Apex

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1:38 pm, Nov 26, 2007

Alameda County Environmental Health

November 13, 2007

Ms. Donna Drogos Alameda County Environmental Health 1131 Harbor Parkway, Suite 250 Oakland, CA 94502-6577

Subject:

Third Quarter 2007 Groundwater Monitoring Report

Stop 'N' Save

20570 Stanton Avenue, Castro Valley, Alameda County, California

Apex Project No. STS08.001

RO0000179

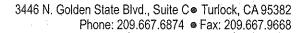
Ms. Drogos:

Enclosed, please find a copy of the October 30, 2007 Third Quarter 2007 Monitoring Report for the above referenced site, prepared by our consultant, Apex Envirotech, Inc.

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

Sincerely,

Sean Kapoor





October 30, 2007

Ms. Donna Drogos Alameda County Health Care Services Agency 1131 Harbor Parkway, Suite 250 Oakland, California 94502-6577

Subject:

Third Quarter 2007 Groundwater Monitoring Report

Stop 'N' Save

20570 Stanton Avenue, Castro Valley, Alameda County, California

Apex Project No. STS08.001

Dear Ms. Drogos:

Apex Envirotech, Inc. (Apex) has been authorized by Stop 'N' Save (SNS) to provide this report documenting the third quarter groundwater monitoring event conducted September 28, 2007. Groundwater monitoring results are provided in the attached figures and tables. Apex standard operating procedures, field data, and analytical results are provided as appendices.

This report is based, in part, on information obtained by Apex from SNS and Enviro Soil Tech Consultants (ESTC), and is subject to modification as newly acquired information may warrant.

#### SITE DESCRIPTION

The site is located at 20570 Stanton Avenue, Castro Valley, Alameda County, California (Figure 1). The site is situated in a commercial and residential area and is currently being used as a convenience store.

#### **BACKGROUND**

February 24, 2000 – Two 10,000-gallon gasoline underground storage tanks (USTs) were removed by Johnson Tank Testing and Maintenance. Results are detailed in ESTC's report titled *Soil Sampling Beneath Removed USTs*, dated March 8, 2000.

May 18, 2000 - ETSC submitted their Proposed Work Plan for Preliminary Site Assessment.

July 25 and 26, 2000 – ESTC over-excavated and treated by bio-remediation 150 cubic yards of contaminated soil in the vicinity of former UST areas. Results of the bio-remediation activities are detailed in ESTC's *Interim Corrective Action*, dated August 17, 2000. Results of the sampling and disposal activities are detailed in ETCS's *Soil Sampling, Treatment and Disposal* 

Third Quarter 2007 Groundwater Monitoring Report

Stop N Save, 20570 Stanton Avenue, Castro Valley, Alameda County, California

Page 2

of Contaminated Stockpiled Soi, dated August 21, 2000.

September 2000 – ESTC performed a preliminary soil and groundwater assessment of the subject property. Results are detailed in their report Preliminary Soil and Groundwater Assessment, dated October 13, 2000.

September 2007 – Apex was contracted by SNS to bring the site into compliance with all regulatory agencies.

#### **GENERAL SITE INFORMATION**

Site name:

Stop 'N' Save

Site address:

20570 Stanton Avenue, Castro Valley, California

**Current property owner:** 

Stop 'N' Save, Inc.

Current site use:

Active gasoline station

Current phase of project:

Groundwater monitoring

Tanks at site:

3 USTs

Number of wells:

3 groundwater monitoring wells

#### **GROUNDWATER MONITORING SUMMARY**

Gauging and sampling date:

September 28, 2007

Wells gauged and sampled:

SMW-1, SMW-2, and SMW-3

Wells gauged only:

None

Groundwater flow direction:

Northeast

**Groundwater gradient:** 

0.0133 ft/ft

Floating liquid hydrocarbon:

None

Laboratory:

Argon Laboratories, Ceres, California

#### **ANALYSIS PERFORMED:**

Analysis	Abbreviation	Designation	USEPA Method No.			
Total Petroleum Hydrocarbons	TPHg	Gas Range				
as Gasoline		Hydrocarbons				
Benzene		Aromatic				
Toluene	BTEX	Volatile				
Ethylbenzene	DILX	Organics				
Xylenes (Total)		Organics				
Tertiary Butyl Alcohol	TBA		8260B			
Methyl Tertiary Butyl Ether	MTBE	Five Fuel				
Di-isopropyl Ether	DIPE	Oxygenates				
Ethyl Tertiary Butyl Ether	ETBE	Oxygenates				
Tertiary Amyl Methyl Ether	TAME					
1,2-Dichloroethane	1,2-DCA	Lead				
Ethylene dibromide	EDB	Scavengers				

Analytical data for water samples are summarized in Table 3. Copies of the laboratory analytical report and Chain-of-Custody (COC) forms are included in Appendix C.

### MODIFICATIONS FROM STANDARD MONITORING PROGRAM:

None

#### CONCLUSIONS

According to analytical data, monitoring well STMW-1 reported above laboratory detection limits for TPHg, BTEX, MTBE, and TBA. Monitoring well STMW-2 reported above laboratory detection limits for MTBE only and monitoring well STMW-3 reported below laboratory detection limits for analyzed constituents.

#### RECOMMENDATIONS

Apex will continue quarterly groundwater monitoring. The next quarterly sampling event is scheduled for December 2007.

#### **APPENDICES:**

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

Figure 3: Groundwater Contour Map: September 28, 2007

Figure 4: TPHg in Groundwater Isoconcentration Map: September 28, 2007 Figure 5: Benzene in Groundwater Isoconcentration Map: September 28, 2007 Figure 6: MTBE in Groundwater Isoconcentration Map: September 28, 2007

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 Reports and COC Forms

#### REPORT DISTRIBUTION

Apex submitted a copy of this Report to:

Regulatory Oversight:

Ms. Donna Drogos

Alameda County Health Care Services Agency

1131 Harbor Parkway, Suite 250 Oakland, California 94502-6577

Mr. Chuck Headless

San Francisco Bay RWQCB 1515 Clay Street, Suite 1400

Oakland, CA 94612

Responsible Party:

Mr. Sean Kapoor

#### REMARKS/SIGNATURES

The information contained within this report reflects our professional opinions and was developed in accordance with currently available information, and accepted hydrogeologic and engineering practices.

