UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

September 1, 2016

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review

FROM: Raymond Flores, Alternate ESAT Regional Project Officer
Environmental Services Branch (6MD-HL)

TO: Bret Kendrick, Superfund Project Manager (6SF-TR)

Site: LANE PLATING WORKS

Case#: 46321

SDG#: MF1D00

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: August 26, 2016

TO: Marvelyn Humphrey, ESAT PO, Region 6 EPA

FROM: Linda Hoffman, Data Reviewer, ESAT

THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT

SUBJECT: CLP Data Review

Contract No.:	EP-W-13-026
TO No.:	002
Task/Sub-Task:	2-12
ESAT Doc. No.:	1602-212-0022
TDF No.:	6-16-293A
ESAT File No.:	I-0688

Attached is the data review summary for Case # 46321
SDG # MF1D00
Site Lane Plating Works

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 46321	SITE Lane Plating Works
LABORATORY ALS	NO. OF SAMPLES 11
CONTRACT# EP-W-14-027	MATRIX 7 Soil/4 Sediment
SDG# MF1D00	REVIEWER (IF NOT ESB) ESAT
SOW# ISM02.3	REVIEWER'S NAME Linda Hoffman
SF# 303DD2A6MS	COMPLETION DATE August 26, 2016

SAMPLE NO.					
	MF1D00	MF1D04	MF1D09		
	MF1D01	MF1D06	MF1D10		
	MF1D02	MF1D07	MF1D11		
	MF1D03	MF1D08			

DATA ASSESSMENT SUMMARY

	CN
1. HOLDING TIMES	O
2. CALIBRATIONS	O
3. BLANKS	O
4. MATRIX SPIKES	O
5. DUPLICATE ANALYSIS	O
6. ICP QC	N/A
7. LCS	N/A
8. SAMPLE VERIFICATION	O
9. OTHER QC	N/A
10. OVERALL ASSESSMENT	O

O = Data had no problems.
M = Data qualified due to major or minor problems.
Z = Data unacceptable.
NA = Not applicable.

ACTION ITEMS:

AREAS OF CONCERN:

COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW

CASE 46321 SDG MF1D00 SITE Lane Plating Works LAB ALS

COMMENTS: This SDG consisted of seven soil and four sediment samples for cyanide analysis following SOW ISM02.3. The sampler designated sample MF1D02 for QC analyses.

S4VEM Review was performed for this data package as requested by the Region. The target analyte of concern with an action level of 40 mg/kg was cyanide. Cyanide was not detected above the action level in any of the samples.

OVERALL ASSESSMENT: All results were acceptable. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

The laboratory was contacted for two reporting issues (see Resubmission Request). The laboratory resubmission will not impact the DST, so the DST included is the final version.

INORGANIC ACRONYMS

CCB	Continuing Calibration Blank
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CN	Cyanide
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DST	Data Summary Table
EDM	EXES Data Manager
HG	Mercury
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma-Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
ICS	Interference Check Sample
ICV	Initial Calibration Verification
IS	Internal Standard
LCS	Laboratory Control Sample
MDL	Method Detection Limit
NFG	National Functional Guidelines
PE	Performance Evaluation
%D	Percent Difference
%R	Percent Recovery
%RI	Percent Relative Intensity
%RSD	Percent Relative Standard Deviation
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RPD	Relative Percent Difference
RSCC	Regional Sample Control Center
S3VEM	Stage 3 Validation Electronic and Manual (previously called Modified CADRE Review)
S4VEM	Stage 4 Validation Electronic and Manual (previously called Standard Review)
SDG	Sample Delivery Group
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
TAL	Target Analyte List

HEADER DEFINITIONS FOR INORGANIC EXCEL DST

CASE:	Case Number
SDG:	SDG Number
EPASAMP:	EPA Sample Number
LABID:	Laboratory File/Sample ID
MATRIX:	Sample Matrix
QCCOD:	Sample QC Code
SMPQUAL:	Sample Qualifier
ANDATE:	Sample Analysis Date
ANTIME:	Sample Analysis Time
CASNUM:	Compound CAS Number
ANALYTE:	Compound Name
CONC:	Compound Concentration
VALDQAL:	Region 6 Inorganic Data Validation Qualifier (see Inorganic Data Qualifier Definitions on the next page)
UNITS:	Concentration Units
ADJCRQL:	Adjusted Contract Required Quantitation Limit Value
SMPDATE:	Sampling Date
PRPDATE:	Sample Preparation Date
LRDATE:	Laboratory Receipt Date
LEVEL:	Sample Level
PERSOLD:	Sample Percent Solids
SMPWTVL:	Sample Weight (Soil Samples)/Initial Sample Volume (Water Samples)
FINLVOL:	Final Sample Volume
METHOD:	Method of Analysis
STATLOC:	Station Location

Disclaimer: ESAT verified the accuracy of the information reported in the Excel DST only for the following data fields: CASE, SDG, EPASAMP, MATRIX, ANALYTE, CONC, UNITS, ADJCRQL, VALDQAL, and PERSOLD. The data qualifiers in the VALDQAL column indicate the technical usability of the reported results.

INORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

U Not detected at reported quantitation limit.

L Reported concentration is between the MDL and the CRQL.

J Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, etc., or the result is below the CRQL.

R Result is unusable.

F A possibility of a false negative exists.

UC Reported concentration should be used as a raised quantitation limit because of blank effects and/or laboratory or field contamination.

+ High biased. Actual concentration may be lower than the concentration reported.

- Low biased. Actual concentration may be higher than the concentration reported.

W The result should be used with caution. The result was reported on a dry weight basis although the sample did not conform to the EPA Office of Water definition of a soil sample because of its high water content (>70% moisture).

CASE	SDG	EPASAMP	LABID	MATRIX	QCCODE	ANDATE	ANTIME	CASNUM	ANALYTE	CONC	VALDQAL	UNITS	ADJCRQL	SMPDATE	PRPDATE	LRDATE	LEVEL	PERSOLD	SMPWTVL	FINVOL	METHOD	STATLOC
46321	MF1D00	MF1D00	1620331001	S	Field_Sample	07/27/2016	11:11:53	57-12-5	Cyanide	0.29	LJ	mg/kg	0.59	07/20/2016	07/26/2016	07/21/2016	Low	83.5	0.5068	6	AS	SO-01
46321	MF1D00	MF1D01	1620331002	S	Field_Sample	07/28/2016	13:26:03	57-12-5	Cyanide	0.56	U	mg/kg	0.56	07/20/2016	07/27/2016	07/21/2016	Low	82.3	0.5433	6	AS	SO-02
46321	MF1D00	MF1D02	1620331003	S	Field_Sample	07/27/2016	11:14:35	57-12-5	Cyanide	0.48	LJ	mg/kg	0.57	07/20/2016	07/26/2016	07/21/2016	Low	82.4	0.5303	6	AS	SO-03
46321	MF1D00	MF1D03	1620331006	S	Field_Sample	07/27/2016	11:16:05	57-12-5	Cyanide	0.80		mg/kg	0.59	07/20/2016	07/26/2016	07/21/2016	Low	78.1	0.5422	6	AS	SO-04
46321	MF1D00	MF1D04	1620331007	S	Field_Sample	07/27/2016	11:18:47	57-12-5	Cyanide	0.24	LJ	mg/kg	0.57	07/20/2016	07/26/2016	07/21/2016	Low	75.6	0.5817	6	AS	SO-05
46321	MF1D00	MF1D06	1620331008	S	Field_Sample	07/27/2016	11:19:05	57-12-5	Cyanide	0.47	LJ	mg/kg	0.59	07/20/2016	07/26/2016	07/21/2016	Low	82.5	0.5142	6	AS	SO-07
46321	MF1D00	MF1D07	1620331009	S	Field_Sample	07/27/2016	11:19:59	57-12-5	Cyanide	0.59	LJ	mg/kg	0.81	07/20/2016	07/26/2016	07/21/2016	Low	82.6	0.504	6	AS	SO-08
46321	MF1D00	MF1D08	1620331010	S	Field_Sample	07/27/2016	11:20:17	57-12-5	Cyanide	0.67	U	mg/kg	0.67	07/20/2016	07/26/2016	07/21/2016	Low	72.8	0.5073	6	AS	SE-01
46321	MF1D00	MF1D09	1620331011	S	Field_Sample	07/27/2016	11:22:59	57-12-5	Cyanide	0.11	LJ	mg/kg	0.73	07/20/2016	07/26/2016	07/21/2016	Low	66.2	0.5219	6	AS	SE-02
46321	MF1D00	MF1D10	1620331012	S	Field_Sample	07/27/2016	11:23:17	57-12-5	Cyanide	0.83	U	mg/kg	0.83	07/20/2016	07/26/2016	07/21/2016	Low	71.4	0.556	6	AS	SE-03
46321	MF1D00	MF1D11	1620331013	S	Field_Sample	07/27/2016	11:24:11	57-12-5	Cyanide	0.84	U	mg/kg	0.84	07/20/2016	07/26/2016	07/21/2016	Low	59.4	0.501	6	AS	SE-04

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 46321 SDG No. MF1D00 SDG Nos. To Follow Mod. Ref No. Date Rec. 08/11/16

EPA Lab ID: ALS

Lab Location: Salt Lake City, UT

Region: 6 Audit No.: 46321/MF1D00

Re_Submitted CSF? Yes ____ No X

Box No(s): 1

COMMENTS:

14./15. Sample tags were not required for this case.

