

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100
Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 14

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
6- Terphenyl	MS	50	47.2536	95	95	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

LDC #: 2965/1A8

VALIDATION FINDINGS WORKSHEET

Page: 1 of 1

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: F7

2nd Reviewer: SX

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

$$\% \text{Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$$

Where SSC = Spiked sample concentration
SA = Spike added

SC = Sample concentration

$$\text{RPD} = ((\text{SSCLCS} - \text{SSCLCSD}) * 2) / (\text{SSCLCS} + \text{SSCLCSD}) * 100$$

LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: 105 - 280 - 149208

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		LCS		Percent Recovery		LCSD		Percent Recovery		RPD	
	LCS	LCSD		LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)															
Diesel (8015)															
Benzene (8021B)															
Methane (RSK-175)															
2,4-D (8151)															
Dinoseb (8151)															
Naphthalene (8310)															
Anthracene (8310)															
HMX (8330)															
2,4,6-Trinitrotoluene (8330)															
BPH 612-614	32.6	NA	ND	29.7	NA	91	91	NA	NA						

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

METHOD: ☒ GC ☐ HPLC

Y	N	N/A
Y	N	N/A

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds within 10% of the reported results?

$$\text{Concentration} = \frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$$

Example:

Sample ID. #1 Compound Name EFH c15-c20

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor

RF= Average response factor of the compound

In the initial calibration

V_s = Initial volume of the sample

Ws= Initial weight of the sample

%S= Percent Solid

$$\text{Concentration} = \frac{78549}{1000} \times \frac{100}{1000} = 7.8549\%$$
$$= 1.7 \text{ meg/keg}$$
[illegible]

Comments:

SAMPLE DELIVERY GROUP

280-36114-2

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Nov-2012	SL-503-SA3-SB-0.0-0.5	280-36114-3	N	1613	1613B	IV
19-Nov-2012	SL-503-SA3-SB-2.5-3.5	280-36114-5	N	1613	1613B	IV

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-36114-2

Laboratory: TA DEN

EDD Filename: Prep280-36114-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-503-SA3-SB-0.0-0.5

Collected: 11/19/2012 1:15:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.5	J	0.11	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	1.9	J	0.091	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	2.4	J	0.051	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	4.6	J	0.11	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	1.7	Q J	0.052	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.28	J	0.059	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	1.2	Q J	0.10	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	1.2	J	0.096	MDL	5.5	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	1.0	J	0.045	MDL	5.5	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	1.4	J	0.084	MDL	5.5	MRL	ng/kg	J	Z

Sample ID: SL-503-SA3-SB-2.5-3.5

Collected: 11/19/2012 2:40:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.54	Q J	0.085	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.44	J	0.063	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.62	Q J	0.038	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	1.3	J	0.064	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.33	Q J	0.036	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	1.3	C J	0.059	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.11	Q J	0.047	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.37	Q J	0.081	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.25	J	0.065	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.27	J	0.034	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.24	Q J	0.065	MDL	5.2	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.43	J	0.10	MDL	1.0	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

5/6/2013 12:09:40 PM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-36114-2

Laboratory: TA DEN

EDD Filename: Prep280-36114-2

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-36114-2/
H2K240401

Reporting Limit Outliers

Lab Reporting Batch ID: 280-36114-2

Laboratory: TA DEN

EDD Filename: 280-36114-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-503-SA3-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	J	1.5	5.5	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	1.9	5.5	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	J	2.4	5.5	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	4.6	5.5	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	1.7	5.5	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	J	0.28	5.5	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	1.2	5.5	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	1.2	5.5	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	J	1.0	5.5	MRL	ng/kg	
SL-503-SA3-SB-2.5-3.5	2,3,4,7,8-PECDF	J	1.4	5.5	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	Q J	0.54	5.2	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	J	0.44	5.2	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	Q J	0.62	5.2	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	1.3	5.2	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	0.33	5.2	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	C J	1.3	5.2	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	Q J	0.11	5.2	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.37	5.2	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	0.25	5.2	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	J	0.27	5.2	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.24	5.2	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.43	1.0	MRL	ng/kg	

Enclosure II

Level IV Validation Reports

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory

Collection Date: November 19, 2012

LDC Report Date: May 6, 2013

Matrix: Soil

Parameters: Dioxins/Dibenzofurans

Validation Level: Level IV

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 280-36114-2/H2K240401

Sample Identification

SL-503-SA3-SB-0.0-0.5

SL-503-SA3-SB-2.5-3.5

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1613B for Polychlorinated Dioxins/Dibenzofurans.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and the USEPA Contract Laboratory Program National Functional Guidelines for Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required daily frequency.

The chromatographic resolution between 2,3,7,8-TCDD and the peaks representing any other unlabeled TCDD isomers was resolved with a valley of less than or equal to 25%.

PFK and static resolving power were within validation criteria.

III. Initial Calibration

A five point initial calibration was performed as required by the method.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for unlabeled compounds and less than or equal to 35.0% for labeled compounds.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

The minimum S/N ratio was greater than or equal to 10 for each unlabeled compound and labeled compound.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within QC limits.

The percent differences (%D) of the second source calibration standard were within QC limits.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated dioxin/dibenzofuran contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
H2K260000-026B	11/26/12	OCDD OCDF	0.16 pg/g 0.094 pg/g	All samples in SDG 280-36114-2/ H2K240401

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks.

Sample EB-112012 (from SDG 280-36180-2/H2K270411) was identified as an equipment blank. No polychlorinated dioxin/dibenzofuran contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-112012	11/20/12	OCDD	2.4 pg/L	All samples in SDG 280-36114-2/ H2K240401

Sample FB-060512 (from SDG PH011) was identified as a field blank. No polychlorinated dioxin/dibenzofuran contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-060512	6/5/12	1,2,3,7,8-PeCDF 2,3,7,8-TCDF	0.142 pg/L 0.208 pg/L	All samples in SDG 280-36114-2/ H2K240401

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. The percent recoveries (%R) were within the QC limits.

VIII. Regional Quality Assurance and Quality Control

Not applicable.

IX. Internal Standards

All internal standard recoveries were within QC limits.

X. Target Compound Identifications

All target compound identifications were within validation criteria.

XI. Compound Quantitation

All compound quantitations were within validation criteria with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
SL-503-SA3-SB-2.5-3.5	2,3,7,8-TCDF	2nd column confirmation was not performed for this compound.	This compound must be confirmed on the 2nd column per the method.	None	P

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 280-36114-2/ H2K240401	All compounds reported below the RL.	J (all detects)	A

Results for all samples were flagged "S" by the laboratory to indicate that ion suppression was evident. However, the ion ratios were within the QC limit and no data was qualified.

XII. System Performance

The system performance was acceptable.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory**Dioxins/Dibenzofurans - Data Qualification Summary - SDG 280-36114-2/H2K240401**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
280-36114-2/ H2K240401	SL-503-SA3-SB-2.5-3.5	2,3,7,8-TCDF	None	P	Compound quantitation (2nd column confirmation) (*XI)
280-36114-2/ H2K240401	SL-503-SA3-SB-0.0-0.5 SL-503-SA3-SB-2.5-3.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory**Dioxins/Dibenzofurans - Laboratory Blank Data Qualification Summary - SDG 280-36114-2/H2K240401**

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory**Dioxins/Dibenzofurans - Field Blank Data Qualification Summary - SDG 280-36114-2/H2K240401**

No Sample Data Qualified in this SDG

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11-19-12
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration	A	≤ 20/35
IV.	Continuing Calibration	A	QC limits
V.	Blanks	SW	
VI.	Matrix spike/Matrix spike duplicates	N	client
VII.	Laboratory control samples	A	LCS
VIII.	Regional quality assurance and quality control	N	
IX.	Internal standards	A	
X.	Target compound identifications	A	
XI.	Compound quantitation/RL/LOQ/LODs	SW	
XII.	System performance	A	
XIII.	Overall assessment of data	A	
XIV.	Field duplicates	N	
XV.	Field blanks	SW	EB = EB-112012 (280-36180-21) (H2K270411) FB = FB-060512 (PH011)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: 501

1	SL-503-SA3-SB-0.0-0.5	11	H2K260600-021e	21		31	
2	SL-503-SA3-SB-2.5-3.5	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

Method: Dioxins/Dibenzofurans (EPA Method 1613B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
II. GC/MS Instrument performance check				
Was PFK exact mass 380.9760 verified?	/			
Were the retention time windows established for all homologues?	/			
Was the chromatographic resolution between 2,3,7,8-TCDD and peaks representing any other unlabeled TCDD isomers $\leq 25\%$?	/			
Is the static resolving power at least 10,000 (10% valley definition)?	/			
Was the mass resolution adequately check with PFK?	/			
Was the presence of 1,2,8,9-TCDD and 1,3,4,6,8-PeCDF verified?	/			
III. Initial calibration				
Was the initial calibration performed at 5 concentration levels?	/			
Were all percent relative standard deviations (%RSD) $\leq 20\%$ for unlabeled compounds and $\leq 35\%$ for labeled compounds ?	/			
Did all calibration standards meet the Ion Abundance Ratio criteria?	/			
Was the signal to noise ratio for each target compound ≥ 2.5 and for each recovery and internal standard > 10 ?	/			
IV. Continuing calibration				
Was a routine calibration performed at the beginning and end of each 12 hour period?	/			
Were all the concentrations for the unlabeled compounds and labeled compounds within the QC limits (Method 1613B, Table 6)?	/			
Did all routine calibration standards meet the Ion Abundance Ratio criteria?	/			
V. Blanks				
Was a method blank associated with every sample in this SDG?	/			
Was a method blank performed for each matrix and concentration?	/			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet?	/			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		/		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			/	
VII. Laboratory control samples				
Was an LCS analyzed for this SDG?	/			
Was an LCS analyzed per extraction batch?	/			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	/			

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
VIII. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?			/	
IX. Internal standards				
Were internal standard recoveries within the 25-150% criteria?	/			
Was the minimum S/N ratio of all internal standard peaks > 10?	/			
X. Target compound identification				
For 2,3,7,8 substituted congeners with associated labeled standards, were the retention times of the two quantitation peaks within -1 to 3 sec. of the RT of the labeled standard?	/			
For 2,3,7,8 substituted congeners without associated labeled standards, were the relative retention times of the two quantitation peaks within 0.005 time units of the RRT measured in the routine calibration?	/			
For non-2,3,7,8 substituted congeners, were the retention times of the two quantitation peaks within RT established in the performance check solution?	/			
Did compound spectra contain all characteristic ions listed in the table attached?	/			
Was the Ion Abundance Ratio for the two quantitation ions within criteria?		/		
Was the signal to noise ratio for each target compound and labeled standard ≥ 2.5 ?	/			
Does the maximum intensity of each specified characteristic ion coincide within ± 2 seconds (includes labeled standards)?	/			
For PCDF identification, was any signal ($S/N \geq 2.5$, at $\pm$ seconds RT) detected in the corresponding PCDF channel?		/		
Was an acceptable lock mass recorded and monitored?	/			
XI. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XII. System performance				
System performance was found to be acceptable.	/			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	/			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		/		
Target compounds were detected in the field duplicates.			/	
XV. Field blanks				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.	/			

VALIDATION FINDINGS WORKSHEET

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

A. 2,3,7,8-TCDD	F. 1,2,3,4,6,7,8-HpCDD	K. 1,2,3,4,7,8-HxCDF	P. 1,2,3,4,7,8,9-HpCDF	U. Total HpCDD
B. 1,2,3,7,8-PeCDD	G. OCDD	L. 1,2,3,6,7,8-HxCDF	Q. OCDF	V. Total TCDF
C. 1,2,3,4,7,8-HxCDD	H. 2,3,7,8-TCDF	M. 2,3,4,6,7,8-HxCDF	R. Total TCDD	W. Total PeCDF
D. 1,2,3,6,7,8-HxCDD	I. 1,2,3,7,8-PeCDF	N. 1,2,3,7,8,9-HxCDF	S. Total PeCDD	X. Total HxCDF
E. 1,2,3,7,8,9-HxCDD	J. 2,3,4,7,8-PeCDF	O. 1,2,3,4,6,7,8-HpCDF	T. Total HxCDD	Y. Total HpCDF

Notes: _____

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Were all samples associated with a method blank?	<u>Y</u>	<u>N</u>	<u>N/A</u>
Was a method blank performed for each matrix and whenever a sample extraction was performed?	<u>Y</u>	<u>N</u>	<u>N/A</u>
Was method blank contaminated?	<u>Y</u>	<u>N</u>	<u>N/A</u>

Blank extraction date:	11/26/12	Blank analysis date:	12/04/12	Associated samples:	All	>5x
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Conc. units: pg/g[illegible]

***EMPC**

METHOD: HRGC/HRMS Dioxins (EPA Method 1613B)

Blank units: _____ pg/L

Associated sample units: _____ ng/kg

Sampling date: 11/20/12

Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: All >5x

[illegible]

* EMPC

EB-112012 (280-36180-2/H2K270411)

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT: All contaminants within five times the method blank concentration were qualified as not detected, "U".

P:\CDM_SSFL_EB.wpd

METHOD: HRGC/HRMS Dioxins (EPA Method 1613B)

Blank units: _____ pg/L

Associated sample units: _____ ng/kg

Blank units: pg/L Associated sample units: ng/kg
 Sampling date: 06/05/12
 Field blank type: (circle one) Field Blank / Rinsate / Other: FB Associated Samples: All >5X

[illegible]

***EMPC**

FB-060512 (PH011)

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT: All contaminants within five times the method blank concentration were qualified as not detected, "U".

P:\CDM_SSFL_FB.wpd

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Were the correct internal standard (IS), quantitation ions and relative response factors (RRF) used to quantitate the compound? Y N N/A

Compound quantitation and CRQLs were adjusted to reflect all sample dilutions and dry weight factors (if necessary). Y N N/A

[illegible]

Comments: See sample calculation verification worksheet for recalculations

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$$RRF = (A_x)(C_{is}) / (A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards

$$\%RSD = 100 * (S/X)$$

A_x = Area of compound,

C_x = Concentration of compound,

S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				Average RRF (initial)	Average RRF (initial)	RRF (CS3 std)	RRF (CS3 std)	%RSD	%RSD
1	ICAL (DB-5)	8-22-11	2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)	1.094	1.094	1.023	1.023	14.7	14.7
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)	1.118	1.118	1.093	1.093	3.7	3.7
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)	1.125	1.125	1.078	1.078	7.7	7.7
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8-HpCDD)	1.110	1.110	1.093	1.093	6.2	6.25
			OCDF (¹³ C-OCDD)	1.422	1.422	1.362	1.362	3.6	3.6
2	ICAL (DB-225)	11-20-12	2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)	0.919	0.936	0.936	0.936	9.2	9.2
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)		0.969				
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8-HpCDD)						
			OCDF (¹³ C-OCDD)						
3			2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8-HpCDD)						
			OCDF (¹³ C-OCDD)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET Routine Calibration Results Verification

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$

$$\text{RRF} = (A_x)(C_b) / (A_b)(C_x)$$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF

A_x = Area of associated internal standard
 C_x = Concentration of compound,
 A_b = Area of associated internal standard
 C_b = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported		Recalculated		Reported		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D	RRF (CC)	%D	RRF (CC)	%D
1	bl2120451 (DB-5)	12-4-12	2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)	1.094	1.077		1.077		1.077		1.077	
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)	1.118	1.210		1.210		1.210		1.210	
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)	1.125	1.116		1.116		1.116		1.116	
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8-HpCDD)	1.110	1.073		1.073		1.073		1.073	
			OCDF (¹³ C-OCDF)	1.422	1.336		1.336		1.336		1.336	
2	bl2120451 (DB-5)	12-6-12	2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)	1.094	1.083		1.083		1.083		1.083	
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)	1.118	1.257		1.257		1.257		1.257	
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)	1.125	1.100		1.100		1.100		1.100	
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8-HpCDD)	1.110	1.077		1.077		1.077		1.077	
			OCDF (¹³ C-OCDF)	1.422	1.393		1.393		1.393		1.393	
3	bl2120451 (DB-225)	12-6-12	2,3,7,8-TCDF (¹³ C-2,3,7,8-TCDF)	0.969	0.898		0.898		0.898		0.898	
			2,3,7,8-TCDD (¹³ C-2,3,7,8-TCDD)									
			1,2,3,6,7,8-HxCDD (¹³ C-1,2,3,6,7,8-HxCDD)									
			1,2,3,4,6,7,8-HpCDD (¹³ C-1,2,4,6,7,8-HpCDD)									
			OCDF (¹³ C-OCDF)									

Comments: Refer to Routine Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Page: 1 of 7
 Reviewer: gm
 2nd Reviewer: J

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample Results Verification

METHOD: GC/MS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Recovery} = 100 * \text{SSC/SA}$$

Where: SSC = Spiked sample concentration
SA = Spike added

$$RPD = |LCS - LCSD| * 2 / (LCS + LCSD)$$

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS ID: H2K26000-026

[illegible]

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

METHOD: HRGC/HRMS Chlorinated Pesticides

Y	N	N/A
Y	N	N/A

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_s)(I_s)(DF)}{(A_s)(RRF)(V_o)(\%S)}$$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

RRF = Relative Response Factor (average) from the initial calibration

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

Example:

Sample I.D. 1, B:

$$\text{Conc.} = \frac{(19946) (1000 \mu\text{g}) (1)}{(1845331) (1.001) (9.7\text{g}) (0.9348)}$$

$$= 1.2 \text{ ng/Kg}$$

[illegible]

SAMPLE DELIVERY GROUP

280-36181-1

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Nov-2012	SL-506-SA3-SB-0.0-0.5	280-36181-5	N	3546	8270C SIM	III
20-Nov-2012	SL-506-SA3-SB-0.0-0.5	280-36181-5	N	3550C	8015B EFH	III
20-Nov-2012	SL-506-SA3-SB-0.0-0.5	280-36181-6	N	3050B	6010C	III
20-Nov-2012	SL-506-SA3-SB-0.0-0.5	280-36181-6	N	3050B	6020A	III
20-Nov-2012	SL-506-SA3-SB-0.0-0.5	280-36181-6	N	3546	8082A	III
20-Nov-2012	SL-506-SA3-SB-0.0-0.5	280-36181-6	N	7471B	7471B	III
20-Nov-2012	SL-505-SA3-SB-0.0-0.5	280-36181-3	N	3546	8270C SIM	III
20-Nov-2012	SL-505-SA3-SB-0.0-0.5	280-36181-3	N	3550C	8015B EFH	III
20-Nov-2012	SL-505-SA3-SB-0.0-0.5	280-36181-4	N	3050B	6010C	III
20-Nov-2012	SL-505-SA3-SB-0.0-0.5	280-36181-4	N	3050B	6020A	III
20-Nov-2012	SL-505-SA3-SB-0.0-0.5	280-36181-4	N	3546	8082A	III
20-Nov-2012	SL-505-SA3-SB-0.0-0.5	280-36181-4	N	7471B	7471B	III
20-Nov-2012	SL-502-SA3-SB-0.0-0.5	280-36181-1	N	3546	8270C SIM	III
20-Nov-2012	SL-502-SA3-SB-0.0-0.5	280-36181-1	N	3550C	8015B EFH	III
20-Nov-2012	SL-502-SA3-SB-0.0-0.5	280-36181-2	N	3050B	6010C	III
20-Nov-2012	SL-502-SA3-SB-0.0-0.5	280-36181-2	N	3050B	6020A	III
20-Nov-2012	SL-502-SA3-SB-0.0-0.5	280-36181-2	N	3546	8082A	III
20-Nov-2012	SL-502-SA3-SB-0.0-0.5	280-36181-2	N	7471B	7471B	III
20-Nov-2012	SL-501-SA3-SB-0.0-0.5	280-36181-7	N	3546	8270C SIM	III
20-Nov-2012	SL-501-SA3-SB-0.0-0.5	280-36181-7	N	3550C	8015B EFH	III
20-Nov-2012	SL-501-SA3-SB-0.0-0.5	280-36181-8	N	3050B	6010C	III
20-Nov-2012	SL-501-SA3-SB-0.0-0.5	280-36181-8	N	3050B	6020A	III
20-Nov-2012	SL-501-SA3-SB-0.0-0.5	280-36181-8	N	3546	8082A	III
20-Nov-2012	SL-501-SA3-SB-0.0-0.5	280-36181-8	N	7471B	7471B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: Prep280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-501-SA3-SB-0.0-0.5

Collected: 11/20/2012 11:50:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	8100	J	1.6	MDL	21000	MRL	mg/Kg	J	Z, A
BORON	1.1	J	1.0	MDL	10	MRL	mg/Kg	U	F
CALCIUM	2200		15	MDL	52	MRL	mg/Kg	J	A
LITHIUM	18	J	0.31	MDL	39	MRL	mg/Kg	J	Z
MAGNESIUM	3700		3.9	MDL	10	MRL	mg/Kg	J	A
MANGANESE	220	J	0.10	MDL	520	MRL	mg/Kg	J	Z, Q, A
PHOSPHORUS	590		1.7	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	2700	J	43	MDL	6700	MRL	mg/Kg	J	Z, A
SODIUM	120	J	62	MDL	520	MRL	mg/Kg	J	Z
STRONTIUM	13		0.038	MDL	0.52	MRL	mg/Kg	J	A
TIN	1.4	J B	0.95	MDL	11	MRL	mg/Kg	U	B
TITANIUM	730		0.15	MDL	1.0	MRL	mg/Kg	J	A
Zirconium	1.1	J	0.37	MDL	9.0	MRL	mg/Kg	J	Z

Sample ID: SL-502-SA3-SB-0.0-0.5

Collected: 11/20/2012 9:23:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	11000	J	1.7	MDL	22000	MRL	mg/Kg	J	Z, A
BORON	2.0	J	1.1	MDL	11	MRL	mg/Kg	U	F
CALCIUM	2100		15	MDL	55	MRL	mg/Kg	J	A
LITHIUM	19	J	0.33	MDL	41	MRL	mg/Kg	J	Z
MAGNESIUM	4000		4.1	MDL	11	MRL	mg/Kg	J	A
MANGANESE	290	J	0.11	MDL	540	MRL	mg/Kg	J	Z, Q, A
PHOSPHORUS	450		1.8	MDL	11	MRL	mg/Kg	J	A
POTASSIUM	3300	J	45	MDL	7000	MRL	mg/Kg	J	Z, A
SODIUM	120	J	65	MDL	550	MRL	mg/Kg	J	Z
STRONTIUM	18		0.039	MDL	0.54	MRL	mg/Kg	J	A
TIN	1.1	J B	1.0	MDL	12	MRL	mg/Kg	U	B
TITANIUM	860		0.15	MDL	1.1	MRL	mg/Kg	J	A
Zirconium	1.1	J	0.39	MDL	9.4	MRL	mg/Kg	J	Z

Sample ID: SL-505-SA3-SB-0.0-0.5

Collected: 11/20/2012 8:33:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.8	MDL	23000	MRL	mg/Kg	J	Z, A

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

5/6/2013 1:53:36 PM

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Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: Prep280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-505-SA3-SB-0.0-0.5

Collected: 11/20/2012 8:33:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.3	J	1.1	MDL	11	MRL	mg/Kg	U	F
CALCIUM	2400		16	MDL	57	MRL	mg/Kg	J	A
LITHIUM	18	J	0.34	MDL	42	MRL	mg/Kg	J	Z
MAGNESIUM	4400		4.2	MDL	11	MRL	mg/Kg	J	A
MANGANESE	160	J	0.11	MDL	560	MRL	mg/Kg	J	Z, Q, A
PHOSPHORUS	170		1.8	MDL	11	MRL	mg/Kg	J	A
POTASSIUM	1600	J	46	MDL	7300	MRL	mg/Kg	J	Z, A
SODIUM	170	J	67	MDL	570	MRL	mg/Kg	J	Z
STRONTIUM	20		0.041	MDL	0.56	MRL	mg/Kg	J	A
TIN	2.5	J B	1.0	MDL	12	MRL	mg/Kg	U	B
TITANIUM	1000		0.16	MDL	1.1	MRL	mg/Kg	J	A
Zirconium	1.3	J	0.40	MDL	9.7	MRL	mg/Kg	J	Z

Sample ID: SL-506-SA3-SB-0.0-0.5

Collected: 11/20/2012 7:45:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	10000	J	1.8	MDL	23000	MRL	mg/Kg	J	Z, A
BORON	1.3	J	1.1	MDL	11	MRL	mg/Kg	U	F
CALCIUM	2600		16	MDL	57	MRL	mg/Kg	J	A
LITHIUM	20	J	0.34	MDL	42	MRL	mg/Kg	J	Z
MAGNESIUM	4800		4.2	MDL	11	MRL	mg/Kg	J	A
MANGANESE	260	J	0.11	MDL	560	MRL	mg/Kg	J	Z, Q, A
PHOSPHORUS	530		1.8	MDL	11	MRL	mg/Kg	J	A
POTASSIUM	3100	J	47	MDL	7300	MRL	mg/Kg	J	Z, A
SODIUM	140	J	67	MDL	570	MRL	mg/Kg	J	Z
STRONTIUM	14		0.041	MDL	0.56	MRL	mg/Kg	J	A
TIN	1.4	J B	1.0	MDL	12	MRL	mg/Kg	U	B
TITANIUM	930		0.16	MDL	1.1	MRL	mg/Kg	J	A
Zirconium	0.86	J	0.40	MDL	9.8	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: Prep280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-501-SA3-SB-0.0-0.5

Collected: 11/20/2012 11:50:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.034	J	0.016	MDL	10	MRL	mg/Kg	J	Z, Q
ARSENIC	3.6	J	0.058	MDL	17	MRL	mg/Kg	J	Z
BARIUM	79	J	0.081	MDL	160	MRL	mg/Kg	J	Z
BERYLLIUM	0.37	J	0.026	MDL	1.3	MRL	mg/Kg	J	Z
CADMIUM	0.47	J	0.011	MDL	1.1	MRL	mg/Kg	J	Z
CHROMIUM	20	J B	0.087	MDL	42	MRL	mg/Kg	J	Z, Q, E
COBALT	4.8	J	0.0076	MDL	24	MRL	mg/Kg	J	Z
COPPER	12	J	0.082	MDL	33	MRL	mg/Kg	J	Z, Q, E
LEAD	47		0.021	MDL	39	MRL	mg/Kg	J	Q
MOLYBDENUM	0.91	J	0.020	MDL	6.1	MRL	mg/Kg	J	Z, Q, E
NICKEL	9.6	J B	0.029	MDL	33	MRL	mg/Kg	J	Z, Q
SELENIUM	0.79	B	0.15	MDL	0.75	MRL	mg/Kg	UJ	B, Q, E
SILVER	0.15	J	0.023	MDL	0.91	MRL	mg/Kg	J	Z
THALLIUM	0.17	J	0.0040	MDL	0.53	MRL	mg/Kg	J	Z
VANADIUM	24	J	0.044	MDL	71	MRL	mg/Kg	J	Z, Q
ZINC	85	J	0.36	MDL	130	MRL	mg/Kg	J	Z

Sample ID: SL-502-SA3-SB-0.0-0.5

Collected: 11/20/2012 9:23:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.078	J	0.014	MDL	8.8	MRL	mg/Kg	J	Z, Q
ARSENIC	3.4	J	0.051	MDL	15	MRL	mg/Kg	J	Z
BARIUM	96	J	0.072	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.48	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CHROMIUM	17	J B	0.077	MDL	37	MRL	mg/Kg	J	Z, Q, E
COBALT	5.5	J	0.0067	MDL	21	MRL	mg/Kg	J	Z
COPPER	11	J	0.072	MDL	29	MRL	mg/Kg	J	Z, Q, E
LEAD	14	J	0.018	MDL	35	MRL	mg/Kg	J	Z, Q
MOLYBDENUM	0.54	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z, Q, E
NICKEL	13	J B	0.026	MDL	29	MRL	mg/Kg	J	Z, Q
SELENIUM	0.90	B	0.14	MDL	0.67	MRL	mg/Kg	J	Q, E
THALLIUM	0.25	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	30	J	0.039	MDL	63	MRL	mg/Kg	J	Z, Q
ZINC	68	J	0.32	MDL	110	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: Prep280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS
Method:	6020A
Matrix:	SO

Sample ID: SL-505-SA3-SB-0.0-0.5

Collected: 11/20/2012 8:33:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.24	J	0.015	MDL	9.4	MRL	mg/Kg	J	Z, Q
ARSENIC	5.0	J	0.055	MDL	16	MRL	mg/Kg	J	Z
BARIUM	77	J	0.076	MDL	150	MRL	mg/Kg	J	Z
BERYLLIUM	0.58	J	0.024	MDL	1.2	MRL	mg/Kg	J	Z
CADMIUM	0.63	J	0.010	MDL	1.1	MRL	mg/Kg	J	Z
CHROMIUM	20	J B	0.082	MDL	40	MRL	mg/Kg	J	Z, Q, E
COBALT	4.7	J	0.0072	MDL	23	MRL	mg/Kg	J	Z
COPPER	42		0.077	MDL	31	MRL	mg/Kg	J	Q, E
LEAD	28	J	0.020	MDL	37	MRL	mg/Kg	J	Z, Q
MOLYBDENUM	0.39	J	0.019	MDL	5.7	MRL	mg/Kg	J	Z, Q, E
NICKEL	11	J B	0.027	MDL	31	MRL	mg/Kg	J	Z, Q
SELENIUM	1.0	B	0.14	MDL	0.71	MRL	mg/Kg	J	Q, E
THALLIUM	0.23	J	0.0038	MDL	0.50	MRL	mg/Kg	J	Z
VANADIUM	37	J	0.042	MDL	67	MRL	mg/Kg	J	Z, Q

Sample ID: SL-506-SA3-SB-0.0-0.5

Collected: 11/20/2012 7:45:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.037	J	0.014	MDL	8.5	MRL	mg/Kg	J	Z, Q
ARSENIC	2.8	J	0.049	MDL	15	MRL	mg/Kg	J	Z
BARIUM	81	J	0.069	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.36	J	0.022	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.26	J	0.0091	MDL	0.97	MRL	mg/Kg	J	Z
CHROMIUM	17	J B	0.074	MDL	36	MRL	mg/Kg	J	Z, Q, E
COBALT	4.9	J	0.0065	MDL	20	MRL	mg/Kg	J	Z
COPPER	9.5	J	0.069	MDL	28	MRL	mg/Kg	J	Z, Q, E
LEAD	13	J	0.018	MDL	33	MRL	mg/Kg	J	Z, Q
MOLYBDENUM	0.40	J	0.017	MDL	5.2	MRL	mg/Kg	J	Z, Q, E
NICKEL	9.9	J B	0.025	MDL	28	MRL	mg/Kg	J	Z, Q
SELENIUM	0.68	B	0.13	MDL	0.64	MRL	mg/Kg	UJ	B, Q, E
SILVER	0.19	J	0.020	MDL	0.77	MRL	mg/Kg	J	Z
THALLIUM	0.20	J	0.0034	MDL	0.45	MRL	mg/Kg	J	Z
VANADIUM	29	J	0.037	MDL	60	MRL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: Prep280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 7471B

Matrix: SO

Sample ID: SL-501-SA3-SB-0.0-0.5

Collected: 11/20/2012 11:50:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.024	J	0.0070	MDL	0.025	MRL	mg/Kg	J	Z

Sample ID: SL-502-SA3-SB-0.0-0.5

Collected: 11/20/2012 9:23:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.021	J	0.0063	MDL	0.023	MRL	mg/Kg	J	Z

Sample ID: SL-506-SA3-SB-0.0-0.5

Collected: 11/20/2012 7:45:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.012	J	0.0067	MDL	0.024	MRL	mg/Kg	U	F

Method Category: SVOA

Method: 8015B EFH

Matrix: SO

Sample ID: SL-502-SA3-SB-0.0-0.5

Collected: 11/20/2012 9:23:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.5	J	1.1	MDL	5.5	MRL	mg/Kg	J	Z

Sample ID: SL-505-SA3-SB-0.0-0.5

Collected: 11/20/2012 8:33:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C30-C40)	5.6	J	1.2	MDL	12	MRL	mg/Kg	J	Z

Sample ID: SL-506-SA3-SB-0.0-0.5

Collected: 11/20/2012 7:45:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.6	J	1.1	MDL	5.4	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: Prep280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8270C SIM
Matrix:	SO

Sample ID: SL-501-SA3-SB-0.0-0.5 Collected: 11/20/2012 11:50:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	2.2	J	0.30	MDL	11	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	3.4	J B	0.35	MDL	11	MRL	ug/Kg	J	Z
ACENAPHTHENE	2.3	J	0.18	MDL	11	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	3.5	J	0.19	MDL	11	MRL	ug/Kg	J	Z
ANTHRACENE	5.6	J	0.82	MDL	11	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.3	J	1.5	MDL	11	MRL	ug/Kg	J	Z
FLUORENE	5.1	J	0.53	MDL	11	MRL	ug/Kg	J	Z
NAPHTHALENE	5.7	J B	0.37	MDL	11	MRL	ug/Kg	J	Z

Sample ID: SL-502-SA3-SB-0.0-0.5 Collected: 11/20/2012 9:23:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.39	J	0.28	MDL	11	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.67	J B	0.34	MDL	11	MRL	ug/Kg	U	B
ACENAPHTHENE	0.46	J	0.17	MDL	11	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.18	J	0.18	MDL	11	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	0.91	J	0.80	MDL	11	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	2.2	J	1.3	MDL	11	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	1.2	MDL	11	MRL	ug/Kg	J	Z
CHRYSENE	2.4	J	1.1	MDL	11	MRL	ug/Kg	J	Z
FLUORANTHENE	2.1	J	1.1	MDL	11	MRL	ug/Kg	J	Z
FLUORENE	0.58	J	0.51	MDL	11	MRL	ug/Kg	J	Z
NAPHTHALENE	0.87	J B	0.35	MDL	11	MRL	ug/Kg	U	B
PHENANTHRENE	1.4	J	1.2	MDL	11	MRL	ug/Kg	J	Z

Sample ID: SL-505-SA3-SB-0.0-0.5 Collected: 11/20/2012 8:33:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.66	J	0.31	MDL	12	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.3	J B	0.37	MDL	12	MRL	ug/Kg	U	B
ACENAPHTHENE	0.36	J	0.19	MDL	12	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.36	J	0.20	MDL	12	MRL	ug/Kg	J	Z
ANTHRACENE	1.9	J	0.86	MDL	12	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	8.5	J	1.1	MDL	12	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	5.1	J	0.89	MDL	12	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: Prep280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-505-SA3-SB-0.0-0.5

Collected: 11/20/2012 8:33:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	10	J	1.4	MDL	12	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	3.3	J	1.3	MDL	12	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	3.2	J	1.2	MDL	12	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	3.1	J	1.3	MDL	12	MRL	ug/Kg	J	Z
NAPHTHALENE	3.6	J B	0.39	MDL	12	MRL	ug/Kg	J	Z
PHENANTHRENE	9.9	J	1.3	MDL	12	MRL	ug/Kg	J	Z
PYRENE	11	J	1.3	MDL	12	MRL	ug/Kg	J	Z

Sample ID: SL-506-SA3-SB-0.0-0.5

Collected: 11/20/2012 7:45:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.85	J	0.29	MDL	11	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	2.8	J B	0.35	MDL	11	MRL	ug/Kg	J	Z
ACENAPHTHENE	0.61	J	0.18	MDL	11	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	1.0	J	0.19	MDL	11	MRL	ug/Kg	J	Z
ANTHRACENE	1.1	J	0.80	MDL	11	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	3.5	J	1.0	MDL	11	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	4.8	J	0.83	MDL	11	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.1	J	1.2	MDL	11	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	3.8	J	1.1	MDL	11	MRL	ug/Kg	J	Z
CHRYSENE	9.9	J	1.1	MDL	11	MRL	ug/Kg	J	Z
FLUORENE	0.83	J	0.52	MDL	11	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	6.0	J	1.2	MDL	11	MRL	ug/Kg	J	Z
NAPHTHALENE	4.4	J B	0.36	MDL	11	MRL	ug/Kg	J	Z
PHENANTHRENE	6.0	J	1.2	MDL	11	MRL	ug/Kg	J	Z
PYRENE	9.0	J	1.2	MDL	11	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: Prep280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*#	Professional Judgment
A	ICP Serial Dilution
B	Method Blank Contamination
E	Matrix Spike Precision
F	Equipment Blank Contamination
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-36181-1

Method Blank Outlier Report

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: 280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method:	6010C
Matrix:	SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-149235/1-A	12/1/2012 12:33:00 AM	TIN	0.953 mg/Kg	SL-501-SA3-SB-0.0-0.5 SL-502-SA3-SB-0.0-0.5 SL-505-SA3-SB-0.0-0.5 SL-506-SA3-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-501-SA3-SB-0.0-0.5(RES/TOT)	TIN	1.4 mg/Kg	1.4U mg/Kg
SL-502-SA3-SB-0.0-0.5(RES/TOT)	TIN	1.1 mg/Kg	1.1U mg/Kg
SL-505-SA3-SB-0.0-0.5(RES/TOT)	TIN	2.5 mg/Kg	2.5U mg/Kg
SL-506-SA3-SB-0.0-0.5(RES/TOT)	TIN	1.4 mg/Kg	1.4U mg/Kg

Method:	6020A
Matrix:	SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-149234/1-A	11/30/2012 4:02:00 PM	CHROMIUM NICKEL SELENIUM	0.228 mg/Kg 0.0555 mg/Kg 0.162 mg/Kg	SL-501-SA3-SB-0.0-0.5 SL-502-SA3-SB-0.0-0.5 SL-505-SA3-SB-0.0-0.5 SL-506-SA3-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-501-SA3-SB-0.0-0.5(RES/TOT)	SELENIUM	0.79 mg/Kg	0.79U mg/Kg
SL-506-SA3-SB-0.0-0.5(RES/TOT)	SELENIUM	0.68 mg/Kg	0.68U mg/Kg

Method:	8270C SIM
Matrix:	SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-149356/1-A	12/3/2012 5:09:00 PM	2-METHYLNAPHTHALENE NAPHTHALENE	0.534 ug/Kg 0.418 ug/Kg	SL-501-SA3-SB-0.0-0.5 SL-502-SA3-SB-0.0-0.5 SL-505-SA3-SB-0.0-0.5 SL-506-SA3-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-502-SA3-SB-0.0-0.5(RES)	2-METHYLNAPHTHALENE	0.67 ug/Kg	11U ug/Kg
SL-502-SA3-SB-0.0-0.5(RES)	NAPHTHALENE	0.87 ug/Kg	11U ug/Kg
SL-505-SA3-SB-0.0-0.5(RES)	2-METHYLNAPHTHALENE	1.3 ug/Kg	12U ug/Kg

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: 280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C
Matrix: SO

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-112012(RES/TOT)	11/20/2012 3:00:00 PM	BORON MANGANESE SODIUM	0.0055 mg/L 0.00051 mg/L 0.17 mg/L	SL-501-SA3-SB-0.0-0.5 SL-502-SA3-SB-0.0-0.5 SL-505-SA3-SB-0.0-0.5 SL-506-SA3-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-501-SA3-SB-0.0-0.5(RES/TOT)	BORON	1.1 mg/Kg	1.1U mg/Kg
SL-502-SA3-SB-0.0-0.5(RES/TOT)	BORON	2.0 mg/Kg	2.0U mg/Kg
SL-505-SA3-SB-0.0-0.5(RES/TOT)	BORON	2.3 mg/Kg	2.3U mg/Kg
SL-506-SA3-SB-0.0-0.5(RES/TOT)	BORON	1.3 mg/Kg	1.3U mg/Kg

Reporting Limit Outliers

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: 280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-501-SA3-SB-0.0-0.5	ALUMINUM	J	8100	21000	MRL	mg/Kg	J (all detects)
	BORON	J	1.1	10	MRL	mg/Kg	
	LITHIUM	J	18	39	MRL	mg/Kg	
	MANGANESE	J	220	520	MRL	mg/Kg	
	POTASSIUM	J	2700	6700	MRL	mg/Kg	
	SODIUM	J	120	520	MRL	mg/Kg	
	TIN	J B	1.4	11	MRL	mg/Kg	
SL-502-SA3-SB-0.0-0.5	Zirconium	J	1.1	9.0	MRL	mg/Kg	J (all detects)
	ALUMINUM	J	11000	22000	MRL	mg/Kg	
	BORON	J	2.0	11	MRL	mg/Kg	
	LITHIUM	J	19	41	MRL	mg/Kg	
	MANGANESE	J	290	540	MRL	mg/Kg	
	POTASSIUM	J	3300	7000	MRL	mg/Kg	
	SODIUM	J	120	550	MRL	mg/Kg	
SL-505-SA3-SB-0.0-0.5	TIN	J B	1.1	12	MRL	mg/Kg	J (all detects)
	Zirconium	J	1.1	9.4	MRL	mg/Kg	
	ALUMINUM	J	13000	23000	MRL	mg/Kg	
	BORON	J	2.3	11	MRL	mg/Kg	
	LITHIUM	J	18	42	MRL	mg/Kg	
	MANGANESE	J	160	560	MRL	mg/Kg	
	POTASSIUM	J	1600	7300	MRL	mg/Kg	
SL-506-SA3-SB-0.0-0.5	SODIUM	J	170	570	MRL	mg/Kg	J (all detects)
	TIN	J B	2.5	12	MRL	mg/Kg	
	Zirconium	J	1.3	9.7	MRL	mg/Kg	
	ALUMINUM	J	10000	23000	MRL	mg/Kg	
	BORON	J	1.3	11	MRL	mg/Kg	
	LITHIUM	J	20	42	MRL	mg/Kg	
	MANGANESE	J	260	560	MRL	mg/Kg	
	POTASSIUM	J	3100	7300	MRL	mg/Kg	J (all detects)
	SODIUM	J	140	570	MRL	mg/Kg	
	TIN	J B	1.4	12	MRL	mg/Kg	
	Zirconium	J	0.86	9.8	MRL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-501-SA3-SB-0.0-0.5	ANTIMONY	J	0.034	10	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.6	17	MRL	mg/Kg	
	BARIUM	J	79	160	MRL	mg/Kg	
	BERYLLIUM	J	0.37	1.3	MRL	mg/Kg	
	CADMIUM	J	0.47	1.1	MRL	mg/Kg	
	CHROMIUM	J B	20	42	MRL	mg/Kg	
	COBALT	J	4.8	24	MRL	mg/Kg	
	COPPER	J	12	33	MRL	mg/Kg	
	MOLYBDENUM	J	0.91	6.1	MRL	mg/Kg	
	NICKEL	J B	9.6	33	MRL	mg/Kg	
	SILVER	J	0.15	0.91	MRL	mg/Kg	
	THALLIUM	J	0.17	0.53	MRL	mg/Kg	
	VANADIUM	J	24	71	MRL	mg/Kg	
	ZINC	J	85	130	MRL	mg/Kg	

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: 280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-502-SA3-SB-0.0-0.5	ANTIMONY	J	0.078	8.8	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.4	15	MRL	mg/Kg	
	BARIUM	J	96	140	MRL	mg/Kg	
	BERYLLIUM	J	0.48	1.1	MRL	mg/Kg	
	CHROMIUM	JB	17	37	MRL	mg/Kg	
	COBALT	J	5.5	21	MRL	mg/Kg	
	COPPER	J	11	29	MRL	mg/Kg	
	LEAD	J	14	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.54	5.4	MRL	mg/Kg	
	NICKEL	JB	13	29	MRL	mg/Kg	
	THALLIUM	J	0.25	0.47	MRL	mg/Kg	
	VANADIUM	J	30	63	MRL	mg/Kg	
	ZINC	J	68	110	MRL	mg/Kg	
SL-505-SA3-SB-0.0-0.5	ANTIMONY	J	0.24	9.4	MRL	mg/Kg	J (all detects)
	ARSENIC	J	5.0	16	MRL	mg/Kg	
	BARIUM	J	77	150	MRL	mg/Kg	
	BERYLLIUM	J	0.58	1.2	MRL	mg/Kg	
	CADMIUM	J	0.63	1.1	MRL	mg/Kg	
	CHROMIUM	JB	20	40	MRL	mg/Kg	
	COBALT	J	4.7	23	MRL	mg/Kg	
	LEAD	J	28	37	MRL	mg/Kg	
	MOLYBDENUM	J	0.39	5.7	MRL	mg/Kg	
	NICKEL	JB	11	31	MRL	mg/Kg	
	THALLIUM	J	0.23	0.50	MRL	mg/Kg	
	VANADIUM	J	37	67	MRL	mg/Kg	
SL-506-SA3-SB-0.0-0.5	ANTIMONY	J	0.037	8.5	MRL	mg/Kg	J (all detects)
	ARSENIC	J	2.8	15	MRL	mg/Kg	
	BARIUM	J	81	140	MRL	mg/Kg	
	BERYLLIUM	J	0.36	1.1	MRL	mg/Kg	
	CADMIUM	J	0.26	0.97	MRL	mg/Kg	
	CHROMIUM	JB	17	36	MRL	mg/Kg	
	COBALT	J	4.9	20	MRL	mg/Kg	
	COPPER	J	9.5	28	MRL	mg/Kg	
	LEAD	J	13	33	MRL	mg/Kg	
	MOLYBDENUM	J	0.40	5.2	MRL	mg/Kg	
	NICKEL	JB	9.9	28	MRL	mg/Kg	
	SILVER	J	0.19	0.77	MRL	mg/Kg	
	THALLIUM	J	0.20	0.45	MRL	mg/Kg	
	VANADIUM	J	29	60	MRL	mg/Kg	

Method: 7471B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-501-SA3-SB-0.0-0.5	MERCURY	J	0.024	0.025	MRL	mg/Kg	J (all detects)
SL-502-SA3-SB-0.0-0.5	MERCURY	J	0.021	0.023	MRL	mg/Kg	J (all detects)
SL-506-SA3-SB-0.0-0.5	MERCURY	J	0.012	0.024	MRL	mg/Kg	J (all detects)

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

5/3/2013 10:39:30 AM

ADR version 1.7.0.207

Page 2 of 4

Reporting Limit Outliers

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: 280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-502-SA3-SB-0.0-0.5	EFH(C15-C20)	J	1.5	5.5	MRL	mg/Kg	J (all detects)
SL-505-SA3-SB-0.0-0.5	EFH(C30-C40)	J	5.6	12	MRL	mg/Kg	J (all detects)
SL-506-SA3-SB-0.0-0.5	EFH(C15-C20)	J	1.6	5.4	MRL	mg/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-501-SA3-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	2.2	11	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	3.4	11	MRL	ug/Kg	
	ACENAPHTHENE	J	2.3	11	MRL	ug/Kg	
	ACENAPHTHYLENE	J	3.5	11	MRL	ug/Kg	
	ANTHRACENE	J	5.6	11	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	3.3	11	MRL	ug/Kg	
	FLUORENE	J	5.1	11	MRL	ug/Kg	
SL-502-SA3-SB-0.0-0.5	NAPHTHALENE	J B	5.7	11	MRL	ug/Kg	J (all detects)
	1-METHYLNAPHTHALENE	J	0.39	11	MRL	ug/Kg	
	2-METHYLNAPHTHALENE	J B	0.67	11	MRL	ug/Kg	
	ACENAPHTHENE	J	0.46	11	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.18	11	MRL	ug/Kg	
	BENZO(A)PYRENE	J	0.91	11	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	2.2	11	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	11	MRL	ug/Kg	
	CHRYSENE	J	2.4	11	MRL	ug/Kg	
	FLUORANTHENE	J	2.1	11	MRL	ug/Kg	
	FLUORENE	J	0.58	11	MRL	ug/Kg	
	NAPHTHALENE	J B	0.87	11	MRL	ug/Kg	
SL-505-SA3-SB-0.0-0.5	PHENANTHRENE	J	1.4	11	MRL	ug/Kg	J (all detects)
	1-METHYLNAPHTHALENE	J	0.66	12	MRL	ug/Kg	
	2-METHYLNAPHTHALENE	J B	1.3	12	MRL	ug/Kg	
	ACENAPHTHENE	J	0.36	12	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.36	12	MRL	ug/Kg	
	ANTHRACENE	J	1.9	12	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	8.5	12	MRL	ug/Kg	
	BENZO(A)PYRENE	J	5.1	12	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	10	12	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	3.3	12	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	3.2	12	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	3.1	12	MRL	ug/Kg	
	NAPHTHALENE	J B	3.6	12	MRL	ug/Kg	
	PHENANTHRENE	J	9.9	12	MRL	ug/Kg	
	PYRENE	J	11	12	MRL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-36181-1

Laboratory: TA DEN

EDD Filename: 280-36181-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-506-SA3-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.85	11	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	2.8	11	MRL	ug/Kg	
	ACENAPHTHENE	J	0.61	11	MRL	ug/Kg	
	ACENAPHTHYLENE	J	1.0	11	MRL	ug/Kg	
	ANTHRACENE	J	1.1	11	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	3.5	11	MRL	ug/Kg	
	BENZO(A)PYRENE	J	4.8	11	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	6.1	11	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	3.8	11	MRL	ug/Kg	
	CHRYSENE	J	9.9	11	MRL	ug/Kg	
	FLUORENE	J	0.83	11	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	6.0	11	MRL	ug/Kg	
	NAPHTHALENE	J B	4.4	11	MRL	ug/Kg	
	PHENANTHRENE	J	6.0	11	MRL	ug/Kg	
	PYRENE	J	9.0	11	MRL	ug/Kg	

LDC #: 29651C4
SDG #: 280-36181-1
Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET ADR

Date: 5/3/13
Page: 1 of 1
Reviewer: [Signature]
2nd Reviewer: [Signature]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 11/20/12
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	SW	MS/D (280-36180-1)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV.	Field Blanks	SW	FB=FB-060512 EB=EB-112012 (12FB37) (280-36180-1)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

Soil

1	SL-502-SA3-SB-0.0-0.5	11		21		31	
2	SL-505-SA3-SB-0.0-0.5	12		22		32	
3	SL-506-SA3-SB-0.0-0.5	13		23		33	
4	SL-501-SA3-SB-0.0-0.5	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 29651C4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: [Signature]
2nd Reviewer: [Signature]

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L Associated sample units: mg/Kg Reason: F

Sampling date: EB=11/20/12; FB=6/5/12 Soil factor applied 100x

Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All

Analyte	Blank ID	Blank ID	Sample Identification							
	FB-060512	EB-112012	Action Limit	1	2	3	4			
Al	0.0270		13.5							
B		0.0055	2.75	2.0	2.3	1.3	1.1			
Ca	0.0263		13.15							
Cu	0.00095		0.475							
Mn		0.00051	0.255							
Na		0.17	85							
Hg		0.000034	0.017			0.012				

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

~~Y N (N/A)~~

[illegible]

Comments: _____

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-36180-A-2-G SD ^5 (SL-681-SAB-SB-0.0-0.5)

SDG No: _____

Lab Name: TestAmerica Denver Job No: 280-36181-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	Method
Aluminum	7900 J	9200 J	17	V	6010C
Boron	1.8 J	ND	NC		6010C
Calcium	2000 J	2290 J	16	V	6010C
Iron	16000 J	16000 J	0.57		6010C
Lithium	14 J	15.9 J	NC		6010C
Magnesium	3300 J	3800 J	15	V	6010C
Manganese	180 J	204 J	14	V	6010C
Phosphorus	430 J	487 J	14	V	6010C
Potassium	2400 J	2820 J	15	V	6010C
Sodium	130 J	ND	NC		6010C
Strontium	13 J	14.4 J	14	V	6010C
Tin	1.3 J	ND	NC		6010C
Titanium	680 J	766 J	12	V	6010C
Zirconium	0.75 J	ND	NC		6010C

SL-681-SAB-SB-0.0-0.5

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

FORM VIII-IN

SAMPLE DELIVERY GROUP

280-36181-2

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Nov-2012	SL-506-SA3-SB-0.0-0.5	280-36181-6	N	1613	1613B	III
20-Nov-2012	SL-505-SA3-SB-0.0-0.5	280-36181-4	N	1613	1613B	III
20-Nov-2012	SL-502-SA3-SB-0.0-0.5	280-36181-2	N	1613	1613B	III
20-Nov-2012	SL-501-SA3-SB-0.0-0.5	280-36181-8	N	1613	1613B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-2

Laboratory: TA DEN

EDD Filename: 280-36181-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	1613B
Matrix:	SO

Sample ID: SL-501-SA3-SB-0.0-0.5

Collected: 11/20/2012 11:50:00 Analysis Type: RE2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.99	Q J	0.13	MDL	1.1	MRL	ng/kg	J	Z

Sample ID: SL-501-SA3-SB-0.0-0.5

Collected: 11/20/2012 11:50:00 Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HxCDD	4.0	Q J	0.19	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	4.1	Q J	0.090	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	4.3	Q J	0.091	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	2.2	Q J	0.13	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.46	Q J	0.12	MDL	5.6	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	2.1	J	0.10	MDL	5.6	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.88	J	0.097	MDL	5.6	MRL	ng/kg	J	Z
2,3,7,8-TCDD	0.13	Q J	0.17	MDL	1.1	MRL	ng/kg	J	Z

Sample ID: SL-502-SA3-SB-0.0-0.5

Collected: 11/20/2012 9:23:00 Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.6	J	0.12	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.96	J	0.049	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	0.99	Q J	0.037	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	3.1	J	0.049	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	1.8	Q J	0.037	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	3.0	C J	0.046	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.14	Q J	0.048	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.55	Q J	0.077	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.25	J	0.067	MDL	5.4	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.71	J	0.035	MDL	5.4	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.42	J	0.060	MDL	5.4	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.65	J	0.090	MDL	1.1	MRL	ng/kg	J	Z

Sample ID: SL-505-SA3-SB-0.0-0.5

Collected: 11/20/2012 8:33:00 Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	2.3	J	0.074	MDL	5.8	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	1.8	J	0.067	MDL	5.8	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-2

Laboratory: TA DEN

EDD Filename: 280-36181-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA		
Method:	1613B	Matrix:	SO

Sample ID: SL-505-SA3-SB-0.0-0.5

Collected: 11/20/2012 8:33:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	3.7	J	0.040	MDL	5.8	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	2.7	J	0.040	MDL	5.8	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDD	5.1	C J	0.067	MDL	5.8	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.36	J	0.056	MDL	5.8	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	1.4	Q J	0.10	MDL	5.8	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	2.8	J	0.087	MDL	5.8	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	2.9	J	0.041	MDL	5.8	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	2.7	J	0.082	MDL	5.8	MRL	ng/kg	J	Z
2,3,7,8-TCDD	0.51	J	0.18	MDL	1.2	MRL	ng/kg	J	Z

Sample ID: SL-506-SA3-SB-0.0-0.5

Collected: 11/20/2012 7:45:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.96	Q J	0.091	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.78	J	0.041	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	1.3	C J	0.030	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDD	1.8	J	0.044	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	1.7	Q J	0.030	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDD	2.0	C J	0.040	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.074	J	0.039	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.49	Q J	0.072	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.18	Q J	0.053	MDL	5.5	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.56	Q J	0.029	MDL	5.5	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.41	J	0.049	MDL	5.5	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.63	Q J	0.076	MDL	1.1	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-36181-2

Laboratory: TA DEN

EDD Filename: 280-36181-2

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-36181-2/
H2K270410

Reporting Limit Outliers

Lab Reporting Batch ID: 280-36181-2

Laboratory: TA DEN

EDD Filename: 280-36181-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-501-SA3-SB-0.0-0.5	1,2,3,4,7,8-HxCDD	Q J	4.0	5.6	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDF	Q J	4.1	5.6	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	4.3	5.6	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	2.2	5.6	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.46	5.6	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	J	2.1	5.6	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	0.88	5.6	MRL	ng/kg	
	2,3,7,8-TCDD	Q J	0.13	1.1	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.99	1.1	MRL	ng/kg	
SL-502-SA3-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	J	1.6	5.4	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.96	5.4	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	Q J	0.99	5.4	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	3.1	5.4	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	1.8	5.4	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	C J	3.0	5.4	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	Q J	0.14	5.4	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.55	5.4	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	0.25	5.4	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	J	0.71	5.4	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	0.42	5.4	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.65	1.1	MRL	ng/kg	
SL-505-SA3-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	J	2.3	5.8	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	1.8	5.8	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	J	3.7	5.8	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	J	2.7	5.8	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	C J	5.1	5.8	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	J	0.36	5.8	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	1.4	5.8	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	2.8	5.8	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	J	2.9	5.8	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	2.7	5.8	MRL	ng/kg	
SL-506-SA3-SB-0.0-0.5	2,3,7,8-TCDD	J	0.51	1.2	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	Q J	0.96	5.5	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	J	0.78	5.5	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	C J	1.3	5.5	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	1.8	5.5	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	1.7	5.5	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	C J	2.0	5.5	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	J	0.074	5.5	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.49	5.5	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.18	5.5	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	Q J	0.56	5.5	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	0.41	5.5	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.63	1.1	MRL	ng/kg	

SAMPLE DELIVERY GROUP

280-37204-1

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Dec-2012	SL-507-SA3-SB-0.0-0.5	280-37204-2	N	1613	1613B	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0	280-37204-5	N	1613	1613B	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MS	280-37204-5 MS	MS	1613	1613B	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MSD	280-37204-5 MSD	MSD	1613	1613B	III
18-Dec-2012	SL-907-SA3-SB-3.0-4.0	280-37204-6	FD	1613	1613B	III
18-Dec-2012	SL-508-SA3-SB-0.0-0.5	280-37204-3	N	1613	1613B	III
18-Dec-2012	SL-508-SA3-SB-3.5-4.5	280-37204-7	N	1613	1613B	III
18-Dec-2012	SL-504-SA3-SB-0.0-0.5	280-37204-1	N	1613	1613B	III
18-Dec-2012	SL-504-SA3-SB-3.5-4.5	280-37204-4	N	1613	1613B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-37204-1

Laboratory: TA DEN

EDD Filename: 280-37204-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-504-SA3-SB-0.0-0.5

Collected: 12/18/2012 10:20:00 Analysis Type: DL

Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.8	Q J	1.8	MDL	51	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	2.9	Q J	1.9	MDL	51	MRL	ng/kg	J	Z
OCDF	18	J	2.6	MDL	100	MRL	ng/kg	J	Z

Sample ID: SL-504-SA3-SB-3.5-4.5

Collected: 12/18/2012 10:45:00 Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.4	B J	0.40	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.43	Q J	0.23	MDL	5.1	MRL	ng/kg	J	Z
OCDF	0.63	Q J	0.65	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-507-SA3-SB-0.0-0.5

Collected: 12/18/2012 7:50:00 Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.4	J	0.29	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.76	Q J	0.21	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	3.1	C B J	0.13	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	4.1	J	0.22	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	1.7	Q J	0.14	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	2.0	C J	0.20	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.22	Q J	0.16	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.73	Q J	0.28	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.75	Q J	0.24	MDL	5.6	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	2.4	J	0.14	MDL	5.6	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	1.3	Q J	0.22	MDL	5.6	MRL	ng/kg	J	Z

Sample ID: SL-507-SA3-SB-3.0-4.0

Collected: 12/18/2012 8:15:00 Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	7.2	B	0.094	MDL	5.6	MRL	ng/kg	J	FD
1,2,3,4,6,7,8-HPCDF	1.6	Q J	0.069	MDL	5.6	MRL	ng/kg	J	Z, FD
1,2,3,4,7,8-HxCDD	0.096	J	0.066	MDL	5.6	MRL	ng/kg	J	Z, FD
1,2,3,4,7,8-HXCDF	0.13	Q B J	0.045	MDL	5.6	MRL	ng/kg	UJ	B, FD
1,2,3,6,7,8-HxCDD	0.22	Q J	0.066	MDL	5.6	MRL	ng/kg	J	Z, FD
1,2,3,6,7,8-HXCDF	0.16	J	0.044	MDL	5.6	MRL	ng/kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-37204-1

Laboratory: TA DEN

EDD Filename: 280-37204-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	1613B
Matrix:	SO

Sample ID: SL-507-SA3-SB-3.0-4.0

Collected: 12/18/2012 8:15:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HxCDD	0.27	J	0.062	MDL	5.6	MRL	ng/kg	J	Z, FD
2,3,4,7,8-PECDF	0.098	Q J	0.061	MDL	5.6	MRL	ng/kg	J	Z, FD
OCDD	78	B	0.15	MDL	11	MRL	ng/kg	J	FD
OCDF	0.96	S J	0.12	MDL	11	MRL	ng/kg	J	Z, Q, FD

Sample ID: SL-508-SA3-SB-0.0-0.5

Collected: 12/18/2012 9:15:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	5.0	J	0.12	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.48	Q J	0.20	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.42	Q J	0.12	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	0.39	B J	0.056	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	1.6	J	0.11	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	0.40	Q J	0.055	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	1.7	J	0.11	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.38	Q J	0.094	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.14	Q J	0.064	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.18	Q J	0.075	MDL	5.1	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.16	J	0.093	MDL	1.0	MRL	ng/kg	J	Z
OCDF	6.6	Q J	0.27	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-508-SA3-SB-3.5-4.5

Collected: 12/18/2012 9:30:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.0	B J	0.064	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.42	Q J	0.036	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.12	Q J	0.052	MDL	5.5	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.046	Q J	0.027	MDL	5.5	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.044	Q J	0.041	MDL	5.5	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.12	Q J	0.072	MDL	1.1	MRL	ng/kg	J	Z
OCDF	0.31	Q J	0.046	MDL	11	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-37204-1

Laboratory: TA DEN

EDD Filename: 280-37204-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-907-SA3-SB-3.0-4.0

Collected: 12/18/2012 8:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.5	Q B J	0.31	MDL	5.3	MRL	ng/kg	J	Z, FD
1,2,3,4,6,7,8-HPCDF	0.33	Q J	0.19	MDL	5.3	MRL	ng/kg	J	Z, FD
1,2,3,4,7,8-HxCDD	0.11	U	0.11	MDL	5.3	MRL	ng/kg	UJ	FD
1,2,3,4,7,8-HxCDF	0.077	U	0.077	MDL	5.3	MRL	ng/kg	UJ	FD
1,2,3,6,7,8-HxCDD	0.12	U	0.12	MDL	5.3	MRL	ng/kg	UJ	FD
1,2,3,6,7,8-HxCDF	0.076	U	0.076	MDL	5.3	MRL	ng/kg	UJ	FD
1,2,3,7,8,9-HxCDD	0.11	U	0.11	MDL	5.3	MRL	ng/kg	UJ	FD
2,3,4,7,8-PECDF	0.083	U	0.083	MDL	5.3	MRL	ng/kg	UJ	FD
OCDD	29	B	0.65	MDL	11	MRL	ng/kg	J	FD
OCDF	0.50	U	0.50	MDL	11	MRL	ng/kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-37204-1

Laboratory: TA DEN

EDD Filename: 280-37204-1

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
B	Method Blank Contamination
E	Matrix Spike Precision
FD	Field Duplicate Precision
Q	Matrix Spike Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-37204-1/
H2L270403

Method Blank Outlier Report

Lab Reporting Batch ID: 280-37204-1

Laboratory: TA DEN

EDD Filename: 280-37204-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B				
Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
H3A210000015B	1/25/2013 12:16:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,7,8-HXCDF OCDD	0.053 ng/kg 0.035 ng/kg 0.84 ng/kg	SL-504-SA3-SB-0.0-0.5 SL-504-SA3-SB-3.5-4.5 SL-507-SA3-SB-0.0-0.5 SL-507-SA3-SB-3.0-4.0 SL-508-SA3-SB-0.0-0.5 SL-508-SA3-SB-3.5-4.5 SL-907-SA3-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-507-SA3-SB-3.0-4.0(RES)	1,2,3,4,7,8-HXCDF	0.13 ng/kg	0.13U ng/kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-37204-1

Laboratory: TA DEN

EDD Filename: 280-37204-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-507-SA3-SB-3.0-4.0MSD (SL-507-SA3-SB-3.0-4.0)	OCDF	-	-	40.00-135.00	63 (20.00)	OCDF	J (all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: 280-37204-1

Laboratory: TA DEN

EDD Filename: 280-37204-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

Analyte	Concentration (ng/kg)		Sample RPD	eQAPP RPD	Flag
	SL-507-SA3-SB-3.0-4.0	SL-907-SA3-SB-3.0-4.0			
1,2,3,4,6,7,8-HPCDD	7.2	1.5	131	50.00	J (all detects) UJ (all non-detects)
1,2,3,4,6,7,8-HPCDF	1.6	0.33	132	50.00	
1,2,3,4,7,8-HxCDD	0.096	5.3 U	200	50.00	
1,2,3,4,7,8-HxCDF	0.13	5.3 U	200	50.00	
1,2,3,6,7,8-HxCDD	0.22	5.3 U	200	50.00	
1,2,3,6,7,8-HxCDF	0.16	5.3 U	200	50.00	
1,2,3,7,8,9-HxCDD	0.27	5.3 U	200	50.00	
2,3,4,7,8-PECDF	0.098	5.3 U	200	50.00	
OCDD	78	29	92	50.00	
OCDF	0.96	11 U	200	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-37204-1

Laboratory: TA DEN

EDD Filename: 280-37204-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-504-SA3-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	Q J	1.8	51	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	Q J	2.9	51	MRL	ng/kg	
	OCDF	J	18	100	MRL	ng/kg	
SL-504-SA3-SB-3.5-4.5	1,2,3,4,6,7,8-HPCDD	B J	3.4	5.1	MRL	ng/kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	Q J	0.43	5.1	MRL	ng/kg	
	OCDF	Q J	0.63	10	MRL	ng/kg	
SL-507-SA3-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	J	1.4	5.6	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	Q J	0.76	5.6	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	C B J	3.1	5.6	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	4.1	5.6	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	1.7	5.6	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	C J	2.0	5.6	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	Q J	0.22	5.6	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.73	5.6	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.75	5.6	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	J	2.4	5.6	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	1.3	5.6	MRL	ng/kg	
SL-507-SA3-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDF	Q J	1.6	5.6	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.096	5.6	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	Q B J	0.13	5.6	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	0.22	5.6	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	J	0.16	5.6	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	0.27	5.6	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.098	5.6	MRL	ng/kg	
	OCDF	S J	0.96	11	MRL	ng/kg	
SL-508-SA3-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	J	5.0	5.1	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	Q J	0.48	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	0.42	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	B J	0.39	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	1.6	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	0.40	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	1.7	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.38	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	Q J	0.14	5.1	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.18	5.1	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.16	1.0	MRL	ng/kg	
	OCDF	Q J	6.6	10	MRL	ng/kg	
SL-508-SA3-SB-3.5-4.5	1,2,3,4,6,7,8-HPCDD	B J	2.0	5.5	MRL	ng/kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	Q J	0.42	5.5	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	0.12	5.5	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	Q J	0.046	5.5	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.044	5.5	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.12	1.1	MRL	ng/kg	
	OCDF	Q J	0.31	11	MRL	ng/kg	
SL-907-SA3-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDD	Q B J	1.5	5.3	MRL	ng/kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	Q J	0.33	5.3	MRL	ng/kg	

SAMPLE DELIVERY GROUP

12L152



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April 19, 2013

555 17th Street, Suite 1100
Denver, CO 80202
ATTN: Mrs. Cherie Zakowski

SUBJECT: Santa Susana Field Laboratory, Data Validation

Dear Mrs. Zakowski,

Enclosed is the final validation report for the fractions listed below. This SDG was received on March 27, 2013.

LDC project# 29433:

SDG #

Fraction

12L152

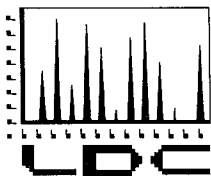
PAHs (EPA SW 846 Method 8270C-SIM)
PCBs (EPA SW 846 Method 8082)
Metals (EPA SW 846 Method 6020A/7471A)
TPH-G (EPA SW 846 Method 8015B)
TPH-E (EPA SW 846 Method 8015B)

The following deliverables are submitted under this report:

- Attachment I Sample ID Cross Reference and Data Review Level
- Attachment II Overall Data Qualification Summary
- Enclosure I Level III ADR Outliers (including manual review outliers)
- Enclosure II Level IV Validation Reports

The data validation was performed in accordance to the Quality Assurance Project Plan for Santa Susana Field Laboratory, RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4), USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) and for Inorganic Data Review (January 2010). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience. The following items were evaluated during the review::

- Holding Times
- Sample Preservation
- Cooler Temperatures
- Initial Calibration (Level IV only)
- Continuing Calibration (Level IV only)
- Blanks
- Surrogates
- Matrix Spike/Matrix Spike Duplicates



- Laboratory Duplicates
- Laboratory Control Samples
- Internal Standards (Level IV only)
- ICP Serial Dilution (Manual Review)
- Detection and Quantitation Limits
- Field QC Samples

Please feel free to contact us if you have any questions.

Sincerely,

Andrew Kong
Project Manager/Chemist

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Dec-2012	SL-507-SA3-SB-0.0-0.5	L152-01	N	3550B	8015B EFH	III
18-Dec-2012	SL-507-SA3-SB-0.0-0.5	L152-01	N	3550B	8082	III
18-Dec-2012	SL-507-SA3-SB-0.0-0.5	L152-01	N	3550B	8270C SIM	III
18-Dec-2012	SL-507-SA3-SB-0.0-0.5	L152-01	N	7471A	7471A	III
18-Dec-2012	SL-507-SA3-SB-0.0-0.5	L152-01	N	TOTAL	6020	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0	L152-02	N	3550B	8015B EFH	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0	L152-02	N	3550B	8082	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0	L152-02	N	3550B	8270C SIM	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0	L152-02	N	7471A	7471A	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0	L152-02	N	TOTAL	6020	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MS	L152-02M	MS	3550B	8015B EFH	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MS	L152-02M	MS	3550B	8082	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MS	L152-02M	MS	3550B	8270C SIM	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MS	L152-02M	MS	7471A	7471A	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MS	L152-02M	MS	TOTAL	6020	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MSD	L152-02S	MSD	3550B	8015B EFH	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MSD	L152-02S	MSD	3550B	8082	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MSD	L152-02S	MSD	3550B	8270C SIM	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MSD	L152-02S	MSD	7471A	7471A	III
18-Dec-2012	SL-507-SA3-SB-3.0-4.0MSD	L152-02S	MSD	TOTAL	6020	III
18-Dec-2012	SL-507-SA3-SB-3.5	L152-04	N	5035	8015B GRO	III
18-Dec-2012	SL-507-SA3-SB-3.5MS	L152-04M	MS	5035	8015B GRO	III
18-Dec-2012	SL-507-SA3-SB-3.5MSD	L152-04S	MSD	5035	8015B GRO	III
18-Dec-2012	SL-907-SA3-SB-3.0-4.0	L152-03	FD	3550B	8015B EFH	III
18-Dec-2012	SL-907-SA3-SB-3.0-4.0	L152-03	FD	3550B	8082	III
18-Dec-2012	SL-907-SA3-SB-3.0-4.0	L152-03	FD	3550B	8270C SIM	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Dec-2012	SL-907-SA3-SB-3.0-4.0	L152-03	FD	7471A	7471A	III
18-Dec-2012	SL-907-SA3-SB-3.0-4.0	L152-03	FD	TOTAL	6020	III
18-Dec-2012	SL-907-SA3-SB-3.5	L152-05	FD	5035	8015B GRO	III
18-Dec-2012	SL-508-SA3-SB-0.0-0.5	L152-09	N	3550B	8015B EFH	III
18-Dec-2012	SL-508-SA3-SB-0.0-0.5	L152-09	N	3550B	8082	III
18-Dec-2012	SL-508-SA3-SB-0.0-0.5	L152-09	N	3550B	8270C SIM	III
18-Dec-2012	SL-508-SA3-SB-0.0-0.5	L152-09	N	7471A	7471A	III
18-Dec-2012	SL-508-SA3-SB-0.0-0.5	L152-09	N	TOTAL	6020	III
18-Dec-2012	SL-508-SA3-SB-3.5-4.5	L152-10	N	3550B	8015B EFH	III
18-Dec-2012	SL-508-SA3-SB-3.5-4.5	L152-10	N	3550B	8082	III
18-Dec-2012	SL-508-SA3-SB-3.5-4.5	L152-10	N	3550B	8270C SIM	III
18-Dec-2012	SL-508-SA3-SB-3.5-4.5	L152-10	N	7471A	7471A	III
18-Dec-2012	SL-508-SA3-SB-3.5-4.5	L152-10	N	TOTAL	6020	III
18-Dec-2012	SL-508-SA3-SB-4.0	L152-11	N	5035	8015B GRO	III
18-Dec-2012	SL-504-SA3-SB-0.0-0.5	L152-06	N	3550B	8082	IV
18-Dec-2012	SL-504-SA3-SB-0.0-0.5	L152-06	N	3550B	8270C SIM	IV
18-Dec-2012	SL-504-SA3-SB-0.0-0.5	L152-06	N	7471A	7471A	IV
18-Dec-2012	SL-504-SA3-SB-0.0-0.5	L152-06	N	TOTAL	6020	IV
18-Dec-2012	SL-504-SA3-SB-0.0-0.5	L152-06I	N	3550B	8015B EFH	IV
18-Dec-2012	SL-504-SA3-SB-3.5-4.5	L152-07	N	3550B	8015B EFH	III
18-Dec-2012	SL-504-SA3-SB-3.5-4.5	L152-07	N	3550B	8082	III
18-Dec-2012	SL-504-SA3-SB-3.5-4.5	L152-07	N	3550B	8270C SIM	III
18-Dec-2012	SL-504-SA3-SB-3.5-4.5	L152-07	N	7471A	7471A	III
18-Dec-2012	SL-504-SA3-SB-3.5-4.5	L152-07	N	TOTAL	6020	III
18-Dec-2012	SL-504-SA3-SB-4.0	L152-08	N	5035	8015B GRO	IV

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: Prep12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-504-SA3-SB-0.0-0.5

Collected: 12/18/2012 10:20:00 Analysis Type: RES/TOT

Dilution: 0.980

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.501	U	0.100	MDL	0.501	PQL	MG/KG	UJ	Q
BARIUM	107		0.200	MDL	0.501	PQL	MG/KG	J	Q
BERYLLIUM	0.231	J	0.0501	MDL	0.501	PQL	MG/KG	J	Z
CADMIUM	0.136	J	0.0501	MDL	0.501	PQL	MG/KG	J	Z
MAGNESIUM	4030		5.01	MDL	10.0	PQL	MG/KG	J	Q
PHOSPHORUS	523		6.01	MDL	12.0	PQL	MG/KG	J	Q, E
THALLIUM	0.150	J	0.0501	MDL	0.400	PQL	MG/KG	J	Z

Sample ID: SL-504-SA3-SB-3.5-4.5

Collected: 12/18/2012 10:45:00 Analysis Type: RES/TOT

Dilution: 0.971

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.187	J	0.0998	MDL	0.499	PQL	MG/KG	J	Z, Q
BARIUM	52.4		0.200	MDL	0.499	PQL	MG/KG	J	Q
CADMIUM	0.145	J	0.0499	MDL	0.499	PQL	MG/KG	J	Z
MAGNESIUM	4590		4.99	MDL	9.98	PQL	MG/KG	J	Q
PHOSPHORUS	430		5.99	MDL	12.0	PQL	MG/KG	J	Q, E
SODIUM	82.8	J	49.9	MDL	99.8	PQL	MG/KG	J	Z
THALLIUM	0.255	J	0.0499	MDL	0.399	PQL	MG/KG	J	Z

Sample ID: SL-507-SA3-SB-0.0-0.5

Collected: 12/18/2012 7:50:00 Analysis Type: RES/TOT

Dilution: 0.995

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.441	J	0.111	MDL	0.557	PQL	MG/KG	J	Z, Q
BARIUM	95.6		0.223	MDL	0.557	PQL	MG/KG	J	Q
BERYLLIUM	0.336	J	0.0557	MDL	0.557	PQL	MG/KG	J	Z
MAGNESIUM	3990		5.57	MDL	11.1	PQL	MG/KG	J	Q
PHOSPHORUS	479		6.69	MDL	13.4	PQL	MG/KG	J	Q, E
THALLIUM	0.174	J	0.0557	MDL	0.446	PQL	MG/KG	J	Z

* denotes a non-reportable result

Project Name and Number: PHASE3 - SSFL PHASE 3 (SA3)

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Data Qualifier Summary

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: Prep12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-507-SA3-SB-3.0-4.0

Collected: 12/18/2012 8:15:00

Analysis Type: RES/TOT

Dilution: 0.990

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.327	J	0.105	MDL	0.527	PQL	MG/KG	J	Z, Q
BARIUM	95.4		0.211	MDL	0.527	PQL	MG/KG	J	Q
BERYLLIUM	0.496	J	0.0527	MDL	0.527	PQL	MG/KG	J	Z
CADMIUM	0.198	J	0.0527	MDL	0.527	PQL	MG/KG	J	Z
LEAD	7.19		0.105	MDL	0.527	PQL	MG/KG	J	FD
MAGNESIUM	6520		5.27	MDL	10.5	PQL	MG/KG	J	Q
PHOSPHORUS	472		6.33	MDL	12.7	PQL	MG/KG	J	Q, E
SILVER	0.0578	J	0.0527	MDL	0.527	PQL	MG/KG	J	Z, FD
THALLIUM	0.280	J	0.0527	MDL	0.422	PQL	MG/KG	J	Z

Sample ID: SL-508-SA3-SB-0.0-0.5

Collected: 12/18/2012 9:15:00

Analysis Type: RES/TOT

Dilution: 1.00

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.186	J	0.105	MDL	0.525	PQL	MG/KG	J	Z, Q
BARIUM	103		0.210	MDL	0.525	PQL	MG/KG	J	Q
BERYLLIUM	0.149	J	0.0525	MDL	0.525	PQL	MG/KG	J	Z
CADMIUM	0.241	J	0.0525	MDL	0.525	PQL	MG/KG	J	Z
MAGNESIUM	3430		5.25	MDL	10.5	PQL	MG/KG	J	Q
MOLYBDENUM	0.380	J	0.0525	MDL	0.525	PQL	MG/KG	J	Z
PHOSPHORUS	709		6.30	MDL	12.6	PQL	MG/KG	J	Q, E
SILVER	0.0640	J	0.0525	MDL	0.525	PQL	MG/KG	J	Z
THALLIUM	0.105	J	0.0525	MDL	0.420	PQL	MG/KG	J	Z

Sample ID: SL-508-SA3-SB-3.5-4.5

Collected: 12/18/2012 9:30:00

Analysis Type: RES/TOT

Dilution: 0.990

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.186	J	0.110	MDL	0.551	PQL	MG/KG	J	Z, Q
BARIUM	97.1		0.220	MDL	0.551	PQL	MG/KG	J	Q
CADMIUM	0.164	J	0.0551	MDL	0.551	PQL	MG/KG	J	Z
MAGNESIUM	4720		5.51	MDL	11.0	PQL	MG/KG	J	Q
PHOSPHORUS	328		6.61	MDL	13.2	PQL	MG/KG	J	Q, E
SILVER	0.0759	J	0.0551	MDL	0.551	PQL	MG/KG	J	Z

* denotes a non-reportable result

Project Name and Number: PHASE3 - SSFL PHASE 3 (SA3)

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Data Qualifier Summary

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: Prep12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-508-SA3-SB-3.5-4.5

Collected: 12/18/2012 9:30:00

Analysis Type: RES/TOT

Dilution: 0.990

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.265	J	0.0551	MDL	0.440	PQL	MG/KG	J	Z

Sample ID: SL-907-SA3-SB-3.0-4.0

Collected: 12/18/2012 8:25:00

Analysis Type: RES/TOT

Dilution: 0.995

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.213	J	0.108	MDL	0.538	PQL	MG/KG	J	Z, Q
BARIUM	92.9		0.215	MDL	0.538	PQL	MG/KG	J	Q
BERYLLIUM	0.431	J	0.0538	MDL	0.538	PQL	MG/KG	J	Z
CADMIUM	0.171	J	0.0538	MDL	0.538	PQL	MG/KG	J	Z
LEAD	4.19		0.108	MDL	0.538	PQL	MG/KG	J	FD
MAGNESIUM	6570		5.38	MDL	10.8	PQL	MG/KG	J	Q
PHOSPHORUS	463		6.45	MDL	12.9	PQL	MG/KG	J	Q, E
SILVER	0.538	U	0.0538	MDL	0.538	PQL	MG/KG	UJ	FD
THALLIUM	0.261	J	0.0538	MDL	0.430	PQL	MG/KG	J	Z

Method Category: SVOA

Method: 8015B EFH

Matrix: SO

Sample ID: SL-507-SA3-SB-0.0-0.5

Collected: 12/18/2012 7:50:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	2.9	J	2.8	MDL	5.6	PQL	MG/KG	J	Z

Sample ID: SL-507-SA3-SB-3.0-4.0

Collected: 12/18/2012 8:15:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	13		2.7	MDL	5.3	PQL	MG/KG	J	FD
EFH(C30-C40)	5.8	J	5.3	MDL	11	PQL	MG/KG	J	Z, FD
TOTAL EFH(C8-C40)	19		2.7	MDL	5.3	PQL	MG/KG	J	FD

* denotes a non-reportable result

Project Name and Number: PHASE3 - SSFL PHASE 3 (SA3)

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Data Qualifier Summary

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: Prep12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Method Category:	SVOA
Method:	8015B EFH
Matrix:	SO

Sample ID: SL-508-SA3-SB-0.0-0.5			Collected: 12/18/2012 9:15:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C30-C40)	6.3	J	5.2	MDL	10	PQL	MG/KG	J	Z

Sample ID:SL-907-SA3-SB-3.0-4.0		Collected: 12/18/2012 8:25:00		Analysis Type: RES		Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	5.4	U	2.7	MDL	5.4	PQL	MG/KG	UJ	FD
EFH(C30-C40)	11	U	5.4	MDL	11	PQL	MG/KG	UJ	FD
TOTAL EFH(C8-C40)	5.4	U	2.7	MDL	5.4	PQL	MG/KG	UJ	FD

Method Category:	SVOA
Method:	8082
Matrix:	SO

Sample ID:SL-508-SA3-SB-0.0-0.5			Collected: 12/18/2012 9:15:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	16	J	10	MDL	21	PQL	UG/KG	J	Z
Aroclor 5460	24	J	21	MDL	42	PQL	UG/KG	J	Z