The work described above was performed under the direct supervision of the professional geologists, registered with the State of California, whose signatures appear below.

We appreciate the opportunity to provide SNS geologic, engineering and environmental consulting services, and trust this report meets your needs. If you have any questions or comments, please call us at (209) 667-6874.

Sincerely,

APEX ENVIROTECH, INC.

Drew Van Allen

Senior Project Manager

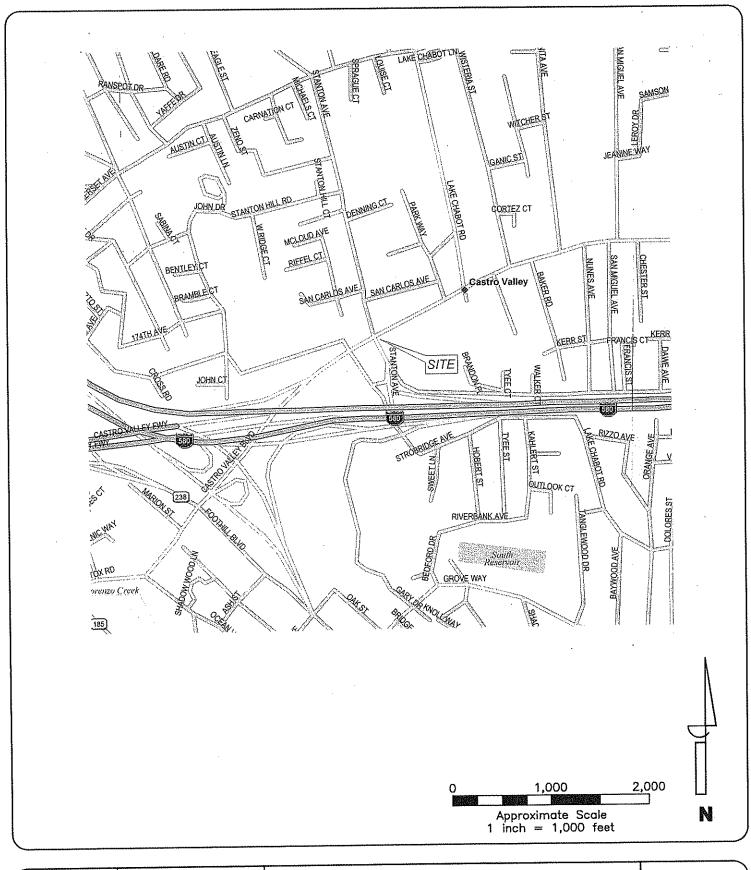
Michael S. Sgourakis, P.G.

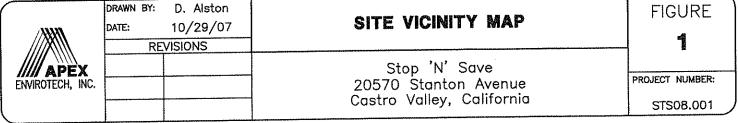
Senior Geologist

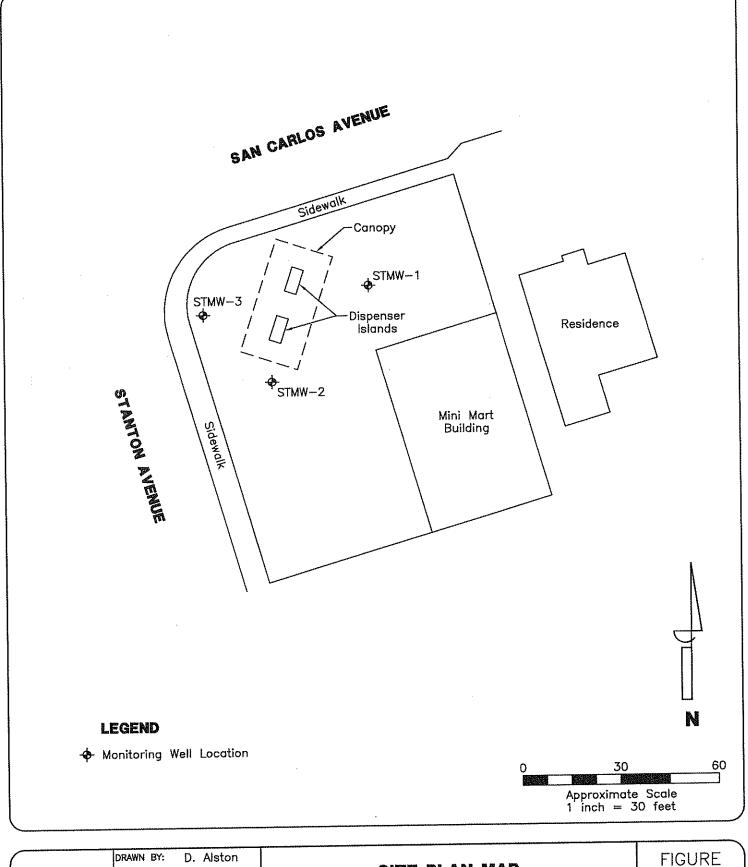
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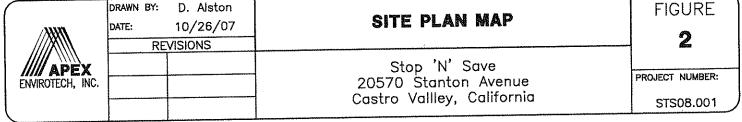
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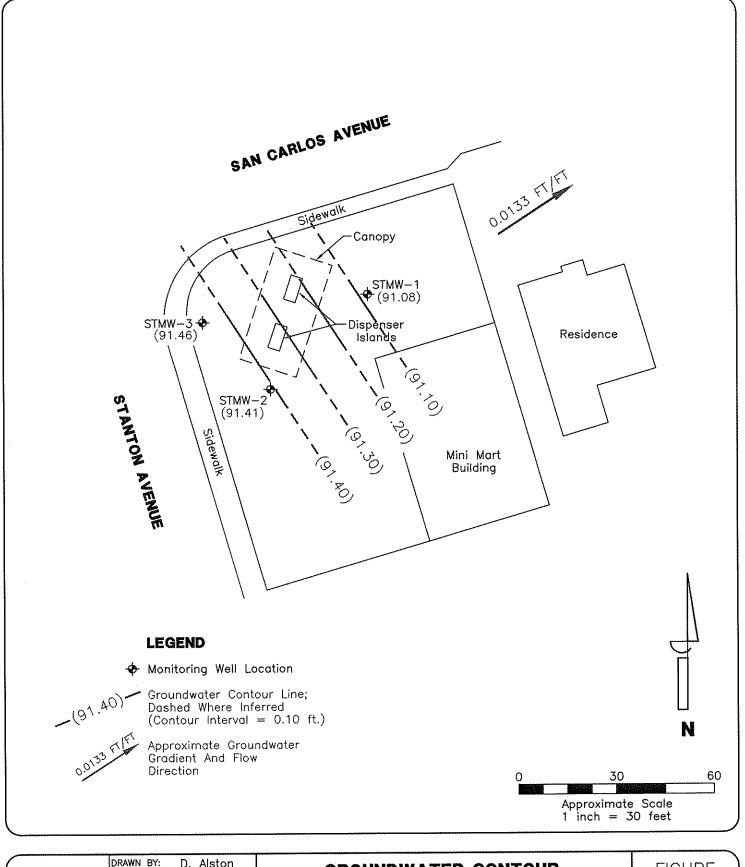
**FIGURES** 