Over for additional comments.

ORIGINALS	YES	NO	N/A
CUSTODY SEALS			
1. Present on package?	X		
2. Intact upon receipt?	X		
FORM DC-2			
3. Numbering scheme accurate?	X		
4. Are enclosed documents listed?	X		
5. Are listed documents enclosed?	X		
FORM DC-1			
6. Present?	X		
7. Complete?	X		
8. Accurate?	X		
TRAFFIC REPORT /CHAIN-OF-CUSTODY RECORD(s)			
9. Signed?	X		
10. Dated?	X		
AIRBILLS/AIRBILL STICKER			
11. Present?	X		
12. Signed?	X		
13. Dated?	X		
SAMPLE TAGS			
14. Does DC-1 list tags as being included?			X
15. Present?			X
OTHER DOCUMENTS			
16. Complete?	X		
17. Legible?	X		
18. Original?	X		
18a. If "NO", does the copy indicate where original documents are located?			X

Audited by: L. Hoffman / ESAT Data Reviewer Date 08/24/16

Audited by: Date

Signature Printed Name/Title

DC-2__

In Reference To: (I-0688)
Case No.: 46321 SDG(s): MF1D00

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Resubmission Request

Laboratory Name: ALS
Lab Contact: Roxanne Olson

Region: 6
Regional Contact: Raymond Flores - EPA
ESAT Reviewer: Linda Hoffman - ESAT

In reference to data for the following fractions:

CN

Summary of Questions/Issues:

1. The CRQL reported for the ICBs and CCBs on all Form 3s is incorrect. Please correct and resubmit these pages with the proper pagination.

2. Please submit a Form 9 with the ug/L MDL since the ICB and CCB concentrations are reported in ug/L (ISM02.3, p. B-43, sec. 3.4.11.1).

NOTE: Any submitted laboratory resubmission should be clearly marked as "Additional Data" with a cover letter included describing what data is being delivered, which Case the data pertains, and who requested the data (ISM02.3, p. B-9, sec. 2.2.1). Custody seals are required only for regular mail shipments.

Please respond to the above item **within 5 business days (ISM02.3, p. B-9, sec. 2.2.1)** by e-mail to Flores.Raymond@epa.gov. If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

USEPA CLP COC (REGION COPY)
DateShipped: 7/20/2016
CarrierName: FedEx
AirbillNo: 810257801911

CHAIN OF CUSTODY RECORD
Lane Plating Works/Texas
Case #: 46321
Cooler #: 1

No: 6-072016-154639-0005
Lab: ALS Laboratory Group - Salt Lake City
Lab Contact: Meredith Edwards
Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
MF1D00	MF1D00	Soil/ Stephen Ellis	Grab	CN(21)	1001 (None) (1)	SO-01	07/20/2016 14:15	Field Sample
MF1D01	MF1D01	Soil/ Stephen Ellis	Grab	CN(21)	1003 (None) (1)	SO-02	07/20/2016 14:30	Field Sample
MF1D02	MF1D02	Soil/ Bret Kendrick	Grab	CN(21)	1005 (None) (1)	SO-03	07/20/2016 10:35	Lab QC
MF1D03	MF1D03	Soil/ Bret Kendrick	Grab	CN(21)	1007 (None) (1)	SO-04	07/20/2016 10:55	Field Sample
MF1D04	MF1D04	Soil/ Bret Kendrick	Grab	CN(21)	1009 (None) (1)	SO-05	07/20/2016 11:10	Field Sample
MF1D06	MF1D06	Soil/ Stephen Ellis	Grab	CN(21)	1013 (None) (1)	SO-07	07/20/2016 09:15	Field Sample
MF1D07	MF1D07	Soil/ Bret Kendrick	Grab	CN(21)	1015 (None) (1)	SO-08	07/20/2016 10:40	Field Duplicate
MF1D08	MF1D08	Sediment/ Stephen Ellis	Grab	CN(21)	1017 (None) (1)	SE-01	07/20/2016 12:20	Field Sample
MF1D09	MF1D09	Sediment/ Stephen Ellis	Grab	CN(21)	1019 (None) (1)	SE-02	07/20/2016 14:40	Field Sample
MF1D10	MF1D10	Sediment/ Stephen Ellis	Grab	CN(21)	1021 (None) (1)	SE-03	07/20/2016 09:45	Field Sample
MF1D11	MF1D11	Sediment/ Stephen Ellis	Grab	CN(21)	1023 (None) (1)	SE-04	07/20/2016 09:30	Field Sample