Method Category:	SVOA
Method:	8270C SIM
Matrix:	SO

Sample ID:SL-504-SA3-SB-0.0-0.5			Collected: 12/18/2012 10:20:00		Analysis Type: RES-BASE/NEUTRAL		Dilution: 14.94		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	54	J	38	MDL	150	PQL	UG/KG	J	Z
BENZO(B)FLUORANTHENE	140	J	38	MDL	150	PQL	UG/KG	J	Z
BENZO(G,H,I)PERYLENE	140	J	38	MDL	150	PQL	UG/KG	J	Z
BENZO(K)FLUORANTHENE	120	J	38	MDL	150	PQL	UG/KG	J	Z

* denotes a non-reportable result

Project Name and Number: PHASE3 - SSFL PHASE 3 (SA3)

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Data Qualifier Summary

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: Prep12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-507-SA3-SB-0.0-0.5

Collected: 12/18/2012 7:50:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 3

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	15	J	8.4	MDL	34	PQL	UG/KG	J	Z
BENZO(A)PYRENE	22	J	8.4	MDL	34	PQL	UG/KG	J	Z
BENZO(B)FLUORANTHENE	32	J	8.4	MDL	34	PQL	UG/KG	J	Z
BENZO(G,H,I)PERYLENE	17	J	8.4	MDL	34	PQL	UG/KG	J	Z
BENZO(K)FLUORANTHENE	8.9	J	8.4	MDL	34	PQL	UG/KG	J	Z
CHRYSENE	21	J	8.4	MDL	34	PQL	UG/KG	J	Z
INDENO(1,2,3-CD)PYRENE	16	J	8.4	MDL	34	PQL	UG/KG	J	Z
PHENANTHRENE	13	J	8.4	MDL	34	PQL	UG/KG	J	Z
PYRENE	33	J	8.4	MDL	34	PQL	UG/KG	J	Z

Sample ID: SL-508-SA3-SB-0.0-0.5

Collected: 12/18/2012 9:15:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	7.0	J	2.6	MDL	10	PQL	UG/KG	J	Z
BENZO(G,H,I)PERYLENE	8.5	J	2.6	MDL	10	PQL	UG/KG	J	Z
BENZO(K)FLUORANTHENE	4.4	J	2.6	MDL	10	PQL	UG/KG	J	Z
CHRYSENE	8.4	J	2.6	MDL	10	PQL	UG/KG	J	Z
INDENO(1,2,3-CD)PYRENE	6.4	J	2.6	MDL	10	PQL	UG/KG	J	Z
PHENANTHRENE	5.2	J	2.6	MDL	10	PQL	UG/KG	J	Z

* denotes a non-reportable result

Project Name and Number: PHASE3 - SSFL PHASE 3 (SA3)

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Data Qualifier Summary

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: Prep12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
E	Matrix Spike Precision
FD	Field Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: PHASE3 - SSFL PHASE 3 (SA3)

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

12L152

Surrogate Outlier Report

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: 12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Method: 8015B EFH

Matrix: SO

<i>Sample ID (Analysis Type)</i>	<i>Surrogate</i>	<i>Sample % Recovery</i>	<i>% Recovery Limits</i>	<i>Affected Compounds</i>	<i>Flag</i>
SL-504-SA3-SB-0.0 -0.5	BROMOBENZENE Hexacosane	0 0	50.00-150.00 50.00-150.00	All Target Analytes	No Qual, Sample Diluted Out

Project Name and Number: PHASE3 - SSFL PHASE 3 (SA3)

4/16/2013 10:14:44 AM

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Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: 12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Method: 6020

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-507-SA3-SB-3.0-4.0MS (TOT) SL-507-SA3-SB-3.0-4.0MSD (TOT) (SL-504-SA3-SB-0.0-0.5 -504-SA3-SB-3.5-4.5 SL-507-SA3-SB-0.0-0.5 SL-507-SA3-SB-3.0-4.0 SL-508-SA3-SB-0.0-0.5 SL-508-SA3-SB-3.5-4.5 SL-907-SA3-SB-3.0-4.0)	IRON TITANIUM	-29 -390	-27 -26	75.00-125.00 75.00-125.00	- -	IRON TITANIUM	No Qual, >4X
SL-507-SA3-SB-3.0-4.0MS (TOT) SL-507-SA3-SB-3.0-4.0MSD (TOT) (SL-504-SA3-SB-0.0-0.5 -504-SA3-SB-3.5-4.5 SL-507-SA3-SB-0.0-0.5 SL-507-SA3-SB-3.0-4.0 SL-508-SA3-SB-0.0-0.5 SL-508-SA3-SB-3.5-4.5 SL-907-SA3-SB-3.0-4.0)	ANTIMONY BARIUM MAGNESIUM MANGANESE PHOSPHORUS	72 71 72 30 -	72 - - 68 169	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - 27 (20.00)	ANTIMONY BARIUM MAGNESIUM MANGANESE PHOSPHORUS	J(all detects) UJ(all non-detects) Mn, No Qual, >4X

SL

Field Duplicate RPD Report

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: Prep12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Method: 6020

Matrix: SO

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-507-SA3-SB-3.0-4.0 (TOT)	SL-907-SA3-SB-3.0-4.0 (TOT)			
ALUMINUM	13000	11600	11	50.00	No Qualifiers Applied
ANTIMONY	0.327	0.213	42	50.00	
ARSENIC	6.23	5.59	11	50.00	
BARIUM	95.4	92.9	3	50.00	
BERYLLIUM	0.496	0.431	14	50.00	
CADMIUM	0.198	0.171	15	50.00	
CALCIUM	3250	3030	7	50.00	
CHROMIUM	21.8	19.9	9	50.00	
COBALT	6.04	6.78	12	50.00	
COPPER	9.25	8.06	14	50.00	
IRON	24600	21400	14	50.00	
LITHIUM	28.1	29.0	3	50.00	
MAGNESIUM	6520	6570	1	50.00	
MANGANESE	275	355	25	50.00	
MOLYBDENUM	0.897	0.611	38	50.00	
NICKEL	11.9	10.9	9	50.00	
PHOSPHORUS	472	463	2	50.00	
POTASSIUM	2870	2730	5	50.00	
SODIUM	143	152	6	50.00	
STRONTIUM	15.5	13.9	11	50.00	
THALLIUM	0.280	0.261	7	50.00	
TITANIUM	1230	1230	0	50.00	
VANADIUM	45.0	41.1	9	50.00	
ZINC	60.4	54.2	11	50.00	
LEAD	7.19	4.19	53	50.00	J(all detects)
SILVER	0.0578	0.538 U	200	50.00	UJ(all non-detects)

Method: 8015B EFH

Matrix: SO

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-507-SA3-SB-3.0-4.0	SL-907-SA3-SB-3.0-4.0			
EFH(C21-C30)	13	5.4 U	200	50.00	J(all detects) UJ(all non-detects)
EFH(C30-C40)	5.8	11 U	200	50.00	
TOTAL EFH(C8-C40)	19	5.4 U	200	50.00	

Method: 9045D

Matrix: SO

Analyte	Concentration (PH UNIT)		Sample RPD	eQAPP RPD	Flag
	SL-507-SA3-SB-3.0-4.0	SL-907-SA3-SB-3.0-4.0			
PH	8.22	8	3		No Qualifiers Applied

Project Name and Number: PHASE3 - SSFL PHASE 3 (SA3)

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Reporting Limit Outliers

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: Prep12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-504-SA3-SB-0.0-0.5	BERYLLIUM	J	0.231	0.501	PQL	MG/KG	J (all detects)
	CADMIUM	J	0.136	0.501	PQL	MG/KG	
	THALLIUM	J	0.150	0.400	PQL	MG/KG	
SL-504-SA3-SB-3.5-4.5	ANTIMONY	J	0.187	0.499	PQL	MG/KG	J (all detects)
	CADMIUM	J	0.145	0.499	PQL	MG/KG	
	SODIUM	J	82.8	99.8	PQL	MG/KG	
	THALLIUM	J	0.255	0.399	PQL	MG/KG	
SL-507-SA3-SB-0.0-0.5	ANTIMONY	J	0.441	0.557	PQL	MG/KG	J (all detects)
	BERYLLIUM	J	0.336	0.557	PQL	MG/KG	
	THALLIUM	J	0.174	0.446	PQL	MG/KG	
SL-507-SA3-SB-3.0-4.0	ANTIMONY	J	0.327	0.527	PQL	MG/KG	J (all detects)
	BERYLLIUM	J	0.496	0.527	PQL	MG/KG	
	CADMIUM	J	0.198	0.527	PQL	MG/KG	
	SILVER	J	0.0578	0.527	PQL	MG/KG	
	THALLIUM	J	0.280	0.422	PQL	MG/KG	
SL-508-SA3-SB-0.0-0.5	ANTIMONY	J	0.186	0.525	PQL	MG/KG	J (all detects)
	BERYLLIUM	J	0.149	0.525	PQL	MG/KG	
	CADMIUM	J	0.241	0.525	PQL	MG/KG	
	MOLYBDENUM	J	0.380	0.525	PQL	MG/KG	
	SILVER	J	0.0640	0.525	PQL	MG/KG	
	THALLIUM	J	0.105	0.420	PQL	MG/KG	
SL-508-SA3-SB-3.5-4.5	ANTIMONY	J	0.186	0.551	PQL	MG/KG	J (all detects)
	CADMIUM	J	0.164	0.551	PQL	MG/KG	
	SILVER	J	0.0759	0.551	PQL	MG/KG	
	THALLIUM	J	0.265	0.440	PQL	MG/KG	
SL-907-SA3-SB-3.0-4.0	ANTIMONY	J	0.213	0.538	PQL	MG/KG	J (all detects)
	BERYLLIUM	J	0.431	0.538	PQL	MG/KG	
	CADMIUM	J	0.171	0.538	PQL	MG/KG	
	THALLIUM	J	0.261	0.430	PQL	MG/KG	

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-507-SA3-SB-0.0-0.5	EFH(C15-C20)	J	2.9	5.6	PQL	MG/KG	J (all detects)
SL-507-SA3-SB-3.0-4.0	EFH(C30-C40)	J	5.8	11	PQL	MG/KG	J (all detects)
SL-508-SA3-SB-0.0-0.5	EFH(C30-C40)	J	6.3	10	PQL	MG/KG	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-508-SA3-SB-0.0-0.5	AROCLOR 1260	J	16	21	PQL	UG/KG	J (all detects)
	Aroclor 5460	J	24	42	PQL	UG/KG	

Project Name and Number: PHASE3 - SSFL PHASE 3 (SA3)

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Reporting Limit Outliers

Lab Reporting Batch ID: 12L152

Laboratory: EMXT

EDD Filename: Prep12L152

eQAPP Name: CDM_SSFL_130305_EMAX

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-504-SA3-SB-0.0-0.5	BENZO(A)PYRENE	J	54	150	PQL	UG/KG	J (all detects)
	BENZO(B)FLUORANTHENE	J	140	150	PQL	UG/KG	
	BENZO(G,H,I)PERYLENE	J	140	150	PQL	UG/KG	
	BENZO(K)FLUORANTHENE	J	120	150	PQL	UG/KG	
SL-507-SA3-SB-0.0-0.5	BENZO(A)ANTHRACENE	J	15	34	PQL	UG/KG	J (all detects)
	BENZO(A)PYRENE	J	22	34	PQL	UG/KG	
	BENZO(B)FLUORANTHENE	J	32	34	PQL	UG/KG	
	BENZO(G,H,I)PERYLENE	J	17	34	PQL	UG/KG	
	BENZO(K)FLUORANTHENE	J	8.9	34	PQL	UG/KG	
	CHRYSENE	J	21	34	PQL	UG/KG	
	INDENO(1,2,3-CD)PYRENE	J	16	34	PQL	UG/KG	
	PHENANTHRENE	J	13	34	PQL	UG/KG	
SL-508-SA3-SB-0.0-0.5	PYRENE	J	33	34	PQL	UG/KG	J (all detects)
	BENZO(A)ANTHRACENE	J	7.0	10	PQL	UG/KG	
	BENZO(G,H,I)PERYLENE	J	8.5	10	PQL	UG/KG	
	BENZO(K)FLUORANTHENE	J	4.4	10	PQL	UG/KG	
	CHRYSENE	J	8.4	10	PQL	UG/KG	
	INDENO(1,2,3-CD)PYRENE	J	6.4	10	PQL	UG/KG	
	PHENANTHRENE	J	5.2	10	PQL	UG/KG	

LDC #: 29433A4

VALIDATION COMPLETENESS WORKSHEET

Date: 4-15-13

SDG #: 12L152

ADR#V

Page: 1 of 1

Laboratory: EMAX Laboratories, Inc.

9MA

Reviewer: MG

2nd Reviewer: ✓

METHOD: Metals (EPA SW 846 Method 6020A/7000) 7471A

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12-18-12
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	Not reviewed for ADR validation. MS/MSD
VII.	Duplicate Sample Analysis	N	Not reviewed for ADR validation.
VIII.	Laboratory Control Samples (LCS)	A	Not reviewed for ADR validation. LCS/LCSD
IX.	Internal Standard (ICP-MS)	A	Not reviewed for ADR validation.
X.	Furnace Atomic Absorption QC	N	Not reviewed for ADR validation. not utilized
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	A	Not reviewed for ADR validation.
XIII.	Overall Assessment of Data	A	Not reviewed for ADR validation.
XIV.	Field Duplicates	N	D = 2+3
XV.	Field Blanks	SW	EB = EB1-121912 (SDG: 12L166)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank
EB = EB2-121912 (SDG: 12L166)
FB = 111412 (SDG: 286-35930-1)

Validated Samples: ** Indicates sample underwent Level IV validation
all soil

1	SL-507-SA3-SB-0.0-0.5	11		21		31	
2	SL-507-SA3-SB-3.0-4.0	12		22		32	
3	SL-907-SA3-SB-3.0-4.0	13		23		33	
4	SL-504-SA3-SB-0.0-0.5**	14		24		34	
5	SL-504-SA3-SB-3.5-4.5	15		25		35	
6	SL-508-SA3-SB-0.0-0.5	16		26		36	
7	SL-508-SA3-SB-3.5-4.5	17		27		37	
8	# 2 MS	18		28		38	
9	# 2 MSD	19		29		39	
10		20	PBS	30		40	

Notes:

LDC #: 29433A4

SDG #: 1

VALIDATION FINDINGS WORKSHEET

Sample Specific Element Reference

Page: 1 of 1

Reviewer: MG

2nd reviewer: 

All circled elements are applicable to each sample.

[illegible]

Comments: Mercury by CVAA if performed

Nb: Niobium, Pd: Palladium, P: Phosphorus, Pt: Platinum, S: Sulfur, W: Tungsten, U: Uranium, Zr: Zirconium

VALIDATION FINDINGS WORKSHEET Field Blanks

METHOD: Trace Metals (EPA SW846 6010B/7000)

 Were field blanks identified in this SDG? Y

 Were target analytes detected in the field blanks? N

 Blank units: mg/L Associated sample units: mg/kg

 Sampling date: see below Soil factor applied 50x

 Field blank type: (circle one) Field Blank / Rinsate / Other EB Associated Samples: 1,4,6 Qual: U (F)

Analyte	Blank ID	Blank ID	Action Level	6	Sample Identification				
	FB-111412 sampled: 11/14/12	EB2- 121912 sampled: 12/19/12							
Ca		0.0284	7.10						
Cu		0.000667	0.167						
Ni		0.000230	0.058						
Ag	0.00078		0.195	0.0640					

 Blank units: mg/L Associated sample units: mg/kg

 Sampling date: see below Soil factor applied 50x

 Field blank type: (circle one) Field Blank / Rinsate / Other EB Associated Samples: 2,3,5,7 Qual: U (F)

Analyte	Blank ID	Blank ID	Action Level	2	7	Sample Identification				
	FB- 111412 sampled: 11/14/12	EB1- 121912 sampled: 12/19/12								
Ba		0.00117	0.292							
Ca		0.0315	7.88							
Cu		0.000587	0.147							
Ni		0.000210	0.052							
Na		0.0601	15.0							
Ag	0.00078		0.195	0.0578	0.0759					

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory
Collection Date: December 18, 2012
LDC Report Date: April 8, 2013
Matrix: Soil
Parameters: Polynuclear Aromatic Hydrocarbons
Validation Level: Level IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 12L152

Sample Identification

SL-504-SA3-SB-0.0-0.5

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C using Selected Ion Monitoring (SIM) for Polynuclear Aromatic Hydrocarbons.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polynuclear aromatic hydrocarbon contaminants were found in the method.

Sample EB2-121912 (from SDG 12L166) was identified as an equipment blank. No polynuclear aromatic hydrocarbon contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB2-121912	12/19/12	Naphthalene	0.17 ug/L	SL-504-SA3-SB-0.0-0.5

Sample FB-111412 (from SDG 280-35930-1) was identified as a field blank. No polynuclear aromatic hydrocarbon contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-111412	11/14/12	1-Methylnaphthalene 2-Methylnaphthalene Naphthalene Phenanthrene	0.010 ug/L 0.013 ug/L 0.054 ug/L 0.025 ug/L	SL-504-SA3-SB-0.0-0.5

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation

All compound quantitation were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12L152	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Polynuclear Aromatic Hydrocarbons - Data Qualification Summary - SDG 12L152

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12L152	SL-504-SA3-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Polynuclear Aromatic Hydrocarbons - Laboratory Blank Data Qualification Summary - SDG 12L152

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polynuclear Aromatic Hydrocarbons - Field Blank Data Qualification Summary - SDG 12L152

No Sample Data Qualified in this SDG

METHOD: GC/MS Polynuclear Aromatic Hydrocarbons (EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	Δ	Sampling dates: 12/18/12
II.	GC/MS Instrument performance check	Δ	
III.	Initial calibration	Δ	% MSD ≤ 30 , 12
IV.	Continuing calibration/ICV	Δ	1 CV / CCV ≤ 25
V.	Blanks	Δ	Not reviewed for ADR validation.
VI.	Surrogate spikes	Δ	Not reviewed for ADR validation.
VII.	Matrix spike/Matrix spike duplicates	Δ	Not reviewed for ADR validation.
VIII.	Laboratory control samples	A	Not reviewed for ADR validation. LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	Δ	Not reviewed for ADR validation.
XI.	Target compound identification	A	Not reviewed for ADR validation.
XII.	Compound quantitation/RL/LOQ/LODs	Δ	Not reviewed for ADR validation.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for ADR validation.
XIV.	System performance	Δ	Not reviewed for ADR validation.
XV.	Overall assessment of data	A	Not reviewed for ADR validation.
XVI.	Field duplicates	N	ND ¹ D = 2, 3
XVII.	Field blanks	SW	FB = EB2-121912 (12L166) FB = FB-111412 (280-35930-1)

Note: A = Acceptable ND = No compounds detected D = Duplicate
N = Not provided/applicable R = Rinsate TB = Trip blank
SW = See worksheet FB = Field blank EB = Equipment blank

Validated Samples: ** Indicates sample underwent Level IV validation

1	SL-507-SA3-SB-0.0-0.5	11	MBLK15	21		31	
2	SL-507-SA3-SB-3.0-4.0	12		22		32	
3	SL-907-SA3-SB-3.0-4.0	13		23		33	
4	SL-504-SA3-SB-0.0-0.5**	14		24		34	
5	SL-504-SA3-SB-3.5-4.5	15		25		35	
6	SL-508-SA3-SB-0.0-0.5	16		26		36	
7	SL-508-SA3-SB-3.5-4.5	17		27		37	
8	#2 MS	18		28		38	
9	#3 MS	19		29		39	
10		20		30		40	

Method: Semivolatiles (EPA SW 846 Method 8270C) SIM

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	☒	☐	☐	
Cooler temperature criteria was met.	☒	☐	☐	
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	☒	☐	☐	
Were all samples analyzed within the 12 hour clock criteria?	☒	☐	☐	
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	☒	☐	☐	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	☒	☐	☐	
Was a curve fit used for evaluation?	☒	☐	☐	
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990 ?	☒	☐	☐	
Were all percent relative standard deviations (%RSD) $\leq 30\%/15\%$ and relative response factors (RRF) > 0.05 ?	☒	☐	☐	
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	☒	☐	☐	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	☒	☐	☐	
Were all percent differences (%D) $\leq 20\%$ and relative response factors (RRF) ≥ 0.05 ?	☒	☐	☐	
V. Blanks				
Was a method blank associated with every sample in this SDG?	☒	☐	☐	
Was a method blank analyzed for each matrix and concentration?	☒	☐	☐	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	☐	☒	☐	
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	☒	☐	☐	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?	☐	☐	☒	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	☐	☐	☒	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	☒	☐	☐	
Was a MS/MSD analyzed every 20 samples of each matrix?	☒	☐	☐	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	☒	☐	☐	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	☒	☐	☐	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	☒	☐	☐	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	☒	☐	☐	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?	☐	☐	☒	
Were the performance evaluation (PE) samples within the acceptance limits?	☐	☐	☒	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	☒	☐	☐	
Were retention times within + 30 seconds from the associated calibration standard?	☒	☐	☐	
XI. Target compound identification				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	☒	☐	☐	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	☒	☐	☐	
Were chromatogram peaks verified and accounted for?	☒	☐	☐	
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	☒	☐	☐	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	☒	☐	☐	
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	☐	☐	☒	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	☐	☐	☒	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	☐	☐	☒	
XIV. System performance				
System performance was found to be acceptable.	☒	☐	☐	
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	☒	☐	☐	
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	☐	☒	☐	
Target compounds were detected in the field duplicates.	☐	☐	☒	
XVII. Field blanks				
Field blanks were identified in this SDG.	☒	☒	☒	
Target compounds were detected in the field blanks.	☒	☒	☒	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS SVOA

A. Phenol	T. 4-Chloroaniline	MM. 4-Chlorophenyl-phenyl ether	FFF. Di-n-octylphthalate	YYY. 2,3,5-Trimethylnaphthalene
B. Bis (2-chloroethyl) ether	U. Hexachlorobutadiene	NN. Fluorene	GGG. Benzo(b)fluoranthene	ZZZ. Perylene
C. 2-Chlorophenol	V. 4-Chloro-3-methylphenol	OO. 4-Nitroaniline	HHH. Benzo(k)fluoranthene	AAAA. Dibenzothiophene
D. 1,3-Dichlorobenzene	W. 2-Methylnaphthalene	PP. 4,6-Dinitro-2-methylphenol	III. Benzo(a)pyrene	BBBB. Benzo(a)fluoranthene
E. 1,4-Dichlorobenzene	X. Hexachlorocyclopentadiene	QQ. N-Nitrosodiphenylamine	JJJ. Indeno(1,2,3-cd)pyrene	CCCC. Benzo(b)fluorene
F. 1,2-Dichlorobenzene	Y. 2,4,6-Trichlorophenol	RR. 4-Bromophenyl-phenylether	KKK. Dibenz(a,h)anthracene	DDDD. cis/trans-Decalin
G. 2-Methylphenol	Z. 2,4,5-Trichlorophenol	SS. Hexachlorobenzene	LLL. Benzo(g,h,i)perylene	EEEE. Biphenyl
H. 2,2'-Oxybis(1-chloropropane)	AA. 2-Chloronaphthalene	TT. Pentachlorophenol	MMM. Bis(2-Chloroisopropyl)ether	FFFF. Retene
I. 4-Methylphenol	BB. 2-Nitroaniline	UU. Phenanthrene	NNN. Aniline	GGGG. C30-Hopane
J. N-Nitroso-di-n-propylamine	CC. Dimethylphthalate	VV. Anthracene	OOO. N-Nitrosodimethylamine	HHHH. 1-Methylphenanthrene
K. Hexachloroethane	DD. Acenaphthylene	WW. Carbazole	PPP. Benzoic Acid	IIII. 1,4-Dioxane
L. Nitrobenzene	EE. 2,6-Dinitrotoluene	XX. Di-n-butylphthalate	QQQ. Benzyl alcohol	JJJJ. Acetophenone
M. Isophorone	FF. 3-Nitroaniline	YY. Fluoranthene	RRR. Pyridine	KKKK. Atrazine
N. 2-Nitrophenol	GG. Acenaphthene	ZZ. Pyrene	SSS. Benzidine	LLLL. Benzaldehyde
O. 2,4-Dimethylphenol	HH. 2,4-Dinitrophenol	AAA. Butylbenzylphthalate	TTT. 1-Methylnaphthalene	MMMM. Caprolactam
P. Bis(2-chloroethoxy)methane	II. 4-Nitrophenol	BBB. 3,3'-Dichlorobenzidine	UUU. Benzo(b)thiophene	NNNN.
Q. 2,4-Dichlorophenol	JJ. Dibenzofuran	CCC. Benzo(a)anthracene	VVV. Benzonaphthothiophene	OOOO.
R. 1,2,4-Trichlorobenzene	KK. 2,4-Dinitrotoluene	DDD. Chrysene	WWW. Benzo(e)pyrene	PPPP.
S. Naphthalene	LL. Diethylphthalate	EEE. Bis(2-ethylhexyl)phthalate	XXX. 2,6-Dimethylnaphthalene	QQQQ.

VALIDATION FINDINGS WORKSHEET

Field Blanks

METHOD: GC/MS (EPA SW 846 Method 8270C-SIM)

Y	N	N/A	Were field blanks identified in this SDG?

Were target compounds detected in the field blanks?	
Y	N/A

Blank units: $\mu\text{g/L}$ Associated sample units: $\mu\text{g/Kg}$

Sampling date: 12/19/12

Sampling date: 2/2/2
 Field blank type: (circle one) Field Blank / Rinsate / Other: EB
 Associated Samples: #4 (NO)

[illegible]Blank units: $\mu\text{g}/\text{L}$ Associated sample units: _____Sampling date: 11/14/12

Sampling date: 11/11/12
 Field blank type: (circle one) Field Blank / Rinsate / Other: FB
 Associated Samples: # 4 (ND)

[illegible]

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

METHOD: GC/MS BNA (EPA SW 846 Method 8270)C - 51M

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_s)(C_b)/(A_b)(C_s)$
 average RRF = sum of the RRFs/number of standards
 $\%RSD = 100 * (S/X)$

A_s = Area of compound,
 C_s = Concentration of compound,
 S = Standard deviation of the RRFs,

A_b = Area of associated internal standard
 C_b = Concentration of internal standard
 X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported		Recalculated		Reported		Recalculated	
				RRF (10 std)	RRF (10 std)	RRF (10 std)	Average RRF (initial)	Average RRF (initial)	%RSD	Average RRF (initial)	%RSD
1	SVE TK 275	11/27/12	Phenol (1st internal standard) - F7	3.879	3.879	3.879	3.866	3.866	3.00	3.866	3.00
			Naphthalene (2nd internal standard)	1.214	1.214	1.214	1.222	1.222	4.07	1.222	4.07
			Fluorene (3rd internal standard)	0.978	0.978	0.978	0.960	0.960	10.91	0.960	10.91
			Benz(a)pyrene (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard) - F1								
			Benz(a)pyrene (6th internal standard)								
2			Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)								
			Fluorene (3rd internal standard)								
			Pentachlorophenol (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard)								
			Benz(a)pyrene (6th internal standard)								
3			Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)								
			Fluorene (3rd internal standard)								
			Pentachlorophenol (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard)								
			Benz(a)pyrene (6th internal standard)								

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29433426

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: Q

METHOD: GC/MS BNA (EPA SW 846 Method 8270C) - 51M

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$ Where: ave. RRF = initial calibration average RRF
 RRF = continuing calibration RRF
 $\text{RRF} = (A_x / C_x) / (A_{is} / C_{is})$ A_x = Area of compound, C_x = Concentration of compound, A_{is} = Area of associated internal standard, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	RLH 247	12/21/12	Phenol (4th internal standard)					
			Naphthalene (2nd internal standard)	3.866	3.925	1.5	3.925	1.5
			Fluorene (3rd internal standard)	1.222	1.146	6.2	1.146	6.2
			Benz(a)pyrene (5th internal standard)	0.960	1.096	14.2	1.096	14.2
			Bis(2-ethylhexyl)phthalate (6th internal standard)					
			Benz(a)pyrene (6th internal standard)					
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benz(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benz(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 2943A26**VALIDATION FINDINGS WORKSHEET**
Surrogate Results VerificationPage: 1 of 1Reviewer: FT2nd reviewer: A**METHOD:** GC/MS Semivolatiles (EPA SW 846 Method 8270) - SIM

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found

SS = Surrogate Spiked

Sample ID: 43X

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	10	2.15	64.3	64.3	0
2-Fluorobiphenyl	10	2.27	68.5	68.5	1
Terphenyl-d14	10	3.0	90.3	90.3	↓
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 29433426

VALIDATION FINDINGS WORKSHEET

Page: 1 of 1

Reviewer: FT

2nd Reviewer: [Signature]

Matrix Spike/Matrix Spike Duplicates Results Verification

METHOD: GC/MS BNA (EPA SW 846 Method 8270) d - 51M

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = $100 * (SSC - SC) / SA$ Where: SSC = Spiked sample concentration SC = Sample concentration SA = Spike added

RPD = $|MSC - MSC1| * 2 / (MSC + MSC1)$ MSC = Matrix spike concentration MSCDC = Matrix spike duplicate concentration

MS/MSD samples: 8 + 9

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD		MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol											
N-Nitroso-di-n-propylamine											
4-Chloro-3-methylphenol											
Acenaphthene	355	355	ND	214	223	60	60	63	63	4	4
Pentachlorophenol											
Pyrene	↓	↓	ND	231	258	65	65	73	73	11	11

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: December 18, 2012

LDC Report Date: April 10, 2013

Matrix: Soil

Parameters: Total Petroleum Hydrocarbons as Gasoline

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12L152

Sample Identification

SL-504-SA3-SB-4.0

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample EB1-121912 (from SDF 12L166) was identified as an equipment blank. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB1-121912	12/19/12	TPH as gasoline	17 ug/L	SL-504-SA3-SB-4.0

Sample FB-111412 (from SDG 280-35930-1) was identified as a field blank. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12L152	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory

Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 12L152

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12L152	SL-504-SA3-SB-4.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory

Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 12L152

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory

Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG 12L152

No Sample Data Qualified in this SDG

LDC #: 29433A7
 SDG #: 12L152
 Laboratory: EMAX Laboratories, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 4/8/13

Page: 1 of 1

Reviewer: FB
 2nd Reviewer: CA

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/18/12
II	Initial calibration	A	% PSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	Δ	Not reviewed for ADR validation.
V	Surrogate recovery	Δ	Not reviewed for ADR validation.
VI.	Matrix spike/Matrix spike duplicates	Δ	Not reviewed for ADR validation.
VII.	Laboratory control samples	Δ	Not reviewed for ADR validation. 1cs/D
VIII.	Target compound identification	Δ	Not reviewed for ADR validation.
IX.	Compound quantitation/RL/LOQ/LODs	Δ	Not reviewed for ADR validation.
X.	System Performance	Δ	Not reviewed for ADR validation.
XI.	Overall assessment of data	Δ	Not reviewed for ADR validation.
XII.	Field duplicates	N	
XIII.	Field blanks	SW	EB = EB1-121912 (124160) FB* = FB-111412 (280-35930-1)

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

*ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples: ** Indicates sample underwent Level IV validation

1	SL-507-SA3-SB-3.5	11	MBLKIS	21		31	
2	SL-907-SA3-SB-3.5	12		22		32	
3	SL-504-SA3-SB-4.0**	13		23		33	
4	SL-508-SA3-SB-4.0	14		24		34	
5	SL-507-SA3-SB-3.5MS	15		25		35	
6	SL-507-SA3-SB-3.5MSD	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 29433A-7

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: AMethod: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
II. Technical holding times				
All technical holding times were met.	☒	☐	☐	
Cooler temperature criteria was met.	☒	☐	☐	
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	☒	☐	☐	
Were all percent relative standard deviations (%RSD) $\leq$ 20%?	☒	☐	☐	
Was a curve fit used for evaluation?	☐	☒	☐	
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?	☐	☐	☒	
Were the RT windows properly established?	☒	☐	☐	
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	☒	☐	☐	
Were all percent differences (%D) $\leq$ 20% or percent recoveries 80-120%?	☒	☐	☐	
Were all the retention times within the acceptance windows?	☒	☐	☐	
V. Blanks				
Was a method blank associated with every sample in this SDG?	☒	☐	☐	
Was a method blank analyzed for each matrix and concentration?	☒	☐	☐	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	☐	☒	☐	
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	☒	☐	☐	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	☐	☐	☒	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	☒	☐	☐	
Was a MS/MSD analyzed every 20 samples of each matrix?	☒	☐	☐	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	☒	☐	☐	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	☒	☐	☐	
Was an LCS analyzed per extraction batch?	☒	☐	☐	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	☒	☐	☐	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?	☐	☐	☒	
Were the performance evaluation (PE) samples within the acceptance limits?	☐	☐	☒	

LDC #: 29433A7

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2Reviewer: FT2nd Reviewer: EA

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			/	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XII. System performance				
System performance was found to be acceptable.	/			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	/			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		/		
Target compounds were detected in the field duplicates.			/	
XV. Field blanks				
Field blanks were identified in this SDG.	/	/		
Target compounds were detected in the field blanks.	/	/	/	

EA

LDC #: 29433A7

VALIDATION FINDINGS WORKSHEET

Field Blanks

Page: 1 of 1
Reviewer: SN
2nd Reviewer: CR

METHOD: ☒ GC ☐ HPLC

☒ N/A Were field blanks identified in this SDG?
☒ N/A Were target compounds detected in the field blanks?

Blank units: ug/L Associated sample units: mg/kg

Sampling date: 12/19/12

Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank
Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other:

Associated Samples: # 3 (ND)

Compound	Blank ID	Blank ID	Sample Identification				
		EB1-121912					
GR0	17						
CRQL							

Blank units: Associated sample units:

Sampling date:

Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank
Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other:

Associated Samples:

Compound	Blank ID	Blank ID	Sample Identification				
CRQL							

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

Samples with compound concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 27433A7

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: F7
2nd Reviewer: [Signature]

METHOD: GC HPLC

The calibration factors (CF) and relative standard deviation (%RSD) were recalculated using the following calculations:

CF = A/C

Average CF = sum of the CF/number of standards

%RSD = $100 * (S/X)$

Where: A = Area of compound

C = Concentration of compound

S = Standard deviation of calibration factors

X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported		Recalculated		Reported		Recalculated	
				CF (100 std)	CF (100 std)	CF (100 std)	Ave CF (initial)	%RSD	Ave CF (initial)	%RSD	%RSD
1	1CAL	11/9/12	GRO CS-CV	26816	26816	26816	26353.2	8.2	26353.2	8.2	8.2
2											
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29433A7

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: F7
2nd Reviewer: CMETHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$$

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported		Recalculated		Reported		Recalculated	
					CF/Conc. CCV		CF/Conc. CCV		%D		%D	
1	EL19037A	12/20/12	GRO 26-212	500.0	462.18		462.18		8		8	
2	EL19038A	12/20/12	↓	500.0	478.04		478.04		4		4	
3												
4												

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29433A7

VALIDATION FINDINGS WORKSHEET

Surrogate Results Verification

Page: 1 of 1
Reviewer: F7
2nd reviewer: QMETHOD: ☒ GC ☐ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 3

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
YBFB	NS	40.0	34.65	86.6	86.6	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

$$\% \text{Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$$

Where

SSC = Spiked sample concentration

SC = Sample concentration

$$RPD = ((\{SSCMS - SSCMSD\} * 2) / (SSCMS + SSCMSD)) * 100$$

MS = Matrix spike

MSD = Matrix spike duplicate

MS/MSD samples: 5 + 4

[illegible]

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

GC HPLC

[illegible]

LCSCLCNew.wpd

METHOD: GC ☒ HPLC ☐

Y N N/A
Y N N/A

Were all reported results recalculated and verified for all level IV samples?
Were all recalculated results for detected target compounds within 10% of the reported results?

$$\text{Concentration} = \frac{(A)/(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$$

Example:

Sample ID. _____ Compound Name _____

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor

RF= Average response factor of the compound

In the initial calibration

V_s = Initial volume of the sample

Ws= Initial weight of the sample

%S= Percent Solid

Concentration =

[illegible]

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: December 18, 2012

LDC Report Date: April 8, 2013

Matrix: Soil

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12L152

Sample Identification

SL-504-SA3-SB-0.0-0.5

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractables contaminants were found in the method blanks.

Sample EB2-121912 (from SDG 12L166) was identified as an equipment blank. No total petroleum hydrocarbons as extractables contaminants were found.

Sample FB-111412 (from SDG 280-35930-1) was identified as a field blank. No total petroleum hydrocarbons as extractables contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for sample SL-504-SA3-SB-0.0-0.5. Since the sample was diluted out, no data were qualified.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12L152	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -
SDG 12L152

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12L152	SL-504-SA3-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data
Qualification Summary - SDG 12L152

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification
Summary - SDG 12L152

No Sample Data Qualified in this SDG

LDC #: 29433A8

VALIDATION COMPLETENESS WORKSHEET

SDG #: 12L152

Level IV

Laboratory: EMAX Laboratories, Inc.

Date: 4/8/13

Page: 1 of 1

Reviewer: EF

2nd Reviewer: EF

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/18/12
II	Initial calibration	Δ	% PSD ≤ 20
III.	Calibration verification/ICV	Δ	ICV/CCV ≤ 20
IV.	Blanks	Δ	Not reviewed for ADR validation.
V	Surrogate recovery	SW	Not reviewed for ADR validation.
VI.	Matrix spike/Matrix spike duplicates	A	Not reviewed for ADR validation.
VII.	Laboratory control samples	A	Not reviewed for ADR validation. LCS 10
VIII.	Target compound identification	Δ	Not reviewed for ADR validation.
IX.	Compound quantitation/RL/LOQ/LODs	Δ	Not reviewed for ADR validation.
X.	System Performance	Δ	Not reviewed for ADR validation.
XI.	Overall assessment of data	Δ	Not reviewed for ADR validation.
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB = EB2-121912 (12166) FB = FB-111412 (280-35930-1)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: ** Indicates sample underwent Level IV validation

1	SL-507-SA3-SB-0.0-0.5	11	MBKLS	21		31	
2	SL-507-SA3-SB-3.0-4.0	12		22		32	
3	SL-907-SA3-SB-3.0-4.0	13		23		33	
4	SL-504-SA3-SB-0.0-0.5**	14		24		34	
5	SL-504-SA3-SB-3.5-4.5	15		25		35	
6	SL-508-SA3-SB-0.0-0.5	16		26		36	
7	SL-508-SA3-SB-3.5-4.5	17		27		37	
8	# 2 MS	18		28		38	
9	# 2 MS	19		29		39	
10		20		30		40	

Notes:

LDC #: 29433AX

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2Reviewer: FT2nd Reviewer: EMethod: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	☒	☐	☐	
Cooler temperature criteria was met.	☒	☐	☐	
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	☒	☐	☐	
Were all percent relative standard deviations (%RSD) < 20%?	☒	☐	☐	
Was a curve fit used for evaluation?	☐	☒	☐	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	☐	☐	☒	
Were the RT windows properly established?	☒	☐	☐	
III. Continuing calibration				
Was a continuing calibration analyzed daily?	☒	☐	☐	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	☒	☐	☐	
Were all the retention times within the acceptance windows?	☒	☐	☐	
IV. Blanks				
Was a method blank associated with every sample in this SDG?	☒	☐	☐	
Was a method blank analyzed for each matrix and concentration?	☒	☐	☐	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	☐	☒	☐	
V. Surrogate spikes				
Were all surrogate %R within the QC limits?	☒	☒	☒	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	☐	☐	☒	
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	☒	☐	☐	
Was a MS/MSD analyzed every 20 samples of each matrix?	☒	☐	☐	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	☒	☐	☐	
VII. Laboratory control samples				
Was an LCS analyzed for this SDG?	☒	☐	☐	
Was an LCS analyzed per extraction batch?	☒	☐	☐	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	☒	☐	☐	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?	☐	☐	☒	
Were the performance evaluation (PE) samples within the acceptance limits?	☐	☐	☒	

LDC #: 29433A8

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	☒	☐	☐	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	☒	☐	☐	
XII. System performance				
System performance was found to be acceptable.	☒	☐	☐	
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	☒	☐	☐	
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	☐	☒	☐	
Target compounds were detected in the field duplicates.	☐	☐	☒	
XV. Field blanks				
Field blanks were identified in this SDG.	☒	☒	☒	
Target compounds were detected in the field blanks.	☐	☒	☒	

Page: 1 of 1
Reviewer: F7
2nd Reviewer: 8

METHOD: GC / HPLC

CF = A/C
Average CF = sum of the CF/number of standards
%RSD = $100 * (S/X)$

Where: A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29433AVALIDATION FINDINGS WORKSHEET
Continuing Calibration Results VerificationPage: 1 of 1
Reviewer: F7
2nd Reviewer: QMETHOD: GC HPLC

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$$

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated		Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D	%D	%D	%D	%D
1	1126027A	12/27/12	Total EFH (cg-c40)	500.0	508.84	2	508.84	2	2	2	2	2
	1126039A	12/27/12	↓	500.0	483.26	3	483.26	3	3	3	3	3
2												
3												
4												

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Matrix Spike/Matrix Spike Duplicates Results Verification

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

$$\% \text{Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$$

SSC = Spiked sample concentration
SA = Spike added
MS = Matrix spike

SC = Sample concentration
MSD = Matrix spike duplicate

$$\text{RPD} = ((\text{SSCMS} - \text{SSCMSD}) * 2) / (\text{SSCMS} + \text{SSCMSD}) * 100$$

MS/MSD samples: 8 + 9

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Total/EPA (28-40)	532	532	18.8	481	464	87	87	84	84	4	4

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where SSC = Spiked sample concentration
SA = Spike added

RPD = (((SSCLCS - SSCLCSD) * 2) / (SSCLCS + SSCLCSD)) * 100

LCS = Laboratory Control Sample

LCS/LCSD samples: 4510

SC = Sample concentration
LCSD = Laboratory Control Sample duplicate

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		LCS		LCSD		Percent Recovery		LCS		Percent Recovery		LCS		Percent Recovery		LCS/LCSD	
	LCS	LCSD		LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)																					
Diesel (8015)																					
Benzene (8021B)																					
Methane (RSK-175)																					
2,4-D (8151)																					
Dinoseb (8151)																					
Naphthalene (8310)																					
Anthracene (8310)																					
HMX (8330)																					
2,4,6-Trinitrotoluene (8330)																					
Total EFH (8-440)	500	500	ND	469	470		94		94		94		94		94		94		94	0	0

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

METHOD: ☒ GC ☐ HPLC

 ~~$\frac{Y}{Y} \frac{N}{N} \frac{N/A}{N/A}$~~

Sample ID. # 4 Compound Name Tox / E1 = H (cy -

%S= Percent Solid

[illegible]

SAMPCA Lew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: December 18, 2012

LDC Report Date: April 8, 2013

Matrix: Soil

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12L152

Sample Identification

SL-504-SA3-SB-0.0-0.5

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

Sample EB2-121912 (from SDG 12L166) was identified as an equipment blank. No polychlorinated biphenyl contaminants were found.

Sample FB-111412 (from SDG 280-35930-1) was identified as a field blank. No polychlorinated biphenyl contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 12L152	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG 12L152

SDG	Sample	Compound	Flag	A or P	Reason (Code)
12L152	SL-504-SA3-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 12L152

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 12L152

No Sample Data Qualified in this SDG

LDC #: 29433A3b **VALIDATION COMPLETENESS WORKSHEET**

SDG #: 12L152

Laboratory: EMAX Laboratories, Inc.

ADR/IV

Date: 4/8/13

Page: 1 of 1

Reviewer: F?

2nd Reviewer: 2

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/18/12
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	RSD $\leq$ 20
IV.	Continuing calibration/ICV	A	ICV/LCV $\leq$ 20
V.	Blanks	A	Not reviewed for ADR validation.
VI.	Surrogate spikes	A	Not reviewed for ADR validation.
VII.	Matrix spike/Matrix spike duplicates	N	Not reviewed for ADR validation.
VIII.	Laboratory control samples	A	Not reviewed for ADR validation. 105 10
IX.	Regional quality assurance and quality control	N	
X.	Floril cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	Not reviewed for ADR validation.
XIII.	Compound quantitation/RL/LOQ/LODs	A	Not reviewed for ADR validation.
XIV.	Overall assessment of data	A	Not reviewed for ADR validation.
XV.	Field duplicates	N	D = 2 → F7
XVI.	Field blanks	ND	EB = EB2-121912 FB = FB-111412 (12L166) (280-35930-1)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: ** Indicates sample underwent Level IV validation

1	SL-507-SA3-SB-0.0-0.5	11	MBLKIS	21		31	
2	SL-507-SA3-SB-3.0-4.0	12		22		32	
3	SL-507-SA3-SB-3.0-4.0	13		23		33	
4	SL-504-SA3-SB-0.0-0.5**	14		24		34	
5	SL-504-SA3-SB-3.5-4.5	15		25		35	
6	SL-508-SA3-SB-0.0-0.5	16		26		36	
7	SL-508-SA3-SB-3.5-4.5	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 29433A3b

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2Reviewer: FT2nd Reviewer: AMethod: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
III. Technical holding times				
All technical holding times were met.	☒	☐	☐	
Cooler temperature criteria was met.	☒	☐	☐	
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	☒	☐	☐	
Were all percent relative standard deviations (%RSD) < 20%?	☒	☐	☐	
Was a curve fit used for evaluation?	☐	☒	☐	
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990 ?	☐	☐	☒	
Were the RT windows properly established?	☒	☐	☐	
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	☒	☐	☐	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	☒	☐	☐	
Were all the retention times within the acceptance windows?	☒	☐	☐	
V. Blanks				
Was a method blank associated with every sample in this SDG?	☒	☐	☐	
Was a method blank analyzed for each matrix and concentration?	☒	☐	☐	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	☐	☒	☐	
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	☒	☐	☐	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	☐	☐	☒	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	☐	☐	☒	
Was a MS/MSD analyzed every 20 samples of each matrix?	☐	☐	☒	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	☐	☐	☒	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	☒	☐	☐	
Was an LCS analyzed per extraction batch?	☒	☐	☐	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	☒	☐	☐	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?	☐	☐	☒	
Were the performance evaluation (PE) samples within the acceptance limits?	☐	☐	☒	

LDC #: 29433 A3b

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: FT
2nd Reviewer: Δ

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	☒	☐	☐	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	☒	☐	☐	
XII. System performance				
System performance was found to be acceptable.	☒	☐	☐	
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	☒	☐	☐	
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	☐	☒	☐	
Target compounds were detected in the field duplicates.	☐	☐	☒	
XV. Field blanks				
Field blanks were identified in this SDG.	☒	☒	☒	
Target compounds were detected in the field blanks.	☐	☒	☒	

LDC #: 29433A36

VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F7
2nd Reviewer: [Signature]

METHOD: GC HPLC

The calibration factors (CF) and relative standard deviation (%RSD) were recalculated using the following calculations:

CF = A/C

Average CF = sum of the CF/number of standards

%RSD = $100 * (S/X)$

Where: A = Area of compound

C = Concentration of compound

S = Standard deviation of calibration factors

X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported		Recalculated		Reported		Recalculated	
				CF (100 std)	CF (100 std)	CF (100 std)	Ave CF (initial)	%RSD	Ave CF (initial)	%RSD	%RSD
1	ICAL	10/3/12	PCB 1260 - 1	2257.75	2257.75	2257.75	2373.170	16.2	2373.170	16.2	16.2
	SIX CLPES7										
2	ICAL		PCB 1260 - 1	2450.95	2450.95	2450.95	2578.826	12.0	2578.826	12.0	12.0
	SIX CLPES7										
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 2943343b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: F7
2nd Reviewer: QA

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$ Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated		Reported		Recalculated	
					CF/Conc. CCV		CF/Conc. CCV		%D		%D	
1	SL26002A	12/26/12	P2B 1240 ^{up1}	506.0	449.133		449.133		10		10	
			^{up2}	500.0	451.418		451.418		9		9	
2	SL26002A	12/26/12	↓	↓	471.554		471.554		6		6	
					476.284		476.284		5		5	
3												
4												

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27433A3bVALIDATION FINDINGS WORKSHEET
Surrogate Results VerificationPage: 1 of 1
Reviewer: F7
2nd reviewer: CMETHOD: GC HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: $SF/SS \times 100$ Where: SF = Surrogate Found
SS = Surrogate SpikedSample ID: 4

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
DCB	STX-eup1	40	F7 31.87 32.52	81.3	81.3	0
TCMX	↓	40	F7 37.49	101	101	0
			40.40			

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 27433A36

VALIDATION FINDINGS WORKSHEET

Page: 1 of 1
Reviewer: F-7
2nd Reviewer: C

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = $100 * (SSC - SC) / SA$

Where SSC = Spiked sample concentration

SC = Sample concentration

SA = Spike added

RPD = $((SSCLCS - SSCLCSD) * 2) / (SSCLCS + SSCLCSD) * 100$

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: 1CS 17

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		LCS		LCSD		Percent Recovery		LCS/LCSD	
	LCS	LCSD		LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)													
Diesel (8015)													
Benzene (8021B)													
Methane (RSK-175)													
2,4-D (8151)													
Dinoseb (8151)													
Naphthalene (8310)													
Anthracene (8310)													
HMX (8330)													
2,4,6-Trinitrotoluene (8330)													
Aroclor 1260	167	167	NW	143	143	86	86	86	86	0	0	0	0

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

METHOD: _____ GC _____ HPLC

Were all reported results recalculated and verified for all level IV samples?
Were all recalculated results for detected target compounds within 10% of the reported results?

%S= Percent Solid

Concentration = _____

[illegible]

SAMP CALew.wpd

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory

Collection Date: December 18, 2012

LDC Report Date: April 16, 2013

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 12L152

Sample Identification

SL-504-SA3-SB-0.0-0.5

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6020 and 7471A for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Boron, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks.

Sample EB2-121912 (from SDG 12L166) was identified as equipment blanks. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB2-121912	12/19/12	Calcium Copper Nickel	0.0284 mg/L 0.000667 mg/L 0.000230 mg/L	SL-504-SA3-SB-0.0-0.5

Sample FB-111412 (from SDG 280-35930-1) was identified as a field blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
FB-111412	11/14/12	Silver	0.00078 mg/L	SL-504-SA3-SB-0.0-0.5

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-507-SA3-SB-3.0-4.0MS/MSD (All samples in SDG 12L152)	Antimony Barium Magnesium Phosphorus	72 (75-125) 71 (75-125) 72 (75-125) -	72 (75-125) - - 169 (75-125)	- - - 27 (≤20)	J (all detects) UJ (all non-detects)	A

VII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XII. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG 12L152	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG 12L152

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
12L152	SL-504-SA3-SB-0.0-0.5	Antimony Barium Magnesium	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
12L152	SL-504-SA3-SB-0.0-0.5	Phosphorus	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q,E)
12L152	SL-504-SA3-SB-0.0-0.5	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG 12L152

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG 12L152

No Sample Data Qualified in this SDG

LDC #: 29433A4

VALIDATION COMPLETENESS WORKSHEET

Date: 4-15-13

SDG #: 12L152

ADR/IV

Page: 1 of 1

Laboratory: EMAX Laboratories, Inc.

MA

Reviewer: MG

2nd Reviewer: V

METHOD: Metals (EPA SW 846 Method 6020A/7000) 7471A

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12-18-12
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	Not reviewed for ADR validation. MS/MSD
VII.	Duplicate Sample Analysis	N	Not reviewed for ADR validation.
VIII.	Laboratory Control Samples (LCS)	A	Not reviewed for ADR validation. LCS/LCSD
IX.	Internal Standard (ICP-MS)	A	Not reviewed for ADR validation.
X.	Furnace Atomic Absorption QC	N	Not reviewed for ADR validation. not utilized
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	A	Not reviewed for ADR validation.
XIII.	Overall Assessment of Data	A	Not reviewed for ADR validation.
XIV.	Field Duplicates	N	D = 2 + 3
XV.	Field Blanks	SW	EB = EBI-121912 (SDG: 12L166)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: ** Indicates sample underwent Level IV validation

all soil

EB = EB2-121912 (SDG: 12L166)
FB = FB-111412 (SDG 280-35930-1)

1	SL-507-SA3-SB-0.0-0.5	11		21		31	
2	SL-507-SA3-SB-3.0-4.0	12		22		32	
3	SL-507-SA3-SB-3.0-4.0	13		23		33	
4	SL-504-SA3-SB-0.0-0.5**	14		24		34	
5	SL-504-SA3-SB-3.5-4.5	15		25		35	
6	SL-508-SA3-SB-0.0-0.5	16		26		36	
7	SL-508-SA3-SB-3.5-4.5	17		27		37	
8	#2 MS	18		28		38	
9	#2 MSD	19		29		39	
10		20	PBS	30		40	

Notes: _____

LDC #: 29433A4

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: MG
2nd Reviewer: JS**Method:**Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution $\leq 5\%$?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients ≥ 0.995 ?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm RL$ ($\pm 2X RL$ for soil) was used for samples that were $\leq 5X$ the RL, including when only one of the duplicate sample values were $\leq 5X$ the RL.		✓		
VII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

LDC #: 29433A4

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: MG
2nd Reviewer: W

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analyses have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL (ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?	✓			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.	✓			

All circled elements are applicable to each sample.

[illegible]

Comments: Mercury by CVAA if performed

Nb: Niobium, Pd: Palladium, P: Phosphorus, Pt: Platinum, S: Sulfur, W: Tungsten, U: Uranium, Zr: Zirconium

VALIDATION FINDINGS WORKSHEET
Field Blanks

METHOD: Trace Metals (EPA SW846 6010B/7000)

☒ N/A Were field blanks identified in this SDG?☒ N/A Were target analytes detected in the field blanks?

Blank units: mg/L Associated sample units: mg/kg

Sampling date: see below Soil factor applied: 50x

Field blank type: (circle one) Field Blank / Rinsate / Other EB Associated Samples: 4 (>5x or ND)

Analyte		Blank ID	Blank ID	Sample Identification				
		FB-111412 sampled: 11/14/12	EB2- 121912 sampled: 12/19/12	Action Level	No Qual's.			
Ca			0.0284	7.10				
Cu			0.000667	0.167				
Ni			0.000230	0.058				
Ag		0.00078		0.195				

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

YN N/A

Was a matrix spike analyzed for each matrix in this SDG?

~~Y(N)N/A~~

Were matrix spike percent recoveries (%R) within the control

Y ON/A

Were all duplicate sample relative differences (RPD) < 20% for water samples and < 35% for soil samples?

LEVEL IV ONLY:

Y N N/A

Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

[illegible]

8/9 : Fe, Mn, Ti - 4x

LDC #: 29433A4

VALIDATION FINDINGS WORKSHEET Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: MG
2nd Reviewer: [Signature]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated	Reported	Acceptable (Y/N)
					%R	%R	
1300 ICV	ICP (Initial calibration)						
1708 ICV	ICP/MS (Initial calibration)	Ag	28.58	30.00	95	95	Y
	CVAA (Initial calibration)	Hg	1.92	2.00	96	not reported	
	ICP (Continuing calibration)						
1421 CCV2	ICP/MS (Continuing calibration)	Cu	24.95	25.00	100	100	
1739 CCV2	CVAA (Continuing calibration)	Hg	4.76	5.00	95	not reported	
	GFAA (Initial calibration)						
	GFAA (Continuing calibration)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29433A4

VALIDATION FINDINGS WORKSHEET Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: MG
2nd Reviewer: [Signature]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$

Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$$\%D = \frac{|I-SDR|}{I} \times 100$$

Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated		Reported		Acceptable (Y/N)
					%R / RPD / %D		%R / RPD / %D		
1318 ICSAB	ICP interference check	As	19.37 (µg/L)	20.00 (µg/L)	97		97		Y
1341 LCS	Laboratory control sample	Cu	24.55 (mg/kg)	25.0 (mg/kg)	98		98		
1359 8	Matrix spike	Sn	(SSR-SR) 30.36 (mg/kg)	26.4 (mg/kg)	115		115		
1359 / 1403 8 / 9	Duplicate	P	693.8 (mg/kg)	912.0 (mg/kg)	27		27		
1412 / 1416 2	ICP serial dilution	Ti	1228 (mg/kg)	1318 (mg/kg)	7		7		

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29433A4

VALIDATION FINDINGS WORKSHEET **Sample Calculation Verification**

Page: 1 of 1Reviewer: MG2nd reviewer: ✓**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

☒ N N/A

Have results been reported and calculated correctly?

☒ N N/A

Are results within the calibrated range of the instruments and within the linear range of the ICP?

☒ N N/A

Are all detection limits below the CRDL?

Detected analyte results for # 4, Mg were recalculated and verified using the following equation:Concentration = $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$

Recalculation:

RD = Raw data concentration
 FV = Final volume (ml)
 In. Vol. = Initial volume (ml) or weight (G)
 Dil = Dilution factor

$$\frac{(8046.00 \text{ } \mu\text{g/L})(0.100 \text{ L})(10)}{(2.04 \text{ g})(0.979)} = 4028.72 \text{ } \mu\text{g/g} \text{ or } \frac{\text{mg}}{\text{kg}}$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
1	4	Al	8530	8540	Y
		As	1.76	1.76	
		Ba	107	107	
		Be	0.231	0.231	
		Cd	0.136	0.137	
		Ca	5260	5260	
		Cr	11.3	11.3	
		Co	4.81	4.81	
		Cu	9.23	9.24	
		Fe	15700	15700	
		Pb	13.8	13.8	
		Mg	4030	4030	
		Mn	271	271	
		Mo	0.584	0.584	
		Ni	10.1	10.1	
		K	3110	3110	
		Na	280	280	
		Sr	27.1	27.1	
		Tl	0.150	0.151	
		Ti	1040	1040	

Note:

V 33.5 33.5

Zn 42.0 42.0

Li 13.5 13.5

P 523 523

SAMPLE DELIVERY GROUP

280-35537-1

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
06-Nov-2012	SL-669-SA6-SB-0.0-0.5	280-35537-1	N	3546	8270C SIM	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5	280-35537-1	N	3550C	8015B EFH	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5MS	280-35537-1MS	MS	3546	8270C SIM	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5MSD	280-35537-1MSD	MSD	3546	8270C SIM	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5	280-35537-2	N	3050B	6010C	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5	280-35537-2	N	3050B	6020A	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5	280-35537-2	N	3546	8082A	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5	280-35537-2	N	7471B	7471B	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5MS	280-35537-2MS	MS	3050B	6010C	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5MS	280-35537-2MS	MS	3050B	6020A	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5MS	280-35537-2MS	MS	3546	8082A	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5MS	280-35537-2MS	MS	7471B	7471B	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5MSD	280-35537-2MSD	MSD	3050B	6010C	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5MSD	280-35537-2MSD	MSD	3050B	6020A	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5MSD	280-35537-2MSD	MSD	3546	8082A	III
06-Nov-2012	SL-669-SA6-SB-0.0-0.5MSD	280-35537-2MSD	MSD	7471B	7471B	III
06-Nov-2012	SL-670-SA6-SB-0.0-0.5	280-35537-3	N	3546	8270C SIM	III
06-Nov-2012	SL-670-SA6-SB-0.0-0.5	280-35537-3	N	3550C	8015B EFH	III
06-Nov-2012	SL-670-SA6-SB-0.0-0.5	280-35537-4	N	3050B	6010C	III
06-Nov-2012	SL-670-SA6-SB-0.0-0.5	280-35537-4	N	3050B	6020A	III
06-Nov-2012	SL-670-SA6-SB-0.0-0.5	280-35537-4	N	3546	8082A	III
06-Nov-2012	SL-670-SA6-SB-0.0-0.5	280-35537-4	N	7471B	7471B	III
06-Nov-2012	SL-670-SA6-SB-0.0-0.5MS	280-35537-4MS	MS	3546	8082A	III
06-Nov-2012	SL-670-SA6-SB-0.0-0.5MSD	280-35537-4MSD	MSD	3546	8082A	III
06-Nov-2012	SL-671-SA6-SB-0.0-0.5	280-35537-5	N	3546	8270C SIM	III
06-Nov-2012	SL-671-SA6-SB-0.0-0.5	280-35537-5	N	3550C	8015B EFH	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
06-Nov-2012	SL-671-SA6-SB-0.0-0.5	280-35537-6	N	3050B	6010C	III
06-Nov-2012	SL-671-SA6-SB-0.0-0.5	280-35537-6	N	3050B	6020A	III
06-Nov-2012	SL-671-SA6-SB-0.0-0.5	280-35537-6	N	3546	8081B	III
06-Nov-2012	SL-671-SA6-SB-0.0-0.5	280-35537-6	N	3546	8082A	III
06-Nov-2012	SL-671-SA6-SB-0.0-0.5	280-35537-6	N	7471B	7471B	III
06-Nov-2012	SL-671-SA6-SB-0.0-0.5	280-35537-6	N	8151A	8151A	III
06-Nov-2012	SL-671-SA6-SB-0.0-0.5MS	280-35537-6MS	MS	3546	8081B	III
06-Nov-2012	SL-671-SA6-SB-0.0-0.5MSD	280-35537-6MSD	MSD	3546	8081B	III
06-Nov-2012	SL-672-SA6-SB-0.0-0.5	280-35537-7	N	3546	8270C SIM	IV
06-Nov-2012	SL-672-SA6-SB-0.0-0.5	280-35537-7	N	3550C	8015B EFH	IV
06-Nov-2012	SL-672-SA6-SB-0.0-0.5	280-35537-8	N	3050B	6010C	IV
06-Nov-2012	SL-672-SA6-SB-0.0-0.5	280-35537-8	N	3050B	6020A	IV
06-Nov-2012	SL-672-SA6-SB-0.0-0.5	280-35537-8	N	3546	8081B	IV
06-Nov-2012	SL-672-SA6-SB-0.0-0.5	280-35537-8	N	3546	8082A	IV
06-Nov-2012	SL-672-SA6-SB-0.0-0.5	280-35537-8	N	7471B	7471B	IV
06-Nov-2012	SL-672-SA6-SB-0.0-0.5	280-35537-8	N	8151A	8151A	IV
06-Nov-2012	SL-672-SA6-SB-0.0-0.5MS	280-35537-8MS	MS	3546	8081B	IV
06-Nov-2012	SL-672-SA6-SB-0.0-0.5MSD	280-35537-8MSD	MSD	3546	8081B	IV
06-Nov-2012	SL-673-SA6-SB-0.0-0.5	280-35537-10	N	3050B	6010C	III
06-Nov-2012	SL-673-SA6-SB-0.0-0.5	280-35537-10	N	3050B	6020A	III
06-Nov-2012	SL-673-SA6-SB-0.0-0.5	280-35537-10	N	3546	8081B	III
06-Nov-2012	SL-673-SA6-SB-0.0-0.5	280-35537-10	N	3546	8082A	III
06-Nov-2012	SL-673-SA6-SB-0.0-0.5	280-35537-10	N	7471B	7471B	III
06-Nov-2012	SL-673-SA6-SB-0.0-0.5	280-35537-10	N	8151A	8151A	III
06-Nov-2012	SL-673-SA6-SB-0.0-0.5MS	280-35537-10MS	MS	8151A	8151A	III
06-Nov-2012	SL-673-SA6-SB-0.0-0.5MSD	280-35537-10MSD	MSD	8151A	8151A	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
06-Nov-2012	SL-673-SA6-SB-0.0-0.5	280-35537-9	N	3546	8270C SIM	III
06-Nov-2012	SL-673-SA6-SB-0.0-0.5	280-35537-9	N	3550C	8015B EFH	III
06-Nov-2012	SL-676-SA6-SB-0.0-0.5	280-35537-11	N	3546	8270C SIM	III
06-Nov-2012	SL-676-SA6-SB-0.0-0.5	280-35537-11	N	3550C	8015B EFH	III
06-Nov-2012	SL-676-SA6-SB-0.0-0.5	280-35537-12	N	3050B	6010C	III
06-Nov-2012	SL-676-SA6-SB-0.0-0.5	280-35537-12	N	3050B	6020A	III
06-Nov-2012	SL-676-SA6-SB-0.0-0.5	280-35537-12	N	3546	8082A	III
06-Nov-2012	SL-676-SA6-SB-0.0-0.5	280-35537-12	N	7471B	7471B	III
06-Nov-2012	SL-675-SA6-SB-0.0-0.5	280-35537-15	N	3546	8270C SIM	III
06-Nov-2012	SL-675-SA6-SB-0.0-0.5	280-35537-15	N	3550C	8015B EFH	III
06-Nov-2012	SL-675-SA6-SB-0.0-0.5	280-35537-16	N	3050B	6010C	III
06-Nov-2012	SL-675-SA6-SB-0.0-0.5	280-35537-16	N	3050B	6020A	III
06-Nov-2012	SL-675-SA6-SB-0.0-0.5	280-35537-16	N	3546	8082A	III
06-Nov-2012	SL-675-SA6-SB-0.0-0.5	280-35537-16	N	7471B	7471B	III
06-Nov-2012	SL-659-SA6-SB-0.0-0.5	280-35537-13	N	3546	8270C SIM	III
06-Nov-2012	SL-659-SA6-SB-0.0-0.5	280-35537-13	N	3550C	8015B EFH	III
06-Nov-2012	SL-659-SA6-SB-0.0-0.5	280-35537-14	N	3050B	6010C	III
06-Nov-2012	SL-659-SA6-SB-0.0-0.5	280-35537-14	N	3050B	6020A	III
06-Nov-2012	SL-659-SA6-SB-0.0-0.5	280-35537-14	N	3546	8082A	III
06-Nov-2012	SL-659-SA6-SB-0.0-0.5	280-35537-14	N	7471B	7471B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-659-SA6-SB-0.0-0.5

Collected: 11/6/2012 2:50:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	12000	J	1.5	MDL	20000	MRL	mg/Kg	J	Z, A
BORON	3.9	J	0.97	MDL	9.6	MRL	mg/Kg	U	F, F
CALCIUM	5200		14	MDL	50	MRL	mg/Kg	J	Q, A
IRON	16000		3.8	MDL	34	MRL	mg/Kg	J	A
LITHIUM	12	J	0.30	MDL	37	MRL	mg/Kg	J	Z, A
MAGNESIUM	3700		3.7	MDL	9.9	MRL	mg/Kg	J	A
MANGANESE	240	J	0.099	MDL	490	MRL	mg/Kg	J	Z, A
PHOSPHORUS	530		1.6	MDL	9.9	MRL	mg/Kg	J	A
POTASSIUM	2800	J	41	MDL	6300	MRL	mg/Kg	J	Z, A
SODIUM	140	J	59	MDL	500	MRL	mg/Kg	J	Z
STRONTIUM	37		0.036	MDL	0.49	MRL	mg/Kg	J	A
TIN	3.0	J	0.90	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.9	J	0.35	MDL	8.5	MRL	mg/Kg	J	Z

Sample ID: SL-669-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:12:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	21000		1.6	MDL	20000	MRL	mg/Kg	J	A
BORON	5.9	J	0.98	MDL	9.7	MRL	mg/Kg	J	Z
CALCIUM	16000		14	MDL	50	MRL	mg/Kg	J	Q, A
IRON	25000		3.8	MDL	34	MRL	mg/Kg	J	A
LITHIUM	19	J	0.30	MDL	37	MRL	mg/Kg	J	Z, A
MAGNESIUM	6100		3.7	MDL	10	MRL	mg/Kg	J	A
MANGANESE	370	J	0.10	MDL	500	MRL	mg/Kg	J	Z, A
PHOSPHORUS	460		1.6	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	4300	J	41	MDL	6400	MRL	mg/Kg	J	Z, A
SODIUM	110	J	59	MDL	500	MRL	mg/Kg	J	Z
STRONTIUM	42		0.036	MDL	0.50	MRL	mg/Kg	J	A
TIN	3.6	J	0.92	MDL	11	MRL	mg/Kg	J	Z
Zirconium	3.9	J	0.36	MDL	8.6	MRL	mg/Kg	J	Z

Sample ID: SL-670-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:41:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	14000	J	1.6	MDL	20000	MRL	mg/Kg	J	Z, A

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

5/6/2013 10:47:15 AM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-670-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:41:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.2	J	1.0	MDL	9.9	MRL	mg/Kg	U	F, F
CALCIUM	7400		14	MDL	51	MRL	mg/Kg	J	Q, A
IRON	16000		3.9	MDL	35	MRL	mg/Kg	J	A
LITHIUM	9.5	J	0.31	MDL	38	MRL	mg/Kg	J	Z, A
MAGNESIUM	3500		3.8	MDL	10	MRL	mg/Kg	J	A
MANGANESE	280	J	0.10	MDL	500	MRL	mg/Kg	J	Z, A
PHOSPHORUS	730		1.7	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	2500	J	42	MDL	6500	MRL	mg/Kg	J	Z, A
SODIUM	130	J	60	MDL	510	MRL	mg/Kg	J	Z
STRONTIUM	35		0.037	MDL	0.50	MRL	mg/Kg	J	A
TIN	2.5	J	0.93	MDL	11	MRL	mg/Kg	J	Z
Zirconium	2.3	J	0.36	MDL	8.8	MRL	mg/Kg	J	Z

Sample ID: SL-671-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:23:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	21000		1.6	MDL	21000	MRL	mg/Kg	J	A
BORON	5.9	J	1.0	MDL	10	MRL	mg/Kg	J	Z
CALCIUM	6300		15	MDL	53	MRL	mg/Kg	J	Q, A
IRON	24000		4.0	MDL	36	MRL	mg/Kg	J	A
LITHIUM	21	J	0.32	MDL	39	MRL	mg/Kg	J	Z, A
MAGNESIUM	5800		3.9	MDL	11	MRL	mg/Kg	J	A
MANGANESE	340	J	0.11	MDL	520	MRL	mg/Kg	J	Z, A
PHOSPHORUS	390		1.7	MDL	11	MRL	mg/Kg	J	A
POTASSIUM	4500	J	43	MDL	6800	MRL	mg/Kg	J	Z, A
SODIUM	92	J	62	MDL	530	MRL	mg/Kg	J	Z
STRONTIUM	32		0.038	MDL	0.52	MRL	mg/Kg	J	A
TIN	4.0	J	0.96	MDL	12	MRL	mg/Kg	J	Z
Zirconium	3.7	J	0.37	MDL	9.1	MRL	mg/Kg	J	Z

Sample ID: SL-672-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:53:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	16000	J	1.6	MDL	20000	MRL	mg/Kg	J	Z, A
BORON	3.8	J	1.0	MDL	9.9	MRL	mg/Kg	U	F, F

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

5/6/2013 10:47:15 AM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-672-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:53:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	2800		14	MDL	51	MRL	mg/Kg	J	Q, A
IRON	20000		3.9	MDL	35	MRL	mg/Kg	J	A
LITHIUM	24	J	0.31	MDL	38	MRL	mg/Kg	J	Z, A
MAGNESIUM	4700		3.8	MDL	10	MRL	mg/Kg	J	A
MANGANESE	300	J	0.10	MDL	510	MRL	mg/Kg	J	Z, A
PHOSPHORUS	540		1.7	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	4100	J	42	MDL	6500	MRL	mg/Kg	J	Z, A
SODIUM	110	J	60	MDL	510	MRL	mg/Kg	J	Z
STRONTIUM	25		0.037	MDL	0.51	MRL	mg/Kg	J	A
TIN	4.2	J	0.93	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.5	J	0.36	MDL	8.8	MRL	mg/Kg	J	Z

Sample ID: SL-673-SA6-SB-0.0-0.5

Collected: 11/6/2012 12:55:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	17000	J	1.6	MDL	20000	MRL	mg/Kg	J	Z, A
BORON	4.2	J	0.99	MDL	9.8	MRL	mg/Kg	U	F, F
CALCIUM	5300		14	MDL	50	MRL	mg/Kg	J	Q, A
IRON	21000		3.8	MDL	34	MRL	mg/Kg	J	A
LITHIUM	17	J	0.30	MDL	37	MRL	mg/Kg	J	Z, A
MAGNESIUM	5100		3.7	MDL	10	MRL	mg/Kg	J	A
MANGANESE	290	J	0.10	MDL	500	MRL	mg/Kg	J	Z, A
PHOSPHORUS	450		1.6	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	3600	J	41	MDL	6400	MRL	mg/Kg	J	Z, A
SODIUM	120	J	59	MDL	500	MRL	mg/Kg	J	Z
STRONTIUM	23		0.036	MDL	0.50	MRL	mg/Kg	J	A
TIN	3.6	J	0.92	MDL	11	MRL	mg/Kg	J	Z
Zirconium	2.8	J	0.36	MDL	8.6	MRL	mg/Kg	J	Z

Sample ID: SL-675-SA6-SB-0.0-0.5

Collected: 11/6/2012 2:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	15000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z, A
BORON	3.4	J	0.95	MDL	9.4	MRL	mg/Kg	U	F, F
CALCIUM	5500		14	MDL	48	MRL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

5/6/2013 10:47:15 AM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-675-SA6-SB-0.0-0.5

Collected: 11/6/2012 2:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	22000		3.7	MDL	33	MRL	mg/Kg	J	A
LITHIUM	22	J	0.29	MDL	36	MRL	mg/Kg	J	Z, A
MAGNESIUM	5800		3.6	MDL	9.7	MRL	mg/Kg	J	A
MANGANESE	340	J	0.097	MDL	480	MRL	mg/Kg	J	Z, A
PHOSPHORUS	470		1.6	MDL	9.7	MRL	mg/Kg	J	A
POTASSIUM	3400	J	40	MDL	6200	MRL	mg/Kg	J	Z, A
SODIUM	140	J	57	MDL	480	MRL	mg/Kg	J	Z
STRONTIUM	23		0.035	MDL	0.48	MRL	mg/Kg	J	A
TIN	5.0	J	0.88	MDL	11	MRL	mg/Kg	J	Z
Zirconium	2.0	J	0.34	MDL	8.3	MRL	mg/Kg	J	Z

Sample ID: SL-676-SA6-SB-0.0-0.5

Collected: 11/6/2012 1:25:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	15000	J	1.6	MDL	20000	MRL	mg/Kg	J	Z, A
BORON	3.1	J	1.0	MDL	9.9	MRL	mg/Kg	U	F, F
CALCIUM	7400		14	MDL	51	MRL	mg/Kg	J	Q, A
IRON	24000		3.9	MDL	35	MRL	mg/Kg	J	A
LITHIUM	21	J	0.31	MDL	38	MRL	mg/Kg	J	Z, A
MAGNESIUM	6700		3.8	MDL	10	MRL	mg/Kg	J	A
MANGANESE	370	J	0.10	MDL	510	MRL	mg/Kg	J	Z, A
PHOSPHORUS	590		1.7	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	3400	J	42	MDL	6500	MRL	mg/Kg	J	Z, A
SODIUM	150	J	60	MDL	510	MRL	mg/Kg	J	Z
STRONTIUM	26		0.037	MDL	0.51	MRL	mg/Kg	J	A
TIN	5.3	J	0.93	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.9	J	0.36	MDL	8.8	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-659-SA6-SB-0.0-0.5

Collected: 11/6/2012 2:50:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.018	J	0.013	MDL	8.2	MRL	mg/Kg	J	Z, Q
ARSENIC	2.6	J	0.048	MDL	14	MRL	mg/Kg	J	Z
BARIUM	82	J	0.067	MDL	130	MRL	mg/Kg	J	Z
BERYLLIUM	0.37	J	0.021	MDL	1.0	MRL	mg/Kg	J	Z
CADMIUM	0.68	J	0.0089	MDL	0.95	MRL	mg/Kg	J	Z
CHROMIUM	17	J	0.072	MDL	35	MRL	mg/Kg	J	Z
COBALT	5.2	J	0.0063	MDL	20	MRL	mg/Kg	J	Z
COPPER	12	J	0.067	MDL	27	MRL	mg/Kg	J	Z
LEAD	7.1	J	0.017	MDL	32	MRL	mg/Kg	J	Z
MOLYBDENUM	0.49	J	0.017	MDL	5.0	MRL	mg/Kg	J	Z, Q
NICKEL	18	J	0.024	MDL	27	MRL	mg/Kg	J	Z
THALLIUM	0.16	J	0.0033	MDL	0.43	MRL	mg/Kg	J	Z
VANADIUM	26	J	0.036	MDL	59	MRL	mg/Kg	J	Z
ZINC	56	J	0.30	MDL	100	MRL	mg/Kg	J	Z

Sample ID: SL-669-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:12:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.015	J	0.014	MDL	8.6	MRL	mg/Kg	J	Z, Q
ARSENIC	4.8	J	0.050	MDL	15	MRL	mg/Kg	J	Z
BARIUM	120	J	0.070	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.78	J	0.022	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.52	J	0.0093	MDL	0.99	MRL	mg/Kg	J	Z
CHROMIUM	28	J	0.075	MDL	36	MRL	mg/Kg	J	Z
COBALT	9.1	J	0.0065	MDL	21	MRL	mg/Kg	J	Z
COPPER	15	J	0.070	MDL	29	MRL	mg/Kg	J	Z
LEAD	8.0	J	0.018	MDL	34	MRL	mg/Kg	J	Z
MOLYBDENUM	0.26	J	0.017	MDL	5.2	MRL	mg/Kg	J	Z, Q
NICKEL	19	J	0.025	MDL	29	MRL	mg/Kg	J	Z
SILVER	0.046	J	0.020	MDL	0.78	MRL	mg/Kg	J	Z
THALLIUM	0.31	J	0.0035	MDL	0.45	MRL	mg/Kg	J	Z
VANADIUM	49	J	0.038	MDL	61	MRL	mg/Kg	J	Z
ZINC	65	J	0.31	MDL	110	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-670-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:41:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.014	J	0.014	MDL	8.9	MRL	mg/Kg	J	Z, Q
ARSENIC	2.7	J	0.052	MDL	15	MRL	mg/Kg	J	Z
BARIUM	99	J	0.072	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.39	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.42	J	0.0096	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	16	J	0.077	MDL	37	MRL	mg/Kg	J	Z
COBALT	5.3	J	0.0068	MDL	21	MRL	mg/Kg	J	Z
COPPER	11	J	0.072	MDL	30	MRL	mg/Kg	J	Z
LEAD	3.9	J	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.44	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z, Q
NICKEL	11	J	0.026	MDL	30	MRL	mg/Kg	J	Z
SILVER	0.030	J	0.021	MDL	0.81	MRL	mg/Kg	J	Z
THALLIUM	0.13	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	29	J	0.039	MDL	63	MRL	mg/Kg	J	Z
ZINC	36	J	0.32	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-671-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:23:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.019	J	0.015	MDL	9.1	MRL	mg/Kg	J	Z, Q
ARSENIC	4.7	J	0.053	MDL	16	MRL	mg/Kg	J	Z
BARIUM	120	J	0.074	MDL	150	MRL	mg/Kg	J	Z
BERYLLIUM	0.86	J	0.024	MDL	1.2	MRL	mg/Kg	J	Z
CADMIUM	0.60	J	0.0098	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	28	J	0.079	MDL	38	MRL	mg/Kg	J	Z
COBALT	8.7	J	0.0069	MDL	22	MRL	mg/Kg	J	Z
COPPER	16	J	0.074	MDL	30	MRL	mg/Kg	J	Z
LEAD	11	J	0.019	MDL	36	MRL	mg/Kg	J	Z
MOLYBDENUM	0.34	J	0.018	MDL	5.5	MRL	mg/Kg	J	Z, Q
NICKEL	19	J	0.026	MDL	30	MRL	mg/Kg	J	Z
SILVER	0.11	J	0.021	MDL	0.83	MRL	mg/Kg	J	Z
THALLIUM	0.31	J	0.0037	MDL	0.48	MRL	mg/Kg	J	Z
VANADIUM	49	J	0.040	MDL	65	MRL	mg/Kg	J	Z
ZINC	79	J	0.33	MDL	120	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-672-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:53:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.035	J	0.015	MDL	9.1	MRL	mg/Kg	J	Z, Q
ARSENIC	3.7	J	0.053	MDL	16	MRL	mg/Kg	J	Z
BARIUM	130	J	0.074	MDL	150	MRL	mg/Kg	J	Z
BERYLLIUM	0.61	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CHROMIUM	24	J	0.079	MDL	38	MRL	mg/Kg	J	Z
COBALT	6.8	J	0.0069	MDL	22	MRL	mg/Kg	J	Z
COPPER	18	J	0.074	MDL	30	MRL	mg/Kg	J	Z
LEAD	25	J	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.73	J	0.018	MDL	5.5	MRL	mg/Kg	J	Z, Q
NICKEL	18	J	0.026	MDL	30	MRL	mg/Kg	J	Z
THALLIUM	0.31	J	0.0037	MDL	0.48	MRL	mg/Kg	J	Z
VANADIUM	37	J	0.040	MDL	65	MRL	mg/Kg	J	Z
ZINC	100	J	0.33	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-673-SA6-SB-0.0-0.5

Collected: 11/6/2012 12:55:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.018	J	0.014	MDL	9.0	MRL	mg/Kg	J	Z, Q
ARSENIC	4.9	J	0.052	MDL	16	MRL	mg/Kg	J	Z
BARIUM	100	J	0.073	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.59	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.56	J	0.0097	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	22	J	0.079	MDL	38	MRL	mg/Kg	J	Z
COBALT	7.1	J	0.0069	MDL	22	MRL	mg/Kg	J	Z
COPPER	15	J	0.074	MDL	30	MRL	mg/Kg	J	Z
LEAD	8.7	J	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.42	J	0.018	MDL	5.5	MRL	mg/Kg	J	Z, Q
NICKEL	17	J	0.026	MDL	30	MRL	mg/Kg	J	Z
SILVER	0.22	J	0.021	MDL	0.82	MRL	mg/Kg	J	Z
THALLIUM	0.24	J	0.0036	MDL	0.48	MRL	mg/Kg	J	Z
VANADIUM	40	J	0.040	MDL	64	MRL	mg/Kg	J	Z
ZINC	61	J	0.33	MDL	110	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-675-SA6-SB-0.0-0.5