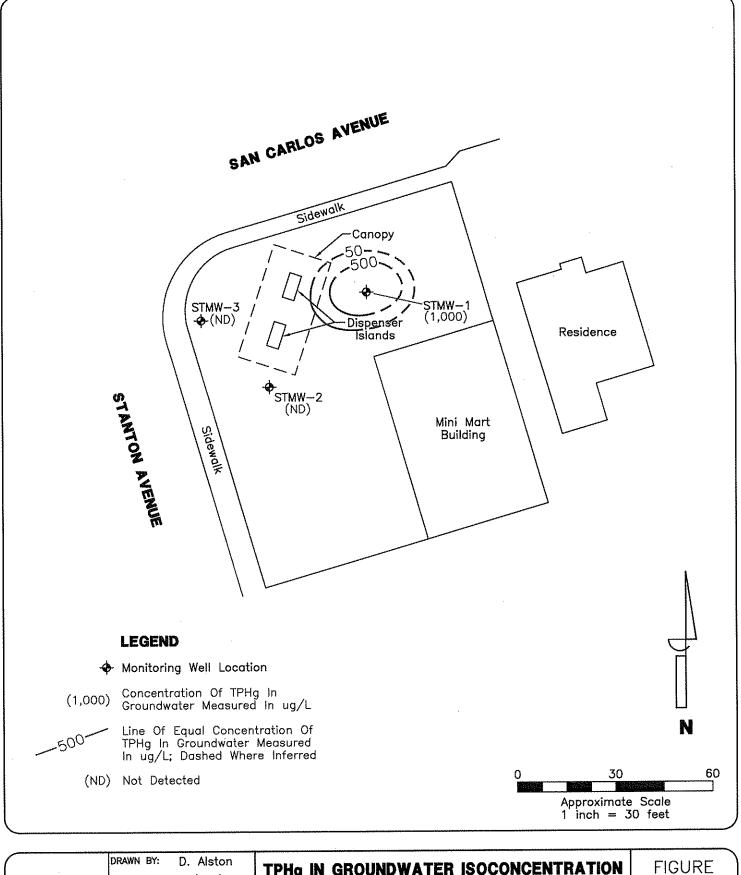


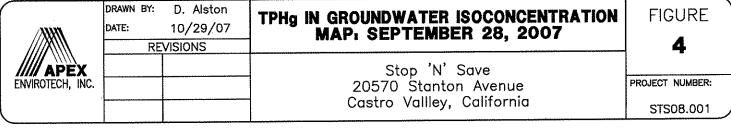


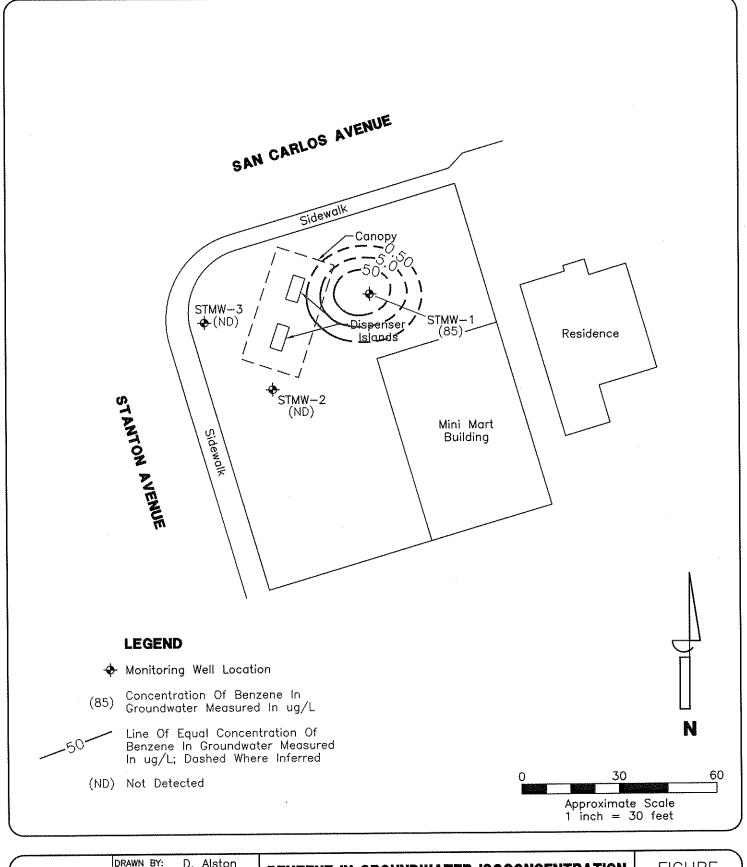


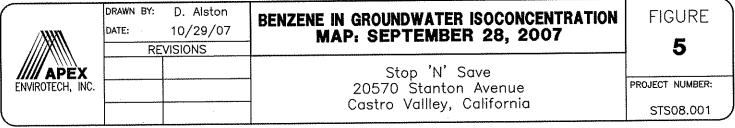


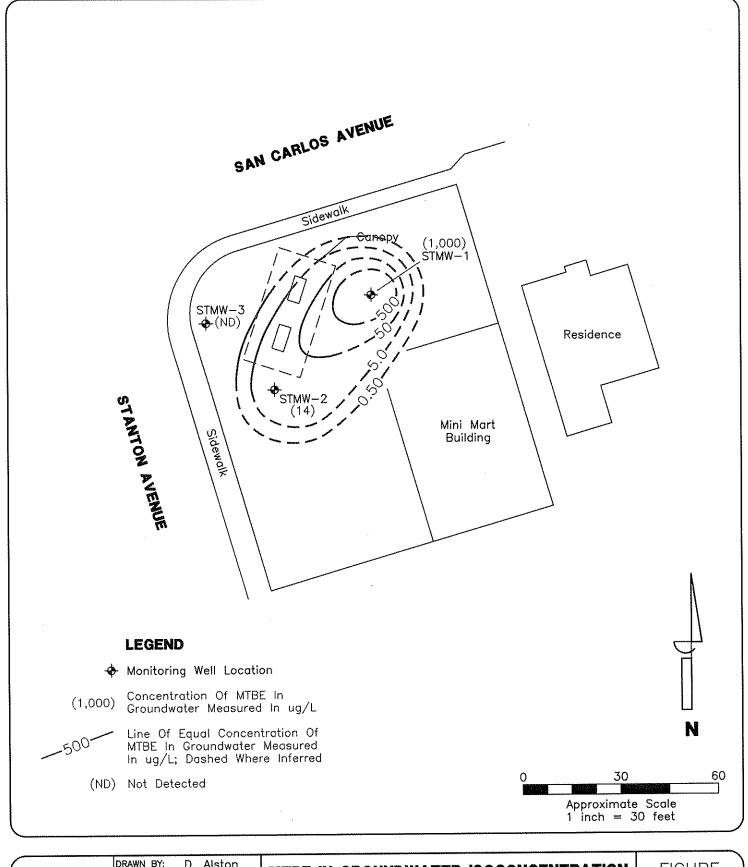
	DRAWN BY: D. Alston  DATE: 10/29/07  REVISIONS	GROUNDWATER CONTOUR Map. September 28, 2007	FIGURE 3
APEX ENVIROTECH, INC.		Stop 'N' Save 20570 Stanton Avenue Castro Vallley, California	PROJECT NUMBER:

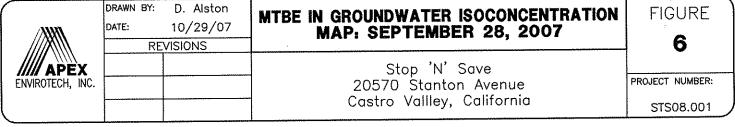














# TABLE 1 WELL CONSTRUCTION DETAILS

### Stop 'N' Save 20570 Stanton Avenue Castro Valley, California

Well Number	Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Casing Diameter (inches)	Screened Interval (feet)	Filter Pack Interval (feet)
STMW-1	10/2000	97.93	PVC	23	23	2	9-23	8-23
STMW-2	10/2000	99.04	PVC	23	22	2	9-22	8-22
STMW-3	10/2000	99.60	PVC	23	22	2	9-22	8-22

Notes:

TOC = Top of Casing

Pock (

# TABLE 2 GROUNDWATER ELEVATION DATA Stop 'N' Save 20570 Stanton Avenue Castro Valley, California

Monitoring	Date	Reference	Depth to	Groundwater	Groundwater
Well		Elevation*	Groundwater	Elevation	Flow Direction
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