Sample(s) to be used for Lab QC: MF1D02 Tag 1005 - Special Instructions: Samples MF1D02, MF1D03, MF1D04, and MF1D07 may have high concentrations.

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CN=CLP Cyanide

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Adrienne Rose	7/20/16			

Page 10 of 10

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

September 1, 2016

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review

FROM: Raymond Flores, Alternate ESAT Regional Project Officer
Environmental Services Branch (6MD-HL)

TO: Bret Kendrick, Superfund Project Manager (6SF-TR)

Site: **LANE PLATING WORKS**

Case#: **46321**

SDG#: **MF1D18**

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: August 26, 2016

TO: Marvelyn Humphrey, ESAT PO, Region 6 EPA

FROM: Linda Hoffman, Data Reviewer, ESAT

THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT DGJ

SUBJECT: CLP Data Review

Contract No.:	EP-W-13-026
TO No.:	002
Task/Sub-Task:	2-12
ESAT Doc. No.:	1602-212-0023
TDF No.:	6-16-294A
ESAT File No.:	I-0689

Attached is the data review summary for Case # 46321
SDG # MF1D18
Site Lane Plating Works

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 46321	SITE Lane Plating Works
LABORATORY ALS	NO. OF SAMPLES 12
CONTRACT# EP-W-14-027	MATRIX 1 Soil/11 Sediment
SDG# MF1D18	REVIEWER (IF NOT ESB) ESAT
SOW# ISM02.3	REVIEWER'S NAME Linda Hoffman
SF# 303DD2A6MS	COMPLETION DATE August 26, 2016

SAMPLE NO.					
	MF1D05	MF1D15	MF1D19		
	MF1D12	MF1D16	MF1D20		
	MF1D13	MF1D17	MF1D21		
	MF1D14	MF1D18	MF1D22		

DATA ASSESSMENT SUMMARY

		CN
1.	HOLDING TIMES	O
2.	CALIBRATIONS	O
3.	BLANKS	O
4.	MATRIX SPIKES	O
5.	DUPLICATE ANALYSIS	O
6.	ICP QC	N/A
7.	LCS	N/A
8.	SAMPLE VERIFICATION	O
9.	OTHER QC	N/A
10.	OVERALL ASSESSMENT	O

O = Data had no problems.
M = Data qualified due to major or minor problems.
Z = Data unacceptable.
NA = Not applicable.

ACTION ITEMS:

AREAS OF CONCERN:

COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW

CASE 46321 SDG MF1D18 SITE Lane Plating Works LAB ALS

COMMENTS: This SDG consisted of one soil and eleven sediment samples for cyanide analysis following SOW ISM02.3. The sampler designated sample MF1D18 for QC analyses.

The target analyte of concern with an action level of 40 mg/kg was cyanide. Cyanide was not detected above the action level in any of the samples.

S3VEM Review was performed for this package as requested by the Region. For this review option, laboratory contractual compliance and technical usability of the sample results are primarily determined by the EDM CCS Defect Report and NFG Data Review Results Report, respectively. The reviewer performs supplemental hardcopy forms checking and applies Region 6 guidelines, where necessary, to account for known limitations of the electronic review process. Therefore, the reviewer's final assessments may deviate from those found in the EDM reports. The NFG Data Review Results Report for the SDG is attached to this report as an addendum for additional information.

OVERALL ASSESSMENT: All results were acceptable. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

The laboratory was contacted for some CSF and reporting issues (see Resubmission Request). The laboratory resubmission will not impact the DST, so the DST included is the final version.