Collected: 11/6/2012 2:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.043	J	0.014	MDL	8.9	MRL	mg/Kg	J	Z, Q
ARSENIC	3.3	J	0.052	MDL	15	MRL	mg/Kg	J	Z
BARIUM	110	J	0.072	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.53	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CHROMIUM	32	J	0.078	MDL	38	MRL	mg/Kg	J	Z
COBALT	8.6	J	0.0068	MDL	22	MRL	mg/Kg	J	Z
COPPER	22	J	0.073	MDL	30	MRL	mg/Kg	J	Z
LEAD	21	J	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.90	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z, Q
THALLIUM	0.22	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	47	J	0.039	MDL	64	MRL	mg/Kg	J	Z

Sample ID: SL-676-SA6-SB-0.0-0.5

Collected: 11/6/2012 1:25:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.053	J	0.013	MDL	8.2	MRL	mg/Kg	J	Z, Q
ARSENIC	2.6	J	0.048	MDL	14	MRL	mg/Kg	J	Z
BARIUM	96	J	0.067	MDL	130	MRL	mg/Kg	J	Z
BERYLLIUM	0.35	J	0.021	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	30	J	0.072	MDL	35	MRL	mg/Kg	J	Z
COBALT	7.9	J	0.0063	MDL	20	MRL	mg/Kg	J	Z
LEAD	21	J	0.017	MDL	32	MRL	mg/Kg	J	Z
MOLYBDENUM	0.85	J	0.017	MDL	5.0	MRL	mg/Kg	J	Z, Q
THALLIUM	0.16	J	0.0033	MDL	0.44	MRL	mg/Kg	J	Z
VANADIUM	43	J	0.036	MDL	59	MRL	mg/Kg	J	Z

Method Category: METALS

Method: 7471B

Matrix: SO

Sample ID: SL-669-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:12:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.017	J	0.0070	MDL	0.025	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8015B EFH
Matrix:	SO

Sample ID: SL-659-SA6-SB-0.0-0.5			Collected: 11/6/2012 2:50:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	2.1	J	0.99	MDL	4.9	MRL	mg/Kg	J	Z

Sample ID: SL-669-SA6-SB-0.0-0.5			Collected: 11/6/2012 9:12:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	2.0	J	1.0	MDL	5.2	MRL	mg/Kg	J	Z

Sample ID: SL-673-SA6-SB-0.0-0.5			Collected: 11/6/2012 12:55:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	2.9	J	0.99	MDL	5.0	MRL	mg/Kg	J	Z

Sample ID: SL-676-SA6-SB-0.0-0.5			Collected: 11/6/2012 1:25:00		Analysis Type: RES		Dilution: 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	4.3	J	1.9	MDL	9.5	MRL	mg/Kg	J	Z

Method Category:	SVOA
Method:	8081B
Matrix:	SO

Sample ID:SL-671-SA6-SB-0.0-0.5			Collected: 11/6/2012 10:23:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN II	0.95	J	0.29	MDL	3.3	MRL	ug/Kg	J	Z, Q
ENDOSULFAN SULFATE	0.28	U	0.28	MDL	3.3	MRL	ug/Kg	UJ	Q
ENDRIN	0.31	U	0.31	MDL	3.3	MRL	ug/Kg	UJ	Q
HEPTACHLOR	0.22	U	0.22	MDL	1.7	MRL	ug/Kg	UJ	Q

Sample ID:SL-672-SA6-SB-0.0-0.5			Collected: 11/6/2012 10:53:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 10	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	160	U	160	MDL	520	MRL	ug/Kg	UJ	C

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8082A
Matrix:	SO

Sample ID: SL-672-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:53:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	37	J	17	MDL	52	MRL	ug/Kg	J	Z

Method Category:	SVOA
Method:	8270C SIM
Matrix:	SO

Sample ID: SL-659-SA6-SB-0.0-0.5

Collected: 11/6/2012 2:50:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.1	J	0.27	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.3	J B	0.32	MDL	10	MRL	ug/Kg	U	B
ACENAPHTHENE	0.57	J	0.16	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.86	J	0.17	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	4.0	J	0.74	MDL	10	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	5.2	J	1.3	MDL	10	MRL	ug/Kg	J	Z
FLUORENE	1.0	J	0.48	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	1.4	J B	0.33	MDL	10	MRL	ug/Kg	U	B

Sample ID: SL-669-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:12:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.58	J	0.28	MDL	11	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.78	J B	0.33	MDL	11	MRL	ug/Kg	U	B
ACENAPHTHYLENE	0.25	J	0.18	MDL	11	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	1.2	MDL	11	MRL	ug/Kg	J	Z
CHRYSENE	1.4	J	1.1	MDL	11	MRL	ug/Kg	J	Z
NAPHTHALENE	0.92	J B	0.35	MDL	11	MRL	ug/Kg	U	B
PHENANTHRENE	1.7	J	1.2	MDL	11	MRL	ug/Kg	J	Z

Sample ID: SL-670-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:41:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.31	J	0.26	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.41	J B	0.31	MDL	10	MRL	ug/Kg	U	B
BENZO(G,H,I)PERYLENE	1.3	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	0.42	J B	0.33	MDL	10	MRL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-670-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:41:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENANTHRENE	1.2	J	1.1	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-671-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:23:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	6.0	J	0.73	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	8.6	J	0.91	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	7.2	J	0.75	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.5	J	1.1	MDL	10	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	3.0	J	1.0	MDL	10	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.4	J	1.3	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.9	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	9.5	JB	0.33	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-672-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:53:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.9	J	0.26	MDL	9.8	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	3.8	JB	0.30	MDL	9.8	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.87	J	0.17	MDL	9.8	MRL	ug/Kg	J	Z
ANTHRACENE	2.4	J	0.71	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	4.5	J	0.88	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	4.9	J	0.73	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.2	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	4.6	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
FLUORENE	0.64	J	0.46	MDL	9.8	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	5.4	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
NAPHTHALENE	2.6	JB	0.32	MDL	9.8	MRL	ug/Kg	J	Z
PHENANTHRENE	9.3	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z

Sample ID: SL-673-SA6-SB-0.0-0.5

Collected: 11/6/2012 12:55:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	4.0	J	0.25	MDL	9.6	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	4.4	JB	0.30	MDL	9.6	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

5/6/2013 10:47:15 AM

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8270C SIM
Matrix:	SO

Sample ID: SL-673-SA6-SB-0.0-0.5

Collected: 11/6/2012 12:55:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.82	J	0.69	MDL	9.6	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	2.6	J	0.87	MDL	9.6	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	2.1	J	0.71	MDL	9.6	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	3.1	J	1.2	MDL	9.6	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.6	J	1.1	MDL	9.6	MRL	ug/Kg	J	Z
CHRYSENE	3.7	J	0.96	MDL	9.6	MRL	ug/Kg	J	Z
FLUORANTHENE	3.4	J	0.96	MDL	9.6	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.6	J	1.1	MDL	9.6	MRL	ug/Kg	J	Z
NAPHTHALENE	2.1	J B	0.31	MDL	9.6	MRL	ug/Kg	J	Z
PYRENE	2.7	J	1.1	MDL	9.6	MRL	ug/Kg	J	Z

Sample ID: SL-675-SA6-SB-0.0-0.5

Collected: 11/6/2012 2:05:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	2.9	J	0.26	MDL	9.9	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	3.7	J B	0.31	MDL	9.9	MRL	ug/Kg	J	Z
ACENAPHTHENE	5.5	J	0.16	MDL	9.9	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	5.2	J	0.17	MDL	9.9	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.8	J	1.3	MDL	9.9	MRL	ug/Kg	J	Z
FLUORENE	2.9	J	0.46	MDL	9.9	MRL	ug/Kg	J	Z
NAPHTHALENE	3.8	J B	0.32	MDL	9.9	MRL	ug/Kg	J	Z

Sample ID: SL-676-SA6-SB-0.0-0.5

Collected: 11/6/2012 1:25:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	3.2	J	0.25	MDL	9.7	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	3.9	J B	0.30	MDL	9.7	MRL	ug/Kg	J	Z
ACENAPHTHENE	1.3	J	0.16	MDL	9.7	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	1.7	J	0.17	MDL	9.7	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	8.2	J	1.3	MDL	9.7	MRL	ug/Kg	J	Z
FLUORENE	1.5	J	0.46	MDL	9.7	MRL	ug/Kg	J	Z
NAPHTHALENE	3.0	J B	0.32	MDL	9.7	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

5/6/2013 10:47:15 AM

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: BaP EQUIVALENCE

Matrix: SO

Sample ID: SL-669-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:12:00

Analysis Type: RES/WET

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BAP EQUIVALENCE	0.0014	J	0.00074	MDL	0.0050	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

5/6/2013 10:47:15 AM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: Prep280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*#	Professional Judgment
A	ICP Serial Dilution
B	Method Blank Contamination
C	Initial Calibration Verification Percent Difference Lower Estimation
F	Equipment Blank Contamination
F	Field Blank Contamination
L	Laboratory Control Spike Upper Estimation
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35537-1

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8015B EFH Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-146685/1-A	11/12/2012 3:46:00 PM	TOTAL EFH(C8-C40)	0.785 mg/Kg	SL-659-SA6-SB-0.0-0.5 SL-669-SA6-SB-0.0-0.5 SL-670-SA6-SB-0.0-0.5 SL-671-SA6-SB-0.0-0.5 SL-672-SA6-SB-0.0-0.5 SL-673-SA6-SB-0.0-0.5 SL-675-SA6-SB-0.0-0.5 SL-676-SA6-SB-0.0-0.5

Method: 8270C SIM Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-146438/1-A	11/14/2012 7:31:00 PM	2-METHYLNAPHTHALENE NAPHTHALENE	0.364 ug/Kg 0.359 ug/Kg	SL-659-SA6-SB-0.0-0.5 SL-669-SA6-SB-0.0-0.5 SL-670-SA6-SB-0.0-0.5 SL-671-SA6-SB-0.0-0.5 SL-672-SA6-SB-0.0-0.5 SL-673-SA6-SB-0.0-0.5 SL-675-SA6-SB-0.0-0.5 SL-676-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-659-SA6-SB-0.0-0.5(RES)	2-METHYLNAPHTHALENE	1.3 ug/Kg	10U ug/Kg
SL-659-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	1.4 ug/Kg	10U ug/Kg
SL-669-SA6-SB-0.0-0.5(RES)	2-METHYLNAPHTHALENE	0.78 ug/Kg	11U ug/Kg
SL-669-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.92 ug/Kg	11U ug/Kg
SL-670-SA6-SB-0.0-0.5(RES)	2-METHYLNAPHTHALENE	0.41 ug/Kg	10U ug/Kg
SL-670-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.42 ug/Kg	10U ug/Kg

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

5/3/2013 9:51:30 AM

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Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method:	6010C
Matrix:	SO

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-110812(RES/TOT)	11/8/2012 3:00:00 PM	BORON MAGNESIUM MANGANESE STRONTIUM TITANIUM	0.0095 mg/L 0.015 mg/L 0.00054 mg/L 0.00037 mg/L 0.002 mg/L	SL-659-SA6-SB-0.0-0.5 SL-669-SA6-SB-0.0-0.5 SL-670-SA6-SB-0.0-0.5 SL-671-SA6-SB-0.0-0.5 SL-672-SA6-SB-0.0-0.5 SL-673-SA6-SB-0.0-0.5 SL-675-SA6-SB-0.0-0.5 SL-676-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-659-SA6-SB-0.0-0.5(RES/TOT)	BORON	3.9 mg/Kg	3.9U mg/Kg
SL-670-SA6-SB-0.0-0.5(RES/TOT)	BORON	3.2 mg/Kg	3.2U mg/Kg
SL-672-SA6-SB-0.0-0.5(RES/TOT)	BORON	3.8 mg/Kg	3.8U mg/Kg
SL-673-SA6-SB-0.0-0.5(RES/TOT)	BORON	4.2 mg/Kg	4.2U mg/Kg
SL-675-SA6-SB-0.0-0.5(RES/TOT)	BORON	3.4 mg/Kg	3.4U mg/Kg
SL-676-SA6-SB-0.0-0.5(RES/TOT)	BORON	3.1 mg/Kg	3.1U mg/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8081B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-672-SA6-SB-0.0-0.5MS SL-672-SA6-SB-0.0-0.5MSD (SL-672-SA6-SB-0.0-0.5)	TOXAPHENE	0	0	19.00-174.00	-	TOXAPHENE	No Qual, Diluted Out
SL-671-SA6-SB-0.0-0.5MS SL-671-SA6-SB-0.0-0.5MSD (SL-671-SA6-SB-0.0-0.5)	ENDOSULFAN II ENDOSULFAN SULFATE ENDRIN HEPTACHLOR	64 - - -	59 66 73 66	71.00-118.00 67.00-123.00 77.00-134.00 68.00-115.00	- - - -	ENDOSULFAN II ENDOSULFAN SULFATE ENDRIN HEPTACHLOR	J(all detects) UJ(all non-detects)

Method: 6020A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-669-SA6-SB-0.0-0.5MS (TOT) (SL-659-SA6-SB-0.0-0.5 SL-669-SA6-SB-0.0-0.5 SL-670-SA6-SB-0.0-0.5 SL-671-SA6-SB-0.0-0.5 SL-672-SA6-SB-0.0-0.5 SL-673-SA6-SB-0.0-0.5 SL-675-SA6-SB-0.0-0.5 SL-676-SA6-SB-0.0-0.5)	BARIUM	129	-	75.00-125.00	-	BARIUM	No Qual, >4x
SL-669-SA6-SB-0.0-0.5MS (TOT) SL-669-SA6-SB-0.0-0.5MSD (TOT) (SL-659-SA6-SB-0.0-0.5 SL-669-SA6-SB-0.0-0.5 SL-670-SA6-SB-0.0-0.5 SL-671-SA6-SB-0.0-0.5 SL-672-SA6-SB-0.0-0.5 SL-673-SA6-SB-0.0-0.5 SL-675-SA6-SB-0.0-0.5 SL-676-SA6-SB-0.0-0.5)	ANTIMONY	3	3	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects) Post Spike = 99%
SL-669-SA6-SB-0.0-0.5MS (TOT) SL-669-SA6-SB-0.0-0.5MSD (TOT) (SL-659-SA6-SB-0.0-0.5 SL-669-SA6-SB-0.0-0.5 SL-670-SA6-SB-0.0-0.5 SL-671-SA6-SB-0.0-0.5 SL-672-SA6-SB-0.0-0.5 SL-673-SA6-SB-0.0-0.5 SL-675-SA6-SB-0.0-0.5 SL-676-SA6-SB-0.0-0.5)	MOLYBDENUM	66	65	75.00-125.00	-	MOLYBDENUM	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-669-SA6-SB-0.0-0.5MS (TOT)	ALUMINUM	4704	4208	75.00-125.00	-	ALUMINUM	J(all detects)
SL-669-SA6-SB-0.0-0.5MSD (TOT)	CALCIUM	129	-	75.00-125.00	-	CALCIUM	
(SL-659-SA6-SB-0.0-0.5	IRON	2667	6114	75.00-125.00	-	IRON	
SL -669-SA6-SB-0.0-0.5	TITANIUM	491	470	75.00-125.00	-	TITANIUM	
SL -670-SA6-SB-0.0-0.5							Al, Fe, Ti, No Qual, >4x
SL -671-SA6-SB-0.0-0.5							
SL -672-SA6-SB-0.0-0.5							
SL -673-SA6-SB-0.0-0.5							
SL -675-SA6-SB-0.0-0.5							
SL -676-SA6-SB-0.0-0.5)							

Method: 8151A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-673-SA6-SB-0.0-0.5MS	2,4,5-T	-	0	24.00-115.00	-	2,4,5-T	No Qual, Diluted Out
SL-673-SA6-SB-0.0-0.5MSD	2,4,5-TP(Silvex)	-	0	53.00-134.00	-	2,4,5-TP(Silvex)	
(SL-673-SA6-SB-0.0-0.5)	2,4-D	0	0	32.00-115.00	-	2,4-D	
	2,4-DB	0	0	37.00-119.00	-	2,4-DB	
	DALAPON	-	0	11.00-115.00	-	DALAPON	
	DICAMBA	-	0	11.00-115.00	-	DICAMBA	
	DICHLOROPROP	-	0	35.00-115.00	-	DICHLOROPROP	
	DINOSEB	0	0	5.00-166.00	-	DINOSEB	
	MCPA	0	0	37.00-115.00	-	MCPA	
	MCPD	0	0	48.00-132.00	-	MCPD	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8151A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS 280-147084/2-A	2,4,5-T	117	-	24.00-115.00	-	2,4,5-T	J (all detects)
(SL-671-SA6-SB-0.0-0.5	2,4-D	128	-	32.00-115.00	-	2,4-D	
SL-672-SA6-SB-0.0-0.5	DICHLOROPROP	124	-	35.00-115.00	-	DICHLOROPROP	
SL-673-SA6-SB-0.0-0.5)	MCPA	117	-	37.00-115.00	-	MCPA	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-659-SA6-SB-0.0-0.5	ALUMINUM	J	12000	20000	MRL	mg/Kg	J (all detects)
	BORON	J	3.9	9.6	MRL	mg/Kg	
	LITHIUM	J	12	37	MRL	mg/Kg	
	MANGANESE	J	240	490	MRL	mg/Kg	
	POTASSIUM	J	2800	6300	MRL	mg/Kg	
	SODIUM	J	140	500	MRL	mg/Kg	
	TIN	J	3.0	11	MRL	mg/Kg	
	Zirconium	J	1.9	8.5	MRL	mg/Kg	
SL-669-SA6-SB-0.0-0.5	BORON	J	5.9	9.7	MRL	mg/Kg	J (all detects)
	LITHIUM	J	19	37	MRL	mg/Kg	
	MANGANESE	J	370	500	MRL	mg/Kg	
	POTASSIUM	J	4300	6400	MRL	mg/Kg	
	SODIUM	J	110	500	MRL	mg/Kg	
	TIN	J	3.6	11	MRL	mg/Kg	
	Zirconium	J	3.9	8.6	MRL	mg/Kg	
SL-670-SA6-SB-0.0-0.5	ALUMINUM	J	14000	20000	MRL	mg/Kg	J (all detects)
	BORON	J	3.2	9.9	MRL	mg/Kg	
	LITHIUM	J	9.5	38	MRL	mg/Kg	
	MANGANESE	J	280	500	MRL	mg/Kg	
	POTASSIUM	J	2500	6500	MRL	mg/Kg	
	SODIUM	J	130	510	MRL	mg/Kg	
	TIN	J	2.5	11	MRL	mg/Kg	
	Zirconium	J	2.3	8.8	MRL	mg/Kg	
SL-671-SA6-SB-0.0-0.5	BORON	J	5.9	10	MRL	mg/Kg	J (all detects)
	LITHIUM	J	21	39	MRL	mg/Kg	
	MANGANESE	J	340	520	MRL	mg/Kg	
	POTASSIUM	J	4500	6800	MRL	mg/Kg	
	SODIUM	J	92	530	MRL	mg/Kg	
	TIN	J	4.0	12	MRL	mg/Kg	
	Zirconium	J	3.7	9.1	MRL	mg/Kg	
SL-672-SA6-SB-0.0-0.5	ALUMINUM	J	16000	20000	MRL	mg/Kg	J (all detects)
	BORON	J	3.8	9.9	MRL	mg/Kg	
	LITHIUM	J	24	38	MRL	mg/Kg	
	MANGANESE	J	300	510	MRL	mg/Kg	
	POTASSIUM	J	4100	6500	MRL	mg/Kg	
	SODIUM	J	110	510	MRL	mg/Kg	
	TIN	J	4.2	11	MRL	mg/Kg	
	Zirconium	J	1.5	8.8	MRL	mg/Kg	
SL-673-SA6-SB-0.0-0.5	ALUMINUM	J	17000	20000	MRL	mg/Kg	J (all detects)
	BORON	J	4.2	9.8	MRL	mg/Kg	
	LITHIUM	J	17	37	MRL	mg/Kg	
	MANGANESE	J	290	500	MRL	mg/Kg	
	POTASSIUM	J	3600	6400	MRL	mg/Kg	
	SODIUM	J	120	500	MRL	mg/Kg	
	TIN	J	3.6	11	MRL	mg/Kg	
	Zirconium	J	2.8	8.6	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-675-SA6-SB-0.0-0.5	ALUMINUM	J	15000	19000	MRL	mg/Kg	J (all detects)
	BORON	J	3.4	9.4	MRL	mg/Kg	
	LITHIUM	J	22	36	MRL	mg/Kg	
	MANGANESE	J	340	480	MRL	mg/Kg	
	POTASSIUM	J	3400	6200	MRL	mg/Kg	
	SODIUM	J	140	480	MRL	mg/Kg	
	TIN	J	5.0	11	MRL	mg/Kg	
SL-676-SA6-SB-0.0-0.5	Zirconium	J	2.0	8.3	MRL	mg/Kg	J (all detects)
	ALUMINUM	J	15000	20000	MRL	mg/Kg	
	BORON	J	3.1	9.9	MRL	mg/Kg	
	LITHIUM	J	21	38	MRL	mg/Kg	
	MANGANESE	J	370	510	MRL	mg/Kg	
	POTASSIUM	J	3400	6500	MRL	mg/Kg	
	SODIUM	J	150	510	MRL	mg/Kg	
	TIN	J	5.3	11	MRL	mg/Kg	
	Zirconium	J	1.9	8.8	MRL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-659-SA6-SB-0.0-0.5	ANTIMONY	J	0.018	8.2	MRL	mg/Kg	J (all detects)
	ARSENIC	J	2.6	14	MRL	mg/Kg	
	BARIUM	J	82	130	MRL	mg/Kg	
	BERYLLIUM	J	0.37	1.0	MRL	mg/Kg	
	CADMIUM	J	0.68	0.95	MRL	mg/Kg	
	CHROMIUM	J	17	35	MRL	mg/Kg	
	COBALT	J	5.2	20	MRL	mg/Kg	
	COPPER	J	12	27	MRL	mg/Kg	
	LEAD	J	7.1	32	MRL	mg/Kg	
	MOLYBDENUM	J	0.49	5.0	MRL	mg/Kg	
	NICKEL	J	18	27	MRL	mg/Kg	
	THALLIUM	J	0.16	0.43	MRL	mg/Kg	
	VANADIUM	J	26	59	MRL	mg/Kg	
	ZINC	J	56	100	MRL	mg/Kg	
SL-669-SA6-SB-0.0-0.5	ANTIMONY	J	0.015	8.6	MRL	mg/Kg	J (all detects)
	ARSENIC	J	4.8	15	MRL	mg/Kg	
	BARIUM	J	120	140	MRL	mg/Kg	
	BERYLLIUM	J	0.78	1.1	MRL	mg/Kg	
	CADMIUM	J	0.52	0.99	MRL	mg/Kg	
	CHROMIUM	J	28	36	MRL	mg/Kg	
	COBALT	J	9.1	21	MRL	mg/Kg	
	COPPER	J	15	29	MRL	mg/Kg	
	LEAD	J	8.0	34	MRL	mg/Kg	
	MOLYBDENUM	J	0.26	5.2	MRL	mg/Kg	
	NICKEL	J	19	29	MRL	mg/Kg	
	SILVER	J	0.046	0.78	MRL	mg/Kg	
	THALLIUM	J	0.31	0.45	MRL	mg/Kg	
	VANADIUM	J	49	61	MRL	mg/Kg	
	ZINC	J	65	110	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-670-SA6-SB-0.0-0.5	ANTIMONY	J	0.014	8.9	MRL	mg/Kg	J (all detects)
	ARSENIC	J	2.7	15	MRL	mg/Kg	
	BARIUM	J	99	140	MRL	mg/Kg	
	BERYLLIUM	J	0.39	1.1	MRL	mg/Kg	
	CADMIUM	J	0.42	1.0	MRL	mg/Kg	
	CHROMIUM	J	16	37	MRL	mg/Kg	
	COBALT	J	5.3	21	MRL	mg/Kg	
	COPPER	J	11	30	MRL	mg/Kg	
	LEAD	J	3.9	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.44	5.4	MRL	mg/Kg	
	NICKEL	J	11	30	MRL	mg/Kg	
	SILVER	J	0.030	0.81	MRL	mg/Kg	
	THALLIUM	J	0.13	0.47	MRL	mg/Kg	
	VANADIUM	J	29	63	MRL	mg/Kg	
	ZINC	J	36	110	MRL	mg/Kg	
SL-671-SA6-SB-0.0-0.5	ANTIMONY	J	0.019	9.1	MRL	mg/Kg	J (all detects)
	ARSENIC	J	4.7	16	MRL	mg/Kg	
	BARIUM	J	120	150	MRL	mg/Kg	
	BERYLLIUM	J	0.86	1.2	MRL	mg/Kg	
	CADMIUM	J	0.60	1.0	MRL	mg/Kg	
	CHROMIUM	J	28	38	MRL	mg/Kg	
	COBALT	J	8.7	22	MRL	mg/Kg	
	COPPER	J	16	30	MRL	mg/Kg	
	LEAD	J	11	36	MRL	mg/Kg	
	MOLYBDENUM	J	0.34	5.5	MRL	mg/Kg	
	NICKEL	J	19	30	MRL	mg/Kg	
	SILVER	J	0.11	0.83	MRL	mg/Kg	
	THALLIUM	J	0.31	0.48	MRL	mg/Kg	
	VANADIUM	J	49	65	MRL	mg/Kg	
	ZINC	J	79	120	MRL	mg/Kg	
SL-672-SA6-SB-0.0-0.5	ANTIMONY	J	0.035	9.1	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.7	16	MRL	mg/Kg	
	BARIUM	J	130	150	MRL	mg/Kg	
	BERYLLIUM	J	0.61	1.1	MRL	mg/Kg	
	CHROMIUM	J	24	38	MRL	mg/Kg	
	COBALT	J	6.8	22	MRL	mg/Kg	
	COPPER	J	18	30	MRL	mg/Kg	
	LEAD	J	25	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.73	5.5	MRL	mg/Kg	
	NICKEL	J	18	30	MRL	mg/Kg	
	THALLIUM	J	0.31	0.48	MRL	mg/Kg	
	VANADIUM	J	37	65	MRL	mg/Kg	
	ZINC	J	100	110	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-673-SA6-SB-0.0-0.5	ANTIMONY	J	0.018	9.0	MRL	mg/Kg	J (all detects)
	ARSENIC	J	4.9	16	MRL	mg/Kg	
	BARIUM	J	100	140	MRL	mg/Kg	
	BERYLLIUM	J	0.59	1.1	MRL	mg/Kg	
	CADMIUM	J	0.56	1.0	MRL	mg/Kg	
	CHROMIUM	J	22	38	MRL	mg/Kg	
	COBALT	J	7.1	22	MRL	mg/Kg	
	COPPER	J	15	30	MRL	mg/Kg	
	LEAD	J	8.7	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.42	5.5	MRL	mg/Kg	
	NICKEL	J	17	30	MRL	mg/Kg	
	SILVER	J	0.22	0.82	MRL	mg/Kg	
	THALLIUM	J	0.24	0.48	MRL	mg/Kg	
	VANADIUM	J	40	64	MRL	mg/Kg	
	ZINC	J	61	110	MRL	mg/Kg	
SL-675-SA6-SB-0.0-0.5	ANTIMONY	J	0.043	8.9	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.3	15	MRL	mg/Kg	
	BARIUM	J	110	140	MRL	mg/Kg	
	BERYLLIUM	J	0.53	1.1	MRL	mg/Kg	
	CHROMIUM	J	32	38	MRL	mg/Kg	
	COBALT	J	8.6	22	MRL	mg/Kg	
	COPPER	J	22	30	MRL	mg/Kg	
	LEAD	J	21	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.90	5.4	MRL	mg/Kg	
	THALLIUM	J	0.22	0.47	MRL	mg/Kg	
	VANADIUM	J	47	64	MRL	mg/Kg	
SL-676-SA6-SB-0.0-0.5	ANTIMONY	J	0.053	8.2	MRL	mg/Kg	J (all detects)
	ARSENIC	J	2.6	14	MRL	mg/Kg	
	BARIUM	J	96	130	MRL	mg/Kg	
	BERYLLIUM	J	0.35	1.0	MRL	mg/Kg	
	CHROMIUM	J	30	35	MRL	mg/Kg	
	COBALT	J	7.9	20	MRL	mg/Kg	
	LEAD	J	21	32	MRL	mg/Kg	
	MOLYBDENUM	J	0.85	5.0	MRL	mg/Kg	
	THALLIUM	J	0.16	0.44	MRL	mg/Kg	
	VANADIUM	J	43	59	MRL	mg/Kg	

Method: 7471B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-669-SA6-SB-0.0-0.5	MERCURY	J	0.017	0.025	MRL	mg/Kg	J (all detects)

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-659-SA6-SB-0.0-0.5	EFH(C15-C20)	J	2.1	4.9	MRL	mg/Kg	J (all detects)

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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ADR version 1.7.0.207

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-669-SA6-SB-0.0-0.5	EFH(C15-C20)	J	2.0	5.2	MRL	mg/Kg	J (all detects)
SL-673-SA6-SB-0.0-0.5	EFH(C15-C20)	J	2.9	5.0	MRL	mg/Kg	J (all detects)
SL-676-SA6-SB-0.0-0.5	EFH(C15-C20)	J	4.3	9.5	MRL	mg/Kg	J (all detects)

Method: 8081B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-671-SA6-SB-0.0-0.5	ENDOSULFAN II	J	0.95	3.3	MRL	ug/Kg	J (all detects)

Method: 8082A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-672-SA6-SB-0.0-0.5	Aroclor 5460	J	37	52	MRL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-659-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	1.1	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	1.3	10	MRL	ug/Kg	
	ACENAPHTHENE	J	0.57	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.86	10	MRL	ug/Kg	
	ANTHRACENE	J	4.0	10	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	5.2	10	MRL	ug/Kg	
	FLUORENE	J	1.0	10	MRL	ug/Kg	
	NAPHTHALENE	J B	1.4	10	MRL	ug/Kg	
SL-669-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.58	11	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	0.78	11	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.25	11	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.4	11	MRL	ug/Kg	
	CHRYSENE	J	1.4	11	MRL	ug/Kg	
	NAPHTHALENE	J B	0.92	11	MRL	ug/Kg	
	PHENANTHRENE	J	1.7	11	MRL	ug/Kg	
SL-670-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.31	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	0.41	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.3	10	MRL	ug/Kg	
	NAPHTHALENE	J B	0.42	10	MRL	ug/Kg	
	PHENANTHRENE	J	1.2	10	MRL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-671-SA6-SB-0.0-0.5	ANTHRACENE	J	6.0	10	MRL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	8.6	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	7.2	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	6.5	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	3.0	10	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.4	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.9	10	MRL	ug/Kg	
	NAPHTHALENE	J B	9.5	10	MRL	ug/Kg	
SL-672-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	1.9	9.8	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	3.8	9.8	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.87	9.8	MRL	ug/Kg	
	ANTHRACENE	J	2.4	9.8	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	4.5	9.8	MRL	ug/Kg	
	BENZO(A)PYRENE	J	4.9	9.8	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	6.2	9.8	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	4.6	9.8	MRL	ug/Kg	
	FLUORENE	J	0.64	9.8	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	5.4	9.8	MRL	ug/Kg	
	NAPHTHALENE	J B	2.6	9.8	MRL	ug/Kg	
	PHENANTHRENE	J	9.3	9.8	MRL	ug/Kg	
SL-673-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	4.0	9.6	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	4.4	9.6	MRL	ug/Kg	
	ANTHRACENE	J	0.82	9.6	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	2.6	9.6	MRL	ug/Kg	
	BENZO(A)PYRENE	J	2.1	9.6	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	3.1	9.6	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.6	9.6	MRL	ug/Kg	
	CHRYSENE	J	3.7	9.6	MRL	ug/Kg	
	FLUORANTHENE	J	3.4	9.6	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.6	9.6	MRL	ug/Kg	
	NAPHTHALENE	J B	2.1	9.6	MRL	ug/Kg	
	PYRENE	J	2.7	9.6	MRL	ug/Kg	
SL-675-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	2.9	9.9	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	3.7	9.9	MRL	ug/Kg	
	ACENAPHTHENE	J	5.5	9.9	MRL	ug/Kg	
	ACENAPHTHYLENE	J	5.2	9.9	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	3.8	9.9	MRL	ug/Kg	
	FLUORENE	J	2.9	9.9	MRL	ug/Kg	
	NAPHTHALENE	J B	3.8	9.9	MRL	ug/Kg	
SL-676-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	3.2	9.7	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	3.9	9.7	MRL	ug/Kg	
	ACENAPHTHENE	J	1.3	9.7	MRL	ug/Kg	
	ACENAPHTHYLENE	J	1.7	9.7	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	8.2	9.7	MRL	ug/Kg	
	FLUORENE	J	1.5	9.7	MRL	ug/Kg	
	NAPHTHALENE	J B	3.0	9.7	MRL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35537-1

Laboratory: TA DEN

EDD Filename: 280-35537-1

eQAPP Name: CDM_SSFL_120907_TA

Method: BaP EQUIVALENCE

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-669-SA6-SB-0.0-0.5	BAP EQUIVALENCE	J	0.0014	0.0050	MRL	ug/Kg	J (all detects)

LDC #: 29648A4
 SDG #: 280-35537-1
 Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET ADR

Date: 5/3/13
 Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/6/12
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	-	
VI.	Matrix Spike Analysis	N	MS/D (Al, Fe, Ti, Ba 74x) (Sb QS=99%)(J/L)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	-	
XV.	Field Blanks	SW	FB= FB-062012 EB= EB-110812

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

(12F146)
 D = Duplicate
 TB = Trip blank
 EB = Equipment blank

(280-35658-1)

Validated Samples:

** Level 4

1	SL-669-SA6-SB-0.0-0.5	11		21		31	
2	SL-670-SA6-SB-0.0-0.5	12		22		32	
3	SL-671-SA6-SB-0.0-0.5	13		23		33	
4	SL-673-SA6-SB-0.0-0.5	14		24		34	
5	SL-676-SA6-SB-0.0-0.5	15		25		35	
6	SL-659-SA6-SB-0.0-0.5	16		26		36	
7	SL-675-SA6-SB-0.0-0.5	17		27		37	
8	SL-669-SA6-SB-0.0-0.5MS	18		28		38	
9	SL-669-SA6-SB-0.0-0.5MSD	19		29		39	
10	SL-672-SA6-SB-0.0-0.5	20		30		40	

Notes: _____

VALIDATION FINDINGS WORKSHEET Field Blanks

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L Associated sample units: mg/Kg Reason: F

Sampling date: EB=11/8/12 / 10-6-12 Soil factor applied 100x

Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All

Analyte	Blank ID	Blank ID	Sample Identification										
			FB-062012	EB-110812	Action Limit	1	2	3	4	5	6	7	10
Al	0.0271				13.55								
B	0.00916	0.0095			4.75	5.9	3.2	5.9	4.2	3.1	3.9	3.4	3.8
Ca	0.0438				21.9								
Cu	0.00112				0.56								
Mg		0.015			7.5								
Mn		0.00054			0.25								
Sr		0.00037			0.185								
Ti		0.0020			1								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Q1 N N/A If analyte concentrations were > 50X the MDL (ICP) or >100X the MDL (ICP/MS), was a serial dilution analyzed?

Q2 Y(N) N/A Were ICP serial dilution percent differences (%D) ≤10%?

Q3 Y(N) N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

[illegible]

SDILICPMS.wpd

Enclosure II

Level IV Validation Reports

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory
Collection Date: November 6, 2012
LDC Report Date: May 6, 2013
Matrix: Soil
Parameters: Polynuclear Aromatic Hydrocarbons
Validation Level: Level IV
Laboratory: TestAmerica, Inc.
Sample Delivery Group (SDG): 280-35537-1

Sample Identification

SL-672-SA6-SB-0.0-0.5

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C using Selected Ion Monitoring (SIM) for Polynuclear Aromatic Hydrocarbons.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polynuclear aromatic hydrocarbon contaminants were found in the method with the following exceptions:

Method Blank ID	Extraction Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
MB 280-146438	11/8/12	2-Methylnaphthalene Naphthalene	0.364 ug/Kg 0.359 ug/Kg	All samples in SDG 280-35537-1

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks.

Sample EB-110812 (from SDG 280-35658-1) was identified as an equipment blank. No polynuclear aromatic hydrocarbon contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-110812	11/8/12	Naphthalene Phenanthrene Pyrene	0.028 ug/L 0.012 ug/L 0.10 ug/L	All samples in SDG 280-35537-1

Sample FB-062012 (from SDG 12F146) was identified as a field blank. No polynuclear aromatic hydrocarbon contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-062012	6/20/12	Naphthalene	0.26 ug/L	All samples in SDG 280-35537-1

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation

All compound quantitation were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 280-35537-1	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Polynuclear Aromatic Hydrocarbons - Data Qualification Summary - SDG 280-35537-1

SDG	Sample	Compound	Flag	A or P	Reason (Code)
280-35537-1	SL-672-SA6-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Polynuclear Aromatic Hydrocarbons - Laboratory Blank Data Qualification Summary - SDG 280-35537-1

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polynuclear Aromatic Hydrocarbons - Field Blank Data Qualification Summary - SDG 280-35537-1

No Sample Data Qualified in this SDG

METHOD: GC/MS Polynuclear Aromatic Hydrocarbons (EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/16/12
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% PSD ≤ 30, 12
IV.	Continuing calibration/ICV	A	ICV/LCV ≤ 25
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	280-35537-1MS1D
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	SW	EB = EB-110812 (SDG # 280-35658-1) FB = FB-062012 (SDG # 12F146)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

2012

1	SL-672-SA6-SB-0.0-0.5	11	MB 280-146438	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	/			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	/			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	/			
Was a curve fit used for evaluation?	/			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990 ?	/			
Were all percent relative standard deviations (%RSD) $\leq 30\%$ 15% and relative response factors (RRF) ≥ 0.05 ?	/			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	/			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	/			
Were all percent differences (%D) $\leq 20\%$ and relative response factors (RRF) ≥ 0.05 ?	/			
V. Blanks				
Was a method blank associated with every sample in this SDG?	/			
Was a method blank analyzed for each matrix and concentration?	/			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.				
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	/			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			/	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			/	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	/			
Was a MS/MSD analyzed every 20 samples of each matrix?	/			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	/			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	/			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	☒	☐	☐	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	☒	☐	☐	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?	☐	☐	☒	
Were the performance evaluation (PE) samples within the acceptance limits?	☐	☐	☒	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	☒	☐	☐	
Were retention times within + 30 seconds from the associated calibration standard?	☒	☐	☐	
XI. Target compound identification				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	☒	☐	☐	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	☒	☐	☐	
Were chromatogram peaks verified and accounted for?	☒	☐	☐	
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	☒	☐	☐	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	☒	☐	☐	
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	☐	☐	☒	
Were relative intensities of the major ions within $\pm 20\%$ between the sample and the reference spectra?	☐	☐	☒	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	☐	☐	☒	
XIV. System performance				
System performance was found to be acceptable.	☒	☐	☐	
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	☒	☐	☐	
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	☐	☒	☐	
Target compounds were detected in the field duplicates.	☐	☐	☒	
XVII. Field blanks				
Field blanks were identified in this SDG.	☒	☒	☒	P7
Target compounds were detected in the field blanks.	☒	☐	☒	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS SVOA

A. Phenol	T. 4-Chloroaniline	MM. 4-Chlorophenyl-phenyl ether	FFF. Di-n-octylphthalate	YYY. 2,3,5-Trimethylnaphthalene
B. Bis (2-chloroethyl) ether	U. Hexachlorobutadiene	NN. Fluorene	GGG. Benzo(b)fluoranthene	ZZZ. Perylene
C. 2-Chlorophenol	V. 4-Chloro-3-methylphenol	OO. 4-Nitroaniline	HHH. Benzo(k)fluoranthene	AAAA. Dibenzothiophene
D. 1,3-Dichlorobenzene	W. 2-Methylnaphthalene	PP. 4,6-Dinitro-2-methylphenol	III. Benzo(a)pyrene	BBBB. Benzo(a)fluoranthene
E. 1,4-Dichlorobenzene	X. Hexachlorocyclopentadiene	QQ. N-Nitrosodiphenylamine	JJJ. Indeno(1,2,3-cd)pyrene	CCCC. Benzo(b)fluorene
F. 1,2-Dichlorobenzene	Y. 2,4,6-Trichlorophenol	RR. 4-Bromophenyl-phenylether	KKK. Dibenz(a,h)anthracene	DDDD. cis/trans-Decalin
G. 2-Methylphenol	Z. 2,4,5-Trichlorophenol	SS. Hexachlorobenzene	LLL. Benzo(g,h,i)perylene	EEEE. Biphenyl
H. 2,2'-Oxybis(1-chloropropane)	AA. 2-Chloronaphthalene	TT. Pentachlorophenol	MMM. Bis(2-Chloroisopropyl)ether	FFFF. Retene
I. 4-Methylphenol	BB. 2-Nitroaniline	UU. Phenanthrene	NNN. Aniline	GGGG. C30-Hopane
J. N-Nitroso-di-n-propylamine	CC. Dimethylphthalate	VV. Anthracene	OOO. N-Nitrosodimethylamine	HHHH. 1-Methylphenanthrene
K. Hexachloroethane	DD. Acenaphthylene	WW. Carbazole	PPP. Benzoic Acid	III. 1,4-Dioxane
L. Nitrobenzene	EE. 2,6-Dinitrotoluene	XX. Di-n-butylphthalate	QQQ. Benzyl alcohol	JJJJ. Acetophenone
M. Isophorone	FF. 3-Nitroaniline	YY. Fluoranthene	RRR. Pyridine	KKKK. Atrazine
N. 2-Nitrophenol	GG. Acenaphthene	ZZ. Pyrene	SSS. Benzidine	LLLL. Benzaldehyde
O. 2,4-Dimethylphenol	HH. 2,4-Dinitrophenol	AAA. Butylbenzylphthalate	TTT. 1-Methylnaphthalene	MMMM. Caprolactam
P. Bis(2-chloroethoxy)methane	II. 4-Nitrophenol	BBB. 3,3'-Dichlorobenzidine	UUU. Benzo(b)thiophene	NNNN.
Q. 2,4-Dichlorophenol	JJ. Dibenzofuran	CCC. Benzo(a)anthracene	VVV. Benzonaphthothiophene	OOOO.
R. 1,2,4-Trichlorobenzene	KK. 2,4-Dinitrotoluene	DDD. Chrysene	WWW. Benzo(e)pyrene	PPPP.
S. Naphthalene	LL. Diethylphthalate	EEE. Bis(2-ethylhexyl)phthalate	XXX. 2,6-Dimethylnaphthalene	QQQQ.

Blanks

Conc. units: ug/kg Associated Samples: _____

Conc. units: $\frac{\text{mg}}{\text{kg}}$

Conc. units: mg/kg[illegible]

Conc. units: _____ Associated Samples: _____

[illegible]

Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 29648A2b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: FT
2nd Reviewer: [Signature]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$$RRF = (A_x)(C_{is})/(A_{is})(C_x)$$

average RRF = sum of the RRFs/number of standards
%RSD = $100 * (S/X)$

$$A_x$$
 = Area of compound,
 C_x = Concentration of compound,
 S = Standard deviation of the RRFs,
 A_{is} = Area of associated internal standard
 C_{is} = Concentration of internal standard
 X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported		Recalculated		Reported		Recalculated	
				RRF (600 std)	RRF (600 std)	RRF (600 std)	Average RRF (initial)	Average RRF (initial)	%RSD	Average RRF (initial)	%RSD
1	1CAL	10/11/12	S	1.7343	1.7343	1.7343	1.8107	1.8107	5.6	1.8107	5.6
			UM	1.0725	1.0725	1.0725	1.1211	1.1211	5.2	1.1211	5.2
			DDD	0.9498	0.9498	0.9498	0.9924	0.9924	6.8	0.9924	6.8
2											
3											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29648A26

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results VerificationPage: 1 of 1
Reviewer: BR-F7
2nd Reviewer: [Signature]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

$$\% \text{ Difference} = 100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$$
$$\text{RRF} = (A_x)(C_b) / (A_b)(C_x)$$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF

A_x = Area of compound,
 C_x = Concentration of compound,
 A_b = Area of associated internal standard
 C_b = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	16A F7	11/14/12	S	1.8107	1.756	3.0	1.756	3.0
	acv 18:40		uv	1.1211	1.096	2.3	1.096	2.3
			DD	0.9924	0.9527	4.0	0.9527	4.0
2								
3								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET **Surrogate Results Verification**

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate SpikedSample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	500	452.8	91	91	0
2-Fluorobiphenyl	↓	404.7	81	81	↓
Terphenyl-d14	↓	489.4	98	98	↓
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

MS/MSD samples: 280 - 35537 - 14510

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29648A26

VALIDATION FINDINGS WORKSHEET

Page: 1 of 1

Reviewer: FT

2nd Reviewer: ~~SA~~

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = $100 * (SC/SA)$

Where: SSC = Spike concentration

SA = Spike added

RPD = $|(LCSC - LCSDC) * 2 / (LCSC + LCSDC)|$

LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS 280-146438

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS		LCSD		Percent Recovery		LCS		Percent Recovery		LCSD		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Phenol																		
N-Nitroso-di-n-propylamine																		
4-Chloro-3-methylphenol																		
Acenaphthene	27.9	NA	26.8	NA	96	96												
Pentachlorophenol																		
Pyrene	27.9	↓	24.8	↓	89	89												

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory

Collection Date: November 6, 2012

LDC Report Date: May 6, 2013

Matrix: Soil

Parameters: Chlorinated Pesticides

Validation Level: Level IV

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 280-35537-1

Sample Identification

SL-672-SA6-SB-0.0-0.5

SL-672-SA6-SB-0.0-0.5MS

SL-672-SA6-SB-0.0-0.5MSD

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
11/15/12	ICV	CLP1	Toxaphene	44.0	SL-672-SA6-SB-0.0-0.5	J (all detects) UJ (all non-detects)	A
11/15/12	ICV	CLP2	Toxaphene	32.14	SL-672-SA6-SB-0.0-0.5	J (all detects) UJ (all non-detects)	A
11/1/12	ICV	CLP1	Toxaphene	46.7	SL-672-SA6-SB-0.0-0.5MS SL-672-SA6-SB-0.0-0.5MSD MB-280-146543	J (all detects) UJ (all non-detects)	A

Retention times (RT) of all compounds in the calibration standards were within QC limits.

The individual 4,4'-DDT and Endrin breakdowns (%BD) were less than or equal to 15.0%.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

Sample EB-110812 (from SDG 280-35658-1) was identified as an equipment blank. No chlorinated pesticide contaminants were found.

Sample FB-162012 (from SDG 12F146) was identified as a field blank. No chlorinated pesticide contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for sample SL-672-SA6-SB-0.0-0.5. Since the sample was diluted out, no data were qualified.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within the QC limits. Since the samples were diluted out, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation

All compound quantitations were within validation criteria .

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 280-35537-1	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Chlorinated Pesticides - Data Qualification Summary - SDG 280-35537-1

SDG	Sample	Compound	Flag	A or P	Reason (Code)
280-35537-1	SL-672-SA6-SB-0.0-0.5	Toxaphene	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV%D) (A)
280-35537-1	SL-672-SA6-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 280-35537-1

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Chlorinated Pesticides - Field Blank Data Qualification Summary - SDG 280-35537-1

No Sample Data Qualified in this SDG

LDC #: 29648A3a
 SDG #: 280-35537-1
 Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET Level IV

Date: 5/3/13
 Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: GC Chlorinated Pesticides (EPA SW846 Method 8081A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/30/12
II.	GC/ECD Instrument Performance Check	A	
III.	Initial calibration	A	r ²
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	SW	280 - 35537-6MS/D no Ass sample
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation/RL/LOQ/LODs	A	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	ND	EB = EB-110812 (SDG # 280-35658-1) FB = FB-062012 (SDG # 12F146)

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples:
 5012

1	SL-672-SA6-SB-0.0-0.5	11	MB 280-146543	21		31	
2	SL-672-SA6-SB-0.0-0.5MS	12		22		32	
3	SL-672-SA6-SB-0.0-0.5MSD	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

Method: Pesticides/PCBs (EPA SW 846 Method 8081A/8082)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	☒	☐	☐	
Cooler temperature criteria was met.	☒	☐	☐	
II. GC/ECD Instrument performance check				
Was the instrument performance found to be acceptable?	☒	☐	☐	
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	☒	☐	☐	
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) $\leq 20\%$?	☐	☐	☒	
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?	☒	☐	☐	
Did the initial calibration meet the curve fit acceptance criteria?	☒	☐	☐	
Were the RT windows properly established?	☒	☐	☐	
Were the required standard concentrations analyzed in the initial calibration?	☒	☐	☐	
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ____%D or ____%R	☒	☐	☐	
Were Evaluation mix standards analyzed prior to the initial calibration and sample analysis?	☒	☐	☐	
Were endrin and 4,4'-DDT breakdowns $\leq 15\%$ for individual breakdown in the Evaluation mix standards?	☒	☐	☐	
Was a continuing calibration analyzed daily?	☒	☐	☐	
Were all percent differences (%D) $\leq 20\%$?	☐	☒	☐	
Were all the retention times within the acceptance windows?	☒	☐	☐	
V. Blanks				
Was a method blank associated with every sample in this SDG?	☒	☐	☐	
Was a method blank analyzed for each matrix and concentration?	☒	☐	☐	
Were extract cleanup blanks analyzed with every batch requiring clean-up?	☐	☐	☒	
Was there contamination in the method blanks or clean-up blanks? If yes, please see the Blanks validation completeness worksheet.	☐	☒	☐	
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	☒	☐	☐	
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?	☐	☐	☒	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	☐	☐	☒	

Validation Area	Yes	No	NA	Findings/Comments
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	☒	☐	☐	
Was a MS/MSD analyzed every 20 samples of each matrix?	☒	☐	☐	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	☐	☒	☐	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	☒	☐	☐	
Was an LCS analyzed per extraction batch?	☒	☐	☐	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	☒	☐	☐	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?	☐	☐	☒	
Were the performance evaluation (PE) samples within the acceptance limits?	☐	☐	☒	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	☒	☐	☐	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions, dry weight factors, and clean-up activities applicable to level IV validation?	☒	☐	☐	
XII. System performance				
System performance was found to be acceptable.	☒	☐	☐	
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	☒	☐	☐	
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	☐	☒	☐	
Target compounds were detected in the field duplicates.	☐	☐	☒	
XV. Field blanks				
Field blanks were identified in this SDG.	☒	☐	☐	
Target compounds were detected in the field blanks.	☐	☒	☐	

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPASW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG.
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH.
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II.
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ.
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. DB 608	KK.
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. DB 1701	LL.
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE.	MM.
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF.	NN.

Notes:

VALIDATION FINDINGS WORKSHEET

Continuing Calibration

METHOD: GC HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were continuing calibration standards analyzed at the required frequencies?

Y N N/A Did the continuing calibration standards meet the %D validation criteria of $\leq 20.0\%$?

Level IV Only

Y N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

Were continuing calibration standards analyzed at the required frequencies?
Y/N N/A

Did the continuing calibration standards meet the %D validation criteria of <20.0%?
Y/N N/A

Level IV Only

Were the retention times for all calibrated compounds within their respective acceptance windows?

[illegible]

VALIDATION FINDINGS WORKSHEET

Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: F7
2nd Reviewer: A

METHOD: ☒ GC ☐ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y	N	N/A
---	---	-----

N	N/A	Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?
---	-----	--

Y	N	N/A	Were the MSMSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?
---	---	-----	---

[illegible]

LDC # 29648A39VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: FJ
2nd Reviewer: SX

METHOD: 8081A

Parameter: endosulfan 1

Date	Instrument	Compound	Y	X	X^2
11/09/2012	CLP1	endosulfan 1	3080899.00	2	
			13185389.00	10	
			31392841.00	25	
			59452824.00	50	
			84938762.00	75	
			110010953.00	100	

Regression Output:		Regression Output:	Reported
Constant		2768026.82927	
Std Err of Y Est		1846787.07937	
R Squared		0.99845	0.99700
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)	1.090E+006		
Std Err of Coef.	21449.148863	0.00	

LDC # 29648A39VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: FJ
2nd Reviewer: GA

METHOD: 8081A

Parameter: ~~F1 endosulfan~~ methoxychlor

Date	Instrument	Compound	Y	X	X^2
11/09/2012	CLP1	methoxychlor	1204285.00	2	
			5222762.00	10	
			12215824.00	25	
			23523189.00	50	
			34144987.00	75	
			44397375.00	100	

Regression Output:		Regression Output:	Reported
Constant		881166.00625	
Std Err of Y Est		532888.02936	
R Squared		0.99921	0.99800
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)	4.405E+005		
Std Err of Coef.	6189.124235	0.00	

LDC # 29648A 39VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: FJ
2nd Reviewer: R

METHOD: 8081A

Parameter: methoxychlor

Date	Instrument	Compound	Y	X	X^2
11/09/2012	CLP2	methoxychlor	560487.00	2	
			2593902.00	10	
			6156917.00	25	
			12349695.00	50	
			18161544.00	75	
			24323158.00	100	

Regression Output:		Regression Output:	Reported
Constant		136319.15207	
Std Err of Y Est		90633.41701	
R Squared		0.99992	1.00000
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)	2.417E+005		
Std Err of Coef.	1052.644171	0.00	

LDC # 29648A39VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: [Signature]
2nd Reviewer: [Signature]

METHOD: 8081A

Parameter: endosulfan 1

Date	Instrument	Compound	Y	X	X^2
11/09/2012	CLP2	endosulfan 1	1875399.00	2	
			8263407.00	10	
			20095710.00	25	
			39227139.00	50	
			57033208.00	75	
			74449140.00	100	

Regression Output:		Regression Output:	Reported
Constant		1105957.07163	
Std Err of Y Est		809970.20658	
R Squared		0.99936	0.99900
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)	7.416E+005		
Std Err of Coef.	9407.241219	0.00	

LDC # 29648A39VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: [Signature]
2nd Reviewer: [Signature]

METHOD: 8081A

Parameter: endosulfan 1

Date	Instrument	Compound	Y	X	X^2
11/15/2012	clp1	endosulfan 1	2702679.00	2	
			12303737.00	10	
			29197837.00	25	
			55353000.00	50	
			79788412.00	75	
			102463954.00	100	

Regression Output:		Regression Output:	Reported
Constant		2491423.98696	
Std Err of Y Est		1811207.75801	
R Squared		0.99830	0.99700
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)	1.019E+006		
Std Err of Coef.	21035.919764	0.00	

LDC # 29648A39VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: FP
2nd Reviewer: QA

METHOD: 8081A

Parameter: methoxychlor

Date	Instrument	Compound	Y	X	X^2
11/15/2012	clp1	methoxychlor	1102828.00	2	
			4748203.00	10	
			11252193.00	25	
			21676387.00	50	
			31010237.00	75	
			40384130.00	100	

Regression Output:		Regression Output:	Reported
Constant		879588.81700	
Std Err of Y Est		588139.02611	
R Squared		0.99884	0.99800
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)	4.004E+005		
Std Err of Coef.	6830.826176	0.00	

LDC # 29648A39VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: FJ
2nd Reviewer: R

METHOD: 8081A

Parameter: methoxychlor

Date	Instrument	Compound	Y	X	X^2
11/15/2012	clp2	methoxychlor	592281.00	2	
			2562966.00	10	
			6262979.00	25	
			11928062.00	50	
			17878928.00	75	
			23665547.00	100	

Regression Output:		Regression Output:	Reported
Constant		226590.11214	
Std Err of Y Est		104316.78449	
R Squared		0.99989	1.00000
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)	2.349E+005		
Std Err of Coef.	1211.566977	0.00	

LDC # 29648439VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: FJ
2nd Reviewer: SA

METHOD: 8081A

Parameter: endosulfan 1

Date	Instrument	Compound	Y	X	X^2
11/15/2012	clp2	endosulfan 1	1643575.00	2	
			7325348.00	10	
			17574841.00	25	
			34139383.00	50	
			50484730.00	75	
			66088728.00	100	

Regression Output:		Regression Output:	Reported
Constant		810513.52653	
Std Err of Y Est		473703.94906	
R Squared		0.99972	0.99900
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)	6.580E+005		
Std Err of Coef.	5501.742260	0.00	

LDC #: 29648439

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1

Reviewer: F7

2nd Reviewer: R

METHOD: GC HPLC

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

 $\% \text{ Difference} = 100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$

Where: ave. CF = initial calibration average CF

CF = continuing calibration CF

A = Area of compound

C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (Ical) / CCV Conc.	Reported		Recalculated	
					CF / Conc. CCV	%D	CF / Conc. CCV	%D
1	00V 13:56	11/14/12	endosulfan / methoxychlor	50.0	48.1	3.8	48.1	3.8
	CLP1				45.8	8.4	45.8	8.4
2	CLP2		↓	50.0	46.3	7.3	46.3	7.3
					50.0	0	50.0	0
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

METHOD: GC Pesticides (EPA SW 846 Method 8081)

Surrogate Results Verification

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found

SS = Surrogate Spiked

Sample ID: # / 10XD L

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
OCB	CLP1	2.0	1.72	86	84	0
TCMX	↓	2.0	1.72	86	86	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

 $\% \text{Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$

SSC = Spiked sample concentration

SA = Spike added

SC = Sample concentration

 $\text{RPD} = (((\text{SSCMS} - \text{SSCMSD}) * 2) / (\text{SSCMS} + \text{SSCMSD})) * 100$

MSD = Matrix spike duplicate

MS/MSD samples: 2 4 3

Compound	Spike Added		Sample Conc.		Spike Sample Concentration		Matrix spike		Matrix Spike Duplicate		MS/MSD	
	MS	MSD	---	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)												
Diesel (8015)												
Benzene (8021B)												
Methane (RSK-175)												
2,4-D (8151)												
Dinoseb (8151)												
Naphthalene (8310)												
Anthracene (8310)												
HMX (8330)												
2,4,6-Trinitrotoluene (8330)												
Toxaphene	result		was		diluted	out	10 X DL					

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

METHOD: GC Pesticides (EPA SW 846 method 8081)

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

$$\% \text{Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$$

Where SSC = Spiked sample concentration

SC = Sample concentration

$$RPD = ((SSCLCS - SSCLCSD)^2) / (SSCLCS + SSCLCSD) * 100$$

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCS 280 - 146543

[illegible]

Comments: Refer to Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET

Page: 1 of 1
Reviewer: F7
2nd Reviewer: Q

METHOD: GC Pesticides (EPA SW 846 Method 8081)

Were all reported results recalculated and verified for all level IV samples?
 Were all recalculated results for detected target compounds within 10% of the reported results?

Y N N/A
Y N N/A

Concentration = $\frac{(A)(F_v)(D_f)}{(RF)(V_s \text{ or } W_s)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound

Example: _____

Sample ID. _____ Compound Name _____

Concentration = _____

A= Area or height of the compound to be measured
FV= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound
In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

[illegible]

Comments: _____

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory

Collection Date: November 6, 2012

LDC Report Date: May 6, 2013

Matrix: Soil

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: TestAmerica, Inc..

Sample Delivery Group (SDG): 280-35537-1

Sample Identification

SL-672-SA6-SB-0.0-0.5

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

Sample EB-110812 (from SDG 280-35658-1) was identified as an equipment blank. No polychlorinated biphenyl contaminants were found.

Sample FB-062012 (from SDG 12F146) was identified as a field blank. No polychlorinated biphenyl contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 280-35537-1	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG 280-35537-1

SDG	Sample	Compound	Flag	A or P	Reason (Code)
280-35537-1	SL-672-SA6-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 280-35537-1

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 280-35537-1

No Sample Data Qualified in this SDG

LDC #: 29648A3b

VALIDATION COMPLETENESS WORKSHEET

SDG #: 280-35537-1

Level IV

Laboratory: Test America, Inc.

Date: 5/2/13

Page: 1 of 1

Reviewer: FB2nd Reviewer: A**METHOD:** GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/36/12
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	✓
IV.	Continuing calibration/ICV	A	ICV / CW ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	280-35537-4 MS/D, 280-35537 F7
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation/RL/LOQ/LODs	A	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	ND	EB = EB - 110812 (SDG # 280-35658-1) FB = FB - 062012 (SDG # 12F146)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-672-SA6-SB-0.0-0.5	11	MB 280-146543	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 29648A3b

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: CMethod: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	☒	☐	☐	
Cooler temperature criteria was met.	☒	☐	☐	
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	☒	☐	☐	
Were all percent relative standard deviations (%RSD) < 20%?	☐	☐	☒	
Was a curve fit used for evaluation?	☒	☐	☐	
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990 ?	☒	☐	☐	
Were the RT windows properly established?	☒	☐	☐	
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	☒	☐	☐	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	☒	☐	☐	
Were all the retention times within the acceptance windows?	☒	☐	☐	
V. Blanks				
Was a method blank associated with every sample in this SDG?	☒	☐	☐	
Was a method blank analyzed for each matrix and concentration?	☒	☐	☐	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	☐	☒	☐	
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	☒	☐	☐	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	☐	☐	☒	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	☒	☐	☐	
Was a MS/MSD analyzed every 20 samples of each matrix?	☒	☐	☐	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	☒	☐	☐	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	☒	☐	☐	
Was an LCS analyzed per extraction batch?	☒	☐	☐	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	☒	☐	☐	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?	☐	☐	☒	
Were the performance evaluation (PE) samples within the acceptance limits?	☐	☐	☒	

LDC #: 29648A3b

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: FT
2nd Reviewer: ^

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	☒	☐	☐	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	☒	☐	☐	
XII. System performance				
System performance was found to be acceptable.	☒	☐	☐	
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	☒	☐	☐	
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	☐	☒	☐	
Target compounds were detected in the field duplicates.	☐	☐	☒	
XV. Field blanks				
Field blanks were identified in this SDG.	☒	☒	☐	F7
Target compounds were detected in the field blanks.	☐	☒	☒	

LDC # 29648436**VALIDATION FINDINGS WORKSHEET**
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: PJ
2nd Reviewer: Q**METHOD:** GC EPA SW 846 Method 8082A

Parameter: 1260-1

Date	Column	Compound	Y	X
10/12/2012	CLP1	1260-1	38072.000	25.0
			67534.000	50.0
			122231.000	100.0
			272891.000	250.0
			489533.000	500.0
			693064.000	750.0
			996170.000	1000.0

Regression Output:		Regression Output:	Reported
Constant		20207.93122	
Std Err of Y Est		22758.20237	
R Squared		0.99669	0.99720
No. of Observations		7.00000	
Degrees of Freedom		5.00000	
X Coefficient(s)	948.800	-1232868.06	
Std Err of Coef.	24.457152	161510.73	

LDC # 29648A3b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F7
2nd Reviewer: Q

METHOD: GC EPA SW 846 Method 8082A**Parameter:** 1254-1

Date	Column	Compound	Y	X
10/12/2012	CLP1	1254-1	26134.000	25.0
			44435.000	50.0
			80683.000	100.0
			181795.000	250.0
			332859.000	500.0
			470149.000	750.0
			672013.000	1000.0

Regression Output:		Regression Output:	Reported
Constant		12693.63126	
Std Err of Y Est		13951.11236	
R Squared		0.99729	0.99800
No. of Observations		7.00000	
Degrees of Freedom		5.00000	
X Coefficient(s)	642.696	-1232868.06	
Std Err of Coef.	14.992593	161510.73	

LDC #: 29648A36

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results VerificationPage: 1 of 1
Reviewer: F7
2nd Reviewer: SA

METHOD: GC ✓ HPLC

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

 $\% \text{ Difference} = 100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$

Where: ave. CF = initial calibration average CF

CF = continuing calibration CF

A = Area of compound

C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (Ical)/ CCV Conc.	Reported		Recalculated	
					CF/ Conc. CCV	%D	CF/ Conc. CCV	%D
1	CDN 16.39 exp1	11/14/12	PeB 1260-1	0.520	0.521	4.2	0.521	4.2
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100
Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
PcB	RxX cuP7	20	21.9073	110	110	0
TCMX		↓	18.4641	92	92	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

LDC #: 29648A36

VALIDATION FINDINGS WORKSHEET

Page: 1 of 1

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: F7

2nd Reviewer: [Signature]

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

$$\% \text{Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$$

Where SSC = Spiked sample concentration

SC = Sample concentration

SA = Spike added

$$\text{RPD} = ((\text{SSCLCS} - \text{SSCLCSD}) * 2) / (\text{SSCLCS} + \text{SSCLCSD}) * 100$$

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: 165 280 - 146543

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		LCS		LCSD		Percent Recovery		LCSD		RPD	
	LCS	LCSD		LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)															
Diesel (8015)															
Benzene (8021B)															
Methane (RSK-175)															
2,4-D (8151)															
Dinoseb (8151)															
Naphthalene (8310)															
Anthracene (8310)															
HMX (8330)															
2,4,6-Trinitrotoluene (8330)															
Aroclor 1260	64.3	NA	ND	72.0	NA	112	112	NA	NA						

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27648736VALIDATION FINDINGS WORKSHEET
Sample Calculation VerificationPage: 1 of 1
Reviewer: F7
2nd Reviewer: QMETHOD: GC HPLCY/N N/A
Y/N N/AWere all reported results recalculated and verified for all level IV samples?
Were all recalculated results for detected target compounds within 10% of the reported results?Concentration = $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$ A = Area or height of the compound to be measured
Fv = Final Volume of extract
Df = Dilution FactorRF = Average response factor of the compound
In the initial calibration

Vs = Initial volume of the sample

Ws = Initial weight of the sample

%S = Percent Solid

Example:

Sample ID. 1 Compound Name Amador 1254Concentration = 154.400.958= 161 ug/kg

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	<u>1254-1</u>				
	<u>127746</u>	<u>= 642.696(X) + 12693.6326</u>		<u>1254-1 =</u>	<u>59.67</u>
	<u>X =</u>	<u>179.015</u>		<u>-2 =</u>	<u>79.04</u>
				<u>-3 =</u>	<u>121.7</u>
	<u>179.015 (10,000)</u>	<u>= 59.67.</u>		<u>-4 =</u>	<u>218.0</u>
	<u>30.0 (1000)</u>			<u>-5 =</u>	<u>293.6</u>
					<u>154.40</u>

Comments: _____

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory

Collection Date: November 6, 2012

LDC Report Date: May 6, 2013

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 280-35537-1

Sample Identification

SL-672-SA6-SB-0.0-0.5

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6020A, 6010C, and 7471B for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
ICB/CCB	Calcium	3.95 ug/L	All samples in SDG 280-35537-1

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks.

Sample EB-110812 (from SDG 280-35658-1) was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB-110812	11/8/12	Boron Magnesium Manganese Strontium Titanium	0.0095 mg/L 0.015 mg/L 0.00054 mg/L 0.00037 mg/L 0.0020 mg/L	All samples in SDG 280-35537-1

Sample FB-062012 (from SDG 12F146) was identified as a field blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
FB-062012	6/20/12	Aluminum Boron Calcium Copper	0.0271 mg/L 0.00916 mg/L 0.0438 mg/L 0.00112 mg/L	All samples in SDG 280-35537-1

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were not detected with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-672-SA6-SB-0.0-0.5	Boron	3.8 mg/Kg	3.8U mg/Kg

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-669-SA6-SB-0.0-0.5MS/MSD (All samples in SDG 280-35537-1)	Calcium	129 (75-125)	-	-	J (all detects)	A
SL-669-SA6-SB-0.0-0.5MS/MSD (All samples in SDG 280-35537-1)	Antimony	3 (75-125)	3 (75-125)	-	J (all detects)	A
	Molybdenum	66 (75-125)	65 (75-125)	-	UJ (all non-detects) J (all detects) UJ (all non-detects)	

VII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met with the following exceptions:

Diluted Sample	Analyte	%D (Limits)	Associated Samples	Flag	A or P
SL-669-SA6-SB-0.0-0.5	Aluminum Calcium Iron Lithium Magnesium Manganese Phosphorus Potassium Strontium	13 (≤10) 14 (≤10) 15 (≤10) 12 (≤10) 11 (≤10) 12 (≤10) 11 (≤10) 11 (≤10) 14 (≤10)	All samples in SDG 280-35537-1	J (all detects) UJ (all non-detects)	A

XII. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG 280-35537-1	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG 280-35537-1

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
280-35537-1	SL-672-SA6-SB-0.0-0.5	Calcium	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(Q)
280-35537-1	SL-672-SA6-SB-0.0-0.5	Antimony Molybdenum	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(Q)
280-35537-1	SL-672-SA6-SB-0.0-0.5	Aluminum Calcium Iron Lithium Magnesium Manganese Phosphorus Potassium Strontium	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
280-35537-1	SL-672-SA6-SB-0.0-0.5	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG 280-35537-1

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG 280-35537-1

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
280-35537-1	SL-672-SA6-SB-0.0-0.5	Boron	3.8U mg/Kg	A	F

LDC #: 29648A4
 SDG #: 280-35537-1
 Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 5/3/13
 Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: Metals (EPA SW 846 Method 6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/6/12
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
XV.	Field Blanks	SW	FB = FB-062012 EB = EB-110812

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples:

501

1	SL-672-SA6-SB-0.0-0.5	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	☒	☐	☐	
Cooler temperature criteria was met.	☒	☐	☐	
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	☒	☐	☐	
Were %RSD of isotopes in the tuning solution $\leq 5\%$?	☒	☐	☐	
III. Calibration				
Were all instruments calibrated daily, each set-up time?	☒	☐	☐	
Were the proper number of standards used?	☒	☐	☐	
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	☒	☐	☐	
Were all initial calibration correlation coefficients ≥ 0.995 ?	☒	☐	☐	
IV. Blanks				
Was a method blank associated with every sample in this SDG?	☒	☐	☐	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	☒	☐	☐	
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	☒	☐	☐	
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	☒	☐	☐	
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	☒	☐	☐	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	☐	☒	☐	
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm RL$ ($\pm 2X RL$ for soil) was used for samples that were $\leq 5X$ the RL, including when only one of the duplicate sample values were $\leq 5X$ the RL.	☒	☐	☐	
VII. Laboratory control samples				
Was an LCS analyzed for this SDG?	☒	☐	☐	
Was an LCS analyzed per extraction batch?	☒	☐	☐	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	☒	☐	☐	

LDC #: 29648A9

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: gr
2nd Reviewer: ✓

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analyses have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL (ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?		✓		
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?	✓			
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.	✓			

[illegible]

Comments: Mercury by CVAA if performed

Soil preparation factor applied: 100x
Associated Samples: All

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 29648A4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: [Signature]
2nd Reviewer: [Signature]

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L Associated sample units: mg/Kg Reason: F
Sampling date: EB=11/8/12 11/8/12 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: All Associated Samples: All

Analyte		Blank ID	Blank ID	Sample Identification											
Al	FB-062012	EB-110812	1												
	0.0271		13.55												
B	0.00916	0.0095	4.75	3.8											
Ca	0.0438		21.9												
Cu	0.00112		0.56												
Mg		0.015	7.5												
Mn		0.00054	0.25												
Sr		0.00037	0.185												
Ti		0.0020	1												

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 0968849

VALIDATION FINDINGS WORKSHEET Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
 Reviewer: GR
 2nd Reviewer: LR

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
 True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated		Reported		Acceptable (Y/N)
					%R		%R		
ICV	ICP (Initial calibration)	Li	266	250	106		106		Y
↓	ICP/MS (Initial calibration)	Se	40.3	40	101		101		Y
↓	CVAA (Initial calibration)	Hg	3.97	4	99		99		Y
CCV (22:39)	ICP (Continuing calibration)	Sr	505	500	101		101		Y
↓ (06:22)	ICP/MS (Continuing calibration)	Ag	50.1	50	100		100		Y
↓	CVAA (Continuing calibration)	Hg	4.88	5	98		98		Y
	GFAA (Initial calibration)								
	GFAA (Continuing calibration)								

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 0964849

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation WorksheetPage: 1 of 1
Reviewer: [Signature]
2nd Reviewer: [Signature]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation,
Found = SSR (spiked sample result) - SR (sample result).

True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$

Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$$\%D = \frac{|I-SDR|}{I} \times 100$$

Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated		Reported		Acceptable (Y/N)
					%R / RPD / %D	%R / RPD / %D	%R / RPD / %D	%R / RPD / %D	
ICSA3	ICP interference check	Pi	1000	1000	100	100	100	100	Y
LCS	Laboratory control sample	P	1010	1000	101	101	101	101	Y
SL-66148500.0-0.5	Matrix spike	Tl	(SSR-SR) 20.59	21.5	96	96	96	96	Y
	Duplicate	Zn	86.4	82.9	4	4	4	4	Y
	ICP serial dilution	Mn	370	412	12	12	12	12	Y

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET **Sample Calculation Verification**

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A

Have results been reported and calculated correctly?

Y N N/A

Are results within the calibrated range of the instruments and within the linear range of the ICP?

Y N N/A

Are all detection limits below the CRDL?

Detected analyte results for Fe were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$

Recalculation:

RD = Raw data concentration
 FV = Final volume (ml)
 In. Vol. = Initial volume (ml) or weight (G)
 Dil = Dilution factor

$$\frac{100\text{mL}(197.33\text{mg/L})}{0.958(1.02\text{g})} = 20194.2\text{mg/kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
	1	Al	16000	16000	Y
		B	3.8	3.8	Y
		Ca	2800	2800	Y
		Fe	20000	20000	Y
		Li	24	24	Y
		Mg	4700	4700	Y
		Mn	300	300	Y
		P	540	540	Y
		K	4100	4100	Y
		Na	110	110	Y
		Sr	25	25	Y
		Sn	4.2	4.2	Y
		Ti	1000	1000	Y
		Zr	1.5	1.5	Y
		Sb	0.035	0.035	Y
		As	3.7	3.7	Y
		Ba	130	130	Y
		Be	0.61	0.61	Y
		Cd	1.2	1.2	Y
		Cr	24	24	Y
		Co	6.8	6.8	Y
		Cu	18	18	Y
		Pb	25	25	Y
		Mo	0.73	0.73	Y

VALIDATION FINDINGS WORKSHEET **Sample Calculation Verification**

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A

Have results been reported and calculated correctly?

Y N N/A

Are results within the calibrated range of the instruments and within the linear range of the ICP?

Y N N/A

Are all detection limits below the CRDL?

Detected analyte results for _____ were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$

Recalculation:

RD = Raw data concentration
 FV = Final volume (ml)
 In. Vol. = Initial volume (ml) or weight (G)
 Dil = Dilution factor

See PS1

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
	1	Ni	18	18	✓
		Se	1.1	1.1	
		Ag	0.99	0.99	
		Tl	0.31	0.31	
		V	37	37	
		Zn	100	100	
		Hg	0.057	0.057	

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory

Collection Date: November 6, 2012

LDC Report Date: May 6, 2013

Matrix: Soil

Parameters: Herbicides

Validation Level: Level IV

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 280-35537-1

Sample Identification

SL-672-SA6-SB-0.0-0.5

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8151A for Herbicides.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at the required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No herbicide contaminants were found in the method blanks.

Sample EB-110812 (from SDG 280-35658-1) was identified as an equipment blank. No herbicide contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-110812	11/8/12	Dinoseb	1.3 ug/L	All samples in SDG 280-35537-1

Sample FB-062012 (from SDG 12F146) was identified as a field blank. No herbicide contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicate

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS 280-147084	2,4,5-T 2,4-D Dichloroprop MCPA	117 (24-115) 128 (32-115) 124 (35-115) 117 (37-115)	All samples in SDG 280-35537-1	J (all detects) J (all detects) J (all detects) J (all detects)	P

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 280-35537-1	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Herbicides - Data Qualification Summary - SDG 280-35537-1

SDG	Sample	Compound	Flag	A or P	Reason (Code)
280-35537-1	SL-672-SA6-SB-0.0-0.5	2,4,5-T 2,4-D Dichloroprop MCPA	J (all detects) J (all detects) J (all detects) J (all detects)	A	Laboratory control samples (%R) (L)
280-35537-1	SL-672-SA6-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Herbicides - Laboratory Blank Data Qualification Summary - SDG 280-35537-1

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Herbicides - Field Blank Data Qualification Summary - SDG 280-35537-1

No Sample Data Qualified in this SDG

LDC #: 29648A5

VALIDATION COMPLETENESS WORKSHEET

SDG #: 280-35537-1

Level IV

Laboratory: Test America, Inc.

Date: 5/1/13

Page: 1 of 1

Reviewer: FA2nd Reviewer: CA

METHOD: GC Herbicides (EPA SW 846 Method 8151A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/26/12
II.	Initial calibration	A	r^2
III.	Calibration verification/ICV	A	10W / CV ≤ 20
IV.	Blanks	A	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	SW	280-35537-10 MS10 no Ass. sample
VII.	Laboratory control samples	SW	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	SIN.	EB - EB - 110812 (SDG # 280-35658-1) FB = FB - 062012 (SDG # 12F146)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

SOIL

1	SL-672-SA6-SB-0.0-0.5	11	MB 280-147084	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 29648A5

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: CMethod: ✓ GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	<u>✓</u>			
Cooler temperature criteria was met.	<u>✓</u>			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<u>✓</u>			
Were all percent relative standard deviations (%RSD) $\leq$ 20%?			<u>✓</u>	
Was a curve fit used for evaluation?	<u>✓</u>			
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?	<u>✓</u>			
Were the RT windows properly established?	<u>✓</u>			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	<u>✓</u>			
Were all percent differences (%D) $\leq$ 20% or percent recoveries 80-120%?	<u>✓</u>			
Were all the retention times within the acceptance windows?	<u>✓</u>			
V. Blanks				
Was a method blank associated with every sample in this SDG?	<u>✓</u>			
Was a method blank analyzed for each matrix and concentration?	<u>✓</u>			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		<u>✓</u>		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	<u>✓</u>			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			<u>✓</u>	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	<u>✓</u>			
Was a MS/MSD analyzed every 20 samples of each matrix?	<u>✓</u>			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		<u>✓</u>		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	<u>✓</u>			
Was an LCS analyzed per extraction batch?	<u>✓</u>			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<u>✓</u>			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			<u>✓</u>	
Were the performance evaluation (PE) samples within the acceptance limits?			<u>✓</u>	

LDC #: 29648AS

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			☒	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	☒			
XII. System performance				
System performance was found to be acceptable.	☒			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	☒			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		☒		
Target compounds were detected in the field duplicates.		☒		
XV. Field blanks				
Field blanks were identified in this SDG.	☒	☒	☒ F?	
Target compounds were detected in the field blanks.	☒	☒	☒	

F?

VALIDATION FINDINGS WORKSHEET

METHOD: ☒ GC ☐ HPLC

8310	8330	8151	8141	8141(Cont)	8021B
A. Acenaphthene	A. HMX	A. 2,4-D	A. Dichlorvos	V. Fensulfothion	V. Benzene
B. Acenaphthylene	B. RDX	B. 2,4-DB	B. Mevinphos	W. Bolstar	CC. Toluene
C. Anthracene	C. 1,3,5-Trinitrobenzene	C. 2,4,5-T	C. Demeton-O	X. EPN	EE. Ethyl Benzene
D. Benzo(a)anthracene	D. 1,3-Dinitrobenzene	D. 2,4,5-TP	D. Demeton-S	Y. Azinphos-methyl	SSS. O-Xylene
E. Benzo(a)pyrene	E. Tetra	E. Dinoseb	E. Ethoprop	Z. Coumaphos	RRR. MP-Xylene
F. Benzo(b)fluoranthene	F. Nitrobenzene	F. Dichlorprop	F. Naled	AA. Parathion	GG. Total Xylene
G. Benzo(k)fluoranthene	G. 2,4,6-Trinitrotoluene	G. Dicamba	G. Sulfotep	BB. Trichloronate	
H. Benzo(k)fluoranthene	H. 4-Amino-2,6-dinitrotoluene	H. Dalapon	H. Phorate	CC. Trichlorinate	
I. Chrysene	I. 2-Amino-4,6-dinitrotoluene	I. MCP	I. Dimethoate	DD. Trifluralin	
J. Dibenz(a,h)anthracene	J. 2,4-Dinitrotoluene	J. MCPA	J. Diazinon	EE. Def	
K. Fluoranthene	K. 2,6-Dinitrotoluene	K. Pentachlorophenol	K. Disulfoton	FF. Prowl	
L. Fluorene	L. 2-Nitrotoluene	L. 2,4,5-TP (silvex)	L. Parathion-methyl	GG. Ethion	
M. Indeno(1,2,3-cd)pyrene	M. 3-Nitrotoluene	M. Silvex	M. Ronnel		
N. Naphthalene	N. 4-Nitrotoluene		N. Malathion		
O. Phenanthrene	O.		O. Chlorpyrifos		
P. Pyrene	P.		P. Fenthion		
Q.	Q		Q. Parathion-ethyl		
R.			R. Trichloronate		
S.			S. Merphos		
			T. Stirofos		
			U. Tokuthion		

Notes:

METHOD: GC HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Were a laboratory control samples (LCS) and laboratory control sample duplicate (LCS-D) analyzed for each matrix in this SDG?

	Y	N	N/A
Were the LCS percent recoveries (%R) and relative percent differences (RPD) within the QC limits?			