STMW-1	10/4/00	97.93	8.34	89.59	
	1/4/01		7.86	90.07	
	3/16/04		5.70	92.23	
	7/5/04		4.82	93.11	
	12/28/04		6.82	91.11 92.30	
	3/24/05		5.63 5.75	92.30	
	7/20/05 9/15/05		7.44	90.49	
	12/12/05		5.32	92.61	
	3/16/06		3.90	94.03	
	6/22/06		7.12	90.81	
	9/21/06		7.78	90.15	
	12/18/06		9.12	88.81	
	3/22/07		6.82	91.11	
	6/29/07		9.86	88.07	E
	9/28/07		6.88	91.05	NE
STMW-2	10/4/00	99.04	8.22	90.82	M-144 VM
	1/4/01	]	6.70	92.34	
	3/16/04		6.08	92,96	
	7/5/04		6.86	92.18	ww.m
	12/28/04		6.22	92.82	
	3/24/05	ŀ	5.12	93.92	
	7/20/05		5.66	93.38	
	9/15/05		6.14	92.90	
	12/12/05		6.68	92.36 93.50	
	3/16/06		5.54 6.02	93.02	
	6/22/06 9/21/06		6.94	92.10	
	12/18/06		6.46	92.58	
	3/22/07		6.16	92.88	
	6/29/07		9.06	89.98	E
	9/28/07		7.63	91.41	NE
		00.00		04.40	
STMW-3	10/4/00	99.60	8.42	91.18	
	1/4/01	[	6.16 7.18	93,44 92,42	
	3/16/04		6.27	93.33	
	7/5/04		5.64	93.96	
			5.12	94.48	
	3/24/05 7/20/05		5.50	94.10	
	9/15/05		5.56	94.04	
	12/12/05		6.26	93.34	
	3/16/06		5.14	94.46	
	6/22/06		5.92	93.68	****
	9/21/06		6.14	93.46	
	12/18/06		5.50	94.10	
	3/22/07		5.88	93.72	
	6/29/07		8.82	90.78	E
	9/28/07		8.14	91.46	NE
<u></u>					