INORGANIC ACRONYMS

CCB	Continuing Calibration Blank
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CN	Cyanide
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DST	Data Summary Table
EDM	EXES Data Manager
HG	Mercury
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma-Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
ICS	Interference Check Sample
ICV	Initial Calibration Verification
IS	Internal Standard
LCS	Laboratory Control Sample
MDL	Method Detection Limit
NFG	National Functional Guidelines
PE	Performance Evaluation
%D	Percent Difference
%R	Percent Recovery
%RI	Percent Relative Intensity
%RSD	Percent Relative Standard Deviation
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RPD	Relative Percent Difference
RSCC	Regional Sample Control Center
S3VEM	Stage 3 Validation Electronic and Manual (previously called Modified CADRE Review)
S4VEM	Stage 4 Validation Electronic and Manual (previously called Standard Review)
SDG	Sample Delivery Group
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
TAL	Target Analyte List

HEADER DEFINITIONS FOR INORGANIC EXCEL DST

CASE: Case Number
SDG: SDG Number
EPASAMP: EPA Sample Number
LABID: Laboratory File/Sample ID
MATRIX: Sample Matrix
QCCOD: Sample QC Code
SMPQUAL: Sample Qualifier
ANDATE: Sample Analysis Date
ANTIME: Sample Analysis Time
CASNUM: Compound CAS Number
ANALYTE: Compound Name
CONC: Compound Concentration
VALDQAL: Region 6 Inorganic Data Validation Qualifier (see Inorganic Data Qualifier Definitions on the next page)
UNITS: Concentration Units
ADJCRQL: Adjusted Contract Required Quantitation Limit Value
SMPDATE: Sampling Date
PRPDATE: Sample Preparation Date
LRDATE: Laboratory Receipt Date
LEVEL: Sample Level
PERSOLD: Sample Percent Solids
SMPWTVL: Sample Weight (Soil Samples)/Initial Sample Volume (Water Samples)
FINLVOL: Final Sample Volume
METHOD: Method of Analysis
STATLOC: Station Location

Disclaimer: ESAT verified the accuracy of the information reported in the Excel DST only for the following data fields: CASE, SDG, EPASAMP, MATRIX, ANALYTE, CONC, UNITS, ADJCRQL, VALDQAL, and PERSOLD. The data qualifiers in the VALDQAL column indicate the technical usability of the reported results.

INORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

U Not detected at reported quantitation limit.

L Reported concentration is between the MDL and the CRQL.

J Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, etc., or the result is below the CRQL.

R Result is unusable.

F A possibility of a false negative exists.

UC Reported concentration should be used as a raised quantitation limit because of blank effects and/or laboratory or field contamination.

+ High biased. Actual concentration may be lower than the concentration reported.

- Low biased. Actual concentration may be higher than the concentration reported.

W The result should be used with caution. The result was reported on a dry weight basis although the sample did not conform to the EPA Office of Water definition of a soil sample because of its high water content (>70% moisture).

CASE	SDG	EPASAMP	LABID	MATRIX	QCCODE	ANDATE	ANTIME	CASNUM	ANALYTE	CONC	VALDQAL	UNITS	ADJCRQL	SMPDATE	PRPDATE	LRDATE	LEVEL	PERSOLD	SMPWTVL	FINVOL	METHOD	STATLOC
46321	MF1D18	MF1D05	1620228001	S	Field_Sample	07/27/2016	12:19:02	57-12-5	Cyanide	0.56	U	mg/kg	0.56	07/19/2016	07/26/2016	07/20/2016	Low	80.3	0.5644	6	AS	SO-06
46321	MF1D18	MF1D12	1620228002	S	Field_Sample	07/27/2016	12:19:20	57-12-5	Cyanide	0.93		mg/kg	0.79	07/19/2016	07/26/2016	07/20/2016	Low	57.9	0.549	6	AS	SE-05
46321	MF1D18	MF1D13	1620467001	S	Field_Sample	07/27/2016	12:23:14	57-12-5	Cyanide	0.18	LJ	mg/kg	0.73	07/21/2016	07/26/2016	07/22/2016	Low	68.9	0.5001	6	AS	SE-06
46321	MF1D18	MF1D14	1620228004	S	Field_Sample	07/27/2016	12:20:14	57-12-5	Cyanide	0.73	U	mg/kg	0.73	07/19/2016	07/26/2016	07/20/2016	Low	63.0	0.5375	6	AS	SE-07
46321	MF1D18	MF1D15	1620467002	S	Field_Sample	07/27/2016	12:23:32	57-12-5	Cyanide	0.10	LJ	mg/kg	0.56	07/21/2016	07/26/2016	07/22/2016	Low	67.1	0.5548	6	AS	SE-08
46321	MF1D18	MF1D16	1620467003	S	Field_Sample	07/27/2016	12:24:26	57-12-5	Cyanide	1.1	U	mg/kg	1.1	07/21/2016	07/26/2016	07/22/2016	Low	45.4	0.5026	6	AS	SE-09
46321	MF1D18	MF1D17	1620228005	S	Field_Sample	07/27/2016	12:20:32	57-12-5	Cyanide	0.034	LJ	mg/kg	0.56	07/19/2016	07/26/2016	07/20/2016	Low	83.9	0.5104	6	AS	SE-10
46321	MF1D18	MF1D18	1620157001	S	Field_Sample	07/27/2016	12:12:08	57-12-5	Cyanide	0.35	LJ	mg/kg	0.50	07/18/2016	07/26/2016	07/19/2016	Low	76.6	0.5533	6	AS	SE-11
46321	MF1D18	MF1D19	1620157004	S	Field_Sample	07/27/2016	12:16:02	57-12-5	Cyanide	0.067	LJ	mg/kg	0.55	07/18/2016	07/26/2016	07/19/2016	Low	77.5	0.5914	6	AS	SE-12
46321	MF1D18	MF1D20	1620157005	S	Field_Sample	07/27/2016	12:16:20	57-12-5	Cyanide	0.62		mg/kg	0.59	07/18/2016	07/26/2016	07/19/2016	Low	71.8	0.5897	6	AS	SE-13
46321	MF1D18	MF1D21	1620467004	S	Field_Sample	07/27/2016	12:24:44	57-12-5	Cyanide	0.74	U	mg/kg	0.74	07/21/2016	07/26/2016	07/22/2016	Low	65.4	0.5192	6	AS	SE-14
46321	MF1D18	MF1D22	1620467005	S	Field_Sample	07/27/2016	12:27:26	57-12-5	Cyanide	0.65	LJ	mg/kg	0.98	07/21/2016	07/26/2016	07/22/2016	Low	45.6	0.5619	6	AS	SE-15

