



March 18, 2014

Juliet Tabajonda
Department of Toxic Substances Control-ECL
700 Heinz Street, Suite 150
Berkeley, CA 94710
Tel: (510) 540-3746
Fax:(510) 540-2305

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1400484
Client Reference : 13AT0092

Enclosed are the results for sample(s) received on February 18, 2014 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Rodriguez', is written over a light gray rectangular background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Department of Toxic Substances Control-ECL
700 Heinz Street, Suite 150
Berkeley, CA 94710

Project Number : 13AT0092
Report To : Juliet Tabajonda
Reported : 03/18/2014

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OS-10	1400484-01	Water	2/18/14 11:25	2/18/14 15:44

CASE NARRATIVE

Sample Receiving/General Comments:

1. All sample containers were received intact with proper chain of custody documentation.
2. Information on sample receipt conditions including discrepancies can be found in the attached Sample Receipt Acknowledgment Form.
3. Sample preservation was verified upon receipt of samples, if applicable.
4. Sample for VOCs (524.2) was subcontracted to Weck Laboratories, Inc. with ELAP Cert.# 1132.
5. Sample for Radiochemistry (900, 901.1, 905, A-01-R and 906) was subcontracted to Test America with NELAP Cert.# 09266CA.



Certificate of Analysis

Department of Toxic Substances Control-ECL
700 Heinz Street, Suite 150
Berkeley, CA 94710

Project Number : 13AT0092
Report To : Juliet Tabajonda
Reported : 03/18/2014

Client Sample ID OS-10

Lab ID: 1400484-01

Fluoride by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Fluoride	0.49	0.10	NA	1	B4C0259	03/12/2014	03/12/14 10:17	

Perchlorate by Ion Chromatography EPA 314.0

Analyst: PT

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Perchlorate	ND	2.0	NA	1	B4C0258	03/12/2014	03/12/14 09:22	



Certificate of Analysis

Department of Toxic Substances Control-ECL
700 Heinz Street, Suite 150
Berkeley, CA 94710

Project Number : 13AT0092
Report To : Juliet Tabajonda
Reported : 03/18/2014

QUALITY CONTROL SECTION

Fluoride by Ion Chromatography EPA 300 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B4C0259 - No_Prep_IC_1									
Blank (B4C0259-BLK1)				Prepared: 3/12/2014 Analyzed: 3/12/2014					
Fluoride	ND	0.10			NR				
LCS (B4C0259-BS1)				Prepared: 3/12/2014 Analyzed: 3/12/2014					
Fluoride	0.962900	0.10	1.00000		96.3	90 - 110			
Duplicate (B4C0259-DUP1)				Source: 1400484-01 Prepared: 3/12/2014 Analyzed: 3/12/2014					
Fluoride	0.489200	0.10		0.485600	NR		0.739	20	
Matrix Spike (B4C0259-MS1)				Source: 1400484-01 Prepared: 3/12/2014 Analyzed: 3/12/2014					
Fluoride	3.13750	0.50	2.50000	0.485600	106	80 - 120			
Matrix Spike Dup (B4C0259-MSD1)				Source: 1400484-01 Prepared: 3/12/2014 Analyzed: 3/12/2014					
Fluoride	3.13400	0.50	2.50000	0.485600	106	80 - 120	0.112	20	



Certificate of Analysis

Department of Toxic Substances Control-ECL
 700 Heinz Street, Suite 150
 Berkeley, CA 94710

Project Number : 13AT0092
 Report To : Juliet Tabajonda
 Reported : 03/18/2014

Perchlorate by Ion Chromatography EPA 314.0 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	----------------	--------	-----	--------------	-------

Batch B4C0258 - No_Prep_IC_2

Blank (B4C0258-BLK1)				Prepared: 3/12/2014 Analyzed: 3/12/2014					
Perchlorate	ND	2.0			NR				
LCS (B4C0258-BS1)				Prepared: 3/12/2014 Analyzed: 3/12/2014					
Perchlorate	27.3886	2.0	25.0000		110	85 - 115			
Duplicate (B4C0258-DUP1)				Source: 1400484-01 Prepared: 3/12/2014 Analyzed: 3/12/2014					
Perchlorate	ND	2.0		ND	NR			15	
Matrix Spike (B4C0258-MS1)				Source: 1400484-01 Prepared: 3/12/2014 Analyzed: 3/12/2014					
Perchlorate	9.26100	2.0	10.0000	ND	92.6	80 - 120			
Matrix Spike Dup (B4C0258-MSD1)				Source: 1400484-01 Prepared: 3/12/2014 Analyzed: 3/12/2014					
Perchlorate	8.80040	2.0	10.0000	ND	88.0	80 - 120	5.10	15	



Certificate of Analysis

Department of Toxic Substances Control-ECL

Project Number : 13AT0092

700 Heinz Street, Suite 150

Report To : Juliet Tabajonda

Berkeley , CA 94710

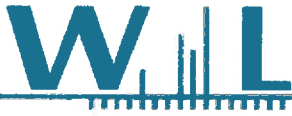
Reported : 03/18/2014

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.



Certificate of Analysis

Project: 1400484

Report Date: 02/25/14 16:29
Received Date: 02/19/14 13:00
Turnaround Time: Normal

Phones: (562) 989-4045
Fax: (562) 989-4040

P.O. #: SC08430

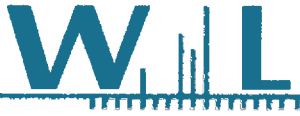
Attn: Diane Galvan

Client: Advanced Technology Laboratories
3275 Walnut Street
Signal Hill, CA 90755

Dear Diane Galvan :

Enclosed are the results of analyses for samples received 2/19/2014 with the Chain of Custody document. The samples were received in good condition, at 2.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Table with columns: Lab Sample ID, Sample ID, Matrix, Analyte, Result, MDL, MRL, Units, Dil, Method, Prepared, Analyzed, Batch, Qualifier. Contains 30 rows of chemical analysis data.

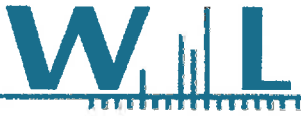


Certificate of Analysis

Lab Sample ID: 4B19034-01
Sampled by: ClientSample ID: 1400484-01 / OS-10
Sampled: 02/18/14 11:25

Matrix: Water

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Bromoform	ND	0.19	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Bromomethane	ND	0.49	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Carbon tetrachloride	ND	0.12	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Chlorobenzene	ND	0.15	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Chloroethane	ND	0.17	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Chloroform	ND	0.12	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Chloromethane	ND	0.11	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
cis-1,2-Dichloroethene	ND	0.11	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
cis-1,3-Dichloropropene	ND	0.11	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Dibromochloromethane	ND	0.20	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Dibromomethane	ND	0.20	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Dichlorodifluoromethane (Freon 12)	ND	0.12	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Di-isopropyl ether	ND	0.80	2.0	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Ethyl tert-butyl ether	ND	0.40	2.0	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Ethylbenzene	ND	0.21	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Freon 113	ND	0.27	5.0	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Hexachlorobutadiene	ND	0.40	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Isopropylbenzene	ND	0.18	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
m,p-Xylene	ND	0.33	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
m-Dichlorobenzene	ND	0.14	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Methyl tert-butyl ether (MTBE)	ND	0.19	2.0	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Methylene chloride	ND	0.14	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Naphthalene	ND	0.42	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
n-Butylbenzene	ND	0.29	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
n-Propylbenzene	ND	0.18	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
o-Dichlorobenzene	ND	0.19	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
o-Xylene	ND	0.20	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
p-Dichlorobenzene	ND	0.18	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
p-Isopropyltoluene	ND	0.25	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
sec-Butylbenzene	ND	0.24	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Styrene	ND	0.19	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Tert-amyl methyl ether	ND	0.59	2.0	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
tert-Butylbenzene	ND	0.18	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Tetrachloroethene	ND	0.18	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
THMs, Total	ND	0.60	2.0	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Toluene	ND	0.14	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
trans-1,3-Dichloropropene	ND	0.15	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Trichloroethene	ND	0.18	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Trichlorofluoromethane	ND	0.18	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Vinyl chloride	ND	0.18	0.50	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Xylenes, Total	ND	0.33	1.0	ug/l	1	EPA 524.2	2/24/14	2/24/14 15:45	W4B1066	
Surrogate: 1,2-Dichlorobenzene-d4	107 %		70-130	%		Concentration: 10.7				
Surrogate: 4-Bromofluorobenzene	112 %		70-130	%		Concentration: 11.2				