NOTES

<sup>\* -</sup>Wells surveyed to mean sea level

# TABLE 3 GROUNDWATER ANALYTICAL DATA Stop 'N' Save 20570 Stanton Avenue Castro Valley, California

Sample	Date	TPH as	Benzene	Toluene	Ethyl	Total	Five	Lead Scavengers					
ID		Gasoline			benzene	Xylenes	DIPE	ETBE	MTBE	TAME	TBA	1,2-DCA	EDB
•		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
											T		
STMW-1	10/4/00	60,000	<2,500	<2,500	<2,500	<2,500	*		69,000		<10,000		
	1/4/01	71,000	<5,000	<5,000	<5,000	<5,000		***	89,000		<20,000		
ŀ	3/16/04	260	52	64	7.9	27		***	39		<10		
l	7/5/04	2,100	17	240	2.6	12			520	***	<50		
	12/28/04	310	89	90	11	43			32	***	<20		
ĺ	3/24/05	630	43	140	16	110			20	***	<20		
	7/20/05	330b	12	22	<2.5	9.3			310	***	<50		
	9/15/05	15,000	<100	<100	<100	<100			13,000		2,500		
	12/12/05	130	4.4	7.5	<1.0	3			170		100		
****	3/16/06	<50	0.9	3.3	<0.5	<0.5			21		<10		
ĺ	6/22/06	130	4.4	54	<1.0	7.1			70		<20		
	9/21/06	880	110	32	18	110	w=+		1,600		2,300		
ŀ	12/18/06	240	7.5	130	1.4	7.6		*	130		180	***	
ĺ	3/22/07	190	17	13	2.9	14		***	360		170		
	6/29/07	2,700	340	45	52	310	***	***	3,100		2,200		
	9/28/07	1,000	85	2.5	11	72	<2.5	<2.5	1,000	<2.5	5,300	<2.5	<2.5
STMW-2	10/4/00	69	<5.0	<5.0	<5.0	<5.0			66		<20		
***************************************	1/4/01	110	<5.0	<5.0	<5.0	<5.0			120		<20		
i	3/16/04	1,100a	<10	<10	<10	<20			1,700		<200		
	7/5/04	1,800b	<10	<10	<10	<20			1,800		<200		
	12/28/04	1,000b	<13	<13	<13	<13			1,400	4-4	<250		
	3/24/05	760	<5.0	<5.0	<5.0	<5.0			930	***	180		
	7/20/05	64	<1.0	<1.0	<1.0	<1.0			43	war	920		
	9/15/05	53	<1.0	<1.0	<1.0	<1.0			88	444	130		***
	12/12/05	<50	2.2	<0.5	0.6	<0.5		***	23	***	22		
	3/16/06	<50	<0.5	<0.5	<0.5	<0.5			34		150	200	***
1	6/22/06	<50	<0.5	<0.5	<0.5	<0.5			12		200	***	***
	9/21/06	<50	<0.5	<0.5	<0.5	<0.5			16		41		
	12/18/06	<50	<0.5	<0.5	<0.5	<0.5		ļ <del></del>	15		71		
	3/22/07	<50	<0.5	<0.5	<0.5	<0.5	new .		15		71		***
	6/29/07	<50	<0.5	<0.5	<0.5	<0.5			14		<10	.0.5	.0.5
	9/28/07	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	14	<0.5	<5.0	<0.5	<0.5
STMW-3	10/4/00	<50	<5.0	<5.0	<5.0	<5.0	*		<5.0		<20	***	
	1/4/01	<50	<5.0	<5.0	<5.0	<5.0			<5.0		<20	***	
	3/16/04	<50	<0.5	<0.5	<.5	<1.0			2.8	***	<10		
	7/5/04	<25	<0.5	<0.5	<0.5	<1.0			2.5	***	<10		- 11-
1	12/28/04	<25	<0.5	<0.5	<0.5	<0.5	ļ <del></del>		2.0		<10		
·	3/24/05	<25	<0.5	<0.5	<0.5	<0.5			1.4		<10		:
	7/20/05	<50	<0.5	<0.5	<0.5	<0.5			1.5		<10		
	9/15/05	<50	<0.5	<0.5	<0.5	<0.5			1.2		<10		
	12/12/05	<50	<0.5	<0.5	<0.5	<0.5			<1.0		<0.5		
	3/16/06	<50	<0.5	<0.5	<0.5	<0.5			<1.0		<10		
ļ	6/22/06	<50	<0.5	<0.5	<0.5	<0.5			<1.0	~~*	<10		***
***************************************	9/21/06	<50	<0.5	<0.5	<0.5	<0.5			<1.0		<10		***
į	12/18/06	<50	<0.5	<0.5	<0.5	<0.5			<1.0		<10		***
1	3/22/07	<50	<0.5	<0.5	<0.5	<0.5			<1.0		<10		
ł	6/29/07	<50	<0.5	<0.5	<0.5	<0.5			<1.0		<10	+	
	9/28/07	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5

NOTES:

TPH - Total Petroleum Hydrocarbons

MTBE - Methyl Tertiary Butyl Ether

TBA - Tertiary Bulyl Alcohol
DIPE - Di-isopropyl Ether

ETBE - Ethyl Tertiary Butyl Ether

TAME - Tertiary Amyl Methyl Ether

1,2-DCA - 1,2-Dichloroethane

a -No other indication of gasoline besides MTBE

EDB - Ethylene Dibromide

ug/L - micrograms per Liter

b -TPH as gasoline reported value due to high concentration of MTBE present in the TPHg quantitation range