ED_004144A_00003946-00019

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 46321 SDG No. MF1D18 SDG Nos. To Follow Mod. Ref No. Date Rec. 08/11/16

EPA Lab ID: ALS

Lab Location: Salt Lake City, UT

Region: 6 Audit No.: 46321/MF1D18

Re_Submitted CSF? Yes ____ No X

Box No(s): 1

COMMENTS:

14./15. Sample tags were not required for this case.

Over for additional comments.

ORIGINALS	YES	NO	N/A
CUSTODY SEALS			
1. Present on package?	X		
2. Intact upon receipt?	X		
FORM DC-2			
3. Numbering scheme accurate?	X		
4. Are enclosed documents listed?	X		
5. Are listed documents enclosed?	X		
FORM DC-1			
6. Present?	X		
7. Complete?	X		
8. Accurate?	X		
TRAFFIC REPORT /CHAIN-OF-CUSTODY RECORD(s)			
9. Signed?	X		
10. Dated?	X		
AIRBILLS/AIRBILL STICKER			
11. Present?	X		
12. Signed?	X		
13. Dated?	X		
SAMPLE TAGS			
14. Does DC-1 list tags as being included?			X
15. Present?			X
OTHER DOCUMENTS			
16. Complete?	X		
17. Legible?	X		
18. Original?	X		
18a. If "NO", does the copy indicate where original documents are located?			X

Audited by: L. Hoffman / ESAT Data Reviewer Date 08/23/16

Audited by: Date

Signature Printed Name/Title

DC-2__

In Reference To: (I-0689)
Case No.: 46321 SDG(s): MF1D18

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Resubmission Request

Laboratory Name: ALS
Lab Contact: Roxanne Olson

Region: 6
Regional Contact: Raymond Flores - EPA
ESAT Reviewer: Linda Hoffman - ESAT

In reference to data for the following fractions:

CSF Issues CN

Summary of Questions/Issues:

CSF

The airbill number on the traffic report on page 10 does not agree with the airbill number recorded on the associated Form DC-1 (p. 13) or submitted airbill (p. 78). Please resolve and document this discrepancy in a revised SDG Narrative.

CN

1. The CRQL reported for the ICBs and CCBs on all Form 3s is incorrect. Please correct and resubmit these pages with the proper pagination.

2. Please submit a Form 9 with the ug/L MDL since the ICB and CCB concentrations are reported in ug/L (ISM02.3, p. B-43, sec. 3.4.11.1).

NOTE: Any submitted laboratory resubmission should be clearly marked as "Additional Data" with a cover letter included describing what data is being delivered, which Case the data pertains, and who requested the data (ISM02.3, p. B-9, sec. 2.2.1). Custody seals are required only for regular mail shipments.

