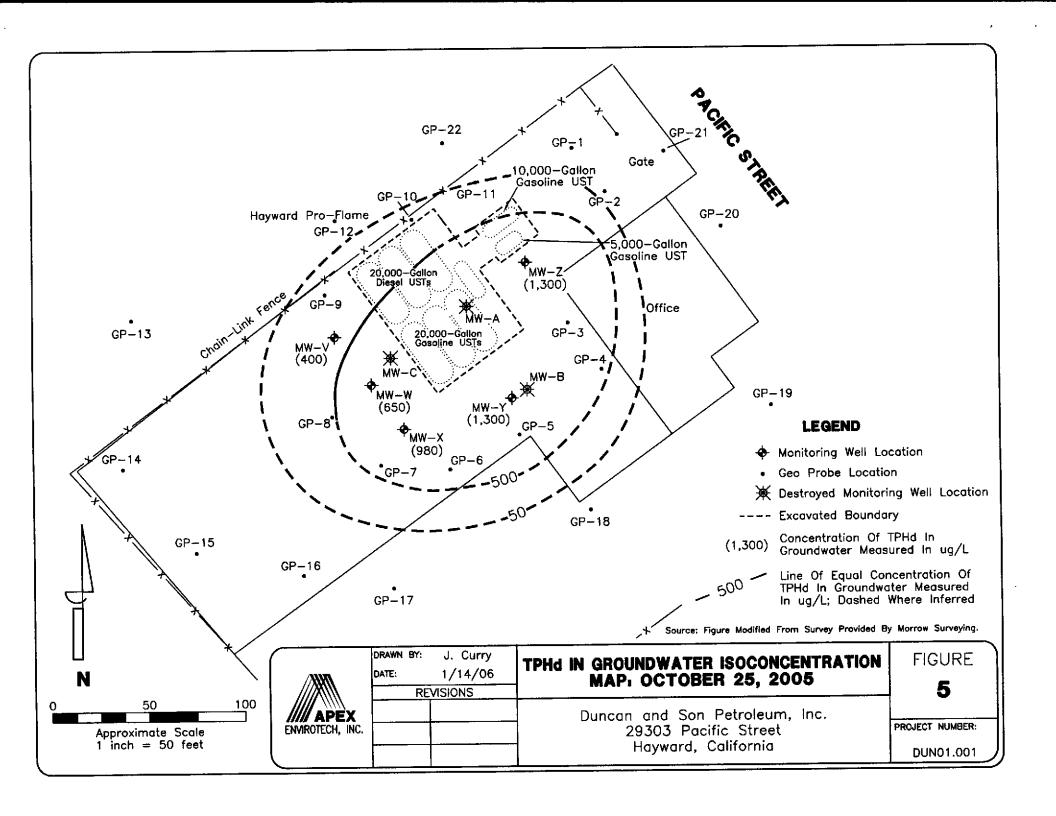


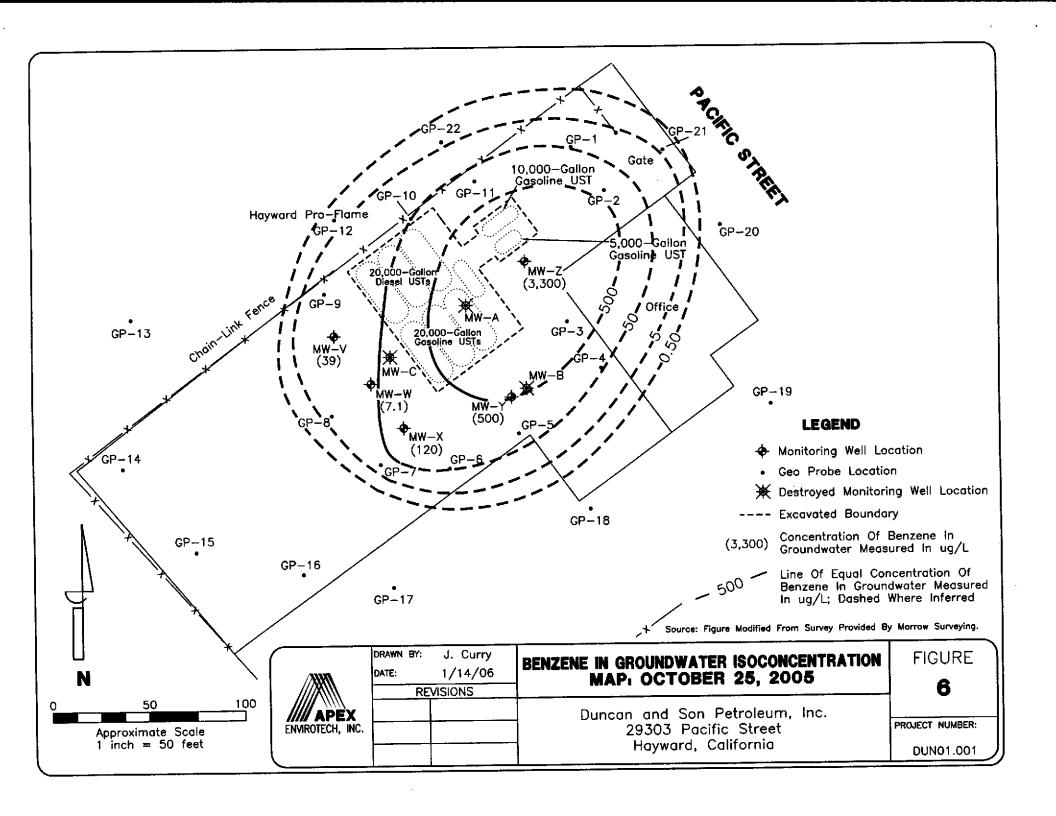












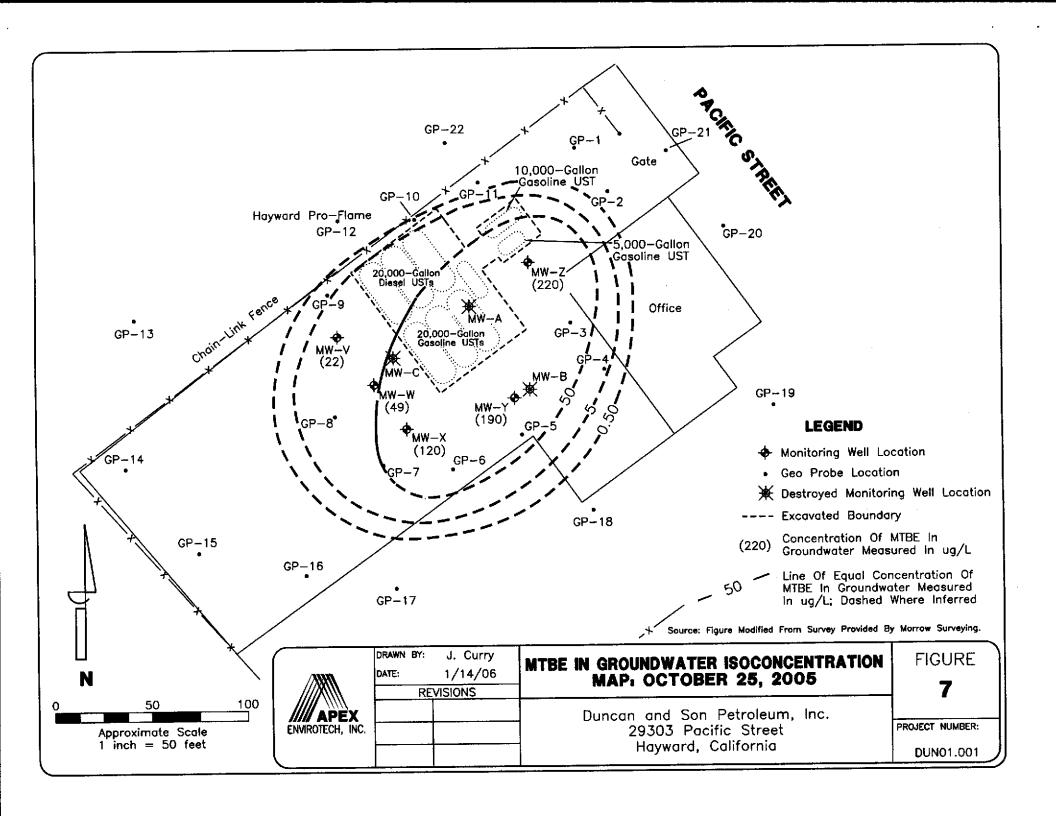


TABLE 1 WELL CONSTRUCTION DETAILS

Duncan Son Petroleum Inc. 29303 Pacific Street Hayward, California

Well Number	Well Installation Date	TOC (feet)		Total Depth (feet)	Well Depth (feet)	(inches)	Screened Interval (feet)	Filter Pack Interval (feet)
MW-A	1986	Destroyed v	vhen USTs v	vere remove	d on March	22, 1999		
MW-B					ed on March :			i
MW-C	1986	Destroyed v	vhen USTs v	vere remove	ed on March :	22, 1999	-	
MW-V	1986	16.07	PVC	15	15	2	6 - 15	
MW-W	1986	16.17	PVC	15	15	2	6 - 15	
MW-X	1986	16.16	PVC	17	17	2	6 - 17	
MW-Y	1986	16.15	PVC	17	17	2	6 - 17	
MW-Z	1986	15.72	PVC	16	16	2	6 - 16	

Notes:

TOC = Top of Casing

PVC = Polyvinyl Chloride

^{--- =} Reports that contain needed information could not be found

^{* =} Top of PVC casings were surveyed to an arbitrary elevation of 1,000 feet above mean sea level.

TABLE 2 GROUNDWATER ELEVATION DATA

DUNCAN SON PETROLEUM, INC. 29303 Pacific Street Hayward, California (All measurements are in feet)

Monitoring		Reference	Depth to	Groundwater	Groundwater
Well	Date	Elevation	Groundwater	Elevation	Flow
<u> </u>		(top of casing)			Direction
MW-V	10/15/98	14.42	7.72	6.70	•
	8/1/00		7.17	7.25	
	11/29/00		6.77	7.65	N,S,W
	3/13/01		5.03	9.39	W
	5/15/01		6.86	7.56	N
	8/22/01		7.12	7.30	N
	12/20/01	16.07	5.37	10.70	N
	2/11/02		5.50	10.57	SE
	5/24/02		6.61	9.46	SE
	7/11/02		7.02	9.05	SE
	10/23/02		7.29	8.78	NE
•	1/8/03		5.09	10.98	NE
-	4/17/03		5.51	10.56	SE
	7/10/03		6.81	9.26	SE
<u> </u>	10/13/03		7.05	9.02	SE
	1/16/04		5.21	10.86	E
	4/13/04		6.34	9.73	SE
	7/8/04		6.94	9.13	SE
	10/19/04		6.87	9.20	SE
1	1/12/05		3.61	12.46	SSE
	4/12/05		4.84	11.23	SSE
,	7/26/05		6.67	9.40	SE
	10/25/05		7.02	9.05	SE
MW-W	10/15/98	14.50	7.92	6.58	
	8/1/00		7.24	7.26	
	11/29/00		7.12	7.38	N,S,W
	3/13/01		5.19	9.31	W