Level IV/D Only

Y	N	N/A
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[illegible]

LDC # 29648A5VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: RP
2nd Reviewer: Q

METHOD: GC EPA SW 846 Method 8151A

Parameter: 2,4-D

Date	Column	Compound	Y	X
11/12/2012	DB-35MS	2,4-D	19720758.000	0.04700
			76964540.000	0.23500
			138798601.000	0.47400
			200532568.000	0.70500
			250434193.000	0.94000
			468349435.000	1.88000

Regression Output:		Regression Output:	Reported
Constant		19927718.31187	
Std Err of Y Est		8705090.84364	
R Squared		0.99759	0.99500
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)	241820552.471	-1232868.06	
Std Err of Coef.	5947008.393700	161510.73	

LDC # 29648A5VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation VerificationPage: 1 of 1
Reviewer: FD
2nd Reviewer: R

METHOD: GC EPA SW 846 Method 8151A

Parameter: 2,4-D

Date	Column	Compound	Y	X
11/12/2012	DB-XLB	2,4-D	48278205.000	0.04700
			190156915.000	0.23500
			341868668.000	0.47400
			493262796.000	0.70500
			606603285.000	0.94000
			108801592.000	1.88000

Regression Output:		Regression Output:	Reported
Constant		62479474.37870	
Std Err of Y Est		32244872.36040	
R Squared		0.99383	0.99100
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)	559237237.731	-1232868.06	
Std Err of Coef.	22028549.733192	161510.73	

LDC #: 296481A3

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: F7
2nd Reviewer: [Signature]

METHOD: GC HPLC

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$
Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(lcal)/ CCV Conc.	Reported		Recalculated	
					CF/ Conc. CCV	%D	CF/ Conc. CCV	%D
1	CON 11:58	11/15/12	2, 4 D	474	531	11.9	531	11.9
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: $SF/SS \times 100$
Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 8

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
2,4-DCAA	PB35MS	0.05	0.0337	67	67	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

LDC #: 29658A5

VALIDATION FINDINGS WORKSHEET

Page: 1 of 1

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: F7

2nd Reviewer: [Signature]

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

 $\% \text{Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$

Where SSC = Spiked sample concentration
SA = Spike added

SC = Sample concentration

 $\text{RPD} = ((\text{SSCLCS} - \text{SSCLCSD}) * 2) / (\text{SSCLCS} + \text{SSCLCSD}) * 100$

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCS 280-147084

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		LCS		LCSD		Percent Recovery		LCSD		LCS/LCSD	
	LCS	LCSD		LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)															
Diesel (8015)															
Benzene (8021B)															
Methane (RSK-175)															
2,4-D (8151)	90.7	NA	ND	116	NA	128	128								
Dinoseb (8151)	90.7	NA	↓	9.90	NA	11	11								
Naphthalene (8310)															
Anthracene (8310)															
HMX (8330)															
2,4,6-Trinitrotoluene (8330)															

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

METHOD: ☒ GC ☐ HPLC

Y	N	N/A
Y	N	N/A

Were all reported results recalculated and verified for all level IV samples?
Were all recalculated results for detected target compounds within 10% of the reported results?

$$\text{Concentration} = \frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$$

Example:

Sample ID. _____ Compound Name _____

Concentration = _____

A= Area or height of the compound to be measured

Fv= Final Volume of extract

Df= Dilution Factor

RF= Average response factor of the compound
In the initial calibration

V_s = Initial volume of the sample

Ws= Initial weight of the sample

%S= Percent Solid

[illegible]

Comments: _____

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Santa Susana Field Laboratory
Collection Date: November 6, 2012
LDC Report Date: May 3, 2013
Matrix: Soil
Parameters: Total Petroleum Hydrocarbons as Extractables
Validation Level: Level IV
Laboratory: TestAmerica, Inc.
Sample Delivery Group (SDG): 280-35537-1

Sample Identification

SL-672-SA6-SB-0.0-0.5

Introduction

This data review covers one soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractables contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
MB 280-146685	11/9/12	Total petroleum hydrocarbons (C8-C40)	0.758 mg/Kg	All samples in SDG 280-35537-1

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks.

Sample EB-110812 (from SDG 280-35658-1) was identified as an equipment blank. No total petroleum hydrocarbons as extractables contaminants were found.

Sample FB-062012 (from SDG 12F146) was identified as a field blank. No total petroleum hydrocarbons as extractables contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 280-35537-1	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory

**Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -
SDG 280-35537-1**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
280-35537-1	SL-672-SA6-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory

**Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data
Qualification Summary - SDG 280-35537-1**

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory

**Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification
Summary - SDG 280-35537-1**

No Sample Data Qualified in this SDG

LDC #: 29648A8

VALIDATION COMPLETENESS WORKSHEET

SDG #: 280-35537-1

Level IV

Laboratory: Test America, Inc.

Date: 5/2/13

Page: 1 of 1

Reviewer: *[Signature]*2nd Reviewer: *[Signature]*

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/6/12
II.	Initial calibration	A	% RSD ≤ 20 , 22
III.	Calibration verification/ICV	A	1W/CCV ≤ 20
IV.	Blanks	SW	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCSD
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB = EB-110812 SDG # 280-3565B-1 FB = FB-062012 SDG # 12F146

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

SOIL

1	SL-672-SA6-SB-0.0-0.5	11	MB 280-146685	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 29648A8

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2Reviewer: FT2nd Reviewer: [Signature]Method: ✓ GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	☒	☐	☐	
Cooler temperature criteria was met.	☒	☐	☐	
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	☒	☐	☐	
Were all percent relative standard deviations (%RSD) $\leq$ 20%?	☒	☐	☐	
Was a curve fit used for evaluation?	☒	☐	☐	
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?	☒	☐	☐	
Were the RT windows properly established?	☒	☐	☐	
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	☒	☐	☐	
Were all percent differences (%D) $\leq$ 20% or percent recoveries 80-120%?	☒	☐	☐	
Were all the retention times within the acceptance windows?	☒	☐	☐	
V. Blanks				
Was a method blank associated with every sample in this SDG?	☒	☐	☐	
Was a method blank analyzed for each matrix and concentration?	☒	☐	☐	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	☐	☒	☐	
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	☒	☐	☐	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	☐	☐	☒	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	☐	☐	☒	
Was a MS/MSD analyzed every 20 samples of each matrix?	☐	☐	☒	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	☐	☐	☒	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	☒	☐	☐	
Was an LCS analyzed per extraction batch?	☒	☐	☐	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	☒	☐	☐	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?	☐	☐	☒	
Were the performance evaluation (PE) samples within the acceptance limits?	☐	☐	☒	

LDC #: 29648 AS

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: FT
2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	☒	☐	☒ F7	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	☒	☐	☐	
XII. System performance				
System performance was found to be acceptable.	☒	☐	☐	
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	☒	☐	☐	
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	☐	☒	☐	
Target compounds were detected in the field duplicates.	☐	☐	☒	
XV. Field blanks				
Field blanks were identified in this SDG.	☒	☒ F7	☒	
Target compounds were detected in the field blanks.	☐	☒	☒	

VALIDATION FINDINGS WORKSHEET

Blanks

METHOD: GC HPLC

Page: 1 of 1
Reviewer: F7
2nd Reviewer: SA

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Were all samples associated with a given method blank?	Y	N	N/A
Was a method blank performed for each matrix and whenever a sample extraction procedure was performed?	Y	N	N/A
Was a method blank performed with each extraction batch?	Y	N	N/A
Were any contaminants found in the method blanks? If yes, please see findings below.	Y	N	N/A

Level IV/D Only

Y	N	N/A
Y	N	N/A
Y	N	N/A

Blank extraction date: 11/09/12
Blank analysis date: 11/12/12
Associated samples: All 75X

Conc. units: mg/kg [illegible]

Blank extraction date: Blank analysis date: Associated samples:

Conc. units:

[illegible]

ALL CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT: All contaminants within five times the method blank concentration were qualified as not detected. "U".

VALIDATION FINDINGS WORKSHEET

METHOD: GC HPLC

CF = A/C
Average CF = sum of the CF/number of standards
%RSD = $100 * (S/X)$

Where:

A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors
 $\bar{x} = \sum x_i / n$

3-401

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 2764878

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: F7
2nd Reviewer: SAMETHOD: GC HPLC

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$

Where: ave. CF = initial calibration average CF

CF = continuing calibration CF

A = Area of compound

C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(1cal)/ CCV Conc.	Reported		Recalculated	
					CF/ Conc. CCV	%D	CF/ Conc. CCV	%D
1	00V 15:22	11/12/12	EFH 021-C3U	250	266	6.3	266	6.3
2	00V 11:53	11/13/12	↓	250	256	2.5	256	2.5
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

METHOD: GC HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: $SF/SS \times 100$
Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
o-Terphenyl	surrogate	was	detected	ent	10x PL	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

LDC #: 296487

VALIDATION FINDINGS WORKSHEET

Page: 1 of 1

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: F7

2nd Reviewer: [Signature]

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

 $\% \text{Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$

Where SSC = Spiked sample concentration

SC = Sample concentration

SA = Spike added

 $\text{RPD} = ((\text{SSCLCS} - \text{SSCLCSD}) * 2) / (\text{SSCLCS} + \text{SSCLCSD}) * 100$

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: 100 100

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		LCS		Percent Recovery		LCS		Percent Recovery		LCS/LCSD	
	LCS	LCSD		LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)															
Diesel (8015)															
Benzene (8021B)															
Methane (RSK-175)															
2,4-D (8151)															
Dinoseb (8151)															
Naphthalene (8310)															
Anthracene (8310)															
HMX (8330)															
2,4,6-Trinitrotoluene (8330)															
EFH C12-C14	32.1	32.7	ND	29.3	28.4	91	91	87	87					3	3

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

METHOD: GC HPLC

Y	N	N/A
Y	N	N/A

$$\text{Concentration} = \frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor

RF= Average response factor of the compound

In the initial calibration

V_s = Initial volume of the sample

Ws= Initial weight of the sample

%S= Percent Solid

Comments: _____

SAMPLE DELIVERY GROUP

280-35537-2

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
06-Nov-2012	SL-669-SA6-SB-0.0-0.5	280-35537-2	N	1613	1613B	III
06-Nov-2012	SL-670-SA6-SB-0.0-0.5	280-35537-4	N	1613	1613B	III
06-Nov-2012	SL-671-SA6-SB-0.0-0.5	280-35537-6	N	1613	1613B	III
06-Nov-2012	SL-672-SA6-SB-0.0-0.5	280-35537-8	N	1613	1613B	III
06-Nov-2012	SL-673-SA6-SB-0.0-0.5	280-35537-10	N	1613	1613B	III
06-Nov-2012	SL-676-SA6-SB-0.0-0.5	280-35537-12	N	1613	1613B	III
06-Nov-2012	SL-675-SA6-SB-0.0-0.5	280-35537-16	N	1613	1613B	III
06-Nov-2012	SL-659-SA6-SB-0.0-0.5	280-35537-14	N	1613	1613B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-2

Laboratory: TA DEN

EDD Filename: 280-35537-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-659-SA6-SB-0.0-0.5

Collected: 11/6/2012 2:50:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.3	J	0.24	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	1.2	J	0.22	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	1.6	J	0.13	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	1.5	Q J	0.22	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	3.8	Q J	0.12	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	2.6	Q J	0.21	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.46	Q J	0.21	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	1.2	J	0.19	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.64	J	0.14	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	1.7	J	0.17	MDL	5.2	MRL	ng/kg	J	Z

Sample ID: SL-669-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:12:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.1	J	0.14	MDL	6.2	MRL	ng/kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.55	Q J	0.097	MDL	6.2	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.19	Q J	0.11	MDL	6.2	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.39	J	0.11	MDL	6.2	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.75	J	0.16	MDL	1.2	MRL	ng/kg	J	Z
OCDF	1.4	B J	0.13	MDL	12	MRL	ng/kg	J	Z

Sample ID: SL-670-SA6-SB-0.0-0.5

Collected: 11/6/2012 9:41:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.0	J	0.092	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.40	J	0.080	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.40	J	0.10	MDL	5.2	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.80	Q J	0.15	MDL	1.0	MRL	ng/kg	J	Z
OCDF	0.94	B S J	0.11	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-671-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:23:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.1	J	0.17	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.70	J	0.13	MDL	5.1	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/15/2013 11:00:32 AM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-2

Laboratory: TA DEN

EDD Filename: 280-35537-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-671-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:23:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	0.58	Q J	0.071	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDD	2.2	J	0.12	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.92	Q J	0.065	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDD	1.7	J	0.12	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.12	Q J	0.073	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.30	Q J	0.13	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.13	J	0.10	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.31	J	0.070	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.48	J	0.097	MDL	5.1	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.52	Q J	0.15	MDL	1.0	MRL	ng/kg	J	Z

Sample ID: SL-672-SA6-SB-0.0-0.5

Collected: 11/6/2012 10:53:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDF	1.1	J	0.15	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	4.3	Q J	0.22	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	3.2	J	0.18	MDL	5.3	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	3.4	J	0.17	MDL	5.3	MRL	ng/kg	J	Z
2,3,7,8-TCDD	0.88	J	0.24	MDL	1.1	MRL	ng/kg	J	Z
OCDD	11000	B E	0.26	MDL	11	MRL	ng/kg	J	*XI

Sample ID: SL-673-SA6-SB-0.0-0.5

Collected: 11/6/2012 12:55:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.8	J	0.55	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	1.0	Q J	0.32	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.69	Q J	0.28	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDD	2.8	Q J	0.36	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.50	Q J	0.28	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDD	1.5	Q J	0.32	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.23	Q J	0.26	MDL	5.5	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.19	Q J	0.23	MDL	5.5	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.81	Q J	0.27	MDL	1.1	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/15/2013 11:00:32 AM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-2

Laboratory: TA DEN

EDD Filename: 280-35537-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-675-SA6-SB-0.0-0.5

Collected: 11/6/2012 2:05:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	2.9	Q J	0.64	MDL	6.4	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	1.5	Q J	0.46	MDL	6.4	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	5.2	Q J	0.49	MDL	6.4	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	5.3	J	0.45	MDL	6.4	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	1.1	Q J	0.46	MDL	6.4	MRL	ng/kg	J	Z
1,2,3,7,8-PCDF	1.6	Q J	0.38	MDL	6.4	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	2.0	J	0.34	MDL	6.4	MRL	ng/kg	J	Z
2,3,4,7,8-PCDF	3.4	Q J	0.31	MDL	6.4	MRL	ng/kg	J	Z

Sample ID: SL-676-SA6-SB-0.0-0.5

Collected: 11/6/2012 1:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HxCDD	3.2	Q J	0.27	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.48	Q J	0.18	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	1.2	Q J	0.25	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8-PCDF	0.91	J	0.20	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	1.8	J	0.15	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,7,8-PCDF	2.4	J	0.19	MDL	5.2	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/15/2013 11:00:32 AM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35537-2

Laboratory: TA DEN

EDD Filename: 280-35537-2

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*XI	Exceeded Calibration Range
A	Professional Judgment
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/15/2013 11:00:32 AM

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35537-2/
H2K100404

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35537-2

Laboratory: TA DEN

EDD Filename: 280-35537-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-659-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	J	1.3	5.2	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	1.2	5.2	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	J	1.6	5.2	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	1.5	5.2	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	3.8	5.2	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	Q J	2.6	5.2	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.46	5.2	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	1.2	5.2	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	0.64	5.2	MRL	ng/kg	
SL-669-SA6-SB-0.0-0.5	2,3,4,7,8-PECDF	J	1.7	5.2	MRL	ng/kg	J (all detects)
	1,2,3,4,6,7,8-HPCDD	J	3.1	6.2	MRL	ng/kg	
	1,2,3,4,6,7,8-HPCDF	Q J	0.55	6.2	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	0.19	6.2	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	0.39	6.2	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.75	1.2	MRL	ng/kg	
SL-670-SA6-SB-0.0-0.5	OCDF	B J	1.4	12	MRL	ng/kg	J (all detects)
	1,2,3,4,6,7,8-HPCDD	J	2.0	5.2	MRL	ng/kg	
	1,2,3,4,6,7,8-HPCDF	J	0.40	5.2	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	0.40	5.2	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.80	1.0	MRL	ng/kg	
SL-671-SA6-SB-0.0-0.5	OCDF	B S J	0.94	10	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	J	1.1	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	J	0.70	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q J	0.58	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	2.2	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.92	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	1.7	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	Q J	0.12	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.30	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	0.13	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	0.31	5.1	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	0.48	5.1	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.52	1.0	MRL	ng/kg	
SL-672-SA6-SB-0.0-0.5	1,2,3,7,8,9-HXCDF	J	1.1	5.3	MRL	ng/kg	J (all detects)
	1,2,3,7,8-PECDD	Q J	4.3	5.3	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	3.2	5.3	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	3.4	5.3	MRL	ng/kg	
	2,3,7,8-TCDD	J	0.88	1.1	MRL	ng/kg	
SL-673-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	J	1.8	5.5	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	Q J	1.0	5.5	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q J	0.69	5.5	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	2.8	5.5	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.50	5.5	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	Q J	1.5	5.5	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.23	5.5	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.19	5.5	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.81	1.1	MRL	ng/kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35537-2

Laboratory: TA DEN

EDD Filename: 280-35537-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-675-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	Q J	2.9	6.4	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	Q J	1.5	6.4	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	5.2	6.4	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	5.3	6.4	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	1.1	6.4	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	1.6	6.4	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	J	2.0	6.4	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	3.4	6.4	MRL	ng/kg	
SL-676-SA6-SB-0.0-0.5	1,2,3,4,7,8-HxCDD	Q J	3.2	5.2	MRL	ng/kg	J (all detects)
	1,2,3,7,8,9-HxCDF	Q J	0.48	5.2	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	1.2	5.2	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	0.91	5.2	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	J	1.8	5.2	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	2.4	5.2	MRL	ng/kg	

SAMPLE DELIVERY GROUP

280-35578-1

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Nov-2012	SL-511-SA6-SB-0.0-0.5	280-35578-10	N	3050B	6010C	III
07-Nov-2012	SL-511-SA6-SB-0.0-0.5	280-35578-10	N	3050B	6020A	III
07-Nov-2012	SL-511-SA6-SB-0.0-0.5	280-35578-10	N	3546	8082A	III
07-Nov-2012	SL-511-SA6-SB-0.0-0.5	280-35578-10	N	7471B	7471B	III
07-Nov-2012	SL-511-SA6-SB-0.0-0.5	280-35578-9	N	3546	8270C SIM	III
07-Nov-2012	SL-511-SA6-SB-0.0-0.5	280-35578-9	N	3550C	8015B EFH	III
07-Nov-2012	SL-511-SA6-SB-0.0-0.5MS	280-35578-9MS	MS	3546	8270C SIM	III
07-Nov-2012	SL-511-SA6-SB-0.0-0.5MSD	280-35578-9MSD	MSD	3546	8270C SIM	III
07-Nov-2012	SL-508-SA6-SB-0.0-0.5	280-35578-3	N	3546	8270C SIM	III
07-Nov-2012	SL-508-SA6-SB-0.0-0.5	280-35578-3	N	3550C	8015B EFH	III
07-Nov-2012	SL-508-SA6-SB-0.0-0.5	280-35578-4	N	3050B	6010C	III
07-Nov-2012	SL-508-SA6-SB-0.0-0.5	280-35578-4	N	3050B	6020A	III
07-Nov-2012	SL-508-SA6-SB-0.0-0.5	280-35578-4	N	3546	8082A	III
07-Nov-2012	SL-508-SA6-SB-0.0-0.5	280-35578-4	N	7471B	7471B	III
07-Nov-2012	SL-508-SA6-SB-0.0-0.5MS	280-35578-4MS	MS	3050B	6020A	III
07-Nov-2012	SL-508-SA6-SB-0.0-0.5MSD	280-35578-4MSD	MSD	3050B	6020A	III
07-Nov-2012	SL-509-SA6-SB-0.0-0.5	280-35578-5	N	3546	8270C SIM	III
07-Nov-2012	SL-509-SA6-SB-0.0-0.5	280-35578-5	N	3550C	8015B EFH	III
07-Nov-2012	SL-509-SA6-SB-0.0-0.5	280-35578-6	N	3050B	6010C	III
07-Nov-2012	SL-509-SA6-SB-0.0-0.5	280-35578-6	N	3050B	6020A	III
07-Nov-2012	SL-509-SA6-SB-0.0-0.5	280-35578-6	N	3546	8082A	III
07-Nov-2012	SL-509-SA6-SB-0.0-0.5	280-35578-6	N	7471B	7471B	III
07-Nov-2012	SL-510-SA6-SB-0.0-0.5	280-35578-7	N	3546	8270C SIM	III
07-Nov-2012	SL-510-SA6-SB-0.0-0.5	280-35578-7	N	3550C	8015B EFH	III
07-Nov-2012	SL-510-SA6-SB-0.0-0.5	280-35578-8	N	3050B	6010C	III
07-Nov-2012	SL-510-SA6-SB-0.0-0.5	280-35578-8	N	3050B	6020A	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Nov-2012	SL-510-SA6-SB-0.0-0.5	280-35578-8	N	3546	8082A	III
07-Nov-2012	SL-510-SA6-SB-0.0-0.5	280-35578-8	N	7471B	7471B	III
07-Nov-2012	SL-522-SA6-SB-0.0-0.5	280-35578-11	N	3546	8270C SIM	III
07-Nov-2012	SL-522-SA6-SB-0.0-0.5	280-35578-11	N	3550C	8015B EFH	III
07-Nov-2012	SL-522-SA6-SB-0.0-0.5	280-35578-12	N	3050B	6010C	III
07-Nov-2012	SL-522-SA6-SB-0.0-0.5	280-35578-12	N	3050B	6020A	III
07-Nov-2012	SL-522-SA6-SB-0.0-0.5	280-35578-12	N	3546	8082A	III
07-Nov-2012	SL-522-SA6-SB-0.0-0.5	280-35578-12	N	7471B	7471B	III
07-Nov-2012	SL-505-SA6-SB-0.0-0.5	280-35578-1	N	3550C	8015B EFH	III
07-Nov-2012	SL-506-SA6-SB-0.0-0.5	280-35578-19	N	3550C	8015B EFH	III
07-Nov-2012	SL-507-SA6-SB-0.0-0.5	280-35578-21	N	3546	8270C SIM	III
07-Nov-2012	SL-507-SA6-SB-0.0-0.5	280-35578-21	N	3550C	8015B EFH	III
07-Nov-2012	SL-507-SA6-SB-0.0-0.5	280-35578-22	N	3050B	6010C	III
07-Nov-2012	SL-507-SA6-SB-0.0-0.5	280-35578-22	N	3050B	6020A	III
07-Nov-2012	SL-507-SA6-SB-0.0-0.5	280-35578-22	N	3546	8082A	III
07-Nov-2012	SL-507-SA6-SB-0.0-0.5	280-35578-22	N	7471B	7471B	III
07-Nov-2012	SL-502-SA6-SB-0.0-0.5	280-35578-13	N	3546	8270C SIM	III
07-Nov-2012	SL-502-SA6-SB-0.0-0.5	280-35578-13	N	3550C	8015B EFH	III
07-Nov-2012	SL-502-SA6-SB-0.0-0.5	280-35578-14	N	3050B	6010C	III
07-Nov-2012	SL-502-SA6-SB-0.0-0.5	280-35578-14	N	3050B	6020A	III
07-Nov-2012	SL-502-SA6-SB-0.0-0.5	280-35578-14	N	3546	8082A	III
07-Nov-2012	SL-502-SA6-SB-0.0-0.5	280-35578-14	N	7471B	7471B	III
07-Nov-2012	SL-504-SA6-SB-0.0-0.5	280-35578-17	N	3550C	8015B EFH	III
07-Nov-2012	SL-503-SA6-SB-0.0-0.5	280-35578-15	N	3550C	8015B EFH	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-502-SA6-SB-0.0-0.5

Collected: 11/7/2012 1:40:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.7	J	0.33	MDL	8.1	MRL	mg/Kg	J	Z

Sample ID: SL-502-SA6-SB-0.0-0.5

Collected: 11/7/2012 1:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
BORON	2.6	J	0.92	MDL	9.1	MRL	mg/Kg	U	F, F
LITHIUM	22	J	0.28	MDL	35	MRL	mg/Kg	J	Z
MANGANESE	260	J	0.094	MDL	470	MRL	mg/Kg	J	Z
POTASSIUM	3200	J	39	MDL	6000	MRL	mg/Kg	J	Z
SODIUM	87	J	55	MDL	470	MRL	mg/Kg	J	Z
TIN	3.9	J	0.86	MDL	10	MRL	mg/Kg	J	Z

Sample ID: SL-507-SA6-SB-0.0-0.5

Collected: 11/7/2012 1:15:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.5	J	0.36	MDL	8.8	MRL	mg/Kg	J	Z

Sample ID: SL-507-SA6-SB-0.0-0.5

Collected: 11/7/2012 1:15:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.6	MDL	21000	MRL	mg/Kg	J	Z
BORON	3.0	J	1.0	MDL	10	MRL	mg/Kg	U	F, F
LITHIUM	21	J	0.31	MDL	38	MRL	mg/Kg	J	Z
MANGANESE	290	J	0.10	MDL	510	MRL	mg/Kg	J	Z
POTASSIUM	3400	J	42	MDL	6600	MRL	mg/Kg	J	Z
SODIUM	68	J	61	MDL	510	MRL	mg/Kg	J	Z
TIN	3.6	J	0.94	MDL	11	MRL	mg/Kg	J	Z

Sample ID: SL-508-SA6-SB-0.0-0.5

Collected: 11/7/2012 8:45:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.9	J	0.34	MDL	8.3	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS
Method:	6010C
Matrix:	SO

Sample ID: SL-508-SA6-SB-0.0-0.5

Collected: 11/7/2012 8:45:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	14000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
BORON	1.9	J	0.94	MDL	9.4	MRL	mg/Kg	U	F, F
LITHIUM	23	J	0.29	MDL	36	MRL	mg/Kg	J	Z
MANGANESE	320	J	0.096	MDL	480	MRL	mg/Kg	J	Z
POTASSIUM	3400	J	40	MDL	6200	MRL	mg/Kg	J	Z
SODIUM	79	J	57	MDL	480	MRL	mg/Kg	J	Z
TIN	3.6	J	0.88	MDL	11	MRL	mg/Kg	J	Z

Sample ID: SL-509-SA6-SB-0.0-0.5

Collected: 11/7/2012 9:10:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.5	J	0.34	MDL	8.4	MRL	mg/Kg	J	Z

Sample ID: SL-509-SA6-SB-0.0-0.5

Collected: 11/7/2012 9:10:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
BORON	1.6	J	0.95	MDL	9.4	MRL	mg/Kg	U	F, F
LITHIUM	25	J	0.29	MDL	36	MRL	mg/Kg	J	Z
MANGANESE	320	J	0.097	MDL	480	MRL	mg/Kg	J	Z
POTASSIUM	3900	J	40	MDL	6200	MRL	mg/Kg	J	Z
SODIUM	72	J	57	MDL	490	MRL	mg/Kg	J	Z
TIN	4.0	J	0.89	MDL	11	MRL	mg/Kg	J	Z

Sample ID: SL-510-SA6-SB-0.0-0.5

Collected: 11/7/2012 9:35:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.1	J	0.33	MDL	8.0	MRL	mg/Kg	J	Z

Sample ID: SL-510-SA6-SB-0.0-0.5

Collected: 11/7/2012 9:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	12000	J	1.4	MDL	19000	MRL	mg/Kg	J	Z
BORON	1.3	J	0.91	MDL	9.0	MRL	mg/Kg	U	F, F
LITHIUM	23	J	0.28	MDL	34	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS
Method:	6010C
Matrix:	SO

Sample ID: SL-510-SA6-SB-0.0-0.5 Collected: 11/7/2012 9:35:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	300	J	0.093	MDL	460	MRL	mg/Kg	J	Z
POTASSIUM	2800	J	38	MDL	5900	MRL	mg/Kg	J	Z
SODIUM	78	J	55	MDL	460	MRL	mg/Kg	J	Z
TIN	4.2	J	0.85	MDL	10	MRL	mg/Kg	J	Z

Sample ID: SL-511-SA6-SB-0.0-0.5 Collected: 11/7/2012 7:50:00 Analysis Type: RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.4	J	0.34	MDL	8.3	MRL	mg/Kg	J	Z

Sample ID: SL-511-SA6-SB-0.0-0.5 Collected: 11/7/2012 7:50:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
BORON	1.8	J	0.95	MDL	9.4	MRL	mg/Kg	U	F, F
LITHIUM	24	J	0.29	MDL	36	MRL	mg/Kg	J	Z
MANGANESE	290	J	0.096	MDL	480	MRL	mg/Kg	J	Z
POTASSIUM	3400	J	40	MDL	6200	MRL	mg/Kg	J	Z
SODIUM	77	J	57	MDL	480	MRL	mg/Kg	J	Z
TIN	4.0	J	0.88	MDL	11	MRL	mg/Kg	J	Z

Sample ID: SL-522-SA6-SB-0.0-0.5 Collected: 11/7/2012 10:30:00 Analysis Type: RE2/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.5	J	0.34	MDL	8.3	MRL	mg/Kg	J	Z

Sample ID: SL-522-SA6-SB-0.0-0.5 Collected: 11/7/2012 10:30:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	15000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
BORON	1.8	J	0.94	MDL	9.3	MRL	mg/Kg	U	F, F
LITHIUM	23	J	0.29	MDL	36	MRL	mg/Kg	J	Z
MANGANESE	280	J	0.096	MDL	480	MRL	mg/Kg	J	Z
POTASSIUM	3600	J	39	MDL	6100	MRL	mg/Kg	J	Z
SODIUM	80	J	57	MDL	480	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS
Method:	6010C
Matrix:	SO

Sample ID: SL-522-SA6-SB-0.0-0.5

Collected: 11/7/2012 10:30:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	4.0	J	0.88	MDL	10	MRL	mg/Kg	J	Z

Method Category:	METALS
Method:	6020A
Matrix:	SO

Sample ID: SL-502-SA6-SB-0.0-0.5

Collected: 11/7/2012 1:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.014	J	0.014	MDL	8.8	MRL	mg/Kg	J	Z, Q
ARSENIC	4.6	J	0.051	MDL	15	MRL	mg/Kg	J	Z
BARIUM	79	J	0.072	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.44	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.15	J B	0.0095	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	13	J	0.077	MDL	37	MRL	mg/Kg	J	Z
COBALT	4.7	J	0.0067	MDL	21	MRL	mg/Kg	J	Z
COPPER	6.7	J	0.072	MDL	29	MRL	mg/Kg	J	Z
LEAD	12	J	0.018	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.39	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z
NICKEL	8.4	J	0.026	MDL	29	MRL	mg/Kg	J	Z
SILVER	0.025	J	0.021	MDL	0.80	MRL	mg/Kg	U	B
THALLIUM	0.19	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	26	J	0.039	MDL	63	MRL	mg/Kg	J	Z
ZINC	52	J	0.32	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-507-SA6-SB-0.0-0.5

Collected: 11/7/2012 1:15:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.014	J	0.013	MDL	8.2	MRL	mg/Kg	J	Z, Q
ARSENIC	8.4	J	0.048	MDL	14	MRL	mg/Kg	J	Z
BARIUM	80	J	0.066	MDL	130	MRL	mg/Kg	J	Z
BERYLLIUM	0.46	J	0.021	MDL	1.0	MRL	mg/Kg	J	Z
CADMIUM	0.14	J B	0.0088	MDL	0.94	MRL	mg/Kg	J	Z
CHROMIUM	13	J	0.072	MDL	35	MRL	mg/Kg	J	Z
COBALT	4.4	J	0.0062	MDL	20	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-507-SA6-SB-0.0-0.5

Collected: 11/7/2012 1:15:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	5.8	J	0.067	MDL	27	MRL	mg/Kg	J	Z
LEAD	4.8	J	0.017	MDL	32	MRL	mg/Kg	J	Z
MOLYBDENUM	0.31	J	0.017	MDL	5.0	MRL	mg/Kg	J	Z
NICKEL	8.5	J	0.024	MDL	27	MRL	mg/Kg	J	Z
SILVER	0.027	J	0.019	MDL	0.74	MRL	mg/Kg	U	B
THALLIUM	0.19	J	0.0033	MDL	0.43	MRL	mg/Kg	J	Z
VANADIUM	22	J	0.036	MDL	58	MRL	mg/Kg	J	Z
ZINC	41	J	0.30	MDL	100	MRL	mg/Kg	J	Z

Sample ID: SL-508-SA6-SB-0.0-0.5

Collected: 11/7/2012 8:45:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.026	J	0.013	MDL	7.8	MRL	mg/Kg	J	Z, Q
ARSENIC	7.4	J	0.045	MDL	13	MRL	mg/Kg	J	Z
BARIUM	89	J	0.063	MDL	130	MRL	mg/Kg	J	Z
BERYLLIUM	0.46	J	0.020	MDL	0.99	MRL	mg/Kg	J	Z
CADMIUM	0.15	J B	0.0084	MDL	0.90	MRL	mg/Kg	J	Z
CHROMIUM	15	J	0.068	MDL	33	MRL	mg/Kg	J	Z
COBALT	5.4	J	0.0059	MDL	19	MRL	mg/Kg	J	Z
COPPER	7.5	J	0.064	MDL	26	MRL	mg/Kg	J	Z
LEAD	5.6	J	0.016	MDL	30	MRL	mg/Kg	J	Z
MOLYBDENUM	0.44	J	0.016	MDL	4.7	MRL	mg/Kg	J	Z
NICKEL	9.7	J	0.023	MDL	26	MRL	mg/Kg	J	Z
SELENIUM	0.13	J	0.12	MDL	0.59	MRL	mg/Kg	J	Z
SILVER	0.037	J	0.018	MDL	0.71	MRL	mg/Kg	J	Z
THALLIUM	0.21	J	0.0031	MDL	0.41	MRL	mg/Kg	J	Z
VANADIUM	27	J	0.034	MDL	56	MRL	mg/Kg	J	Z
ZINC	47	J	0.28	MDL	99	MRL	mg/Kg	J	Z

Sample ID: SL-509-SA6-SB-0.0-0.5

Collected: 11/7/2012 9:10:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.023	J	0.012	MDL	7.3	MRL	mg/Kg	J	Z, Q
ARSENIC	4.3	J	0.043	MDL	13	MRL	mg/Kg	J	Z
BARIUM	79	J	0.059	MDL	120	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS
Method:	6020A
Matrix:	SO

Sample ID: SL-509-SA6-SB-0.0-0.5

Collected: 11/7/2012 9:10:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.46	J	0.019	MDL	0.93	MRL	mg/Kg	J	Z
CADMIUM	0.18	J B	0.0079	MDL	0.84	MRL	mg/Kg	J	Z
CHROMIUM	16	J	0.064	MDL	31	MRL	mg/Kg	J	Z
COBALT	5.5	J	0.0056	MDL	18	MRL	mg/Kg	J	Z
COPPER	7.9	J	0.060	MDL	24	MRL	mg/Kg	J	Z
LEAD	8.9	J	0.015	MDL	29	MRL	mg/Kg	J	Z
MOLYBDENUM	0.34	J	0.015	MDL	4.5	MRL	mg/Kg	J	Z
NICKEL	10	J	0.021	MDL	24	MRL	mg/Kg	J	Z
SELENIUM	0.12	J	0.11	MDL	0.55	MRL	mg/Kg	J	Z
SILVER	0.028	J	0.017	MDL	0.67	MRL	mg/Kg	J	Z
THALLIUM	0.22	J	0.0030	MDL	0.39	MRL	mg/Kg	J	Z
VANADIUM	31	J	0.032	MDL	52	MRL	mg/Kg	J	Z
ZINC	55	J	0.27	MDL	93	MRL	mg/Kg	J	Z

Sample ID: SL-510-SA6-SB-0.0-0.5

Collected: 11/7/2012 9:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.038	J	0.013	MDL	8.1	MRL	mg/Kg	J	Z, Q
ARSENIC	3.4	J	0.047	MDL	14	MRL	mg/Kg	J	Z
BARIUM	62	J	0.065	MDL	130	MRL	mg/Kg	J	Z
BERYLLIUM	0.44	J	0.021	MDL	1.0	MRL	mg/Kg	J	Z
CADMIUM	0.63	J B	0.0087	MDL	0.93	MRL	mg/Kg	J	Z
CHROMIUM	19	J	0.071	MDL	34	MRL	mg/Kg	J	Z
COBALT	5.8	J	0.0062	MDL	20	MRL	mg/Kg	J	Z
COPPER	12	J	0.066	MDL	27	MRL	mg/Kg	J	Z
LEAD	15	J	0.017	MDL	32	MRL	mg/Kg	J	Z
MOLYBDENUM	0.40	J	0.016	MDL	4.9	MRL	mg/Kg	J	Z
NICKEL	11	J	0.024	MDL	27	MRL	mg/Kg	J	Z
SELENIUM	0.14	J	0.12	MDL	0.61	MRL	mg/Kg	J	Z
SILVER	0.046	J	0.019	MDL	0.73	MRL	mg/Kg	J	Z
THALLIUM	0.21	J	0.0033	MDL	0.43	MRL	mg/Kg	J	Z
VANADIUM	35	J	0.036	MDL	58	MRL	mg/Kg	J	Z
ZINC	72	J	0.29	MDL	100	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-511-SA6-SB-0.0-0.5

Collected: 11/7/2012 7:50:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.017	J	0.014	MDL	8.8	MRL	mg/Kg	J	Z, Q
ARSENIC	6.3	J	0.051	MDL	15	MRL	mg/Kg	J	Z
BARIUM	81	J	0.071	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.43	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.18	J B	0.0095	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	14	J	0.077	MDL	37	MRL	mg/Kg	J	Z
COBALT	4.8	J	0.0067	MDL	21	MRL	mg/Kg	J	Z
COPPER	7.1	J	0.072	MDL	29	MRL	mg/Kg	J	Z
LEAD	12	J	0.018	MDL	34	MRL	mg/Kg	J	Z
MOLYBDENUM	0.34	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z
NICKEL	8.6	J	0.026	MDL	29	MRL	mg/Kg	J	Z
SELENIUM	0.13	J	0.13	MDL	0.66	MRL	mg/Kg	J	Z
SILVER	0.033	J	0.021	MDL	0.80	MRL	mg/Kg	J	Z
THALLIUM	0.21	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	27	J	0.039	MDL	63	MRL	mg/Kg	J	Z
ZINC	58	J	0.32	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-522-SA6-SB-0.0-0.5

Collected: 11/7/2012 10:30:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.019	J	0.014	MDL	8.9	MRL	mg/Kg	J	Z, Q
ARSENIC	6.5	J	0.052	MDL	15	MRL	mg/Kg	J	Z
BARIUM	81	J	0.072	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.45	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.21	J B	0.0096	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	13	J	0.077	MDL	37	MRL	mg/Kg	J	Z
COBALT	4.9	J	0.0068	MDL	21	MRL	mg/Kg	J	Z
COPPER	7.0	J	0.072	MDL	30	MRL	mg/Kg	J	Z
LEAD	12	J	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.35	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z
NICKEL	8.7	J	0.026	MDL	30	MRL	mg/Kg	J	Z
SILVER	0.029	J	0.021	MDL	0.80	MRL	mg/Kg	J	Z
THALLIUM	0.21	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	27	J	0.039	MDL	63	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS
Method:	6020A
Matrix:	SO

Sample ID: SL-522-SA6-SB-0.0-0.5 Collected: 11/7/2012 10:30:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	58	J	0.32	MDL	110	MRL	mg/Kg	J	Z

Method Category:	METALS
Method:	7471B
Matrix:	SO

Sample ID: SL-507-SA6-SB-0.0-0.5 Collected: 11/7/2012 1:15:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.017	J	0.0059	MDL	0.021	MRL	mg/Kg	J	Z

Sample ID: SL-508-SA6-SB-0.0-0.5 Collected: 11/7/2012 8:45:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.015	J	0.0059	MDL	0.021	MRL	mg/Kg	J	Z

Sample ID: SL-522-SA6-SB-0.0-0.5 Collected: 11/7/2012 10:30:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.016	J	0.0059	MDL	0.021	MRL	mg/Kg	J	Z

Method Category:	SVOA
Method:	8015B EFH
Matrix:	SO

Sample ID: SL-502-SA6-SB-0.0-0.5 Collected: 11/7/2012 1:40:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	3.2	J	0.98	MDL	4.9	MRL	mg/Kg	J	Z

Sample ID: SL-503-SA6-SB-0.0-0.5 Collected: 11/7/2012 2:30:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.6	J	0.95	MDL	4.8	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8015B EFH
Matrix:	SO

Sample ID: SL-504-SA6-SB-0.0-0.5			Collected: 11/7/2012 2:08:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	3.7	J	0.96	MDL	4.8	MRL	mg/Kg	J	Z
EFH(C30-C40)	8.8	J	0.96	MDL	9.6	MRL	mg/Kg	J	Z

Sample ID: SL-505-SA6-SB-0.0-0.5			Collected: 11/7/2012 10:58:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	3.0	J	0.99	MDL	5.0	MRL	mg/Kg	J	Z

Sample ID:SL-506-SA6-SB-0.0-0.5			Collected: 11/7/2012 12:50:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	2.4	J	0.98	MDL	4.9	MRL	mg/Kg	J	Z
EFH(C30-C40)	7.7	J	0.98	MDL	9.8	MRL	mg/Kg	J	Z

Sample ID: SL-507-SA6-SB-0.0-0.5			Collected: 11/7/2012 1:15:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.7	J	1.0	MDL	5.0	MRL	mg/Kg	J	Z

Sample ID:SL-508-SA6-SB-0.0-0.5			Collected: 11/7/2012 8:45:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	1.3	J	0.93	MDL	4.6	MRL	mg/Kg	J	Z
EFH(C30-C40)	4.1	J	0.93	MDL	9.3	MRL	mg/Kg	J	Z

Sample ID: SL-509-SA6-SB-0.0-0.5			Collected: 11/7/2012 9:10:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	3.9	J	0.97	MDL	4.9	MRL	mg/Kg	J	Z

Sample ID:SL-510-SA6-SB-0.0-0.5			Collected: 11/7/2012 9:35:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	3.4	J	0.94	MDL	4.7	MRL	mg/Kg	J	Z
EFH(C30-C40)	9.3	J	0.94	MDL	9.4	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8015B EFH
Matrix:	SO

Sample ID: SL-511-SA6-SB-0.0-0.5 Collected: 11/7/2012 7:50:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	2.5	J	0.96	MDL	4.8	MRL	mg/Kg	J	Z
EFH(C30-C40)	8.4	J	0.96	MDL	9.6	MRL	mg/Kg	J	Z

Sample ID: SL-522-SA6-SB-0.0-0.5 Collected: 11/7/2012 10:30:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.9	J	0.99	MDL	4.9	MRL	mg/Kg	J	Z

Method Category:	SVOA
Method:	8270C SIM
Matrix:	SO

Sample ID: SL-502-SA6-SB-0.0-0.5 Collected: 11/7/2012 1:40:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.38	J	0.25	MDL	9.7	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.50	J B	0.30	MDL	9.7	MRL	ug/Kg	U	B
ACENAPHTHYLENE	0.28	J	0.16	MDL	9.7	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	3.0	J	0.87	MDL	9.7	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	2.5	J	0.72	MDL	9.7	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	3.7	J	1.2	MDL	9.7	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.9	J	1.1	MDL	9.7	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.3	J	0.97	MDL	9.7	MRL	ug/Kg	J	Z
CHRYSENE	4.3	J	0.97	MDL	9.7	MRL	ug/Kg	J	Z
FLUORANTHENE	4.9	J	0.97	MDL	9.7	MRL	ug/Kg	J	Z
FLUORENE	0.71	J	0.45	MDL	9.7	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	2.1	J	1.1	MDL	9.7	MRL	ug/Kg	J	Z
NAPHTHALENE	0.89	J	0.32	MDL	9.7	MRL	ug/Kg	J	Z
PHENANTHRENE	3.4	J	1.1	MDL	9.7	MRL	ug/Kg	J	Z
PYRENE	2.9	J	1.1	MDL	9.7	MRL	ug/Kg	J	Z

Sample ID: SL-507-SA6-SB-0.0-0.5 Collected: 11/7/2012 1:15:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	7.9	J	0.25	MDL	9.6	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	7.1	J B	0.30	MDL	9.6	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8270C SIM
Matrix:	SO

Sample ID: SL-507-SA6-SB-0.0-0.5 Collected: 11/7/2012 1:15:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	5.0	J	0.15	MDL	9.6	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	3.9	J	0.86	MDL	9.6	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	3.1	J	0.71	MDL	9.6	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	3.3	J	1.1	MDL	9.6	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	7.1	J	0.96	MDL	9.6	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.4	J	1.1	MDL	9.6	MRL	ug/Kg	J	Z

Sample ID: SL-508-SA6-SB-0.0-0.5 Collected: 11/7/2012 8:45:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.25	J	0.17	MDL	9.7	MRL	ug/Kg	J	Z
FLUORANTHENE	1.1	J	0.97	MDL	9.7	MRL	ug/Kg	J	Z
FLUORENE	0.49	J	0.46	MDL	9.7	MRL	ug/Kg	J	Z

Sample ID: SL-509-SA6-SB-0.0-0.5 Collected: 11/7/2012 9:10:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.29	J	0.17	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.3	J	0.89	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	1.3	J	0.73	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	2.4	J	1.2	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.5	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.2	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
CHRYSENE	2.3	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
FLUORANTHENE	2.5	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.7	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
NAPHTHALENE	0.44	J	0.32	MDL	9.8	MRL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z

Sample ID: SL-510-SA6-SB-0.0-0.5 Collected: 11/7/2012 9:35:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	0.18	J	0.16	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.17	J	0.17	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	3.9	J	0.91	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA		
Method:	8270C SIM	Matrix:	SO

Sample ID: SL-510-SA6-SB-0.0-0.5

Collected: 11/7/2012 9:35:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	4.9	J	0.74	MDL	10	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	8.5	J	1.2	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	4.0	J	1.1	MDL	10	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	2.9	J	1.0	MDL	10	MRL	ug/Kg	J	Z
CHRYSENE	6.7	J	1.0	MDL	10	MRL	ug/Kg	J	Z
FLUORANTHENE	9.4	J	1.0	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.2	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	0.43	J	0.33	MDL	10	MRL	ug/Kg	J	Z
PHENANTHRENE	3.1	J	1.1	MDL	10	MRL	ug/Kg	J	Z
PYRENE	7.5	J	1.1	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-511-SA6-SB-0.0-0.5

Collected: 11/7/2012 7:50:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.23	J	0.17	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	2.1	J	0.88	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	2.5	J	0.73	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	4.3	J	1.2	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	2.2	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.3	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
CHRYSENE	3.7	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
FLUORANTHENE	4.8	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	2.2	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
NAPHTHALENE	0.40	J	0.32	MDL	9.8	MRL	ug/Kg	J	Z
PHENANTHRENE	1.7	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
PYRENE	2.5	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z

Sample ID: SL-522-SA6-SB-0.0-0.5

Collected: 11/7/2012 10:30:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.83	J	0.26	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.96	J B	0.31	MDL	10	MRL	ug/Kg	U	B
ACENAPHTHYLENE	0.99	J	0.17	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	1.1	J	0.73	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.94	J	0.91	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-522-SA6-SB-0.0-0.5

Collected: 11/7/2012 10:30:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	1.2	J	0.75	MDL	10	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	3.5	J	1.2	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	2.2	J	1.1	MDL	10	MRL	ug/Kg	J	Z
CHRYSENE	4.6	J	1.0	MDL	10	MRL	ug/Kg	J	Z
FLUORANTHENE	5.5	J	1.0	MDL	10	MRL	ug/Kg	J	Z
FLUORENE	1.3	J	0.47	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.5	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.33	MDL	10	MRL	ug/Kg	J	Z
PHENANTHRENE	3.9	J	1.1	MDL	10	MRL	ug/Kg	J	Z
PYRENE	2.1	J	1.1	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
B	Calibration Blank Contamination
B	Method Blank Contamination
F	Equipment Blank Contamination
F	Field Blank Contamination
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35578-1

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-146843/1-A	11/14/2012 5:38:00 PM	CADMIUM	0.0170 mg/Kg	SL-502-SA6-SB-0.0-0.5 SL-507-SA6-SB-0.0-0.5 SL-508-SA6-SB-0.0-0.5 SL-509-SA6-SB-0.0-0.5 SL-510-SA6-SB-0.0-0.5 SL-511-SA6-SB-0.0-0.5 SL-522-SA6-SB-0.0-0.5

Method: 8015B EFH Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-147158/1-A	11/15/2012 10:37:00 AM	TOTAL EFH(C8-C40)	0.941 mg/Kg	SL-502-SA6-SB-0.0-0.5 SL-503-SA6-SB-0.0-0.5 SL-504-SA6-SB-0.0-0.5 SL-505-SA6-SB-0.0-0.5 SL-506-SA6-SB-0.0-0.5 SL-507-SA6-SB-0.0-0.5 SL-508-SA6-SB-0.0-0.5 SL-509-SA6-SB-0.0-0.5 SL-510-SA6-SB-0.0-0.5 SL-511-SA6-SB-0.0-0.5 SL-522-SA6-SB-0.0-0.5

Method: 8270C SIM Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-146806/1-A	11/14/2012 8:22:00 PM	2-METHYLNAPHTHALENE	0.421 ug/Kg	SL-502-SA6-SB-0.0-0.5 SL-507-SA6-SB-0.0-0.5 SL-508-SA6-SB-0.0-0.5 SL-509-SA6-SB-0.0-0.5 SL-510-SA6-SB-0.0-0.5 SL-511-SA6-SB-0.0-0.5 SL-522-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-502-SA6-SB-0.0-0.5(RES)	2-METHYLNAPHTHALENE	0.50 ug/Kg	9.7U ug/Kg
SL-522-SA6-SB-0.0-0.5(RES)	2-METHYLNAPHTHALENE	0.96 ug/Kg	10U ug/Kg

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-508-SA6-SB-0.0-0.5MS (TOT) SL-508-SA6-SB-0.0-0.5MSD (TOT) (SL-502-SA6-SB-0.0-0.5 SL-507-SA6-SB-0.0-0.5 SL-508-SA6-SB-0.0-0.5 SL-509-SA6-SB-0.0-0.5 SL-510-SA6-SB-0.0-0.5 SL-511-SA6-SB-0.0-0.5 SL-522-SA6-SB-0.0-0.5)	ANTIMONY	6	6	75.00-125.00	-	ANTIMONY	J (all detects) UJ (all non-detects) Post Spike = 97%

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-502-SA6-SB-0.0-0.5	ALUMINUM	J	13000	19000	MRL	mg/Kg	J (all detects)
	BORON	J	2.6	9.1	MRL	mg/Kg	
	LITHIUM	J	22	35	MRL	mg/Kg	
	MANGANESE	J	260	470	MRL	mg/Kg	
	POTASSIUM	J	3200	6000	MRL	mg/Kg	
	SODIUM	J	87	470	MRL	mg/Kg	
	TIN	J	3.9	10	MRL	mg/Kg	
SL-507-SA6-SB-0.0-0.5	Zirconium	J	1.7	8.1	MRL	mg/Kg	J (all detects)
	ALUMINUM	J	13000	21000	MRL	mg/Kg	
	BORON	J	3.0	10	MRL	mg/Kg	
	LITHIUM	J	21	38	MRL	mg/Kg	
	MANGANESE	J	290	510	MRL	mg/Kg	
	POTASSIUM	J	3400	6600	MRL	mg/Kg	
	SODIUM	J	68	510	MRL	mg/Kg	
SL-508-SA6-SB-0.0-0.5	TIN	J	3.6	11	MRL	mg/Kg	J (all detects)
	Zirconium	J	1.5	8.8	MRL	mg/Kg	
	ALUMINUM	J	14000	19000	MRL	mg/Kg	
	BORON	J	1.9	9.4	MRL	mg/Kg	
	LITHIUM	J	23	36	MRL	mg/Kg	
	MANGANESE	J	320	480	MRL	mg/Kg	
	POTASSIUM	J	3400	6200	MRL	mg/Kg	
SL-509-SA6-SB-0.0-0.5	SODIUM	J	79	480	MRL	mg/Kg	J (all detects)
	TIN	J	3.6	11	MRL	mg/Kg	
	Zirconium	J	1.9	8.3	MRL	mg/Kg	
	ALUMINUM	J	13000	19000	MRL	mg/Kg	
	BORON	J	1.6	9.4	MRL	mg/Kg	
	LITHIUM	J	25	36	MRL	mg/Kg	
	MANGANESE	J	320	480	MRL	mg/Kg	
SL-510-SA6-SB-0.0-0.5	POTASSIUM	J	3900	6200	MRL	mg/Kg	J (all detects)
	SODIUM	J	72	490	MRL	mg/Kg	
	TIN	J	4.0	11	MRL	mg/Kg	
	Zirconium	J	1.5	8.4	MRL	mg/Kg	
	ALUMINUM	J	12000	19000	MRL	mg/Kg	
	BORON	J	1.3	9.0	MRL	mg/Kg	
	LITHIUM	J	23	34	MRL	mg/Kg	
SL-511-SA6-SB-0.0-0.5	MANGANESE	J	300	460	MRL	mg/Kg	J (all detects)
	POTASSIUM	J	2800	5900	MRL	mg/Kg	
	SODIUM	J	78	460	MRL	mg/Kg	
	TIN	J	4.2	10	MRL	mg/Kg	
	Zirconium	J	1.1	8.0	MRL	mg/Kg	
	ALUMINUM	J	13000	19000	MRL	mg/Kg	
	BORON	J	1.8	9.4	MRL	mg/Kg	
SL-511-SA6-SB-0.0-0.5	LITHIUM	J	24	36	MRL	mg/Kg	J (all detects)
	MANGANESE	J	290	480	MRL	mg/Kg	
	POTASSIUM	J	3400	6200	MRL	mg/Kg	
	SODIUM	J	77	480	MRL	mg/Kg	
	TIN	J	4.0	11	MRL	mg/Kg	
	Zirconium	J	1.4	8.3	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-522-SA6-SB-0.0-0.5	ALUMINUM	J	15000	19000	MRL	mg/Kg	J (all detects)
	BORON	J	1.8	9.3	MRL	mg/Kg	
	LITHIUM	J	23	36	MRL	mg/Kg	
	MANGANESE	J	280	480	MRL	mg/Kg	
	POTASSIUM	J	3600	6100	MRL	mg/Kg	
	SODIUM	J	80	480	MRL	mg/Kg	
	TIN	J	4.0	10	MRL	mg/Kg	
	Zirconium	J	1.5	8.3	MRL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-502-SA6-SB-0.0-0.5	ANTIMONY	J	0.014	8.8	MRL	mg/Kg	J (all detects)
	ARSENIC	J	4.6	15	MRL	mg/Kg	
	BARIUM	J	79	140	MRL	mg/Kg	
	BERYLLIUM	J	0.44	1.1	MRL	mg/Kg	
	CADMIUM	J B	0.15	1.0	MRL	mg/Kg	
	CHROMIUM	J	13	37	MRL	mg/Kg	
	COBALT	J	4.7	21	MRL	mg/Kg	
	COPPER	J	6.7	29	MRL	mg/Kg	
	LEAD	J	12	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.39	5.4	MRL	mg/Kg	
	NICKEL	J	8.4	29	MRL	mg/Kg	
	SILVER	J	0.025	0.80	MRL	mg/Kg	
	THALLIUM	J	0.19	0.47	MRL	mg/Kg	
	VANADIUM	J	26	63	MRL	mg/Kg	
	ZINC	J	52	110	MRL	mg/Kg	
SL-507-SA6-SB-0.0-0.5	ANTIMONY	J	0.014	8.2	MRL	mg/Kg	J (all detects)
	ARSENIC	J	8.4	14	MRL	mg/Kg	
	BARIUM	J	80	130	MRL	mg/Kg	
	BERYLLIUM	J	0.46	1.0	MRL	mg/Kg	
	CADMIUM	J B	0.14	0.94	MRL	mg/Kg	
	CHROMIUM	J	13	35	MRL	mg/Kg	
	COBALT	J	4.4	20	MRL	mg/Kg	
	COPPER	J	5.8	27	MRL	mg/Kg	
	LEAD	J	4.8	32	MRL	mg/Kg	
	MOLYBDENUM	J	0.31	5.0	MRL	mg/Kg	
	NICKEL	J	8.5	27	MRL	mg/Kg	
	SILVER	J	0.027	0.74	MRL	mg/Kg	
	THALLIUM	J	0.19	0.43	MRL	mg/Kg	
	VANADIUM	J	22	58	MRL	mg/Kg	
	ZINC	J	41	100	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-508-SA6-SB-0.0-0.5	ANTIMONY	J	0.026	7.8	MRL	mg/Kg	J (all detects)
	ARSENIC	J	7.4	13	MRL	mg/Kg	
	BARIUM	J	89	130	MRL	mg/Kg	
	BERYLLIUM	J	0.46	0.99	MRL	mg/Kg	
	CADMIUM	J B	0.15	0.90	MRL	mg/Kg	
	CHROMIUM	J	15	33	MRL	mg/Kg	
	COBALT	J	5.4	19	MRL	mg/Kg	
	COPPER	J	7.5	26	MRL	mg/Kg	
	LEAD	J	5.6	30	MRL	mg/Kg	
	MOLYBDENUM	J	0.44	4.7	MRL	mg/Kg	
	NICKEL	J	9.7	26	MRL	mg/Kg	
	SELENIUM	J	0.13	0.59	MRL	mg/Kg	
	SILVER	J	0.037	0.71	MRL	mg/Kg	
	THALLIUM	J	0.21	0.41	MRL	mg/Kg	
	VANADIUM	J	27	56	MRL	mg/Kg	
	ZINC	J	47	99	MRL	mg/Kg	
SL-509-SA6-SB-0.0-0.5	ANTIMONY	J	0.023	7.3	MRL	mg/Kg	J (all detects)
	ARSENIC	J	4.3	13	MRL	mg/Kg	
	BARIUM	J	79	120	MRL	mg/Kg	
	BERYLLIUM	J	0.46	0.93	MRL	mg/Kg	
	CADMIUM	J B	0.18	0.84	MRL	mg/Kg	
	CHROMIUM	J	16	31	MRL	mg/Kg	
	COBALT	J	5.5	18	MRL	mg/Kg	
	COPPER	J	7.9	24	MRL	mg/Kg	
	LEAD	J	8.9	29	MRL	mg/Kg	
	MOLYBDENUM	J	0.34	4.5	MRL	mg/Kg	
	NICKEL	J	10	24	MRL	mg/Kg	
	SELENIUM	J	0.12	0.55	MRL	mg/Kg	
	SILVER	J	0.028	0.67	MRL	mg/Kg	
	THALLIUM	J	0.22	0.39	MRL	mg/Kg	
	VANADIUM	J	31	52	MRL	mg/Kg	
	ZINC	J	55	93	MRL	mg/Kg	
SL-510-SA6-SB-0.0-0.5	ANTIMONY	J	0.038	8.1	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.4	14	MRL	mg/Kg	
	BARIUM	J	62	130	MRL	mg/Kg	
	BERYLLIUM	J	0.44	1.0	MRL	mg/Kg	
	CADMIUM	J B	0.63	0.93	MRL	mg/Kg	
	CHROMIUM	J	19	34	MRL	mg/Kg	
	COBALT	J	5.8	20	MRL	mg/Kg	
	COPPER	J	12	27	MRL	mg/Kg	
	LEAD	J	15	32	MRL	mg/Kg	
	MOLYBDENUM	J	0.40	4.9	MRL	mg/Kg	
	NICKEL	J	11	27	MRL	mg/Kg	
	SELENIUM	J	0.14	0.61	MRL	mg/Kg	
	SILVER	J	0.046	0.73	MRL	mg/Kg	
	THALLIUM	J	0.21	0.43	MRL	mg/Kg	
	VANADIUM	J	35	58	MRL	mg/Kg	
	ZINC	J	72	100	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-511-SA6-SB-0.0-0.5	ANTIMONY	J	0.017	8.8	MRL	mg/Kg	J (all detects)
	ARSENIC	J	6.3	15	MRL	mg/Kg	
	BARIUM	J	81	140	MRL	mg/Kg	
	BERYLLIUM	J	0.43	1.1	MRL	mg/Kg	
	CADMIUM	J B	0.18	1.0	MRL	mg/Kg	
	CHROMIUM	J	14	37	MRL	mg/Kg	
	COBALT	J	4.8	21	MRL	mg/Kg	
	COPPER	J	7.1	29	MRL	mg/Kg	
	LEAD	J	12	34	MRL	mg/Kg	
	MOLYBDENUM	J	0.34	5.4	MRL	mg/Kg	
	NICKEL	J	8.6	29	MRL	mg/Kg	
	SELENIUM	J	0.13	0.66	MRL	mg/Kg	
	SILVER	J	0.033	0.80	MRL	mg/Kg	
	THALLIUM	J	0.21	0.47	MRL	mg/Kg	
	VANADIUM	J	27	63	MRL	mg/Kg	
	ZINC	J	58	110	MRL	mg/Kg	
SL-522-SA6-SB-0.0-0.5	ANTIMONY	J	0.019	8.9	MRL	mg/Kg	J (all detects)
	ARSENIC	J	6.5	15	MRL	mg/Kg	
	BARIUM	J	81	140	MRL	mg/Kg	
	BERYLLIUM	J	0.45	1.1	MRL	mg/Kg	
	CADMIUM	J B	0.21	1.0	MRL	mg/Kg	
	CHROMIUM	J	13	37	MRL	mg/Kg	
	COBALT	J	4.9	21	MRL	mg/Kg	
	COPPER	J	7.0	30	MRL	mg/Kg	
	LEAD	J	12	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.35	5.4	MRL	mg/Kg	
	NICKEL	J	8.7	30	MRL	mg/Kg	
	SILVER	J	0.029	0.80	MRL	mg/Kg	
	THALLIUM	J	0.21	0.47	MRL	mg/Kg	
	VANADIUM	J	27	63	MRL	mg/Kg	
	ZINC	J	58	110	MRL	mg/Kg	

Method: 7471B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-507-SA6-SB-0.0-0.5	MERCURY	J	0.017	0.021	MRL	mg/Kg	J (all detects)
SL-508-SA6-SB-0.0-0.5	MERCURY	J	0.015	0.021	MRL	mg/Kg	J (all detects)
SL-522-SA6-SB-0.0-0.5	MERCURY	J	0.016	0.021	MRL	mg/Kg	J (all detects)

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-502-SA6-SB-0.0-0.5	EFH(C15-C20)	J	3.2	4.9	MRL	mg/Kg	J (all detects)
SL-503-SA6-SB-0.0-0.5	EFH(C15-C20)	J	1.6	4.8	MRL	mg/Kg	J (all detects)

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-504-SA6-SB-0.0-0.5	EFH(C21-C30)	J	3.7	4.8	MRL	mg/Kg	J (all detects)
	EFH(C30-C40)	J	8.8	9.6	MRL	mg/Kg	
SL-505-SA6-SB-0.0-0.5	EFH(C15-C20)	J	3.0	5.0	MRL	mg/Kg	J (all detects)
SL-506-SA6-SB-0.0-0.5	EFH(C21-C30)	J	2.4	4.9	MRL	mg/Kg	J (all detects)
	EFH(C30-C40)	J	7.7	9.8	MRL	mg/Kg	
SL-507-SA6-SB-0.0-0.5	EFH(C15-C20)	J	1.7	5.0	MRL	mg/Kg	J (all detects)
SL-508-SA6-SB-0.0-0.5	EFH(C21-C30)	J	1.3	4.6	MRL	mg/Kg	J (all detects)
	EFH(C30-C40)	J	4.1	9.3	MRL	mg/Kg	
SL-509-SA6-SB-0.0-0.5	EFH(C21-C30)	J	3.9	4.9	MRL	mg/Kg	J (all detects)
SL-510-SA6-SB-0.0-0.5	EFH(C21-C30)	J	3.4	4.7	MRL	mg/Kg	J (all detects)
	EFH(C30-C40)	J	9.3	9.4	MRL	mg/Kg	
SL-511-SA6-SB-0.0-0.5	EFH(C21-C30)	J	2.5	4.8	MRL	mg/Kg	J (all detects)
	EFH(C30-C40)	J	8.4	9.6	MRL	mg/Kg	
SL-522-SA6-SB-0.0-0.5	EFH(C15-C20)	J	1.9	4.9	MRL	mg/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-502-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.38	9.7	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	0.50	9.7	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.28	9.7	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	3.0	9.7	MRL	ug/Kg	
	BENZO(A)PYRENE	J	2.5	9.7	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	3.7	9.7	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.9	9.7	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.3	9.7	MRL	ug/Kg	
	CHRYSENE	J	4.3	9.7	MRL	ug/Kg	
	FLUORANTHENE	J	4.9	9.7	MRL	ug/Kg	
	FLUORENE	J	0.71	9.7	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	2.1	9.7	MRL	ug/Kg	
	NAPHTHALENE	J	0.89	9.7	MRL	ug/Kg	
	PHENANTHRENE	J	3.4	9.7	MRL	ug/Kg	
	PYRENE	J	2.9	9.7	MRL	ug/Kg	
SL-507-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	7.9	9.6	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	7.1	9.6	MRL	ug/Kg	
	ACENAPHTHENE	J	5.0	9.6	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	3.9	9.6	MRL	ug/Kg	
	BENZO(A)PYRENE	J	3.1	9.6	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	3.3	9.6	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	7.1	9.6	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.4	9.6	MRL	ug/Kg	
SL-508-SA6-SB-0.0-0.5	ACENAPHTHYLENE	J	0.25	9.7	MRL	ug/Kg	J (all detects)
	FLUORANTHENE	J	1.1	9.7	MRL	ug/Kg	
	FLUORENE	J	0.49	9.7	MRL	ug/Kg	

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/21/2013 11:24:58 AM

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-35578-1

Laboratory: TA DEN

EDD Filename: 280-35578-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-509-SA6-SB-0.0-0.5	ACENAPHTHYLENE	J	0.29	9.8	MRL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.3	9.8	MRL	ug/Kg	
	BENZO(A)PYRENE	J	1.3	9.8	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	2.4	9.8	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.5	9.8	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.2	9.8	MRL	ug/Kg	
	CHRYSENE	J	2.3	9.8	MRL	ug/Kg	
	FLUORANTHENE	J	2.5	9.8	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.7	9.8	MRL	ug/Kg	
	NAPHTHALENE	J	0.44	9.8	MRL	ug/Kg	
	PHENANTHRENE	J	1.2	9.8	MRL	ug/Kg	
SL-510-SA6-SB-0.0-0.5	ACENAPHTHENE	J	0.18	10	MRL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.17	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	3.9	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	4.9	10	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	8.5	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.0	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	2.9	10	MRL	ug/Kg	
	CHRYSENE	J	6.7	10	MRL	ug/Kg	
	FLUORANTHENE	J	9.4	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.2	10	MRL	ug/Kg	
	NAPHTHALENE	J	0.43	10	MRL	ug/Kg	
	PHENANTHRENE	J	3.1	10	MRL	ug/Kg	
	PYRENE	J	7.5	10	MRL	ug/Kg	
SL-511-SA6-SB-0.0-0.5	ACENAPHTHYLENE	J	0.23	9.8	MRL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	2.1	9.8	MRL	ug/Kg	
	BENZO(A)PYRENE	J	2.5	9.8	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	4.3	9.8	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	2.2	9.8	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.3	9.8	MRL	ug/Kg	
	CHRYSENE	J	3.7	9.8	MRL	ug/Kg	
	FLUORANTHENE	J	4.8	9.8	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	2.2	9.8	MRL	ug/Kg	
	NAPHTHALENE	J	0.40	9.8	MRL	ug/Kg	
	PHENANTHRENE	J	1.7	9.8	MRL	ug/Kg	
	PYRENE	J	2.5	9.8	MRL	ug/Kg	
SL-522-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.83	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J B	0.96	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.99	10	MRL	ug/Kg	
	ANTHRACENE	J	1.1	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	0.94	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	1.2	10	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	3.5	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	2.2	10	MRL	ug/Kg	
	CHRYSENE	J	4.6	10	MRL	ug/Kg	
	FLUORANTHENE	J	5.5	10	MRL	ug/Kg	
	FLUORENE	J	1.3	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.5	10	MRL	ug/Kg	
	NAPHTHALENE	J	1.6	10	MRL	ug/Kg	
	PHENANTHRENE	J	3.9	10	MRL	ug/Kg	
	PYRENE	J	2.1	10	MRL	ug/Kg	

LDC #: 29419B4
 SDG #: 280-35578-1
 Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET ADR

Date: 4/2/13
 Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	-	Sampling dates: 11/7/12
II.	ICP/MS Tune	-	
III.	Calibration	-	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	-	
VI.	Matrix Spike Analysis	N	MS/D(B ₂ 74x) SOPS = 97% (5/5)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	-	
XV.	Field Blanks	SW	EB = EB-110812 (280-35658-1)

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples:

1	SL-508-SA6-SB-0.0-0.5	11		21		31	
2	SL-509-SA6-SB-0.0-0.5	12		22		32	
3	SL-510-SA6-SB-0.0-0.5	13		23		33	
4	SL-511-SA6-SB-0.0-0.5	14		24		34	
5	SL-522-SA6-SB-0.0-0.5	15		25		35	
6	SL-502-SA6-SB-0.0-0.5	16		26		36	
7	SL-507-SA6-SB-0.0-0.5	17		27		37	
8	SL-508-SA6-SB-0.0-0.5MS	18		28		38	
9	SL-508-SA6-SB-0.0-0.5MSD	19		29		39	
10		20		30		40	

Notes: _____

Reason: B

Soil preparation factor applied: 100x

Associated Samples: All

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)

Sample Concentration units, unless otherwise noted: mg/Kg

Analyte	Maximum PB ^a (mg/Kg)	Maximum PB ^a (ug/l)	Maximum ICB/CCB ^a (ug/l)	Action Level	6	7					
Ag			0.055	0.0275	0.025	0.027					

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

SAMPLE DELIVERY GROUP

280-35578-2

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Nov-2012	SL-511-SA6-SB-0.0-0.5	280-35578-10	N	1613	1613B	III
07-Nov-2012	SL-508-SA6-SB-0.0-0.5	280-35578-4	N	1613	1613B	III
07-Nov-2012	SL-509-SA6-SB-0.0-0.5	280-35578-6	N	1613	1613B	III
07-Nov-2012	SL-510-SA6-SB-0.0-0.5	280-35578-8	N	1613	1613B	III
07-Nov-2012	SL-522-SA6-SB-0.0-0.5	280-35578-12	N	1613	1613B	III
07-Nov-2012	SL-505-SA6-SB-0.0-0.5	280-35578-2	N	1613	1613B	III
07-Nov-2012	SL-506-SA6-SB-0.0-0.5	280-35578-20	N	1613	1613B	III
07-Nov-2012	SL-507-SA6-SB-0.0-0.5	280-35578-22	N	1613	1613B	III
07-Nov-2012	SL-502-SA6-SB-0.0-0.5	280-35578-14	N	1613	1613B	III
07-Nov-2012	SL-504-SA6-SB-0.0-0.5	280-35578-18	N	1613	1613B	III
07-Nov-2012	SL-503-SA6-SB-0.0-0.5	280-35578-16	N	1613	1613B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-2

Laboratory: TA DEN

EDD Filename: 280-35578-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-502-SA6-SB-0.0-0.5

Collected: 11/7/2012 1:40:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.4	J	0.12	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.21	J	0.14	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	0.14	Q J	0.083	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.40	J	0.14	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	0.27	Q J	0.084	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.42	Q J	0.13	MDL	4.8	MRL	ng/kg	J	Z
OCDF	1.2	S B J	0.16	MDL	9.7	MRL	ng/kg	J	Z

Sample ID: SL-503-SA6-SB-0.0-0.5

Collected: 11/7/2012 2:30:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.9	J	0.13	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.46	J	0.11	MDL	5.1	MRL	ng/kg	J	Z
OCDF	0.86	B S J	0.12	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-504-SA6-SB-0.0-0.5

Collected: 11/7/2012 2:08:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.7	J	0.12	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,6,7,8-HPCDF	1.4	J	0.070	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.61	J	0.13	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	0.42	J	0.066	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.22	Q J	0.10	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	0.34	J	0.061	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.16	J	0.062	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.14	Q J	0.13	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.13	Q J	0.068	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.13	Q J	0.091	MDL	5.2	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.092	Q J	0.15	MDL	1.0	MRL	ng/kg	J	Z
OCDF	2.8	B J	0.083	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-505-SA6-SB-0.0-0.5

Collected: 11/7/2012 10:58:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	4.4	J	0.076	MDL	4.9	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-2

Laboratory: TA DEN

EDD Filename: 280-35578-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-505-SA6-SB-0.0-0.5

Collected: 11/7/2012 10:58:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.26	Q J	0.12	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.15	Q J	0.068	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.38	Q J	0.046	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.83	J	0.071	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.61	Q J	0.047	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.58	Q J	0.065	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.25	Q J	0.099	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.13	Q J	0.075	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.15	Q J	0.052	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.19	Q J	0.067	MDL	4.9	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.37	Q J	0.11	MDL	0.98	MRL	ng/kg	J	Z
OCDF	7.0	S B J	0.087	MDL	9.8	MRL	ng/kg	J	Z

Sample ID: SL-506-SA6-SB-0.0-0.5

Collected: 11/7/2012 12:50:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.0	J	0.069	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.24	J	0.11	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.17	J	0.079	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.22	J	0.047	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.50	Q J	0.077	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.18	Q J	0.047	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.68	Q J	0.073	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.054	Q J	0.047	MDL	5.1	MRL	ng/kg	J	Z
OCDF	4.0	B J	0.086	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-507-SA6-SB-0.0-0.5

Collected: 11/7/2012 1:15:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.50	J	0.10	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.27	Q J	0.078	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	2.4	J	0.043	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.76	Q J	0.081	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.62	Q J	0.045	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.70	J	0.075	MDL	5.1	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-2

Laboratory: TA DEN

EDD Filename: 280-35578-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-507-SA6-SB-0.0-0.5

Collected: 11/7/2012 1:15:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDF	0.094	J	0.045	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.17	Q J	0.091	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.23	J	0.045	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.52	J	0.069	MDL	5.1	MRL	ng/kg	J	Z
OCDF	7.6	B J	0.082	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-508-SA6-SB-0.0-0.5

Collected: 11/7/2012 8:45:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.7	J	0.080	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.35	J	0.054	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDD	0.29	Q J	0.093	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.21	Q J	0.054	MDL	4.9	MRL	ng/kg	J	Z
OCDF	3.7	S B J	0.10	MDL	9.9	MRL	ng/kg	J	Z

Sample ID: SL-509-SA6-SB-0.0-0.5

Collected: 11/7/2012 9:10:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.5	J	0.082	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.32	Q J	0.12	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.35	J	0.087	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.53	J	0.050	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDD	0.98	J	0.088	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.38	Q J	0.051	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDD	1.1	J	0.082	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.33	Q J	0.099	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.15	Q J	0.068	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.20	J	0.050	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.15	Q J	0.061	MDL	5.1	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.33	J	0.10	MDL	1.0	MRL	ng/kg	J	Z
OCDF	4.1	S B J	0.072	MDL	10	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-2

Laboratory: TA DEN

EDD Filename: 280-35578-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-510-SA6-SB-0.0-0.5

Collected: 11/7/2012 9:35:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.84	Q J	0.21	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.45	Q J	0.14	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	1.0	Q J	0.094	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	2.0	J	0.15	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	1.2	Q J	0.080	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	1.4	J	0.13	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.52	Q J	0.17	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.43	J	0.13	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.35	Q J	0.086	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.73	Q J	0.12	MDL	4.9	MRL	ng/kg	J	Z

Sample ID: SL-511-SA6-SB-0.0-0.5

Collected: 11/7/2012 7:50:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	3.6	J	0.23	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.94	J	0.16	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	4.2	J	0.17	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	3.6	J	0.11	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	2.6	J	0.15	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.45	Q J	0.18	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.62	J	0.17	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	1.6	J	0.11	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	2.5	J	0.15	MDL	5.0	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.43	Q J	0.19	MDL	1.0	MRL	ng/kg	J	Z

Sample ID: SL-522-SA6-SB-0.0-0.5

Collected: 11/7/2012 10:30:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.9	J	0.11	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	1.4	Q J	0.086	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.37	Q J	0.13	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	0.33	Q J	0.082	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.32	Q J	0.12	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.19	J	0.10	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.37	J	0.11	MDL	5.0	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-2

Laboratory: TA DEN

EDD Filename: 280-35578-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-522-SA6-SB-0.0-0.5

Collected: 11/7/2012 10:30:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDF	3.6	B S J	0.14	MDL	10	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35578-2

Laboratory: TA DEN

EDD Filename: 280-35578-2

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35578-2/
H2K100403

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35578-2

Laboratory: TA DEN

EDD Filename: 280-35578-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-502-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	J	1.4	4.8	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.21	4.8	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	Q J	0.14	4.8	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	0.40	4.8	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	0.27	4.8	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	Q J	0.42	4.8	MRL	ng/kg	
	OCDF	S B J	1.2	9.7	MRL	ng/kg	
SL-503-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDD	J	2.9	5.1	MRL	ng/kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	J	0.46	5.1	MRL	ng/kg	
	OCDF	B S J	0.86	10	MRL	ng/kg	
SL-504-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDD	J	4.7	5.2	MRL	ng/kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	J	1.4	5.2	MRL	ng/kg	
	1,2,3,4,7,8,9-HPCDF	J	0.61	5.2	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	J	0.42	5.2	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	0.22	5.2	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	J	0.34	5.2	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	J	0.16	5.2	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.14	5.2	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	Q J	0.13	5.2	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.13	5.2	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.092	1.0	MRL	ng/kg	
	OCDF	B J	2.8	10	MRL	ng/kg	
SL-505-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	J	4.4	4.9	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	Q J	0.26	4.9	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	0.15	4.9	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	Q J	0.38	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	0.83	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	0.61	4.9	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	Q J	0.58	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.25	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.13	4.9	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	Q J	0.15	4.9	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.19	4.9	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.37	0.98	MRL	ng/kg	
	OCDF	S B J	7.0	9.8	MRL	ng/kg	
SL-506-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	J	2.0	5.1	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	J	0.24	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	J	0.17	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	J	0.22	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	0.50	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	0.18	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	Q J	0.68	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	Q J	0.054	5.1	MRL	ng/kg	
	OCDF	B J	4.0	10	MRL	ng/kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35578-2

Laboratory: TA DEN

EDD Filename: 280-35578-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-507-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	J	0.50	5.1	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	Q J	0.27	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	J	2.4	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	0.76	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.62	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	0.70	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	J	0.094	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.17	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	0.23	5.1	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	0.52	5.1	MRL	ng/kg	
	OCDF	B J	7.6	10	MRL	ng/kg	
SL-508-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	J	1.7	4.9	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HXCDF	J	0.35	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	0.29	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.21	4.9	MRL	ng/kg	
	OCDF	S B J	3.7	9.9	MRL	ng/kg	
SL-509-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	J	3.5	5.1	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	Q J	0.32	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	J	0.35	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	J	0.53	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	0.98	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.38	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	1.1	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.33	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.15	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	0.20	5.1	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.15	5.1	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.33	1.0	MRL	ng/kg	
	OCDF	S B J	4.1	10	MRL	ng/kg	
SL-510-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	Q J	0.84	4.9	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	Q J	0.45	4.9	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q J	1.0	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	2.0	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	1.2	4.9	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	1.4	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.52	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	0.43	4.9	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	Q J	0.35	4.9	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.73	4.9	MRL	ng/kg	
SL-511-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	J	3.6	5.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.94	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	4.2	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	J	3.6	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	2.6	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.45	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	0.62	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	1.6	5.0	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	2.5	5.0	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.43	1.0	MRL	ng/kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35578-2

Laboratory: TA DEN

EDD Filename: 280-35578-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-522-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	J	2.9	5.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HXCDF	Q J	1.4	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	Q J	0.37	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.33	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	Q J	0.32	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	0.19	5.0	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	0.37	5.0	MRL	ng/kg	
	OCDF	B S J	3.6	10	MRL	ng/kg	

SAMPLE DELIVERY GROUP

280-35658-1

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-Nov-2012	SL-513-SA6-SB-0.0-0.5	280-35658-1	N	3546	8270C SIM	III
08-Nov-2012	SL-513-SA6-SB-0.0-0.5	280-35658-1	N	3550C	8015B EFH	III
08-Nov-2012	SL-513-SA6-SB-0.0-0.5	280-35658-2	N	3050B	6010C	III
08-Nov-2012	SL-513-SA6-SB-0.0-0.5	280-35658-2	N	3050B	6020A	III
08-Nov-2012	SL-513-SA6-SB-0.0-0.5	280-35658-2	N	3546	8082A	III
08-Nov-2012	SL-513-SA6-SB-0.0-0.5	280-35658-2	N	7471B	7471B	III
08-Nov-2012	SL-513-SA6-SB-0.0-0.5MS	280-35658-2MS	MS	3050B	6010C	III
08-Nov-2012	SL-513-SA6-SB-0.0-0.5MS	280-35658-2MS	MS	3050B	6020A	III
08-Nov-2012	SL-513-SA6-SB-0.0-0.5MSD	280-35658-2MSD	MSD	3050B	6010C	III
08-Nov-2012	SL-513-SA6-SB-0.0-0.5MSD	280-35658-2MSD	MSD	3050B	6020A	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5	280-35658-3	N	3546	8270C SIM	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5	280-35658-3	N	3550C	8015B EFH	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5	280-35658-4	N	3050B	6010C	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5	280-35658-4	N	3050B	6020A	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5	280-35658-4	N	3546	8081B	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5	280-35658-4	N	3546	8082A	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5	280-35658-4	N	7471B	7471B	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5	280-35658-4	N	8151A	8151A	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5MS	280-35658-4MS	MS	3546	8081B	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5MSD	280-35658-4MSD	MSD	3546	8081B	III
08-Nov-2012	SL-650-SA6-SB-0.0-0.5	280-35658-5	N	3546	8270C SIM	III
08-Nov-2012	SL-650-SA6-SB-0.0-0.5	280-35658-5	N	3550C	8015B EFH	III
08-Nov-2012	SL-650-SA6-SB-0.0-0.5	280-35658-6	N	3050B	6010C	III
08-Nov-2012	SL-650-SA6-SB-0.0-0.5	280-35658-6	N	3050B	6020A	III
08-Nov-2012	SL-650-SA6-SB-0.0-0.5	280-35658-6	N	3546	8081B	III
08-Nov-2012	SL-650-SA6-SB-0.0-0.5	280-35658-6	N	3546	8082A	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-Nov-2012	SL-650-SA6-SB-0.0-0.5	280-35658-6	N	7471B	7471B	III
08-Nov-2012	SL-650-SA6-SB-0.0-0.5	280-35658-6	N	8151A	8151A	III
08-Nov-2012	SL-650-SA6-SB-0.0-0.5MS	280-35658-6MS	MS	3546	8081B	III
08-Nov-2012	SL-650-SA6-SB-0.0-0.5MSD	280-35658-6MSD	MSD	3546	8081B	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5	280-35658-7	N	3546	8270C SIM	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5	280-35658-7	N	3550C	8015B EFH	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5MS	280-35658-7MS	MS	3546	8270C SIM	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5MSD	280-35658-7MSD	MSD	3546	8270C SIM	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5	280-35658-8	N	3050B	6010C	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5	280-35658-8	N	3050B	6020A	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5	280-35658-8	N	3546	8081B	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5	280-35658-8	N	3546	8082A	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5	280-35658-8	N	7471B	7471B	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5	280-35658-8	N	8151A	8151A	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5MS	280-35658-8MS	MS	3546	8082A	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5MSD	280-35658-8MSD	MSD	3546	8082A	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5	280-35658-10	N	3050B	6010C	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5	280-35658-10	N	3050B	6020A	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5	280-35658-10	N	3546	8081B	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5	280-35658-10	N	3546	8082A	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5	280-35658-10	N	7471B	7471B	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5	280-35658-10	N	8151A	8151A	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5MS	280-35658-10MS	MS	3546	8082A	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5MSD	280-35658-10MSD	MSD	3546	8082A	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5	280-35658-9	N	3546	8270C SIM	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5	280-35658-9	N	3550C	8015B EFH	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-Nov-2012	EB-110812	280-35658-11	EB	3010A	6010C	III
08-Nov-2012	EB-110812	280-35658-11	EB	3020A	6020A	III
08-Nov-2012	EB-110812	280-35658-11	EB	3510C	8015B EFH	III
08-Nov-2012	EB-110812	280-35658-11	EB	3510C	8081B	III
08-Nov-2012	EB-110812	280-35658-11	EB	3510C	8082A	III
08-Nov-2012	EB-110812	280-35658-11	EB	3510C	8270C SIM	III
08-Nov-2012	EB-110812	280-35658-11	EB	7470A	7470A	III
08-Nov-2012	EB-110812	280-35658-11	EB	8151A	8151A	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: AQ