Certificate of Analysis

Quality Control Section

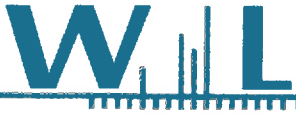
Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W481066 - EPA 524.2

Prepared: 02/24/14 Analyzed: 02/24/14 13:52

Blank (W481066-BLK1)

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Surrogate: 1,2-Dichlorobenzene-d4		10.5		ug/l	10.0	105	70-130		
Surrogate: 4-Bromofluorobenzene		11.2		ug/l	10.0	112	70-130		
Dichlorodifluoromethane (Freon 12)		ND		ug/l					
Chloromethane		ND		ug/l					
Vinyl chloride		ND		ug/l					
Bromomethane		ND		ug/l					
Chloroethane		ND		ug/l					
Trichlorofluoromethane		ND		ug/l					
Freon 113		ND		ug/l					
1,1-Dichloroethene		ND		ug/l					
Methylene chloride		ND		ug/l					
trans-1,2-Dichloroethene		ND		ug/l					
Methyl tert-butyl ether (MTBE)		ND		ug/l					
1,1-Dichloroethane		ND		ug/l					
Di-isopropyl ether		ND		ug/l					
Ethyl tert-butyl ether		ND		ug/l					
2-Butanone		ND		ug/l					
2,2-Dichloropropane		ND		ug/l					
cis-1,2-Dichloroethene		ND		ug/l					
Bromochloromethane		ND		ug/l					
Chloroform		ND		ug/l					
1,1,1-Trichloroethane		ND		ug/l					
Carbon tetrachloride		ND		ug/l					
1,1-Dichloropropene		ND		ug/l					
Benzene		ND		ug/l					
1,2-Dichloroethane		ND		ug/l					
Tert-amyl methyl ether		ND		ug/l					
Trichloroethene		ND		ug/l					
1,2-Dichloropropane		ND		ug/l					
Dibromomethane		ND		ug/l					
Bromodichloromethane		ND		ug/l					
cis-1,3-Dichloropropene		ND		ug/l					
4-Methyl-2-pentanone		ND		ug/l					
2-Chloroethyl vinyl ether		ND		ug/l					
Toluene		ND		ug/l					
trans-1,3-Dichloropropene		ND		ug/l					
1,1,2-Trichloroethane		ND		ug/l					
Tetrachloroethene		ND		ug/l					
1,3-Dichloropropane		ND		ug/l					
Dibromochloromethane		ND		ug/l					
2-Hexanone		ND		ug/l					



Certificate of Analysis

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4B1066 - EPA 524.2

Blank (W4B1066-BLK1)					Prepared: 02/24/14		Analyzed: 02/24/14 13:52		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Chlorobenzene		ND		ug/l					
1,1,1,2-Tetrachloroethane		ND		ug/l					
Ethylbenzene		ND		ug/l					
m,p-Xylene		ND		ug/l					
o-Xylene		ND		ug/l					
Styrene		ND		ug/l					
Bromoform		ND		ug/l					
Isopropylbenzene		ND		ug/l					
Bromobenzene		ND		ug/l					
1,1,2,2-Tetrachloroethane		ND		ug/l					
1,2,3-Trichloropropane		ND		ug/l					
n-Propylbenzene		ND		ug/l					
2-Chlorotoluene		ND		ug/l					
4-Chlorotoluene		ND		ug/l					
1,3,5-Trimethylbenzene		ND		ug/l					
tert-Butylbenzene		ND		ug/l					
1,2,4-Trimethylbenzene		ND		ug/l					
sec-Butylbenzene		ND		ug/l					
m-Dichlorobenzene		ND		ug/l					
p-Isopropyltoluene		ND		ug/l					
p-Dichlorobenzene		ND		ug/l					
o-Dichlorobenzene		ND		ug/l					
n-Butylbenzene		ND		ug/l					
1,2,4-Trichlorobenzene		ND		ug/l					
Hexachlorobutadiene		ND		ug/l					
Naphthalene		ND		ug/l					
1,2,3-Trichlorobenzene		ND		ug/l					
Xylenes, Total		ND		ug/l					
1,3-Dichloropropene, Total		ND		ug/l					
THMs, Total		ND		ug/l					

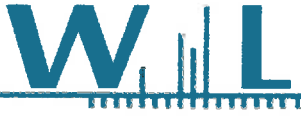
LCS (W4B1066-BS1)

Prepared: 02/24/14 Analyzed: 02/24/14 11:25

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Surrogate: 1,2-Dichlorobenzene-d4		11.2		ug/l	10.0	112	70-130		
Surrogate: 4-Bromofluorobenzene		11.3		ug/l	10.0	113	70-130		
Dichlorodifluoromethane (Freon 12)		6.82		ug/l	6.00	114	70-130		
Chloromethane		5.56		ug/l	6.00	93	70-130		
Vinyl chloride		6.67		ug/l	6.00	111	70-130		
Bromomethane		5.10		ug/l	6.00	85	70-130		
Chloroethane		6.14		ug/l	6.00	102	70-130		
Trichlorofluoromethane		6.83		ug/l	6.00	114	70-130		
Freon 113		6.65		ug/l	6.00	111	70-130		
1,1-Dichloroethene		6.48		ug/l	6.00	108	70-130		
Methylene chloride		6.47		ug/l	6.00	108	70-130		

4B19034

Page 4 of 8



Certificate of Analysis

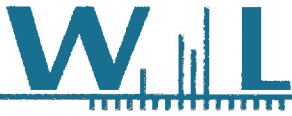
Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W481066 - EPA 524.2

LCS (W481066-BS1)