	5/15/01		6.48	8.02	N
	8/22/01		7.34	7.16	N
	12/20/01	16.17	5.57	10.60	N
	2/11/02		5.71	10.46	\$E
ļ .	5/24/02		6.77	9.40	SE
	7/11/02		7.22	8.95	SE
	10/23/02		7.52	8.65	NE
	1/8/03		5.18	10.99	NE
	4/17/03		5.72	10.45	SE
	7/10/03		7.03	9.14	SE
	10/13/03		7.30	8.87	\$E
	1/16/04		5.36	10.81	E
	4/13/04		6.55	9.62	SE
<u> </u>	7/8/04		7.20	8.97	SE
	10/19/04		7.26	8.91	SE
	1/12/05		3.85	12.32	SSE
	4/12/05		5.06	11.11	SSE
	7/26/05		6.93	9.24	SE
[10/25/05		7.29	8.88	SE

TABLE 2 GROUNDWATER ELEVATION DATA

DUNCAN SON PETROLEUM, INC. 29303 Pacific Street Hayward, California (All measurements are in feet)

Monitoring		Reference	Depth to	Groundwater	Groundwater
Well	Date	Elevation	Groundwater	Elevation	Flow
11611	Date	(top of casing)	Gioundwater	CIEVALION	Direction
MW-X	40/45/00		0.05	0.05	Direction
MAA-Y	10/15/98	14.90	8.05	6.85	
į	8/1/00		7.52	7.38	NOW
	11/29/00		7.16	7.74	N,S,W
	3/13/01		5.55	9.35	W
	5/15/01	i	6.53	8.37	N :
	8/22/01	10.10	7.44	7.46	N
	12/20/01	16.16	6.26	9.90	N
	2/11/02		6.39	9.77	SE
	5/24/02		6.80	9.36	SE
]	7/11/02		7.32	8.84	SE
	10/23/02		7.61	8.55	NE
ļ	1/8/03		5.42	10.74	NE
	4/17/03		5.87	10.29	SE
	7/10/03		7.14	9.02	SE
	10/13/03		7.41	8.75	SE
	1/16/04		5.62	10.54	E
	4/13/04		6.69	9.47	SE
	7/8/04	ļ	7.31	8.85	\$E
1	10/19/04		7.38	8.78	SE
	1/12/05		4.21	11.95	SSE
	4/12/05		5.34	10.82	SSE
	7/26/05		7.05	9.11	SE
	10/25/05		7.41	8.75	SE
MW-Y	10/15/98	14.46	6.30	8.16	
	8/1/00		7.29	7.17	
	11/29/00		6.96	7.50	N,S,W
	3/13/01		5.41	9.05	W
	5/15/01		6.74	7.72	N
	8/22/01		7.45	7.01	N
	12/20/01	16.15			N
	2/11/02		6.88	9.27	SE
	5/24/02		6.81	9.34	SE
	7/11/02	٠	7.36	8.79	SE
	10/23/02		7.65	8.50	NE
	1/8/03		5.29	10.86	NE
	4/17/03		5.71	10.44	SE
	7/10/03		7.19	8.96	SE
]	10/13/03		7.47	8.68	SE
]	1/16/04		5.56	10.59	Ε
	4/13/04		6.72	9.43	SE
	7/8/04		7.37	8.78	SE
	10/19/04		7.47	8.68	SE
	1/12/05		4.11	12.04	SSE
]	4/12/05		5.22	10.93	SSE
	7/26/05		7.12	9.03	SE
	10/25/05		7.49	8.66	SE