Sample ID: EB-110812

Collected: 11/8/2012 3:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0095	J	0.0044	MDL	0.10	MRL	mg/L	J	Z
MAGNESIUM	0.015	J	0.011	MDL	0.20	MRL	mg/L	J	Z
MANGANESE	0.00054	J B	0.00025	MDL	0.010	MRL	mg/L	U	B
STRONTIUM	0.00037	J	0.00030	MDL	0.010	MRL	mg/L	J	Z
TITANIUM	0.0020	J	0.00060	MDL	0.010	MRL	mg/L	J	Z

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-513-SA6-SB-0.0-0.5

Collected: 11/8/2012 7:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	14000	J	1.4	MDL	18000	MRL	mg/Kg	J	Z
BORON	1.5	J	0.86	MDL	8.5	MRL	mg/Kg	U	F, F
CALCIUM	1800		12	MDL	44	MRL	mg/Kg	J	A
IRON	19000		3.3	MDL	30	MRL	mg/Kg	J	A
LITHIUM	18	J	0.26	MDL	32	MRL	mg/Kg	J	Z, A
MANGANESE	210	J	0.088	MDL	430	MRL	mg/Kg	J	Z, A
PHOSPHORUS	170		1.4	MDL	8.8	MRL	mg/Kg	J	A
POTASSIUM	2100	J	36	MDL	5600	MRL	mg/Kg	J	Z
SODIUM	100	J	52	MDL	440	MRL	mg/Kg	J	Z
STRONTIUM	15		0.032	MDL	0.43	MRL	mg/Kg	J	A
TIN	1.9	J	0.80	MDL	9.6	MRL	mg/Kg	J	Z
Zirconium	1.7	J	0.31	MDL	7.6	MRL	mg/Kg	J	Z

Sample ID: SL-649-SA6-SB-0.0-0.5

Collected: 11/8/2012 10:37:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	15000	J	1.6	MDL	21000	MRL	mg/Kg	J	Z
BORON	1.4	J	1.0	MDL	10	MRL	mg/Kg	U	F, F
CALCIUM	2200		15	MDL	52	MRL	mg/Kg	J	A
IRON	19000		3.9	MDL	35	MRL	mg/Kg	J	A
LITHIUM	23	J	0.31	MDL	38	MRL	mg/Kg	J	Z, A
MANGANESE	250	J	0.10	MDL	510	MRL	mg/Kg	J	Z, A

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/23/2013 2:21:21 PM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-649-SA6-SB-0.0-0.5

Collected: 11/8/2012 10:37:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	310		1.7	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	2900	J	42	MDL	6600	MRL	mg/Kg	J	Z
SODIUM	91	J	61	MDL	520	MRL	mg/Kg	J	Z
STRONTIUM	16		0.037	MDL	0.51	MRL	mg/Kg	J	A
TIN	2.0	J	0.94	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.8	J	0.37	MDL	8.9	MRL	mg/Kg	J	Z

Sample ID: SL-650-SA6-SB-0.0-0.5

Collected: 11/8/2012 11:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	10000	J	1.4	MDL	18000	MRL	mg/Kg	J	Z
BORON	2.4	J	0.86	MDL	8.6	MRL	mg/Kg	U	F, F
CALCIUM	6500		12	MDL	44	MRL	mg/Kg	J	A
IRON	13000		3.3	MDL	30	MRL	mg/Kg	J	A
LITHIUM	8.9	J	0.26	MDL	33	MRL	mg/Kg	J	Z, A
MANGANESE	210	J	0.088	MDL	440	MRL	mg/Kg	J	Z, A
PHOSPHORUS	440		1.4	MDL	8.8	MRL	mg/Kg	J	A
POTASSIUM	2300	J	36	MDL	5600	MRL	mg/Kg	J	Z
SODIUM	100	J	52	MDL	440	MRL	mg/Kg	J	Z
STRONTIUM	26		0.032	MDL	0.44	MRL	mg/Kg	J	A
TIN	0.94	J	0.80	MDL	9.6	MRL	mg/Kg	J	Z
Zirconium	2.4	J	0.31	MDL	7.6	MRL	mg/Kg	J	Z

Sample ID: SL-658-SA6-SB-0.0-0.5

Collected: 11/8/2012 1:37:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.3	MDL	17000	MRL	mg/Kg	J	Z
BORON	2.9	J	0.84	MDL	8.3	MRL	mg/Kg	U	F, F
CALCIUM	6600		12	MDL	43	MRL	mg/Kg	J	A
IRON	16000		3.2	MDL	29	MRL	mg/Kg	J	A
LITHIUM	11	J	0.26	MDL	32	MRL	mg/Kg	J	Z, A
MANGANESE	270	J	0.085	MDL	420	MRL	mg/Kg	J	Z, A
PHOSPHORUS	510		1.4	MDL	8.5	MRL	mg/Kg	J	A
POTASSIUM	2700	J	35	MDL	5500	MRL	mg/Kg	J	Z
SODIUM	120	J	50	MDL	430	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/23/2013 2:21:21 PM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-658-SA6-SB-0.0-0.5

Collected: 11/8/2012 1:37:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STRONTIUM	29		0.031	MDL	0.42	MRL	mg/Kg	J	A
TIN	1.2	J	0.78	MDL	9.3	MRL	mg/Kg	J	Z
Zirconium	2.7	J	0.30	MDL	7.3	MRL	mg/Kg	J	Z

Sample ID: SL-674-SA6-SB-0.0-0.5

Collected: 11/8/2012 2:20:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	14000	J	1.6	MDL	21000	MRL	mg/Kg	J	Z
BORON	2.4	J	1.0	MDL	10	MRL	mg/Kg	U	F, F
CALCIUM	9200		15	MDL	52	MRL	mg/Kg	J	A
IRON	25000		3.9	MDL	35	MRL	mg/Kg	J	A
LITHIUM	24	J	0.31	MDL	38	MRL	mg/Kg	J	Z, A
MANGANESE	370	J	0.10	MDL	510	MRL	mg/Kg	J	Z, A
PHOSPHORUS	510		1.7	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	2900	J	42	MDL	6600	MRL	mg/Kg	J	Z
SODIUM	170	J	61	MDL	520	MRL	mg/Kg	J	Z
STRONTIUM	27		0.037	MDL	0.51	MRL	mg/Kg	J	A
TIN	2.6	J	0.94	MDL	11	MRL	mg/Kg	J	Z
Zirconium	2.4	J	0.37	MDL	8.9	MRL	mg/Kg	J	Z

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-513-SA6-SB-0.0-0.5

Collected: 11/8/2012 7:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.012	U	0.012	MDL	7.4	MRL	mg/Kg	UJ	Q
ARSENIC	3.9	J	0.043	MDL	13	MRL	mg/Kg	J	Z
BARIUM	68	J B	0.060	MDL	120	MRL	mg/Kg	J	Z
BERYLLIUM	0.60	J	0.019	MDL	0.94	MRL	mg/Kg	J	Z
CADMIUM	0.060	J	0.0080	MDL	0.86	MRL	mg/Kg	J	Z
CHROMIUM	17	J	0.065	MDL	32	MRL	mg/Kg	J	Z
COBALT	5.0	J	0.0057	MDL	18	MRL	mg/Kg	J	Z
COPPER	6.5	J	0.061	MDL	25	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-513-SA6-SB-0.0-0.5

Collected: 11/8/2012 7:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	6.4	J B	0.016	MDL	29	MRL	mg/Kg	J	Z
MOLYBDENUM	0.35	J	0.015	MDL	4.5	MRL	mg/Kg	J	Z
NICKEL	8.6	J	0.022	MDL	25	MRL	mg/Kg	J	Z
SELENIUM	0.11	J	0.11	MDL	0.56	MRL	mg/Kg	J	Z
SILVER	0.035	J	0.017	MDL	0.68	MRL	mg/Kg	J	Z
THALLIUM	0.23	J	0.0030	MDL	0.39	MRL	mg/Kg	J	Z
VANADIUM	31	J	0.033	MDL	53	MRL	mg/Kg	J	Z
ZINC	43	J	0.27	MDL	94	MRL	mg/Kg	J	Z

Sample ID: SL-649-SA6-SB-0.0-0.5

Collected: 11/8/2012 10:37:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.029	J	0.013	MDL	8.2	MRL	mg/Kg	J	Z, Q
ARSENIC	3.7	J	0.047	MDL	14	MRL	mg/Kg	J	Z
BARIUM	81	J B	0.066	MDL	130	MRL	mg/Kg	J	Z
BERYLLIUM	0.55	J	0.021	MDL	1.0	MRL	mg/Kg	J	Z
CADMIUM	0.40	J	0.0088	MDL	0.94	MRL	mg/Kg	J	Z
CHROMIUM	18	J	0.071	MDL	35	MRL	mg/Kg	J	Z
COBALT	5.2	J	0.0062	MDL	20	MRL	mg/Kg	J	Z
COPPER	7.5	J	0.067	MDL	27	MRL	mg/Kg	J	Z
LEAD	11	J B	0.017	MDL	32	MRL	mg/Kg	J	Z
MOLYBDENUM	0.30	J	0.017	MDL	5.0	MRL	mg/Kg	J	Z
NICKEL	11	J	0.024	MDL	27	MRL	mg/Kg	J	Z
SELENIUM	0.13	J	0.12	MDL	0.61	MRL	mg/Kg	J	Z
SILVER	0.086	J	0.019	MDL	0.74	MRL	mg/Kg	J	Z
THALLIUM	0.21	J	0.0033	MDL	0.43	MRL	mg/Kg	J	Z
VANADIUM	33	J	0.036	MDL	58	MRL	mg/Kg	J	Z
ZINC	50	J	0.30	MDL	100	MRL	mg/Kg	J	Z

Sample ID: SL-650-SA6-SB-0.0-0.5

Collected: 11/8/2012 11:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.013	U	0.013	MDL	8.1	MRL	mg/Kg	UJ	Q
ARSENIC	2.9	J	0.047	MDL	14	MRL	mg/Kg	J	Z
BARIUM	110	J B	0.066	MDL	130	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-650-SA6-SB-0.0-0.5

Collected: 11/8/2012 11:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.45	J	0.021	MDL	1.0	MRL	mg/Kg	J	Z
CADMIUM	0.40	J	0.0087	MDL	0.93	MRL	mg/Kg	J	Z
CHROMIUM	19	J	0.071	MDL	34	MRL	mg/Kg	J	Z
COBALT	5.8	J	0.0062	MDL	20	MRL	mg/Kg	J	Z
COPPER	11	J	0.066	MDL	27	MRL	mg/Kg	J	Z
LEAD	5.4	J B	0.017	MDL	32	MRL	mg/Kg	J	Z
MOLYBDENUM	0.31	J	0.016	MDL	4.9	MRL	mg/Kg	J	Z
NICKEL	13	J	0.024	MDL	27	MRL	mg/Kg	J	Z
SELENIUM	0.12	J	0.12	MDL	0.61	MRL	mg/Kg	J	Z
SILVER	0.39	J	0.019	MDL	0.73	MRL	mg/Kg	J	Z
THALLIUM	0.14	J	0.0033	MDL	0.43	MRL	mg/Kg	J	Z
VANADIUM	31	J	0.036	MDL	58	MRL	mg/Kg	J	Z
ZINC	44	J	0.29	MDL	100	MRL	mg/Kg	J	Z

Sample ID: SL-658-SA6-SB-0.0-0.5

Collected: 11/8/2012 1:37:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.017	J	0.012	MDL	7.6	MRL	mg/Kg	J	Z, Q
ARSENIC	2.8	J	0.044	MDL	13	MRL	mg/Kg	J	Z
BARIUM	96	J B	0.062	MDL	120	MRL	mg/Kg	J	Z
BERYLLIUM	0.43	J	0.020	MDL	0.96	MRL	mg/Kg	J	Z
CADMIUM	0.29	J	0.0082	MDL	0.88	MRL	mg/Kg	J	Z
CHROMIUM	18	J	0.067	MDL	32	MRL	mg/Kg	J	Z
COBALT	5.5	J	0.0058	MDL	18	MRL	mg/Kg	J	Z
COPPER	11	J	0.062	MDL	25	MRL	mg/Kg	J	Z
LEAD	6.5	J B	0.016	MDL	30	MRL	mg/Kg	J	Z
MOLYBDENUM	0.34	J	0.015	MDL	4.6	MRL	mg/Kg	J	Z
NICKEL	12	J	0.022	MDL	25	MRL	mg/Kg	J	Z
SILVER	0.060	J	0.018	MDL	0.69	MRL	mg/Kg	J	Z
THALLIUM	0.13	J	0.0031	MDL	0.40	MRL	mg/Kg	J	Z
VANADIUM	30	J	0.034	MDL	54	MRL	mg/Kg	J	Z
ZINC	43	J	0.28	MDL	96	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS
Method:	6020A
Matrix:	SO

Sample ID: SL-674-SA6-SB-0.0-0.5 Collected: 11/8/2012 2:20:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.044	J	0.015	MDL	9.0	MRL	mg/Kg	J	Z, Q
ARSENIC	1.9	J	0.052	MDL	16	MRL	mg/Kg	J	Z
BARIUM	92	J B	0.073	MDL	150	MRL	mg/Kg	J	Z
BERYLLIUM	0.28	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CHROMIUM	33	J	0.079	MDL	38	MRL	mg/Kg	J	Z
COBALT	8.1	J	0.0069	MDL	22	MRL	mg/Kg	J	Z
COPPER	21	J	0.074	MDL	30	MRL	mg/Kg	J	Z
LEAD	17	J B	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.81	J	0.018	MDL	5.5	MRL	mg/Kg	J	Z
THALLIUM	0.12	J	0.0036	MDL	0.48	MRL	mg/Kg	J	Z
VANADIUM	43	J	0.040	MDL	64	MRL	mg/Kg	J	Z
ZINC	92	J	0.33	MDL	110	MRL	mg/Kg	J	Z

Method Category:	METALS
Method:	7471B
Matrix:	SO

Sample ID: SL-649-SA6-SB-0.0-0.5 Collected: 11/8/2012 10:37:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.018	J	0.0061	MDL	0.022	MRL	mg/Kg	J	Z

Sample ID: SL-650-SA6-SB-0.0-0.5 Collected: 11/8/2012 11:00:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.021	J	0.0064	MDL	0.023	MRL	mg/Kg	J	Z

Method Category:	SVOA
Method:	8015B EFH
Matrix:	SO

Sample ID: SL-513-SA6-SB-0.0-0.5 Collected: 11/8/2012 7:40:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	3.0	J	1.0	MDL	5.0	MRL	mg/Kg	J	Z
EFH(C8-C11)	2.8	J B	1.0	MDL	5.0	MRL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8015B EFH
Matrix:	SO

Sample ID: SL-649-SA6-SB-0.0-0.5			Collected: 11/8/2012 10:37:00		Analysis Type: RES			Dilution: 10	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	11	J	10	MDL	51	MRL	mg/Kg	J	Z

Sample ID: SL-658-SA6-SB-0.0-0.5			Collected: 11/8/2012 1:37:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	2.9	J B	1.0	MDL	5.1	MRL	mg/Kg	U	B

Sample ID: SL-674-SA6-SB-0.0-0.5			Collected: 11/8/2012 2:20:00		Analysis Type: RES			Dilution: 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	8.8	J	5.1	MDL	25	MRL	mg/Kg	J	Z

Method Category:	SVOA
Method:	8081B
Matrix:	SO

Sample ID: SL-650-SA6-SB-0.0-0.5			Collected: 11/8/2012 11:00:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	1.0	J	0.24	MDL	3.3	MRL	ug/Kg	J	Z

Method Category:	SVOA
Method:	8082A
Matrix:	SO

Sample ID: SL-513-SA6-SB-0.0-0.5			Collected: 11/8/2012 7:40:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	12	J	5.5	MDL	17	MRL	ug/Kg	J	Z

Sample ID: SL-650-SA6-SB-0.0-0.5			Collected: 11/8/2012 11:00:00		Analysis Type: RES-BASE/NEUTRAL			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	13	J	5.5	MDL	17	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8082A
Matrix:	SO

Sample ID: SL-658-SA6-SB-0.0-0.5 Collected: 11/8/2012 1:37:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	11	J	5.6	MDL	17	MRL	ug/Kg	J	Z

Method Category:	SVOA
Method:	8270C SIM
Matrix:	AQ

Sample ID: EB-110812 Collected: 11/8/2012 3:00:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.028	J	0.0054	MDL	0.10	MRL	ug/L	J	Z
PHENANTHRENE	0.012	J	0.010	MDL	0.10	MRL	ug/L	J	Z
PYRENE	0.012	J B	0.0083	MDL	0.10	MRL	ug/L	U	B

Method Category:	SVOA
Method:	8270C SIM
Matrix:	SO

Sample ID: SL-513-SA6-SB-0.0-0.5 Collected: 11/8/2012 7:40:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.6	J	0.26	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	2.2	J	0.31	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHENE	0.82	J	0.16	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	2.1	J	0.17	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	3.6	J	0.73	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	5.3	J	0.91	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	7.3	J	0.75	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.0	J	1.1	MDL	10	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	5.7	J	1.0	MDL	10	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.5	J	1.3	MDL	10	MRL	ug/Kg	J	Z
FLUORENE	1.4	J	0.47	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	7.3	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	3.0	J	0.33	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA		
Method:	8270C SIM	Matrix:	SO

Sample ID: SL-649-SA6-SB-0.0-0.5 Collected: 11/8/2012 10:37:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 4

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	7.5	J	4.5	MDL	41	MRL	ug/Kg	J	Z
CHRYSENE	10	J	4.1	MDL	41	MRL	ug/Kg	J	Z
FLUORANTHENE	5.0	J	4.1	MDL	41	MRL	ug/Kg	J	Z
PYRENE	4.5	J	4.5	MDL	41	MRL	ug/Kg	J	Z

Sample ID: SL-650-SA6-SB-0.0-0.5 Collected: 11/8/2012 11:00:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 4

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	4.3	J	2.9	MDL	39	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	11	J	4.7	MDL	39	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.4	J	4.3	MDL	39	MRL	ug/Kg	J	Z
CHRYSENE	17	J	3.9	MDL	39	MRL	ug/Kg	J	Z
FLUORANTHENE	17	J	3.9	MDL	39	MRL	ug/Kg	J	Z
PHENANTHRENE	7.8	J	4.3	MDL	39	MRL	ug/Kg	J	Z
PYRENE	14	J	4.3	MDL	39	MRL	ug/Kg	J	Z

Sample ID: SL-658-SA6-SB-0.0-0.5 Collected: 11/8/2012 1:37:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.89	J	0.26	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.99	J	0.31	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	2.1	J	0.90	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	3.4	J	0.74	MDL	10	MRL	ug/Kg	J	Z, Q
BENZO(B)FLUORANTHENE	6.1	J	1.2	MDL	10	MRL	ug/Kg	J	Z, Q
BENZO(G,H,I)PERYLENE	4.9	J	1.1	MDL	10	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.8	J	1.0	MDL	10	MRL	ug/Kg	J	Z, Q
CHRYSENE	4.4	J	1.0	MDL	10	MRL	ug/Kg	J	Z
FLUORANTHENE	5.0	J	1.0	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	3.6	J	1.1	MDL	10	MRL	ug/Kg	J	Z, Q
NAPHTHALENE	0.89	J	0.33	MDL	10	MRL	ug/Kg	U	F
PHENANTHRENE	3.3	J	1.1	MDL	10	MRL	ug/Kg	J	Z
PYRENE	5.5	J	1.1	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-674-SA6-SB-0.0-0.5

Collected: 11/8/2012 2:20:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 4

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	5.7	J	0.98	MDL	38	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	5.9	J	1.2	MDL	38	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	3.9	J	0.64	MDL	38	MRL	ug/Kg	J	Z
FLUORENE	33	J	1.8	MDL	38	MRL	ug/Kg	J	Z
NAPHTHALENE	6.1	J	1.2	MDL	38	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*#	Professional Judgment
A	ICP Serial Dilution
B	Method Blank Contamination
F	Equipment Blank Contamination
F	Field Blank Contamination
L	Laboratory Control Spike Upper Estimation
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35658-1

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-147433/1-A	11/15/2012 9:01:00 PM	MANGANESE	0.000300 mg/L	EB-110812

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-110812(RES/TOT)	MANGANESE	0.00054 mg/L	0.00054U mg/L

Method: 6020A
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-146957/1-A	11/15/2012 6:43:00 PM	BARIUM LEAD	0.113 mg/Kg 0.0216 mg/Kg	SL-513-SA6-SB-0.0-0.5 SL-649-SA6-SB-0.0-0.5 SL-650-SA6-SB-0.0-0.5 SL-658-SA6-SB-0.0-0.5 SL-674-SA6-SB-0.0-0.5

Method: 8015B EFH
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-147497/1-A	11/16/2012 5:43:00 PM	EFH(C8-C11) TOTAL EFH(C8-C40)	2.33 mg/Kg 3.14 mg/Kg	SL-513-SA6-SB-0.0-0.5 SL-649-SA6-SB-0.0-0.5 SL-650-SA6-SB-0.0-0.5 SL-658-SA6-SB-0.0-0.5 SL-674-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-513-SA6-SB-0.0-0.5(RES)	EFH(C8-C11)	2.8 mg/Kg	5.0U mg/Kg
SL-658-SA6-SB-0.0-0.5(RES)	EFH(C8-C11)	2.9 mg/Kg	5.1U mg/Kg

Method: 8270C SIM
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-147777/1-A	11/17/2012 11:04:00 AM	PYRENE	0.0116 ug/L	EB-110812

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM

Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-110812(RES)	PYRENE	0.012 ug/L	0.10U ug/L

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method:	6010C
Matrix:	SO

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-110812(RES/TOT)	11/8/2012 3:00:00 PM	BORON MAGNESIUM MANGANESE STRONTIUM TITANIUM	0.0095 mg/L 0.015 mg/L 0.00054 mg/L 0.00037 mg/L 0.002 mg/L	SL-513-SA6-SB-0.0-0.5 SL-649-SA6-SB-0.0-0.5 SL-650-SA6-SB-0.0-0.5 SL-658-SA6-SB-0.0-0.5 SL-674-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-513-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.5 mg/Kg	1.5U mg/Kg
SL-649-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.4 mg/Kg	1.4U mg/Kg
SL-650-SA6-SB-0.0-0.5(RES/TOT)	BORON	2.4 mg/Kg	2.4U mg/Kg
SL-658-SA6-SB-0.0-0.5(RES/TOT)	BORON	2.9 mg/Kg	2.9U mg/Kg
SL-674-SA6-SB-0.0-0.5(RES/TOT)	BORON	2.4 mg/Kg	2.4U mg/Kg

Field Blank Outlier Report

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM				
Matrix: SO				
Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-062012(RES)	6/20/2012 3:00:00 PM	NAPHTHALENE	0.26 UG/L	SL-513-SA6-SB-0.0-0.5 SL-649-SA6-SB-0.0-0.5 SL-650-SA6-SB-0.0-0.5 SL-658-SA6-SB-0.0-0.5 SL-674-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-658-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.89 ug/Kg	10U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8081B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-649-SA6-SB-0.0-0.5MS SL-649-SA6-SB-0.0-0.5MSD (SL-649-SA6-SB-0.0-0.5)	4,4'-DDE 4,4'-DDT BETA-BHC DIELDRIN	383 259 123 376	354 246 - 344	58.00-121.00 57.00-133.00 67.00-115.00 65.00-127.00	- - - -	4,4'-DDE 4,4'-DDT BETA-BHC DIELDRIN	No Qual, Diluted Out
SL-649-SA6-SB-0.0-0.5MS SL-649-SA6-SB-0.0-0.5MSD (SL-649-SA6-SB-0.0-0.5)	4,4'-DDD ENDOSULFAN I ENDOSULFAN II ENDOSULFAN SULFATE ENDRIN ENDRIN KETONE HEPTACHLOR EPOXIDE METHOXYCHLOR	41 58 46 50 48 39 - 29	44 49 41 48 41 39 50 29	54.00-130.00 65.00-118.00 71.00-118.00 67.00-123.00 77.00-134.00 62.00-115.00 66.00-117.00 67.00-130.00	- - - - - - - -	4,4'-DDD ENDOSULFAN I ENDOSULFAN II ENDOSULFAN SULFATE ENDRIN ENDRIN KETONE HEPTACHLOR EPOXIDE METHOXYCHLOR	No Qual, Diluted Out
SL-650-SA6-SB-0.0-0.5MS SL-650-SA6-SB-0.0-0.5MSD (SL-650-SA6-SB-0.0-0.5)	TOXAPHENE	0	0	19.00-174.00	-	TOXAPHENE	No Qual, Diluted Out

Method: 8082A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-674-SA6-SB-0.0-0.5MS SL-674-SA6-SB-0.0-0.5MSD (SL-674-SA6-SB-0.0-0.5)	Aroclor 5460	0	0	20.00-160.00	-	Aroclor 5460	No Qual Diluted Out

Method: 6010C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-513-SA6-SB-0.0-0.5MS (TOT) SL-513-SA6-SB-0.0-0.5MSD (TOT) (SL-513-SA6-SB-0.0-0.5 SL-649-SA6-SB-0.0-0.5 SL-650-SA6-SB-0.0-0.5 SL-658-SA6-SB-0.0-0.5 SL-674-SA6-SB-0.0-0.5)	ALUMINUM IRON MANGANESE TITANIUM	2842 730 - 228	2740 344 182 223	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM IRON MANGANESE TITANIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: Prep280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-513-SA6-SB-0.0-0.5MS (TOT) SL-513-SA6-SB-0.0-0.5MSD (TOT) (SL-513-SA6-SB-0.0-0.5 SL-649-SA6-SB-0.0-0.5 SL-650-SA6-SB-0.0-0.5 SL-658-SA6-SB-0.0-0.5 SL-674-SA6-SB-0.0-0.5)	ANTIMONY	5	5	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects) Post Spike = 100%

Method: 8270C SIM

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-658-SA6-SB-0.0-0.5MS SL-658-SA6-SB-0.0-0.5MSD (SL-658-SA6-SB-0.0-0.5)	BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE DIBENZO(A,H)ANTHRACENE INDENO(1,2,3-CD)PYRENE	126 - - 124 -	135 125 122 128 139	20.00-120.00 37.00-120.00 46.00-120.00 20.00-120.00 20.00-127.00	- - - - -	BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE DIBENZO(A,H)ANTHRACENE INDENO(1,2,3-CD)PYRENE	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8151A

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS 280-146868/2-A (EB-110812)	2,4-D DICHLOROPROP	148 142	- -	15.00-140.00 39.00-136.00	- -	2,4-D DICHLOROPROP	J (all detects)

Method: 8151A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS 280-147084/2-A (SL-649-SA6-SB-0.0-0.5 SL-650-SA6-SB-0.0-0.5 SL-658-SA6-SB-0.0-0.5 SL-674-SA6-SB-0.0-0.5)	2,4,5-T 2,4-D DICHLOROPROP MCPA	117 128 124 117	- - - -	24.00-115.00 32.00-115.00 35.00-115.00 37.00-115.00	- - - -	2,4,5-T 2,4-D DICHLOROPROP MCPA	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-110812	BORON	J	0.0095	0.10	MRL	mg/L	J (all detects)
	MAGNESIUM	J	0.015	0.20	MRL	mg/L	
	MANGANESE	J B	0.00054	0.010	MRL	mg/L	
	STRONTIUM	J	0.00037	0.010	MRL	mg/L	
	TITANIUM	J	0.0020	0.010	MRL	mg/L	

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-110812	NAPHTHALENE	J	0.028	0.10	MRL	ug/L	J (all detects)
	PHENANTHRENE	J	0.012	0.10	MRL	ug/L	
	PYRENE	J B	0.012	0.10	MRL	ug/L	

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-513-SA6-SB-0.0-0.5	ALUMINUM	J	14000	18000	MRL	mg/Kg	J (all detects)
	BORON	J	1.5	8.5	MRL	mg/Kg	
	LITHIUM	J	18	32	MRL	mg/Kg	
	MANGANESE	J	210	430	MRL	mg/Kg	
	POTASSIUM	J	2100	5600	MRL	mg/Kg	
	SODIUM	J	100	440	MRL	mg/Kg	
	TIN	J	1.9	9.6	MRL	mg/Kg	
	Zirconium	J	1.7	7.6	MRL	mg/Kg	
SL-649-SA6-SB-0.0-0.5	ALUMINUM	J	15000	21000	MRL	mg/Kg	J (all detects)
	BORON	J	1.4	10	MRL	mg/Kg	
	LITHIUM	J	23	38	MRL	mg/Kg	
	MANGANESE	J	250	510	MRL	mg/Kg	
	POTASSIUM	J	2900	6600	MRL	mg/Kg	
	SODIUM	J	91	520	MRL	mg/Kg	
	TIN	J	2.0	11	MRL	mg/Kg	
	Zirconium	J	1.8	8.9	MRL	mg/Kg	
SL-650-SA6-SB-0.0-0.5	ALUMINUM	J	10000	18000	MRL	mg/Kg	J (all detects)
	BORON	J	2.4	8.6	MRL	mg/Kg	
	LITHIUM	J	8.9	33	MRL	mg/Kg	
	MANGANESE	J	210	440	MRL	mg/Kg	
	POTASSIUM	J	2300	5600	MRL	mg/Kg	
	SODIUM	J	100	440	MRL	mg/Kg	
	TIN	J	0.94	9.6	MRL	mg/Kg	
	Zirconium	J	2.4	7.6	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-658-SA6-SB-0.0-0.5	ALUMINUM	J	13000	17000	MRL	mg/Kg	J (all detects)
	BORON	J	2.9	8.3	MRL	mg/Kg	
	LITHIUM	J	11	32	MRL	mg/Kg	
	MANGANESE	J	270	420	MRL	mg/Kg	
	POTASSIUM	J	2700	5500	MRL	mg/Kg	
	SODIUM	J	120	430	MRL	mg/Kg	
	TIN	J	1.2	9.3	MRL	mg/Kg	
SL-674-SA6-SB-0.0-0.5	Zirconium	J	2.7	7.3	MRL	mg/Kg	J (all detects)
	ALUMINUM	J	14000	21000	MRL	mg/Kg	
	BORON	J	2.4	10	MRL	mg/Kg	
	LITHIUM	J	24	38	MRL	mg/Kg	
	MANGANESE	J	370	510	MRL	mg/Kg	
	POTASSIUM	J	2900	6600	MRL	mg/Kg	
	SODIUM	J	170	520	MRL	mg/Kg	
	TIN	J	2.6	11	MRL	mg/Kg	
	Zirconium	J	2.4	8.9	MRL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-513-SA6-SB-0.0-0.5	ARSENIC	J	3.9	13	MRL	mg/Kg	J (all detects)
	BARIUM	J B	68	120	MRL	mg/Kg	
	BERYLLIUM	J	0.60	0.94	MRL	mg/Kg	
	CADMIUM	J	0.060	0.86	MRL	mg/Kg	
	CHROMIUM	J	17	32	MRL	mg/Kg	
	COBALT	J	5.0	18	MRL	mg/Kg	
	COPPER	J	6.5	25	MRL	mg/Kg	
	LEAD	J B	6.4	29	MRL	mg/Kg	
	MOLYBDENUM	J	0.35	4.5	MRL	mg/Kg	
	NICKEL	J	8.6	25	MRL	mg/Kg	
	SELENIUM	J	0.11	0.56	MRL	mg/Kg	
	SILVER	J	0.035	0.68	MRL	mg/Kg	
	THALLIUM	J	0.23	0.39	MRL	mg/Kg	
	VANADIUM	J	31	53	MRL	mg/Kg	
	ZINC	J	43	94	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-649-SA6-SB-0.0-0.5	ANTIMONY	J	0.029	8.2	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.7	14	MRL	mg/Kg	
	BARIUM	J B	81	130	MRL	mg/Kg	
	BERYLLIUM	J	0.55	1.0	MRL	mg/Kg	
	CADMIUM	J	0.40	0.94	MRL	mg/Kg	
	CHROMIUM	J	18	35	MRL	mg/Kg	
	COBALT	J	5.2	20	MRL	mg/Kg	
	COPPER	J	7.5	27	MRL	mg/Kg	
	LEAD	J B	11	32	MRL	mg/Kg	
	MOLYBDENUM	J	0.30	5.0	MRL	mg/Kg	
	NICKEL	J	11	27	MRL	mg/Kg	
	SELENIUM	J	0.13	0.61	MRL	mg/Kg	
	SILVER	J	0.086	0.74	MRL	mg/Kg	
	THALLIUM	J	0.21	0.43	MRL	mg/Kg	
	VANADIUM	J	33	58	MRL	mg/Kg	
	ZINC	J	50	100	MRL	mg/Kg	
SL-650-SA6-SB-0.0-0.5	ARSENIC	J	2.9	14	MRL	mg/Kg	J (all detects)
	BARIUM	J B	110	130	MRL	mg/Kg	
	BERYLLIUM	J	0.45	1.0	MRL	mg/Kg	
	CADMIUM	J	0.40	0.93	MRL	mg/Kg	
	CHROMIUM	J	19	34	MRL	mg/Kg	
	COBALT	J	5.8	20	MRL	mg/Kg	
	COPPER	J	11	27	MRL	mg/Kg	
	LEAD	J B	5.4	32	MRL	mg/Kg	
	MOLYBDENUM	J	0.31	4.9	MRL	mg/Kg	
	NICKEL	J	13	27	MRL	mg/Kg	
	SELENIUM	J	0.12	0.61	MRL	mg/Kg	
	SILVER	J	0.39	0.73	MRL	mg/Kg	
	THALLIUM	J	0.14	0.43	MRL	mg/Kg	
	VANADIUM	J	31	58	MRL	mg/Kg	
	ZINC	J	44	100	MRL	mg/Kg	
SL-658-SA6-SB-0.0-0.5	ANTIMONY	J	0.017	7.6	MRL	mg/Kg	J (all detects)
	ARSENIC	J	2.8	13	MRL	mg/Kg	
	BARIUM	J B	96	120	MRL	mg/Kg	
	BERYLLIUM	J	0.43	0.96	MRL	mg/Kg	
	CADMIUM	J	0.29	0.88	MRL	mg/Kg	
	CHROMIUM	J	18	32	MRL	mg/Kg	
	COBALT	J	5.5	18	MRL	mg/Kg	
	COPPER	J	11	25	MRL	mg/Kg	
	LEAD	J B	6.5	30	MRL	mg/Kg	
	MOLYBDENUM	J	0.34	4.6	MRL	mg/Kg	
	NICKEL	J	12	25	MRL	mg/Kg	
	SILVER	J	0.060	0.69	MRL	mg/Kg	
	THALLIUM	J	0.13	0.40	MRL	mg/Kg	
	VANADIUM	J	30	54	MRL	mg/Kg	
	ZINC	J	43	96	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-674-SA6-SB-0.0-0.5	ANTIMONY	J	0.044	9.0	MRL	mg/Kg	J (all detects)
	ARSENIC	J	1.9	16	MRL	mg/Kg	
	BARIUM	J B	92	150	MRL	mg/Kg	
	BERYLLIUM	J	0.28	1.1	MRL	mg/Kg	
	CHROMIUM	J	33	38	MRL	mg/Kg	
	COBALT	J	8.1	22	MRL	mg/Kg	
	COPPER	J	21	30	MRL	mg/Kg	
	LEAD	J B	17	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.81	5.5	MRL	mg/Kg	
	THALLIUM	J	0.12	0.48	MRL	mg/Kg	
	VANADIUM	J	43	64	MRL	mg/Kg	
	ZINC	J	92	110	MRL	mg/Kg	

Method: 7471B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-649-SA6-SB-0.0-0.5	MERCURY	J	0.018	0.022	MRL	mg/Kg	J (all detects)
SL-650-SA6-SB-0.0-0.5	MERCURY	J	0.021	0.023	MRL	mg/Kg	J (all detects)

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-513-SA6-SB-0.0-0.5	EFH(C15-C20)	J	3.0	5.0	MRL	mg/Kg	J (all detects)
	EFH(C8-C11)	J B	2.8	5.0	MRL	mg/Kg	
SL-649-SA6-SB-0.0-0.5	EFH(C15-C20)	J	11	51	MRL	mg/Kg	J (all detects)
SL-658-SA6-SB-0.0-0.5	EFH(C8-C11)	J B	2.9	5.1	MRL	mg/Kg	J (all detects)
SL-674-SA6-SB-0.0-0.5	EFH(C15-C20)	J	8.8	25	MRL	mg/Kg	J (all detects)

Method: 8081B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-650-SA6-SB-0.0-0.5	4,4'-DDE	J	1.0	3.3	MRL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8082A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-513-SA6-SB-0.0-0.5	AROCOR 1254	J	12	17	MRL	ug/Kg	J (all detects)
SL-650-SA6-SB-0.0-0.5	AROCOR 1254	J	13	17	MRL	ug/Kg	J (all detects)
SL-658-SA6-SB-0.0-0.5	AROCOR 1254	J	11	17	MRL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-513-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	1.6	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	2.2	10	MRL	ug/Kg	
	ACENAPHTHENE	J	0.82	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	2.1	10	MRL	ug/Kg	
	ANTHRACENE	J	3.6	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	5.3	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	7.3	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	6.0	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	5.7	10	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.5	10	MRL	ug/Kg	
	FLUORENE	J	1.4	10	MRL	ug/Kg	
SL-649-SA6-SB-0.0-0.5	INDENO(1,2,3-CD)PYRENE	J	7.3	10	MRL	ug/Kg	J (all detects)
	NAPHTHALENE	J	3.0	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	7.5	41	MRL	ug/Kg	
	CHRYSENE	J	10	41	MRL	ug/Kg	
SL-650-SA6-SB-0.0-0.5	FLUORANTHENE	J	5.0	41	MRL	ug/Kg	J (all detects)
	PYRENE	J	4.5	41	MRL	ug/Kg	
	BENZO(A)PYRENE	J	4.3	39	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	11	39	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	6.4	39	MRL	ug/Kg	
	CHRYSENE	J	17	39	MRL	ug/Kg	
SL-658-SA6-SB-0.0-0.5	FLUORANTHENE	J	17	39	MRL	ug/Kg	J (all detects)
	PHENANTHRENE	J	7.8	39	MRL	ug/Kg	
	PYRENE	J	14	39	MRL	ug/Kg	
	1-METHYLNAPHTHALENE	J	0.89	10	MRL	ug/Kg	
	2-METHYLNAPHTHALENE	J	0.99	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	2.1	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	3.4	10	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	6.1	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.9	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.8	10	MRL	ug/Kg	
	CHRYSENE	J	4.4	10	MRL	ug/Kg	
	FLUORANTHENE	J	5.0	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	3.6	10	MRL	ug/Kg	
	NAPHTHALENE	J	0.89	10	MRL	ug/Kg	
	PHENANTHRENE	J	3.3	10	MRL	ug/Kg	
	PYRENE	J	5.5	10	MRL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35658-1

Laboratory: TA DEN

EDD Filename: 280-35658-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-674-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	5.7	38	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	5.9	38	MRL	ug/Kg	
	ACENAPHTHYLENE	J	3.9	38	MRL	ug/Kg	
	FLUORENE	J	33	38	MRL	ug/Kg	
	NAPHTHALENE	J	6.1	38	MRL	ug/Kg	

LDC #: 29419D4
 SDG #: 280-35658-1
 Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET ADR

Date: 4/2/13
 Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	-	Sampling dates: 11/8/12
II.	ICP/MS Tune	-	
III.	Calibration	-	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	-	
VI.	Matrix Spike Analysis	N	MS/D (Al, Fe, Mn, Ti) 24x, SbPS = 100% (5/15)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	-	
XV.	Field Blanks	SW	EB=6 FB= FB-062012 (12F146)

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples:

1	SL-513-SA6-SB-0.0-0.5	11		21		31	
2	SL-649-SA6-SB-0.0-0.5	12		22		32	
3	SL-650-SA6-SB-0.0-0.5	13		23		33	
4	SL-658-SA6-SB-0.0-0.5	14		24		34	
5	SL-674-SA6-SB-0.0-0.5	15		25		35	
6	EB-110812 W	16		26		36	
7	SL-513-SA6-SB-0.0-0.5MS	17		27		37	
8	SL-513-SA6-SB-0.0-0.5MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-35658-2

SDG No:

Lab Name: TestAmerica Denver

Job No: 280-35658-1

Matrix: Solid

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	14000	J	15000	J	10		6010C
Boron	1.5	J	ND		NC		6010C
Calcium	1800	J	1980	J	12	V	6010C
Iron	10000	J	20800	J	12	V	6010C
Lithium	18	J	19.8	J	11	V	6010C
Magnesium	4000	J	4390	J	10		6010C
Manganese	210	J	230	J	10	V	6010C
Phosphorus	170	J	189	J	11	V	6010C
Potassium	2100	J	2350	J	9.8		6010C
Sodium	100	J	ND		NC		6010C
Strontium	15	J	16.5	J	11	V	6010C
Tin	1.9	J	ND		NC		6010C
Titanium	800	J	866	J	8.4		6010C
Zirconium	1.7	J	2.74	J	NC		6010C

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

FORM VIII-IN

SAMPLE DELIVERY GROUP

280-35658-2

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-Nov-2012	SL-513-SA6-SB-0.0-0.5	280-35658-2	N	1613	1613B	III
08-Nov-2012	SL-649-SA6-SB-0.0-0.5	280-35658-4	N	1613	1613B	III
08-Nov-2012	SL-650-SA6-SB-0.0-0.5	280-35658-6	N	1613	1613B	III
08-Nov-2012	SL-658-SA6-SB-0.0-0.5	280-35658-8	N	1613	1613B	III
08-Nov-2012	SL-674-SA6-SB-0.0-0.5	280-35658-10	N	1613	1613B	III
08-Nov-2012	EB-110812	280-35658-11	EB	1613	1613B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-2

Laboratory: TA DEN

EDD Filename: 280-35658-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: AQ

Sample ID: EB-110812

Collected: 11/8/2012 3:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
OCDD	1.8	B J	0.87	MDL	110	MRL	pg/L	U	B

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-513-SA6-SB-0.0-0.5

Collected: 11/8/2012 7:40:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	4.3	B J	0.16	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	3.8	J	0.085	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	2.7	B J	0.064	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	4.1	J	0.093	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	2.5	J	0.060	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	3.3	B J	0.074	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	2.2	B J	0.13	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	1.7	J	0.097	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	2.8	B J	0.059	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	2.2	B J	0.083	MDL	5.0	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.32	Q J	0.16	MDL	1.0	MRL	ng/kg	J	Z

Sample ID: SL-649-SA6-SB-0.0-0.5

Collected: 11/8/2012 10:37:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	2.8	Q B J	0.24	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	1.3	Q J	0.23	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	2.9	J	0.26	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	3.4	B J	0.23	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	1.2	B J	0.23	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.61	Q B J	0.34	MDL	5.1	MRL	ng/kg	U	B
2,3,4,6,7,8-HXCDF	1.7	B J	0.19	MDL	5.1	MRL	ng/kg	J	Z

Sample ID: SL-650-SA6-SB-0.0-0.5

Collected: 11/8/2012 11:00:00

Analysis Type: RE2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.72	J	0.064	MDL	1.0	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/15/2013 2:52:59 PM

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-2

Laboratory: TA DEN

EDD Filename: 280-35658-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-650-SA6-SB-0.0-0.5

Collected: 11/8/2012 11:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	4.0	B J	0.13	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	1.9	J	0.11	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	1.2	Q B J	0.072	MDL	5.1	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	3.7	J	0.11	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	4.1	B J	0.10	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.33	Q B J	0.086	MDL	5.1	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	0.83	B J	0.15	MDL	5.1	MRL	ng/kg	U	B
1,2,3,7,8-PECDF	0.57	Q J	0.11	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	1.2	B J	0.069	MDL	5.1	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	0.68	Q B J	0.095	MDL	5.1	MRL	ng/kg	U	B

Sample ID: SL-658-SA6-SB-0.0-0.5

Collected: 11/8/2012 1:37:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.3	B J	0.11	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.49	Q B J	0.16	MDL	5.1	MRL	ng/kg	U	B
1,2,3,4,7,8-HxCDD	0.30	Q J	0.12	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	0.22	Q B J	0.082	MDL	5.1	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	0.44	J	0.13	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	0.30	Q J	0.082	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.57	Q B J	0.12	MDL	5.1	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	0.32	Q B J	0.17	MDL	5.1	MRL	ng/kg	U	B
1,2,3,7,8-PECDF	0.11	Q J	0.12	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.21	Q B J	0.11	MDL	5.1	MRL	ng/kg	U	B
2,3,7,8-TCDF	0.24	Q J	0.19	MDL	1.0	MRL	ng/kg	J	Z
OCDF	7.4	B J	0.15	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-674-SA6-SB-0.0-0.5

Collected: 11/8/2012 2:20:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HxCDF	0.68	B J	0.34	MDL	5.1	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	1.7	Q B J	0.34	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	1.6	Q J	0.34	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	2.7	B J	0.30	MDL	5.1	MRL	ng/kg	J	Z
OCDD	5000	B E	0.53	MDL	10	MRL	ng/kg	J	*XI

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/15/2013 2:52:59 PM

ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-2

Laboratory: TA DEN

EDD Filename: 280-35658-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35658-2

Laboratory: TA DEN

EDD Filename: 280-35658-2

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*XI	Exceeded Calibration Range
A	Professional Judgment
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35658-2/
H2K130406

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35658-2

Laboratory: TA DEN

EDD Filename: 280-35658-2

eQAPP Name: CDM_SSFL_120907_TA

Method:	1613B
Matrix:	AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
H2K160000022B	11/27/2012 12:46:00 PM	OCDD	2.5 pg/L	EB-110812

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-110812(RES)	OCDD	1.8 pg/L	1.8U pg/L

Method:	1613B
Matrix:	SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
H2K130000039B	11/20/2012 2:50:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,7,8,9-HXCDD 1,2,3,7,8,9-HXCDF 1,2,3,7,8-PECDD 2,3,4,6,7,8-HXCDF 2,3,4,7,8-PECDF OCDD OCDF	0.19 ng/kg 0.16 ng/kg 0.20 ng/kg 0.24 ng/kg 0.17 ng/kg 0.17 ng/kg 0.22 ng/kg 0.26 ng/kg 0.29 ng/kg 0.69 ng/kg 0.55 ng/kg	SL-513-SA6-SB-0.0-0.5 SL-649-SA6-SB-0.0-0.5 SL-650-SA6-SB-0.0-0.5 SL-658-SA6-SB-0.0-0.5 SL-674-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-649-SA6-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.61 ng/kg	0.61U ng/kg
SL-650-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	1.2 ng/kg	1.2U ng/kg
SL-650-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.33 ng/kg	0.33U ng/kg
SL-650-SA6-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.83 ng/kg	0.83U ng/kg
SL-650-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	1.2 ng/kg	1.2U ng/kg
SL-650-SA6-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.68 ng/kg	0.68U ng/kg
SL-658-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.49 ng/kg	0.49U ng/kg
SL-658-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.22 ng/kg	0.22U ng/kg
SL-658-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.57 ng/kg	0.57U ng/kg
SL-658-SA6-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.32 ng/kg	0.32U ng/kg
SL-658-SA6-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.21 ng/kg	0.21U ng/kg
SL-674-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.68 ng/kg	0.68U ng/kg

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35658-2

Laboratory: TA DEN

EDD Filename: 280-35658-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-110812	OCDD	B J	1.8	110	MRL	pg/L	J (all detects)

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-513-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	B J	4.3	5.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	3.8	5.0	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	B J	2.7	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	4.1	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	J	2.5	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	B J	3.3	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDD	B J	2.2	5.0	MRL	ng/kg	
	1,2,3,7,8-PCDF	J	1.7	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	B J	2.8	5.0	MRL	ng/kg	
	2,3,4,7,8-PCDF	B J	2.2	5.0	MRL	ng/kg	
SL-649-SA6-SB-0.0-0.5	2,3,7,8-TCDF	Q J	0.32	1.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	Q B J	2.8	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	1.3	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	2.9	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	B J	3.4	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	B J	1.2	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q B J	0.61	5.1	MRL	ng/kg	
SL-650-SA6-SB-0.0-0.5	2,3,4,6,7,8-HxCDF	B J	1.7	5.1	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	B J	4.0	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	J	1.9	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	Q B J	1.2	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	3.7	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	B J	4.1	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDF	Q B J	0.33	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDD	B J	0.83	5.1	MRL	ng/kg	
	1,2,3,7,8-PCDF	Q J	0.57	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	B J	1.2	5.1	MRL	ng/kg	
	2,3,4,7,8-PCDF	Q B J	0.68	5.1	MRL	ng/kg	
SL-658-SA6-SB-0.0-0.5	2,3,7,8-TCDF	J	0.72	1.0	MRL	ng/kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	B J	3.3	5.1	MRL	ng/kg	
	1,2,3,4,7,8,9-HPCDF	Q B J	0.49	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	0.30	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	Q B J	0.22	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	0.44	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	0.30	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	Q B J	0.57	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q B J	0.32	5.1	MRL	ng/kg	
	1,2,3,7,8-PCDF	Q J	0.11	5.1	MRL	ng/kg	
	2,3,4,7,8-PCDF	Q B J	0.21	5.1	MRL	ng/kg	
	OCDF	Q J	0.24	1.0	MRL	ng/kg	
		B J	7.4	10	MRL	ng/kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35658-2

Laboratory: TA DEN

EDD Filename: 280-35658-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-674-SA6-SB-0.0-0.5	1,2,3,7,8,9-HXCDF	B J	0.68	5.1	MRL	ng/kg	J (all detects)
	1,2,3,7,8-PECDD	Q B J	1.7	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	1.6	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	2.7	5.1	MRL	ng/kg	

SAMPLE DELIVERY GROUP

280-35749-1

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Nov-2012	SL-647-SA6-SB-0.0-0.5	280-35749-1	N	3546	8270C SIM	III
09-Nov-2012	SL-647-SA6-SB-0.0-0.5	280-35749-1	N	3550C	8015B EFH	III
09-Nov-2012	SL-647-SA6-SB-0.0-0.5	280-35749-2	N	3050B	6010C	III
09-Nov-2012	SL-647-SA6-SB-0.0-0.5	280-35749-2	N	3050B	6020A	III
09-Nov-2012	SL-647-SA6-SB-0.0-0.5	280-35749-2	N	3546	8082A	III
09-Nov-2012	SL-647-SA6-SB-0.0-0.5	280-35749-2	N	7471B	7471B	III
09-Nov-2012	SL-647-SA6-SB-0.0-0.5MS	280-35749-2MS	MS	3546	8082A	III
09-Nov-2012	SL-647-SA6-SB-0.0-0.5MS	280-35749-2MS	MS	7471B	7471B	III
09-Nov-2012	SL-647-SA6-SB-0.0-0.5MSD	280-35749-2MSD	MSD	3546	8082A	III
09-Nov-2012	SL-647-SA6-SB-0.0-0.5MSD	280-35749-2MSD	MSD	7471B	7471B	III
09-Nov-2012	SL-648-SA6-SB-0.0-0.5	280-35749-13	N	3546	8270C SIM	III
09-Nov-2012	SL-648-SA6-SB-0.0-0.5	280-35749-13	N	3550C	8015B EFH	III
09-Nov-2012	SL-648-SA6-SB-0.0-0.5	280-35749-14	N	3050B	6010C	III
09-Nov-2012	SL-648-SA6-SB-0.0-0.5	280-35749-14	N	3050B	6020A	III
09-Nov-2012	SL-648-SA6-SB-0.0-0.5	280-35749-14	N	3546	8082A	III
09-Nov-2012	SL-648-SA6-SB-0.0-0.5	280-35749-14	N	7471B	7471B	III
09-Nov-2012	SL-643-SA6-SB-0.0-0.5	280-35749-10	N	3050B	6010C	III
09-Nov-2012	SL-643-SA6-SB-0.0-0.5	280-35749-10	N	3050B	6020A	III
09-Nov-2012	SL-643-SA6-SB-0.0-0.5	280-35749-10	N	3546	8082A	III
09-Nov-2012	SL-643-SA6-SB-0.0-0.5	280-35749-10	N	7471B	7471B	III
09-Nov-2012	SL-643-SA6-SB-0.0-0.5	280-35749-9	N	3546	8270C SIM	III
09-Nov-2012	SL-643-SA6-SB-0.0-0.5	280-35749-9	N	3550C	8015B EFH	III
09-Nov-2012	SL-641-SA6-SB-0.0-0.5	280-35749-5	N	3546	8270C SIM	III
09-Nov-2012	SL-641-SA6-SB-0.0-0.5	280-35749-5	N	3550C	8015B EFH	III
09-Nov-2012	SL-641-SA6-SB-0.0-0.5	280-35749-6	N	3050B	6010C	III
09-Nov-2012	SL-641-SA6-SB-0.0-0.5	280-35749-6	N	3050B	6020A	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Nov-2012	SL-641-SA6-SB-0.0-0.5	280-35749-6	N	3546	8082A	III
09-Nov-2012	SL-641-SA6-SB-0.0-0.5	280-35749-6	N	7471B	7471B	III
09-Nov-2012	SL-644-SA6-SB-0.0-0.5	280-35749-11	N	3546	8270C SIM	III
09-Nov-2012	SL-644-SA6-SB-0.0-0.5	280-35749-11	N	3550C	8015B EFH	III
09-Nov-2012	SL-644-SA6-SB-0.0-0.5	280-35749-12	N	3050B	6010C	III
09-Nov-2012	SL-644-SA6-SB-0.0-0.5	280-35749-12	N	3050B	6020A	III
09-Nov-2012	SL-644-SA6-SB-0.0-0.5	280-35749-12	N	3546	8082A	III
09-Nov-2012	SL-644-SA6-SB-0.0-0.5	280-35749-12	N	7471B	7471B	III
09-Nov-2012	SL-642-SA6-SB-0.0-0.5	280-35749-7	N	3546	8270C SIM	III
09-Nov-2012	SL-642-SA6-SB-0.0-0.5	280-35749-7	N	3550C	8015B EFH	III
09-Nov-2012	SL-642-SA6-SB-0.0-0.5	280-35749-8	N	3050B	6010C	III
09-Nov-2012	SL-642-SA6-SB-0.0-0.5	280-35749-8	N	3050B	6020A	III
09-Nov-2012	SL-642-SA6-SB-0.0-0.5	280-35749-8	N	3546	8082A	III
09-Nov-2012	SL-642-SA6-SB-0.0-0.5	280-35749-8	N	7471B	7471B	III
09-Nov-2012	SL-637-SA6-SB-0.0-0.5	280-35749-3	N	3546	8270C SIM	III
09-Nov-2012	SL-637-SA6-SB-0.0-0.5	280-35749-3	N	3550C	8015B EFH	III
09-Nov-2012	SL-637-SA6-SB-0.0-0.5	280-35749-4	N	3050B	6010C	III
09-Nov-2012	SL-637-SA6-SB-0.0-0.5	280-35749-4	N	3050B	6020A	III
09-Nov-2012	SL-637-SA6-SB-0.0-0.5	280-35749-4	N	3546	8082A	III
09-Nov-2012	SL-637-SA6-SB-0.0-0.5	280-35749-4	N	7471B	7471B	III
09-Nov-2012	SL-661-SA6-SB-0.0-0.5	280-35749-15	N	3546	8270C SIM	III
09-Nov-2012	SL-661-SA6-SB-0.0-0.5	280-35749-15	N	3550C	8015B EFH	III
09-Nov-2012	SL-661-SA6-SB-0.0-0.5	280-35749-16	N	3050B	6010C	III
09-Nov-2012	SL-661-SA6-SB-0.0-0.5	280-35749-16	N	3050B	6020A	III
09-Nov-2012	SL-661-SA6-SB-0.0-0.5	280-35749-16	N	3546	8082A	III
09-Nov-2012	SL-661-SA6-SB-0.0-0.5	280-35749-16	N	7471B	7471B	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Nov-2012	SL-662-SA6-SB-0.0-0.5	280-35749-17	N	3546	8270C SIM	III
09-Nov-2012	SL-662-SA6-SB-0.0-0.5	280-35749-17	N	3550C	8015B EFH	III
09-Nov-2012	SL-662-SA6-SB-0.0-0.5	280-35749-18	N	3050B	6010C	III
09-Nov-2012	SL-662-SA6-SB-0.0-0.5	280-35749-18	N	3050B	6020A	III
09-Nov-2012	SL-662-SA6-SB-0.0-0.5	280-35749-18	N	3546	8082A	III
09-Nov-2012	SL-662-SA6-SB-0.0-0.5	280-35749-18	N	7471B	7471B	III
09-Nov-2012	SL-663-SA6-SB-0.0-0.5	280-35749-19	N	3546	8270C SIM	III
09-Nov-2012	SL-663-SA6-SB-0.0-0.5	280-35749-19	N	3550C	8015B EFH	III
09-Nov-2012	SL-663-SA6-SB-0.0-0.5	280-35749-20	N	3050B	6010C	III
09-Nov-2012	SL-663-SA6-SB-0.0-0.5	280-35749-20	N	3050B	6020A	III
09-Nov-2012	SL-663-SA6-SB-0.0-0.5	280-35749-20	N	3546	8082A	III
09-Nov-2012	SL-663-SA6-SB-0.0-0.5	280-35749-20	N	7471B	7471B	III
09-Nov-2012	SL-664-SA6-SB-0.0-0.5	280-35749-21	N	3546	8270C SIM	III
09-Nov-2012	SL-664-SA6-SB-0.0-0.5	280-35749-21	N	3550C	8015B EFH	III
09-Nov-2012	SL-664-SA6-SB-0.0-0.5	280-35749-22	N	3050B	6010C	III
09-Nov-2012	SL-664-SA6-SB-0.0-0.5	280-35749-22	N	3050B	6020A	III
09-Nov-2012	SL-664-SA6-SB-0.0-0.5	280-35749-22	N	3546	8082A	III
09-Nov-2012	SL-664-SA6-SB-0.0-0.5	280-35749-22	N	7471B	7471B	III
09-Nov-2012	SL-679-SA6-SB-0.0-0.5	280-35749-25	N	3546	8270C SIM	III
09-Nov-2012	SL-679-SA6-SB-0.0-0.5	280-35749-25	N	3550C	8015B EFH	III
09-Nov-2012	SL-679-SA6-SB-0.0-0.5	280-35749-26	N	3050B	6010C	III
09-Nov-2012	SL-679-SA6-SB-0.0-0.5	280-35749-26	N	3050B	6020A	III
09-Nov-2012	SL-679-SA6-SB-0.0-0.5	280-35749-26	N	3546	8082A	III
09-Nov-2012	SL-679-SA6-SB-0.0-0.5	280-35749-26	N	7471B	7471B	III
09-Nov-2012	SL-678-SA6-SB-0.0-0.5	280-35749-23	N	3546	8270C SIM	III
09-Nov-2012	SL-678-SA6-SB-0.0-0.5	280-35749-23	N	3550C	8015B EFH	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Nov-2012	SL-678-SA6-SB-0.0-0.5	280-35749-24	N	3050B	6010C	III
09-Nov-2012	SL-678-SA6-SB-0.0-0.5	280-35749-24	N	3050B	6020A	III
09-Nov-2012	SL-678-SA6-SB-0.0-0.5	280-35749-24	N	3546	8082A	III
09-Nov-2012	SL-678-SA6-SB-0.0-0.5	280-35749-24	N	7471B	7471B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-637-SA6-SB-0.0-0.5

Collected: 11/9/2012 10:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	12000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
BORON	1.4	J	0.95	MDL	9.4	MRL	mg/Kg	U	F, F
CALCIUM	1900		14	MDL	48	MRL	mg/Kg	J	A
IRON	15000		3.7	MDL	33	MRL	mg/Kg	J	A
LITHIUM	22	J	0.29	MDL	36	MRL	mg/Kg	J	Z, A
MANGANESE	280	J	0.097	MDL	480	MRL	mg/Kg	J	Z, A
PHOSPHORUS	260		1.6	MDL	9.7	MRL	mg/Kg	J	A
POTASSIUM	3000	J	40	MDL	6200	MRL	mg/Kg	J	Z
SODIUM	83	J	57	MDL	480	MRL	mg/Kg	J	Z
STRONTIUM	18		0.035	MDL	0.48	MRL	mg/Kg	J	A
TIN	1.6	J	0.88	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.4	J	0.34	MDL	8.3	MRL	mg/Kg	J	Z

Sample ID: SL-641-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	9900	J	1.6	MDL	21000	MRL	mg/Kg	J	Z
BORON	2.1	J	1.0	MDL	10	MRL	mg/Kg	U	F, F
CALCIUM	1900		15	MDL	53	MRL	mg/Kg	J	A
IRON	14000		4.0	MDL	36	MRL	mg/Kg	J	A
LITHIUM	18	J	0.32	MDL	39	MRL	mg/Kg	J	Z, A
MANGANESE	210	J	0.11	MDL	520	MRL	mg/Kg	J	Z, A
PHOSPHORUS	280		1.7	MDL	11	MRL	mg/Kg	J	A
POTASSIUM	3100	J	43	MDL	6800	MRL	mg/Kg	J	Z
SODIUM	75	J	62	MDL	530	MRL	mg/Kg	J	Z
STRONTIUM	14		0.038	MDL	0.52	MRL	mg/Kg	J	A
TIN	1.7	J	0.97	MDL	12	MRL	mg/Kg	J	Z
Zirconium	1.0	J	0.37	MDL	9.1	MRL	mg/Kg	J	Z

Sample ID: SL-642-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:57:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.6	MDL	20000	MRL	mg/Kg	J	Z
BORON	5.0	J	0.98	MDL	9.7	MRL	mg/Kg	J	Z
CALCIUM	4100		14	MDL	50	MRL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-642-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:57:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	19000		3.8	MDL	34	MRL	mg/Kg	J	A
LITHIUM	23	J	0.30	MDL	37	MRL	mg/Kg	J	Z, A
MANGANESE	390	J	0.10	MDL	500	MRL	mg/Kg	J	Z, A
PHOSPHORUS	420		1.6	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	4300	J	41	MDL	6400	MRL	mg/Kg	J	Z
SODIUM	84	J	59	MDL	500	MRL	mg/Kg	J	Z
STRONTIUM	31		0.036	MDL	0.50	MRL	mg/Kg	J	A
TIN	2.1	J	0.91	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.5	J	0.36	MDL	8.6	MRL	mg/Kg	J	Z

Sample ID: SL-643-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:38:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.4	MDL	18000	MRL	mg/Kg	J	Z
BORON	1.6	J	0.90	MDL	8.9	MRL	mg/Kg	U	F, F
CALCIUM	2100		13	MDL	46	MRL	mg/Kg	J	A
IRON	19000		3.5	MDL	31	MRL	mg/Kg	J	A
LITHIUM	23	J	0.28	MDL	34	MRL	mg/Kg	J	Z, A
MANGANESE	300	J	0.092	MDL	450	MRL	mg/Kg	J	Z, A
PHOSPHORUS	390		1.5	MDL	9.2	MRL	mg/Kg	J	A
POTASSIUM	3800	J	38	MDL	5900	MRL	mg/Kg	J	Z
SODIUM	90	J	54	MDL	460	MRL	mg/Kg	J	Z
STRONTIUM	19		0.033	MDL	0.45	MRL	mg/Kg	J	A
TIN	2.0	J	0.84	MDL	10	MRL	mg/Kg	J	Z
Zirconium	1.2	J	0.32	MDL	7.9	MRL	mg/Kg	J	Z

Sample ID: SL-644-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:30:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	14000	J	1.6	MDL	20000	MRL	mg/Kg	J	Z
BORON	1.5	J	0.99	MDL	9.8	MRL	mg/Kg	U	F, F
CALCIUM	2300		14	MDL	51	MRL	mg/Kg	J	A
IRON	20000		3.8	MDL	34	MRL	mg/Kg	J	A
LITHIUM	24	J	0.30	MDL	37	MRL	mg/Kg	J	Z, A
MANGANESE	290	J	0.10	MDL	500	MRL	mg/Kg	J	Z, A

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-644-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:30:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	290		1.6	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	3700	J	41	MDL	6500	MRL	mg/Kg	J	Z
SODIUM	110	J	60	MDL	510	MRL	mg/Kg	J	Z
STRONTIUM	20		0.036	MDL	0.50	MRL	mg/Kg	J	A
TIN	2.3	J	0.92	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.3	J	0.36	MDL	8.7	MRL	mg/Kg	J	Z

Sample ID: SL-647-SA6-SB-0.0-0.5

Collected: 11/9/2012 7:28:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.9	J	0.96	MDL	9.5	MRL	mg/Kg	J	Z
CALCIUM	19000		14	MDL	49	MRL	mg/Kg	J	A
IRON	27000		3.7	MDL	33	MRL	mg/Kg	J	A
LITHIUM	22	J	0.30	MDL	36	MRL	mg/Kg	J	Z, A
MANGANESE	340	J	0.098	MDL	490	MRL	mg/Kg	J	Z, A
PHOSPHORUS	360		1.6	MDL	9.8	MRL	mg/Kg	J	A
POTASSIUM	4300	J	40	MDL	6300	MRL	mg/Kg	J	Z
SODIUM	110	J	58	MDL	490	MRL	mg/Kg	J	Z
STRONTIUM	45		0.035	MDL	0.49	MRL	mg/Kg	J	A
TIN	2.0	J	0.90	MDL	11	MRL	mg/Kg	J	Z
Zirconium	5.0	J	0.35	MDL	8.5	MRL	mg/Kg	J	Z

Sample ID: SL-648-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.1	J	0.89	MDL	8.8	MRL	mg/Kg	J	Z
CALCIUM	16000		13	MDL	46	MRL	mg/Kg	J	A
IRON	25000		3.5	MDL	31	MRL	mg/Kg	J	A
LITHIUM	21	J	0.27	MDL	34	MRL	mg/Kg	J	Z, A
MANGANESE	340	J	0.091	MDL	450	MRL	mg/Kg	J	Z, A
PHOSPHORUS	420		1.5	MDL	9.1	MRL	mg/Kg	J	A
POTASSIUM	5000	J	37	MDL	5800	MRL	mg/Kg	J	Z
SODIUM	110	J	54	MDL	460	MRL	mg/Kg	J	Z
STRONTIUM	40		0.033	MDL	0.45	MRL	mg/Kg	J	A
TIN	1.9	J	0.83	MDL	9.9	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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ADR version 1.7.0.207

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-648-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	3.8	J	0.32	MDL	7.8	MRL	mg/Kg	J	Z

Sample ID: SL-661-SA6-SB-0.0-0.5

Collected: 11/9/2012 12:25:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	11000	J	1.6	MDL	20000	MRL	mg/Kg	J	Z
BORON	1.4	J	1.0	MDL	9.9	MRL	mg/Kg	U	F, F
CALCIUM	1900		14	MDL	51	MRL	mg/Kg	J	A
IRON	16000		3.9	MDL	35	MRL	mg/Kg	J	A
LITHIUM	16	J	0.30	MDL	38	MRL	mg/Kg	J	Z, A
MANGANESE	240	J	0.10	MDL	500	MRL	mg/Kg	J	Z, A
PHOSPHORUS	330		1.6	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	3400	J	42	MDL	6500	MRL	mg/Kg	J	Z
SODIUM	93	J	60	MDL	510	MRL	mg/Kg	J	Z
STRONTIUM	19		0.037	MDL	0.50	MRL	mg/Kg	J	A
TIN	1.5	J	0.93	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.7	J	0.36	MDL	8.7	MRL	mg/Kg	J	Z

Sample ID: SL-662-SA6-SB-0.0-0.5

Collected: 11/9/2012 12:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
BORON	1.3	J	0.94	MDL	9.3	MRL	mg/Kg	U	F, F
CALCIUM	1900		14	MDL	48	MRL	mg/Kg	J	A
IRON	18000		3.6	MDL	33	MRL	mg/Kg	J	A
LITHIUM	19	J	0.29	MDL	35	MRL	mg/Kg	J	Z, A
MANGANESE	250	J	0.096	MDL	470	MRL	mg/Kg	J	Z, A
PHOSPHORUS	320		1.6	MDL	9.6	MRL	mg/Kg	J	A
POTASSIUM	3500	J	39	MDL	6100	MRL	mg/Kg	J	Z
SODIUM	83	J	57	MDL	480	MRL	mg/Kg	J	Z
STRONTIUM	16		0.035	MDL	0.47	MRL	mg/Kg	J	A
TIN	1.8	J	0.87	MDL	10	MRL	mg/Kg	J	Z
Zirconium	1.9	J	0.34	MDL	8.2	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-663-SA6-SB-0.0-0.5

Collected: 11/9/2012 1:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	12000	J	1.6	MDL	20000	MRL	mg/Kg	J	Z
BORON	1.5	J	0.98	MDL	9.7	MRL	mg/Kg	U	F, F
CALCIUM	1700		14	MDL	50	MRL	mg/Kg	J	A
IRON	16000		3.8	MDL	34	MRL	mg/Kg	J	A
LITHIUM	17	J	0.30	MDL	37	MRL	mg/Kg	J	Z, A
MANGANESE	240	J	0.10	MDL	500	MRL	mg/Kg	J	Z, A
PHOSPHORUS	290		1.6	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	3100	J	41	MDL	6400	MRL	mg/Kg	J	Z
SODIUM	83	J	59	MDL	500	MRL	mg/Kg	J	Z
STRONTIUM	16		0.036	MDL	0.50	MRL	mg/Kg	J	A
TIN	1.7	J	0.91	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.6	J	0.35	MDL	8.6	MRL	mg/Kg	J	Z

Sample ID: SL-664-SA6-SB-0.0-0.5

Collected: 11/9/2012 1:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	12000	J	1.4	MDL	18000	MRL	mg/Kg	J	Z
BORON	2.3	J	0.90	MDL	8.9	MRL	mg/Kg	U	F, F
CALCIUM	2300		13	MDL	46	MRL	mg/Kg	J	A
IRON	17000		3.5	MDL	31	MRL	mg/Kg	J	A
LITHIUM	18	J	0.28	MDL	34	MRL	mg/Kg	J	Z, A
MANGANESE	320	J	0.092	MDL	460	MRL	mg/Kg	J	Z, A
PHOSPHORUS	390		1.5	MDL	9.2	MRL	mg/Kg	J	A
POTASSIUM	3700	J	38	MDL	5900	MRL	mg/Kg	J	Z
SODIUM	83	J	54	MDL	460	MRL	mg/Kg	J	Z
STRONTIUM	18		0.033	MDL	0.46	MRL	mg/Kg	J	A
TIN	1.7	J	0.84	MDL	10	MRL	mg/Kg	J	Z
Zirconium	1.9	J	0.33	MDL	7.9	MRL	mg/Kg	J	Z

Sample ID: SL-678-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:25:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	9500	J	1.6	MDL	20000	MRL	mg/Kg	J	Z
CALCIUM	3900		14	MDL	50	MRL	mg/Kg	J	A
IRON	17000		3.8	MDL	34	MRL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-678-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:25:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	16	J	0.30	MDL	37	MRL	mg/Kg	J	Z, A
MANGANESE	280	J	0.10	MDL	500	MRL	mg/Kg	J	Z, A
PHOSPHORUS	580		1.6	MDL	10	MRL	mg/Kg	J	A
POTASSIUM	3900	J	41	MDL	6500	MRL	mg/Kg	J	Z
SODIUM	190	J	59	MDL	500	MRL	mg/Kg	J	Z
STRONTIUM	16		0.036	MDL	0.50	MRL	mg/Kg	J	A
TIN	1.7	J	0.92	MDL	11	MRL	mg/Kg	J	Z
Zirconium	0.87	J	0.36	MDL	8.7	MRL	mg/Kg	J	Z

Sample ID: SL-679-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	15000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
BORON	1.7	J	0.93	MDL	9.2	MRL	mg/Kg	U	F, F
CALCIUM	8200		13	MDL	47	MRL	mg/Kg	J	A
IRON	25000		3.6	MDL	32	MRL	mg/Kg	J	A
LITHIUM	25	J	0.28	MDL	35	MRL	mg/Kg	J	Z, A
MANGANESE	380	J	0.095	MDL	470	MRL	mg/Kg	J	Z, A
PHOSPHORUS	670		1.5	MDL	9.5	MRL	mg/Kg	J	A
POTASSIUM	3700	J	39	MDL	6100	MRL	mg/Kg	J	Z
SODIUM	200	J	56	MDL	470	MRL	mg/Kg	J	Z
STRONTIUM	28		0.034	MDL	0.47	MRL	mg/Kg	J	A
TIN	2.3	J	0.86	MDL	10	MRL	mg/Kg	J	Z
Zirconium	1.8	J	0.34	MDL	8.1	MRL	mg/Kg	J	Z

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-637-SA6-SB-0.0-0.5

Collected: 11/9/2012 10:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.024	J	0.014	MDL	8.8	MRL	mg/Kg	J	Z, Q
ARSENIC	5.3	J	0.051	MDL	15	MRL	mg/Kg	J	Z
BARIUM	96	J B	0.071	MDL	140	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-637-SA6-SB-0.0-0.5

Collected: 11/9/2012 10:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.51	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.13	J	0.0095	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	15	J	0.077	MDL	37	MRL	mg/Kg	J	Z
COBALT	4.9	J	0.0067	MDL	21	MRL	mg/Kg	J	Z
COPPER	6.8	J	0.072	MDL	29	MRL	mg/Kg	J	Z
LEAD	5.5	J B	0.018	MDL	34	MRL	mg/Kg	J	Z
MOLYBDENUM	0.44	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z
NICKEL	10	J	0.026	MDL	29	MRL	mg/Kg	J	Z
SELENIUM	0.13	J	0.13	MDL	0.66	MRL	mg/Kg	J	Z
SILVER	0.035	J	0.021	MDL	0.80	MRL	mg/Kg	J	Z
THALLIUM	0.23	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	25	J	0.039	MDL	63	MRL	mg/Kg	J	Z
ZINC	56	J	0.32	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-641-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.029	J	0.014	MDL	8.7	MRL	mg/Kg	J	Z, Q
ARSENIC	2.8	J	0.051	MDL	15	MRL	mg/Kg	J	Z
BARIUM	73	J B	0.070	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.45	J	0.022	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.15	J	0.0094	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	9.7	J	0.076	MDL	37	MRL	mg/Kg	J	Z
COBALT	3.6	J	0.0066	MDL	21	MRL	mg/Kg	J	Z
COPPER	5.9	J	0.071	MDL	29	MRL	mg/Kg	J	Z
LEAD	9.4	J B	0.018	MDL	34	MRL	mg/Kg	J	Z
MOLYBDENUM	0.30	J	0.018	MDL	5.3	MRL	mg/Kg	J	Z
NICKEL	6.5	J	0.025	MDL	29	MRL	mg/Kg	J	Z
SELENIUM	0.13	J	0.13	MDL	0.65	MRL	mg/Kg	J	Z
SILVER	0.24	J	0.020	MDL	0.79	MRL	mg/Kg	J	Z
THALLIUM	0.21	J	0.0035	MDL	0.46	MRL	mg/Kg	J	Z
VANADIUM	19	J	0.038	MDL	62	MRL	mg/Kg	J	Z
ZINC	87	J	0.32	MDL	110	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-642-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:57:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.023	J	0.014	MDL	8.6	MRL	mg/Kg	J	Z, Q
ARSENIC	3.6	J	0.050	MDL	15	MRL	mg/Kg	J	Z
BARIUM	130	J B	0.070	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.65	J	0.022	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.27	J	0.0093	MDL	0.99	MRL	mg/Kg	J	Z
CHROMIUM	15	J	0.075	MDL	37	MRL	mg/Kg	J	Z
COBALT	5.2	J	0.0066	MDL	21	MRL	mg/Kg	J	Z
COPPER	9.5	J	0.071	MDL	29	MRL	mg/Kg	J	Z
LEAD	17	J B	0.018	MDL	34	MRL	mg/Kg	J	Z
MOLYBDENUM	0.43	J	0.017	MDL	5.3	MRL	mg/Kg	J	Z
NICKEL	10	J	0.025	MDL	29	MRL	mg/Kg	J	Z
SELENIUM	0.22	J	0.13	MDL	0.65	MRL	mg/Kg	J	Z
SILVER	0.12	J	0.020	MDL	0.78	MRL	mg/Kg	J	Z
THALLIUM	0.29	J	0.0035	MDL	0.46	MRL	mg/Kg	J	Z
VANADIUM	28	J	0.038	MDL	62	MRL	mg/Kg	J	Z
ZINC	76	J	0.31	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-643-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:38:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.019	J	0.015	MDL	9.0	MRL	mg/Kg	J	Z, Q
ARSENIC	3.5	J	0.052	MDL	16	MRL	mg/Kg	J	Z
BARIUM	95	J B	0.073	MDL	150	MRL	mg/Kg	J	Z
BERYLLIUM	0.56	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.42	J	0.0097	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	14	J	0.079	MDL	38	MRL	mg/Kg	J	Z
COBALT	4.9	J	0.0069	MDL	22	MRL	mg/Kg	J	Z
COPPER	29	J	0.074	MDL	30	MRL	mg/Kg	J	Z
LEAD	14	J B	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.50	J	0.018	MDL	5.5	MRL	mg/Kg	J	Z
NICKEL	9.5	J	0.026	MDL	30	MRL	mg/Kg	J	Z
SELENIUM	0.17	J	0.14	MDL	0.68	MRL	mg/Kg	J	Z
SILVER	0.097	J	0.021	MDL	0.82	MRL	mg/Kg	J	Z
THALLIUM	0.25	J	0.0036	MDL	0.48	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-643-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:38:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	26	J	0.040	MDL	64	MRL	mg/Kg	J	Z

Sample ID: SL-644-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:30:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.016	U	0.016	MDL	9.8	MRL	mg/Kg	UJ	Q
ARSENIC	3.4	J	0.057	MDL	17	MRL	mg/Kg	J	Z
BARIUM	100	J B	0.080	MDL	160	MRL	mg/Kg	J	Z
BERYLLIUM	0.60	J	0.025	MDL	1.2	MRL	mg/Kg	J	Z
CADMIUM	0.18	J	0.011	MDL	1.1	MRL	mg/Kg	J	Z
CHROMIUM	12	J	0.086	MDL	42	MRL	mg/Kg	J	Z
COBALT	4.4	J	0.0075	MDL	24	MRL	mg/Kg	J	Z
COPPER	7.3	J	0.080	MDL	33	MRL	mg/Kg	J	Z
LEAD	12	J B	0.021	MDL	38	MRL	mg/Kg	J	Z
MOLYBDENUM	0.42	J	0.020	MDL	6.0	MRL	mg/Kg	J	Z
NICKEL	8.4	J	0.029	MDL	33	MRL	mg/Kg	J	Z
SELENIUM	0.15	J	0.15	MDL	0.74	MRL	mg/Kg	J	Z
SILVER	0.20	J	0.023	MDL	0.89	MRL	mg/Kg	J	Z
THALLIUM	0.26	J	0.0040	MDL	0.52	MRL	mg/Kg	J	Z
VANADIUM	26	J	0.044	MDL	70	MRL	mg/Kg	J	Z
ZINC	64	J	0.36	MDL	120	MRL	mg/Kg	J	Z

Sample ID: SL-647-SA6-SB-0.0-0.5

Collected: 11/9/2012 7:28:00

Analysis Type: RE2/TOT

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.93	J	0.041	MDL	2.0	MRL	mg/Kg	J	Z

Sample ID: SL-647-SA6-SB-0.0-0.5

Collected: 11/9/2012 7:28:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.013	U	0.013	MDL	7.9	MRL	mg/Kg	UJ	Q
ARSENIC	5.8	J	0.046	MDL	14	MRL	mg/Kg	J	Z
CADMIUM	0.27	J	0.0085	MDL	0.91	MRL	mg/Kg	J	Z
COBALT	11	J	0.0060	MDL	19	MRL	mg/Kg	J	Z
COPPER	17	J	0.065	MDL	26	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-647-SA6-SB-0.0-0.5

Collected: 11/9/2012 7:28:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	11	J B	0.017	MDL	31	MRL	mg/Kg	J	Z
MOLYBDENUM	0.25	J	0.016	MDL	4.8	MRL	mg/Kg	J	Z
NICKEL	21	J	0.023	MDL	26	MRL	mg/Kg	J	Z
SELENIUM	0.16	J	0.12	MDL	0.60	MRL	mg/Kg	J	Z
SILVER	0.043	J	0.018	MDL	0.72	MRL	mg/Kg	J	Z
THALLIUM	0.31	J	0.0032	MDL	0.42	MRL	mg/Kg	J	Z
ZINC	68	J	0.29	MDL	100	MRL	mg/Kg	J	Z

Sample ID: SL-648-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:05:00

Analysis Type: RE2/TOT

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.79	J	0.046	MDL	2.3	MRL	mg/Kg	J	Z