# 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:
- Standard operating procedures describing routine and periodic instrument maintenance;
- 4. "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 No : SNS08.001
Date: Q | 2 8107
Recorded By: TRU

Purge Volume

Well ID	Time Time	Depth to Bottom	Depth to Water	Depth to Product	Product Thickness	Product Thickness X 08	Water	Comments
STMw-3	23/6	20.91	8.14				6:13	
SMV-2	33/6	21.13	7.63				6.48	
STIMW-1	23/6	21.45	(P' 6 &				6,99	
							19.60	
				***************************************		-		
					* 327		,	
	No							
			***************************************					
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	Notes:	STMW-1 - lock / expansion cap - no good
Empty Drums:	<u>.</u>	STMW-2-polock/eslip cap
Full Drums:		STMW-3 - No. lock/slipicap

#### **PURGE/DEVELOPMENT LOG**

SITE INFOI Project Nai Project Ma Recorded I Project Add	me: nager: by:	Stop-N-Save Drew Van A Tamera Rog 20570 Stant	llen jers	Castro Valley	Task #:	SNS08.001 1 Type of Well:	Date: 4(28/07
PURGE VO	Well Casing Purge Volui Wat	Well Total Depth to Water Column Calculation	ater: nn Length: n (Water Co x ength	<u>O. No</u> Multiplier	feet below feet x Multiplier x	3 No Volumes	nes = Purge Volume) = <u>(e . 99</u> gallons
PURGE ME	ETHOD	Disposable PVC Bailer Submersible Centrifugal I Other	e Pump	SAMPLE M	ETHOD	_Disposable   _Pump _Grab _Other	Bailer
TIME	TEMP (deg. C)	рН	COND (uS/cm)	DO (mg/L)	REDOX (mV)	TOTAL VOLUME PURGED	COMMENTS
19.10	17-1	6.99	6-0			2.25	
1215	15.7	690	0-0			4.50	
1230	II S: T	WCC -				7.0	wentary
1000							sampled @ 12:50
							200045000
		<u> </u>	1.1				
	ļ						
Notes:							

**Drum Count:** 

## **PURGE/DEVELOPMENT LOG**

SITE INFOR Project Nar Project Mar Recorded b Project Add	me: nager: py: iress: LUME Well Casing Purge Volun	Diameter: Well Total D Depth to Wa Water Colur ne Calculatio	X repth: ater: n (Water Co		Task #:  , CA  feet below feet below feet x Multiplier	SNS08.001 1 ype of Well: 4-inch Top of Casing Top of Casing x No Volum	other , TD , WL nes = Purge Volume)
	\M/ate	(3.50 er Column Le	X	O.\\b Multiplier	. ×	3 No Volumes	$= \underbrace{6.48}_{\text{gallons}}$
	Multiplier: C	asing Diamel	er (inches)	= Gallons/lin	ear foot: 2 =		65, 6 = 15, 8 = 25
PURGE ME	THOD	Disposable PVC Bailer Submersible Centrifugal f	Pump	SAMPLE M	ETHOD	Disposable I Pump Grab Other	Bailer
TIME	TEMP. (deg. C)	pН	COND. (uS/cm)	DO (mg/L)	REDOX (mV)	TOTAL VOLUME PURGED	COMMENTS
1150	16.6	(V.80	Q10			A.0	
1155	10.9	6.86	0.0			4.25	
1200	(Q17)	687	0.0			6.50	Sampled @ 12:40
			4				
	,						
		A. LINGERMAN					
Notes:							
140103.							

**Drum Count:** 

#### **PURGE/DEVELOPMENT LOG**

SITE INFORMATIO Project Name: Project Manager: Recorded by: Project Address:	Stop-N-Save Drew Van Al Tamera Rog	len lers on Avenue, C	astro Valley	Task #:	SNS08.001 1 Type of Well:	Well ID: STM Date: 9   28   07 Monitoring	<u>E</u>
	asing Diameter: Well Total D Depth to Wa Water Colur Volume Calculatio	epth: iter: nn Lenath:	2-inch 20.91 8.14 12-73 umn Length	feet below feet	4-inch Top of Casing, Top of Casing, Top of Casing,	WL es = Purge Volume)	
Multipli	Water Column Le er: Casing Diamet	nath	O.\\circ Multiplier Gallons/line	. X ear foot: 2 =	3 No. Volumes 0 16, 4 = 0 68	= <u>(0,13</u> gallo 5, 6 = 1.5, 8 = 2.5	ns)
PURGE METHOD	Disposable PVC Bailer Submersible Centrifugal I Other	Bailer Pump	SAMPLE M	ETHOD	_ Disposable E _ Pump _ Grab _ Other	Bailer	
TIME TEN	i n-	COND. (uS/cm)	DO (mg/L)	REDOX (mV)	TOTAL VOLUME PURGED	COMMENTS	
Notes:		0.0 0.0 2.3			Q.10 4.0 6.0	Simple Af 3 12:20	

Drum Count:

## APPENDIX C

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY FORM

# argon laboratories

08 October 2007

Drew Van Allen Apex Envirotech, Inc. 3446 North Golden State Blvd., Suite C Turlock, CA 95382

RE: Stop-N-Save #108 Project Data

Enclosed are the results for sample(s) received on 09/28/07 17:00 by Argon Laboratories. The sample(s) were analyzed according to instructions in accompanying chain-of-custody. Results are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

The sample(s) will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Sample(s) may be archived by prior arrangement.

Thank you for the opportunity to service the needs of your company.