TABLE 2 GROUNDWATER ELEVATION DATA

DUNCAN SON PETROLEUM, INC. 29303 Pacific Street Hayward, California (All measurements are in feet)

Monitoring Well	Data	Reference	Depth to	Groundwater	
Aveil	Date	Elevation	Groundwater	Elevation	Flow
		(top of casing)			Direction
MW-Z	10/15/98	14.17	7.33	6.84	
	8/1/00		damaged	damaged	
	11/29/00				
	3/13/01			-	
	5/15/01				
H	8/22/01				
1	12/20/01	15.72			
	2/11/02				
	5/24/02				
ŀ	7/11/02		6.78	8.94	SE
	10/23/02		8.04	7.68	NE
	1/8/03		5.33	10.39	NE
	4/17/03	-	5.51	10.21	SE
	7/10/03		6.72	9.00	SE
	10/13/03		7.13	8.59	SE
	1/16/04		5.3	10.42	E
 	4/13/04		6.08	9.64	SE
	7/8/04		6.74	8.98	SE
	10/19/04		6.83	8.89	SE
1	1/12/05		3.25	12.47	SSE
	4/12/05		4.48	11.24	SSE
l l	7/26/05		6.44	9.28	SE
	10/25/05		6.86	8.86	SE

Notes:

^{* -}top of casing surveyed by Morrow Surveying to mean sea level 10/01.

TD -Total Depth

TABLE 3 GROUNDWATER ANALYTICAL DATA

DUNCAN SON PETROLEUM, INC. 29303 Pacific Street, Hayward, California

Monitoring	Date	TPA	as	Δrc	matic Vol	atile Organ	ice		vicenate	enates by EPA Method 8260			
Weli	of	Gasoline	Diesel	Benzene			Total		Aygenates	S UY EFA	Meulou o	200	
ID"	Sampling	Gasonne	Dieser	Derizerie	Toluene	Ethyl-	Xvlenes	DIPE	ETBE	МТВЕ	TAME	TBA	
''	Sampinig	(ug/L)	(ug/L)	(ug/L)	(ug/L)	benzene (ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	
		(49/2)	(09/2/	(ug/L)	\ug/=)	(ug/L)	(ug/L/	(ugic)	(ug/c/	(ug/c/	(ug/E)	(ug/L)	
MW-V	10/15/98	<50	<50	28	<0.50	<0.50	<1.0	<25	<25	210	<25	<250	
	8/1/00	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	180	<5.0	<50	
	11/29/00	<50	<50	2.6	<0.50	<0.50	<1.0	<5.0	<5.0	96	<5.0	<50	
	3/13/01	70	<50	59	<0.50	4.5	<1.0	< 5.0	<5.0	96	<5.0	<50	
	5/15/01	<50	<50	5.2	<0.50	<0.50	<1.0	<5.0	<5.0	71	<5.0	<50	
	8/22/01	<50	<50	0.73	<0.50	<0.50	<1.0	<5.0	<5.0	60	<5.0	<50	
}	12/20/01	60	670	12	0.92	0.91	<1.0	<5.0	<5.0	20	<5.0	<50	
	2/11/02	92	1,700	59	<0.50	<0.50	<1.0	<5.0	<5.0	70	<5.0	<50	
	5/24/02	<50	1,200	2.6	<0.50	<0.50	<1.0	<5.0	<5.0	63	<5.0	<50	
	7/11/02	<50	<50	1.1	<0.50	<0.50	<1.0	<5.0	<5.0	53	<5.0	<50	
	10/23/02	<50	1,100	4.4	<0.50	<0.50	<1.0	<5.0	<5.0	43	<5.0	<50	
	1/8/03	400	1,200	110	5.8	9.9	1.8	<5.0	<5.0	64	<5.0	<50	
1	4/17/03	760	2,200	110	1.3	3.6	0.59	<0.50	<0.50	59	<0.50	<5.0	
	7/10/03	380	1,100	74	1.1	0.54	<1.0	<0.50	<0.50	77	<0.50	<5.0	
	10/13/03	170	810	40	1.2	<0.50	<1.0	<0.50	<0.50	56	<0.50	<5.0	
	1/16/04	410	1,400	100	1.7	3.7	1.2	<0.50	<0.50	37	<0.50	<5.0	
	4/13/04	660	510	160	1.2	<0.50	1.6	<1.2	<1.2	45	<1.2	<12	
	7/8/04	380	370	92	2.0	1.3	1.7	<0.50	<0.50	38	<0.50	<5.0	
	10/19/04	280	300	46	1.0	0.57	<1.0	<0.50	<0.50	29	<0.50	<5.0	
	1/12/05	610	210	120	9.5	7.5	18	<0.50	<0.50	45	<0.50	<5.0	
	4/12/05	1,800	680	4.5	2.8	<2.5	<5.0	<0.50	<0.50	49	<0.50	<5.0	
	7/26/05	1,000	530	160	<5.0	<5.0	<10	<0.50	<0.50	19	<0.50	<5.0	
	10/25/05	340	400	39	0.63	<5.0	<10	<0.50	<0.50	22	<0.50	<5.0	
MW-W	10/15/98	130	<50	62	<0.50	<0.50	<1.0	<130	<130	1,300	<130	<1,200	
10144-14	8/1/00	<50	<50 <50	4.2	<0.50 <0.50	<0.50	<1.0 <1.0	<50	<50	600	<50	<500	
	11/29/00	<50	<50	33	<0.50	<0.50	<1.0	<50	<50 <50	550	<50 <50	<500 <500	
	3/13/01	150	<50	75	<0.50	<0.50	<1.0	<5.0	<5.0	340	<5.0	<50	
	5/15/01	65	<50	35	<0.50	<0.50	<1.0	<13	<13	280	<13	<120	
	8/22/01	69	<50	38	0.59	0.76	<1.0	<5.0	<5.0	310	<5.0	<50	
	12/20/01	85	1,500	38	0.72	0.64	<1.0	<5.0	<5.0	160	<5.0	<50	
	2/11/02	120	2,900	110	<0.50	<0.50	<1.0	<5.0	<5.0	210	<5.0	<50	
	5/24/02	140	2,400	94	0.62	1.1	<1.0	<5.0	<5.0	210	<5.0	<50	
	7/11/02	<50	<50	16	<0.50	<0.50	<1.0	<5.0	<5.0	170	<5.0	<50	
	10/23/02	<50	2,200	29	<0.50	<0.50	<1.0	<5.0	<5.0	220	<5.0	<50	
	1/8/03	180	2,400	86	1.5	0.72	<1.0	<5.0	<5.0	170	<5.0	<50	
	4/17/03	250	3,800	72	0.54	<0.50	<0.50	<0.50	<0.50	160	0.84	9.7	
	7/10/03	200	2,400	49	<0.50	<0.50	<1.0	<0.50	<0.50	130	<0.50	<5.0	
	10/13/03	150	1,800	79	1.3	<0.50	<1.0	<0.50	<0.50	130	<0.50	<5.0	
	1/16/04	340	1,800	120	1.2	0.57	<1.0	<0.50	<0.50	93	<0.50	<5.0	
	4/13/04	320	580	120	2.2	<0.50	<1.0	<1.0	<1.0	68	<1.0	<10	
	7/8/04	250	610	85	1.91	0.88	1.5	<0.50	<0.50	87	<0.50	<5.0	
	10/19/04	130	540	41	0.86	<0.50	<1.0	<0.50	<0.50	87	<0.50	<5.0	
	1/12/05	310	560	110	2.1	0.90	1.1	<0.50	<0.50	83	<0.50	<5.0	
	4/12/05	260	4,300	56.	<2.5	<2.5	<5.0	<0.50	<0.50	47	<0.50	<5.0	
	7/26/05	160	560	26	<0.50	<0.50	<1.0	<0.50	<0.50	28	<0.50	<5.0	
	10/25/05	110	650	7.1	33	<0.50	<1.0	<0.50	<0.50	49	<0.50	<5.0	
1				l.									

