



6 February, 2002

Steven Meeks  
Delta Environmental Consultants (Rancho Cordova)  
3164 Gold Camp Drive Ste. 200  
Rancho Cordova, CA 95670

RE: Arco 5387, Hayward, CA  
Sequoia Report: S202047

Enclosed are the results of analyses for samples received by the laboratory on 02/05/02 15:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew  
Client Services Representative

Lito Diaz  
Laboratory Director

CA ELAP Certificate #1624



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Rancho Cordova CA, 95670

Project: Arco 5387, Hayward, CA  
Project Number: 5387, Hayward, CA  
Project Manager: Steven Meeks

Reported:  
02/06/02 15:22

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
UST-5-14.0	S202047-01	Soil	02/05/02 12:15	02/05/02 15:30
UST-6-14.0	S202047-02	Soil	02/05/02 12:26	02/05/02 15:30

Sequoia Analytical - Sacramento

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Ron Chew, Client Services Representative

Page Page 1 of 8



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**Reported:**  
02/06/02 15:22

**Total Purgeable Hydrocarbons and BTEX by DHS LUFT  
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>UST-5-14.0 (S202047-01) Soil Sampled: 02/05/02 12:15 Received: 02/05/02 15:30</b>									
<b>Purgeable Hydrocarbons</b>	<b>56</b>	<b>5.0</b>	mg/kg	1	2020059	02/06/02	02/06/02	DHS LUFT	HC-12
Benzene	ND	0.050	"	"	"	"	"	"	
Toluene	0.099	0.050	"	"	"	"	"	"	
Ethylbenzene	0.23	0.050	"	"	"	"	"	"	
Xylenes (total)	0.050	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		95.1 %	60-140		"	"	"	"	
<b>UST-6-14.0 (S202047-02) Soil Sampled: 02/05/02 12:26 Received: 02/05/02 15:30</b>									
<b>Purgeable Hydrocarbons</b>	<b>100</b>	<b>5.0</b>	mg/kg	1	2020059	02/06/02	02/06/02	DHS LUFT	HC-12
Benzene	ND	0.050	"	"	"	"	"	"	
Toluene	0.28	0.050	"	"	"	"	"	"	
Ethylbenzene	0.70	0.050	"	"	"	"	"	"	
Xylenes (total)	2.2	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		98.6 %	60-140		"	"	"	"	



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**Total Metals by EPA 6000/7000 Series Methods  
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>UST-5-14.0 (S202047-01) Soil Sampled: 02/05/02 12:15 Received: 02/05/02 15:30</b>									
Lead	ND	10	mg/kg	4	2020045	02/05/02	02/06/02	EPA 6010B	
<b>UST-6-14.0 (S202047-02) Soil Sampled: 02/05/02 12:26 Received: 02/05/02 15:30</b>									
Lead	20	10	mg/kg	4	2020045	02/05/02	02/06/02	EPA 6010B	



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**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>UST-5-14.0 (S202047-01) Soil Sampled: 02/05/02 12:15 Received: 02/05/02 15:30</b>									
Tert-butyl alcohol	ND	1.0	mg/kg	1	2020053	02/06/02	02/06/02	EPA 8260B	
Methyl tert-butyl ether	1.2	0.10	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.10	"	"	"	"	"	"	
Ethyl tert-butyl ether	0.10	0.10	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	0.10	"	"	"	"	"	"	
Ethanol	ND	10	"	"	"	"	"	"	
<i>Surrogate: 1,2-DCA-d4</i>		115 %	60-140		"	"	"	"	
<b>UST-6-14.0 (S202047-02) Soil Sampled: 02/05/02 12:26 Received: 02/05/02 15:30</b>									
Tert-butyl alcohol	ND	5.0	mg/kg	5	2020053	02/06/02	02/06/02	EPA 8260B	
Methyl tert-butyl ether	0.74	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-DCA-d4</i>		94.4 %	60-140		"	"	"	"	

R-05



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**Total Purgeable Hydrocarbons and BTEX by DHS LUFT - Quality Control  
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2020059 - EPA 5030B (MeOH)</b>										
<b>Blank (2020059-BLK1)</b>					Prepared & Analyzed: 02/06/02					
Purgeable Hydrocarbons	ND	5.0	mg/kg							
Benzene	ND	0.050	"							
Toluene	ND	0.050	"							
Ethylbenzene	ND	0.050	"							
Xylenes (total)	ND	0.050	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	0.911		"	1.00		91.1	60-140			
<b>LCS (2020059-BS1)</b>					Prepared & Analyzed: 02/06/02					
Benzene	0.866	0.050	mg/kg	1.00		86.6	70-130			
Toluene	1.08	0.050	"	1.00		108	70-130			
Ethylbenzene	1.17	0.050	"	1.00		117	70-130			
Xylenes (total)	3.44	0.050	"	3.00		115	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	1.03		"	1.00		103	60-140			