Prepared: 02/24/14 Analyzed: 02/24/14 11:25

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
trans-1,2-Dichloroethene	6.72	6.72		ug/l	6.00	112	70-130		
Methyl tert-butyl ether (MTBE)	6.92	6.92		ug/l	6.00	115	70-130		
1,1-Dichloroethane	6.73	6.73		ug/l	6.00	112	70-130		
Di-isopropyl ether	6.34	6.34		ug/l	6.00	106	70-130		
Ethyl tert-butyl ether	7.47	7.47		ug/l	6.00	124	70-130		
2-Butanone	8.26	8.26	Q-08	ug/l	6.00	138	70-130		
2,2-Dichloropropane	7.40	7.40		ug/l	6.00	123	70-130		
cis-1,2-Dichloroethene	6.72	6.72		ug/l	6.00	112	70-130		
Bromochloromethane	7.45	7.45		ug/l	6.00	124	70-130		
Chloroform	7.19	7.19		ug/l	6.00	120	70-130		
1,1,1-Trichloroethane	9.99	9.99	Q-08	ug/l	6.00	166	70-130		
Carbon tetrachloride	11.8	11.8	Q-08	ug/l	6.00	197	70-130		
1,1-Dichloropropene	7.69	7.69		ug/l	6.00	128	70-130		
Benzene	7.00	7.00		ug/l	6.00	117	70-130		
1,2-Dichloroethane	6.96	6.96		ug/l	6.00	116	70-130		
Tert-amyl methyl ether	7.53	7.53		ug/l	6.00	126	70-130		
Trichloroethene	6.78	6.78		ug/l	6.00	113	70-130		
1,2-Dichloropropane	6.77	6.77		ug/l	6.00	113	70-130		
Dibromomethane	7.10	7.10		ug/l	6.00	118	70-130		
Bromodichloromethane	6.92	6.92		ug/l	6.00	115	70-130		
cis-1,3-Dichloropropene	7.11	7.11		ug/l	6.00	118	70-130		
4-Methyl-2-pentanone	7.45	7.45		ug/l	6.00	124	70-130		
2-Chloroethyl vinyl ether	6.64	6.64		ug/l	6.00	111	70-130		
Toluene	6.69	6.69		ug/l	6.00	112	70-130		
trans-1,3-Dichloropropene	7.13	7.13		ug/l	6.00	119	70-130		
1,1,2-Trichloroethane	7.23	7.23		ug/l	6.00	120	70-130		
Tetrachloroethene	6.57	6.57		ug/l	6.00	110	70-130		
1,3-Dichloropropane	6.98	6.98		ug/l	6.00	116	70-130		
Dibromochloromethane	6.94	6.94		ug/l	6.00	116	70-130		
2-Hexanone	7.45	7.45		ug/l	6.00	124	70-130		
Chlorobenzene	6.58	6.58		ug/l	6.00	110	70-130		
1,1,1,2-Tetrachloroethane	6.62	6.62		ug/l	6.00	110	70-130		
Ethylbenzene	6.91	6.91		ug/l	6.00	115	70-130		
m,p-Xylene	6.33	6.33		ug/l	6.00	106	70-130		
o-Xylene	6.51	6.51		ug/l	6.00	108	70-130		
Styrene	6.54	6.54		ug/l	6.00	109	70-130		
Bromoform	6.80	6.80		ug/l	6.00	113	70-130		
Isopropylbenzene	6.81	6.81		ug/l	6.00	114	70-130		
Bromobenzene	6.68	6.68		ug/l	6.00	111	70-130		
1,1,2,2-Tetrachloroethane	6.98	6.98		ug/l	6.00	116	70-130		
1,2,3-Trichloropropane	6.49	6.49		ug/l	6.00	108	70-130		
n-Propylbenzene	6.95	6.95		ug/l	6.00	116	70-130		
2-Chlorotoluene	6.58	6.58		ug/l	6.00	110	70-130		
4-Chlorotoluene	6.58	6.58		ug/l	6.00	110	70-130		



Certificate of Analysis

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4B1066 - EPA 524.2

LCS (W4B1066-BS1)

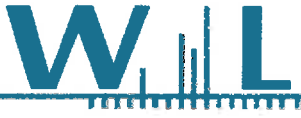
Prepared: 02/24/14 Analyzed: 02/24/14 11:25

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene		6.62		ug/l	6.00	110	70-130		
tert-Butylbenzene		6.35		ug/l	6.00	106	70-130		
1,2,4-Trimethylbenzene		6.78		ug/l	6.00	113	70-130		
sec-Butylbenzene		7.02		ug/l	6.00	117	70-130		
m-Dichlorobenzene		6.43		ug/l	6.00	107	70-130		
p-Isopropyltoluene		6.84		ug/l	6.00	114	70-130		
p-Dichlorobenzene		6.65		ug/l	6.00	111	70-130		
o-Dichlorobenzene		6.55		ug/l	6.00	109	70-130		
n-Butylbenzene		6.95		ug/l	6.00	116	70-130		
1,2,4-Trichlorobenzene		6.80		ug/l	6.00	113	70-130		
Hexachlorobutadiene		6.46		ug/l	6.00	108	70-130		
Naphthalene		6.94		ug/l	6.00	116	70-130		
1,2,3-Trichlorobenzene		6.76		ug/l	6.00	113	70-130		

LCS Dup (W4B1066-BSD1)

Prepared: 02/24/14 Analyzed: 02/24/14 12:55

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Surrogate: 1,2-Dichlorobenzene-d4		11.2		ug/l	10.0	112	70-130		
Surrogate: 4-Bromofluorobenzene		11.4		ug/l	10.0	114	70-130		
Dichlorodifluoromethane (Freon 12)		6.50		ug/l	6.00	108	70-130	5	30
Chloromethane		6.22		ug/l	6.00	104	70-130	11	30
Vinyl chloride		6.39		ug/l	6.00	106	70-130	4	30
Bromomethane		5.65		ug/l	6.00	94	70-130	10	30
Chloroethane		6.11		ug/l	6.00	102	70-130	0.5	30
Trichlorofluoromethane		6.41		ug/l	6.00	107	70-130	6	30
Freon 113		6.37		ug/l	6.00	106	70-130	4	30
1,1-Dichloroethene		6.18		ug/l	6.00	103	70-130	5	30
Methylene chloride		6.17		ug/l	6.00	103	70-130	5	30
trans-1,2-Dichloroethene		6.49		ug/l	6.00	108	70-130	3	30
Methyl tert-butyl ether (MTBE)		6.67		ug/l	6.00	111	70-130	4	30
1,1-Dichloroethane		6.26		ug/l	6.00	104	70-130	7	30
Di-isopropyl ether		6.75		ug/l	6.00	112	70-130	6	30
Ethyl tert-butyl ether		7.37		ug/l	6.00	123	70-130	1	30
2-Butanone		11.1	Q-08	ug/l	6.00	184	70-130	29	30
2,2-Dichloropropane		7.43		ug/l	6.00	124	70-130	0.4	30
cis-1,2-Dichloroethene		6.34		ug/l	6.00	106	70-130	6	30
Bromochloromethane		7.30		ug/l	6.00	122	70-130	2	30
Chloroform		6.73		ug/l	6.00	112	70-130	7	30
1,1,1-Trichloroethane		9.64	Q-08	ug/l	6.00	161	70-130	4	30
Carbon tetrachloride		10.4	Q-08	ug/l	6.00	174	70-130	13	30
1,1-Dichloropropene		10.2	BS-03	ug/l	6.00	170	70-130	28	30
Benzene		6.83		ug/l	6.00	114	70-130	2	30
1,2-Dichloroethane		6.73		ug/l	6.00	112	70-130	3	30
Tert-amyl methyl ether		7.54		ug/l	6.00	126	70-130	0.1	30
Trichloroethene		6.52		ug/l	6.00	109	70-130	4	30



Certificate of Analysis

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W481066 - EPA 524.2

LCS Dup (W481066-BSD1)