TABLE 3
GROUNDWATER ANALYTICAL DATA

DUNCAN SON PETROLEUM, INC. 29303 Pacific Street, Hayward, California

Monitoring	Date	TPI	as	Arc	matic Vol	atile Organ	ics	Oxygenates by EPA Method 8260				
Well	of	Gasoline	Diesel	Benzene	Toluene	Ethyl-	Total		7,0	_ ,		_
ID	Sampling		-10001		10,00,10	benzene	Xylenes	DIPE	ETBE	MTBE	TAME	ТВА
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-X	10/15/98	260	<500	110	1,1	1,6	<1.0	<2,500	<2,500	5,600	<2,500	<25,000
	8/1/00	170	<50	25	<0.50	< 0.50	<1.0	<50	<50	5.800	<50	1,600
İ	11/29/00	130	<50	48	2.2	< 0.50	<1.0	<25	<25	3,300	26	730
	3/13/01	110	<50	120	2.0	4.2	<1.0	<5.0	<5.0	2,000	18	240
	5/15/01	200	<50	82	4.0	2.5	1.4	<50	<50	1,700	<50	<500
	8/22/01	300	<50	97	1.7	<0.50	<1.0	<25	<25	1,400	<25	<250
	12/20/01	390	2,000	180	5.3	2.5	1.3	<5.0	<5.0	1,400	<5.0	<50
	2/11/02	370	3,600	370	3.6	0.99	<1.0	<5.0	<5.0	1,000	<5.0	<50
	5/24/02	610	3,200	600	6.8	0.51	2.5	<5.0	<5.0	1,200	8.0	<50
	7/11/02	250	<50	120	1.9	<0.50	1.3	<5.0	<5.0	840	13	<50
	10/23/02	200	2,700	180	1.2	0.73	<1.0	<50	<50	730	<50	<500
	1/8/03	530	2,800	340	7.3	3.7	1.4	<5.0	<5.0	530	5.0	<50
	4/17/03	820	4,700	250	3.0	2.1	<1.5	<1.5	<1.5	620	4.0	72
	7/10/03	1,200	2,500	420	6.9	2.2	1.2	<25	<25	670	<25	<250
	10/13/03	770	1,800	270	<5.0	<5.0	<10	<5.0	<5.0	490	<5.0	100
	1/16/04	770	2,200	330	4.9	2.6	1.3	<1.0	<1.0	320	2.9	<10
	4/13/04	670	870	310	7.3	1.2	<1.0	<1.0	<1.0	320	<1.0	<10
	7/8/04	710	720	390	7.2	1.9	2.9	<5.0	<5.0	280	<5.0	<50
	10/19/04	620	660	270	5.7	1.1	<1.0	<5.0	<5.0	210	<5.0	<50
	1/12/05	460	800	260	6.3	2.2	1.9	<1.0	<1.0	250	<1.0	<10
	4/12/05	1,000	890	480	<5.0	<5.0	<10	<1.0	<1.0	240	<1.0	<10
	7/26/05	550	710	130	4.5	<2.5	<5.0	<1.0	<1.0	130	<1.0	32
	10/25/05	660	980	120	2.0	<1.0	<2.0	<1.0	<1.0	120	<1.0	25
MW-Y	10/15/98	810	<500	770	5.6	3.4	6.4	<1,200	<1,200	26,000	<1,200	<12,000
	8/1/00	540	<50	390	0.80	0.89	1.2	<50	<50	4,900	<50	1,400
	11/29/00	1,100	<50	820	12	3.2	5.0	<25	<25	3,700	<25	980
	3/13/01	520	<50	620	7.5	6.0	<5.0	<25	<25	1,500	<25	270
	5/15/01	990	<50	670	15	8.1	4.6	<50	<50	1,400	<50	<500
	8/22/01											
	12/20/01	<50	<50	0.88	<0.50	<0.50	<1.0	<5.0	<5.0	<5.0	<5.0	<50
	2/11/02	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	<5.0	<5.0	<50
	5/24/02	440	4,900	28	4.4	0.95	5.0	<5.0	<5.0	880	<5.0	<50
	7/11/02	470	<50	2.0	2.8	<0.50	3.2	<25	<25	630	<25	<250
	10/23/02	890	5,900	860	8.0	1.9	3.6	<5.0	<5.0	1,200	<5.0	<50
	1/8/03	1,000	8,100	790	21	7.9	4.0	<5.0	<5.0	590	<5.0	<50
	4/17/03	2,100	7,100	730	8.7	6.1	3.8	<2.5	<2.5	670	<2.5	84
	7/10/03	2,800	3,700	860	<5.0	<5.0	<10	<5.0	<5.0	830	<5.0	<50
	10/13/03	1,600	3,500	620	8.5	<5.0	<10	<5.0	<5.0	450	<5.0	<50
	1/16/04	1,300	2,500	670	11	4.3	3.4	<1.0	<1.0	370	<1.0	<10
	4/13/04	1,100	1,100	570	19	2.7	2.8	<1.2	<1.2	310	<1.2	<12
	7/8/04	1,200	1,000	510	17	3.0	4.6	<5.0	<5.0	270	<5.0	<50
	10/19/04	840	840	460	12	1.7	2.1	<0.50	<0.50	240	<0.50	<5.0
	1/12/05	2,100	1,100	650	16	7.4	<10	<2.5	<2.5	390	<2.5	<25
	4/12/05	2,600	1,400	810	29	<12	<25	<2.5	<2.5	210	<2.5	<25
	7/26/05	890	2,200	480	18	1.6	3.6	<1.0	<1.0	150	<1.0	32
	10/25/05	1,300	1,300	500	6.5	<2.5	<5.0	<2.5	<2.5	190	<2.5	43
	- 1											