Please respond to the above item **within 5 business days (ISM02.3, p. B-9, sec. 2.2.1)** by e-mail to Flores.Raymond@epa.gov. If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

USEPA CLP COC (REGION COPY)
DateShipped: 7/18/2016
CarrierName: FedEx
AirbillNo: 809624402173

CHAIN OF CUSTODY RECORD
Lane Plating Works/Texas
Case #: 46321
Cooler #: 1

No: 6-070816-132935-0001
Lab: ALS Laboratory Group - Salt Lake City
Lab Contact: Meredith Edwards
Lab Phone: 801-268-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
MF1D18	MF1D18	Sediment/ Matthew Hubbard	Grab	CN(21)	1037 (None) (1)	SE-11	07/18/2016 16:05	Lab QC
MF1D19	MF1D19	Sediment/ Stephen Ellis	Grab	CN(21)	1114 (None) (1)	SE-12	07/18/2016 15:47	Field Sample
MF1D20	MF1D20	Sediment/ Stephen Ellis	Grab	CN(21)	1041 (None) (1)	SE-13	07/18/2016 15:20	Field Sample
MF1D37	MF1D37	Surface Water/ Matthew Hubbard	Grab	CN(21)	1077 (NaOH pH >10) (1)	SW-11	07/18/2016 16:03	Lab QC
MF1D38	MF1D38	Surface Water/ Stephen Ellis	Grab	CN(21)	1081 (NaOH pH >10) (1)	SW-12	07/18/2016 15:45	Field Sample
MF1D39	MF1D39	Surface Water/ Stephen Ellis	Grab	CN(21)	1083 (NaOH pH >10) (1)	SW-13	07/18/2016 15:15	Field Sample

Page 10 of 12

Sample(s) to be used for Lab QC: MF1D18 Tag 1037, MF1D37 Tag 1077

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CN=CLP Cyanide

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Adrienne Love	7/18/16			

USEPA CLP COC (REGION COPY)
DateShipped: 7/19/2016
CarrierName: FedEx
AirbillNo: 809524402130

CHAIN OF CUSTODY RECORD
Lane Plating Works/Texas
Case #: 46321
Cooler #: 1

No: 6-071916-152450-0003
Lab: ALS Laboratory Group - Salt Lake City
Lab Contact: Meredith Edwards
Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
MF1D05	MF1D05	Soil/ Stephen Ellis	Grab	CN(21)	1011 (None) (1)	SO-06	07/19/2016 12:55	Field Sample
MF1D12	MF1D12	Sediment/ Stephen Ellis	Grab	CN(21)	1025 (None) (1)	SE-05	07/19/2016 12:45	Field Sample
MF1D14	MF1D14	Sediment/ Stephen Ellis	Grab	CN(21)	1029 (None) (1)	SE-07	07/19/2016 14:55	Field Sample
MF1D17	MF1D17	Sediment/ Matthew Hubbard	Grab	CN(21)	1035 (None) (1)	SE-10	07/19/2016 09:55	Field Sample
MF1D31	MF1D31	Surface Water/ Stephen Ellis	Grab	CN(21)	1064 (NaOH pH >10) (1)	SW-05	07/19/2016 15:20	Field Sample
MF1D32	MF1D32	Surface Water/ Stephen Ellis	Grab	CN(21)	1066 (NaOH pH >10) (1)	SW-06	07/19/2016 15:05	Field Sample
MF1D33	MF1D33	Surface Water/ Stephen Ellis	Grab	CN(21)	1069 (NaOH pH >10) (1)	SW-07	07/19/2016 14:50	Field Sample

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CN=CLP Cyanide

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[signature]	7/19/16			

Page 11 of 12

34 023

USEPA CLP COC (REGION COPY)
DateShipped: 7/21/2016
CarrierName: FedEx
AirbillNo: 810257601841