Sample ID: SL-648-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.014	U	0.014	MDL	8.9	MRL	mg/Kg	UJ	Q
ARSENIC	5.5	J	0.052	MDL	15	MRL	mg/Kg	J	Z
BARIUM	120	J B	0.072	MDL	140	MRL	mg/Kg	J	Z
CADMIUM	0.29	J	0.0096	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	32	J	0.078	MDL	38	MRL	mg/Kg	J	Z
COBALT	9.7	J	0.0068	MDL	21	MRL	mg/Kg	J	Z
COPPER	18	J	0.073	MDL	30	MRL	mg/Kg	J	Z
LEAD	13	J B	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.29	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z
NICKEL	20	J	0.026	MDL	30	MRL	mg/Kg	J	Z
SELENIUM	0.21	J	0.14	MDL	0.67	MRL	mg/Kg	J	Z
SILVER	0.051	J	0.021	MDL	0.81	MRL	mg/Kg	J	Z
THALLIUM	0.31	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	52	J	0.039	MDL	63	MRL	mg/Kg	J	Z
ZINC	74	J	0.32	MDL	110	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-661-SA6-SB-0.0-0.5

Collected: 11/9/2012 12:25:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.098	J	0.014	MDL	8.8	MRL	mg/Kg	J	Z, Q
ARSENIC	2.7	J	0.051	MDL	15	MRL	mg/Kg	J	Z
BARIUM	93	J B	0.072	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.43	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.95	J	0.0095	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	15	J	0.077	MDL	37	MRL	mg/Kg	J	Z
COBALT	4.8	J	0.0067	MDL	21	MRL	mg/Kg	J	Z
COPPER	13	J	0.072	MDL	29	MRL	mg/Kg	J	Z
LEAD	11	J B	0.018	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.42	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z
NICKEL	13	J	0.026	MDL	29	MRL	mg/Kg	J	Z
THALLIUM	0.20	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	25	J	0.039	MDL	63	MRL	mg/Kg	J	Z
ZINC	66	J	0.32	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-662-SA6-SB-0.0-0.5

Collected: 11/9/2012 12:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.087	J	0.012	MDL	7.6	MRL	mg/Kg	J	Z, Q
ARSENIC	3.4	J	0.044	MDL	13	MRL	mg/Kg	J	Z
BARIUM	110	J B	0.062	MDL	120	MRL	mg/Kg	J	Z
BERYLLIUM	0.49	J	0.020	MDL	0.96	MRL	mg/Kg	J	Z
CADMIUM	0.40	J	0.0082	MDL	0.88	MRL	mg/Kg	J	Z
CHROMIUM	17	J	0.067	MDL	32	MRL	mg/Kg	J	Z
COBALT	5.3	J	0.0058	MDL	18	MRL	mg/Kg	J	Z
COPPER	9.4	J	0.062	MDL	25	MRL	mg/Kg	J	Z
LEAD	11	J B	0.016	MDL	30	MRL	mg/Kg	J	Z
MOLYBDENUM	0.43	J	0.015	MDL	4.6	MRL	mg/Kg	J	Z
NICKEL	13	J	0.022	MDL	25	MRL	mg/Kg	J	Z
SELENIUM	0.13	J	0.12	MDL	0.57	MRL	mg/Kg	J	Z
THALLIUM	0.22	J	0.0031	MDL	0.40	MRL	mg/Kg	J	Z
VANADIUM	31	J	0.034	MDL	54	MRL	mg/Kg	J	Z
ZINC	55	J	0.28	MDL	96	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-663-SA6-SB-0.0-0.5

Collected: 11/9/2012 1:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.015	J	0.014	MDL	8.7	MRL	mg/Kg	J	Z, Q
ARSENIC	3.0	J	0.051	MDL	15	MRL	mg/Kg	J	Z
BARIUM	87	J B	0.071	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.47	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.31	J	0.0094	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	15	J	0.076	MDL	37	MRL	mg/Kg	J	Z
COBALT	4.5	J	0.0066	MDL	21	MRL	mg/Kg	J	Z
LEAD	11	J B	0.018	MDL	34	MRL	mg/Kg	J	Z
MOLYBDENUM	0.39	J	0.018	MDL	5.3	MRL	mg/Kg	J	Z
NICKEL	10	J	0.025	MDL	29	MRL	mg/Kg	J	Z
SILVER	0.64	J	0.020	MDL	0.79	MRL	mg/Kg	J	Z
THALLIUM	0.20	J	0.0035	MDL	0.46	MRL	mg/Kg	J	Z
VANADIUM	27	J	0.039	MDL	62	MRL	mg/Kg	J	Z
ZINC	56	J	0.32	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-664-SA6-SB-0.0-0.5

Collected: 11/9/2012 1:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.052	J	0.014	MDL	8.9	MRL	mg/Kg	J	Z, Q
ARSENIC	3.1	J	0.052	MDL	15	MRL	mg/Kg	J	Z
BARIUM	110	J B	0.072	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.51	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CHROMIUM	16	J	0.078	MDL	38	MRL	mg/Kg	J	Z
COBALT	5.0	J	0.0068	MDL	21	MRL	mg/Kg	J	Z
COPPER	11	J	0.073	MDL	30	MRL	mg/Kg	J	Z
LEAD	15	J B	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.48	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z
NICKEL	12	J	0.026	MDL	30	MRL	mg/Kg	J	Z
THALLIUM	0.22	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	27	J	0.039	MDL	63	MRL	mg/Kg	J	Z
ZINC	89	J	0.32	MDL	110	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-678-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:25:00

Analysis Type: RE2/TOT

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.15	J	0.038	MDL	1.9	MRL	mg/Kg	J	Z

Sample ID: SL-678-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:25:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.020	J	0.012	MDL	7.4	MRL	mg/Kg	J	Z, Q
ARSENIC	1.3	J	0.043	MDL	13	MRL	mg/Kg	J	Z
CADMIUM	0.066	J	0.0080	MDL	0.85	MRL	mg/Kg	J	Z
CHROMIUM	20	J	0.065	MDL	31	MRL	mg/Kg	J	Z
COBALT	7.1	J	0.0056	MDL	18	MRL	mg/Kg	J	Z
COPPER	13	J	0.060	MDL	25	MRL	mg/Kg	J	Z
LEAD	4.1	J B	0.015	MDL	29	MRL	mg/Kg	J	Z
MOLYBDENUM	0.25	J	0.015	MDL	4.5	MRL	mg/Kg	J	Z
NICKEL	9.3	J	0.021	MDL	25	MRL	mg/Kg	J	Z
SILVER	0.065	J	0.017	MDL	0.67	MRL	mg/Kg	J	Z
THALLIUM	0.17	J	0.0030	MDL	0.39	MRL	mg/Kg	J	Z
VANADIUM	36	J	0.033	MDL	53	MRL	mg/Kg	J	Z
ZINC	47	J	0.27	MDL	93	MRL	mg/Kg	J	Z

Sample ID: SL-679-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:00:00

Analysis Type: RE2/TOT

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.29	J	0.045	MDL	2.2	MRL	mg/Kg	J	Z

Sample ID: SL-679-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.054	J	0.014	MDL	8.7	MRL	mg/Kg	J	Z, Q
ARSENIC	1.9	J	0.051	MDL	15	MRL	mg/Kg	J	Z
BARIUM	120	J B	0.071	MDL	140	MRL	mg/Kg	J	Z
CADMIUM	0.33	J	0.0094	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	35	J	0.076	MDL	37	MRL	mg/Kg	J	Z
COBALT	11	J	0.0067	MDL	21	MRL	mg/Kg	J	Z
COPPER	19	J	0.071	MDL	29	MRL	mg/Kg	J	Z
LEAD	12	J B	0.018	MDL	34	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS								
Method:	6020A	Matrix:	SO						

Sample ID: SL-679-SA6-SB-0.0-0.5			Collected: 11/9/2012 2:00:00			Analysis Type: RES/TOT			Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.43	J	0.018	MDL	5.3	MRL	mg/Kg	J	Z
NICKEL	20	J	0.025	MDL	29	MRL	mg/Kg	J	Z
THALLIUM	0.16	J	0.0035	MDL	0.46	MRL	mg/Kg	J	Z
VANADIUM	58	J	0.039	MDL	62	MRL	mg/Kg	J	Z
ZINC	73	J	0.32	MDL	110	MRL	mg/Kg	J	Z

Method Category:	METALS								
Method:	7471B	Matrix:	SO						

Sample ID: SL-637-SA6-SB-0.0-0.5			Collected: 11/9/2012 10:35:00			Analysis Type: RES/TOT			Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0072	J	0.0061	MDL	0.022	MRL	mg/Kg	J	Z

Sample ID: SL-641-SA6-SB-0.0-0.5			Collected: 11/9/2012 9:05:00			Analysis Type: RES/TOT			Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0095	J	0.0061	MDL	0.022	MRL	mg/Kg	J	Z

Sample ID: SL-642-SA6-SB-0.0-0.5			Collected: 11/9/2012 9:57:00			Analysis Type: RES/TOT			Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.021	J	0.0063	MDL	0.023	MRL	mg/Kg	J	Z

Sample ID: SL-643-SA6-SB-0.0-0.5			Collected: 11/9/2012 8:38:00			Analysis Type: RES/TOT			Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.013	J	0.0065	MDL	0.023	MRL	mg/Kg	J	Z

Sample ID: SL-644-SA6-SB-0.0-0.5			Collected: 11/9/2012 9:30:00			Analysis Type: RES/TOT			Dilution: 1
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.014	J	0.0070	MDL	0.025	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 7471B

Matrix: SO

Sample ID: SL-647-SA6-SB-0.0-0.5

Collected: 11/9/2012 7:28:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0085	J	0.0065	MDL	0.024	MRL	mg/Kg	J	Z

Sample ID: SL-661-SA6-SB-0.0-0.5

Collected: 11/9/2012 12:25:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.017	J	0.0058	MDL	0.021	MRL	mg/Kg	J	Z

Sample ID: SL-662-SA6-SB-0.0-0.5

Collected: 11/9/2012 12:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.017	J	0.0058	MDL	0.021	MRL	mg/Kg	J	Z

Sample ID: SL-663-SA6-SB-0.0-0.5

Collected: 11/9/2012 1:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0092	J	0.0060	MDL	0.022	MRL	mg/Kg	J	Z

Sample ID: SL-678-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:25:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.014	J	0.0064	MDL	0.023	MRL	mg/Kg	J	Z

Sample ID: SL-679-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.021	J	0.0064	MDL	0.023	MRL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015B EFH

Matrix: SO

Sample ID: SL-641-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:05:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	4.8	J	1.1	MDL	5.3	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8015B EFH
Matrix:	SO

Sample ID: SL-642-SA6-SB-0.0-0.5			Collected: 11/9/2012 9:57:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.9	J	1.0	MDL	5.1	MRL	mg/Kg	J	Z
EFH(C8-C11)	1.1	J	1.0	MDL	5.1	MRL	mg/Kg	J	Z

Sample ID: SL-643-SA6-SB-0.0-0.5			Collected: 11/9/2012 8:38:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.9	J	1.0	MDL	5.1	MRL	mg/Kg	J	Z

Sample ID: SL-644-SA6-SB-0.0-0.5			Collected: 11/9/2012 9:30:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.5	J	1.1	MDL	5.4	MRL	mg/Kg	J	Z

Sample ID: SL-647-SA6-SB-0.0-0.5			Collected: 11/9/2012 7:28:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	4.3	J	1.1	MDL	5.3	MRL	mg/Kg	J	Z

Sample ID: SL-662-SA6-SB-0.0-0.5			Collected: 11/9/2012 12:40:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	4.1	J	0.99	MDL	5.0	MRL	mg/Kg	J	Z

Sample ID: SL-663-SA6-SB-0.0-0.5			Collected: 11/9/2012 1:05:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	4.7	J	1.0	MDL	5.1	MRL	mg/Kg	J	Z

Sample ID: SL-678-SA6-SB-0.0-0.5			Collected: 11/9/2012 2:25:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	2.1	J	1.0	MDL	5.1	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8082A

Matrix: SO

Sample ID: SL-647-SA6-SB-0.0-0.5

Collected: 11/9/2012 7:28:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	17	J	5.9	MDL	18	MRL	ug/Kg	J	Z

Sample ID: SL-648-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	12	J	2.7	MDL	18	MRL	ug/Kg	J	Z

Sample ID: SL-664-SA6-SB-0.0-0.5

Collected: 11/9/2012 1:35:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	13	J	2.6	MDL	17	MRL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-637-SA6-SB-0.0-0.5

Collected: 11/9/2012 10:35:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.6	J	1.2	MDL	9.7	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	1.1	MDL	9.7	MRL	ug/Kg	J	Z
CHRYSENE	1.7	J	0.97	MDL	9.7	MRL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.97	MDL	9.7	MRL	ug/Kg	J	Z
NAPHTHALENE	0.45	J	0.32	MDL	9.7	MRL	ug/Kg	U	F
PYRENE	1.4	J	1.1	MDL	9.7	MRL	ug/Kg	J	Z

Sample ID: SL-641-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.39	J	0.31	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.51	J	0.17	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	0.97	J	0.73	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	2.7	J	0.91	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	3.5	J	0.75	MDL	10	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	7.9	J	1.2	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	2.6	J	1.1	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-641-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	2.1	J	1.0	MDL	10	MRL	ug/Kg	J	Z
CHRYSENE	6.6	J	1.0	MDL	10	MRL	ug/Kg	J	Z
FLUORANTHENE	8.1	J	1.0	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	3.5	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	0.63	J	0.33	MDL	10	MRL	ug/Kg	U	F
PHENANTHRENE	4.4	J	1.1	MDL	10	MRL	ug/Kg	J	Z
PYRENE	7.5	J	1.1	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-642-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:57:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.45	J	0.31	MDL	9.9	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.8	J	1.2	MDL	9.9	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	1.1	MDL	9.9	MRL	ug/Kg	J	Z
CHRYSENE	1.6	J	0.99	MDL	9.9	MRL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.99	MDL	9.9	MRL	ug/Kg	J	Z
FLUORENE	1.2	J	0.47	MDL	9.9	MRL	ug/Kg	J	Z
NAPHTHALENE	0.86	J	0.32	MDL	9.9	MRL	ug/Kg	U	F
PHENANTHRENE	1.4	J	1.1	MDL	9.9	MRL	ug/Kg	J	Z
PYRENE	1.6	J	1.1	MDL	9.9	MRL	ug/Kg	J	Z

Sample ID: SL-643-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:38:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.30	J	0.27	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.62	J	0.32	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	4.9	J	0.18	MDL	10	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	4.5	J	1.3	MDL	10	MRL	ug/Kg	J	Z
FLUORENE	1.6	J	0.49	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	0.89	J	0.34	MDL	10	MRL	ug/Kg	U	F

Sample ID: SL-644-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:30:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.38	J	0.29	MDL	11	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-644-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:30:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.69	J	0.34	MDL	11	MRL	ug/Kg	J	Z
ANTHRACENE	0.88	J	0.80	MDL	11	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	3.5	J	1.0	MDL	11	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	3.8	J	0.82	MDL	11	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	4.9	J	1.3	MDL	11	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	4.4	J	1.2	MDL	11	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	3.6	J	1.1	MDL	11	MRL	ug/Kg	J	Z
CHRYSENE	4.5	J	1.1	MDL	11	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	2.6	J	1.4	MDL	11	MRL	ug/Kg	J	Z
FLUORANTHENE	4.1	J	1.1	MDL	11	MRL	ug/Kg	J	Z
FLUORENE	1.1	J	0.52	MDL	11	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.6	J	1.2	MDL	11	MRL	ug/Kg	J	Z
NAPHTHALENE	1.5	J	0.36	MDL	11	MRL	ug/Kg	J	Z
PHENANTHRENE	1.8	J	1.2	MDL	11	MRL	ug/Kg	J	Z
PYRENE	4.1	J	1.2	MDL	11	MRL	ug/Kg	J	Z

Sample ID: SL-647-SA6-SB-0.0-0.5

Collected: 11/9/2012 7:28:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.36	J	0.33	MDL	11	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	1.2	MDL	11	MRL	ug/Kg	J	Z
NAPHTHALENE	0.53	J	0.35	MDL	11	MRL	ug/Kg	U	F

Sample ID: SL-648-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 4

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	1.9	J	1.3	MDL	42	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	8.0	J	4.7	MDL	42	MRL	ug/Kg	J	Z
CHRYSENE	6.6	J	4.2	MDL	42	MRL	ug/Kg	J	Z
NAPHTHALENE	1.5	J	1.4	MDL	42	MRL	ug/Kg	J	Z

Sample ID: SL-661-SA6-SB-0.0-0.5

Collected: 11/9/2012 12:25:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.32	J	0.26	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8270C SIM
Matrix:	SO

Sample ID: SL-661-SA6-SB-0.0-0.5 Collected: 11/9/2012 12:25:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.53	J	0.31	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHENE	0.28	J	0.16	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.94	J	0.17	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	2.1	J	0.73	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	7.7	J	0.91	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	9.9	J	0.75	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	7.0	J	1.1	MDL	10	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	6.3	J	1.0	MDL	10	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.7	J	1.3	MDL	10	MRL	ug/Kg	J	Z
FLUORENE	0.51	J	0.48	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	8.3	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	0.70	J	0.33	MDL	10	MRL	ug/Kg	U	F

Sample ID: SL-662-SA6-SB-0.0-0.5 Collected: 11/9/2012 12:40:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.70	J	0.26	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.7	J	0.31	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHENE	0.31	J	0.16	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	1.1	J	0.17	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	4.0	J	0.72	MDL	10	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.5	J	1.3	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	3.4	J	0.32	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-663-SA6-SB-0.0-0.5 Collected: 11/9/2012 1:05:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	5.2	J	0.26	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHENE	3.4	J	0.16	MDL	10	MRL	ug/Kg	J	Z
FLUORENE	3.5	J	0.47	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-664-SA6-SB-0.0-0.5 Collected: 11/9/2012 1:35:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.44	J	0.26	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-664-SA6-SB-0.0-0.5

Collected: 11/9/2012 1:35:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	1.0	J	0.31	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHENE	0.34	J	0.16	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	1.1	J	0.17	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	4.0	J	0.72	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	7.5	J	0.90	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	8.2	J	0.74	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.6	J	1.1	MDL	10	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	7.1	J	1.0	MDL	10	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.5	J	1.3	MDL	10	MRL	ug/Kg	J	Z
FLUORENE	1.2	J	0.47	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	8.3	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	1.7	J	0.33	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-678-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:25:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.31	J	0.16	MDL	9.4	MRL	ug/Kg	J	Z
ANTHRACENE	0.83	J	0.68	MDL	9.4	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	2.0	J	0.85	MDL	9.4	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	2.8	J	0.70	MDL	9.4	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	4.8	J	1.1	MDL	9.4	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.9	J	1.0	MDL	9.4	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.4	J	0.94	MDL	9.4	MRL	ug/Kg	J	Z
CHRYSENE	3.4	J	0.94	MDL	9.4	MRL	ug/Kg	J	Z
FLUORANTHENE	4.9	J	0.94	MDL	9.4	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	2.3	J	1.0	MDL	9.4	MRL	ug/Kg	J	Z
NAPHTHALENE	0.34	J	0.31	MDL	9.4	MRL	ug/Kg	U	F
PHENANTHRENE	1.8	J	1.0	MDL	9.4	MRL	ug/Kg	J	Z
PYRENE	4.9	J	1.0	MDL	9.4	MRL	ug/Kg	J	Z

Sample ID: SL-679-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:00:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 4

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	1.4	J	1.2	MDL	40	MRL	ug/Kg	J	Z
ACENAPHTHENE	2.2	J	0.65	MDL	40	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-679-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:00:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 4

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	3.5	J	0.69	MDL	40	MRL	ug/Kg	J	Z
ANTHRACENE	14	J	2.9	MDL	40	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	39	J	3.6	MDL	40	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	30	J	4.4	MDL	40	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	24	J	4.0	MDL	40	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	9.5	J	5.3	MDL	40	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	29	J	4.4	MDL	40	MRL	ug/Kg	J	Z
NAPHTHALENE	1.5	J	1.3	MDL	40	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*#	Professional Judgment
A	ICP Serial Dilution
B	Method Blank Contamination
F	Equipment Blank Contamination
F	Field Blank Contamination
Q	Matrix Spike Lower Estimation
S	Surrogate/Tracer Recovery Lower Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35749-1

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: Prep280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C Matrix: SO				
Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-110812(RES/TOT)	11/8/2012 3:00:00 PM	BORON MAGNESIUM MANGANESE STRONTIUM TITANIUM	0.0095 mg/L 0.015 mg/L 0.00054 mg/L 0.00037 mg/L 0.002 mg/L	SL-637-SA6-SB-0.0-0.5 SL-641-SA6-SB-0.0-0.5 SL-642-SA6-SB-0.0-0.5 SL-643-SA6-SB-0.0-0.5 SL-644-SA6-SB-0.0-0.5 SL-647-SA6-SB-0.0-0.5 SL-648-SA6-SB-0.0-0.5 SL-661-SA6-SB-0.0-0.5 SL-662-SA6-SB-0.0-0.5 SL-663-SA6-SB-0.0-0.5 SL-664-SA6-SB-0.0-0.5 SL-678-SA6-SB-0.0-0.5 SL-679-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-637-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.4 mg/Kg	1.4U mg/Kg
SL-641-SA6-SB-0.0-0.5(RES/TOT)	BORON	2.1 mg/Kg	2.1U mg/Kg
SL-643-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.6 mg/Kg	1.6U mg/Kg
SL-644-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.5 mg/Kg	1.5U mg/Kg
SL-661-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.4 mg/Kg	1.4U mg/Kg
SL-662-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.3 mg/Kg	1.3U mg/Kg
SL-663-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.5 mg/Kg	1.5U mg/Kg
SL-664-SA6-SB-0.0-0.5(RES/TOT)	BORON	2.3 mg/Kg	2.3U mg/Kg
SL-679-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.7 mg/Kg	1.7U mg/Kg

Field Blank Outlier Report

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM
Matrix: SO

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-062012(RES)	6/20/2012 3:00:00 PM	NAPHTHALENE	0.26 UG/L	SL-637-SA6-SB-0.0-0.5 SL-641-SA6-SB-0.0-0.5 SL-642-SA6-SB-0.0-0.5 SL-643-SA6-SB-0.0-0.5 SL-644-SA6-SB-0.0-0.5 SL-647-SA6-SB-0.0-0.5 SL-648-SA6-SB-0.0-0.5 SL-661-SA6-SB-0.0-0.5 SL-662-SA6-SB-0.0-0.5 SL-663-SA6-SB-0.0-0.5 SL-664-SA6-SB-0.0-0.5 SL-678-SA6-SB-0.0-0.5 SL-679-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-637-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.45 ug/Kg	9.7U ug/Kg
SL-641-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.63 ug/Kg	10U ug/Kg
SL-642-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.86 ug/Kg	9.9U ug/Kg
SL-643-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.89 ug/Kg	10U ug/Kg
SL-647-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.53 ug/Kg	11U ug/Kg
SL-661-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.70 ug/Kg	10U ug/Kg
SL-678-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.34 ug/Kg	9.4U ug/Kg

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-637-SA6-SB-0.0-0.5	ALUMINUM	J	12000	19000	MRL	mg/Kg	J (all detects)
	BORON	J	1.4	9.4	MRL	mg/Kg	
	LITHIUM	J	22	36	MRL	mg/Kg	
	MANGANESE	J	280	480	MRL	mg/Kg	
	POTASSIUM	J	3000	6200	MRL	mg/Kg	
	SODIUM	J	83	480	MRL	mg/Kg	
	TIN	J	1.6	11	MRL	mg/Kg	
SL-641-SA6-SB-0.0-0.5	Zirconium	J	1.4	8.3	MRL	mg/Kg	J (all detects)
	ALUMINUM	J	9900	21000	MRL	mg/Kg	
	BORON	J	2.1	10	MRL	mg/Kg	
	LITHIUM	J	18	39	MRL	mg/Kg	
	MANGANESE	J	210	520	MRL	mg/Kg	
	POTASSIUM	J	3100	6800	MRL	mg/Kg	
	SODIUM	J	75	530	MRL	mg/Kg	
SL-642-SA6-SB-0.0-0.5	TIN	J	1.7	12	MRL	mg/Kg	J (all detects)
	Zirconium	J	1.0	9.1	MRL	mg/Kg	
	ALUMINUM	J	13000	20000	MRL	mg/Kg	
	BORON	J	5.0	9.7	MRL	mg/Kg	
	LITHIUM	J	23	37	MRL	mg/Kg	
	MANGANESE	J	390	500	MRL	mg/Kg	
	POTASSIUM	J	4300	6400	MRL	mg/Kg	
SL-643-SA6-SB-0.0-0.5	SODIUM	J	84	500	MRL	mg/Kg	J (all detects)
	TIN	J	2.1	11	MRL	mg/Kg	
	Zirconium	J	1.5	8.6	MRL	mg/Kg	
	ALUMINUM	J	13000	18000	MRL	mg/Kg	
	BORON	J	1.6	8.9	MRL	mg/Kg	
	LITHIUM	J	23	34	MRL	mg/Kg	
	MANGANESE	J	300	450	MRL	mg/Kg	
SL-644-SA6-SB-0.0-0.5	POTASSIUM	J	3800	5900	MRL	mg/Kg	J (all detects)
	SODIUM	J	90	460	MRL	mg/Kg	
	TIN	J	2.0	10	MRL	mg/Kg	
	Zirconium	J	1.2	7.9	MRL	mg/Kg	
	ALUMINUM	J	14000	20000	MRL	mg/Kg	
	BORON	J	1.5	9.8	MRL	mg/Kg	
	LITHIUM	J	24	37	MRL	mg/Kg	
SL-647-SA6-SB-0.0-0.5	MANGANESE	J	290	500	MRL	mg/Kg	J (all detects)
	POTASSIUM	J	3700	6500	MRL	mg/Kg	
	SODIUM	J	110	510	MRL	mg/Kg	
	TIN	J	2.3	11	MRL	mg/Kg	
	Zirconium	J	1.3	8.7	MRL	mg/Kg	
	BORON	J	4.9	9.5	MRL	mg/Kg	
	LITHIUM	J	22	36	MRL	mg/Kg	
SL-647-SA6-SB-0.0-0.5	MANGANESE	J	340	490	MRL	mg/Kg	J (all detects)
	POTASSIUM	J	4300	6300	MRL	mg/Kg	
	SODIUM	J	110	490	MRL	mg/Kg	
	TIN	J	2.0	11	MRL	mg/Kg	
	Zirconium	J	5.0	8.5	MRL	mg/Kg	
	BORON	J	4.9	9.5	MRL	mg/Kg	
	LITHIUM	J	22	36	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-648-SA6-SB-0.0-0.5	BORON	J	5.1	8.8	MRL	mg/Kg	J (all detects)
	LITHIUM	J	21	34	MRL	mg/Kg	
	MANGANESE	J	340	450	MRL	mg/Kg	
	POTASSIUM	J	5000	5800	MRL	mg/Kg	
	SODIUM	J	110	460	MRL	mg/Kg	
	TIN	J	1.9	9.9	MRL	mg/Kg	
	Zirconium	J	3.8	7.8	MRL	mg/Kg	
SL-661-SA6-SB-0.0-0.5	ALUMINUM	J	11000	20000	MRL	mg/Kg	J (all detects)
	BORON	J	1.4	9.9	MRL	mg/Kg	
	LITHIUM	J	16	38	MRL	mg/Kg	
	MANGANESE	J	240	500	MRL	mg/Kg	
	POTASSIUM	J	3400	6500	MRL	mg/Kg	
	SODIUM	J	93	510	MRL	mg/Kg	
	TIN	J	1.5	11	MRL	mg/Kg	
SL-662-SA6-SB-0.0-0.5	Zirconium	J	1.7	8.7	MRL	mg/Kg	J (all detects)
	ALUMINUM	J	13000	19000	MRL	mg/Kg	
	BORON	J	1.3	9.3	MRL	mg/Kg	
	LITHIUM	J	19	35	MRL	mg/Kg	
	MANGANESE	J	250	470	MRL	mg/Kg	
	POTASSIUM	J	3500	6100	MRL	mg/Kg	
	SODIUM	J	83	480	MRL	mg/Kg	
SL-663-SA6-SB-0.0-0.5	TIN	J	1.8	10	MRL	mg/Kg	J (all detects)
	Zirconium	J	1.9	8.2	MRL	mg/Kg	
	ALUMINUM	J	12000	20000	MRL	mg/Kg	
	BORON	J	1.5	9.7	MRL	mg/Kg	
	LITHIUM	J	17	37	MRL	mg/Kg	
	MANGANESE	J	240	500	MRL	mg/Kg	
	POTASSIUM	J	3100	6400	MRL	mg/Kg	
SL-664-SA6-SB-0.0-0.5	SODIUM	J	83	500	MRL	mg/Kg	J (all detects)
	TIN	J	1.7	11	MRL	mg/Kg	
	Zirconium	J	1.6	8.6	MRL	mg/Kg	
	ALUMINUM	J	12000	18000	MRL	mg/Kg	
	BORON	J	2.3	8.9	MRL	mg/Kg	
	LITHIUM	J	18	34	MRL	mg/Kg	
	MANGANESE	J	320	460	MRL	mg/Kg	
SL-678-SA6-SB-0.0-0.5	POTASSIUM	J	3700	5900	MRL	mg/Kg	J (all detects)
	SODIUM	J	83	460	MRL	mg/Kg	
	TIN	J	1.7	10	MRL	mg/Kg	
	Zirconium	J	1.9	7.9	MRL	mg/Kg	
	ALUMINUM	J	9500	20000	MRL	mg/Kg	
	LITHIUM	J	16	37	MRL	mg/Kg	
	MANGANESE	J	280	500	MRL	mg/Kg	
	POTASSIUM	J	3900	6500	MRL	mg/Kg	J (all detects)
	SODIUM	J	190	500	MRL	mg/Kg	
	TIN	J	1.7	11	MRL	mg/Kg	
	Zirconium	J	0.87	8.7	MRL	mg/Kg	
	ALUMINUM	J	9500	20000	MRL	mg/Kg	
	LITHIUM	J	16	37	MRL	mg/Kg	
	MANGANESE	J	280	500	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-679-SA6-SB-0.0-0.5	ALUMINUM	J	15000	19000	MRL	mg/Kg	J (all detects)
	BORON	J	1.7	9.2	MRL	mg/Kg	
	LITHIUM	J	25	35	MRL	mg/Kg	
	MANGANESE	J	380	470	MRL	mg/Kg	
	POTASSIUM	J	3700	6100	MRL	mg/Kg	
	SODIUM	J	200	470	MRL	mg/Kg	
	TIN	J	2.3	10	MRL	mg/Kg	
	Zirconium	J	1.8	8.1	MRL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-637-SA6-SB-0.0-0.5	ANTIMONY	J	0.024	8.8	MRL	mg/Kg	J (all detects)
	ARSENIC	J	5.3	15	MRL	mg/Kg	
	BARIUM	J B	96	140	MRL	mg/Kg	
	BERYLLIUM	J	0.51	1.1	MRL	mg/Kg	
	CADMIUM	J	0.13	1.0	MRL	mg/Kg	
	CHROMIUM	J	15	37	MRL	mg/Kg	
	COBALT	J	4.9	21	MRL	mg/Kg	
	COPPER	J	6.8	29	MRL	mg/Kg	
	LEAD	J B	5.5	34	MRL	mg/Kg	
	MOLYBDENUM	J	0.44	5.4	MRL	mg/Kg	
	NICKEL	J	10	29	MRL	mg/Kg	
	SELENIUM	J	0.13	0.66	MRL	mg/Kg	
	SILVER	J	0.035	0.80	MRL	mg/Kg	
	THALLIUM	J	0.23	0.47	MRL	mg/Kg	
	VANADIUM	J	25	63	MRL	mg/Kg	
	ZINC	J	56	110	MRL	mg/Kg	
SL-641-SA6-SB-0.0-0.5	ANTIMONY	J	0.029	8.7	MRL	mg/Kg	J (all detects)
	ARSENIC	J	2.8	15	MRL	mg/Kg	
	BARIUM	J B	73	140	MRL	mg/Kg	
	BERYLLIUM	J	0.45	1.1	MRL	mg/Kg	
	CADMIUM	J	0.15	1.0	MRL	mg/Kg	
	CHROMIUM	J	9.7	37	MRL	mg/Kg	
	COBALT	J	3.6	21	MRL	mg/Kg	
	COPPER	J	5.9	29	MRL	mg/Kg	
	LEAD	J B	9.4	34	MRL	mg/Kg	
	MOLYBDENUM	J	0.30	5.3	MRL	mg/Kg	
	NICKEL	J	6.5	29	MRL	mg/Kg	
	SELENIUM	J	0.13	0.65	MRL	mg/Kg	
	SILVER	J	0.24	0.79	MRL	mg/Kg	
	THALLIUM	J	0.21	0.46	MRL	mg/Kg	
	VANADIUM	J	19	62	MRL	mg/Kg	
	ZINC	J	87	110	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-642-SA6-SB-0.0-0.5	ANTIMONY	J	0.023	8.6	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.6	15	MRL	mg/Kg	
	BARIUM	J B	130	140	MRL	mg/Kg	
	BERYLLIUM	J	0.65	1.1	MRL	mg/Kg	
	CADMIUM	J	0.27	0.99	MRL	mg/Kg	
	CHROMIUM	J	15	37	MRL	mg/Kg	
	COBALT	J	5.2	21	MRL	mg/Kg	
	COPPER	J	9.5	29	MRL	mg/Kg	
	LEAD	J B	17	34	MRL	mg/Kg	
	MOLYBDENUM	J	0.43	5.3	MRL	mg/Kg	
	NICKEL	J	10	29	MRL	mg/Kg	
	SELENIUM	J	0.22	0.65	MRL	mg/Kg	
	SILVER	J	0.12	0.78	MRL	mg/Kg	
	THALLIUM	J	0.29	0.46	MRL	mg/Kg	
	VANADIUM	J	28	62	MRL	mg/Kg	
	ZINC	J	76	110	MRL	mg/Kg	
SL-643-SA6-SB-0.0-0.5	ANTIMONY	J	0.019	9.0	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.5	16	MRL	mg/Kg	
	BARIUM	J B	95	150	MRL	mg/Kg	
	BERYLLIUM	J	0.56	1.1	MRL	mg/Kg	
	CADMIUM	J	0.42	1.0	MRL	mg/Kg	
	CHROMIUM	J	14	38	MRL	mg/Kg	
	COBALT	J	4.9	22	MRL	mg/Kg	
	COPPER	J	29	30	MRL	mg/Kg	
	LEAD	J B	14	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.50	5.5	MRL	mg/Kg	
	NICKEL	J	9.5	30	MRL	mg/Kg	
	SELENIUM	J	0.17	0.68	MRL	mg/Kg	
	SILVER	J	0.097	0.82	MRL	mg/Kg	
	THALLIUM	J	0.25	0.48	MRL	mg/Kg	
	VANADIUM	J	26	64	MRL	mg/Kg	
SL-644-SA6-SB-0.0-0.5	ARSENIC	J	3.4	17	MRL	mg/Kg	J (all detects)
	BARIUM	J B	100	160	MRL	mg/Kg	
	BERYLLIUM	J	0.60	1.2	MRL	mg/Kg	
	CADMIUM	J	0.18	1.1	MRL	mg/Kg	
	CHROMIUM	J	12	42	MRL	mg/Kg	
	COBALT	J	4.4	24	MRL	mg/Kg	
	COPPER	J	7.3	33	MRL	mg/Kg	
	LEAD	J B	12	38	MRL	mg/Kg	
	MOLYBDENUM	J	0.42	6.0	MRL	mg/Kg	
	NICKEL	J	8.4	33	MRL	mg/Kg	
	SELENIUM	J	0.15	0.74	MRL	mg/Kg	
	SILVER	J	0.20	0.89	MRL	mg/Kg	
	THALLIUM	J	0.26	0.52	MRL	mg/Kg	
	VANADIUM	J	26	70	MRL	mg/Kg	
	ZINC	J	64	120	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-647-SA6-SB-0.0-0.5	ARSENIC	J	5.8	14	MRL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.93	2.0	MRL	mg/Kg	
	CADMIUM	J	0.27	0.91	MRL	mg/Kg	
	COBALT	J	11	19	MRL	mg/Kg	
	COPPER	J	17	26	MRL	mg/Kg	
	LEAD	J B	11	31	MRL	mg/Kg	
	MOLYBDENUM	J	0.25	4.8	MRL	mg/Kg	
	NICKEL	J	21	26	MRL	mg/Kg	
	SELENIUM	J	0.16	0.60	MRL	mg/Kg	
	SILVER	J	0.043	0.72	MRL	mg/Kg	
	THALLIUM	J	0.31	0.42	MRL	mg/Kg	
	ZINC	J	68	100	MRL	mg/Kg	
SL-648-SA6-SB-0.0-0.5	ARSENIC	J	5.5	15	MRL	mg/Kg	J (all detects)
	BARIUM	J B	120	140	MRL	mg/Kg	
	BERYLLIUM	J	0.79	2.3	MRL	mg/Kg	
	CADMIUM	J	0.29	1.0	MRL	mg/Kg	
	CHROMIUM	J	32	38	MRL	mg/Kg	
	COBALT	J	9.7	21	MRL	mg/Kg	
	COPPER	J	18	30	MRL	mg/Kg	
	LEAD	J B	13	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.29	5.4	MRL	mg/Kg	
	NICKEL	J	20	30	MRL	mg/Kg	
	SELENIUM	J	0.21	0.67	MRL	mg/Kg	
	SILVER	J	0.051	0.81	MRL	mg/Kg	
	THALLIUM	J	0.31	0.47	MRL	mg/Kg	
	VANADIUM	J	52	63	MRL	mg/Kg	
	ZINC	J	74	110	MRL	mg/Kg	
SL-661-SA6-SB-0.0-0.5	ANTIMONY	J	0.098	8.8	MRL	mg/Kg	J (all detects)
	ARSENIC	J	2.7	15	MRL	mg/Kg	
	BARIUM	J B	93	140	MRL	mg/Kg	
	BERYLLIUM	J	0.43	1.1	MRL	mg/Kg	
	CADMIUM	J	0.95	1.0	MRL	mg/Kg	
	CHROMIUM	J	15	37	MRL	mg/Kg	
	COBALT	J	4.8	21	MRL	mg/Kg	
	COPPER	J	13	29	MRL	mg/Kg	
	LEAD	J B	11	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.42	5.4	MRL	mg/Kg	
	NICKEL	J	13	29	MRL	mg/Kg	
	THALLIUM	J	0.20	0.47	MRL	mg/Kg	
	VANADIUM	J	25	63	MRL	mg/Kg	
	ZINC	J	66	110	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-662-SA6-SB-0.0-0.5	ANTIMONY	J	0.087	7.6	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.4	13	MRL	mg/Kg	
	BARIUM	J B	110	120	MRL	mg/Kg	
	BERYLLIUM	J	0.49	0.96	MRL	mg/Kg	
	CADMIUM	J	0.40	0.88	MRL	mg/Kg	
	CHROMIUM	J	17	32	MRL	mg/Kg	
	COBALT	J	5.3	18	MRL	mg/Kg	
	COPPER	J	9.4	25	MRL	mg/Kg	
	LEAD	J B	11	30	MRL	mg/Kg	
	MOLYBDENUM	J	0.43	4.6	MRL	mg/Kg	
	NICKEL	J	13	25	MRL	mg/Kg	
	SELENIUM	J	0.13	0.57	MRL	mg/Kg	
	THALLIUM	J	0.22	0.40	MRL	mg/Kg	
	VANADIUM	J	31	54	MRL	mg/Kg	
	ZINC	J	55	96	MRL	mg/Kg	
SL-663-SA6-SB-0.0-0.5	ANTIMONY	J	0.015	8.7	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.0	15	MRL	mg/Kg	
	BARIUM	J B	87	140	MRL	mg/Kg	
	BERYLLIUM	J	0.47	1.1	MRL	mg/Kg	
	CADMIUM	J	0.31	1.0	MRL	mg/Kg	
	CHROMIUM	J	15	37	MRL	mg/Kg	
	COBALT	J	4.5	21	MRL	mg/Kg	
	LEAD	J B	11	34	MRL	mg/Kg	
	MOLYBDENUM	J	0.39	5.3	MRL	mg/Kg	
	NICKEL	J	10	29	MRL	mg/Kg	
	SILVER	J	0.64	0.79	MRL	mg/Kg	
	THALLIUM	J	0.20	0.46	MRL	mg/Kg	
	VANADIUM	J	27	62	MRL	mg/Kg	
	ZINC	J	56	110	MRL	mg/Kg	
SL-664-SA6-SB-0.0-0.5	ANTIMONY	J	0.052	8.9	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.1	15	MRL	mg/Kg	
	BARIUM	J B	110	140	MRL	mg/Kg	
	BERYLLIUM	J	0.51	1.1	MRL	mg/Kg	
	CHROMIUM	J	16	38	MRL	mg/Kg	
	COBALT	J	5.0	21	MRL	mg/Kg	
	COPPER	J	11	30	MRL	mg/Kg	
	LEAD	J B	15	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.48	5.4	MRL	mg/Kg	
	NICKEL	J	12	30	MRL	mg/Kg	
	THALLIUM	J	0.22	0.47	MRL	mg/Kg	
	VANADIUM	J	27	63	MRL	mg/Kg	
	ZINC	J	89	110	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-678-SA6-SB-0.0-0.5	ANTIMONY	J	0.020	7.4	MRL	mg/Kg	J (all detects)
	ARSENIC	J	1.3	13	MRL	mg/Kg	
	BERYLLIUM	J	0.15	1.9	MRL	mg/Kg	
	CADMIUM	J	0.066	0.85	MRL	mg/Kg	
	CHROMIUM	J	20	31	MRL	mg/Kg	
	COBALT	J	7.1	18	MRL	mg/Kg	
	COPPER	J	13	25	MRL	mg/Kg	
	LEAD	J B	4.1	29	MRL	mg/Kg	
	MOLYBDENUM	J	0.25	4.5	MRL	mg/Kg	
	NICKEL	J	9.3	25	MRL	mg/Kg	
	SILVER	J	0.065	0.67	MRL	mg/Kg	
	THALLIUM	J	0.17	0.39	MRL	mg/Kg	
	VANADIUM	J	36	53	MRL	mg/Kg	
	ZINC	J	47	93	MRL	mg/Kg	
SL-679-SA6-SB-0.0-0.5	ANTIMONY	J	0.054	8.7	MRL	mg/Kg	J (all detects)
	ARSENIC	J	1.9	15	MRL	mg/Kg	
	BARIUM	J B	120	140	MRL	mg/Kg	
	BERYLLIUM	J	0.29	2.2	MRL	mg/Kg	
	CADMIUM	J	0.33	1.0	MRL	mg/Kg	
	CHROMIUM	J	35	37	MRL	mg/Kg	
	COBALT	J	11	21	MRL	mg/Kg	
	COPPER	J	19	29	MRL	mg/Kg	
	LEAD	J B	12	34	MRL	mg/Kg	
	MOLYBDENUM	J	0.43	5.3	MRL	mg/Kg	
	NICKEL	J	20	29	MRL	mg/Kg	
	THALLIUM	J	0.16	0.46	MRL	mg/Kg	
	VANADIUM	J	58	62	MRL	mg/Kg	
	ZINC	J	73	110	MRL	mg/Kg	

Method: 7471B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-637-SA6-SB-0.0-0.5	MERCURY	J	0.0072	0.022	MRL	mg/Kg	J (all detects)
SL-641-SA6-SB-0.0-0.5	MERCURY	J	0.0095	0.022	MRL	mg/Kg	J (all detects)
SL-642-SA6-SB-0.0-0.5	MERCURY	J	0.021	0.023	MRL	mg/Kg	J (all detects)
SL-643-SA6-SB-0.0-0.5	MERCURY	J	0.013	0.023	MRL	mg/Kg	J (all detects)
SL-644-SA6-SB-0.0-0.5	MERCURY	J	0.014	0.025	MRL	mg/Kg	J (all detects)
SL-647-SA6-SB-0.0-0.5	MERCURY	J	0.0085	0.024	MRL	mg/Kg	J (all detects)
SL-661-SA6-SB-0.0-0.5	MERCURY	J	0.017	0.021	MRL	mg/Kg	J (all detects)
SL-662-SA6-SB-0.0-0.5	MERCURY	J	0.017	0.021	MRL	mg/Kg	J (all detects)
SL-663-SA6-SB-0.0-0.5	MERCURY	J	0.0092	0.022	MRL	mg/Kg	J (all detects)
SL-678-SA6-SB-0.0-0.5	MERCURY	J	0.014	0.023	MRL	mg/Kg	J (all detects)
SL-679-SA6-SB-0.0-0.5	MERCURY	J	0.021	0.023	MRL	mg/Kg	J (all detects)

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-641-SA6-SB-0.0-0.5	EFH(C21-C30)	J	4.8	5.3	MRL	mg/Kg	J (all detects)
SL-642-SA6-SB-0.0-0.5	EFH(C15-C20)	J	1.9	5.1	MRL	mg/Kg	J (all detects)
	EFH(C8-C11)	J	1.1	5.1	MRL	mg/Kg	
SL-643-SA6-SB-0.0-0.5	EFH(C15-C20)	J	1.9	5.1	MRL	mg/Kg	J (all detects)
SL-644-SA6-SB-0.0-0.5	EFH(C15-C20)	J	1.5	5.4	MRL	mg/Kg	J (all detects)
SL-647-SA6-SB-0.0-0.5	EFH(C21-C30)	J	4.3	5.3	MRL	mg/Kg	J (all detects)
SL-662-SA6-SB-0.0-0.5	EFH(C21-C30)	J	4.1	5.0	MRL	mg/Kg	J (all detects)
SL-663-SA6-SB-0.0-0.5	EFH(C15-C20)	J	4.7	5.1	MRL	mg/Kg	J (all detects)
SL-678-SA6-SB-0.0-0.5	EFH(C21-C30)	J	2.1	5.1	MRL	mg/Kg	J (all detects)

Method: 8082A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-647-SA6-SB-0.0-0.5	AROCLOR 1254	J	17	18	MRL	ug/Kg	J (all detects)
SL-648-SA6-SB-0.0-0.5	AROCLOR 1260	J	12	18	MRL	ug/Kg	J (all detects)
SL-664-SA6-SB-0.0-0.5	AROCLOR 1260	J	13	17	MRL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-637-SA6-SB-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.6	9.7	MRL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.2	9.7	MRL	ug/Kg	
	CHRYSENE	J	1.7	9.7	MRL	ug/Kg	
	FLUORANTHENE	J	1.3	9.7	MRL	ug/Kg	
	NAPHTHALENE	J	0.45	9.7	MRL	ug/Kg	
	PYRENE	J	1.4	9.7	MRL	ug/Kg	
SL-641-SA6-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.39	10	MRL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.51	10	MRL	ug/Kg	
	ANTHRACENE	J	0.97	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	2.7	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	3.5	10	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	7.9	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	2.6	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	2.1	10	MRL	ug/Kg	
	CHRYSENE	J	6.6	10	MRL	ug/Kg	
	FLUORANTHENE	J	8.1	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	3.5	10	MRL	ug/Kg	
	NAPHTHALENE	J	0.63	10	MRL	ug/Kg	
	PHENANTHRENE	J	4.4	10	MRL	ug/Kg	
	PYRENE	J	7.5	10	MRL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-642-SA6-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.45	9.9	MRL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.8	9.9	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	9.9	MRL	ug/Kg	
	CHRYSENE	J	1.6	9.9	MRL	ug/Kg	
	FLUORANTHENE	J	1.6	9.9	MRL	ug/Kg	
	FLUORENE	J	1.2	9.9	MRL	ug/Kg	
	NAPHTHALENE	J	0.86	9.9	MRL	ug/Kg	
	PHENANTHRENE	J	1.4	9.9	MRL	ug/Kg	
SL-643-SA6-SB-0.0-0.5	PYRENE	J	1.6	9.9	MRL	ug/Kg	J (all detects)
	1-METHYLNAPHTHALENE	J	0.30	10	MRL	ug/Kg	
	2-METHYLNAPHTHALENE	J	0.62	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	4.9	10	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	4.5	10	MRL	ug/Kg	
	FLUORENE	J	1.6	10	MRL	ug/Kg	
SL-644-SA6-SB-0.0-0.5	NAPHTHALENE	J	0.89	10	MRL	ug/Kg	J (all detects)
	1-METHYLNAPHTHALENE	J	0.38	11	MRL	ug/Kg	
	2-METHYLNAPHTHALENE	J	0.69	11	MRL	ug/Kg	
	ANTHRACENE	J	0.88	11	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	3.5	11	MRL	ug/Kg	
	BENZO(A)PYRENE	J	3.8	11	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	4.9	11	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.4	11	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	3.6	11	MRL	ug/Kg	
	CHRYSENE	J	4.5	11	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	2.6	11	MRL	ug/Kg	
	FLUORANTHENE	J	4.1	11	MRL	ug/Kg	
	FLUORENE	J	1.1	11	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.6	11	MRL	ug/Kg	
	NAPHTHALENE	J	1.5	11	MRL	ug/Kg	
	PHENANTHRENE	J	1.8	11	MRL	ug/Kg	
	PYRENE	J	4.1	11	MRL	ug/Kg	
SL-647-SA6-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.36	11	MRL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.2	11	MRL	ug/Kg	
	NAPHTHALENE	J	0.53	11	MRL	ug/Kg	
SL-648-SA6-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	1.9	42	MRL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	8.0	42	MRL	ug/Kg	
	CHRYSENE	J	6.6	42	MRL	ug/Kg	
	NAPHTHALENE	J	1.5	42	MRL	ug/Kg	
SL-661-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.32	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.53	10	MRL	ug/Kg	
	ACENAPHTHENE	J	0.28	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.94	10	MRL	ug/Kg	
	ANTHRACENE	J	2.1	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	7.7	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	9.9	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	7.0	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	6.3	10	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.7	10	MRL	ug/Kg	
	FLUORENE	J	0.51	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	8.3	10	MRL	ug/Kg	
	NAPHTHALENE	J	0.70	10	MRL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-1

Laboratory: TA DEN

EDD Filename: 280-35749-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-662-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.70	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.7	10	MRL	ug/Kg	
	ACENAPHTHENE	J	0.31	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	1.1	10	MRL	ug/Kg	
	ANTHRACENE	J	4.0	10	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	3.5	10	MRL	ug/Kg	
	NAPHTHALENE	J	3.4	10	MRL	ug/Kg	
SL-663-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	5.2	10	MRL	ug/Kg	J (all detects)
	ACENAPHTHENE	J	3.4	10	MRL	ug/Kg	
	FLUORENE	J	3.5	10	MRL	ug/Kg	
SL-664-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.44	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.0	10	MRL	ug/Kg	
	ACENAPHTHENE	J	0.34	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	1.1	10	MRL	ug/Kg	
	ANTHRACENE	J	4.0	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	7.5	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	8.2	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	6.6	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	7.1	10	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.5	10	MRL	ug/Kg	
	FLUORENE	J	1.2	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	8.3	10	MRL	ug/Kg	
	NAPHTHALENE	J	1.7	10	MRL	ug/Kg	
SL-678-SA6-SB-0.0-0.5	ACENAPHTHYLENE	J	0.31	9.4	MRL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.83	9.4	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	2.0	9.4	MRL	ug/Kg	
	BENZO(A)PYRENE	J	2.8	9.4	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	4.8	9.4	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.9	9.4	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.4	9.4	MRL	ug/Kg	
	CHRYSENE	J	3.4	9.4	MRL	ug/Kg	
	FLUORANTHENE	J	4.9	9.4	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	2.3	9.4	MRL	ug/Kg	
	NAPHTHALENE	J	0.34	9.4	MRL	ug/Kg	
	PHENANTHRENE	J	1.8	9.4	MRL	ug/Kg	
	PYRENE	J	4.9	9.4	MRL	ug/Kg	
SL-679-SA6-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	1.4	40	MRL	ug/Kg	J (all detects)
	ACENAPHTHENE	J	2.2	40	MRL	ug/Kg	
	ACENAPHTHYLENE	J	3.5	40	MRL	ug/Kg	
	ANTHRACENE	J	14	40	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	39	40	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	30	40	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	24	40	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	9.5	40	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	29	40	MRL	ug/Kg	
	NAPHTHALENE	J	1.5	40	MRL	ug/Kg	

LDC #: 29419F4
 SDG #: 280-35749-1
 Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET ADR

Date: 4/2/13
 Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	-	Sampling dates: 11/9/12
II.	ICP/MS Tune	-	
III.	Calibration	-	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	-	
VI.	Matrix Spike Analysis	N	MS/D(6010C+6020A) → see SDG: 280-35658-1)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	(SDG: 280-35658-1) (Ca, Fe, Li, Mn, P, Sr: plus)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	-	
XV.	Field Blanks	SW	EB = EB-110812 (280-35658-1)

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

FB = FB-062012 (12F146)
 D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples:

1	SL-647-SA6-SB-0.0-0.5	11	SL-664-SA6-SB-0.0-0.5	21		31	
2	SL-637-SA6-SB-0.0-0.5	12	SL-678-SA6-SB-0.0-0.5	22		32	
3	SL-641-SA6-SB-0.0-0.5	13	SL-679-SA6-SB-0.0-0.5	23		33	
4	SL-642-SA6-SB-0.0-0.5	14	SL-647-SA6-SB-0.0-0.5MS	24		34	
5	SL-643-SA6-SB-0.0-0.5	15	SL-647-SA6-SB-0.0-0.5MSD	25		35	
6	SL-644-SA6-SB-0.0-0.5	16		26		36	
7	SL-648-SA6-SB-0.0-0.5	17		27		37	
8	SL-661-SA6-SB-0.0-0.5	18		28		38	
9	SL-662-SA6-SB-0.0-0.5	19		29		39	
10	SL-663-SA6-SB-0.0-0.5	20		30		40	

Notes: _____

Page: 61
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L Associated sample units: mg/Kg
 Sampling date: 11/8/12 Soil factor applied 100x
 Field blank type: (circle one) Field Blank / Rinsate / Other: _____

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above; these sample results were qualified as not detected, "U".

VALIDATION FINDINGS WORKSHEET

Field Blanks

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L Associated sample units: mg/Kg
Sampling date: 06/20/12 Soil factor applied 100x

Sampling date: 06/20/12

Soil factor applied 100x

Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: All

[illegible]

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

SAMPLE DELIVERY GROUP

280-35749-2

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Nov-2012	SL-647-SA6-SB-0.0-0.5	280-35749-2	N	1613	1613B	III
09-Nov-2012	SL-648-SA6-SB-0.0-0.5	280-35749-14	N	1613	1613B	III
09-Nov-2012	SL-643-SA6-SB-0.0-0.5	280-35749-10	N	1613	1613B	III
09-Nov-2012	SL-641-SA6-SB-0.0-0.5	280-35749-6	N	1613	1613B	III
09-Nov-2012	SL-644-SA6-SB-0.0-0.5	280-35749-12	N	1613	1613B	III
09-Nov-2012	SL-642-SA6-SB-0.0-0.5	280-35749-8	N	1613	1613B	III
09-Nov-2012	SL-637-SA6-SB-0.0-0.5	280-35749-4	N	1613	1613B	III
09-Nov-2012	SL-661-SA6-SB-0.0-0.5	280-35749-16	N	1613	1613B	III
09-Nov-2012	SL-662-SA6-SB-0.0-0.5	280-35749-18	N	1613	1613B	III
09-Nov-2012	SL-663-SA6-SB-0.0-0.5	280-35749-20	N	1613	1613B	III
09-Nov-2012	SL-664-SA6-SB-0.0-0.5	280-35749-22	N	1613	1613B	III
09-Nov-2012	SL-679-SA6-SB-0.0-0.5	280-35749-26	N	1613	1613B	III
09-Nov-2012	SL-678-SA6-SB-0.0-0.5	280-35749-24	N	1613	1613B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-637-SA6-SB-0.0-0.5

Collected: 11/9/2012 10:35:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	4.1	B J	0.12	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.40	Q B J	0.18	MDL	5.2	MRL	ng/kg	U	B
1,2,3,4,7,8-HXCDF	0.35	B J	0.092	MDL	5.2	MRL	ng/kg	U	B
1,2,3,6,7,8-HXCDD	0.66	J	0.15	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.66	J	0.088	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDD	0.59	Q B J	0.14	MDL	5.2	MRL	ng/kg	U	B
1,2,3,7,8,9-HXCDF	0.14	Q B J	0.11	MDL	5.2	MRL	ng/kg	U	B
OCDF	8.2	B J	0.16	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-641-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:05:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.9	B J	0.26	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.98	J	0.14	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.98	Q B J	0.096	MDL	5.3	MRL	ng/kg	U	B
1,2,3,6,7,8-HXCDD	2.1	J	0.14	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	2.7	Q J	0.095	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDD	2.3	B J	0.13	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.52	Q B J	0.21	MDL	5.3	MRL	ng/kg	U	B
2,3,4,6,7,8-HXCDF	1.1	B J	0.095	MDL	5.3	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	0.33	Q B J	0.14	MDL	5.3	MRL	ng/kg	U	B

Sample ID: SL-642-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:57:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.83	B J	0.24	MDL	5.1	MRL	ng/kg	U	B
1,2,3,4,7,8-HxCDD	0.50	Q J	0.13	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.70	B J	0.10	MDL	5.1	MRL	ng/kg	U	B
1,2,3,6,7,8-HXCDD	1.1	J	0.14	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	1.8	Q J	0.098	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDD	1.5	B J	0.13	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.19	B J	0.13	MDL	5.1	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	0.46	Q B J	0.26	MDL	5.1	MRL	ng/kg	U	B
1,2,3,7,8-PECDF	0.29	Q J	0.21	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.58	B J	0.10	MDL	5.1	MRL	ng/kg	U	B

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/18/2013 2:28:26 PM

ADR version 1.7.0.207

Page 1 of 6

Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-642-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:57:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,7,8-PECDF	0.33	Q B J	0.18	MDL	5.1	MRL	ng/kg	U	B
2,3,7,8-TCDF	0.96	Q J	0.35	MDL	1.0	MRL	ng/kg	J	Z

Sample ID: SL-643-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:38:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDF	0.52	Q B J	0.096	MDL	5.2	MRL	ng/kg	U	B
1,2,3,7,8-PECDF	0.96	J	0.15	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	1.3	B J	0.14	MDL	5.2	MRL	ng/kg	U	B
2,3,7,8-TCDD	0.60	Q J	0.36	MDL	1.0	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.81	J	0.25	MDL	1.0	MRL	ng/kg	J	Z
OCDD	8700	B E	0.18	MDL	10	MRL	ng/kg	J	*XI

Sample ID: SL-644-SA6-SB-0.0-0.5

Collected: 11/9/2012 9:30:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.1	B J	0.12	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.36	J	0.14	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.29	Q B J	0.076	MDL	5.6	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	1.0	Q J	0.13	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.44	Q J	0.074	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	1.3	Q B J	0.13	MDL	5.6	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.14	Q B J	0.090	MDL	5.6	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	0.53	B J	0.16	MDL	5.6	MRL	ng/kg	U	B
2,3,4,6,7,8-HXCDF	0.28	B J	0.077	MDL	5.6	MRL	ng/kg	U	B
2,3,7,8-TCDF	0.48	Q J	0.25	MDL	1.1	MRL	ng/kg	J	Z

Sample ID: SL-647-SA6-SB-0.0-0.5

Collected: 11/9/2012 7:28:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.4	B J	0.092	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.29	Q B J	0.14	MDL	5.3	MRL	ng/kg	U	B
1,2,3,4,7,8-HXCDF	0.25	Q B J	0.068	MDL	5.3	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	0.47	Q J	0.12	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.22	J	0.066	MDL	5.3	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-647-SA6-SB-0.0-0.5

Collected: 11/9/2012 7:28:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDD	0.41	Q B J	0.12	MDL	5.3	MRL	ng/kg	U	B
2,3,4,6,7,8-HXCDF	0.13	Q B J	0.071	MDL	5.3	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	0.12	Q B J	0.12	MDL	5.3	MRL	ng/kg	U	B
OCDF	3.9	B J	0.14	MDL	11	MRL	ng/kg	J	Z

Sample ID: SL-648-SA6-SB-0.0-0.5

Collected: 11/9/2012 8:05:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.74	Q B J	0.17	MDL	5.4	MRL	ng/kg	U	B
1,2,3,4,7,8-HxCDD	0.35	Q J	0.13	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.36	B J	0.083	MDL	5.4	MRL	ng/kg	U	B
1,2,3,6,7,8-HXCDD	1.3	Q J	0.14	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.50	Q J	0.078	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDD	1.3	B J	0.12	MDL	5.4	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.35	Q B J	0.17	MDL	5.4	MRL	ng/kg	U	B
1,2,3,7,8-PECDF	0.16	Q J	0.13	MDL	5.4	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.19	B J	0.076	MDL	5.4	MRL	ng/kg	U	B

Sample ID: SL-661-SA6-SB-0.0-0.5

Collected: 11/9/2012 12:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	3.8	Q B J	0.29	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	4.6	J	0.19	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	4.7	B J	0.10	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	4.0	Q J	0.096	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.61	B J	0.10	MDL	5.0	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	2.0	Q B J	0.18	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	1.5	J	0.15	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	1.4	B J	0.098	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	1.1	B J	0.13	MDL	5.0	MRL	ng/kg	U	B
OCDD	5600	B E	0.34	MDL	10	MRL	ng/kg	J	*XI

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-662-SA6-SB-0.0-0.5

Collected: 11/9/2012 12:40:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HxCDD	2.0	J	0.16	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	4.7	B J	0.088	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	4.7	J	0.16	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	3.3	Q J	0.082	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.22	Q B J	0.093	MDL	4.9	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	0.78	Q B J	0.20	MDL	4.9	MRL	ng/kg	U	B
1,2,3,7,8-PECDF	0.47	Q J	0.17	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.72	Q B J	0.083	MDL	4.9	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	0.54	Q B J	0.14	MDL	4.9	MRL	ng/kg	U	B
2,3,7,8-TCDF	0.88	J	0.30	MDL	0.98	MRL	ng/kg	J	Z

Sample ID: SL-663-SA6-SB-0.0-0.5

Collected: 11/9/2012 1:05:00

Analysis Type: DL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HxCDF	1.6	Q B J	0.36	MDL	25	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	4.0	J	0.55	MDL	25	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	9.5	B J	0.32	MDL	25	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	4.5	B J	0.49	MDL	25	MRL	ng/kg	J	Z
2,3,7,8-TCDF	3.2	J	0.77	MDL	5.1	MRL	ng/kg	J	Z
OCDD	55000	B E	0.59	MDL	51	MRL	ng/kg	J	*XI

Sample ID: SL-664-SA6-SB-0.0-0.5

Collected: 11/9/2012 1:35:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	4.5	B J	0.12	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	1.9	Q J	0.13	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	4.4	Q B J	0.084	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	3.7	Q J	0.079	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.34	Q B J	0.10	MDL	5.1	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	1.3	B J	0.17	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	1.7	J	0.13	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	1.3	B J	0.082	MDL	5.1	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	2.3	B J	0.11	MDL	5.1	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-678-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:25:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.33	Q B J	0.16	MDL	5.0	MRL	ng/kg	U	B
1,2,3,4,7,8-HxCDD	0.49	J	0.13	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.55	B J	0.10	MDL	5.0	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	0.86	Q J	0.13	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	1.3	Q J	0.090	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	1.2	Q B J	0.13	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.33	B J	0.097	MDL	5.0	MRL	ng/kg	U	B

Sample ID: SL-679-SA6-SB-0.0-0.5

Collected: 11/9/2012 2:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	2.4	B J	0.21	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	1.6	J	0.11	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	1.5	B J	0.084	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	4.3	J	0.11	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	2.5	Q J	0.080	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	4.0	C B J	0.11	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.77	Q B J	0.13	MDL	5.1	MRL	ng/kg	U	B
2,3,4,6,7,8-HXCDF	0.82	B J	0.081	MDL	5.1	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	0.38	Q B J	0.11	MDL	5.1	MRL	ng/kg	U	B
2,3,7,8-TCDF	0.38	Q J	0.19	MDL	1.0	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*XI	Exceeded Calibration Range
A	Professional Judgment
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35749-2/
H2K130405

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
H2K130000039B	11/20/2012 2:50:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,7,8,9-HXCDD 1,2,3,7,8,9-HXCDF 1,2,3,7,8-PECDD 2,3,4,6,7,8-HXCDF 2,3,4,7,8-PECDF OCDD OCDF	0.19 ng/kg 0.16 ng/kg 0.20 ng/kg 0.24 ng/kg 0.17 ng/kg 0.17 ng/kg 0.22 ng/kg 0.26 ng/kg 0.29 ng/kg 0.69 ng/kg 0.55 ng/kg	SL-637-SA6-SB-0.0-0.5 SL-641-SA6-SB-0.0-0.5 SL-642-SA6-SB-0.0-0.5 SL-643-SA6-SB-0.0-0.5 SL-644-SA6-SB-0.0-0.5 SL-647-SA6-SB-0.0-0.5 SL-648-SA6-SB-0.0-0.5 SL-661-SA6-SB-0.0-0.5 SL-662-SA6-SB-0.0-0.5 SL-663-SA6-SB-0.0-0.5 SL-664-SA6-SB-0.0-0.5 SL-678-SA6-SB-0.0-0.5 SL-679-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-637-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.40 ng/kg	0.40U ng/kg
SL-637-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.35 ng/kg	0.35U ng/kg
SL-637-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.59 ng/kg	0.59U ng/kg
SL-637-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.14 ng/kg	0.14U ng/kg
SL-641-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.98 ng/kg	0.98U ng/kg
SL-641-SA6-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.52 ng/kg	0.52U ng/kg
SL-641-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	1.1 ng/kg	1.1U ng/kg
SL-641-SA6-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.33 ng/kg	0.33U ng/kg
SL-642-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.83 ng/kg	0.83U ng/kg
SL-642-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.70 ng/kg	0.70U ng/kg
SL-642-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.19 ng/kg	0.19U ng/kg
SL-642-SA6-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.46 ng/kg	0.46U ng/kg
SL-642-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.58 ng/kg	0.58U ng/kg
SL-642-SA6-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.33 ng/kg	0.33U ng/kg
SL-643-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.52 ng/kg	0.52U ng/kg
SL-643-SA6-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	1.3 ng/kg	1.3U ng/kg
SL-644-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.29 ng/kg	0.29U ng/kg
SL-644-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.14 ng/kg	0.14U ng/kg
SL-644-SA6-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.53 ng/kg	0.53U ng/kg
SL-644-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.28 ng/kg	0.28U ng/kg
SL-647-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.29 ng/kg	0.29U ng/kg
SL-647-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.25 ng/kg	0.25U ng/kg
SL-647-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.41 ng/kg	0.41U ng/kg
SL-647-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.13 ng/kg	0.13U ng/kg
SL-647-SA6-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.12 ng/kg	0.12U ng/kg
SL-648-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.74 ng/kg	0.74U ng/kg
SL-648-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.36 ng/kg	0.36U ng/kg
SL-648-SA6-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.35 ng/kg	0.35U ng/kg
SL-648-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.19 ng/kg	0.19U ng/kg
SL-661-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.61 ng/kg	0.61U ng/kg
SL-661-SA6-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	1.1 ng/kg	1.1U ng/kg

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Method Blank Outlier Report

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-662-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.22 ng/kg	0.22U ng/kg
SL-662-SA6-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.78 ng/kg	0.78U ng/kg
SL-662-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.72 ng/kg	0.72U ng/kg
SL-662-SA6-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.54 ng/kg	0.54U ng/kg
SL-664-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.34 ng/kg	0.34U ng/kg
SL-664-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	1.3 ng/kg	1.3U ng/kg
SL-678-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.33 ng/kg	0.33U ng/kg
SL-678-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.55 ng/kg	0.55U ng/kg
SL-678-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.33 ng/kg	0.33U ng/kg
SL-679-SA6-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.77 ng/kg	0.77U ng/kg
SL-679-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.82 ng/kg	0.82U ng/kg
SL-679-SA6-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.38 ng/kg	0.38U ng/kg

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-637-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	B J	4.1	5.2	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	Q B J	0.40	5.2	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	B J	0.35	5.2	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	J	0.66	5.2	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	J	0.66	5.2	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	Q B J	0.59	5.2	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	Q B J	0.14	5.2	MRL	ng/kg	
	OCDF	B J	8.2	10	MRL	ng/kg	
SL-641-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	B J	1.9	5.3	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.98	5.3	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q B J	0.98	5.3	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	J	2.1	5.3	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	2.7	5.3	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	B J	2.3	5.3	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q B J	0.52	5.3	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	1.1	5.3	MRL	ng/kg	
SL-642-SA6-SB-0.0-0.5	2,3,4,7,8-PECDF	Q B J	0.33	5.3	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	B J	0.83	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	0.50	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	B J	0.70	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	J	1.1	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	1.8	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	B J	1.5	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	B J	0.19	5.1	MRL	ng/kg	
SL-643-SA6-SB-0.0-0.5	1,2,3,7,8-PECDD	Q B J	0.46	5.1	MRL	ng/kg	J (all detects)
	1,2,3,7,8-PECDF	Q J	0.29	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	0.58	5.1	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q B J	0.33	5.1	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.96	1.0	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	Q B J	0.52	5.2	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	0.96	5.2	MRL	ng/kg	
	2,3,4,7,8-PECDF	B J	1.3	5.2	MRL	ng/kg	
SL-644-SA6-SB-0.0-0.5	2,3,7,8-TCDD	Q J	0.60	1.0	MRL	ng/kg	J (all detects)
	2,3,7,8-TCDF	J	0.81	1.0	MRL	ng/kg	
	1,2,3,4,6,7,8-HPCDF	B J	3.1	5.6	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	J	0.36	5.6	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q B J	0.29	5.6	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	Q J	1.0	5.6	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.44	5.6	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	Q B J	1.3	5.6	MRL	ng/kg	
SL-647-SA6-SB-0.0-0.5	1,2,3,7,8,9-HXCDF	Q B J	0.14	5.6	MRL	ng/kg	J (all detects)
	1,2,3,7,8-PECDD	B J	0.53	5.6	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	0.28	5.6	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.48	1.1	MRL	ng/kg	
	1,2,3,4,6,7,8-HPCDF	B J	1.4	5.3	MRL	ng/kg	
	1,2,3,4,7,8,9-HPCDF	Q B J	0.29	5.3	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q B J	0.25	5.3	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	Q J	0.47	5.3	MRL	ng/kg	
SL-647-SA6-SB-0.0-0.5	1,2,3,6,7,8-HXCDF	J	0.22	5.3	MRL	ng/kg	J (all detects)
	1,2,3,7,8,9-HXCDD	Q B J	0.41	5.3	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	Q B J	0.13	5.3	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q B J	0.12	5.3	MRL	ng/kg	
	OCDF	B J	3.9	11	MRL	ng/kg	
	1,2,3,4,6,7,8-HPCDF	B J	1.4	5.3	MRL	ng/kg	
	1,2,3,4,7,8,9-HPCDF	Q B J	0.29	5.3	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q B J	0.25	5.3	MRL	ng/kg	

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/18/2013 2:24:26 PM

ADR version 1.7.0.207

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-648-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	Q B J	0.74	5.4	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	Q J	0.35	5.4	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	B J	0.36	5.4	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	1.3	5.4	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.50	5.4	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	B J	1.3	5.4	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q B J	0.35	5.4	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.16	5.4	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	0.19	5.4	MRL	ng/kg	
SL-661-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	Q B J	3.8	5.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	4.6	5.0	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	B J	4.7	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	4.0	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	B J	0.61	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q B J	2.0	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	1.5	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	1.4	5.0	MRL	ng/kg	
	2,3,4,7,8-PECDF	B J	1.1	5.0	MRL	ng/kg	
SL-662-SA6-SB-0.0-0.5	1,2,3,4,7,8-HxCDD	J	2.0	4.9	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HXCDF	B J	4.7	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	4.7	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	3.3	4.9	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	Q B J	0.22	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q B J	0.78	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.47	4.9	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	Q B J	0.72	4.9	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q B J	0.54	4.9	MRL	ng/kg	
SL-663-SA6-SB-0.0-0.5	2,3,7,8-TCDF	J	0.88	0.98	MRL	ng/kg	J (all detects)
	1,2,3,7,8,9-HXCDF	Q B J	1.6	25	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	4.0	25	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	9.5	25	MRL	ng/kg	
	2,3,4,7,8-PECDF	B J	4.5	25	MRL	ng/kg	
SL-664-SA6-SB-0.0-0.5	2,3,7,8-TCDF	J	3.2	5.1	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	B J	4.5	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	1.9	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q B J	4.4	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	3.7	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	Q B J	0.34	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDD	B J	1.3	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	1.7	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	1.3	5.1	MRL	ng/kg	
	2,3,4,7,8-PECDF	B J	2.3	5.1	MRL	ng/kg	
SL-678-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	Q B J	0.33	5.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.49	5.0	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	B J	0.55	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	0.86	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	1.3	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	Q B J	1.2	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	0.33	5.0	MRL	ng/kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35749-2

Laboratory: TA DEN

EDD Filename: 280-35749-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-679-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	B J	2.4	5.1	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	1.6	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	B J	1.5	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	4.3	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	2.5	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	C B J	4.0	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q B J	0.77	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	B J	0.82	5.1	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q B J	0.38	5.1	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.38	1.0	MRL	ng/kg	

SAMPLE DELIVERY GROUP

280-35822-1

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
12-Nov-2012	SL-535-SA6-SB-0.0-0.5	280-35822-1	N	3546	8270C SIM	III
12-Nov-2012	SL-535-SA6-SB-0.0-0.5	280-35822-1	N	3550C	8015B EFH	III
12-Nov-2012	SL-535-SA6-SB-0.0-0.5	280-35822-2	N	3050B	6010C	III
12-Nov-2012	SL-535-SA6-SB-0.0-0.5	280-35822-2	N	3050B	6020A	III
12-Nov-2012	SL-535-SA6-SB-0.0-0.5	280-35822-2	N	3546	8082A	III
12-Nov-2012	SL-535-SA6-SB-0.0-0.5	280-35822-2	N	7471B	7471B	III
12-Nov-2012	SL-535-SA6-SB-0.0-0.5MS	280-35822-2MS	MS	7471B	7471B	III
12-Nov-2012	SL-535-SA6-SB-0.0-0.5MSD	280-35822-2MSD	MSD	7471B	7471B	III
12-Nov-2012	SL-563-SA6-SB-0.0-0.5	280-35822-3	N	3546	8270C SIM	III
12-Nov-2012	SL-563-SA6-SB-0.0-0.5	280-35822-3	N	3550C	8015B EFH	III
12-Nov-2012	SL-563-SA6-SB-0.0-0.5	280-35822-4	N	3050B	6010C	III
12-Nov-2012	SL-563-SA6-SB-0.0-0.5	280-35822-4	N	3050B	6020A	III
12-Nov-2012	SL-563-SA6-SB-0.0-0.5	280-35822-4	N	3546	8082A	III
12-Nov-2012	SL-563-SA6-SB-0.0-0.5	280-35822-4	N	7471B	7471B	III
12-Nov-2012	SL-564-SA6-SB-0.0-0.5	280-35822-5	N	3546	8270C SIM	III
12-Nov-2012	SL-564-SA6-SB-0.0-0.5	280-35822-5	N	3550C	8015B EFH	III
12-Nov-2012	SL-564-SA6-SB-0.0-0.5	280-35822-6	N	3050B	6010C	III
12-Nov-2012	SL-564-SA6-SB-0.0-0.5	280-35822-6	N	3050B	6020A	III
12-Nov-2012	SL-564-SA6-SB-0.0-0.5	280-35822-6	N	3546	8082A	III
12-Nov-2012	SL-564-SA6-SB-0.0-0.5	280-35822-6	N	7471B	7471B	III
12-Nov-2012	SL-665-SA6-SB-0.0-0.5	280-35822-7	N	3546	8270C SIM	III
12-Nov-2012	SL-665-SA6-SB-0.0-0.5	280-35822-7	N	3550C	8015B EFH	III
12-Nov-2012	SL-665-SA6-SB-0.0-0.5	280-35822-8	N	3050B	6010C	III
12-Nov-2012	SL-665-SA6-SB-0.0-0.5	280-35822-8	N	3050B	6020A	III
12-Nov-2012	SL-665-SA6-SB-0.0-0.5	280-35822-8	N	3546	8082A	III
12-Nov-2012	SL-665-SA6-SB-0.0-0.5	280-35822-8	N	7471B	7471B	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
12-Nov-2012	SL-560-SA6-SB-0.0-0.5	280-35822-13	N	3546	8270C SIM	III
12-Nov-2012	SL-560-SA6-SB-0.0-0.5	280-35822-13	N	3550C	8015B EFH	III
12-Nov-2012	SL-560-SA6-SB-0.0-0.5	280-35822-14	N	3050B	6010C	III
12-Nov-2012	SL-560-SA6-SB-0.0-0.5	280-35822-14	N	3050B	6020A	III
12-Nov-2012	SL-560-SA6-SB-0.0-0.5	280-35822-14	N	3546	8082A	III
12-Nov-2012	SL-560-SA6-SB-0.0-0.5	280-35822-14	N	7471B	7471B	III
12-Nov-2012	SL-560-SA6-SB-0.0-0.5MS	280-35822-14MS	MS	3050B	6010C	III
12-Nov-2012	SL-560-SA6-SB-0.0-0.5MS	280-35822-14MS	MS	3546	8082A	III
12-Nov-2012	SL-560-SA6-SB-0.0-0.5MSD	280-35822-14MSD	MSD	3050B	6010C	III
12-Nov-2012	SL-560-SA6-SB-0.0-0.5MSD	280-35822-14MSD	MSD	3546	8082A	III
12-Nov-2012	SL-553-SA6-SB-0.0-0.5	280-35822-11	N	3546	8270C SIM	III
12-Nov-2012	SL-553-SA6-SB-0.0-0.5	280-35822-11	N	3550C	8015B EFH	III
12-Nov-2012	SL-553-SA6-SB-0.0-0.5	280-35822-12	N	3050B	6010C	III
12-Nov-2012	SL-553-SA6-SB-0.0-0.5	280-35822-12	N	3050B	6020A	III
12-Nov-2012	SL-553-SA6-SB-0.0-0.5	280-35822-12	N	3546	8082A	III
12-Nov-2012	SL-553-SA6-SB-0.0-0.5	280-35822-12	N	7471B	7471B	III
12-Nov-2012	SL-552-SA6-SB-0.0-0.5	280-35822-10	N	3050B	6010C	III
12-Nov-2012	SL-552-SA6-SB-0.0-0.5	280-35822-10	N	3050B	6020A	III
12-Nov-2012	SL-552-SA6-SB-0.0-0.5	280-35822-10	N	3546	8082A	III
12-Nov-2012	SL-552-SA6-SB-0.0-0.5	280-35822-10	N	7471B	7471B	III
12-Nov-2012	SL-552-SA6-SB-0.0-0.5	280-35822-9	N	3546	8270C SIM	III
12-Nov-2012	SL-552-SA6-SB-0.0-0.5	280-35822-9	N	3550C	8015B EFH	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS
Method:	6010C
Matrix:	SO

Sample ID: SL-535-SA6-SB-0.0-0.5

Collected: 11/12/2012 8:30:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	9700	J B	1.4	MDL	18000	MRL	mg/Kg	J	Z
BORON	0.98	J	0.88	MDL	8.7	MRL	mg/Kg	U	F
LITHIUM	24	J	0.27	MDL	33	MRL	mg/Kg	J	Z
MANGANESE	290	J	0.089	MDL	440	MRL	mg/Kg	J	Z
POTASSIUM	3200	J	37	MDL	5700	MRL	mg/Kg	J	Z
SODIUM	100	J	53	MDL	450	MRL	mg/Kg	J	Z
TIN	1.5	J	0.81	MDL	9.7	MRL	mg/Kg	J	Z
Zirconium	0.56	J	0.32	MDL	7.7	MRL	mg/Kg	J	Z

Sample ID: SL-552-SA6-SB-0.0-0.5

Collected: 11/12/2012 2:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	14000	J B	1.5	MDL	20000	MRL	mg/Kg	J	Z
BORON	1.6	J	0.97	MDL	9.6	MRL	mg/Kg	U	F
LITHIUM	27	J	0.30	MDL	36	MRL	mg/Kg	J	Z
MANGANESE	250	J	0.099	MDL	490	MRL	mg/Kg	J	Z
POTASSIUM	3600	J	40	MDL	6300	MRL	mg/Kg	J	Z
SODIUM	93	J	58	MDL	490	MRL	mg/Kg	J	Z
TIN	1.7	J	0.90	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.7	J	0.35	MDL	8.5	MRL	mg/Kg	J	Z

Sample ID: SL-553-SA6-SB-0.0-0.5

Collected: 11/12/2012 2:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J B	1.4	MDL	18000	MRL	mg/Kg	J	Z
BORON	1.0	J	0.91	MDL	9.0	MRL	mg/Kg	U	F
LITHIUM	25	J	0.28	MDL	34	MRL	mg/Kg	J	Z
MANGANESE	290	J	0.092	MDL	460	MRL	mg/Kg	J	Z
POTASSIUM	3500	J	38	MDL	5900	MRL	mg/Kg	J	Z
SODIUM	92	J	55	MDL	460	MRL	mg/Kg	J	Z
TIN	1.7	J	0.84	MDL	10	MRL	mg/Kg	J	Z
Zirconium	1.8	J	0.33	MDL	7.9	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS
Method:	6010C
Matrix:	SO

Sample ID: SL-560-SA6-SB-0.0-0.5

Collected: 11/12/2012 1:10:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J B	1.4	MDL	18000	MRL	mg/Kg	J	Z
BORON	1.7	J	0.90	MDL	8.9	MRL	mg/Kg	U	F
LITHIUM	21	J	0.27	MDL	34	MRL	mg/Kg	J	Z
MANGANESE	340	J	0.091	MDL	450	MRL	mg/Kg	J	Z
POTASSIUM	3600	J	37	MDL	5800	MRL	mg/Kg	J	Z
SODIUM	96	J	54	MDL	460	MRL	mg/Kg	J	Z
TIN	1.7	J	0.83	MDL	10	MRL	mg/Kg	J	Z
Zirconium	2.2	J	0.32	MDL	7.9	MRL	mg/Kg	J	Z