Sincerely,

Hiram Cueto Lab Manager

# Argon Analytical Services, Inc. CHAIN OF CUSTODY

	D-		Report To:									Samples Submitted To:						
		oject Informatio	##.		Consulta	ant:	Apex Env	virotech.	Inc.					Laborato	Argon Labs ,			
Project No:	SNS08.001 Stop-N-Save #	108			Address	: :	3446 Nor	th Golde	n State 8	3oulevard	t, Suite	С	Į,	Address	ï	2905 Railroad Avenue		
Project Title:	20570 Stanton			}	1	•	Turlock, (	CA 9538					1	_		Ceres, CA 95307		
Location:	Castro Valley,				Contact	: 1	Drew Var	n Allen						Contact:	:	(000) 504 0000		
Sampler's Name:	OUSTIC AGEN				Phone:		209 667-	6874						Phone: (209) 581-9280				
Sampler's Name: (print)	Tamera Rogers	s		ł	Fax:		209 667-							Fax: (209) 581-9282				
(print) Sampler's Signatur		-		İ					Bill To:					Global I	D#:	T0600183405		
Sampler's Signatur						<del></del>				<del></del>								
		<u></u>	- •		Client:		Apex Env	virotech.	Inc.	•	1 0 0	~	ŀ	Date Report Required:				
				ì	Address: 3446 North Golden State Boulevard, Suite C					v								
					<u> </u>		Turlock,	CA 9538		*******		····						
		URN AROUND TI			<b></b> ,	<del></del>			A	NALYSIS		<del></del>	T	——т				
RUSH	24 Hour	48 Hour	Standard	Special	1		!		•	' l				Į		·		
1			(5 days)	(10-14 days)	<b>!</b>	. 8	! !	1	ı İ	'			L	-	1			
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				<b>!</b>	1 1	Par #		1 j		1	ı		1	· [	<u> </u>	<u>'</u>		
***************************************				į i	ļ ,	TPHg/BTEX/5 oxygenates/1,2- DCA/EDB by 8260B			<u> </u>							COMMENTS		
	Field Pt.	Date	Time	# Containers	Matrix											Preservative		
Sample ID.	T			1	Water	x									Х	Hcl, ice		
STMW-1	STMW-1	9/28/07		4	vvater	<b>-^</b> -	$\vdash$	<del> </del>	<del>  </del>	<b></b>		1	<b></b>	·		Λ̈́ ¬̈́		
STMW-2	STMW-2	9/28/07	12:40	4	Water	х				<u> </u>		1	<u> </u>		X	Hcl, ice - 02		
	STMW-3	9 28 07	12:50	4	Water	x									X	Hcl, ice -0.3		
STMW-3	C-TYIRI C	+	<del></del>	<u> </u>	1													
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	2		Date: 1 .	Time:	PecliA.	d Bv: *	, 1 -	. /	′ ,}	, , )	Date:	20/2	Time: _	ــ بــ	5	SPECIAL INSTRUCTIONS:		
Relinquished by:			Date: 972	1 (100 T / D)	17 11	18	H		V1	202	Date:	75117	+1	1:1	) <i>U</i>	LLEVAN		
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<u> </u>			1_		Receive	d Po-					Date:		Time:					
Relinquished By:			Date:	Time:	L(GC61A4	au sy.										}		
					1					<del>,</del>	<del></del>							

# **Argon Laboratories Sample Receipt Checklist**

Client Name:	Apex Enviro	tech,	Inc.							Date	& Time	Rec	eived:	09	/28/07	1	7:00
-	Stop-N-Save									Clier	nt Projec	ct Nu	ımber:		SN	S08.001	
•	CR				Matr	ix:	Water	<b>V</b>	5	Soil				Slud	ge		
Sample Carrier:	Client [		Labo	ratory	1	Fed Ex		ŲP:	\$		Othe	er					
Argon Labs Project I	Number:	ŀ	H709	093													
Shipper Container in g	ood condition	?					Sample	es receiv	ed i	in prop	er conta	ainers	?	Yes		No	
	N/A	`	Yes	<b>V</b>	No		•	es receiv						Yes		No	
Samples received und	ler refrigeratio	n? '	Yes	V	No		Sufficie	ent samp	le v	olume	for requ	ueste	d tests?	Yes		No	
Chain of custody pres	ent?	,	Yes	7	No		Sample	es receiv	ed	within	holding t	time'	·	Yes		No	
Chain of Custody sign	ed by all parti	ies? `	Yes	团	No		Do sar	nples cor	ntai	n prop	er prese N/A		ve?	Yes	Ø	No	
Chain of Custody mate	ches all samp	le lab	els?				Do VO	A vials cor	ntair	n zero l	neadspac	æ?					
		,	Yes	<b>V</b>	No				-	(None	submitte	ed	)	Yes	$\Box$	No	
	AN	IY "No	o" RE	SPONSE	MUST	BE DETA	AILED II	N THE C	OM	MENT	S SECT	ION	BELOV	V 			
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Contacted By:						Subject	:										
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										<u> </u>							

@FSON laboratories 2905 Railroad Ave. Ceres, CA 95307 (209)581-9280 Fax (209)581-9282

Apex Envirotech, Inc.

3446 North Golden State Blvd., Suite C

Turlock, CA 95382

Project Number: SNS08.001

Project Name: Stop-N-Save #108

Project Manager: Drew Van Allen



Work Order No.:

H709093

### ANALYTICAL REPORT FOR SAMPLES

					_
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	
STMW-1	H709093-01	Water	09/28/07 12:30	09/28/07 17:00	
STMW-2	H709093-02	Water	09/28/07 12:40	09/28/07 17:00	
STMW-3	H709093-03	Water	09/28/07 12:50	09/28/07 17:00	

## @PGOM laboratories 2905 Railroad Ave. Ceres, CA 95307 (209)581-9280 Fax (209)581-9282

Apex Envirotech, Inc.