Prepared: 02/24/14 Analyzed: 02/24/14 12:55

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
1,2-Dichloropropane	6.42			ug/l	6.00	107	70-130	5	30
Dibromomethane	7.01			ug/l	6.00	117	70-130	1	30
Bromodichloromethane	6.75			ug/l	6.00	112	70-130	2	30
cis-1,3-Dichloropropene	7.12			ug/l	6.00	119	70-130	0.1	30
4-Methyl-2-pentanone	6.95			ug/l	6.00	116	70-130	7	30
2-Chloroethyl vinyl ether	6.58			ug/l	6.00	110	70-130	0.9	30
Toluene	6.54			ug/l	6.00	109	70-130	2	30
trans-1,3-Dichloropropene	6.93			ug/l	6.00	116	70-130	3	30
1,1,2-Trichloroethane	7.11			ug/l	6.00	118	70-130	2	30
Tetrachloroethene	6.58			ug/l	6.00	110	70-130	0.2	30
1,3-Dichloropropane	7.14			ug/l	6.00	119	70-130	2	30
Dibromochloromethane	6.83			ug/l	6.00	114	70-130	2	30
2-Hexanone	6.95			ug/l	6.00	116	70-130	7	30
Chlorobenzene	6.57			ug/l	6.00	110	70-130	0.2	30
1,1,1,2-Tetrachloroethane	6.52			ug/l	6.00	109	70-130	2	30
Ethylbenzene	6.86			ug/l	6.00	114	70-130	0.7	30
m,p-Xylene	6.33			ug/l	6.00	106	70-130	0	30
o-Xylene	6.47			ug/l	6.00	108	70-130	0.6	30
Styrene	6.65			ug/l	6.00	111	70-130	2	30
Bromoform	6.95			ug/l	6.00	116	70-130	2	30
Isopropylbenzene	7.00			ug/l	6.00	117	70-130	3	30
Bromobenzene	6.92			ug/l	6.00	115	70-130	4	30
1,1,2,2-Tetrachloroethane	7.06			ug/l	6.00	118	70-130	1	30
1,2,3-Trichloropropane	6.63			ug/l	6.00	110	70-130	2	30
n-Propylbenzene	7.09			ug/l	6.00	118	70-130	2	30
2-Chlorotoluene	6.66			ug/l	6.00	111	70-130	1	30
4-Chlorotoluene	6.52			ug/l	6.00	109	70-130	0.9	30
1,3,5-Trimethylbenzene	6.78			ug/l	6.00	113	70-130	2	30
tert-Butylbenzene	6.44			ug/l	6.00	107	70-130	1	30
1,2,4-Trimethylbenzene	6.74			ug/l	6.00	112	70-130	0.6	30
sec-Butylbenzene	7.08			ug/l	6.00	118	70-130	0.9	30
m-Dichlorobenzene	6.55			ug/l	6.00	109	70-130	2	30
p-Isopropyltoluene	6.85			ug/l	6.00	114	70-130	0.1	30
p-Dichlorobenzene	6.79			ug/l	6.00	113	70-130	2	30
o-Dichlorobenzene	6.71			ug/l	6.00	112	70-130	2	30
n-Butylbenzene	6.97			ug/l	6.00	116	70-130	0.3	30
1,2,4-Trichlorobenzene	6.95			ug/l	6.00	116	70-130	2	30
Hexachlorobutadiene	6.74			ug/l	6.00	112	70-130	4	30
Naphthalene	7.53			ug/l	6.00	126	70-130	8	30
1,2,3-Trichlorobenzene	7.24			ug/l	6.00	121	70-130	7	30

Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.

Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu
(Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

- BS-03** The recovery of this analyte in the BS/LCS was outside the control limits. The sample result was accepted based on another acceptable BS/LCS and/or MS and MSD that meet BS criteria.
- Q-08** High bias in the QC sample does not affect sample result since analyte was not detected or below the reporting limit.
- ND** NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
- Sub** Subcontracted analysis, original report enclosed.
- DL** Method Detection Limit
- RL** Method Reporting Limit
- MDA** Minimum Detectable Activity
- NR** Not Reportable


ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1400484

- 4B19034

SENDING LABORATORY:

Advanced Technology Laboratories
 3275 Walnut Avenue
 Signal Hill, CA 90755
 Phone: 562.989.4045
 Fax: 562.989.6348
 Project Manager: Diane Galvan (Diane@atlglobal.com)





RECEIVING LABORATORY:

Weck Laboratories, Inc.
 14859 East Clark Avenue
 City of Industry, CA 91745
 Phone : (626) 336-2139
 Fax: (626) 336-2634
 PO#: SC08430- STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1400484-01 / OS-10		Water	02/18/14 11:25	Need J flag results, Level IV data package and Excel EDD. Please return the samples/sample containers after analysis
524.2 [Volatile Organic Compounds] 6-Voa Vial - HCl	03/05/14 17:00	03/04/14 11:25		

2.1⁰⁰

 Released By	02/19/14 12:13 Date	 Received By	2/19/14 12:13 Date
 Released By	2/19/14 12:55 Date	 Received By	2/19/14 13:00 Date



Sample Receipt Acknowledgement

WORK ORDER: 4B19034

Printed: 2/21/2014 11:46:22AM

Client: Advanced Technology Laboratories
Project: 500 Series

Project Manager: Kim G Tu
Project Number: 1400484

Report To:

Advanced Technology Laboratories
Diane Galvan
3275 Walnut Street
Signal Hill, CA 90755
Phone: (562) 989-4045
Fax: (562) 989-4040

Invoice To:

Advanced Technology Laboratories
Advanced Technology Labs
3275 Walnut Street
Signal Hill, CA 90755
Phone : (562) 989-4045
Fax: (562) 989-4040

Date Due: 03/05/14 15:00 (10 day TAT)

Received By: Adrian Talabis

Date Received: 02/19/14 13:00

Logged In By: Adrian Talabis

Date Logged In: 02/19/14 13:33

Samples Received at: 2.1°C All containers intact: Yes Chain of custody completed Yes
Number of Ice Chests/packages: Yes Custody seals present: Yes Sample labels & COC agree Yes
Appropriate Sample Containers: Yes Custody seals intact: Yes Samples preserved properly Yes
Custody Seals: No Sample volume sufficient Yes
Sufficient holding time for all tests Yes

Table with 4 columns: Analysis, TAT, Expires, Comments. Row 1: 4B19034-01 1400484-01 / OS-10 [Water] Sampled 02/18/14 11:25 Pacific. Row 2: 524.2, 10, 03/04/14 11:25, LVL4, J, need samples returned.

Comments:

Handwritten signature of Kim G Tu

2/21/2014

Authorized Signature

Date

Note: If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-5633-1

Client Project/Site: Santa Susana Project

For:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, California 90807

Attn: Ms. Diane Galvan



Authorized for release by:
3/19/2014 10:50:12 AM

Ivan Vania, Project Manager II
(314)298-8566
ivan.vania@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Chain of Custody	5
Receipt Checklists	7
Definitions/Glossary	8
Method Summary	9
Sample Summary	10
Client Sample Results	11
QC Sample Results	12
QC Association Summary	17
Tracer Carrier Summary	18

Case Narrative

Client: Advanced Technology Laboratories
Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Job ID: 160-5633-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

Client: Advanced Technology Laboratories

Project: Santa Susana project

Report Number: 160-5633-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 02/20/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 6.0 C.

GROSS ALPHA AND GROSS BETA RADIOACTIVITY

Sample 1400484-01 (160-5633-1) was analyzed for Gross Alpha and Gross Beta Radioactivity in accordance with USEPA Method 900.0. The samples were prepared on 02/25/2014 and analyzed on 03/03/2014.

No other difficulties were encountered during the Gross Alpha/Beta analysis. All other quality control parameters were within the acceptance limits.

CESIUM 137 AND OTHER GAMMA EMITTERS (GS)

Sample 1400484-01 (160-5633-1) was analyzed for Cesium 137 and Other Gamma Emitters (GS) in accordance with USEPA Method 901.1. The samples were prepared on 02/21/2014 and analyzed on 02/23/2014.

Case Narrative

Client: Advanced Technology Laboratories
Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Job ID: 160-5633-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

No difficulties were encountered during the Cs 137 and other G.E analysis. All other quality control parameters were within the acceptance limits.