TABLE 3 GROUNDWATER ANALYTICAL DATA

DUNCAN SON PETROLEUM, INC. 29303 Pacific Street, Hayward, California

Monitoring	Date	TPH	as	Arc	matic Vol	atile Organ	ics	0	xygenates	by EPA	Method 8.	260
Well	of	Gasoline	Diesel	Benzene	Toluene	Ethyl-	Total					
מו	Sampling					benzene	Xylenes	DIPE	ETBE	MTBE	TAME	TBA
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-Z	10/15/98	1,300	<500	2,000	7.5	12	7.2	<250	<250	600	<250	<2,500
	8/1/00											
	11/29/00							***			2000	
	3/13/01											
	5/15/01											
	8/22/01									***		
	12/20/01											
	2/11/02											_
	5/24/02	_								***	***	
	7/11/02	3,300	<50	3,400	4.8	<0.50	20	8.5	<5.0	340	<5.0	<50
	10/23/02	1,600	8,500	2,200	5.5	5.0	3.3	<50	<50	340	<50	<500
	1/8/03	1,700	5,500	3,700	36	78	25	6.9	<5.0	440	<5.0	280
	4/17/03	10,000	6,600	3,200	21	120	<20	<20	<20	460	<20	<200
	7/10/03	7,500	3,200	3,300	<5.0	150	13	<0.50	<0.50	530	<0.50	<5.0
	10/13/03	4,500	2,400	2,100	12	14	<10	5.5	<5.0	500	<5.0	<50
	1/16/04	9,000	3,100	4,000	20	450	23	4.8	<2.5	370	<2.5	<25
	4/13/04	3,900	1,400	4,100	34	320	24	4.1	<1.0	350	<1.0	<10
	7/8/04	7,100	1,400	3,500	32	160	34	<5.0	<5.0	320	<5.0	<50
	10/19/04	4,600	860	3,000	23	85	13	3.6	<0.50	290	<0.50	<5.0
	1/12/05	5,500	1,100	4,100	19	440	32	<2.5	<2.5	360	<2.5	<25
	4/12/05	10,000	2,200	5,100	<50	480	<100	<5.0	<5.0	160	<5.0	<50
	7/26/05	3,500	1,600	2,900	32	150	19	<1.0	<1.0	47	<1.0	<10
i	10/25/05	690	1,300	3,300	<20	97	<40	<20	<20	220	<20	<200

NOTES:

< -Less than indicated laboratory detection limit.

TPH - Total Petroleum Hydrocarbons

DIPE - Di-isopropyl ether

ETBE -Ethyl terliary butyl ether

MTBE - Methyl-tert-butyl-ether

TAME -Tertiary arryl methyl ether

TBA - Tertiary butyl alcohol

ug/L - micrograms per Liter

-- - Not sampled

APPENDIX A APEX STANDARD OPERATING PROCEDURES

APEX ENVIROTECH, INC.

STANDARD OPERATING PROCEDURES
Quarterly Monitoring Reports

SOP - 4 SAMPLE IDENTIFICTION AND CHAIN-OF CUSTODY PROCUDURES

Sample identification and chain-of-custody procedures ensure sample integrity as well as document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis is labeled to identify the job number, date, time of sample collection, a sample number unique to the sample, any in-field measurements made, other pertinent field observations also recorded on the field excavation or boring logs.

Chain-of-custody forms are used to record possession of the sample from time of collection to arrival at the laboratory. During shipment, the person with custody of the samples will relinquish them to the next person by signing the chain-of-custody form(s) and noting the date and time. The sample control officer at the laboratory will verify sample integrity, correct preservation, confirm collection in the proper container(s), and ensure adequate volume for analysis.

If these conditions are met, the samples will be assigned unique laboratory log numbers for identification throughout analysis and reporting. The log numbers will be recorded on the chain-of-custody forms and in the legally-required log book maintained in the laboratory. The sample description, date received, client's name, and any other relevant information will also be recorded.

SOP – 5 LABORATORY ANALYTICAL QUALITY ASSURANCE AND CONTROL

In addition to routine instrument calibration, replicates, spikes, blanks, spiked blanks, and certified reference materials are routinely analyzed at method-specific frequencies to monitor precision and bias. Additional components of the laboratory Quality Assurance/Quality Control program include:

- Participation in state and federal laboratory accreditation/certification programs;
- Participation in both U.S. EPA Performance Evaluation studies (WS and WP studies) and inter-laboratory performance evaluation programs;
- 3. Standard operating procedures describing routine and periodic instrument maintenance;
- "out-of-Control"/Corrective Action documentation procedures; and,
- Multi-level review of raw data and client reports.

SOP -- 7 GROUNDWATER PURGING AND SAMPLING

Prior to water sampling, each well is purged by evacuating a minimum of three wetted well-casing volumes of groundwater. When required, purging will continue until either the discharge water temperature, conductivity, or pH stabilize, a maximum of ten wetted-casing volumes of groundwater have been recovered, or the well is bailed dry.

When practical, the groundwater sample should be collected when the water level in the well recovers to at least 80 percent of its static level.

The sampling equipment consists of either a "Teflon" bailer, PVC bailer, or stainless steel bladder pump with a "Teflon" bladder. If the sampling system is dedicated to the well, then the bailer is usually "Teflon," but the bladder pump is PVC with a polypropylene bladder. In general and depending on the intended laboratory analysis, 40-milliliter glass, volatile organic analysis (VOA) vials, with "Teflon" septa, are used as sample containers.