3446 North Golden State Blvd., Suite C

Turlock, CA 95382

Project Number: SNS08.001

Project Name: Stop-N-Save #108

Project Manager: Drew Van Allen



Work Order No.:

H709093

## TPH-gas & Volatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
STMW-1 (H709093-01) Water Sampled:	28-Sep-07 12:30	Received: 28-Se	p-07 17:00				
Fotal Petroleum Hydrocarbons @	1000	250	ug/L	5	05~Oct-07	EPA 8260B	
Gasoline					и	n	
Benzene	85	2.5	ч	tt			
Toluene	2.5	2.5	şı	t)	n		
Xylenes, total	72	5.0	Ħ	н	11	7	
Ethyl Benzene	11	2.5		11		n	
t-Butanol	5300	25	11	U	и	**	
Methyl tert-Butyl Ether	1000	2.5	Ħ	п	41	W	
Di-Isopropyl Ether	ND	2.5	f4.	tt	11	"	
Ethyl tert-Butyl Ether	ND	2.5	Ħ	0	и	И	
tert-Amyl Methyl Ether	ND	2.5	н	11	ti	0	
1,2-Dichloroethane	ND	2.5	ti ti	tt .	и	ŦĬ	
1,2-Dibromoethane (EDB)	ND	2.5	11	U	11	11	
		97 %			···	п	
Surr. Rec.:							
STMW-2 (H709093-02) Water Sampled:	: 28-Sep-07 12:40	Received: 28-Se	p-07 17:00				
Total Petroleum Hydrocarbons @	ND	50	ug/L	1	05-Oct-07	EPA 8260B	
Gasoline					н	н	
Benzene	ND	0.5	*1	i)	"	ų	
Toluene	ND	0.5	н	ti	v 81	ų.	
Xylenes, total	ND	1.0	0	II.		#	
Ethyl Benzene	ND	0.5	11	U	М		
t-Butanol	ND	5.0	11	#I	u·		
	14	0.5	н	M	1)		
Methyl tert-Butyl Ether		0.5	u	Ü	н	Ħ	
Methyl tert-Butyl Ether Di-Isopropyl Ether	ND	0.5					
Di-Isopropyl Ether	ND ND	0.5	н	**	н	Ħ	
Di-Isopropyl Ether Ethyl tert-Butyl Ether			11	#1 h1	u U	# #	
Di-Isopropyl Ether	ND	0.5			н О П	55 67 98	

Surr. Rec.:

100 %

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Apex Envirotech, Inc.

3446 North Golden State Blvd., Suite C

Turlock, CA 95382

Project Number: SNS08.001

Project Name: Stop-N-Save #108

Project Manager: Drew Van Allen

Work Order No.:

H709093

#### TPH-gas & Volatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
STMW-3 (H709093-03) Water	Sampled: 28-Sep-07 12:50	Received: 28-Se	p-07 17:00				
Total Petroleum Hydrocarbons @	ND .	50	ug/L	1	05-Oct-07	EPA 8260B	
Gasoline					ši	н	
Benzene	ND	0.5	н	н			
Toluene	ND	0.5	11	u	и	н	
Xylenes, total	ND	1.0	<b>\$1</b>	11	e	41	
Ethyl Benzene	ND	0.5	и	я	O	и	
t-Butanol	ND	5.0	el	н	п	н	
Methyl tert-Butyl Ether	ND	0.5	15	H	и	19	
Di-Isopropyl Ether	ND	0.5	**	n	H*	**	
Ethyl tert-Butyl Ether	ND	0.5	и		Ú	tt	
tert-Amyl Methyl Ether	ND	0.5	tt.	ti .	11	н	
1,2-Dichloroethane	ND	0.5	*1	v	If	υ	
1,2-Dibromoethane (EDB)	ND	0.5	и	d	0	11	
		110%			n	H	

Surr. Rec.:

110 %

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Apex Envirotech, Inc.

3446 North Golden State Blvd., Suite C

Turlock, CA 95382

Project Number: SNS08.001

Project Name: Stop-N-Save #108

Spike

Source

Project Manager: Drew Van Allen

Work Order No.:

H709093

RPD

%REC

## TPH-gas & Volatile Organic Compounds by GC/MS - Quality Control

Reporting

#### **Argon Laboratories**

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch HQJ0040 - EPA 5030B										
Blank (HQJ0040-BLK1)	Prepared & Analyzed: 10/05/07									
Surrogate: Fluorobenzene	45.5		ug/L	50.0		91	70-130			
Total Petroleum Hydrocarbons @ Gasoline	МD	50	н							
Benzene	ND	0.5	и							
Toluene	ND	0.5	*1							
Xylenes, total	ND	1.0	17							
Ethyl Benzene	ND	0.5	h							
t-Butanol	ND	5.0	н							
Methyl tert-Butyl Ether	ND	0.5	et .							
Di-Isopropyl Ether	ND	0.5	ı)							
Ethyl tert-Butyl Ether	ND	0.5	n							
tert-Amyl Methyl Ether	ND	0,5	н							
LCS (HQJ0040-BS1)				Prepared &	k Analyzed	: 10/05/07				
Methyl tert-Butyl Ether	49.2		ug/L	50.0		98	80-120			
LCS Dup (HQJ0040-BSD1)				Prepared &	k Analyzed	: 10/05/07				
Methyl tert-Butyl Ether	46,8		ug/L	50.0		94	80-120	5	20	
Matrix Spike (HQJ0040-MS1)	Source: H710001-08		Prepared & Analyzed: 10/05/07							
Total Petroleum Hydrocarbons @ Gasoline	1060		ug/L	1000	ND	106	70-130			
Matrix Spike Dup (HQJ0040-MSD1)	Source: H710001-08		-08	Prepared & Analyzed: 10/05/07						
Total Petroleum Hydrocarbons @ Gasoline	970		ug/L	1000	ND	97	70-130	9	20	

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Apex Envirotech, Inc.

3446 North Golden State Blvd., Suite C

Turlock, CA 95382

Project Number: SNS08.001

Project Name: Stop-N-Save #108

Project Manager: Drew Van Allen

Work Order No.: H709093

#### Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

dry

Sample results reported on a dry weight basis

RPD

Relative Percent Difference