STRONTIUM-90 (GFPC)

Sample 1400484-01 (160-5633-1) was analyzed for Strontium-90 (GFPC) in accordance with EPA 905.0. The samples were prepared on 02/21/2014 and analyzed on 03/03/2014.

Preparation Batch 106764:

The Method Blank has negative activity greater than the 3 sigma uncertainty. The sample cannot be recounted to verify such activity due to the rapid decay rate of yttrium. The data have been qualified and reported. (MB 160-106764/1-A)

No other difficulties were encountered during the Strontium-90 analysis. All other quality control parameters were within the acceptance limits.

TRITIUM, TOTAL (LSC)

Sample 1400484-01 (160-5633-1) was analyzed for Tritium, Total (LSC) in accordance with USEPA 906.0. The samples were prepared on 03/05/2014 and analyzed on 03/06/2014.

No difficulties were encountered during the Tritium, Total (LSC) analysis. All other quality control parameters were within the acceptance limits.

ISOTOPIC URANIUM (ALPHA SPECTROMETRY)

Sample 1400484-01 (160-5633-1) was analyzed for Isotopic Uranium (Alpha Spectrometry) in accordance with DOE. The samples were prepared on 03/03/2014 and analyzed on 03/05/2014.

Batch 108029:

insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 108029. An LCS/LCD was prepared. 1400484-01 (160-5633-1)

No other difficulties were encountered during the Isotopic Uranium analysis. All quality control parameters were within the acceptance limits.



5633

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1400484

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348

RECEIVING LABORATORY:


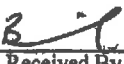
Test America - St. Louis
13715 Rider Trail North
St. Louis, MO 63045
Phone : (314) 298-8566
Fax: (314) 298-8757

Project Manager: Diane Galvan (Diane@atlglobal.com)

PO#: SC08429- STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled:	Comments
ATL Lab#: 1400484-01 / OS-10		Water	02/18/14 11:25	See attachment for Analytes List. Quote #: 16002927. Need J flag results, Level IV data package and Excel EDD. Please return the samples/sample containers after analysis
908.0_A_01_R [Uranium]	03/05/14 17:00	08/17/14 11:25		
906.0 [Tritium]	03/05/14 17:00	08/17/14 11:25		
905.0 [Strontium-90]	03/05/14 17:00	08/17/14 11:25		
901.1 [Tritium]	03/05/14 17:00	08/17/14 11:25		
900.0 [Gross Alpha and Beta]	03/05/14 17:00	08/17/14 11:25		
8-Poly Unpres - 1000mL, 2-Amber Unpres - 1000mL				

Released By  Date 02/19/14 1135
 Received By  Date 2/20/14 0915
 Released By _____ Date _____
 Received By _____ Date _____

Gross Alpha by 900.0

Gross Beta by 900.0

Antimony-125 by 901.1

Barium-133 by 901.1

Cesium-134 by 901.1

Cesium-137 by 901.1

Cobalt-60 by 901.1

Europium-152 by 901.1

Europium-154 by 901.1

Europium-155 by 901.1

Manganese-54 by 901.1

Potassium-40 by 901.1

Sodium-22 by 901.1

Strontium-90 by 905.0

Tritium by 906.0

Uranium-233/234 by 908.0/A-01-R

Uranium-235 by 908.0/A-01-R

Uranium-238 by 908.0/A-01-R

Login Sample Receipt Checklist

Client: Advanced Technology Laboratories

Job Number: 160-5633-1

Login Number: 5633

List Source: TestAmerica St. Louis

List Number: 1

Creator: Daniels, Brian J



Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	False	SEE NCM
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Definitions/Glossary

Client: Advanced Technology Laboratories
Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Advanced Technology Laboratories
Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Method	Method Description	Protocol	Laboratory
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	TAL SL
901.1	Cesium 137 & Other Gamma Emitters (GS)	EPA	TAL SL
905	Strontium-90 (GFPC)	EPA	TAL SL
906.0	Tritium, Total (LSC)	EPA	TAL SL
A-01-R	Isotopic Uranium (Alpha Spectrometry)	DOE	TAL SL

Protocol References:

DOE = U.S. Department of Energy

EPA = US Environmental Protection Agency

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Advanced Technology Laboratories
Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-5633-1	1400484-01	Water	02/18/14 11:25	02/20/14 09:15



Client Sample Results

Client: Advanced Technology Laboratories
Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Client Sample ID: 1400484-01

Lab Sample ID: 160-5633-1

Date Collected: 02/18/14 11:25

Matrix: Water

Date Received: 02/20/14 09:15

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Gross Alpha	1.10	U	1.55	1.55	3.00	2.61	pCi/L	02/25/14 09:40	03/03/14 15:53	1
Gross Beta	0.175	U	0.739	0.740	4.00	1.29	pCi/L	02/25/14 09:40	03/03/14 15:53	1

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Cesium-137	0.000	U	1.69	1.69	20.0	12.2	pCi/L	02/21/14 13:18	02/23/14 23:17	1
Cobalt-60	3.71	U	5.85	5.86		9.96	pCi/L	02/21/14 13:18	02/23/14 23:17	1
Antimony-125	1.19	U	13.7	13.7		25.5	pCi/L	02/21/14 13:18	02/23/14 23:17	1
Cesium-134	-0.292	U	2.44	2.44		10.9	pCi/L	02/21/14 13:18	02/23/14 23:17	1
Europium-152	3.48	U	19.1	19.1		27.9	pCi/L	02/21/14 13:18	02/23/14 23:17	1
Europium-154	-15.2	U	51.1	51.1		91.2	pCi/L	02/21/14 13:18	02/23/14 23:17	1
Europium-155	-3.88	U	16.6	16.6		28.7	pCi/L	02/21/14 13:18	02/23/14 23:17	1
Manganese-54	0.867	U	5.20	5.20		9.88	pCi/L	02/21/14 13:18	02/23/14 23:17	1
Potassium-40	-19.2	U	155	155		180	pCi/L	02/21/14 13:18	02/23/14 23:17	1
Sodium-22	-1.70	U	7.13	7.13		13.4	pCi/L	02/21/14 13:18	02/23/14 23:17	1
Barium-133	3.53	U	6.12	6.13		14.5	pCi/L	02/21/14 13:18	02/23/14 23:17	1

Method: 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Strontium-90	0.0569	U	0.165	0.165	3.00	0.287	pCi/L	02/21/14 13:04	03/03/14 15:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Sr Carrier	89.1		40 - 110					02/21/14 13:04	03/03/14 15:43	1
Y Carrier	90.8		40 - 110					02/21/14 13:04	03/03/14 15:43	1

Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Tritium	-132	U	170	171	500	336	pCi/L	03/05/14 08:29	03/06/14 11:09	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Uranium-233/234	0.239	U	0.185	0.186	1.00	0.256	pCi/L	03/03/14 10:53	03/05/14 15:31	1
Uranium-235/236	-0.0254	U	0.0227	0.0228	1.00	0.175	pCi/L	03/03/14 10:53	03/05/14 15:31	1
Uranium-238	0.00814	U	0.0811	0.0811	1.00	0.191	pCi/L	03/03/14 10:53	03/05/14 15:31	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	85.3		30 - 110					03/03/14 10:53	03/05/14 15:31	1

TestAmerica St. Louis

QC Sample Results

Client: Advanced Technology Laboratories
 Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-107242/1-A **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 108084 **Prep Batch: 107242**