SOP – 12 MEASURING LIQUID LEVELS USING WATER LEVEL METER OR INTERFACE PROBE

Field equipment used for liquid-level gauging typically includes the measuring instrument (water-level meter or interface probe and product bailer(s)). The field kit also includes cleaning supplies (buckets, solution, spray bottles, and deionized water) to be used in cleaning the equipment between wells.

Prior to measurements, the instrument tip is lowered into the well until it touches bottom. Using the previously established top-of-casing or top-of-box (i.e., wellhead vault) point, the probe cord (or halyard) is marked and a measuring tape (graduated in hundredths of a foot) is used to determine the distance between the probe end and the marking on the cord. This measurement is then recorded on the liquid-level data sheet as the "Measured Total Depth" of the well.

When necessary in using the interface probe to measure liquid levels, the probe is first electrically grounded to either the metal stove pipe or another metal object nearby. When no ground is available, reproducible measurements can be obtained by clipping the ground lead to the handle of the interface probe case.

The probe tip is then lowered into the well and submerged in the groundwater. An oscillating (beeping) tone indicates the probe is in water. The probe is slowly raised until either the oscillating tone ceases or becomes a steady tone. In either case, this is the depth-to-water (DTW) indication of the DTW measurement is made accordingly. The steady tone indicates floating liquid hydrocarbons (FLH). In this case, the depth-to-product (DTP) indication and the DTP measurement is made accordingly.

The process of lowering and raising the probe must be repeated several times to ensure accurate measurements. The DTW and DTP measurements are recorded on the liquid-level data sheet. When FLH are indicated by the probe's response, a product bailer is lowered partially through the FLH water interface to confirm the FLH thickness, particularly in cases where the FLH layer is quite thin. This measurement is recorded on the data sheet as "FLH thickness."

In order to avoid cross-contamination of wells during the liquidlevel measurement process, wells are measured in the order of "clean" to "dirty" (where such information is available). In addition, all measurement equipment is cleaned with solution and thoroughly rinsed with deionized water before use, between measurements in respective wells, and at the completion of the day's use.

APPENDIX B FIELD DATA SHEETS



Groundwater Level Data Sheet

Project DVNO(_00)
Location Hayward, CA
Date 10/25/05
Recorded By RCM

WELL		Incoru To	Поветн то	O DEPTH TO	N WATER	WELL	PURGE	COMMENTS /
NAME	TIME	PRODUCT	WATER	BOTTOM	COLUMN	VOLUMI	VOLUM	
MW-V	1040		7.02	15.10		1.29	3.87	-
, , , , , , , , , , , , , , , , , , ,			7 29	11.90	4.61	0.73	2 21	
-W	1030		- ///	14400	7 40	130	260	
H-X	1035		7-41	1-1-10	701	197	2.60	
1-7	1040		7,49	15-40		1.16	2 14	
V-Z	1050)	6.86	13.40	6.54	1-04	3.14	
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Monitoring Data

Project: Punca	n & Son	Petrol	e um
Project Number	DUNO(.00		
Date: 10/2	5/05	:	
Recorded By:	RCM		

WELL	TIME.	TEMP (dcg 💋	pH.	COND. (uS/cm)	DISSOLVED OXYGEN	TOTAL VOLUME REMOVED	COMMENTS/OBSERVATIONS
MW-W	1108	21.6	7.4	790		0.75	
	1110	21.6	7.0	780		1.50	
1	11/2	21.4	6.9	600		2.25	sampled @ 1230
MW-X	1120	21.8	6.7	774		1-25	
	1123	21.9	6.6	775		2.50	
	1127	21.6	6.6	769		3.75	sampled @ 1240
MW-Y	1135	21.8	6.6	694		1.25	
	1138	219	6-6	697		2.75	
	;	21.6	6.7	696	·	4	sampled @ 1250
MW-V	1150	20.4		599		1.25	
	1153	20.3	6.9	639		2.75	
темерн,	1157	20.1	6.8	458		4	sampled 0 1300

TEMPPH, XLS 4/1/97



Monitoring Data

Project:		
Project Number:	QUNO(-001	
Date: 10/25	las .	_
Recorded By:	RCM	

WELL	TIME.	TEMP (deg ©	pH .	COND. (uS/cm)	DISSOLVED OXYGEN	TOTAL YOLUME REMOYED	COMMENTS/OBSERVATIONS
MW-Z	1206	20.8	6.5	1241		(
	1208	20.1	6.5	1162		2	
-V	1211	20.6	6.5	1352		3.25	sampled @ 1310
							150
	·						
	·						
			·				
		· · · · · · · · · · · · · · · · · · ·					

TEMPPH,XLS

APPENDIX C

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY FORM

CLS ID. NOTH A TURY COJEGO C CALIFORNIA ABORATORY SERVICES CHAIN OF CUSTODY Report To: Client Job Number ANALYSIS REQUESTED GEOTRACKER Name and Address DUN01.001-OM B | 5 X yes D NO EDF REPORT P T 0 Apex Envirotech, Inc. Destination Laboratory H E Х GLOBAL ID. T0600100472 X đ 11244 Pyrites Wy., Gold River, CA 95670 У **PRESERVATIVES** CLS (916) 638-7301 8 g Project Manager 0 8 е Jennifer Worsley 3249 Fitzgerald Road Project Name Rancho Cordova, CA n FIELD CONDITIONS: Duncan and Son 5 6 95742 ŧ Sampled By www.californialab.com 0 а В COMPOSITE: e Job Description \square other 4th qtr water S Site Location TURNAROUND SPECIAL б 29303 Pacific St., Hayward TIME IN DAYS INSTRUCTIONS CONTAINER DL for oxyg.-SAMPLE FIELD DATE TIME 2 5 IDENTIFICATION ID. 0.50 ug/L. MATRIX MW-V 1300 MW-V water 3/1 V/AX $\mathbf{X} \mathbf{X} \mathbf{X}$ X 1230 MW-W MW-W 3/1 X $\mathbf{X} \mathbf{X}$ V.A. water X 1240 MW-X MW-X 3/1 V/A X Х X water 1250 MW-Y MW Y 3/1 $\overline{\mathbf{X}}$ water VA X MW-Z X MW-Z 3/1 $\mathbf{X} \mathbf{X}$ X X 1310 water V/AINVOICE TO: 10# OUOTE# SUSPECTED CONSTITUENTS SAMPLE RETENTION TIME PRESERVATIVES (1) HCL (3) = COLDRELINQUISTIED BY (Signature) DATE/TIME PRINT NAME/COMPANY RECEDVEÓ BY (Signature) PRINT NAME/COMPANA

CONDITIONS/COMMENTS:

AIR BILL#

DATECIME: /2->/-C

☐ OTHER

RÉCEIVED AT LAB BY

FED EX

□ UPS

SHIPPED BY:

California Laboratory Services

3249 Fitzgerald Road Rancho Cordova, CA 95742

November 02, 2005

CLS Work Order #: COJ0922 COC #: No Number

Jennifer Worsley APEX Envirotech Inc. - Gold River 11244 Pyrites Way Gold River, CA 95670

Project Name: Duncan & Sons

Enclosed are the results of analyses for samples received by the laboratory on 10/26/05 08:50. 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

Page 1 of 8

11/02/05 10:02

APEX Envirotech Inc. - Gold River

11244 Pyrites Way Gold River, CA 95670 Project: Duncan & Sons

Project Number: DUN01.001-QM Project Manager: Jennifer Worsley CLS Work Order #: COJ0922

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-V (COJ0922-01) Water	Sampled: 10/25/05 13:00	Received:	10/26/05	08:50					
Diesel	0.40	0.050	mg/L	l	CO08293	10/31/05	10/31/05	EPA 8015M	DSL-1
MW-W (COJ0922-02) Water	Sampled: 10/25/05 12:30	Received:	10/26/0	5 08:50					
Diesel	0.65	0.050	mg/L	ı	CO08293	10/31/05	10/31/05	EPA 8015M	DSL-1
MW-X (COJ0922-03) Water	Sampled: 10/25/05 12:40	Received:	10/26/05	08:50					
Diesel	0.98	0.050	mg/L	1	CO08293	10/31/05	10/31/05	EPA 8015M	DSL-1
MW-Y (COJ0922-04) Water	Sampled: 10/25/05 12:50	Received:	10/26/05	08:50					
Diesel	1.3	0.050	mg/L	1	CO08293	10/31/05	10/31/05	EPA 8015M	DSL-1
MW-Z (COJ0922-05) Water	Sampled: 10/25/05 13:10	Received:	10/26/05	08:50					
Diesel	1.3	0.050	mg/L	1	CO08293	10/31/05	10/31/05	EPA 8015M	DSL-1

CA DOHS ELAP Accreditation/Registration Number 1233

California Laboratory Services

Page 2 of 8

11/02/05 10:02

APEX Envirotech Inc. - Gold River

11244 Pyrites Way Gold River, CA 95670 Project: Duncan & Sons

Project Number: DUN01.001-QM

Project Manager: Jennifer Worsley

CLS Work Order #: COJ0922

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-V (COJ0922-01) Water	Sampled: 10/25/05 13:00	Received:	10/26/05	08:50					
Gasoline	340	50	μg/L	1	CO08249	10/27/05	10/27/05	EPA 8015M	GC-25
Surrogate: o-Chlorotoluene (G	as)	94.5 %	65-	135	"	"	*	,,	
MW-W (COJ0922-02) Water	Sampled: 10/25/05 12:30	Received	10/26/05	5 08:50					
Gasoline	110	50	μg/L	1	CO08249	10/27/05	10/27/05	EPA 8015M	GC-25
Surrogate: o-Chlorotoluene (G	as)	96.5 %	65-	135	n	и	*	#	
MW-X (COJ0922-03) Water	Sampled: 10/25/05 12:40	Received:	10/26/05	08:50					
Gasoline	660	50	μg/L	1	CO08249	10/27/05	10/27/05	EPA 8015M	GC-25
Surrogate: o-Chlorotoluene (G	as)	95.5 %	65-	135	"	*	"	n	
MW-Y (COJ0922-04) Water	Sampled: 10/25/05 12:50	Received:	10/26/05	08:50					
Gasoline	1300	50	μg/L	1	CO08249	10/27/05	10/27/05	EPA 8015M	GC-25
Surrogate: o-Chlorotoluene (G	as)	95.0 %	65-	135	"	"	"	и	
MW-Z (COJ0922-05) Water	Sampled: 10/25/05 13:10	Received:	10/26/05	08:50					
Gasoline	690	50	μg/L	1	CO08249	10/27/05	10/27/05	EPA 8015M	GC-25
Surrogate: o-Chlorotoluene (G	as)	95.0 %	65-	135	"	**	"	п	

CA DOHS ELAP Accreditation/Registration Number 1233

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APEX Envirotech Inc. - Gold River

11244 Pyrites Way Gold River, CA 95670

Project: Duncan & Sons

Project Number: DUN01.001-QM

CLS Work Order #: COJ0922

Volatile Organic Compounds by EPA Method 8260B

Project Manager: Jennifer Worsley

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-V (COJ0922-01) Water	Sampled: 10/25/05 13:00	Received:	10/26/05	08:50					
Di-isopropyl ether	ND	0.50	μg/L	1	CO08139	10/26/05	10/26/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	44	•1	н	0		I+	
Methyl tert-butyl ether	22	0.50	110	Ħ	M		**	I+	
tert-Amyl methyl ether	ND	0.50	11	*1	*	11			
Tert-butyl alcohol	ND	5.0	10	PI	nt .		**	**	
Benzene	39	0.50	**	н	41	"	11	tr .	
Toluene	0.63	0.50	41	н	"	u.	11	11	
Ethylbenzene	ND .	0.50	4	н	10	,	17	If	
Xylenes (total)	ND	1.0	11	H		**	lt .		
Surrogate: Toluene-d8		110%	72-	125	ħ	"	n		
MW-W (COJ0922-02) Water	Sampled: 10/25/05 12:30	Received	: 10/26/0	5 08:50					
Di-isopropyl ether	ND	0.50	μg/L	1	CO08139	10/26/05	10/26/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	**	н	•	77	•	17	
Methyl tert-butyl ether	49	0.50	*1	н	H	0	11	17	
tert-Amyl methyl ether	ND	0.50	11	н	4	#	11	*	
Tert-butyl alcohol	7.1	5.0	Ħ	Ħ	H	17	**	le .	
Benzene	33	0.50	n	Ħ	"	17	11	n .	
Toluene	ND	0.50	16	н	*	*	**	"	
Ethylbenzene	ND	0.50	•	н	**		#	н	
Xylenes (total)	ND	1.0	11	н		н	*	10	
Surrogate: Toluene-d8		108 %	72-	125	n	н	et .	ĸ	
MW-X (COJ0922-03) Water	Sampled: 10/25/05 12:40	Received:	10/26/05	08:50					
Di-isopropyl ether	ND	1.0	μg/L	2	CO08139	10/26/05	10/26/05	EPA 8260B	
Ethyl tert-butyl ether	ND	1.0	ü	H	я	. "	#	I+	
Methyl tert-butyl ether	120	1.0	11	н	Ħ	11	11	10	
tert-Amyl methyl ether	ND	1.0	41	u	#1	"	**	14	
Tert-butyl alcohol	25	10	11	н	H	18	*	19	
Benzene	120	1.0	n	H	н	11	F	17	
Toluene	2.0	1.0	11	H	н	11	*	n	
Ethylbenzene	ND	1.0	π	H		"	"	17	
Xylenes (total)	ND	2.0	u	н	. 4	н	н	н	