Sample ID: SL-563-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	15000	J B	1.4	MDL	17000	MRL	mg/Kg	J	Z
BORON	1.1	J	0.86	MDL	8.5	MRL	mg/Kg	U	F
LITHIUM	27	J	0.26	MDL	32	MRL	mg/Kg	J	Z
MANGANESE	310	J	0.087	MDL	430	MRL	mg/Kg	J	Z
POTASSIUM	4100	J	36	MDL	5600	MRL	mg/Kg	J	Z
SODIUM	110	J	52	MDL	440	MRL	mg/Kg	J	Z
TIN	2.2	J	0.80	MDL	9.5	MRL	mg/Kg	J	Z
Zirconium	1.7	J	0.31	MDL	7.5	MRL	mg/Kg	J	Z

Sample ID: SL-564-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:45:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	15000	J B	1.5	MDL	19000	MRL	mg/Kg	J	Z
BORON	1.1	J	0.94	MDL	9.3	MRL	mg/Kg	U	F
LITHIUM	22	J	0.29	MDL	35	MRL	mg/Kg	J	Z
MANGANESE	300	J	0.096	MDL	470	MRL	mg/Kg	J	Z
POTASSIUM	3300	J	39	MDL	6100	MRL	mg/Kg	J	Z
SODIUM	90	J	56	MDL	480	MRL	mg/Kg	J	Z
TIN	1.7	J	0.87	MDL	10	MRL	mg/Kg	J	Z
Zirconium	1.9	J	0.34	MDL	8.2	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS	
Method:	6010C	Matrix: SO

Sample ID: SL-665-SA6-SB-0.0-0.5

Collected: 11/12/2012 10:30:00 Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J B	1.3	MDL	17000	MRL	mg/Kg	J	Z
BORON	1.5	J	0.83	MDL	8.2	MRL	mg/Kg	U	F
LITHIUM	19	J	0.25	MDL	31	MRL	mg/Kg	J	Z
MANGANESE	320	J	0.085	MDL	420	MRL	mg/Kg	J	Z
POTASSIUM	3400	J	35	MDL	5400	MRL	mg/Kg	J	Z
SODIUM	84	J	50	MDL	420	MRL	mg/Kg	J	Z
TIN	1.4	J	0.77	MDL	9.2	MRL	mg/Kg	J	Z
Zirconium	1.9	J	0.30	MDL	7.3	MRL	mg/Kg	J	Z

Method Category:	METALS	
Method:	6020A	Matrix: SO

Sample ID: SL-535-SA6-SB-0.0-0.5

Collected: 11/12/2012 8:30:00 Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.025	J	0.014	MDL	8.6	MRL	mg/Kg	J	Z, Q, E
ARSENIC	1.9	J	0.050	MDL	15	MRL	mg/Kg	J	Z
BARIUM	73	J	0.070	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.35	J	0.022	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.20	J	0.0093	MDL	0.99	MRL	mg/Kg	J	Z
CHROMIUM	10	J	0.075	MDL	36	MRL	mg/Kg	J	Z
COBALT	3.4	J	0.0066	MDL	21	MRL	mg/Kg	J	Z
COPPER	6.1	J B	0.070	MDL	29	MRL	mg/Kg	J	Z
LEAD	11	J	0.018	MDL	34	MRL	mg/Kg	J	Z
MOLYBDENUM	0.36	J	0.017	MDL	5.2	MRL	mg/Kg	J	Z
NICKEL	6.7	J	0.025	MDL	29	MRL	mg/Kg	J	Z
SELENIUM	0.47	J	0.13	MDL	0.65	MRL	mg/Kg	J	Z
SILVER	0.041	J	0.020	MDL	0.78	MRL	mg/Kg	U	F
THALLIUM	0.24	J	0.0035	MDL	0.46	MRL	mg/Kg	J	Z
VANADIUM	19	J	0.038	MDL	61	MRL	mg/Kg	J	Z
ZINC	63	J	0.31	MDL	110	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-552-SA6-SB-0.0-0.5

Collected: 11/12/2012 2:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.028	J	0.014	MDL	8.7	MRL	mg/Kg	J	Z, Q, E
ARSENIC	3.4	J	0.051	MDL	15	MRL	mg/Kg	J	Z
BARIUM	95	J	0.071	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.53	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.40	J	0.0094	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	18	J	0.076	MDL	37	MRL	mg/Kg	J	Z
COBALT	5.6	J	0.0067	MDL	21	MRL	mg/Kg	J	Z
LEAD	24	J	0.018	MDL	34	MRL	mg/Kg	J	Z
MOLYBDENUM	0.60	J	0.018	MDL	5.3	MRL	mg/Kg	J	Z
NICKEL	12	J	0.025	MDL	29	MRL	mg/Kg	J	Z
SILVER	0.055	J	0.020	MDL	0.79	MRL	mg/Kg	U	F
THALLIUM	0.24	J	0.0035	MDL	0.46	MRL	mg/Kg	J	Z
VANADIUM	31	J	0.039	MDL	62	MRL	mg/Kg	J	Z

Sample ID: SL-553-SA6-SB-0.0-0.5

Collected: 11/12/2012 2:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.032	J	0.014	MDL	8.4	MRL	mg/Kg	J	Z, Q, E
ARSENIC	3.4	J	0.049	MDL	15	MRL	mg/Kg	J	Z
BARIUM	94	J	0.068	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.44	J	0.022	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.26	J	0.0091	MDL	0.97	MRL	mg/Kg	J	Z
CHROMIUM	17	J	0.074	MDL	36	MRL	mg/Kg	J	Z
COBALT	5.1	J	0.0064	MDL	20	MRL	mg/Kg	J	Z
COPPER	9.5	J B	0.069	MDL	28	MRL	mg/Kg	J	Z
LEAD	11	J	0.018	MDL	33	MRL	mg/Kg	J	Z
MOLYBDENUM	0.42	J	0.017	MDL	5.1	MRL	mg/Kg	J	Z
NICKEL	11	J	0.024	MDL	28	MRL	mg/Kg	J	Z
SILVER	0.047	J	0.020	MDL	0.76	MRL	mg/Kg	U	F
THALLIUM	0.23	J	0.0034	MDL	0.45	MRL	mg/Kg	J	Z
VANADIUM	30	J	0.037	MDL	60	MRL	mg/Kg	J	Z
ZINC	60	J	0.31	MDL	110	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS		
Method:	6020A	Matrix:	SO

Sample ID: SL-560-SA6-SB-0.0-0.5

Collected: 11/12/2012 1:10:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.025	J	0.012	MDL	7.4	MRL	mg/Kg	J	Z, Q, E
ARSENIC	3.1	J	0.043	MDL	13	MRL	mg/Kg	J	Z
BARIUM	100	J	0.060	MDL	120	MRL	mg/Kg	J	Z
BERYLLIUM	0.46	J	0.019	MDL	0.93	MRL	mg/Kg	J	Z
CADMIUM	0.49	J	0.0079	MDL	0.85	MRL	mg/Kg	J	Z
CHROMIUM	17	J	0.064	MDL	31	MRL	mg/Kg	J	Z
COBALT	5.6	J	0.0056	MDL	18	MRL	mg/Kg	J	Z
COPPER	16	J B	0.060	MDL	25	MRL	mg/Kg	J	Z
LEAD	14	J	0.015	MDL	29	MRL	mg/Kg	J	Z
MOLYBDENUM	0.43	J	0.015	MDL	4.5	MRL	mg/Kg	J	Z
NICKEL	12	J	0.021	MDL	25	MRL	mg/Kg	J	Z
SILVER	0.053	J	0.017	MDL	0.67	MRL	mg/Kg	U	F
THALLIUM	0.25	J	0.0030	MDL	0.39	MRL	mg/Kg	J	Z
VANADIUM	29	J	0.033	MDL	52	MRL	mg/Kg	J	Z

Sample ID: SL-563-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.021	J	0.014	MDL	8.6	MRL	mg/Kg	J	Z, Q, E
ARSENIC	3.3	J	0.050	MDL	15	MRL	mg/Kg	J	Z
BARIUM	97	J	0.069	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.58	J	0.022	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.25	J	0.0092	MDL	0.99	MRL	mg/Kg	J	Z
CHROMIUM	12	J	0.075	MDL	36	MRL	mg/Kg	J	Z
COBALT	4.5	J	0.0065	MDL	21	MRL	mg/Kg	J	Z
COPPER	7.5	J B	0.070	MDL	29	MRL	mg/Kg	J	Z
LEAD	9.9	J	0.018	MDL	33	MRL	mg/Kg	J	Z
MOLYBDENUM	0.47	J	0.017	MDL	5.2	MRL	mg/Kg	J	Z
NICKEL	9.0	J	0.025	MDL	29	MRL	mg/Kg	J	Z
SILVER	0.064	J	0.020	MDL	0.78	MRL	mg/Kg	U	F
THALLIUM	0.27	J	0.0035	MDL	0.45	MRL	mg/Kg	J	Z
VANADIUM	25	J	0.038	MDL	61	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS
Method:	6020A
Matrix:	SO

Sample ID: SL-563-SA6-SB-0.0-0.5 Collected: 11/12/2012 9:05:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	66	J	0.31	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-564-SA6-SB-0.0-0.5 Collected: 11/12/2012 9:45:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.013	J	0.012	MDL	7.4	MRL	mg/Kg	J	Z, Q, E
ARSENIC	2.8	J	0.043	MDL	13	MRL	mg/Kg	J	Z
BARIUM	92	J	0.060	MDL	120	MRL	mg/Kg	J	Z
BERYLLIUM	0.60	J	0.019	MDL	0.93	MRL	mg/Kg	J	Z
CADMIUM	0.24	J	0.0079	MDL	0.85	MRL	mg/Kg	J	Z
CHROMIUM	14	J	0.064	MDL	31	MRL	mg/Kg	J	Z
COBALT	4.9	J	0.0056	MDL	18	MRL	mg/Kg	J	Z
COPPER	6.3	J B	0.060	MDL	25	MRL	mg/Kg	J	Z
LEAD	6.9	J	0.015	MDL	29	MRL	mg/Kg	J	Z
MOLYBDENUM	0.36	J	0.015	MDL	4.5	MRL	mg/Kg	J	Z
NICKEL	9.6	J	0.021	MDL	25	MRL	mg/Kg	J	Z
SILVER	0.041	J	0.017	MDL	0.67	MRL	mg/Kg	U	F
THALLIUM	0.24	J	0.0030	MDL	0.39	MRL	mg/Kg	J	Z
VANADIUM	27	J	0.033	MDL	52	MRL	mg/Kg	J	Z
ZINC	49	J	0.27	MDL	93	MRL	mg/Kg	J	Z

Sample ID: SL-665-SA6-SB-0.0-0.5 Collected: 11/12/2012 10:30:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.017	J	0.012	MDL	7.4	MRL	mg/Kg	J	Z, Q, E
ARSENIC	2.6	J	0.043	MDL	13	MRL	mg/Kg	J	Z
BARIUM	100	J	0.060	MDL	120	MRL	mg/Kg	J	Z
BERYLLIUM	0.51	J	0.019	MDL	0.93	MRL	mg/Kg	J	Z
CADMIUM	0.28	J	0.0080	MDL	0.85	MRL	mg/Kg	J	Z
CHROMIUM	14	J	0.064	MDL	31	MRL	mg/Kg	J	Z
COBALT	4.7	J	0.0056	MDL	18	MRL	mg/Kg	J	Z
COPPER	7.8	J B	0.060	MDL	25	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	METALS		
Method:	6020A	Matrix:	SO

Sample ID: SL-665-SA6-SB-0.0-0.5 Collected: 11/12/2012 10:30:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	8.9	J	0.015	MDL	29	MRL	mg/Kg	J	Z
MOLYBDENUM	0.40	J	0.015	MDL	4.5	MRL	mg/Kg	J	Z
NICKEL	10	J	0.021	MDL	25	MRL	mg/Kg	J	Z
SELENIUM	0.55	J	0.11	MDL	0.56	MRL	mg/Kg	J	Z
SILVER	0.061	J	0.017	MDL	0.67	MRL	mg/Kg	U	F
THALLIUM	0.23	J	0.0030	MDL	0.39	MRL	mg/Kg	J	Z
VANADIUM	25	J	0.033	MDL	53	MRL	mg/Kg	J	Z
ZINC	52	J	0.27	MDL	93	MRL	mg/Kg	J	Z

Method Category:	METALS		
Method:	7471B	Matrix:	SO

Sample ID: SL-535-SA6-SB-0.0-0.5 Collected: 11/12/2012 8:30:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.012	J	0.0061	MDL	0.022	MRL	mg/Kg	J	Z

Sample ID: SL-553-SA6-SB-0.0-0.5 Collected: 11/12/2012 2:05:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.013	J	0.0061	MDL	0.022	MRL	mg/Kg	J	Z

Sample ID: SL-563-SA6-SB-0.0-0.5 Collected: 11/12/2012 9:05:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.015	J	0.0058	MDL	0.021	MRL	mg/Kg	J	Z

Sample ID: SL-564-SA6-SB-0.0-0.5 Collected: 11/12/2012 9:45:00 Analysis Type: RES/TOT Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0080	J	0.0060	MDL	0.022	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 7471B

Matrix: SO

Sample ID: SL-665-SA6-SB-0.0-0.5

Collected: 11/12/2012 10:30:00 Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.011	J	0.0065	MDL	0.023	MRL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015B EFH

Matrix: SO

Sample ID: SL-563-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:05:00 Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	4.0	J	1.0	MDL	5.1	MRL	mg/Kg	J	Z

Sample ID: SL-564-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:45:00 Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.7	J	1.0	MDL	5.0	MRL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082A

Matrix: SO

Sample ID: SL-553-SA6-SB-0.0-0.5

Collected: 11/12/2012 2:05:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	15	J	2.6	MDL	17	MRL	ug/Kg	J	Z

Sample ID: SL-560-SA6-SB-0.0-0.5

Collected: 11/12/2012 1:10:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	15	J	2.6	MDL	17	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8270C SIM
Matrix:	SO

Sample ID: SL-535-SA6-SB-0.0-0.5 Collected: 11/12/2012 8:30:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.53	J	0.30	MDL	9.8	MRL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
NAPHTHALENE	0.86	J B	0.32	MDL	9.8	MRL	ug/Kg	U	B
PHENANTHRENE	1.5	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
PYRENE	1.3	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z

Sample ID: SL-552-SA6-SB-0.0-0.5 Collected: 11/12/2012 2:35:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.72	J	0.26	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.3	J	0.31	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.9	J	0.92	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	2.5	J	0.75	MDL	10	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	5.8	J	1.2	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	2.8	J	1.1	MDL	10	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.8	J	1.0	MDL	10	MRL	ug/Kg	J	Z
CHRYSENE	6.8	J	1.0	MDL	10	MRL	ug/Kg	J	Z
FLUORANTHENE	5.5	J	1.0	MDL	10	MRL	ug/Kg	J	Z
FLUORENE	0.73	J	0.48	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	2.7	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	5.1	J B	0.33	MDL	10	MRL	ug/Kg	J	Z
PHENANTHRENE	3.9	J	1.1	MDL	10	MRL	ug/Kg	J	Z
PYRENE	4.7	J	1.1	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-553-SA6-SB-0.0-0.5 Collected: 11/12/2012 2:05:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.30	J	0.26	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.76	J	0.31	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.35	J	0.17	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	1.1	J	0.72	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA		
Method:	8270C SIM	Matrix:	SO

Sample ID: SL-553-SA6-SB-0.0-0.5

Collected: 11/12/2012 2:05:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	2.5	J	0.90	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	3.9	J	0.74	MDL	10	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	9.1	J	1.2	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	3.7	J	1.1	MDL	10	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	2.1	J	1.0	MDL	10	MRL	ug/Kg	J	Z
CHRYSENE	7.3	J	1.0	MDL	10	MRL	ug/Kg	J	Z
FLUORANTHENE	8.0	J	1.0	MDL	10	MRL	ug/Kg	J	Z
FLUORENE	0.62	J	0.47	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.0	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	1.5	J B	0.33	MDL	10	MRL	ug/Kg	U	B
PHENANTHRENE	3.4	J	1.1	MDL	10	MRL	ug/Kg	J	Z
PYRENE	7.5	J	1.1	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-560-SA6-SB-0.0-0.5

Collected: 11/12/2012 1:10:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.47	J	0.26	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.87	J	0.31	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHENE	0.51	J	0.16	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.76	J	0.17	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	3.5	J	0.73	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	9.0	J	1.1	MDL	10	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	9.4	J	1.0	MDL	10	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	2.1	J	1.3	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	9.6	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	1.2	J B	0.33	MDL	10	MRL	ug/Kg	U	B

Sample ID: SL-563-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:05:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.61	J	0.31	MDL	10	MRL	ug/Kg	J	Z
CHRYSENE	2.1	J	1.0	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8270C SIM
Matrix:	SO

Sample ID: SL-563-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:05:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORANTHENE	3.9	J	1.0	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	1.2	J B	0.33	MDL	10	MRL	ug/Kg	U	B
PHENANTHRENE	3.1	J	1.1	MDL	10	MRL	ug/Kg	J	Z
PYRENE	2.9	J	1.1	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-564-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:45:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.28	J	0.26	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.47	J	0.31	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.27	J	0.17	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.3	J	0.91	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.75	MDL	10	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	3.4	J	1.2	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	1.1	MDL	10	MRL	ug/Kg	J	Z
CHRYSENE	4.9	J	1.0	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.2	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	0.80	J B	0.33	MDL	10	MRL	ug/Kg	U	B
PHENANTHRENE	5.8	J	1.1	MDL	10	MRL	ug/Kg	J	Z
PYRENE	8.3	J	1.1	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-665-SA6-SB-0.0-0.5

Collected: 11/12/2012 10:30:00

Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.51	J	0.26	MDL	9.8	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.1	J	0.30	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.8	J	1.2	MDL	9.8	MRL	ug/Kg	J	Z
CHRYSENE	2.3	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
FLUORANTHENE	2.5	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
FLUORENE	0.56	J	0.46	MDL	9.8	MRL	ug/Kg	J	Z
NAPHTHALENE	1.6	J B	0.32	MDL	9.8	MRL	ug/Kg	U	B
PHENANTHRENE	2.4	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA		
Method:	8270C SIM	Matrix:	SO

Sample ID: SL-665-SA6-SB-0.0-0.5 Collected: 11/12/2012 10:30:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PYRENE	1.9	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z

Method Category:	SVOA		
Method:	BaP EQUIVALENCE	Matrix:	SO

Sample ID: SL-535-SA6-SB-0.0-0.5 Collected: 11/12/2012 8:30:00 Analysis Type: RES/WET Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BAP EQUIVALENCE	0.0015	J	0.00074	MDL	0.0050	MRL	ug/Kg	J	Z

Sample ID: SL-563-SA6-SB-0.0-0.5 Collected: 11/12/2012 9:05:00 Analysis Type: RES/WET Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BAP EQUIVALENCE	0.0021	J	0.00074	MDL	0.0050	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: Prep280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
B	Method Blank Contamination
E	Matrix Spike Precision
F	Equipment Blank Contamination
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35822-1

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-147774/10-A	11/19/2012 2:25:00 PM	ALUMINUM STRONTIUM	1.66 mg/Kg 0.0370 mg/Kg	SL-535-SA6-SB-0.0-0.5 SL-552-SA6-SB-0.0-0.5 SL-553-SA6-SB-0.0-0.5 SL-560-SA6-SB-0.0-0.5 SL-563-SA6-SB-0.0-0.5 SL-564-SA6-SB-0.0-0.5 SL-665-SA6-SB-0.0-0.5

Method: 6020A Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-148154/1-A	11/20/2012 11:52:00 PM	COPPER	0.0757 mg/Kg	SL-535-SA6-SB-0.0-0.5 SL-552-SA6-SB-0.0-0.5 SL-553-SA6-SB-0.0-0.5 SL-560-SA6-SB-0.0-0.5 SL-563-SA6-SB-0.0-0.5 SL-564-SA6-SB-0.0-0.5 SL-665-SA6-SB-0.0-0.5

Method: 8015B EFH Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-147961/1-A	11/20/2012 2:08:00 PM	TOTAL EFH(C8-C40)	0.996 mg/Kg	SL-535-SA6-SB-0.0-0.5 SL-552-SA6-SB-0.0-0.5 SL-553-SA6-SB-0.0-0.5 SL-560-SA6-SB-0.0-0.5 SL-563-SA6-SB-0.0-0.5 SL-564-SA6-SB-0.0-0.5 SL-665-SA6-SB-0.0-0.5

Method: 8270C SIM Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-148281/1-A	11/21/2012 8:26:00 AM	NAPHTHALENE	0.830 ug/Kg	SL-535-SA6-SB-0.0-0.5 SL-552-SA6-SB-0.0-0.5 SL-553-SA6-SB-0.0-0.5 SL-560-SA6-SB-0.0-0.5 SL-563-SA6-SB-0.0-0.5 SL-564-SA6-SB-0.0-0.5 SL-665-SA6-SB-0.0-0.5

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Method Blank Outlier Report

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-535-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.86 ug/Kg	9.8U ug/Kg
SL-553-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	1.5 ug/Kg	10U ug/Kg
SL-560-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	1.2 ug/Kg	10U ug/Kg
SL-563-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	1.2 ug/Kg	10U ug/Kg
SL-564-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.80 ug/Kg	10U ug/Kg
SL-665-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	1.6 ug/Kg	9.8U ug/Kg

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C				
Matrix: SO				
Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-111512(RES/TOT)	11/15/2012 3:00:00 PM	BORON SODIUM	0.035 mg/L 0.15 mg/L	SL-535-SA6-SB-0.0-0.5 SL-552-SA6-SB-0.0-0.5 SL-553-SA6-SB-0.0-0.5 SL-560-SA6-SB-0.0-0.5 SL-563-SA6-SB-0.0-0.5 SL-564-SA6-SB-0.0-0.5 SL-665-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-535-SA6-SB-0.0-0.5(RES/TOT)	BORON	0.98 mg/Kg	0.98U mg/Kg
SL-552-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.6 mg/Kg	1.6U mg/Kg
SL-553-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.0 mg/Kg	1.0U mg/Kg
SL-560-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.7 mg/Kg	1.7U mg/Kg
SL-563-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.1 mg/Kg	1.1U mg/Kg
SL-564-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.1 mg/Kg	1.1U mg/Kg
SL-665-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.5 mg/Kg	1.5U mg/Kg

Method: 6020A				
Matrix: SO				
Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-111512(RES/TOT)	11/15/2012 3:00:00 PM	SILVER	0.00043 mg/L	SL-535-SA6-SB-0.0-0.5 SL-552-SA6-SB-0.0-0.5 SL-553-SA6-SB-0.0-0.5 SL-560-SA6-SB-0.0-0.5 SL-563-SA6-SB-0.0-0.5 SL-564-SA6-SB-0.0-0.5 SL-665-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-535-SA6-SB-0.0-0.5(RES/TOT)	SILVER	0.041 mg/Kg	0.041U mg/Kg
SL-552-SA6-SB-0.0-0.5(RES/TOT)	SILVER	0.055 mg/Kg	0.055U mg/Kg
SL-553-SA6-SB-0.0-0.5(RES/TOT)	SILVER	0.047 mg/Kg	0.047U mg/Kg
SL-560-SA6-SB-0.0-0.5(RES/TOT)	SILVER	0.053 mg/Kg	0.053U mg/Kg
SL-563-SA6-SB-0.0-0.5(RES/TOT)	SILVER	0.064 mg/Kg	0.064U mg/Kg
SL-564-SA6-SB-0.0-0.5(RES/TOT)	SILVER	0.041 mg/Kg	0.041U mg/Kg
SL-665-SA6-SB-0.0-0.5(RES/TOT)	SILVER	0.061 mg/Kg	0.061U mg/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-560-SA6-SB-0.0-0.5MS (TOT) SL-560-SA6-SB-0.0-0.5MSD (TOT) (SL-535-SA6-SB-0.0-0.5 SL-552-SA6-SB-0.0-0.5 SL-553-SA6-SB-0.0-0.5 SL-560-SA6-SB-0.0-0.5 SL-563-SA6-SB-0.0-0.5 SL-564-SA6-SB-0.0-0.5 SL-665-SA6-SB-0.0-0.5)	ALUMINUM TITANIUM	2039 181	2004 202	75.00-125.00 75.00-125.00	- -	ALUMINUM TITANIUM	No Qual, >4x
SL-560-SA6-SB-0.0-0.5MS (TOT) SL-560-SA6-SB-0.0-0.5MSD (TOT) (SL-535-SA6-SB-0.0-0.5 SL-552-SA6-SB-0.0-0.5 SL-553-SA6-SB-0.0-0.5 SL-560-SA6-SB-0.0-0.5 SL-563-SA6-SB-0.0-0.5 SL-564-SA6-SB-0.0-0.5 SL-665-SA6-SB-0.0-0.5)	IRON	263	14	75.00-125.00	-	IRON	No Qual, >4x
SL-560-SA6-SB-0.0-0.5MS (TOT) (SL-535-SA6-SB-0.0-0.5 SL-552-SA6-SB-0.0-0.5 SL-553-SA6-SB-0.0-0.5 SL-560-SA6-SB-0.0-0.5 SL-563-SA6-SB-0.0-0.5 SL-564-SA6-SB-0.0-0.5 SL-665-SA6-SB-0.0-0.5)	MANGANESE	68	-	75.00-125.00	-	MANGANESE	No Qual, >4x

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-535-SA6-SB-0.0-0.5	ALUMINUM	J B	9700	18000	MRL	mg/Kg	J (all detects)
	BORON	J	0.98	8.7	MRL	mg/Kg	
	LITHIUM	J	24	33	MRL	mg/Kg	
	MANGANESE	J	290	440	MRL	mg/Kg	
	POTASSIUM	J	3200	5700	MRL	mg/Kg	
	SODIUM	J	100	450	MRL	mg/Kg	
	TIN	J	1.5	9.7	MRL	mg/Kg	
SL-552-SA6-SB-0.0-0.5	Zirconium	J	0.56	7.7	MRL	mg/Kg	J (all detects)
	ALUMINUM	J B	14000	20000	MRL	mg/Kg	
	BORON	J	1.6	9.6	MRL	mg/Kg	
	LITHIUM	J	27	36	MRL	mg/Kg	
	MANGANESE	J	250	490	MRL	mg/Kg	
	POTASSIUM	J	3600	6300	MRL	mg/Kg	
	SODIUM	J	93	490	MRL	mg/Kg	
SL-553-SA6-SB-0.0-0.5	TIN	J	1.7	11	MRL	mg/Kg	J (all detects)
	Zirconium	J	1.7	8.5	MRL	mg/Kg	
	ALUMINUM	J B	13000	18000	MRL	mg/Kg	
	BORON	J	1.0	9.0	MRL	mg/Kg	
	LITHIUM	J	25	34	MRL	mg/Kg	
	MANGANESE	J	290	460	MRL	mg/Kg	
	POTASSIUM	J	3500	5900	MRL	mg/Kg	
SL-560-SA6-SB-0.0-0.5	SODIUM	J	92	460	MRL	mg/Kg	J (all detects)
	TIN	J	1.7	10	MRL	mg/Kg	
	Zirconium	J	1.8	7.9	MRL	mg/Kg	
	ALUMINUM	J B	13000	18000	MRL	mg/Kg	
	BORON	J	1.7	8.9	MRL	mg/Kg	
	LITHIUM	J	21	34	MRL	mg/Kg	
	MANGANESE	J	340	450	MRL	mg/Kg	
SL-563-SA6-SB-0.0-0.5	POTASSIUM	J	3600	5800	MRL	mg/Kg	J (all detects)
	SODIUM	J	96	460	MRL	mg/Kg	
	TIN	J	1.7	10	MRL	mg/Kg	
	Zirconium	J	2.2	7.9	MRL	mg/Kg	
	ALUMINUM	J B	15000	17000	MRL	mg/Kg	
	BORON	J	1.1	8.5	MRL	mg/Kg	
	LITHIUM	J	27	32	MRL	mg/Kg	
SL-564-SA6-SB-0.0-0.5	MANGANESE	J	310	430	MRL	mg/Kg	J (all detects)
	POTASSIUM	J	4100	5600	MRL	mg/Kg	
	SODIUM	J	110	440	MRL	mg/Kg	
	TIN	J	2.2	9.5	MRL	mg/Kg	
	Zirconium	J	1.7	7.5	MRL	mg/Kg	
	ALUMINUM	J B	15000	19000	MRL	mg/Kg	
	BORON	J	1.1	9.3	MRL	mg/Kg	
	LITHIUM	J	22	35	MRL	mg/Kg	J (all detects)
	MANGANESE	J	300	470	MRL	mg/Kg	
	POTASSIUM	J	3300	6100	MRL	mg/Kg	
	SODIUM	J	90	480	MRL	mg/Kg	
	TIN	J	1.7	10	MRL	mg/Kg	
	Zirconium	J	1.9	8.2	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-665-SA6-SB-0.0-0.5	ALUMINUM	J B	13000	17000	MRL	mg/Kg	J (all detects)
	BORON	J	1.5	8.2	MRL	mg/Kg	
	LITHIUM	J	19	31	MRL	mg/Kg	
	MANGANESE	J	320	420	MRL	mg/Kg	
	POTASSIUM	J	3400	5400	MRL	mg/Kg	
	SODIUM	J	84	420	MRL	mg/Kg	
	TIN	J	1.4	9.2	MRL	mg/Kg	
	Zirconium	J	1.9	7.3	MRL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-535-SA6-SB-0.0-0.5	ANTIMONY	J	0.025	8.6	MRL	mg/Kg	J (all detects)
	ARSENIC	J	1.9	15	MRL	mg/Kg	
	BARIUM	J	73	140	MRL	mg/Kg	
	BERYLLIUM	J	0.35	1.1	MRL	mg/Kg	
	CADMIUM	J	0.20	0.99	MRL	mg/Kg	
	CHROMIUM	J	10	36	MRL	mg/Kg	
	COBALT	J	3.4	21	MRL	mg/Kg	
	COPPER	J B	6.1	29	MRL	mg/Kg	
	LEAD	J	11	34	MRL	mg/Kg	
	MOLYBDENUM	J	0.36	5.2	MRL	mg/Kg	
	NICKEL	J	6.7	29	MRL	mg/Kg	
	SELENIUM	J	0.47	0.65	MRL	mg/Kg	
	SILVER	J	0.041	0.78	MRL	mg/Kg	
	THALLIUM	J	0.24	0.46	MRL	mg/Kg	
	VANADIUM	J	19	61	MRL	mg/Kg	
	ZINC	J	63	110	MRL	mg/Kg	
SL-552-SA6-SB-0.0-0.5	ANTIMONY	J	0.028	8.7	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.4	15	MRL	mg/Kg	
	BARIUM	J	95	140	MRL	mg/Kg	
	BERYLLIUM	J	0.53	1.1	MRL	mg/Kg	
	CADMIUM	J	0.40	1.0	MRL	mg/Kg	
	CHROMIUM	J	18	37	MRL	mg/Kg	
	COBALT	J	5.6	21	MRL	mg/Kg	
	LEAD	J	24	34	MRL	mg/Kg	
	MOLYBDENUM	J	0.60	5.3	MRL	mg/Kg	
	NICKEL	J	12	29	MRL	mg/Kg	
	SILVER	J	0.055	0.79	MRL	mg/Kg	
	THALLIUM	J	0.24	0.46	MRL	mg/Kg	
	VANADIUM	J	31	62	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-553-SA6-SB-0.0-0.5	ANTIMONY	J	0.032	8.4	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.4	15	MRL	mg/Kg	
	BARIUM	J	94	140	MRL	mg/Kg	
	BERYLLIUM	J	0.44	1.1	MRL	mg/Kg	
	CADMIUM	J	0.26	0.97	MRL	mg/Kg	
	CHROMIUM	J	17	36	MRL	mg/Kg	
	COBALT	J	5.1	20	MRL	mg/Kg	
	COPPER	J B	9.5	28	MRL	mg/Kg	
	LEAD	J	11	33	MRL	mg/Kg	
	MOLYBDENUM	J	0.42	5.1	MRL	mg/Kg	
	NICKEL	J	11	28	MRL	mg/Kg	
	SILVER	J	0.047	0.76	MRL	mg/Kg	
	THALLIUM	J	0.23	0.45	MRL	mg/Kg	
	VANADIUM	J	30	60	MRL	mg/Kg	
	ZINC	J	60	110	MRL	mg/Kg	
SL-560-SA6-SB-0.0-0.5	ANTIMONY	J	0.025	7.4	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.1	13	MRL	mg/Kg	
	BARIUM	J	100	120	MRL	mg/Kg	
	BERYLLIUM	J	0.46	0.93	MRL	mg/Kg	
	CADMIUM	J	0.49	0.85	MRL	mg/Kg	
	CHROMIUM	J	17	31	MRL	mg/Kg	
	COBALT	J	5.6	18	MRL	mg/Kg	
	COPPER	J B	16	25	MRL	mg/Kg	
	LEAD	J	14	29	MRL	mg/Kg	
	MOLYBDENUM	J	0.43	4.5	MRL	mg/Kg	
	NICKEL	J	12	25	MRL	mg/Kg	
	SILVER	J	0.053	0.67	MRL	mg/Kg	
	THALLIUM	J	0.25	0.39	MRL	mg/Kg	
	VANADIUM	J	29	52	MRL	mg/Kg	
SL-563-SA6-SB-0.0-0.5	ANTIMONY	J	0.021	8.6	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.3	15	MRL	mg/Kg	
	BARIUM	J	97	140	MRL	mg/Kg	
	BERYLLIUM	J	0.58	1.1	MRL	mg/Kg	
	CADMIUM	J	0.25	0.99	MRL	mg/Kg	
	CHROMIUM	J	12	36	MRL	mg/Kg	
	COBALT	J	4.5	21	MRL	mg/Kg	
	COPPER	J B	7.5	29	MRL	mg/Kg	
	LEAD	J	9.9	33	MRL	mg/Kg	
	MOLYBDENUM	J	0.47	5.2	MRL	mg/Kg	
	NICKEL	J	9.0	29	MRL	mg/Kg	
	SILVER	J	0.064	0.78	MRL	mg/Kg	
	THALLIUM	J	0.27	0.45	MRL	mg/Kg	
	VANADIUM	J	25	61	MRL	mg/Kg	
	ZINC	J	66	110	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-564-SA6-SB-0.0-0.5	ANTIMONY	J	0.013	7.4	MRL	mg/Kg	J (all detects)
	ARSENIC	J	2.8	13	MRL	mg/Kg	
	BARIUM	J	92	120	MRL	mg/Kg	
	BERYLLIUM	J	0.60	0.93	MRL	mg/Kg	
	CADMIUM	J	0.24	0.85	MRL	mg/Kg	
	CHROMIUM	J	14	31	MRL	mg/Kg	
	COBALT	J	4.9	18	MRL	mg/Kg	
	COPPER	J B	6.3	25	MRL	mg/Kg	
	LEAD	J	6.9	29	MRL	mg/Kg	
	MOLYBDENUM	J	0.36	4.5	MRL	mg/Kg	
	NICKEL	J	9.6	25	MRL	mg/Kg	
	SILVER	J	0.041	0.67	MRL	mg/Kg	
	THALLIUM	J	0.24	0.39	MRL	mg/Kg	
	VANADIUM	J	27	52	MRL	mg/Kg	
	ZINC	J	49	93	MRL	mg/Kg	
SL-665-SA6-SB-0.0-0.5	ANTIMONY	J	0.017	7.4	MRL	mg/Kg	J (all detects)
	ARSENIC	J	2.6	13	MRL	mg/Kg	
	BARIUM	J	100	120	MRL	mg/Kg	
	BERYLLIUM	J	0.51	0.93	MRL	mg/Kg	
	CADMIUM	J	0.28	0.85	MRL	mg/Kg	
	CHROMIUM	J	14	31	MRL	mg/Kg	
	COBALT	J	4.7	18	MRL	mg/Kg	
	COPPER	J B	7.8	25	MRL	mg/Kg	
	LEAD	J	8.9	29	MRL	mg/Kg	
	MOLYBDENUM	J	0.40	4.5	MRL	mg/Kg	
	NICKEL	J	10	25	MRL	mg/Kg	
	SELENIUM	J	0.55	0.56	MRL	mg/Kg	
	SILVER	J	0.061	0.67	MRL	mg/Kg	
	THALLIUM	J	0.23	0.39	MRL	mg/Kg	
	VANADIUM	J	25	53	MRL	mg/Kg	
	ZINC	J	52	93	MRL	mg/Kg	

Method: 7471B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-535-SA6-SB-0.0-0.5	MERCURY	J	0.012	0.022	MRL	mg/Kg	J (all detects)
SL-553-SA6-SB-0.0-0.5	MERCURY	J	0.013	0.022	MRL	mg/Kg	J (all detects)
SL-563-SA6-SB-0.0-0.5	MERCURY	J	0.015	0.021	MRL	mg/Kg	J (all detects)
SL-564-SA6-SB-0.0-0.5	MERCURY	J	0.0080	0.022	MRL	mg/Kg	J (all detects)
SL-665-SA6-SB-0.0-0.5	MERCURY	J	0.011	0.023	MRL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-563-SA6-SB-0.0-0.5	EFH(C21-C30)	J	4.0	5.1	MRL	mg/Kg	J (all detects)
SL-564-SA6-SB-0.0-0.5	EFH(C15-C20)	J	1.7	5.0	MRL	mg/Kg	J (all detects)

Method: 8082A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-553-SA6-SB-0.0-0.5	AROCLOR 1260	J	15	17	MRL	ug/Kg	J (all detects)
SL-560-SA6-SB-0.0-0.5	AROCLOR 1260	J	15	17	MRL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-535-SA6-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.53	9.8	MRL	ug/Kg	J (all detects)
	CHRYSENE	J	1.5	9.8	MRL	ug/Kg	
	FLUORANTHENE	J	1.6	9.8	MRL	ug/Kg	
	NAPHTHALENE	J B	0.86	9.8	MRL	ug/Kg	
	PHENANTHRENE	J	1.5	9.8	MRL	ug/Kg	
	PYRENE	J	1.3	9.8	MRL	ug/Kg	
SL-552-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.72	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.3	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.9	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	2.5	10	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	5.8	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	2.8	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.8	10	MRL	ug/Kg	
	CHRYSENE	J	6.8	10	MRL	ug/Kg	
	FLUORANTHENE	J	5.5	10	MRL	ug/Kg	
	FLUORENE	J	0.73	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	2.7	10	MRL	ug/Kg	
	NAPHTHALENE	J B	5.1	10	MRL	ug/Kg	
	PHENANTHRENE	J	3.9	10	MRL	ug/Kg	
	PYRENE	J	4.7	10	MRL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-553-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.30	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.76	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.35	10	MRL	ug/Kg	
	ANTHRACENE	J	1.1	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	2.5	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	3.9	10	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	9.1	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	3.7	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	2.1	10	MRL	ug/Kg	
	CHRYSENE	J	7.3	10	MRL	ug/Kg	
	FLUORANTHENE	J	8.0	10	MRL	ug/Kg	
	FLUORENE	J	0.62	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.0	10	MRL	ug/Kg	
	NAPHTHALENE	J B	1.5	10	MRL	ug/Kg	
	PHENANTHRENE	J	3.4	10	MRL	ug/Kg	
	PYRENE	J	7.5	10	MRL	ug/Kg	
SL-560-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.47	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.87	10	MRL	ug/Kg	
	ACENAPHTHENE	J	0.51	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.76	10	MRL	ug/Kg	
	ANTHRACENE	J	3.5	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	9.0	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	9.4	10	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	2.1	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	9.6	10	MRL	ug/Kg	
	NAPHTHALENE	J B	1.2	10	MRL	ug/Kg	
SL-563-SA6-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.61	10	MRL	ug/Kg	J (all detects)
	CHRYSENE	J	2.1	10	MRL	ug/Kg	
	FLUORANTHENE	J	3.9	10	MRL	ug/Kg	
	NAPHTHALENE	J B	1.2	10	MRL	ug/Kg	
	PHENANTHRENE	J	3.1	10	MRL	ug/Kg	
	PYRENE	J	2.9	10	MRL	ug/Kg	
SL-564-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.28	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.47	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.27	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.3	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	1.2	10	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	3.4	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	10	MRL	ug/Kg	
	CHRYSENE	J	4.9	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	10	MRL	ug/Kg	
	NAPHTHALENE	J B	0.80	10	MRL	ug/Kg	
	PHENANTHRENE	J	5.8	10	MRL	ug/Kg	
	PYRENE	J	8.3	10	MRL	ug/Kg	
SL-665-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.51	9.8	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.1	9.8	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.8	9.8	MRL	ug/Kg	
	CHRYSENE	J	2.3	9.8	MRL	ug/Kg	
	FLUORANTHENE	J	2.5	9.8	MRL	ug/Kg	
	FLUORENE	J	0.56	9.8	MRL	ug/Kg	
	NAPHTHALENE	J B	1.6	9.8	MRL	ug/Kg	
	PHENANTHRENE	J	2.4	9.8	MRL	ug/Kg	
	PYRENE	J	1.9	9.8	MRL	ug/Kg	

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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ADR version 1.7.0.207

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-35822-1

Laboratory: TA DEN

EDD Filename: 280-35822-1

eQAPP Name: CDM_SSFL_120907_TA

Method: BaP EQUIVALENCE

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-535-SA6-SB-0.0-0.5	BAP EQUIVALENCE	J	0.0015	0.0050	MRL	ug/Kg	J (all detects)
SL-563-SA6-SB-0.0-0.5	BAP EQUIVALENCE	J	0.0021	0.0050	MRL	ug/Kg	J (all detects)

LDC #: 29419H4
SDG #: 280-35822-1
Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET ADR

Date: 4/2/13
Page: 1 of 1
Reviewer: [Signature]
2nd Reviewer: [Signature]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 11/12/12
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	N	MS/D (10/11: Al, Fe, Mn, Ti 74) / 6020A see 280-359304
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV.	Field Blanks	SW	FB-FB-111412 (280-359304) FB = FB-060512 EB = EB-111512 (280-35982-1) (12F037)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-535-SA6-SB-0.0-0.5	11	SL-560-SA6-SB-0.0-0.5MSD	21		31	
2	SL-563-SA6-SB-0.0-0.5	12		22		32	
3	SL-564-SA6-SB-0.0-0.5	13		23		33	
4	SL-665-SA6-SB-0.0-0.5	14		24		34	
5	SL-552-SA6-SB-0.0-0.5	15		25		35	
6	SL-553-SA6-SB-0.0-0.5	16		26		36	
7	SL-560-SA6-SB-0.0-0.5	17		27		37	
8	SL-535-SA6-SB-0.0-0.5MS	18		28		38	
9	SL-535-SA6-SB-0.0-0.5MSD	19		29		39	
10	SL-560-SA6-SB-0.0-0.5MS	20		30		40	

Notes: _____

Blank units: mg/L Associated sample units: mg/Kg

Soil factor applied 0 100x

Sampling date: 11/14/12; 11/15/12

Sampling date: 11/14/12; 11/15/12
Field blank type: (circle one) Field Blank / Rinsate / Other: 100x Associated Samples: All

[illegible]

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Blank units: mg/L Associated sample units: mg/Kg
 Sampling date: 06/05/12 Soil factor applied 100x
 Field blank type: (circle one) Field Blank / Other: Associated Samples: All (75x)

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

SAMPLE DELIVERY GROUP

280-35822-2

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
12-Nov-2012	SL-535-SA6-SB-0.0-0.5	280-35822-2	N	1613	1613B	III
12-Nov-2012	SL-563-SA6-SB-0.0-0.5	280-35822-4	N	1613	1613B	III
12-Nov-2012	SL-564-SA6-SB-0.0-0.5	280-35822-6	N	1613	1613B	III
12-Nov-2012	SL-665-SA6-SB-0.0-0.5	280-35822-8	N	1613	1613B	III
12-Nov-2012	SL-560-SA6-SB-0.0-0.5	280-35822-14	N	1613	1613B	III
12-Nov-2012	SL-553-SA6-SB-0.0-0.5	280-35822-12	N	1613	1613B	III
12-Nov-2012	SL-552-SA6-SB-0.0-0.5	280-35822-10	N	1613	1613B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-2

Laboratory: TA DEN

EDD Filename: 280-35822-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-535-SA6-SB-0.0-0.5

Collected: 11/12/2012 8:30:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.9	B J	0.054	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.23	B J	0.091	MDL	5.1	MRL	ng/kg	U	B
1,2,3,4,7,8-HxCDD	0.19	Q J	0.068	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.23	Q B J	0.038	MDL	5.1	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	0.93	J	0.070	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.17	Q J	0.036	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	1.2	Q J	0.065	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.11	B J	0.044	MDL	5.1	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	0.32	Q J	0.081	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.17	J	0.051	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.14	Q B J	0.036	MDL	5.1	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	0.18	Q J	0.049	MDL	5.1	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.63	J	0.097	MDL	1.0	MRL	ng/kg	J	Z
OCDF	3.7	B J	0.060	MDL	10	MRL	ng/kg	U	B

Sample ID: SL-552-SA6-SB-0.0-0.5

Collected: 11/12/2012 2:35:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.35	Q B J	0.10	MDL	5.0	MRL	ng/kg	U	B
1,2,3,4,7,8-HxCDD	0.74	J	0.075	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	1.2	C B J	0.045	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	2.1	J	0.077	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.69	Q J	0.046	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	2.5	J C	0.071	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.091	Q B J	0.056	MDL	5.0	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	0.76	Q J	0.11	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	1.3	J	0.085	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.47	B J	0.047	MDL	5.0	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	1.4	J	0.082	MDL	5.0	MRL	ng/kg	J	Z

Sample ID: SL-553-SA6-SB-0.0-0.5

Collected: 11/12/2012 2:05:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	4.6	B J	0.071	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.31	B J	0.11	MDL	5.0	MRL	ng/kg	U	B

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-2

Laboratory: TA DEN

EDD Filename: 280-35822-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-553-SA6-SB-0.0-0.5

Collected: 11/12/2012 2:05:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HxCDD	0.28	Q J	0.069	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	0.39	B J	0.045	MDL	5.0	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	0.62	Q J	0.066	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	0.42	Q J	0.048	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.99	J	0.063	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.15	Q B J	0.053	MDL	5.0	MRL	ng/kg	U	B
1,2,3,7,8-PCDD	0.29	Q J	0.096	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PCDF	0.12	Q J	0.066	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.21	Q B J	0.045	MDL	5.0	MRL	ng/kg	U	B
2,3,4,7,8-PCDF	0.22	J	0.062	MDL	5.0	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.43	J	0.10	MDL	1.0	MRL	ng/kg	J	Z
OCDF	7.9	B J	0.069	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-560-SA6-SB-0.0-0.5

Collected: 11/12/2012 1:10:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	4.6	B J	0.089	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	3.7	Q J	0.043	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.68	B J	0.049	MDL	5.0	MRL	ng/kg	U	B
1,2,3,7,8-PCDD	4.8	J	0.093	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PCDF	1.5	J	0.074	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	1.8	B J	0.042	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,7,8-PCDF	1.4	J	0.069	MDL	5.0	MRL	ng/kg	J	Z
2,3,7,8-TCDD	0.45	Q J	0.17	MDL	1.0	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.91	Q J	0.11	MDL	1.0	MRL	ng/kg	J	Z
OCDD	15000	S B E	0.21	MDL	10	MRL	ng/kg	J	*XI

Sample ID: SL-563-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:05:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.1	B J	0.063	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.099	Q J	0.072	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	0.10	Q B J	0.056	MDL	4.9	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	0.80	J	0.078	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	0.15	J	0.055	MDL	4.9	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-2

Laboratory: TA DEN

EDD Filename: 280-35822-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-563-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:05:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HxCDD	1.1	J	0.070	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.22	B J	0.070	MDL	4.9	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	0.36	Q J	0.099	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.089	Q J	0.074	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.074	Q B J	0.055	MDL	4.9	MRL	ng/kg	U	B
2,3,7,8-TCDF	0.25	Q J	0.12	MDL	0.99	MRL	ng/kg	J	Z
OCDF	2.5	B J	0.077	MDL	9.9	MRL	ng/kg	U	B

Sample ID: SL-564-SA6-SB-0.0-0.5

Collected: 11/12/2012 9:45:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.5	B J	0.062	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.18	J	0.079	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	0.14	B J	0.048	MDL	4.9	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	0.66	J	0.080	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	0.14	J	0.049	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.64	J	0.075	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.12	B J	0.051	MDL	4.9	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	0.23	Q J	0.085	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.060	Q B J	0.048	MDL	4.9	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	0.072	Q J	0.060	MDL	4.9	MRL	ng/kg	J	Z
OCDF	4.2	B J	0.086	MDL	9.9	MRL	ng/kg	J	Z

Sample ID: SL-665-SA6-SB-0.0-0.5

Collected: 11/12/2012 10:30:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.5	B J	0.070	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.22	Q J	0.078	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDF	0.18	Q B J	0.051	MDL	5.0	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	0.66	J	0.075	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	0.18	Q J	0.050	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.60	C J	0.072	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDF	0.24	B J	0.074	MDL	5.0	MRL	ng/kg	U	B
1,2,3,7,8-PECDD	0.16	Q J	0.099	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.20	Q J	0.072	MDL	5.0	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-2

Laboratory: TA DEN

EDD Filename: 280-35822-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-665-SA6-SB-0.0-0.5

Collected: 11/12/2012 10:30:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,6,7,8-HXCDF	0.22	Q B J	0.054	MDL	5.0	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	0.23	J	0.068	MDL	5.0	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.80	J	0.12	MDL	1.0	MRL	ng/kg	J	Z
OCDF	3.4	B J	0.080	MDL	10	MRL	ng/kg	U	B

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35822-2

Laboratory: TA DEN

EDD Filename: 280-35822-2

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*XI	Exceeded Calibration Range
A	Professional Judgment
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35822-2/
H2K150412

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35822-2

Laboratory: TA DEN

EDD Filename: 280-35822-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
H2K160000034B	11/26/2012 12:54:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,7,8,9-HXCDF 2,3,4,6,7,8-HXCDF OCDD OCDF	0.30 ng/kg 0.16 ng/kg 0.21 ng/kg 0.17 ng/kg 0.24 ng/kg 0.20 ng/kg 2.7 ng/kg 0.83 ng/kg	SL-535-SA6-SB-0.0-0.5 SL-552-SA6-SB-0.0-0.5 SL-553-SA6-SB-0.0-0.5 SL-560-SA6-SB-0.0-0.5 SL-563-SA6-SB-0.0-0.5 SL-564-SA6-SB-0.0-0.5 SL-665-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-535-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.23 ng/kg	0.23U ng/kg
SL-535-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.23 ng/kg	0.23U ng/kg
SL-535-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.11 ng/kg	0.11U ng/kg
SL-535-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.14 ng/kg	0.14U ng/kg
SL-535-SA6-SB-0.0-0.5(RES)	OCDF	3.7 ng/kg	3.7U ng/kg
SL-552-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.35 ng/kg	0.35U ng/kg
SL-552-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.091 ng/kg	0.091U ng/kg
SL-552-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.47 ng/kg	0.47U ng/kg
SL-553-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.31 ng/kg	0.31U ng/kg
SL-553-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.39 ng/kg	0.39U ng/kg
SL-553-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.15 ng/kg	0.15U ng/kg
SL-553-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.21 ng/kg	0.21U ng/kg
SL-560-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.68 ng/kg	0.68U ng/kg
SL-563-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.10 ng/kg	0.10U ng/kg
SL-563-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.22 ng/kg	0.22U ng/kg
SL-563-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.074 ng/kg	0.074U ng/kg
SL-563-SA6-SB-0.0-0.5(RES)	OCDF	2.5 ng/kg	2.5U ng/kg
SL-564-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.14 ng/kg	0.14U ng/kg
SL-564-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.12 ng/kg	0.12U ng/kg
SL-564-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.060 ng/kg	0.060U ng/kg
SL-665-SA6-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.18 ng/kg	0.18U ng/kg
SL-665-SA6-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.24 ng/kg	0.24U ng/kg
SL-665-SA6-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.22 ng/kg	0.22U ng/kg
SL-665-SA6-SB-0.0-0.5(RES)	OCDF	3.4 ng/kg	3.4U ng/kg

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35822-2

Laboratory: TA DEN

EDD Filename: 280-35822-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-535-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	B J	1.9	5.1	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	B J	0.23	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	0.19	5.1	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q B J	0.23	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	J	0.93	5.1	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.17	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	Q J	1.2	5.1	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	B J	0.11	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.32	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	0.17	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	Q B J	0.14	5.1	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.18	5.1	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.63	1.0	MRL	ng/kg	
	OCDF	B J	3.7	10	MRL	ng/kg	
SL-552-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	Q B J	0.35	5.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.74	5.0	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	C B J	1.2	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	J	2.1	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.69	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	J C	2.5	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	Q B J	0.091	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.76	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	1.3	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	0.47	5.0	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	1.4	5.0	MRL	ng/kg	
SL-553-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	B J	4.6	5.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	B J	0.31	5.0	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	0.28	5.0	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	B J	0.39	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	Q J	0.62	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.42	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	J	0.99	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	Q B J	0.15	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.29	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.12	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	Q B J	0.21	5.0	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	0.22	5.0	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.43	1.0	MRL	ng/kg	
SL-560-SA6-SB-0.0-0.5	OCDF	B J	7.9	10	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	B J	4.6	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	3.7	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	B J	0.68	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDD	J	4.8	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDF	J	1.5	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	B J	1.8	5.0	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	1.4	5.0	MRL	ng/kg	
	2,3,7,8-TCDD	Q J	0.45	1.0	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.91	1.0	MRL	ng/kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35822-2

Laboratory: TA DEN

EDD Filename: 280-35822-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-563-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	B J	1.1	4.9	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	Q J	0.099	4.9	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q B J	0.10	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	J	0.80	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	J	0.15	4.9	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	J	1.1	4.9	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	B J	0.22	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.36	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.089	4.9	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	Q B J	0.074	4.9	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.25	0.99	MRL	ng/kg	
	OCDF	B J	2.5	9.9	MRL	ng/kg	
SL-564-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	B J	1.5	4.9	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.18	4.9	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	B J	0.14	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	J	0.66	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	J	0.14	4.9	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	J	0.64	4.9	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	B J	0.12	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.23	4.9	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	Q B J	0.060	4.9	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.072	4.9	MRL	ng/kg	
	OCDF	B J	4.2	9.9	MRL	ng/kg	
SL-665-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	B J	1.5	5.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	Q J	0.22	5.0	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q B J	0.18	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDD	J	0.66	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.18	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HXCDD	C J	0.60	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	B J	0.24	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.16	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.20	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	Q B J	0.22	5.0	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	0.23	5.0	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.80	1.0	MRL	ng/kg	
	OCDF	B J	3.4	10	MRL	ng/kg	

SAMPLE DELIVERY GROUP

280-35860-1

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Nov-2012	SL-552-SA6-SB-4.5	280-35860-7	N	5035	8015B GRO	III
13-Nov-2012	TB-111312	280-35860-1	TB	METHOD	8015B GRO	III
13-Nov-2012	SL-552-SA6-SB-4.0-5.0	280-35860-5	N	3546	8270C SIM	III
13-Nov-2012	SL-552-SA6-SB-4.0-5.0	280-35860-5	N	3550C	8015B EFH	III
13-Nov-2012	SL-552-SA6-SB-4.0-5.0	280-35860-6	N	3050B	6010C	III
13-Nov-2012	SL-552-SA6-SB-4.0-5.0	280-35860-6	N	3050B	6020A	III
13-Nov-2012	SL-552-SA6-SB-4.0-5.0	280-35860-6	N	3546	8082A	III
13-Nov-2012	SL-552-SA6-SB-4.0-5.0	280-35860-6	N	7471B	7471B	III
13-Nov-2012	SL-552-SA6-SB-4.0-5.0MS	280-35860-6MS	MS	3050B	6010C	III
13-Nov-2012	SL-552-SA6-SB-4.0-5.0MSD	280-35860-6MSD	MSD	3050B	6010C	III
13-Nov-2012	SL-508-SA6-SB-3.0	280-35860-4	N	5035	8015B GRO	III
13-Nov-2012	SL-508-SA6-SB-2.5-3.5	280-35860-2	N	3546	8270C SIM	III
13-Nov-2012	SL-508-SA6-SB-2.5-3.5	280-35860-2	N	3550C	8015B EFH	III
13-Nov-2012	SL-508-SA6-SB-2.5-3.5	280-35860-3	N	3050B	6010C	III
13-Nov-2012	SL-508-SA6-SB-2.5-3.5	280-35860-3	N	3050B	6020A	III
13-Nov-2012	SL-508-SA6-SB-2.5-3.5	280-35860-3	N	3546	8082A	III
13-Nov-2012	SL-508-SA6-SB-2.5-3.5	280-35860-3	N	7471B	7471B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35860-1

Laboratory: TA DEN

EDD Filename: Prep280-35860-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-508-SA6-SB-2.5-3.5

Collected: 11/13/2012 10:32:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	11000	J	1.5	MDL	20000	MRL	mg/Kg	J	Z
BORON	1.1	J	0.97	MDL	9.6	MRL	mg/Kg	U	F
CALCIUM	9300		14	MDL	50	MRL	mg/Kg	J	A
LITHIUM	21	J	0.30	MDL	37	MRL	mg/Kg	J	Z, A
MANGANESE	270	J	0.099	MDL	490	MRL	mg/Kg	J	Z
POTASSIUM	2200	J	41	MDL	6300	MRL	mg/Kg	J	Z
SODIUM	150	J	59	MDL	500	MRL	mg/Kg	J	Z
TIN	2.1	J	0.90	MDL	11	MRL	mg/Kg	J	Z
Zirconium	2.0	J	0.35	MDL	8.5	MRL	mg/Kg	J	Z

Sample ID: SL-552-SA6-SB-4.0-5.0

Collected: 11/13/2012 8:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	14000	J	1.6	MDL	21000	MRL	mg/Kg	J	Z
BORON	1.0	J	1.0	MDL	10	MRL	mg/Kg	U	F
CALCIUM	2400		15	MDL	51	MRL	mg/Kg	J	A
LITHIUM	25	J	0.31	MDL	38	MRL	mg/Kg	J	Z, A
MANGANESE	280	J	0.10	MDL	510	MRL	mg/Kg	J	Z
POTASSIUM	2300	J	42	MDL	6600	MRL	mg/Kg	J	Z
SODIUM	220	J	61	MDL	510	MRL	mg/Kg	J	Z
TIN	1.9	J	0.94	MDL	11	MRL	mg/Kg	J	Z
Zirconium	1.7	J	0.36	MDL	8.8	MRL	mg/Kg	J	Z

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-508-SA6-SB-2.5-3.5

Collected: 11/13/2012 10:32:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.032	J	0.014	MDL	9.0	MRL	mg/Kg	J	Z, Q, E
ARSENIC	9.4	J	0.052	MDL	15	MRL	mg/Kg	J	Z
BARIUM	83	J	0.073	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.41	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.25	J	0.0097	MDL	1.0	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35860-1

Laboratory: TA DEN

EDD Filename: Prep280-35860-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-508-SA6-SB-2.5-3.5

Collected: 11/13/2012 10:32:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	16	J	0.078	MDL	38	MRL	mg/Kg	J	Z
COBALT	9.4	J	0.0068	MDL	22	MRL	mg/Kg	J	Z
COPPER	16	J B	0.073	MDL	30	MRL	mg/Kg	J	Z
LEAD	14	J	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.73	J	0.018	MDL	5.5	MRL	mg/Kg	J	Z
NICKEL	11	J	0.026	MDL	30	MRL	mg/Kg	J	Z
SELENIUM	0.53	J	0.14	MDL	0.68	MRL	mg/Kg	J	Z
SILVER	0.049	J	0.021	MDL	0.81	MRL	mg/Kg	U	F
THALLIUM	0.20	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	31	J	0.040	MDL	64	MRL	mg/Kg	J	Z
ZINC	57	J	0.33	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-552-SA6-SB-4.0-5.0

Collected: 11/13/2012 8:05:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.61	J	0.020	MDL	0.97	MRL	mg/Kg	J	Z

Sample ID: SL-552-SA6-SB-4.0-5.0

Collected: 11/13/2012 8:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.026	J	0.012	MDL	7.7	MRL	mg/Kg	J	Z, Q, E
ARSENIC	4.8	J	0.045	MDL	13	MRL	mg/Kg	J	Z
BARIUM	80	J	0.062	MDL	120	MRL	mg/Kg	J	Z
CADMIUM	0.25	J	0.0082	MDL	0.88	MRL	mg/Kg	J	Z
CHROMIUM	22	J	0.067	MDL	32	MRL	mg/Kg	J	Z
COBALT	6.4	J	0.0058	MDL	18	MRL	mg/Kg	J	Z
LEAD	13	J	0.016	MDL	30	MRL	mg/Kg	J	Z
MOLYBDENUM	0.45	J	0.015	MDL	4.7	MRL	mg/Kg	J	Z
NICKEL	13	J	0.022	MDL	26	MRL	mg/Kg	J	Z
SILVER	0.040	J	0.018	MDL	0.69	MRL	mg/Kg	U	F
THALLIUM	0.24	J	0.0031	MDL	0.40	MRL	mg/Kg	J	Z
VANADIUM	36	J	0.034	MDL	55	MRL	mg/Kg	J	Z
ZINC	78	J	0.28	MDL	97	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35860-1

Laboratory: TA DEN

EDD Filename: Prep280-35860-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 7471B

Matrix: SO

Sample ID: SL-508-SA6-SB-2.5-3.5

Collected: 11/13/2012 10:32:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.014	J	0.0061	MDL	0.022	MRL	mg/Kg	J	Z

Sample ID: SL-552-SA6-SB-4.0-5.0

Collected: 11/13/2012 8:05:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.014	J	0.0059	MDL	0.021	MRL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015B EFH

Matrix: SO

Sample ID: SL-508-SA6-SB-2.5-3.5

Collected: 11/13/2012 10:32:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	2.8	J	0.94	MDL	4.7	MRL	mg/Kg	J	Z

Sample ID: SL-552-SA6-SB-4.0-5.0

Collected: 11/13/2012 8:05:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.5	J	0.98	MDL	4.9	MRL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082A

Matrix: SO

Sample ID: SL-552-SA6-SB-4.0-5.0

Collected: 11/13/2012 8:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	15	J	5.6	MDL	17	MRL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-508-SA6-SB-2.5-3.5

Collected: 11/13/2012 10:32:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.61	J	0.26	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35860-1

Laboratory: TA DEN

EDD Filename: Prep280-35860-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-508-SA6-SB-2.5-3.5

Collected: 11/13/2012 10:32:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	1.3	J	0.31	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	2.1	J	0.73	MDL	10	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	9.3	J	1.3	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	1.2	J B	0.33	MDL	10	MRL	ug/Kg	U	B
PHENANTHRENE	4.3	J	1.1	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-552-SA6-SB-4.0-5.0

Collected: 11/13/2012 8:05:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.43	J	0.25	MDL	9.5	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.66	J	0.29	MDL	9.5	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.4	J	1.1	MDL	9.5	MRL	ug/Kg	J	Z
CHRYSENE	1.8	J	0.95	MDL	9.5	MRL	ug/Kg	J	Z
FLUORANTHENE	1.8	J	0.95	MDL	9.5	MRL	ug/Kg	J	Z
NAPHTHALENE	2.6	J B	0.31	MDL	9.5	MRL	ug/Kg	U	B
PHENANTHRENE	1.8	J	1.0	MDL	9.5	MRL	ug/Kg	J	Z
PYRENE	1.3	J	1.0	MDL	9.5	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35860-1

Laboratory: TA DEN

EDD Filename: Prep280-35860-1

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*#	Professional Judgment
A	ICP Serial Dilution
B	Method Blank Contamination
E	Matrix Spike Precision
F	Equipment Blank Contamination
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35860-1

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35860-1

Laboratory: TA DEN

EDD Filename: 280-35860-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-147780/5-A	11/19/2012 6:55:00 PM	STRONTIUM	0.0430 mg/Kg	SL-508-SA6-SB-2.5-3.5 SL-552-SA6-SB-4.0-5.0

Method: 6020A Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-148154/1-A	11/20/2012 11:52:00 PM	COPPER	0.0757 mg/Kg	SL-508-SA6-SB-2.5-3.5 SL-552-SA6-SB-4.0-5.0

Method: 8015B EFH Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-148013/1-A	11/21/2012 3:03:00 AM	TOTAL EFH(C8-C40)	0.804 mg/Kg	SL-508-SA6-SB-2.5-3.5 SL-552-SA6-SB-4.0-5.0

Method: 8270C SIM Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-148281/1-A	11/21/2012 8:26:00 AM	NAPHTHALENE	0.830 ug/Kg	SL-508-SA6-SB-2.5-3.5 SL-552-SA6-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-508-SA6-SB-2.5-3.5(RES)	NAPHTHALENE	1.2 ug/Kg	10U ug/Kg
SL-552-SA6-SB-4.0-5.0(RES)	NAPHTHALENE	2.6 ug/Kg	9.5U ug/Kg

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35860-1

Laboratory: TA DEN

EDD Filename: 280-35860-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-552-SA6-SB-4.0-5.0MS (TOT)	ALUMINUM	2306	1949	75.00-125.00	-	ALUMINUM	No Qual, >4x
SL-552-SA6-SB-4.0-5.0MSD (TOT)	IRON	1410	1078	75.00-125.00	-	IRON	
(SL-508-SA6-SB-2.5-3.5 SL-552-SA6-SB-4.0-5.0)	TITANIUM	209	195	75.00-125.00	-	TITANIUM	
SL-552-SA6-SB-4.0-5.0MSD (TOT)	MANGANESE	-	70	75.00-125.00	-	MANGANESE	No Qual, >4x
(SL-508-SA6-SB-2.5-3.5 SL-552-SA6-SB-4.0-5.0)							

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35860-1

Laboratory: TA DEN

EDD Filename: 280-35860-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-508-SA6-SB-2.5-3.5	ALUMINUM	J	11000	20000	MRL	mg/Kg	J (all detects)
	BORON	J	1.1	9.6	MRL	mg/Kg	
	LITHIUM	J	21	37	MRL	mg/Kg	
	MANGANESE	J	270	490	MRL	mg/Kg	
	POTASSIUM	J	2200	6300	MRL	mg/Kg	
	SODIUM	J	150	500	MRL	mg/Kg	
	TIN	J	2.1	11	MRL	mg/Kg	
	Zirconium	J	2.0	8.5	MRL	mg/Kg	
SL-552-SA6-SB-4.0-5.0	ALUMINUM	J	14000	21000	MRL	mg/Kg	J (all detects)
	BORON	J	1.0	10	MRL	mg/Kg	
	LITHIUM	J	25	38	MRL	mg/Kg	
	MANGANESE	J	280	510	MRL	mg/Kg	
	POTASSIUM	J	2300	6600	MRL	mg/Kg	
	SODIUM	J	220	510	MRL	mg/Kg	
	TIN	J	1.9	11	MRL	mg/Kg	
	Zirconium	J	1.7	8.8	MRL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-508-SA6-SB-2.5-3.5	ANTIMONY	J	0.032	9.0	MRL	mg/Kg	J (all detects)
	ARSENIC	J	9.4	15	MRL	mg/Kg	
	BARIUM	J	83	140	MRL	mg/Kg	
	BERYLLIUM	J	0.41	1.1	MRL	mg/Kg	
	CADMIUM	J	0.25	1.0	MRL	mg/Kg	
	CHROMIUM	J	16	38	MRL	mg/Kg	
	COBALT	J	9.4	22	MRL	mg/Kg	
	COPPER	J B	16	30	MRL	mg/Kg	
	LEAD	J	14	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.73	5.5	MRL	mg/Kg	
	NICKEL	J	11	30	MRL	mg/Kg	
	SELENIUM	J	0.53	0.68	MRL	mg/Kg	
	SILVER	J	0.049	0.81	MRL	mg/Kg	
	THALLIUM	J	0.20	0.47	MRL	mg/Kg	
	VANADIUM	J	31	64	MRL	mg/Kg	
	ZINC	J	57	110	MRL	mg/Kg	
SL-552-SA6-SB-4.0-5.0	ANTIMONY	J	0.026	7.7	MRL	mg/Kg	J (all detects)
	ARSENIC	J	4.8	13	MRL	mg/Kg	
	BARIUM	J	80	120	MRL	mg/Kg	
	BERYLLIUM	J	0.61	0.97	MRL	mg/Kg	
	CADMIUM	J	0.25	0.88	MRL	mg/Kg	
	CHROMIUM	J	22	32	MRL	mg/Kg	
	COBALT	J	6.4	18	MRL	mg/Kg	
	LEAD	J	13	30	MRL	mg/Kg	
	MOLYBDENUM	J	0.45	4.7	MRL	mg/Kg	
	NICKEL	J	13	26	MRL	mg/Kg	
	SILVER	J	0.040	0.69	MRL	mg/Kg	
	THALLIUM	J	0.24	0.40	MRL	mg/Kg	
	VANADIUM	J	36	55	MRL	mg/Kg	
	ZINC	J	78	97	MRL	mg/Kg	

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-35860-1

Laboratory: TA DEN

EDD Filename: 280-35860-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 7471B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-508-SA6-SB-2.5-3.5	MERCURY	J	0.014	0.022	MRL	mg/Kg	J (all detects)
SL-552-SA6-SB-4.0-5.0	MERCURY	J	0.014	0.021	MRL	mg/Kg	J (all detects)

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-508-SA6-SB-2.5-3.5	EFH(C15-C20)	J	2.8	4.7	MRL	mg/Kg	J (all detects)
SL-552-SA6-SB-4.0-5.0	EFH(C15-C20)	J	1.5	4.9	MRL	mg/Kg	J (all detects)

Method: 8082A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-552-SA6-SB-4.0-5.0	AROCLOR 1254	J	15	17	MRL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-508-SA6-SB-2.5-3.5	1-METHYLNAPHTHALENE	J	0.61	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.3	10	MRL	ug/Kg	
	ANTHRACENE	J	2.1	10	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	9.3	10	MRL	ug/Kg	
	NAPHTHALENE	J B	1.2	10	MRL	ug/Kg	
	PHENANTHRENE	J	4.3	10	MRL	ug/Kg	
SL-552-SA6-SB-4.0-5.0	1-METHYLNAPHTHALENE	J	0.43	9.5	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.66	9.5	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.4	9.5	MRL	ug/Kg	
	CHRYSENE	J	1.8	9.5	MRL	ug/Kg	
	FLUORANTHENE	J	1.8	9.5	MRL	ug/Kg	
	NAPHTHALENE	J B	2.6	9.5	MRL	ug/Kg	
	PHENANTHRENE	J	1.8	9.5	MRL	ug/Kg	
	PYRENE	J	1.3	9.5	MRL	ug/Kg	

LDC #: 29419J4
 SDG #: 280-35860-1
 Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET ADR

Date: 4/2/13
 Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 11/13/12
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	N	MSD (Al, Fe, Mn, Ti > 4x) (6020A-see 280-35860-1)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV.	Field Blanks	SW	FB = FB-11111 (280-35860-1) SW FB = FB-060512 EB = EB-111512 (280-35862-1) (12F037)

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples:

1	SL-508-SA6-SB-2.5-3.5	11		21		31	
2	SL-552-SA6-SB-4.0-5.0	12		22		32	
3	SL-552-SA6-SB-4.0-5.0MS	13		23		33	
4	SL-552-SA6-SB-4.0-5.0MSD	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

Sampling date: 11/14/12; 11/15/12 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-35860-6

SDG No:

Lab Name: TestAmerica Denver

Job No: 280-35860-1

Matrix: Solid

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I) C		Serial Dilution Result (S) C		% Difference	Q	Method
Aluminum	14000	J	15600	J	9.6		6010C
Boron	1.0	J	ND		NC		6010C
Calcium	24000	J	27400	J	14		6010C
Iron	20000		21700		10		6010C
Lithium	25	J	2940	J	15		6010C
Magnesium	5300		5740		8.1		6010C
Manganese	280	J	313	J	10		6010C
Phosphorus	300		324		7.9		6010C
Potassium	2300	J	2450	J	8.4		6010C
Sodium	220	J	ND		NC		6010C
Strontium	21		23.3		9.5		6010C
Tin	1.9	J	ND		NC		6010C
Titanium	970		1030		6.5		6010C
Zirconium	1.7	J	ND		NC		6010C

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

FORM VIII-IN

SAMPLE DELIVERY GROUP

280-35860-2

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Nov-2012	SL-552-SA6-SB-4.0-5.0	280-35860-6	N	1613	1613B	III
13-Nov-2012	SL-508-SA6-SB-2.5-3.5	280-35860-3	N	1613	1613B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35860-2

Laboratory: TA DEN

EDD Filename: Prep280-35860-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	1613B
Matrix:	SO

Sample ID: SL-508-SA6-SB-2.5-3.5

Collected: 11/13/2012 10:32:00 Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.48	Q B J	0.13	MDL	5.0	MRL	ng/kg	U	B
1,2,3,4,7,8-HxCDD	0.21	J	0.12	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.62	B J	0.067	MDL	5.0	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	1.1	J	0.11	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.63	J	0.067	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.74	J	0.11	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.16	Q J	0.14	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.31	B J	0.068	MDL	5.0	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	0.15	Q J	0.096	MDL	5.0	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.21	Q J	0.16	MDL	1.0	MRL	ng/kg	J	Z
OCDF	9.9	B J	0.11	MDL	10	MRL	ng/kg	J	Z

Sample ID: SL-552-SA6-SB-4.0-5.0

Collected: 11/13/2012 8:05:00 Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.7	B J	0.069	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.22	B J	0.11	MDL	5.0	MRL	ng/kg	U	B
1,2,3,4,7,8-HxCDD	0.28	Q J	0.091	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.33	Q B J	0.052	MDL	5.0	MRL	ng/kg	U	B
1,2,3,6,7,8-HxCDD	0.71	J	0.092	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.32	Q J	0.050	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.93	J	0.086	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.37	Q J	0.11	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.46	Q J	0.080	MDL	5.0	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.18	B J	0.054	MDL	5.0	MRL	ng/kg	U	B
2,3,4,7,8-PECDF	0.53	Q J	0.073	MDL	5.0	MRL	ng/kg	J	Z
OCDF	3.9	B J	0.091	MDL	9.9	MRL	ng/kg	U	B

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/23/2013 10:09:17 AM

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35860-2

Laboratory: TA DEN

EDD Filename: Prep280-35860-2

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
B	Method Blank Contamination
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/23/2013 10:09:17 AM

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35860-2/
H2K150411

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35860-2

Laboratory: TA DEN

EDD Filename: Prep280-35860-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B				
Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
H2K160000034B	11/26/2012 12:54:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,7,8,9-HXCDF 2,3,4,6,7,8-HXCDF OCDD OCDF	0.30 ng/kg 0.16 ng/kg 0.21 ng/kg 0.17 ng/kg 0.24 ng/kg 0.20 ng/kg 2.7 ng/kg 0.83 ng/kg	SL-508-SA6-SB-2.5-3.5 SL-552-SA6-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-508-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8,9-HPCDF	0.48 ng/kg	0.48U ng/kg
SL-508-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8-HXCDF	0.62 ng/kg	0.62U ng/kg
SL-508-SA6-SB-2.5-3.5(RES)	2,3,4,6,7,8-HXCDF	0.31 ng/kg	0.31U ng/kg
SL-552-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.22 ng/kg	0.22U ng/kg
SL-552-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.33 ng/kg	0.33U ng/kg
SL-552-SA6-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.18 ng/kg	0.18U ng/kg
SL-552-SA6-SB-4.0-5.0(RES)	OCDF	3.9 ng/kg	3.9U ng/kg

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35860-2

Laboratory: TA DEN

EDD Filename: Prep280-35860-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-508-SA6-SB-2.5-3.5	1,2,3,4,7,8,9-HPCDF	Q B J	0.48	5.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.21	5.0	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	B J	0.62	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	1.1	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	J	0.63	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	0.74	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.16	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	B J	0.31	5.0	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.15	5.0	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.21	1.0	MRL	ng/kg	
	OCDF	B J	9.9	10	MRL	ng/kg	
SL-552-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDF	B J	1.7	5.0	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	B J	0.22	5.0	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	0.28	5.0	MRL	ng/kg	
	1,2,3,4,7,8-HxCDF	Q B J	0.33	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	0.71	5.0	MRL	ng/kg	
	1,2,3,6,7,8-HxCDF	Q J	0.32	5.0	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	J	0.93	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.37	5.0	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.46	5.0	MRL	ng/kg	
	2,3,4,6,7,8-HxCDF	B J	0.18	5.0	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.53	5.0	MRL	ng/kg	
	OCDF	B J	3.9	9.9	MRL	ng/kg	

SAMPLE DELIVERY GROUP

280-35930-1

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Nov-2012	TB-111412	280-35930-1	TB	METHOD	8015B GRO	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5	280-35930-2	N	3546	8270C SIM	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5	280-35930-2	N	3550C	8015B EFH	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MS	280-35930-2MS	MS	3546	8270C SIM	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MS	280-35930-2MS	MS	3550C	8015B EFH	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MSD	280-35930-2MSD	MSD	3546	8270C SIM	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MSD	280-35930-2MSD	MSD	3550C	8015B EFH	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5	280-35930-3	N	3050B	6010C	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5	280-35930-3	N	3050B	6020A	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5	280-35930-3	N	3546	8082A	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5	280-35930-3	N	7471B	7471B	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MS	280-35930-3MS	MS	3050B	6010C	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MS	280-35930-3MS	MS	3050B	6020A	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MS	280-35930-3MS	MS	3546	8082A	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MS	280-35930-3MS	MS	7471B	7471B	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MSD	280-35930-3MSD	MSD	3050B	6010C	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MSD	280-35930-3MSD	MSD	3050B	6020A	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MSD	280-35930-3MSD	MSD	3546	8082A	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MSD	280-35930-3MSD	MSD	7471B	7471B	III
14-Nov-2012	SL-1010-SA6-SB-0.0-0.5	280-35930-4	FD	3546	8270C SIM	III
14-Nov-2012	SL-1010-SA6-SB-0.0-0.5	280-35930-4	FD	3550C	8015B EFH	III
14-Nov-2012	SL-1010-SA6-SB-0.0-0.5	280-35930-5	FD	3050B	6010C	III
14-Nov-2012	SL-1010-SA6-SB-0.0-0.5	280-35930-5	FD	3050B	6020A	III
14-Nov-2012	SL-1010-SA6-SB-0.0-0.5	280-35930-5	FD	3546	8082A	III
14-Nov-2012	SL-1010-SA6-SB-0.0-0.5	280-35930-5	FD	7471B	7471B	III
14-Nov-2012	SL-609-SA6-SB-0.0-0.5	280-35930-8	N	3546	8270C SIM	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Nov-2012	SL-609-SA6-SB-0.0-0.5	280-35930-8	N	3550C	8015B EFH	III
14-Nov-2012	SL-609-SA6-SB-0.0-0.5	280-35930-9	N	3050B	6010C	III
14-Nov-2012	SL-609-SA6-SB-0.0-0.5	280-35930-9	N	3050B	6020A	III
14-Nov-2012	SL-609-SA6-SB-0.0-0.5	280-35930-9	N	3546	8082A	III
14-Nov-2012	SL-609-SA6-SB-0.0-0.5	280-35930-9	N	7471B	7471B	III
14-Nov-2012	SL-597-SA6-SB-0.0-0.5	280-35930-6	N	3546	8270C SIM	III
14-Nov-2012	SL-597-SA6-SB-0.0-0.5	280-35930-6	N	3550C	8015B EFH	III
14-Nov-2012	SL-597-SA6-SB-0.0-0.5	280-35930-7	N	3050B	6010C	III
14-Nov-2012	SL-597-SA6-SB-0.0-0.5	280-35930-7	N	3050B	6020A	III
14-Nov-2012	SL-597-SA6-SB-0.0-0.5	280-35930-7	N	3546	8082A	III
14-Nov-2012	SL-597-SA6-SB-0.0-0.5	280-35930-7	N	7471B	7471B	III
14-Nov-2012	SL-587-SA6-SB-0.0-0.5	280-35930-10	N	3546	8270C SIM	III
14-Nov-2012	SL-587-SA6-SB-0.0-0.5	280-35930-10	N	3550C	8015B EFH	III
14-Nov-2012	SL-587-SA6-SB-0.0-0.5	280-35930-11	N	3050B	6010C	III
14-Nov-2012	SL-587-SA6-SB-0.0-0.5	280-35930-11	N	3050B	6020A	III
14-Nov-2012	SL-587-SA6-SB-0.0-0.5	280-35930-11	N	3546	8082A	III
14-Nov-2012	SL-587-SA6-SB-0.0-0.5	280-35930-11	N	7471B	7471B	III
14-Nov-2012	SL-587-SA6-SB-2.5	280-35930-14	N	5035	8015B GRO	III
14-Nov-2012	SL-587-SA6-SB-2.0-3.0	280-35930-12	N	3546	8270C SIM	III
14-Nov-2012	SL-587-SA6-SB-2.0-3.0	280-35930-12	N	3550C	8015B EFH	III
14-Nov-2012	SL-587-SA6-SB-2.0-3.0	280-35930-13	N	3050B	6010C	III
14-Nov-2012	SL-587-SA6-SB-2.0-3.0	280-35930-13	N	3050B	6020A	III
14-Nov-2012	SL-587-SA6-SB-2.0-3.0	280-35930-13	N	3546	8082A	III
14-Nov-2012	SL-587-SA6-SB-2.0-3.0	280-35930-13	N	7471B	7471B	III
14-Nov-2012	SL-605-SA6-SB-0.0-0.5	280-35930-15	N	3546	8270C SIM	III
14-Nov-2012	SL-605-SA6-SB-0.0-0.5	280-35930-15	N	3550C	8015B EFH	III