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Gross Alpha	-0.4053	U	0.652	0.654	3.00	1.43	pCi/L	02/25/14 09:40	03/03/14 15:52	1
Gross Beta	-0.2492	U	0.470	0.471	4.00	0.899	pCi/L	02/25/14 09:40	03/03/14 15:52	1

Lab Sample ID: LCS 160-107242/2-A **Client Sample ID: Lab Control Sample**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 108084 **Prep Batch: 107242**

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec. Limits
		Result	Qual	Uncert. (2σ+/-)					
Gross Alpha	50.1	53.61		7.63	3.00	1.54	pCi/L	107	75 - 125

Lab Sample ID: LCSB 160-107242/3-A **Client Sample ID: Lab Control Sample**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 108084 **Prep Batch: 107242**

Analyte	Spike Added	LCSB	LCSB	Total	RL	MDC	Unit	%Rec	%Rec. Limits
		Result	Qual	Uncert. (2σ+/-)					
Gross Beta	97.8	95.47		10.1	4.00	0.906	pCi/L	98	75 - 125

Lab Sample ID: 160-5633-1 MS **Client Sample ID: 1400484-01**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 108084 **Prep Batch: 107242**

Analyte	Sample	Sample	Spike Added	MS	MS	Total	RL	MDC	Unit	%Rec	%Rec. Limits
	Result	Qual		Result	Qual	Uncert. (2σ+/-)					
Gross Alpha	1.10	U	74.8	64.07		9.87	3.00	2.69	pCi/L	86	35 - 150

Lab Sample ID: 160-5633-1 MSBT **Client Sample ID: 1400484-01**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 108083 **Prep Batch: 107242**

Analyte	Sample	Sample	Spike Added	MSBT	MSBT	Total	RL	MDC	Unit	%Rec	%Rec. Limits
	Result	Qual		Result	Qual	Uncert. (2σ+/-)					
Gross Beta	0.175	U	146	129.4		13.8	4.00	1.66	pCi/L	89	89 - 143

Lab Sample ID: 160-5633-1 DU **Client Sample ID: 1400484-01**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 108084 **Prep Batch: 107242**

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual		Result	Qual					
Gross Alpha	1.10	U	0.3496	U	1.42	3.00	2.68	pCi/L	0.25	1
Gross Beta	0.175	U	0.2293	U	0.757	4.00	1.32	pCi/L	0.04	1

TestAmerica St. Louis

QC Sample Results

Client: Advanced Technology Laboratories
 Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-106766/1-A
Matrix: Water
Analysis Batch: 106988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 106766

Analyte	MB Result	MB Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Cesium-137	3.478	U	5.42	5.43	20.0	9.16	pCi/L	02/21/14 13:18	02/23/14 23:14	1
Cobalt-60	1.391	U	7.32	7.32		13.6	pCi/L	02/21/14 13:18	02/23/14 23:14	1
Antimony-125	3.644	U	10.7	10.7		22.3	pCi/L	02/21/14 13:18	02/23/14 23:14	1
Cesium-134	2.030	U	7.85	7.86		12.0	pCi/L	02/21/14 13:18	02/23/14 23:14	1
Europium-152	-0.2657	U	14.6	14.6		26.7	pCi/L	02/21/14 13:18	02/23/14 23:14	1
Europium-154	11.51	U	22.3	22.3		72.0	pCi/L	02/21/14 13:18	02/23/14 23:14	1
Europium-155	5.808	U	10.2	10.3		17.4	pCi/L	02/21/14 13:18	02/23/14 23:14	1
Manganese-54	2.357	U	5.06	5.07		8.90	pCi/L	02/21/14 13:18	02/23/14 23:14	1
Potassium-40	-52.16	U	179	179		228	pCi/L	02/21/14 13:18	02/23/14 23:14	1
Sodium-22	-2.738	U	9.01	9.02		16.1	pCi/L	02/21/14 13:18	02/23/14 23:14	1
Barium-133	5.501	U	6.81	6.84		8.88	pCi/L	02/21/14 13:18	02/23/14 23:14	1

Lab Sample ID: LCS 160-106766/2-A
Matrix: Water
Analysis Batch: 106989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 106766

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec.
				Uncert. (2σ+/-)					Limits
Americium-241	137000	132800		15300		474	pCi/L	97	90 - 111
Cesium-137	50400	49180		4930	20.0	168	pCi/L	98	90 - 111
Cobalt-60	58800	56440		5580		113	pCi/L	96	89 - 110

Lab Sample ID: 160-5633-1 DU
Matrix: Water
Analysis Batch: 106997

Client Sample ID: 1400484-01
Prep Type: Total/NA
Prep Batch: 106766

Analyte	Sample Result	Sample Qual	DU	DU	Total	RL	MDC	Unit	RER	RER
			Result	Qual	Uncert. (2σ+/-)					Limit
Cesium-137	0.000	U	-2.223	U	7.12	20.0	12.5	pCi/L	0.25	1
Cobalt-60	3.71	U	2.471	U	4.88		14.5	pCi/L	0.12	1
Antimony-125	1.19	U	-0.9759	U	4.22		26.5	pCi/L	0.12	1
Cesium-134	-0.292	U	2.227	U	3.55		15.8	pCi/L	0.42	1
Europium-152	3.48	U	6.148	U	15.0		34.0	pCi/L	0.08	1
Europium-154	-15.2	U	-0.4776	U	1.67		68.4	pCi/L	0.28	1
Europium-155	-3.88	U	16.11	U	14.4		22.8	pCi/L	0.64	1
Manganese-54	0.867	U	0.0000	U	2.80		9.65	pCi/L	0.11	1
Potassium-40	-19.2	U	-55.62	U	356		159	pCi/L	0.07	1
Sodium-22	-1.70	U	1.036	U	5.59		10.7	pCi/L	0.21	1
Barium-133	3.53	U	1.054	U	6.22		11.3	pCi/L	0.20	1

TestAmerica St. Louis

QC Sample Results

Client: Advanced Technology Laboratories
 Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-106764/1-A
Matrix: Water
Analysis Batch: 108083

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 106764

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Strontium-90	-0.3016	U	0.155	0.156	3.00	0.325	pCi/L	02/21/14 13:04	03/03/14 15:43	1
Carrier	MB	MB	Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Sr Carrier	90.6		40 - 110		02/21/14 13:04	03/03/14 15:43	1			
Y Carrier	90.8		40 - 110		02/21/14 13:04	03/03/14 15:43	1			

Lab Sample ID: LCS 160-106764/2-A
Matrix: Water
Analysis Batch: 108083

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 106764

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec. Limits
		Result	Qual	Uncert. (2σ+/-)					
Strontium-90	9.13	9.532		0.973	3.00	0.308	pCi/L	104	90 - 134
Carrier	LCS	LCS	Limits		Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier							
Sr Carrier	90.5		40 - 110						
Y Carrier	90.4		40 - 110						

Lab Sample ID: 160-5633-1 DU
Matrix: Water
Analysis Batch: 108083

Client Sample ID: 1400484-01
Prep Type: Total/NA
Prep Batch: 106764

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Strontium-90	0.0569	U	-0.02675	U	0.171	3.00	0.311	pCi/L	0.25	1
Carrier	DU	DU	Limits		Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier								
Sr Carrier	87.9		40 - 110							
Y Carrier	91.6		40 - 110							

Method: 906.0 - Tritium, Total (LSC)

Lab Sample ID: MB 160-108672/1-A
Matrix: Water
Analysis Batch: 108914

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 108672

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Tritium	-22.52	U	183	183	500	336	pCi/L	03/05/14 08:29	03/06/14 10:23	1