California Laboratory Services

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APEX Envirotech Inc. - Gold River

11244 Pyrites Way Gold River, CA 95670

Project: Duncan & Sons

Project Number: DUN01.001-QM Project Manager: Jennifer Worsley

CLS Work Order #: COJ0922

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-X (COJ0922-03) Water	Sampled: 10/25/05 12:40	Received:	10/26/05	08:50					
Surrogate: Toluene-d8		108 %	72-	-125	CO08139	10/26/05	10/26/05	EPA 8260B	
MW-Y (COJ0922-04) Water	Sampled: 10/25/05 12:50	Received:	10/26/05	08:50					
Di-isopropyl ether	ND	2.5	μg/L	5	CO08139	10/26/05	10/26/05	EPA 8260B	
Ethyl tert-butyl ether	ND	2.5	**	fı	#1	19	**	H	
Methyl tert-butyl ether	190	2.5	n n	н	n	Ħ	Ħ		
tert-Amyl methyl ether	ND	2.5	H	н	,,	w	"		
Tert-butyl alcohol	43	25	*1	H	н	н			
Benzene	500	2.5	H	н	ir	н	**	#	
Toluene	6.5	2.5	n	**	н	н	H	H	
Ethylbenzene	ND	2.5	**	н	н	н	N	*	
Xylenes (total)	ND	5.0	n		н	41	41	*	
Surrogate: Toluene-d8		108 %	72-	125	#	и	н	#	
MW-Z (COJ0922-05) Water	Sampled: 10/25/05 13:10	Received:	10/26/05	08:50					
Di-isopropyl ether	ND	20	μg/L	40	CO08139	10/26/05	10/26/05	EPA 8260B	
Ethyl tert-butyl ether	ND	20	19	91	11	II	II	n	
Methyl tert-butyl ether	220	20	17	*1		10	В	41	
tert-Amyl methyl ether	ND	20	17	"	11	н	"	*1	
Tert-butyl alcohol	ND	200	10	•	11	11		**	
Benzene	3300	20	10	Ħ	n	17	19	Ħ	
Toluene	ND	20	10	н	**	н	н	н	
Ethylbenzene	97	20	.,	n	H	40	В	н	
Xylenes (total)	ND	40	10	н	**		н	н	
Surrogate: Toluene-d8		108 %	72-	125	"	n	<i>y</i>	н	

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APEX Envirotech Inc. - Gold River

11244 Pyrites Way Gold River, CA 95670 Project Number: DUN01.001-QM

Project: Duncan & Sons

CLS Work Order #: COJ0922

Project Manager: Jennifer Worsley

Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch CO08293 - EPA 3510B GCNV											
Blank (CO08293-BLK1)				Prepared	& Analyz	ed: 10/31/	05				
Diesel	ND	0.050	mg/L								
Motor Oil	ND	0.050									
Hydraulic Oil	ND	0.050	•								
Mineral Oil	ND	0.050	*								
Kerosene	ND	0.050	•								
LCS (CO08293-BS1)				Prepared & Analyzed: 10/31/05							
Diesel	2.32	0.050	mg/L	2.50		92.8	65-135				
LCS Dup (CO08293-BSD1)				Prepared	& Analyz	ed: 10/31/	05				
Diesel	2.38	0.050	mg/L	2.50		95.2	65-135	2.55	30		
Matrix Spike (CO08293-MS1)	So	urce: COJ08	96-01	Prepared	& Analyz	ed: 10/31/	05				
Diesel	2.00	0.050	mg/L	2.50	ND	80.0	46-137				
Matrix Spike Dup (CO08293-MSD1)	So	urce: COJ08	96-01	Prepared	& Analyz	ed: 10/31/	05				
Diesel	2.01	0.050	mg/L	2.50	ND	80.4	46-137	0.499	30		

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APEX Envirotech Inc. - Gold River

11244 Pyrites Way Gold River, CA 95670

Project: Duncan & Sons

Project Number: DUN01.001-QM

Project Manager: Jennifer Worsley

CLS Work Order #: COJ0922

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO08249 - EPA 5030 Wate	er GC									
Blank (CO08249-BLK1)		_		Prepared:	10/27/05	Analyzed	10/29/05			
Gasoline	ND	50	μg/L							
Surrogate: o-Chlorotoluene (Gas)	19.0		rr	20.0		95.0	65-135			
LCS (CO08249-BS1)				Prepared:	10/27/05	Analyzed:	10/29/05			
Gasoline	384	50	μg/L	500		76.8	65-135			
Surrogate: o-Chlorotoluene (Gas)	19.8		Ħ	20.0		99.0	65-135			
LCS Dup (CO08249-BSD1)		_		Prepared:	10/27/05	Analyzed:	10/29/05			
Gasoline	477	50	μg/L	500		95.4	65-135	21.6	30	
Surrogate: o-Chlorotoluene (Gas)	20.4		н	20.0		102	65-135			

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APEX Envirotech Inc. - Gold River

11244 Pyrites Way Gold River, CA 95670 Project: Duncan & Sons

Project Number: DUN01.001-QM Project Manager: Jennifer Worsley

OUN01.001-QM CLS Work Order #: COJ0922

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO08139 - EPA 5030 Water MS										·
Blank (CO08139-BLK1)				Prepared	& Analyzo	d: 10/26/	05			
Di-isopropyl ether	ND	0.50	μg/L							
Ethyl tert-butyl ether	ND	0.50	**							
Methyl tert-butyl ether	ND	0.50	șt.							
tert-Amyl methyl ether	ND	0.50	#							
Tert-butyl alcohol	ND	5.0	**							
Surrogate: Toluene-d8	10.4		n	10.0		104	72-125			·
LCS (CO08139-BS1)				Prepared	& Analyze	ed: 10/26/0	05			
Methyl tert-butyl ether	19.6	0.50	μg/L	20.0		98.0	52-130			
Surrogate: Toluene-d8	10.6	t-,*	ti	10.0		106	72-125			
LCS Dup (CO08139-BSD1)				Prepared	& Analyze	ed: 10/26/0)5			
Methyl tert-butyl ether	19.4	0.50	μ g /L	20.0		97.0	52-130	1.03	30	
Surrogate: Toluene-d8	10.4	·	0	10.0		104	72-125			

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APEX Envirotech Inc. - Gold River

11244 Pyrites Way

Gold River, CA 95670

Project: Duncan & Sons

Project Number: DUN01.001-QM

Project Manager: Jennifer Worsley

CLS Work Order #: COJ0922

Notes and Definitions

GC-25 Weathered gasoline.

DSL-1 Although sample contains compounds in the retention time range associated with diesel, the chromatogram was not consistent

with the expected chromatographic pattern or "fingerprint". However, the reported concentration is based on diesel.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

Sample results reported on a dry weight basis đгу

RPD Relative Percent Difference