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Nov-2012	SL-605-SA6-SB-0.0-0.5	280-35930-16	N	3050B	6010C	III
14-Nov-2012	SL-605-SA6-SB-0.0-0.5	280-35930-16	N	3050B	6020A	III
14-Nov-2012	SL-605-SA6-SB-0.0-0.5	280-35930-16	N	3546	8082A	III
14-Nov-2012	SL-605-SA6-SB-0.0-0.5	280-35930-16	N	7471B	7471B	III
14-Nov-2012	FB-111412	280-35930-17	FB	3010A	6010C	III
14-Nov-2012	FB-111412	280-35930-17	FB	3020A	6020A	III
14-Nov-2012	FB-111412	280-35930-17	FB	3510C	8015B	III
14-Nov-2012	FB-111412	280-35930-17	FB	3510C	8015B EFH	III
14-Nov-2012	FB-111412	280-35930-17	FB	3510C	8081B	III
14-Nov-2012	FB-111412	280-35930-17	FB	3510C	8082A	III
14-Nov-2012	FB-111412	280-35930-17	FB	3510C	8270C SIM	III
14-Nov-2012	FB-111412	280-35930-17	FB	3535	8330A	III
14-Nov-2012	FB-111412	280-35930-17	FB	7470A	7470A	III
14-Nov-2012	FB-111412	280-35930-17	FB	8151A	8151A	III
14-Nov-2012	FB-111412	280-35930-17	FB	8315_W_Prep	8315A	III
14-Nov-2012	FB-111412	280-35930-17	FB	METHOD	6860	III
14-Nov-2012	FB-111412	280-35930-17	FB	METHOD	7199	III
14-Nov-2012	FB-111412	280-35930-17	FB	METHOD	8015B GRO	III
14-Nov-2012	FB-111412	280-35930-17	FB	METHOD	8015C	III
14-Nov-2012	FB-111412	280-35930-17	FB	METHOD	8260B	III
14-Nov-2012	FB-111412	280-35930-17	FB	METHOD	8260B SIM	III
14-Nov-2012	FB-111412MS	280-35930-17MS	MS	METHOD	8015C	III
14-Nov-2012	FB-111412MSD	280-35930-17MSD	MSD	METHOD	8015C	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: AQ

Sample ID: FB-111412

Collected: 11/14/2012 3:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.024	J B	0.0044	MDL	0.10	MRL	mg/L	U	B
SODIUM	0.17	J B	0.092	MDL	1.0	MRL	mg/L	U	B, B

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-1010-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:15:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.4	MDL	19000	MRL	mg/Kg	J	Z
IRON	19000		3.5	MDL	32	MRL	mg/Kg	J	A
LITHIUM	21	J ^	0.28	MDL	34	MRL	mg/Kg	J	Z
POTASSIUM	4300	J	38	MDL	5900	MRL	mg/Kg	J	Z
SODIUM	79	J ^	55	MDL	460	MRL	mg/Kg	J	Z
Zirconium	1.2	J	0.33	MDL	8.0	MRL	mg/Kg	U	B

Sample ID: SL-1010-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:15:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.5	J	0.91	MDL	9.0	MRL	mg/Kg	U	F
MANGANESE	330	J	0.093	MDL	460	MRL	mg/Kg	J	Z
TIN	1.5	J	0.85	MDL	10	MRL	mg/Kg	J	Z

Sample ID: SL-587-SA6-SB-0.0-0.5

Collected: 11/14/2012 1:40:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	12000	J	1.3	MDL	17000	MRL	mg/Kg	J	Z
IRON	16000		3.3	MDL	29	MRL	mg/Kg	J	A
LITHIUM	19	J ^	0.26	MDL	32	MRL	mg/Kg	J	Z
POTASSIUM	2700	J	35	MDL	5500	MRL	mg/Kg	J	Z
SODIUM	86	J ^	51	MDL	430	MRL	mg/Kg	J	Z
Zirconium	0.65	J	0.31	MDL	7.4	MRL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-587-SA6-SB-0.0-0.5

Collected: 11/14/2012 1:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.3	J	0.84	MDL	8.4	MRL	mg/Kg	U	F
MANGANESE	250	J	0.086	MDL	430	MRL	mg/Kg	J	Z
TIN	1.3	J	0.79	MDL	9.4	MRL	mg/Kg	J	Z

Sample ID: SL-587-SA6-SB-2.0-3.0

Collected: 11/14/2012 2:15:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	16000	J	1.4	MDL	18000	MRL	mg/Kg	J	Z
IRON	19000		3.5	MDL	31	MRL	mg/Kg	J	A
LITHIUM	22	J ^	0.27	MDL	34	MRL	mg/Kg	J	Z
POTASSIUM	2600	J	37	MDL	5800	MRL	mg/Kg	J	Z
SODIUM	84	J ^	54	MDL	460	MRL	mg/Kg	J	Z
Zirconium	0.57	J	0.32	MDL	7.8	MRL	mg/Kg	U	B

Sample ID: SL-587-SA6-SB-2.0-3.0

Collected: 11/14/2012 2:15:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.1	J	0.89	MDL	8.8	MRL	mg/Kg	U	F
MANGANESE	260	J	0.091	MDL	450	MRL	mg/Kg	J	Z
TIN	1.5	J	0.83	MDL	9.9	MRL	mg/Kg	J	Z

Sample ID: SL-597-SA6-SB-0.0-0.5

Collected: 11/14/2012 10:57:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
IRON	20000		3.7	MDL	33	MRL	mg/Kg	J	A
LITHIUM	22	J ^	0.29	MDL	36	MRL	mg/Kg	J	Z
POTASSIUM	4400	J	40	MDL	6200	MRL	mg/Kg	J	Z
SODIUM	110	J ^	57	MDL	480	MRL	mg/Kg	J	Z
Zirconium	1.7	J	0.34	MDL	8.3	MRL	mg/Kg	J	Z

Sample ID: SL-597-SA6-SB-0.0-0.5

Collected: 11/14/2012 10:57:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.1	J	0.95	MDL	9.4	MRL	mg/Kg	U	F

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-597-SA6-SB-0.0-0.5

Collected: 11/14/2012 10:57:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	340	J	0.097	MDL	480	MRL	mg/Kg	J	Z
TIN	1.7	J	0.88	MDL	11	MRL	mg/Kg	J	Z

Sample ID: SL-605-SA6-SB-0.0-0.5

Collected: 11/14/2012 3:00:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	15000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
IRON	23000		3.6	MDL	32	MRL	mg/Kg	J	A
LITHIUM	22	J ^	0.28	MDL	35	MRL	mg/Kg	J	Z
POTASSIUM	4200	J	39	MDL	6100	MRL	mg/Kg	J	Z
SODIUM	110	J ^	56	MDL	470	MRL	mg/Kg	J	Z
Zirconium	0.90	J	0.33	MDL	8.1	MRL	mg/Kg	U	B

Sample ID: SL-605-SA6-SB-0.0-0.5

Collected: 11/14/2012 3:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.8	J	0.93	MDL	9.2	MRL	mg/Kg	U	F
MANGANESE	330	J	0.095	MDL	470	MRL	mg/Kg	J	Z
TIN	2.1	J	0.86	MDL	10	MRL	mg/Kg	J	Z

Sample ID: SL-609-SA6-SB-0.0-0.5

Collected: 11/14/2012 9:35:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.4	MDL	18000	MRL	mg/Kg	J	Z
IRON	18000		3.5	MDL	31	MRL	mg/Kg	J	A
LITHIUM	19	J ^	0.28	MDL	34	MRL	mg/Kg	J	Z
POTASSIUM	4000	J	38	MDL	5900	MRL	mg/Kg	J	Z
SODIUM	88	J ^	54	MDL	460	MRL	mg/Kg	J	Z
Zirconium	1.1	J	0.33	MDL	7.9	MRL	mg/Kg	U	B

Sample ID: SL-609-SA6-SB-0.0-0.5

Collected: 11/14/2012 9:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.9	J	0.90	MDL	8.9	MRL	mg/Kg	U	F
MANGANESE	330	J	0.092	MDL	460	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6010C

Matrix: SO

Sample ID: SL-609-SA6-SB-0.0-0.5

Collected: 11/14/2012 9:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	1.6	J	0.84	MDL	10	MRL	mg/Kg	J	Z

Sample ID: SL-610-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:00:00

Analysis Type: RE2/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	13000	J	1.5	MDL	19000	MRL	mg/Kg	J	Z
BORON	2.0	J	0.92	MDL	9.1	MRL	mg/Kg	U	B, F
Zirconium	1.3	J	0.33	MDL	8.1	MRL	mg/Kg	U	B

Sample ID: SL-610-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	19000		3.6	MDL	32	MRL	mg/Kg	J	A
LITHIUM	20	J	0.28	MDL	35	MRL	mg/Kg	J	Z
MANGANESE	310	J	0.094	MDL	470	MRL	mg/Kg	J	Z
POTASSIUM	4000	J	39	MDL	6000	MRL	mg/Kg	J	Z
SODIUM	87	J	55	MDL	470	MRL	mg/Kg	J	Z
TIN	1.4	J	0.86	MDL	10	MRL	mg/Kg	J	Z

Method Category: METALS

Method: 6020A

Matrix: AQ

Sample ID: FB-111412

Collected: 11/14/2012 3:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.00078	J	0.00003 3	MDL	0.0050	MRL	mg/L	J	Z

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-1010-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:15:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.022	J	0.013	MDL	8.1	MRL	mg/Kg	J	Z, E, Q

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-1010-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:15:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.6	J	0.047	MDL	14	MRL	mg/Kg	J	Z
BARIUM	100	J	0.065	MDL	130	MRL	mg/Kg	J	Z
BERYLLIUM	0.63	J	0.021	MDL	1.0	MRL	mg/Kg	J	Z
CADMIUM	0.39	J	0.0087	MDL	0.93	MRL	mg/Kg	J	Z
CHROMIUM	20	J	0.071	MDL	34	MRL	mg/Kg	J	Z
COBALT	6.2	J	0.0062	MDL	20	MRL	mg/Kg	J	Z
COPPER	11	J B	0.066	MDL	27	MRL	mg/Kg	J	Z
LEAD	9.4	J	0.017	MDL	32	MRL	mg/Kg	J	Z
MOLYBDENUM	0.44	J	0.016	MDL	4.9	MRL	mg/Kg	J	Z
NICKEL	14	J	0.024	MDL	27	MRL	mg/Kg	J	Z
SILVER	0.11	J	0.019	MDL	0.73	MRL	mg/Kg	U	F
THALLIUM	0.28	J	0.0033	MDL	0.43	MRL	mg/Kg	J	Z
VANADIUM	32	J	0.036	MDL	58	MRL	mg/Kg	J	Z
ZINC	60	J	0.29	MDL	100	MRL	mg/Kg	J	Z

Sample ID: SL-587-SA6-SB-0.0-0.5

Collected: 11/14/2012 1:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.022	J	0.014	MDL	8.8	MRL	mg/Kg	J	Z, E, Q
ARSENIC	3.3	J	0.051	MDL	15	MRL	mg/Kg	J	Z
BARIUM	83	J	0.072	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.49	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.27	J	0.0095	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	17	J	0.077	MDL	37	MRL	mg/Kg	J	Z
COBALT	5.0	J	0.0067	MDL	21	MRL	mg/Kg	J	Z
COPPER	8.7	J B	0.072	MDL	29	MRL	mg/Kg	J	Z
LEAD	12	J	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.42	J	0.018	MDL	5.4	MRL	mg/Kg	J	Z
NICKEL	11	J	0.026	MDL	29	MRL	mg/Kg	J	Z
SILVER	0.085	J	0.021	MDL	0.80	MRL	mg/Kg	U	F
THALLIUM	0.22	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	28	J	0.039	MDL	63	MRL	mg/Kg	J	Z
ZINC	67	J	0.32	MDL	110	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-587-SA6-SB-2.0-3.0

Collected: 11/14/2012 2:15:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.017	J	0.014	MDL	9.0	MRL	mg/Kg	J	Z, E, Q
ARSENIC	3.7	J	0.052	MDL	15	MRL	mg/Kg	J	Z
BARIUM	86	J	0.073	MDL	140	MRL	mg/Kg	J	Z
BERYLLIUM	0.62	J	0.023	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.22	J	0.0097	MDL	1.0	MRL	mg/Kg	J	Z
CHROMIUM	19	J	0.078	MDL	38	MRL	mg/Kg	J	Z
COBALT	5.5	J	0.0068	MDL	22	MRL	mg/Kg	J	Z
COPPER	9.5	J B	0.073	MDL	30	MRL	mg/Kg	J	Z
LEAD	7.9	J	0.019	MDL	35	MRL	mg/Kg	J	Z
MOLYBDENUM	0.52	J	0.018	MDL	5.5	MRL	mg/Kg	J	Z
NICKEL	13	J	0.026	MDL	30	MRL	mg/Kg	J	Z
SILVER	0.062	J	0.021	MDL	0.81	MRL	mg/Kg	U	F
THALLIUM	0.22	J	0.0036	MDL	0.47	MRL	mg/Kg	J	Z
VANADIUM	32	J	0.040	MDL	64	MRL	mg/Kg	J	Z
ZINC	54	J	0.33	MDL	110	MRL	mg/Kg	J	Z

Sample ID: SL-597-SA6-SB-0.0-0.5

Collected: 11/14/2012 10:57:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.031	J	0.012	MDL	7.6	MRL	mg/Kg	J	Z, E, Q
ARSENIC	3.6	J	0.044	MDL	13	MRL	mg/Kg	J	Z
BARIUM	100	J	0.062	MDL	120	MRL	mg/Kg	J	Z
BERYLLIUM	0.63	J	0.020	MDL	0.96	MRL	mg/Kg	J	Z
CADMIUM	0.71	J	0.0082	MDL	0.88	MRL	mg/Kg	J	Z
CHROMIUM	21	J	0.067	MDL	32	MRL	mg/Kg	J	Z
COBALT	5.9	J	0.0058	MDL	18	MRL	mg/Kg	J	Z
COPPER	13	J B	0.062	MDL	25	MRL	mg/Kg	J	Z
LEAD	19	J	0.016	MDL	30	MRL	mg/Kg	J	Z
MOLYBDENUM	0.50	J	0.015	MDL	4.6	MRL	mg/Kg	J	Z
NICKEL	15	J	0.022	MDL	25	MRL	mg/Kg	J	Z
SILVER	0.41	J	0.018	MDL	0.69	MRL	mg/Kg	J	Z
THALLIUM	0.26	J	0.0031	MDL	0.40	MRL	mg/Kg	J	Z
VANADIUM	31	J	0.034	MDL	54	MRL	mg/Kg	J	Z
ZINC	86	J	0.28	MDL	96	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-605-SA6-SB-0.0-0.5

Collected: 11/14/2012 3:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.061	J	0.013	MDL	7.9	MRL	mg/Kg	J	Z, E, Q
ARSENIC	5.0	J	0.046	MDL	14	MRL	mg/Kg	J	Z
BARIUM	110	J	0.064	MDL	130	MRL	mg/Kg	J	Z
BERYLLIUM	0.71	J	0.020	MDL	0.99	MRL	mg/Kg	J	Z
CHROMIUM	29	J	0.069	MDL	33	MRL	mg/Kg	J	Z
COBALT	8.1	J	0.0060	MDL	19	MRL	mg/Kg	J	Z
MOLYBDENUM	0.86	J	0.016	MDL	4.8	MRL	mg/Kg	J	Z
THALLIUM	0.29	J	0.0032	MDL	0.42	MRL	mg/Kg	J	Z
VANADIUM	38	J	0.035	MDL	56	MRL	mg/Kg	J	Z

Sample ID: SL-609-SA6-SB-0.0-0.5

Collected: 11/14/2012 9:35:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.031	J	0.012	MDL	7.4	MRL	mg/Kg	J	Z, E, Q
ARSENIC	3.3	J	0.043	MDL	13	MRL	mg/Kg	J	Z
BARIUM	110	J	0.060	MDL	120	MRL	mg/Kg	J	Z
BERYLLIUM	0.59	J	0.019	MDL	0.93	MRL	mg/Kg	J	Z
CADMIUM	0.71	J	0.0079	MDL	0.85	MRL	mg/Kg	J	Z
CHROMIUM	20	J	0.064	MDL	31	MRL	mg/Kg	J	Z
COBALT	6.0	J	0.0056	MDL	18	MRL	mg/Kg	J	Z
COPPER	14	J B	0.060	MDL	25	MRL	mg/Kg	J	Z
LEAD	13	J	0.015	MDL	29	MRL	mg/Kg	J	Z
MOLYBDENUM	0.57	J	0.015	MDL	4.5	MRL	mg/Kg	J	Z
NICKEL	15	J	0.021	MDL	25	MRL	mg/Kg	J	Z
SILVER	0.30	J	0.017	MDL	0.67	MRL	mg/Kg	J	Z
THALLIUM	0.26	J	0.0030	MDL	0.39	MRL	mg/Kg	J	Z
VANADIUM	31	J	0.033	MDL	52	MRL	mg/Kg	J	Z
ZINC	76	J	0.27	MDL	93	MRL	mg/Kg	J	Z

Sample ID: SL-610-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.021	J	0.014	MDL	8.6	MRL	mg/Kg	J	Z, E, Q
ARSENIC	3.7	J	0.050	MDL	15	MRL	mg/Kg	J	Z
BARIUM	97	J	0.069	MDL	140	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: METALS

Method: 6020A

Matrix: SO

Sample ID: SL-610-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:00:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.59	J	0.022	MDL	1.1	MRL	mg/Kg	J	Z
CADMIUM	0.34	J	0.0092	MDL	0.99	MRL	mg/Kg	J	Z
CHROMIUM	19	J	0.075	MDL	36	MRL	mg/Kg	J	Z
COBALT	6.0	J	0.0065	MDL	21	MRL	mg/Kg	J	Z
COPPER	11	J B	0.070	MDL	29	MRL	mg/Kg	J	Z
LEAD	8.7	J	0.018	MDL	33	MRL	mg/Kg	J	Z
MOLYBDENUM	0.43	J	0.017	MDL	5.2	MRL	mg/Kg	J	Z
NICKEL	14	J	0.025	MDL	29	MRL	mg/Kg	J	Z
SILVER	0.11	J	0.020	MDL	0.78	MRL	mg/Kg	U	F
THALLIUM	0.27	J	0.0035	MDL	0.45	MRL	mg/Kg	J	Z
VANADIUM	31	J	0.038	MDL	61	MRL	mg/Kg	J	Z
ZINC	58	J	0.31	MDL	110	MRL	mg/Kg	J	Z

Method Category: METALS

Method: 7471B

Matrix: SO

Sample ID: SL-1010-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:15:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.015	J	0.0062	MDL	0.023	MRL	mg/Kg	J	Z

Sample ID: SL-587-SA6-SB-0.0-0.5

Collected: 11/14/2012 1:40:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.014	J	0.0057	MDL	0.021	MRL	mg/Kg	J	Z

Sample ID: SL-587-SA6-SB-2.0-3.0

Collected: 11/14/2012 2:15:00

Analysis Type: RES/TOT

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0099	J	0.0061	MDL	0.022	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category:	SVOA
Method:	8015B EFH
Matrix:	SO

Sample ID: SL-1010-SA6-SB-0.0-0.5			Collected: 11/14/2012 8:15:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	3.2	J	1.0	MDL	5.0	MRL	mg/Kg	J	Z

Sample ID: SL-587-SA6-SB-0.0-0.5			Collected: 11/14/2012 1:40:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	3.4	J	0.99	MDL	5.0	MRL	mg/Kg	J	Z

Sample ID: SL-587-SA6-SB-2.0-3.0			Collected: 11/14/2012 2:15:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	1.7	J	0.96	MDL	4.8	MRL	mg/Kg	J	Z
EFH(C30-C40)	6.0	J	0.96	MDL	9.6	MRL	mg/Kg	J	Z

Sample ID: SL-597-SA6-SB-0.0-0.5			Collected: 11/14/2012 10:57:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.5	J	0.93	MDL	4.7	MRL	mg/Kg	J	Z

Sample ID: SL-605-SA6-SB-0.0-0.5			Collected: 11/14/2012 3:00:00		Analysis Type: RES			Dilution: 4	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	5.3	J	3.9	MDL	19	MRL	mg/Kg	J	Z

Sample ID: SL-609-SA6-SB-0.0-0.5			Collected: 11/14/2012 9:35:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C15-C20)	1.0	J	0.98	MDL	4.9	MRL	mg/Kg	J	Z

Sample ID: SL-610-SA6-SB-0.0-0.5			Collected: 11/14/2012 8:00:00		Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	2.8	J	1.0	MDL	5.1	MRL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8082A

Matrix: SO

Sample ID: SL-1010-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:15:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	13	J	5.1	MDL	16	MRL	ug/Kg	J	Z

Sample ID: SL-597-SA6-SB-0.0-0.5

Collected: 11/14/2012 10:57:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	43	J	17	MDL	51	MRL	ug/Kg	J	Z

Sample ID: SL-610-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:00:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	13	J	5.3	MDL	16	MRL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM

Matrix: AQ

Sample ID: FB-111412

Collected: 11/14/2012 3:00:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.010	J	0.0057	MDL	0.10	MRL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.013	J	0.0052	MDL	0.10	MRL	ug/L	J	Z
NAPHTHALENE	0.054	J	0.0053	MDL	0.10	MRL	ug/L	J	Z
PHENANTHRENE	0.025	J	0.0098	MDL	0.10	MRL	ug/L	J	Z
PYRENE	0.014	J B	0.0081	MDL	0.10	MRL	ug/L	U	B

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-1010-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:15:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.26	U	0.26	MDL	9.8	MRL	ug/Kg	UJ	FD
2-METHYLNAPHTHALENE	0.34	J	0.30	MDL	9.8	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.28	J	0.17	MDL	9.8	MRL	ug/Kg	J	Z, FD
ANTHRACENE	0.71	U	0.71	MDL	9.8	MRL	ug/Kg	UJ	FD
BENZO(A)ANTHRACENE	1.0	J	0.88	MDL	9.8	MRL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-1010-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:15:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	1.2	J	0.73	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	5.1	J	1.2	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.3	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.4	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
CHRYSENE	5.1	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
FLUORANTHENE	7.3	J	0.98	MDL	9.8	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.5	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
NAPHTHALENE	0.55	J B	0.32	MDL	9.8	MRL	ug/Kg	U	B
PHENANTHRENE	4.1	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
PYRENE	5.9	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z

Sample ID: SL-587-SA6-SB-0.0-0.5

Collected: 11/14/2012 1:40:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.44	J	0.25	MDL	9.8	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.66	J	0.30	MDL	9.8	MRL	ug/Kg	J	Z
ACENAPHTHENE	0.40	J	0.16	MDL	9.8	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	1.5	J	0.17	MDL	9.8	MRL	ug/Kg	J	Z
ANTHRACENE	5.9	J	0.70	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	9.7	J	0.88	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(A)PYRENE	8.2	J	0.72	MDL	9.8	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.0	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.5	J	1.3	MDL	9.8	MRL	ug/Kg	J	Z
FLUORENE	0.60	J	0.46	MDL	9.8	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	8.1	J	1.1	MDL	9.8	MRL	ug/Kg	J	Z
NAPHTHALENE	0.97	J B	0.32	MDL	9.8	MRL	ug/Kg	U	B

Sample ID: SL-587-SA6-SB-2.0-3.0

Collected: 11/14/2012 2:15:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.36	J	0.31	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHENE	0.27	J	0.16	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.83	J	0.17	MDL	10	MRL	ug/Kg	J	Z
ANTHRACENE	3.0	J	0.72	MDL	10	MRL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	4.4	J	0.90	MDL	10	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-587-SA6-SB-2.0-3.0

Collected: 11/14/2012 2:15:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	3.1	J	0.74	MDL	10	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.9	J	1.1	MDL	10	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	5.0	J	1.0	MDL	10	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	2.9	J	1.1	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	0.56	J B	0.32	MDL	10	MRL	ug/Kg	U	B

Sample ID: SL-597-SA6-SB-0.0-0.5

Collected: 11/14/2012 10:57:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.2	J	0.24	MDL	9.4	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	2.0	J	0.29	MDL	9.4	MRL	ug/Kg	J	Z
ACENAPHTHENE	0.75	J	0.15	MDL	9.4	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	1.4	J	0.16	MDL	9.4	MRL	ug/Kg	J	Z
ANTHRACENE	8.4	J	0.67	MDL	9.4	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	7.3	J	1.2	MDL	9.4	MRL	ug/Kg	J	Z
FLUORENE	1.5	J	0.44	MDL	9.4	MRL	ug/Kg	J	Z
NAPHTHALENE	3.3	J B	0.31	MDL	9.4	MRL	ug/Kg	U	B

Sample ID: SL-605-SA6-SB-0.0-0.5

Collected: 11/14/2012 3:00:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	6.8	J	0.27	MDL	10	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	8.1	J	0.32	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHENE	2.7	J	0.16	MDL	10	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	5.1	J	0.18	MDL	10	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	7.5	J	1.3	MDL	10	MRL	ug/Kg	J	Z
FLUORENE	3.2	J	0.48	MDL	10	MRL	ug/Kg	J	Z
NAPHTHALENE	9.0	J B	0.34	MDL	10	MRL	ug/Kg	J	Z

Sample ID: SL-609-SA6-SB-0.0-0.5

Collected: 11/14/2012 9:35:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.62	J	0.25	MDL	9.6	MRL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.2	J	0.30	MDL	9.6	MRL	ug/Kg	J	Z
ACENAPHTHENE	0.34	J	0.15	MDL	9.6	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8270C SIM

Matrix: SO

Sample ID: SL-609-SA6-SB-0.0-0.5

Collected: 11/14/2012 9:35:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.35	J	0.16	MDL	9.6	MRL	ug/Kg	J	Z
ANTHRACENE	1.4	J	0.69	MDL	9.6	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	7.8	J	1.1	MDL	9.6	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	5.1	J	0.96	MDL	9.6	MRL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	2.0	J	1.2	MDL	9.6	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	7.7	J	1.1	MDL	9.6	MRL	ug/Kg	J	Z
NAPHTHALENE	1.8	J B	0.31	MDL	9.6	MRL	ug/Kg	U	B
PHENANTHRENE	7.5	J	1.1	MDL	9.6	MRL	ug/Kg	J	Z

Sample ID: SL-610-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:00:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.25	J	0.24	MDL	9.3	MRL	ug/Kg	J	Z, FD
2-METHYLNAPHTHALENE	0.41	J	0.29	MDL	9.3	MRL	ug/Kg	J	Z
ACENAPHTHYLENE	0.16	U	0.16	MDL	9.3	MRL	ug/Kg	UJ	FD
ANTHRACENE	0.94	J	0.67	MDL	9.3	MRL	ug/Kg	J	Z, FD
BENZO(A)ANTHRACENE	2.0	J	0.84	MDL	9.3	MRL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	2.0	J	0.69	MDL	9.3	MRL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	5.8	J	1.1	MDL	9.3	MRL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	2.1	J	1.0	MDL	9.3	MRL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.8	J	0.93	MDL	9.3	MRL	ug/Kg	J	Z
CHRYSENE	5.9	J	0.93	MDL	9.3	MRL	ug/Kg	J	Z
FLUORANTHENE	6.8	J	0.93	MDL	9.3	MRL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	2.0	J	1.0	MDL	9.3	MRL	ug/Kg	J	Z
NAPHTHALENE	0.66	J B	0.30	MDL	9.3	MRL	ug/Kg	U	B
PHENANTHRENE	3.0	J	1.0	MDL	9.3	MRL	ug/Kg	J	Z
PYRENE	5.9	J	1.0	MDL	9.3	MRL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 8330A

Matrix: AQ

Sample ID: FB-111412

Collected: 11/14/2012 3:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,6-TRINITROTOLUENE	0.14	J	0.077	MDL	0.43	MRL	ug/L	J	Z
2-AMINO-4,6-DINITROTOLUENE	0.054	U *	0.054	MDL	0.21	MRL	ug/L	UJ	E
NITROBENZENE	0.36	J	0.097	MDL	0.43	MRL	ug/L	J	Z

Method Category: VOA

Method: 8260B

Matrix: AQ

Sample ID: FB-111412

Collected: 11/14/2012 3:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IODOMETHANE	0.27	J B	0.23	MDL	1.0	MRL	ug/L	U	B
TOLUENE	0.28	J B	0.17	MDL	1.0	MRL	ug/L	U	B

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Laboratory Control Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination
FD	Field Duplicate Precision
L	Laboratory Control Precision
L	Laboratory Control Spike Upper Estimation
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35930-1

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-148014/1-A	11/20/2012 10:19:00 PM	BORON SODIUM	0.0379 mg/L 0.166 mg/L	FB-111412

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FB-111412(RES/TOT)	BORON	0.024 mg/L	0.024U mg/L
FB-111412(RES/TOT)	SODIUM	0.17 mg/L	0.17U mg/L

Method: 6020A Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-148154/1-A	11/20/2012 11:52:00 PM	COPPER	0.0757 mg/Kg	SL-1010-SA6-SB-0.0-0.5 SL-587-SA6-SB-0.0-0.5 SL-587-SA6-SB-2.0-3.0 SL-597-SA6-SB-0.0-0.5 SL-605-SA6-SB-0.0-0.5 SL-609-SA6-SB-0.0-0.5 SL-610-SA6-SB-0.0-0.5

Method: 8015B EFH Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-148013/1-A	11/21/2012 3:03:00 AM	TOTAL EFH(C8-C40)	0.804 mg/Kg	SL-1010-SA6-SB-0.0-0.5 SL-587-SA6-SB-0.0-0.5 SL-587-SA6-SB-2.0-3.0 SL-597-SA6-SB-0.0-0.5 SL-605-SA6-SB-0.0-0.5 SL-609-SA6-SB-0.0-0.5 SL-610-SA6-SB-0.0-0.5

Method: 8260B Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-149086/5	11/26/2012 7:41:00 AM	1,2,3-TRICHLOROBENZENE Iodomethane Methylene Chloride Toluene	0.236 ug/L 0.264 ug/L 0.700 ug/L 0.297 ug/L	FB-111412

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Method Blank Outlier Report

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8260B				
Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FB-111412(RES)	IODOMETHANE	0.27 ug/L	1.0U ug/L
FB-111412(RES)	TOLUENE	0.28 ug/L	1.0U ug/L

Method: 8270C SIM				
Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-147777/1-A	11/17/2012 11:04:00 AM	PYRENE	0.0116 ug/L	FB-111412

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FB-111412(RES)	PYRENE	0.014 ug/L	0.10U ug/L

Method: 8270C SIM				
Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-148281/1-A	11/21/2012 8:26:00 AM	NAPHTHALENE	0.830 ug/Kg	SL-1010-SA6-SB-0.0-0.5 SL-587-SA6-SB-0.0-0.5 SL-587-SA6-SB-2.0-3.0 SL-597-SA6-SB-0.0-0.5 SL-605-SA6-SB-0.0-0.5 SL-609-SA6-SB-0.0-0.5 SL-610-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-1010-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.55 ug/Kg	9.8U ug/Kg
SL-587-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.97 ug/Kg	9.8U ug/Kg
SL-587-SA6-SB-2.0-3.0(RES)	NAPHTHALENE	0.56 ug/Kg	10U ug/Kg
SL-597-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	3.3 ug/Kg	9.4U ug/Kg
SL-609-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	1.8 ug/Kg	9.6U ug/Kg
SL-610-SA6-SB-0.0-0.5(RES)	NAPHTHALENE	0.66 ug/Kg	9.3U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8330A				
Matrix: AQ				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
MB 280-147754/1-A	11/21/2012 5:50:00 PM	2-AMINO-4,6-DINITROTOLUENE PETN	0.0630 ug/L 10.3 ug/L	FB-111412

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C
Matrix: SO

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-111512(RES/TOT)	11/15/2012 3:00:00 PM	BORON SODIUM	0.035 mg/L 0.15 mg/L	SL-1010-SA6-SB-0.0-0.5 SL-587-SA6-SB-0.0-0.5 SL-587-SA6-SB-2.0-3.0 SL-587-SA6-SB-2.5 SL-597-SA6-SB-0.0-0.5 SL-605-SA6-SB-0.0-0.5 SL-609-SA6-SB-0.0-0.5 SL-610-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-1010-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.5 mg/Kg	1.5U mg/Kg
SL-587-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.3 mg/Kg	1.3U mg/Kg
SL-587-SA6-SB-2.0-3.0(RES/TOT)	BORON	1.1 mg/Kg	1.1U mg/Kg
SL-597-SA6-SB-0.0-0.5(RES/TOT)	BORON	4.1 mg/Kg	4.1U mg/Kg
SL-605-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.8 mg/Kg	1.8U mg/Kg
SL-609-SA6-SB-0.0-0.5(RES/TOT)	BORON	1.9 mg/Kg	1.9U mg/Kg
SL-610-SA6-SB-0.0-0.5(RES/TOT)	BORON	2.0 mg/Kg	2.0U mg/Kg

Method: 6020A
Matrix: SO

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-111512(RES/TOT)	11/15/2012 3:00:00 PM	SILVER	0.00043 mg/L	SL-1010-SA6-SB-0.0-0.5 SL-587-SA6-SB-0.0-0.5 SL-587-SA6-SB-2.0-3.0 SL-587-SA6-SB-2.5 SL-597-SA6-SB-0.0-0.5 SL-605-SA6-SB-0.0-0.5 SL-609-SA6-SB-0.0-0.5 SL-610-SA6-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-1010-SA6-SB-0.0-0.5(RES/TOT)	SILVER	0.11 mg/Kg	0.11U mg/Kg
SL-587-SA6-SB-0.0-0.5(RES/TOT)	SILVER	0.085 mg/Kg	0.085U mg/Kg
SL-587-SA6-SB-2.0-3.0(RES/TOT)	SILVER	0.062 mg/Kg	0.062U mg/Kg
SL-610-SA6-SB-0.0-0.5(RES/TOT)	SILVER	0.11 mg/Kg	0.11U mg/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-610-SA6-SB-0.0-0.5MS (TOT)	ALUMINUM	2139	1938	75.00-125.00	-	ALUMINUM	No Qual, >4x
SL-610-SA6-SB-0.0-0.5MSD (TOT)	IRON	634	-	75.00-125.00	-	IRON	
(SL-1010-SA6-SB-0.0-0.5	TITANIUM	196	175	75.00-125.00	-	TITANIUM	
SL-587-SA6-SB-0.0-0.5							
SL-587-SA6-SB-2.0-3.0							
SL-597-SA6-SB-0.0-0.5							
SL-605-SA6-SB-0.0-0.5							
SL-609-SA6-SB-0.0-0.5							
SL-610-SA6-SB-0.0-0.5)							

Method: 6020A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-610-SA6-SB-0.0-0.5MS (TOT)	ANTIMONY	5	5	75.00-125.00	23 (20.00)	ANTIMONY	J(all detects) UJ(all non-detects) Post Spike = 100%
SL-610-SA6-SB-0.0-0.5MSD (TOT)							
(SL-1010-SA6-SB-0.0-0.5							
SL-587-SA6-SB-0.0-0.5							
SL-587-SA6-SB-2.0-3.0							
SL-597-SA6-SB-0.0-0.5							
SL-605-SA6-SB-0.0-0.5							
SL-609-SA6-SB-0.0-0.5							
SL-610-SA6-SB-0.0-0.5)							

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8330A

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS 280-147754/2-A (FB-111412)	3-NITROTOLUENE PETN	125 117	- -	30.00-115.00 67.00-115.00	- -	3-NITROTOLUENE PETN	J (all detects)
LCSD 280-147754/3-A (FB-111412)	2-AMINO-4,6-DINITROTOLUENE	-	-	75.00-115.00	19 (18.00)	2-AMINO-4,6-DINITROTOLUEN	J(all detects) UJ(all non-detects)

Method: 8260B

Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS 280-149086/4 (FB-111412)	VINYL ACETATE	296	-	63.00-150.00	-	VINYL ACETATE	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-610-SA6-SB-0.0-0.5 (TOT)	SL-1010-SA6-SB-0.0-0.5 (TOT)			
ALUMINUM	13000	13000	0	50.00	No Qualifiers Applied
BORON	2.0	1.5	29	50.00	
CALCIUM	2500	2600	4	50.00	
IRON	19000	19000	0	50.00	
LITHIUM	20	21	5	50.00	
MAGNESIUM	4200	4200	0	50.00	
MANGANESE	310	330	6	50.00	
PHOSPHORUS	490	480	2	50.00	
POTASSIUM	4000	4300	7	50.00	
SODIUM	87	79	10	50.00	
STRONTIUM	16	18	12	50.00	
TIN	1.4	1.5	7	50.00	
TITANIUM	840	850	1	50.00	
Zirconium	1.3	1.2	8	50.00	

Method: 6020A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-610-SA6-SB-0.0-0.5 (TOT)	SL-1010-SA6-SB-0.0-0.5 (TOT)			
ANTIMONY	0.021	0.022	5	50.00	No Qualifiers Applied
ARSENIC	3.7	3.6	3	50.00	
BARIUM	97	100	3	50.00	
BERYLLIUM	0.59	0.63	7	50.00	
CADMIUM	0.34	0.39	14	50.00	
CHROMIUM	19	20	5	50.00	
COBALT	6.0	6.2	3	50.00	
COPPER	11	11	0	50.00	
LEAD	8.7	9.4	8	50.00	
MOLYBDENUM	0.43	0.44	2	50.00	
NICKEL	14	14	0	50.00	
SELENIUM	0.66	0.66	0	50.00	
SILVER	0.11	0.11	0	50.00	
THALLIUM	0.27	0.28	4	50.00	
VANADIUM	31	32	3	50.00	
ZINC	58	60	3	50.00	

Method: 7471B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-610-SA6-SB-0.0-0.5 (TOT)	SL-1010-SA6-SB-0.0-0.5 (TOT)			
MERCURY	0.021	0.015	33	50.00	No Qualifiers Applied

Method: 8015B EFH

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-610-SA6-SB-0.0-0.5	SL-1010-SA6-SB-0.0-0.5			
EFH(C21-C30)	2.8	3.2	13	50.00	No Qualifiers Applied
EFH(C30-C40)	10	13	26	50.00	
TOTAL EFH(C8-C40)	13	16	21	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8082A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-610-SA6-SB-0.0-0.5	SL-1010-SA6-SB-0.0-0.5			
AROCLOR 1254	13	13	0	50.00	No Qualifiers Applied

Method: 8270C SIM

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-610-SA6-SB-0.0-0.5	SL-1010-SA6-SB-0.0-0.5			
2-METHYLNAPHTHALENE	0.41	0.34	19	50.00	No Qualifiers Applied
BENZO(A)PYRENE	2.0	1.2	50	50.00	
BENZO(B)FLUORANTHENE	5.8	5.1	13	50.00	
BENZO(G,H,I)PERYLENE	2.1	1.3	47	50.00	
BENZO(K)FLUORANTHENE	1.8	1.4	25	50.00	
CHRYSENE	5.9	5.1	15	50.00	
FLUORANTHENE	6.8	7.3	7	50.00	
INDENO(1,2,3-CD)PYRENE	2.0	1.5	29	50.00	
NAPHTHALENE	0.66	0.55	18	50.00	
PHENANTHRENE	3.0	4.1	31	50.00	
PYRENE	5.9	5.9	0	50.00	
1-METHYLNAPHTHALENE	0.25	9.8 U	200	50.00	J(all detects) UJ(all non-detects)
ACENAPHTHYLENE	9.3 U	0.28	200	50.00	
ANTHRACENE	0.94	9.8 U	200	50.00	
BENZO(A)ANTHRACENE	2.0	1.0	67	50.00	

Method: 9045D

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-610-SA6-SB-0.0-0.5	SL-1010-SA6-SB-0.0-0.5			
PH	7.12	7.23	2		No Qualifiers Applied
TEMPERATURE	22.0	21.6	2		

Method: BaP EQUIVALENCE

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-610-SA6-SB-0.0-0.5	SL-1010-SA6-SB-0.0-0.5			
BAP EQUIVALENCE	3.0	1.9	45		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-111412	BORON	J B	0.024	0.10	MRL	mg/L	J (all detects)
		J B	0.17	1.0	MRL	mg/L	

Method: 6020A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-111412	SILVER	J	0.00078	0.0050	MRL	mg/L	J (all detects)

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-111412	IODOMETHANE	J B	0.27	1.0	MRL	ug/L	J (all detects)
		J B	0.28	1.0	MRL	ug/L	

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-111412	1-METHYLNAPHTHALENE	J	0.010	0.10	MRL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.013	0.10	MRL	ug/L	
	NAPHTHALENE	J	0.054	0.10	MRL	ug/L	
	PHENANTHRENE	J	0.025	0.10	MRL	ug/L	
	PYRENE	J B	0.014	0.10	MRL	ug/L	

Method: 8330A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-111412	2,4,6-TRINITROTOLUENE	J	0.14	0.43	MRL	ug/L	J (all detects)
	NITROBENZENE	J	0.36	0.43	MRL	ug/L	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1010-SA6-SB-0.0-0.5	ALUMINUM	J	13000	19000	MRL	mg/Kg	J (all detects)
	BORON	J	1.5	9.0	MRL	mg/Kg	
	LITHIUM	J ^	21	34	MRL	mg/Kg	
	MANGANESE	J	330	460	MRL	mg/Kg	
	POTASSIUM	J	4300	5900	MRL	mg/Kg	
	SODIUM	J ^	79	460	MRL	mg/Kg	
	TIN	J	1.5	10	MRL	mg/Kg	
SL-587-SA6-SB-0.0-0.5	Zirconium	J	1.2	8.0	MRL	mg/Kg	J (all detects)
	ALUMINUM	J	12000	17000	MRL	mg/Kg	
	BORON	J	1.3	8.4	MRL	mg/Kg	
	LITHIUM	J ^	19	32	MRL	mg/Kg	
	MANGANESE	J	250	430	MRL	mg/Kg	
	POTASSIUM	J	2700	5500	MRL	mg/Kg	
	SODIUM	J ^	86	430	MRL	mg/Kg	
SL-587-SA6-SB-2.0-3.0	TIN	J	1.3	9.4	MRL	mg/Kg	J (all detects)
	Zirconium	J	0.65	7.4	MRL	mg/Kg	
	ALUMINUM	J	16000	18000	MRL	mg/Kg	
	BORON	J	1.1	8.8	MRL	mg/Kg	
	LITHIUM	J ^	22	34	MRL	mg/Kg	
	MANGANESE	J	260	450	MRL	mg/Kg	
	POTASSIUM	J	2600	5800	MRL	mg/Kg	
SL-597-SA6-SB-0.0-0.5	SODIUM	J ^	84	460	MRL	mg/Kg	J (all detects)
	TIN	J	1.5	9.9	MRL	mg/Kg	
	Zirconium	J	0.57	7.8	MRL	mg/Kg	
	ALUMINUM	J	13000	19000	MRL	mg/Kg	
	BORON	J	4.1	9.4	MRL	mg/Kg	
	LITHIUM	J ^	22	36	MRL	mg/Kg	
	MANGANESE	J	340	480	MRL	mg/Kg	
SL-605-SA6-SB-0.0-0.5	POTASSIUM	J	4400	6200	MRL	mg/Kg	J (all detects)
	SODIUM	J ^	110	480	MRL	mg/Kg	
	TIN	J	1.7	11	MRL	mg/Kg	
	Zirconium	J	1.7	8.3	MRL	mg/Kg	
	ALUMINUM	J	15000	19000	MRL	mg/Kg	
	BORON	J	1.8	9.2	MRL	mg/Kg	
	LITHIUM	J ^	22	35	MRL	mg/Kg	
SL-609-SA6-SB-0.0-0.5	MANGANESE	J	330	470	MRL	mg/Kg	J (all detects)
	POTASSIUM	J	4200	6100	MRL	mg/Kg	
	SODIUM	J ^	110	470	MRL	mg/Kg	
	TIN	J	2.1	10	MRL	mg/Kg	
	Zirconium	J	0.90	8.1	MRL	mg/Kg	
	ALUMINUM	J	13000	18000	MRL	mg/Kg	
	BORON	J	1.9	8.9	MRL	mg/Kg	
SL-609-SA6-SB-0.0-0.5	LITHIUM	J ^	19	34	MRL	mg/Kg	J (all detects)
	MANGANESE	J	330	460	MRL	mg/Kg	
	POTASSIUM	J	4000	5900	MRL	mg/Kg	
	SODIUM	J ^	88	460	MRL	mg/Kg	
	TIN	J	1.6	10	MRL	mg/Kg	
	Zirconium	J	1.1	7.9	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-610-SA6-SB-0.0-0.5	ALUMINUM	J	13000	19000	MRL	mg/Kg	J (all detects)
	BORON	J	2.0	9.1	MRL	mg/Kg	
	LITHIUM	J	20	35	MRL	mg/Kg	
	MANGANESE	J	310	470	MRL	mg/Kg	
	POTASSIUM	J	4000	6000	MRL	mg/Kg	
	SODIUM	J	87	470	MRL	mg/Kg	
	TIN	J	1.4	10	MRL	mg/Kg	
	Zirconium	J	1.3	8.1	MRL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1010-SA6-SB-0.0-0.5	ANTIMONY	J	0.022	8.1	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.6	14	MRL	mg/Kg	
	BARIUM	J	100	130	MRL	mg/Kg	
	BERYLLIUM	J	0.63	1.0	MRL	mg/Kg	
	CADMIUM	J	0.39	0.93	MRL	mg/Kg	
	CHROMIUM	J	20	34	MRL	mg/Kg	
	COBALT	J	6.2	20	MRL	mg/Kg	
	COPPER	J B	11	27	MRL	mg/Kg	
	LEAD	J	9.4	32	MRL	mg/Kg	
	MOLYBDENUM	J	0.44	4.9	MRL	mg/Kg	
	NICKEL	J	14	27	MRL	mg/Kg	
	SILVER	J	0.11	0.73	MRL	mg/Kg	
	THALLIUM	J	0.28	0.43	MRL	mg/Kg	
	VANADIUM	J	32	58	MRL	mg/Kg	
	ZINC	J	60	100	MRL	mg/Kg	
SL-587-SA6-SB-0.0-0.5	ANTIMONY	J	0.022	8.8	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.3	15	MRL	mg/Kg	
	BARIUM	J	83	140	MRL	mg/Kg	
	BERYLLIUM	J	0.49	1.1	MRL	mg/Kg	
	CADMIUM	J	0.27	1.0	MRL	mg/Kg	
	CHROMIUM	J	17	37	MRL	mg/Kg	
	COBALT	J	5.0	21	MRL	mg/Kg	
	COPPER	J B	8.7	29	MRL	mg/Kg	
	LEAD	J	12	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.42	5.4	MRL	mg/Kg	
	NICKEL	J	11	29	MRL	mg/Kg	
	SILVER	J	0.085	0.80	MRL	mg/Kg	
	THALLIUM	J	0.22	0.47	MRL	mg/Kg	
	VANADIUM	J	28	63	MRL	mg/Kg	
	ZINC	J	67	110	MRL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-587-SA6-SB-2.0-3.0	ANTIMONY	J	0.017	9.0	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.7	15	MRL	mg/Kg	
	BARIUM	J	86	140	MRL	mg/Kg	
	BERYLLIUM	J	0.62	1.1	MRL	mg/Kg	
	CADMIUM	J	0.22	1.0	MRL	mg/Kg	
	CHROMIUM	J	19	38	MRL	mg/Kg	
	COBALT	J	5.5	22	MRL	mg/Kg	
	COPPER	J B	9.5	30	MRL	mg/Kg	
	LEAD	J	7.9	35	MRL	mg/Kg	
	MOLYBDENUM	J	0.52	5.5	MRL	mg/Kg	
	NICKEL	J	13	30	MRL	mg/Kg	
	SILVER	J	0.062	0.81	MRL	mg/Kg	
	THALLIUM	J	0.22	0.47	MRL	mg/Kg	
	VANADIUM	J	32	64	MRL	mg/Kg	
	ZINC	J	54	110	MRL	mg/Kg	
SL-597-SA6-SB-0.0-0.5	ANTIMONY	J	0.031	7.6	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.6	13	MRL	mg/Kg	
	BARIUM	J	100	120	MRL	mg/Kg	
	BERYLLIUM	J	0.63	0.96	MRL	mg/Kg	
	CADMIUM	J	0.71	0.88	MRL	mg/Kg	
	CHROMIUM	J	21	32	MRL	mg/Kg	
	COBALT	J	5.9	18	MRL	mg/Kg	
	COPPER	J B	13	25	MRL	mg/Kg	
	LEAD	J	19	30	MRL	mg/Kg	
	MOLYBDENUM	J	0.50	4.6	MRL	mg/Kg	
	NICKEL	J	15	25	MRL	mg/Kg	
	SILVER	J	0.41	0.69	MRL	mg/Kg	
	THALLIUM	J	0.26	0.40	MRL	mg/Kg	
	VANADIUM	J	31	54	MRL	mg/Kg	
	ZINC	J	86	96	MRL	mg/Kg	
SL-605-SA6-SB-0.0-0.5	ANTIMONY	J	0.061	7.9	MRL	mg/Kg	J (all detects)
	ARSENIC	J	5.0	14	MRL	mg/Kg	
	BARIUM	J	110	130	MRL	mg/Kg	
	BERYLLIUM	J	0.71	0.99	MRL	mg/Kg	
	CHROMIUM	J	29	33	MRL	mg/Kg	
	COBALT	J	8.1	19	MRL	mg/Kg	
	MOLYBDENUM	J	0.86	4.8	MRL	mg/Kg	
	THALLIUM	J	0.29	0.42	MRL	mg/Kg	
	VANADIUM	J	38	56	MRL	mg/Kg	
SL-609-SA6-SB-0.0-0.5	ANTIMONY	J	0.031	7.4	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.3	13	MRL	mg/Kg	
	BARIUM	J	110	120	MRL	mg/Kg	
	BERYLLIUM	J	0.59	0.93	MRL	mg/Kg	
	CADMIUM	J	0.71	0.85	MRL	mg/Kg	
	CHROMIUM	J	20	31	MRL	mg/Kg	
	COBALT	J	6.0	18	MRL	mg/Kg	
	COPPER	J B	14	25	MRL	mg/Kg	
	LEAD	J	13	29	MRL	mg/Kg	
	MOLYBDENUM	J	0.57	4.5	MRL	mg/Kg	
	NICKEL	J	15	25	MRL	mg/Kg	
	SILVER	J	0.30	0.67	MRL	mg/Kg	
	THALLIUM	J	0.26	0.39	MRL	mg/Kg	
	VANADIUM	J	31	52	MRL	mg/Kg	
	ZINC	J	76	93	MRL	mg/Kg	

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-610-SA6-SB-0.0-0.5	ANTIMONY	J	0.021	8.6	MRL	mg/Kg	J (all detects)
	ARSENIC	J	3.7	15	MRL	mg/Kg	
	BARIUM	J	97	140	MRL	mg/Kg	
	BERYLLIUM	J	0.59	1.1	MRL	mg/Kg	
	CADMIUM	J	0.34	0.99	MRL	mg/Kg	
	CHROMIUM	J	19	36	MRL	mg/Kg	
	COBALT	J	6.0	21	MRL	mg/Kg	
	COPPER	J B	11	29	MRL	mg/Kg	
	LEAD	J	8.7	33	MRL	mg/Kg	
	MOLYBDENUM	J	0.43	5.2	MRL	mg/Kg	
	NICKEL	J	14	29	MRL	mg/Kg	
	SILVER	J	0.11	0.78	MRL	mg/Kg	
	THALLIUM	J	0.27	0.45	MRL	mg/Kg	
	VANADIUM	J	31	61	MRL	mg/Kg	
	ZINC	J	58	110	MRL	mg/Kg	

Method: 7471B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1010-SA6-SB-0.0-0.5	MERCURY	J	0.015	0.023	MRL	mg/Kg	J (all detects)
SL-587-SA6-SB-0.0-0.5	MERCURY	J	0.014	0.021	MRL	mg/Kg	J (all detects)
SL-587-SA6-SB-2.0-3.0	MERCURY	J	0.0099	0.022	MRL	mg/Kg	J (all detects)

Method: 8015B EFH

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1010-SA6-SB-0.0-0.5	EFH(C21-C30)	J	3.2	5.0	MRL	mg/Kg	J (all detects)
SL-587-SA6-SB-0.0-0.5	EFH(C21-C30)	J	3.4	5.0	MRL	mg/Kg	J (all detects)
SL-587-SA6-SB-2.0-3.0	EFH(C21-C30)	J	1.7	4.8	MRL	mg/Kg	J (all detects)
	EFH(C30-C40)	J	6.0	9.6	MRL	mg/Kg	
SL-597-SA6-SB-0.0-0.5	EFH(C15-C20)	J	1.5	4.7	MRL	mg/Kg	J (all detects)
SL-605-SA6-SB-0.0-0.5	EFH(C15-C20)	J	5.3	19	MRL	mg/Kg	J (all detects)
SL-609-SA6-SB-0.0-0.5	EFH(C15-C20)	J	1.0	4.9	MRL	mg/Kg	J (all detects)
SL-610-SA6-SB-0.0-0.5	EFH(C21-C30)	J	2.8	5.1	MRL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8082A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1010-SA6-SB-0.0-0.5	AROCLOR 1254	J	13	16	MRL	ug/Kg	J (all detects)
SL-597-SA6-SB-0.0-0.5	Aroclor 5460	J	43	51	MRL	ug/Kg	J (all detects)
SL-610-SA6-SB-0.0-0.5	AROCLOR 1254	J	13	16	MRL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1010-SA6-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.34	9.8	MRL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.28	9.8	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.0	9.8	MRL	ug/Kg	
	BENZO(A)PYRENE	J	1.2	9.8	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	5.1	9.8	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.3	9.8	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.4	9.8	MRL	ug/Kg	
	CHRYSENE	J	5.1	9.8	MRL	ug/Kg	
	FLUORANTHENE	J	7.3	9.8	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.5	9.8	MRL	ug/Kg	
	NAPHTHALENE	J B	0.55	9.8	MRL	ug/Kg	
	PHENANTHRENE	J	4.1	9.8	MRL	ug/Kg	
	PYRENE	J	5.9	9.8	MRL	ug/Kg	
SL-587-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.44	9.8	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.66	9.8	MRL	ug/Kg	
	ACENAPHTHENE	J	0.40	9.8	MRL	ug/Kg	
	ACENAPHTHYLENE	J	1.5	9.8	MRL	ug/Kg	
	ANTHRACENE	J	5.9	9.8	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	9.7	9.8	MRL	ug/Kg	
	BENZO(A)PYRENE	J	8.2	9.8	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	6.0	9.8	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.5	9.8	MRL	ug/Kg	
	FLUORENE	J	0.60	9.8	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	8.1	9.8	MRL	ug/Kg	
	NAPHTHALENE	J B	0.97	9.8	MRL	ug/Kg	
SL-587-SA6-SB-2.0-3.0	2-METHYLNAPHTHALENE	J	0.36	10	MRL	ug/Kg	J (all detects)
	ACENAPHTHENE	J	0.27	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.83	10	MRL	ug/Kg	
	ANTHRACENE	J	3.0	10	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	4.4	10	MRL	ug/Kg	
	BENZO(A)PYRENE	J	3.1	10	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.9	10	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	5.0	10	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	2.9	10	MRL	ug/Kg	
	NAPHTHALENE	J B	0.56	10	MRL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35930-1

Laboratory: TA DEN

EDD Filename: 280-35930-1

eQAPP Name: CDM_SSFL_120907_TA

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-597-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	1.2	9.4	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	2.0	9.4	MRL	ug/Kg	
	ACENAPHTHENE	J	0.75	9.4	MRL	ug/Kg	
	ACENAPHTHYLENE	J	1.4	9.4	MRL	ug/Kg	
	ANTHRACENE	J	8.4	9.4	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	7.3	9.4	MRL	ug/Kg	
	FLUORENE	J	1.5	9.4	MRL	ug/Kg	
	NAPHTHALENE	J B	3.3	9.4	MRL	ug/Kg	
SL-605-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	6.8	10	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	8.1	10	MRL	ug/Kg	
	ACENAPHTHENE	J	2.7	10	MRL	ug/Kg	
	ACENAPHTHYLENE	J	5.1	10	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	7.5	10	MRL	ug/Kg	
	FLUORENE	J	3.2	10	MRL	ug/Kg	
	NAPHTHALENE	J B	9.0	10	MRL	ug/Kg	
SL-609-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.62	9.6	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.2	9.6	MRL	ug/Kg	
	ACENAPHTHENE	J	0.34	9.6	MRL	ug/Kg	
	ACENAPHTHYLENE	J	0.35	9.6	MRL	ug/Kg	
	ANTHRACENE	J	1.4	9.6	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	7.8	9.6	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	5.1	9.6	MRL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	2.0	9.6	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	7.7	9.6	MRL	ug/Kg	
	NAPHTHALENE	J B	1.8	9.6	MRL	ug/Kg	
	PHENANTHRENE	J	7.5	9.6	MRL	ug/Kg	
SL-610-SA6-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.25	9.3	MRL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.41	9.3	MRL	ug/Kg	
	ANTHRACENE	J	0.94	9.3	MRL	ug/Kg	
	BENZO(A)ANTHRACENE	J	2.0	9.3	MRL	ug/Kg	
	BENZO(A)PYRENE	J	2.0	9.3	MRL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	5.8	9.3	MRL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	2.1	9.3	MRL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.8	9.3	MRL	ug/Kg	
	CHRYSENE	J	5.9	9.3	MRL	ug/Kg	
	FLUORANTHENE	J	6.8	9.3	MRL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	2.0	9.3	MRL	ug/Kg	
	NAPHTHALENE	J B	0.66	9.3	MRL	ug/Kg	
	PHENANTHRENE	J	3.0	9.3	MRL	ug/Kg	
	PYRENE	J	5.9	9.3	MRL	ug/Kg	

LDC #: 29419L4
 SDG #: 280-35930-1
 Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET ADR

Date: 4/2/13
 Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 11/14/12
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	N	MS/D (Al, Fe, Mn, Ti, Ba) 74x, Sb PS = 100% (SW)
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV.	Field Blanks	SW	FB = FB FB-060512 (12F037) EB = EB-111512 (280-35980-1)

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples:

1	SL-610-SA6-SB-0.0-0.5	11		21		31	
2	SL-1010-SA6-SB-0.0-0.5	12		22		32	
3	SL-597-SA6-SB-0.0-0.5	13		23		33	
4	SL-609-SA6-SB-0.0-0.5	14		24		34	
5	SL-587-SA6-SB-0.0-0.5	15		25		35	
6	SL-587-SA6-SB-2.0-3.0	16		26		36	
7	SL-605-SA6-SB-0.0-0.5	17		27		37	
8	FB-111412	18		28		38	
9	SL-610-SA6-SB-0.0-0.5MS ⁶⁰²⁰ ₆₀₁₀	19		29		39	
10	SL-610-SA6-SB-0.0-0.5MSD	20		30		40	

Notes: _____

Reason: B

Soil preparation factor applied: 100x

Associated Samples: All Water

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)

Sample Concentration units, unless otherwise noted: mg/L

Analyte	Maximum PB ^a (mg/Kg)	Maximum PB ^a (ug/L)	Maximum ICB/CCB ^a (ug/L)	Action Level	8						
Na			182	0.91	0.17						

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1

Analyte	Maximum PB ^a (mg/Kg)	Maximum PB ^a (ug/L)	Maximum ICB/CCB ^a (ug/L)	Action Level	1						
B			6.86	3.43	2.0						

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All Soil

Analyte	Maximum PB ^a (mg/Kg)	Maximum PB ^a (ug/L)	Maximum ICB/CCB ^a (ug/L)	Action Level	1	2	4	5	6	7	
Zr			2.84	1.42	1.3	1.2	1.1	0.65	0.57	0.90	

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

VALIDATION FINDINGS WORKSHEET

Field Blanks

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L Associated sample units: mg/Kg
Sampling date: 11/15/12 Soil factor applied 100x

Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: All Soil

[illegible]

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

VALIDATION FINDINGS WORKSHEET

Field Blanks

Page: 1 of 1
 Reviewer: SM
 2nd Reviewer: W

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L Associated sample units: mg/Kg
 Sampling date: 6/05/12 Soil factor applied 100x
 Field blank type: (circle one) Field Blank / Rinsate / Other: _____

[illegible]

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-35930-3

SDG No:

Lab Name: TestAmerica Denver

Job No: 280-35930-1

Matrix: Solid

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I) C		Serial Dilution Result (S) C		% Difference	Q	Method
Aluminum	13000	J	13700	J	6.7		6010C
Boron	2.0	J	ND		NC		6010C
Calcium	2500		2770		10		6010C
Iron	19000		20500		11	11	6010C
Lithium	20	J	20.8	J	5.0		6010C
Magnesium	4200		4560		9.7		6010C
Manganese	310	J	335	J	9.4		6010C
Phosphorus	490		515		4.7		6010C
Potassium	4000	J	4400	J	9.2		6010C
Sodium	87	J	ND		NC		6010C
Strontium	16		17.6		9.1		6010C
Tin	1.4	J	ND		NC		6010C
Titanium	840		891		6.7		6010C
Zirconium	1.3	J	ND		NC		6010C

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

FORM VIII-IN

SAMPLE DELIVERY GROUP

280-35930-2

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Nov-2012	SL-610-SA6-SB-0.0-0.5	280-35930-3	N	1613	1613B	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MS	280-35930-3 MS	MS	1613	1613B	III
14-Nov-2012	SL-610-SA6-SB-0.0-0.5MSD	280-35930-3 MSD	MSD	1613	1613B	III
14-Nov-2012	SL-1010-SA6-SB-0.0-0.5	280-35930-5	FD	1613	1613B	III
14-Nov-2012	SL-609-SA6-SB-0.0-0.5	280-35930-9	N	1613	1613B	III
14-Nov-2012	SL-597-SA6-SB-0.0-0.5	280-35930-7	N	1613	1613B	III
14-Nov-2012	SL-587-SA6-SB-0.0-0.5	280-35930-11	N	1613	1613B	III
14-Nov-2012	SL-587-SA6-SB-2.0-3.0	280-35930-13	N	1613	1613B	III
14-Nov-2012	SL-605-SA6-SB-0.0-0.5	280-35930-16	N	1613	1613B	III
14-Nov-2012	FB-111412	280-35930-17	FB	1613	1613B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-2

Laboratory: TA DEN

EDD Filename: 280-35930-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: AQ

Sample ID: FB-111412

Collected: 11/14/2012 3:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.1	Q B J	0.36	MDL	50	MRL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	0.63	Q B J	0.14	MDL	50	MRL	pg/L	U	B
1,2,3,7,8-PECDD	1.1	B J	0.24	MDL	50	MRL	pg/L	U	B
2,3,7,8-TCDD	0.20	Q J	0.24	MDL	10	MRL	pg/L	J	Z
OCDD	6.7	Q B J	0.32	MDL	100	MRL	pg/L	U	B
OCDF	2.0	B J	0.18	MDL	100	MRL	pg/L	U	B

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-1010-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:15:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.0	J	0.049	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.41	J	0.083	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.21	Q J	0.055	MDL	4.9	MRL	ng/kg	J	Z, FD
1,2,3,4,7,8-HXCDF	0.20	Q J	0.037	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.59	J	0.056	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.32	J	0.038	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.49	C J	0.052	MDL	4.9	MRL	ng/kg	J	Z, FD
1,2,3,7,8,9-HXCDF	0.064	Q J	0.047	MDL	4.9	MRL	ng/kg	J	Z, FD
1,2,3,7,8-PECDD	0.20	Q J	0.070	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.096	Q J	0.055	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.15	J	0.038	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.18	J	0.050	MDL	4.9	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.20	J	0.085	MDL	0.97	MRL	ng/kg	J	Z
OCDF	6.1	J	0.061	MDL	9.7	MRL	ng/kg	J	Z

Sample ID: SL-587-SA6-SB-0.0-0.5

Collected: 11/14/2012 1:40:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.33	Q J	0.12	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.28	J	0.076	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.37	J	0.048	MDL	4.8	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

4/18/2013 2:54:44 PM

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-2

Laboratory: TA DEN

EDD Filename: 280-35930-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-587-SA6-SB-0.0-0.5

Collected: 11/14/2012 1:40:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,6,7,8-HXCDD	1.1	J	0.072	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.63	Q J	0.051	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDD	1.2	C J	0.069	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.26	J	0.062	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.41	Q J	0.11	MDL	4.8	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.18	Q J	0.074	MDL	4.8	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.41	J	0.051	MDL	4.8	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.18	Q J	0.070	MDL	4.8	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.31	J	0.12	MDL	0.97	MRL	ng/kg	J	Z

Sample ID: SL-587-SA6-SB-2.0-3.0

Collected: 11/14/2012 2:15:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.25	J	0.092	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.11	Q J	0.069	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	0.21	Q J	0.040	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.57	Q J	0.066	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	0.46	Q J	0.040	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.69	C J	0.063	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.21	J	0.050	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.28	Q J	0.083	MDL	5.3	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.066	Q J	0.060	MDL	5.3	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.20	J	0.040	MDL	5.3	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.095	Q J	0.055	MDL	5.3	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.087	Q J	0.098	MDL	1.1	MRL	ng/kg	J	Z
OCDF	9.3	J	0.060	MDL	11	MRL	ng/kg	J	Z

Sample ID: SL-597-SA6-SB-0.0-0.5

Collected: 11/14/2012 10:57:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDF	0.32	J	0.063	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	2.9	Q J	0.12	MDL	5.1	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.92	Q J	0.095	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	3.0	J	0.053	MDL	5.1	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	1.8	J	0.092	MDL	5.1	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-2

Laboratory: TA DEN

EDD Filename: 280-35930-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-597-SA6-SB-0.0-0.5

Collected: 11/14/2012 10:57:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDD	0.61	Q J	0.17	MDL	1.0	MRL	ng/kg	J	Z
OCDD	8900	B E	0.16	MDL	10	MRL	ng/kg	J	*XI

Sample ID: SL-605-SA6-SB-0.0-0.5

Collected: 11/14/2012 3:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDF	0.58	Q J	0.11	MDL	5.0	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	3.7	J	0.18	MDL	5.0	MRL	ng/kg	J	Z
2,3,7,8-TCDD	0.64	Q J	0.24	MDL	1.0	MRL	ng/kg	J	Z
OCDD	11000	B E	0.34	MDL	10	MRL	ng/kg	J	*XI

Sample ID: SL-609-SA6-SB-0.0-0.5

Collected: 11/14/2012 9:35:00

Analysis Type: RE2

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.94	J	0.045	MDL	1.0	MRL	ng/kg	J	Z

Sample ID: SL-609-SA6-SB-0.0-0.5

Collected: 11/14/2012 9:35:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.4	J	0.11	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.84	J	0.070	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,4,7,8-HXCDF	1.1	J	0.040	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	2.8	J	0.067	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,6,7,8-HXCDF	1.6	Q J	0.043	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	2.0	C J	0.064	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8,9-HXCDF	0.13	Q J	0.053	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8-PECDD	0.67	Q J	0.11	MDL	5.2	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.29	Q J	0.070	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,6,7,8-HXCDF	0.64	J	0.043	MDL	5.2	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.57	Q J	0.065	MDL	5.2	MRL	ng/kg	J	Z

Sample ID: SL-610-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.7	J	0.087	MDL	4.9	MRL	ng/kg	J	Z

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-2

Laboratory: TA DEN

EDD Filename: 280-35930-2

eQAPP Name: CDM_SSFL_120907_TA

Method Category: SVOA

Method: 1613B

Matrix: SO

Sample ID: SL-610-SA6-SB-0.0-0.5

Collected: 11/14/2012 8:00:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.37	J	0.14	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,4,7,8-HxCDD	0.38	Q J	0.12	MDL	4.9	MRL	ng/kg	J	Z, FD
1,2,3,4,7,8-HxCDF	0.29	C J	0.056	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDD	0.69	Q J	0.10	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,6,7,8-HxCDF	0.23	Q J	0.056	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8,9-HxCDD	0.96	Q J	0.10	MDL	4.9	MRL	ng/kg	J	Z, FD
1,2,3,7,8,9-HxCDF	0.071	U	0.071	MDL	4.9	MRL	ng/kg	UJ	FD
1,2,3,7,8-PECDD	0.31	Q J	0.13	MDL	4.9	MRL	ng/kg	J	Z
1,2,3,7,8-PECDF	0.14	Q J	0.089	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,6,7,8-HxCDF	0.15	Q J	0.060	MDL	4.9	MRL	ng/kg	J	Z
2,3,4,7,8-PECDF	0.15	Q J	0.090	MDL	4.9	MRL	ng/kg	J	Z
2,3,7,8-TCDF	0.32	J	0.15	MDL	0.98	MRL	ng/kg	J	Z
OCDF	9.6	J	0.12	MDL	9.8	MRL	ng/kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Data Qualifier Summary

Lab Reporting Batch ID: 280-35930-2

Laboratory: TA DEN

EDD Filename: 280-35930-2

eQAPP Name: CDM_SSFL_120907_TA

Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*XI	Exceeded Calibration Range
A	Professional Judgment
B	Method Blank Contamination
E	Matrix Spike Precision
FD	Field Duplicate Precision
Q	Matrix Spike Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Enclosure I

Level III ADR Outliers (including Manual Review Outliers)

Quality Control Outlier Reports

280-35930-2/
H2K170402

Method Blank Outlier Report

Lab Reporting Batch ID: 280-35930-2

Laboratory: TA DEN

EDD Filename: 280-35930-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
H2K200000044B	11/28/2012 2:39:00 AM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HxCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,7,8-PECDD 1,2,3,7,8-PECDF 2,3,4,6,7,8-HxCDF 2,3,4,7,8-PECDF OCDD OCDF	1.3 pg/L 1.1 pg/L 0.94 pg/L 0.52 pg/L 0.45 pg/L 0.59 pg/L 0.61 pg/L 0.69 pg/L 0.55 pg/L 0.45 pg/L 0.38 pg/L 0.59 pg/L 13 pg/L 3.9 pg/L	FB-111412

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FB-111412(RES)	1,2,3,4,6,7,8-HPCDD	1.1 pg/L	1.1U pg/L
FB-111412(RES)	1,2,3,4,6,7,8-HPCDF	0.63 pg/L	0.63U pg/L
FB-111412(RES)	1,2,3,7,8-PECDD	1.1 pg/L	1.1U pg/L
FB-111412(RES)	OCDD	6.7 pg/L	6.7U pg/L
FB-111412(RES)	OCDF	2.0 pg/L	2.0U pg/L

Method: 1613B

Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
H2K200000037B	11/29/2012 1:33:00 PM	OCDD	0.38 ng/kg	SL-1010-SA6-SB-0.0-0.5 SL-587-SA6-SB-0.0-0.5 SL-587-SA6-SB-2.0-3.0 SL-597-SA6-SB-0.0-0.5 SL-605-SA6-SB-0.0-0.5 SL-609-SA6-SB-0.0-0.5 SL-610-SA6-SB-0.0-0.5

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 280-35930-2

Laboratory: TA DEN

EDD Filename: 280-35930-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-610-SA6-SB-0.0-0.5MSD (SL-610-SA6-SB-0.0-0.5)	OCDF	-	-	40.00-135.00	32 (20.00)	OCDF	J (all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: 280-35930-2

Laboratory: TA DEN

EDD Filename: 280-35930-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

Analyte	Concentration (ng/kg)		Sample RPD	eQAPP RPD	Flag
	SL-610-SA6-SB-0.0-0.5	SL-1010-SA6-SB-0.0-0.5			
1,2,3,4,6,7,8-HPCDD	23	15	42	50.00	No Qualifiers Applied
1,2,3,4,6,7,8-HPCDF	3.7	3.0	21	50.00	
1,2,3,4,7,8,9-HPCDF	0.37	0.41	10	50.00	
1,2,3,4,7,8-HXCDF	0.29	0.20	37	50.00	
1,2,3,6,7,8-HXCDD	0.69	0.59	16	50.00	
1,2,3,6,7,8-HXCDF	0.23	0.32	33	50.00	
1,2,3,7,8-PECDD	0.31	0.20	43	50.00	
1,2,3,7,8-PECDF	0.14	0.096	37	50.00	
2,3,4,6,7,8-HXCDF	0.15	0.15	0	50.00	
2,3,4,7,8-PECDF	0.15	0.18	18	50.00	
2,3,7,8-TCDF	0.32	0.20	46	50.00	
OCDD	230	190	19	50.00	
OCDF	9.6	6.1	45	50.00	
1,2,3,4,7,8-HxCDD	0.38	0.21	58	50.00	J(all detects) UJ(all non-detects)
1,2,3,7,8,9-HxCDD	0.96	0.49	65	50.00	
1,2,3,7,8,9-HXCDF	4.9 U	0.064	200	50.00	

Reporting Limit Outliers

Lab Reporting Batch ID: 280-35930-2

Laboratory: TA DEN

EDD Filename: 280-35930-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-111412	1,2,3,4,6,7,8-HPCDD	Q B J	1.1	50	MRL	pg/L	J (all detects)
	1,2,3,4,6,7,8-HPCDF	Q B J	0.63	50	MRL	pg/L	
	1,2,3,7,8-PECDD	B J	1.1	50	MRL	pg/L	
	2,3,7,8-TCDD	Q J	0.20	10	MRL	pg/L	
	OCDD	Q B J	6.7	100	MRL	pg/L	
	OCDF	B J	2.0	100	MRL	pg/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1010-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	J	3.0	4.9	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	J	0.41	4.9	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	0.21	4.9	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q J	0.20	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	0.59	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	J	0.32	4.9	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	C J	0.49	4.9	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	Q J	0.064	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.20	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.096	4.9	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	0.15	4.9	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	0.18	4.9	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.20	0.97	MRL	ng/kg	
	OCDF	J	6.1	9.7	MRL	ng/kg	
SL-587-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	Q J	0.33	4.8	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.28	4.8	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	J	0.37	4.8	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	1.1	4.8	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.63	4.8	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	C J	1.2	4.8	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	J	0.26	4.8	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.41	4.8	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.18	4.8	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	0.41	4.8	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.18	4.8	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.31	0.97	MRL	ng/kg	
SL-587-SA6-SB-2.0-3.0	1,2,3,4,7,8,9-HPCDF	J	0.25	5.3	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	Q J	0.11	5.3	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	Q J	0.21	5.3	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	0.57	5.3	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.46	5.3	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	C J	0.69	5.3	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	J	0.21	5.3	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.28	5.3	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.066	5.3	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	0.20	5.3	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.095	5.3	MRL	ng/kg	
	2,3,7,8-TCDF	Q J	0.087	1.1	MRL	ng/kg	
	OCDF	J	9.3	11	MRL	ng/kg	

Project Name and Number: CDM_SSFL_120730_TA - CDM, Santa Susana Field Lab

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Reporting Limit Outliers

Lab Reporting Batch ID: 280-35930-2

Laboratory: TA DEN

EDD Filename: 280-35930-2

eQAPP Name: CDM_SSFL_120907_TA

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-597-SA6-SB-0.0-0.5	1,2,3,7,8,9-HXCDF	J	0.32	5.1	MRL	ng/kg	J (all detects)
	1,2,3,7,8-PECDD	Q J	2.9	5.1	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.92	5.1	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	3.0	5.1	MRL	ng/kg	
	2,3,4,7,8-PECDF	J	1.8	5.1	MRL	ng/kg	
	2,3,7,8-TCDD	Q J	0.61	1.0	MRL	ng/kg	
SL-605-SA6-SB-0.0-0.5	1,2,3,7,8,9-HXCDF	Q J	0.58	5.0	MRL	ng/kg	J (all detects)
	1,2,3,7,8-PECDF	J	3.7	5.0	MRL	ng/kg	
	2,3,7,8-TCDD	Q J	0.64	1.0	MRL	ng/kg	
SL-609-SA6-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	J	1.4	5.2	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8-HxCDD	J	0.84	5.2	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	J	1.1	5.2	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	J	2.8	5.2	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	1.6	5.2	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	C J	2.0	5.2	MRL	ng/kg	
	1,2,3,7,8,9-HXCDF	Q J	0.13	5.2	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.67	5.2	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.29	5.2	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	J	0.64	5.2	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.57	5.2	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.94	1.0	MRL	ng/kg	
SL-610-SA6-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	J	3.7	4.9	MRL	ng/kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	J	0.37	4.9	MRL	ng/kg	
	1,2,3,4,7,8-HxCDD	Q J	0.38	4.9	MRL	ng/kg	
	1,2,3,4,7,8-HXCDF	C J	0.29	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HxCDD	Q J	0.69	4.9	MRL	ng/kg	
	1,2,3,6,7,8-HXCDF	Q J	0.23	4.9	MRL	ng/kg	
	1,2,3,7,8,9-HxCDD	Q J	0.96	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDD	Q J	0.31	4.9	MRL	ng/kg	
	1,2,3,7,8-PECDF	Q J	0.14	4.9	MRL	ng/kg	
	2,3,4,6,7,8-HXCDF	Q J	0.15	4.9	MRL	ng/kg	
	2,3,4,7,8-PECDF	Q J	0.15	4.9	MRL	ng/kg	
	2,3,7,8-TCDF	J	0.32	0.98	MRL	ng/kg	
	OCDF	J	9.6	9.8	MRL	ng/kg	

SAMPLE DELIVERY GROUP

280-35982-1

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Nov-2012	SL-581-SA6-SB-0.0-0.5	280-35982-3	N	3546	8270C SIM	III
15-Nov-2012	SL-581-SA6-SB-0.0-0.5	280-35982-3	N	3550C	8015B EFH	III
15-Nov-2012	SL-581-SA6-SB-0.0-0.5	280-35982-4	N	3050B	6010C	III
15-Nov-2012	SL-581-SA6-SB-0.0-0.5	280-35982-4	N	3050B	6020A	III
15-Nov-2012	SL-581-SA6-SB-0.0-0.5	280-35982-4	N	3546	8082A	III
15-Nov-2012	SL-581-SA6-SB-0.0-0.5	280-35982-4	N	7471B	7471B	III
15-Nov-2012	SL-581-SA6-SB-0.0-0.5MS	280-35982-4MS	MS	3050B	6020A	III
15-Nov-2012	SL-581-SA6-SB-0.0-0.5MSD	280-35982-4MSD	MSD	3050B	6020A	III
15-Nov-2012	SL-562-SA6-SB-0.0-0.5	280-35982-1	N	3550C	8015B EFH	III
15-Nov-2012	SL-562-SA6-SB-0.0-0.5MS	280-35982-1MS	MS	3550C	8015B EFH	III
15-Nov-2012	SL-562-SA6-SB-0.0-0.5MSD	280-35982-1MSD	MSD	3550C	8015B EFH	III
15-Nov-2012	SL-583-SA6-SB-0.0-0.5	280-35982-5	N	3546	8270C SIM	III
15-Nov-2012	SL-583-SA6-SB-0.0-0.5	280-35982-5	N	3550C	8015B EFH	III
15-Nov-2012	SL-583-SA6-SB-0.0-0.5	280-35982-6	N	3050B	6010C	III
15-Nov-2012	SL-583-SA6-SB-0.0-0.5	280-35982-6	N	3050B	6020A	III
15-Nov-2012	SL-583-SA6-SB-0.0-0.5	280-35982-6	N	3546	8082A	III
15-Nov-2012	SL-583-SA6-SB-0.0-0.5	280-35982-6	N	7471B	7471B	III
15-Nov-2012	SL-606-SA6-SB-0.0-0.5	280-35982-7	N	3546	8270C SIM	III
15-Nov-2012	SL-606-SA6-SB-0.0-0.5	280-35982-7	N	3550C	8015B EFH	III
15-Nov-2012	SL-606-SA6-SB-0.0-0.5	280-35982-8	N	3050B	6010C	III
15-Nov-2012	SL-606-SA6-SB-0.0-0.5	280-35982-8	N	3050B	6020A	III
15-Nov-2012	SL-606-SA6-SB-0.0-0.5	280-35982-8	N	3546	8082A	III
15-Nov-2012	SL-606-SA6-SB-0.0-0.5	280-35982-8	N	7471B	7471B	III
15-Nov-2012	SL-640-SA6-SB-0.0-0.5	280-35982-11	N	3546	8270C SIM	III
15-Nov-2012	SL-640-SA6-SB-0.0-0.5	280-35982-11	N	3550C	8015B EFH	III
15-Nov-2012	SL-640-SA6-SB-0.0-0.5	280-35982-12	N	3050B	6010C	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation

N = Normal Sample
FD = Field Duplicate

TB = Trip Blank
FB = Field Blank

MS = Matrix Spike
MSD = Matrix Spike Duplicate

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Nov-2012	SL-640-SA6-SB-0.0-0.5	280-35982-12	N	3050B	6020A	III
15-Nov-2012	SL-640-SA6-SB-0.0-0.5	280-35982-12	N	3546	8082A	III
15-Nov-2012	SL-640-SA6-SB-0.0-0.5	280-35982-12	N	7471B	7471B	III
15-Nov-2012	SL-640-SA6-SB-0.0-0.5MS	280-35982-12MS	MS	3050B	6010C	III
15-Nov-2012	SL-640-SA6-SB-0.0-0.5MSD	280-35982-12MSD	MSD	3050B	6010C	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5	280-35982-10	N	3050B	6010C	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5	280-35982-10	N	3050B	6020A	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5	280-35982-10	N	3546	8081B	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5	280-35982-10	N	3546	8082A	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5	280-35982-10	N	7471B	7471B	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5	280-35982-10	N	8151A	8151A	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5MS	280-35982-10MS	MS	3546	8081B	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5MSD	280-35982-10MSD	MSD	3546	8081B	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5	280-35982-9	N	3546	8270C SIM	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5	280-35982-9	N	3550C	8015B EFH	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5MS	280-35982-9MS	MS	3546	8270C SIM	III
15-Nov-2012	SL-638-SA6-SB-0.0-0.5MSD	280-35982-9MSD	MSD	3546	8270C SIM	III
15-Nov-2012	EB-111512	280-35982-13	EB	3010A	6010C	III
15-Nov-2012	EB-111512	280-35982-13	EB	3020A	6020A	III
15-Nov-2012	EB-111512	280-35982-13	EB	3510C	8015B EFH	III
15-Nov-2012	EB-111512	280-35982-13	EB	3510C	8082A	III
15-Nov-2012	EB-111512	280-35982-13	EB	3510C	8270C SIM	III
15-Nov-2012	EB-111512	280-35982-13	EB	7470A	7470A	III
15-Nov-2012	EB-111512	280-35982-13	EB	METHOD	8015B GRO	III

Attachment II

Overall Data Qualification Summary