TestAmerica St. Louis

QC Sample Results

Client: Advanced Technology Laboratories
 Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Method: 906.0 - Tritium, Total (LSC) (Continued)

Lab Sample ID: LCS 160-108672/2-A
 Matrix: Water
 Analysis Batch: 108914

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 108672

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Tritium	3610	3403		509	500	335	pCi/L	94	74 - 114

Lab Sample ID: 160-5633-1 MS
 Matrix: Water
 Analysis Batch: 108914

Client Sample ID: 1400484-01
 Prep Type: Total/NA
 Prep Batch: 108672

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Tritium	-132	U	3600	3196		489	500	332	pCi/L	89	67 - 130

Lab Sample ID: 160-5633-1 DU
 Matrix: Water
 Analysis Batch: 108914

Client Sample ID: 1400484-01
 Prep Type: Total/NA
 Prep Batch: 108672

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Tritium	-132	U	-57.21	U	179	500	336	pCi/L	0.22	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Lab Sample ID: MB 160-108029/1-A
 Matrix: Water
 Analysis Batch: 108556

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 108029

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Uranium-233/234	-0.05080	U	0.0547	0.0548	1.00	0.205	pCi/L	03/03/14 10:53	03/05/14 15:31	1
Uranium-235/236	-0.01164	U	0.0834	0.0834	1.00	0.229	pCi/L	03/03/14 10:53	03/05/14 15:31	1
Uranium-238	-0.02001	U	0.0825	0.0826	1.00	0.216	pCi/L	03/03/14 10:53	03/05/14 15:31	1
Tracer	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	87.9		30 - 110					03/03/14 10:53	03/05/14 15:31	1

Lab Sample ID: LCS 160-108029/2-A
 Matrix: Water
 Analysis Batch: 108597

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 108029

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Uranium-233/234	12.7	11.62		1.39	1.00	0.238	pCi/L	91	84 - 120
Uranium-238	13.0	12.64		1.48	1.00	0.185	pCi/L	97	83 - 121
Tracer	LCS %Yield	LCS Qualifier	Limits						
Uranium-232	88.1		30 - 110						

TestAmerica St. Louis

QC Sample Results

Client: Advanced Technology Laboratories
 Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Lab Sample ID: LCSD 160-108029/3-A
Matrix: Water
Analysis Batch: 108598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 108029

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec.		RER	RER Limit
									Limits	RER	Limit	
Uranium-233/234	12.7	13.16		1.56	1.00	0.188	pCi/L	103	84 - 120	0.52		1
Uranium-238	13.0	13.60		1.60	1.00	0.131	pCi/L	104	83 - 121	0.31		1
Tracer		LCSD %Yield	LCSD Qualifier								Limits	
Uranium-232		80.2									30 - 110	



QC Association Summary

Client: Advanced Technology Laboratories
 Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Rad

Prep Batch: 106764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5633-1	1400484-01	Total/NA	Water	PrecSep-7	
160-5633-1 DU	1400484-01	Total/NA	Water	PrecSep-7	
LCS 160-106764/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	
MB 160-106764/1-A	Method Blank	Total/NA	Water	PrecSep-7	

Prep Batch: 106766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5633-1	1400484-01	Total/NA	Water	Fill_Geo-0	
160-5633-1 DU	1400484-01	Total/NA	Water	Fill_Geo-0	
LCS 160-106766/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-0	
MB 160-106766/1-A	Method Blank	Total/NA	Water	Fill_Geo-0	

Prep Batch: 107242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5633-1	1400484-01	Total/NA	Water	Evaporation	
160-5633-1 DU	1400484-01	Total/NA	Water	Evaporation	
160-5633-1 MS	1400484-01	Total/NA	Water	Evaporation	
160-5633-1 MSBT	1400484-01	Total/NA	Water	Evaporation	
LCS 160-107242/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSB 160-107242/3-A	Lab Control Sample	Total/NA	Water	Evaporation	
MB 160-107242/1-A	Method Blank	Total/NA	Water	Evaporation	

Prep Batch: 108029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5633-1	1400484-01	Total/NA	Water	ExtChrom	
LCS 160-108029/2-A	Lab Control Sample	Total/NA	Water	ExtChrom	
LCSD 160-108029/3-A	Lab Control Sample Dup	Total/NA	Water	ExtChrom	
MB 160-108029/1-A	Method Blank	Total/NA	Water	ExtChrom	

Prep Batch: 108672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5633-1	1400484-01	Total/NA	Water	LSC_Dist_Susp	
160-5633-1 DU	1400484-01	Total/NA	Water	LSC_Dist_Susp	
160-5633-1 MS	1400484-01	Total/NA	Water	LSC_Dist_Susp	
LCS 160-108672/2-A	Lab Control Sample	Total/NA	Water	LSC_Dist_Susp	
MB 160-108672/1-A	Method Blank	Total/NA	Water	LSC_Dist_Susp	

Tracer/Carrier Summary

Client: Advanced Technology Laboratories
Project/Site: Santa Susana project

TestAmerica Job ID: 160-5633-1

Method: 905 - Strontium-90 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Sr (C) (40-110)	Y (40-110)
160-5633-1	1400484-01	89.1	90.8
160-5633-1 DU	1400484-01	87.9	91.6
LCS 160-106764/2-A	Lab Control Sample	90.5	90.4
MB 160-106764/1-A	Method Blank	90.6	90.8

Tracer/Carrier Legend
Sr (C) = Sr Carrier
Y = Y Carrier

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)
		U-232 (30-110)
160-5633-1	1400484-01	85.3
LCS 160-108029/2-A	Lab Control Sample	88.1
LCSD 160-108029/3-A	Lab Control Sample Dup	80.2
MB 160-108029/1-A	Method Blank	87.9

Tracer/Carrier Legend
U-232 = Uranium-232

ENVIRONMENTAL CHEMISTRY LABORATORY SAMPLE ANALYSIS REQUEST		1. Authorization Number 13AT0092	ECL No.: To xx	2. Page 1 of 1		
3. Requestor:(to Receive Results) a. Name: Tom Seckington b. Address: 5796 Corporate Ave (street number) Cypress, CA 90630 (city, state, zip) c. Phone: 714-484-5424 (area code first) d. Fax: 714-484-5411 (area code first) e. Email: tom.seckington @dtsc.ca.gov			4. Project Name (if applicable): Santa Susana Field Laboratory 5 TAT Level: 1			
6. Sampling Information: a. Date/Time Sampled: (mm/dd/yy) b. Location: EPA ID No. (#:# AM/PM) Site: Santa Susana Field Laboratory Address: Woolsey Canyon Drive (street number) Simi Valley, CA (city, state, zip) GPS-Lat: GPS-Long: GPS-Alt: GPS-Depth:			7. Codes (select from drop down list or fill in if applicable) a. Unit BERP-Office of Geology(Cypress) b. INDEX 5600 c. PCA 22120 d. MPC 48 e. SITE 300122 f. County 56-Ventura			
8. Samples:						
a. ID	b. Collector's No.	c. ECL No.	d. Matrix	e. Container Size	f. Number of containers	g. Preservative / Field Information
1	OS-10		Water	40 ml VOA clear glass	6	HCL/ICE
2	OS-10		Water	Other, type in	2	Ice, 1-L Amber Glass
3	OS-10		Water	Other, type in	10	Ice, 1-L Plastic
4						
5						
6						
7						
8						
9						
9. Analysis Requested: Enter sample IDs and sample ID ranges separated by commas. For example, 1-3, 5-7, 9						
a. Inorganic Analysis		Sample(s) ID		b. Organic Analysis		Sample(s) ID
				VOCs, 524.2		1
Other Metals:						
c. TCLP Analysis				d. Other Analysis		
				EPA 300, 314.0, 900, 901.1, 905, A-01-B 3		
				EPA 906 2		
e. Comments for Multiphasic Samples/Analysis Priority:						
10. Analysis Objective: Drinking Water Standards (applies to DW only)						
11. Detection Limit Requirements: See above						
12. Supplemental Requests: Enter sample IDs as described in Item 9					13. ECL Lab Remarks:	
Desired Analysis		Sample(s) ID		<div style="border: 1px solid black; width: 100%; height: 40px;"></div>		
						Initials _____ Date _____
14. Chain of Custody:						
	Name	Title	Signature	Inclusive Dates of Custody		
a.	Tom Seckington	Senior Engineering Geologist		2/18; 11:25	to	2/18; 15:44
b.	Carmen Aguilera	ATL		2/18/11 1544	to	
c.					to	
d.					to	
e.					to	
f.					to	
g.					to	