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**Total Metals by EPA 6000/7000 Series Methods - Quality Control  
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2020045 - EPA 3050B</b>									
<b>Blank (2020045-BLK1)</b>					Prepared: 02/05/02 Analyzed: 02/06/02				
Lead	ND	2.5	mg/kg						
<b>LCS (2020045-BS1)</b>					Prepared: 02/05/02 Analyzed: 02/06/02				
Lead	50.0	2.5	mg/kg	50.0	100	80-120			
<b>Matrix Spike (2020045-MS1)</b>					Source: S202018-15 Prepared: 02/05/02 Analyzed: 02/06/02				
Lead	56.4	10	mg/kg	50.0	15	82.8	80-120		
<b>Matrix Spike Dup (2020045-MSD1)</b>					Source: S202018-15 Prepared: 02/05/02 Analyzed: 02/06/02				
Lead	57.5	10	mg/kg	50.0	15	85.0	80-120	1.93	20

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**Volatile Organic Compounds by EPA Method 8260B - Quality Control  
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2020053 - EPA 5030B [MeOH]</b>										
<b>Blank (2020053-BLK1)</b>					Prepared & Analyzed: 02/06/02					
Tert-butyl alcohol	ND	1.0	mg/kg							
Methyl tert-butyl ether	ND	0.10	"							
Di-isopropyl ether	ND	0.10	"							
Ethyl tert-butyl ether	ND	0.10	"							
Tert-amyl methyl ether	ND	0.10	"							
Ethanol	ND	10	"							
<i>Surrogate: 1,2-DCA-d4</i>	2.52		"	2.50		101	60-140			
<b>LCS (2020053-BS1)</b>					Prepared & Analyzed: 02/06/02					
Methyl tert-butyl ether	2.41	0.10	mg/kg	2.50		96.4	60-140			
<i>Surrogate: 1,2-DCA-d4</i>	2.73		"	2.50		109	60-140			
<b>LCS Dup (2020053-BSD1)</b>					Prepared & Analyzed: 02/06/02					
Methyl tert-butyl ether	2.56	0.10	mg/kg	2.50		102	60-140	6.04	25	
<i>Surrogate: 1,2-DCA-d4</i>	2.86		"	2.50		114	60-140			





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**Notes and Definitions**

- HC-12 Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
- R-05 The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
- 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

ARCO Facility no. **5397** City (Facility) **Hayward, California** Project manager (Consultant) **Steve Meeks**  
 ARCO engineer **Paul Supple** Telephone no. (ARCO) \_\_\_\_\_ Telephone no. (Consultant) **916-436-2613** Fax no. (Consultant) **916-639-8395**  
 Consultant name **Delta Environmental Consultants, Inc.** Address (Consultant) **3169 Field Camp Drive # 200, Rancho Cordova**

Laboratory name \_\_\_\_\_  
 Contract number \_\_\_\_\_

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BITEX 602/EPA 802D	BITEX/MS 602/EPA 8015	TPH Method 8015 Oil and Grease 413.1 413.2	TPH EPA 418.1/ASPH/OC	EPA 624/8240	EPA 605/8270	TCMP Metals EPA 810/800 VOL 1 VOL 2	EPA 821/8270	Total Lead	
			Soil	Water	Other	Ice	Acid												
<b>AST-549D</b>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<b>2/5/02</b>	<b>12:15</b>	<input checked="" type="checkbox"/>						<b>60000</b>	<b>7-01</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>AST-6-16D</b>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<b>2/5/02</b>	<b>12:26</b>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Method of shipment \_\_\_\_\_  
 Special detection: Unreported \_\_\_\_\_  
 Special OADR \_\_\_\_\_  
 Remarks \_\_\_\_\_  
 Lab number \_\_\_\_\_  
 Turnaround time \_\_\_\_\_  
 Priority Rush 1 Business Day   
 Rush 2 Business Days   
 Expedited 5 Business Days   
 Standard 10 Business Days

Condition of sample: \_\_\_\_\_ Temperature received: **11.9°C**  
 Requisitioned by sampler **Brett Barkley** Date **2/5/02** Time **1630** Received by **Monica Lopez** Date **2/5/02** Time **1630**  
 Requisitioned by \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Requisitioned by \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_