CHAIN OF CUSTODY RECORD
 Page 1 of 1

For Laboratory Use Only
 ATLCCOC Ver: 20130715

Method of Transport
 Client
 ATL
 FedEx
 OnTrac
 GSO
 Other: _____

Sample Conditions Upon Receipt
 Condition Y N
 1. CHILLED
 2. HEADSPACE (VDA)
 3. CONTAINER INTACT
 4. SEALED

5. # OF SAMPLES MATCH COC
 6. PRESERVED
 7. COOLER TEMP. deg C: 27

Instruction: Complete all shaded areas.

Company: DTSL
 Address: 5796 Corporate Ave
 City: Long Beach
 State: CA
 Zip: 90620

City: Los Angeles
 State: CA
 Zip: _____

Attn: Tom Seckington
 Email: t.seckington@verizon.net
 Company: DTSL

Address: 5796 Corporate Ave
 City: Long Beach
 State: CA
 Zip: 90620

TEL: (562) 484-5424
 FAX: (562) 484-5411

ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1400484-01	05-10		2/18/14	1125	8260 / 624 (Volatiles) 8015 (GRO) 8015 (DRO) 8270 (Semi-volatiles) 8081 (Organochlorine Pesticides) 8082 (PCBs) 6010 / 7000 (Title 22 Metals)	SOIL / SEDIMENT / SLUDGE SOLIDS / WIPE / FILTER WATER - DRINKING / GROUND WATER - STORM / WASTE AQUEOUS / LAYERED - OIL	Type: 1-Tube; 2-VOA; 3-Filter; 4-Print; 5-fer; 6-Fedler; 7-Center Material: 1-Glass; 2-Plastic; 3-Metal	<input type="checkbox"/> Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RWOCB <input type="checkbox"/> Level IV
2	↓	05-10				906 905 901.1 900 317.0 300 TO-15	X	6211	
3	↓	05-10				A-01-R X X X X X X X X X X	X	231	AMBSC
4						524.1 906 905 901.1 900 317.0 300 TO-15	X	1032	

RELINQUISHED BY: (Signature and Printed Name)
 Date: 2/18/14 Time: 3:44 PM

RELINQUISHED BY: (Signature and Printed Name)
 Date: _____ Time: _____

RELINQUISHED BY: (Signature and Printed Name)
 Date: _____ Time: _____

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: T. Seckington
 Signature: [Signature]

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: _____
 Signature: [Signature]

AUTHORIZATION REQUEST FORM (ARF)

PART A : Requestor's Information SUPPLEMENTAL (Check if Supplemental Requested)

Requestor's Name Tom Seckington Email tom.seckington@dtsc.ca.gov Phone 7144845424

Back-up Requestor Greg Neal Email greg.neal@dtsc.ca.gov Phone 7144845455

Site Name Santa Susana Field Laboratory

Expected Sample Arrival Date 1/20/2014 **Unit chief's approval required:*

Turnaround Time (TAT) : *Rush *Level 1 2 3 4 (for Rush or TAT Level = 1)

PCA Code 22120 Site-WP 300122 MPC 48

PART B: Project Objective(s) or QAPP (Questions? ECL Point of Contact: Jarnail Garcha (510)540-3468, jgarcha@dtsc.ca.gov; or Juliet Tabajonda (510)540-3746, jtabajon@dtsc.ca.gov; or Gurmail Sivia (510)540-3622, gsivia@dtsc.ca.gov.)

Project Objective: One sample collected from an offsite domestic well (OS-10)

Special Information:

Part C: Analysis Information

Analysis Name	Matrix	Number of Samples	Comments
Fluoride 300.0	Drinking water	1	
Perchlorate 314.0	Drinking water	1	
Radiochemistry (cont) 906.0, and 908.0	Drinking water	1	
Radiochemistry 900.0, 901.1, 905.0	Drinking water	1	
Volatiles	Drinking water	1	

PART D: (By SMO - ECL)

Authorization Number (AN) 13AT0092

Lab to Receive Sample(s) Advanced Technology Laboratories
3275 Walnut Ave, Signal Hill, CA 90755
Attn: Diane Galvin (562) 989-4045

Sample Management Officer (SMO) Lloyd Williams

ARF Approval Date 1/13/2014 (mm/dd/yy) Expiration Date 1/30/2014 (mm/dd/yy)

ARF Revision Date _____ (mm/dd/yy) ARF Revised by _____

Comments:

Gross Alpha by 900.0
Gross Beta by 900.0

Antimony-125 by 901.1
Barium-133 by 901.1
Cesium-134 by 901.1
Cesium-137 by 901.1
Cobalt-60 by 901.1
Europium-152 by 901.1
Europium-154 by 901.1
Europium-155 by 901.1
Manganese-54 by 901.1
Potassium-40 by 901.1
Sodium-22 by 901.1

Strontium-90 by 905.0

Tritium by 906.0

Uranium-233/234 by 908.0/A-01-R
Uranium-235 by 908.0/A-01-R
Uranium-238 by 908.0/A-01-R



ADVANCED TECHNOLOGY

LABORATORIES

Sample Receipt Acknowledgement

Work Order # 1400484

Client: Department of Toxic Substances Control	Project Manager: Diane Galvan
Project: 13AT0092	Project Number: SSFL, 300232-48

Report To:
 Department of Toxic Substances Control
 Juliet Tabajonda
 700 Heinz Street, Suite 150
 Berkeley, CA 94710
 Phone: (510) 540-3746
 Fax: (510) 540-2305

Invoice To:
 Department of Toxic Substances Control
 Chief, Contract Administration and Purchasing
 P.O. Box 806
 Sacramento, CA 95812-0806
 Phone :916 324 3751
 Fax: (510) 540-2305

Date Due: 03/12/14 17:00 (15 day TAT)	Date Received: 02/18/14 15:44
Received By: Carmen Aguila	Date Logged In: 02/18/14 16:09
Logged In By: Ron Diwa	Shipped by: Walk-In

Please review the checklist below. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues. If you have any questions or further instructions, please contact your Project Manager at (526) 989-4045.

- | | | |
|--|---|--|
| Sample(s) received on ice? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample(s) received on blue ice? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Cooler temperature within acceptance limit? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Shipping container received in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Custody seals present on shipping container? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Custody seals intact on shipping container? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Custody seals present on sample bottles? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Chain of Custody (COC) present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler name present in COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| COC signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| COC agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sufficient sample amount for indicated tests? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| VOA vials for VOC meet headspace criteria? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Water samples meet preservation criteria? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

Default Cooler	Temp: 1.2 °C
----------------	--------------

Sample Receipt Comments:
 Sample ID not marked on 3 voa vials.