CHAIN OF CUSTODY RECORD
Lane Plating Works/Texas
Case #: 46321
Cooler #: 1

No: 6-072116-134031-0007
Lab: ALS Laboratory Group - Salt Lake City
Lab Contact: Meredith Edwards
Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
MF1D13	MF1D13	Sediment/ Stephen Ellis	Grab	CN(21)	1027 (None) (1)	SE-06	07/21/2016 12:05	Field Sample
MF1D15	MF1D15	Sediment/ Stephen Ellis	Grab	CN(21)	1031 (None) (1)	SE-08	07/21/2016 11:10	Field Sample
MF1D16	MF1D16	Sediment/ Stephen Ellis	Grab	CN(21)	1033 (None) (1)	SE-09	07/21/2016 10:40	Field Sample
MF1D21	MF1D21	Sediment/ Stephen Ellis	Grab	CN(21)	1043 (None) (1)	SE-14	07/21/2016 11:15	Field Duplicate
MF1D22	MF1D22	Sediment/ Stephen Ellis	Grab	CN(21)	1045 (None) (1)	SE-15	07/21/2016 10:45	Field Duplicate
MF1D34	MF1D34	Surface Water/ Stephen Ellis	Grab	CN(21)	1071 (NaOH pH >10) (1)	SW-08	07/21/2016 11:00	Field Sample
MF1D35	MF1D35	Surface Water/ Stephen Ellis	Grab	CN(21)	1073 (NaOH pH >10) (1)	SW-09	07/21/2016 10:30	Field Sample
MF1D40	MF1D40	Surface Water/ Stephen Ellis	Grab	CN(21)	1085 (NaOH pH >10) (1)	SW-14	07/21/2016 11:05	Field Duplicate
MF1D41	MF1D41	Surface Water/ Stephen Ellis	Grab	CN(21)	1087 (NaOH pH >10) (1)	SW-15	07/21/2016 10:35	Field Duplicate

Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: CN=CLP Cyanide

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Adrienne Rose	7/21/16			

Page 1 of 2

34 024

ADDENDUM

ED_004144A_00003946-00025

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 15:24:35

Lab Code: ALS	SDG: MF1D18	Contract: EPW14027	Submission Group Id: 30168001
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

HoldingTimes_Preservation

Method - Cyanide

Test Name: EXES-462

Defect Message: The following soil samples were not maintained at = 6°C (but not frozen) from time of collection until receipt at the laboratory. Use Professional Judgement to qualify detects as J- and nondetects as R.

Associated Samples: MF1D05, MF1D12, MF1D14, MF1D17

Defective Analyte	Defective Samples/Analyses
	MF1D14, MF1D12, MF1D17, MF1D05

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 15:24:35

Lab Code: ALS	SDG: MF1D18	Contract: EPW14027	Submission Group Id: 30168001
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

InitialCalibration

NONE FOUND

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 15:24:35

Lab Code: ALS	SDG: MFID18	Contract: EPW14027	Submission Group Id: 30168001
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

ContinuingCalibrationVerification

NONE FOUND

ED_004144A_00003946-00029

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 15:24:35

Lab Code: ALS	SDG: MF1D18	Contract: EPW14027	Submission Group Id: 30168001
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

Blanks

Method - Cyanide

Test Name: EXES-479
Defect Message: The following samples have analyte results greater than CRQLs. The associated CCB analyte results are less than or equal to CRQLs. Use Professional Judgement to qualify detects.
Associated Samples: MF1D12, MF1D20

Defective Analyte	Defective Samples/Analyses
Cyanide	MF1D12, MF1D20

Test Name: EXES-480
Defect Message: The following samples are associated with CCB that has analyte results less than or equal to (-MDLs) but greater than or equal to (-CRQLs). Use Professional Judgement to qualify detects and nondetects.
Associated Samples: MF1D05, MF1D12, MF1D13, MF1D14, MF1D15, MF1D16, MF1D17, MF1D18, MF1D19, MF1D20, MF1D21, MF1D22

Defective Analyte	Defective Samples/Analyses
Cyanide	MF1D20, MF1D22, MF1D18, MF1D19, MF1D21, MF1D05, MF1D12, MF1D13, MF1D17, MF1D14, MF1D16, MF1D15

ED_004144A_00003946-00030

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 15:24:35

Lab Code: ALS	SDG: MF1D18	Contract: EPW14027	Submission Group Id: 30168001
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

MatrixSpikes

Method - Cyanide

Test Name: EXES-592

Defect Message: The following samples are associated with Matrix Spike sample that has spike analyte %R within 30 - 74% and Post-digestion spike analyte %R greater than or equal to 75%. Detects are qualified as J. Nondetects are qualified as UJ.

☐Associated Samples: MF1D05, MF1D12, MF1D13, MF1D14, MF1D15, MF1D16, MF1D17, MF1D18, MF1D19, MF1D20, MF1D21, MF1D22* * Defective Associated Samples: MF1D05, MF1D12, MF1D13, MF1D14, MF1D15, MF1D16, MF1D17, MF1D18, MF1D19, MF1D20, MF1D21, MF1D22

Defective Analyte	Defective Samples/Analyses
Cyanide	MF1D18A

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 15:24:35

Lab Code: ALS	SDG: MF1D18	Contract: EPW14027	Submission Group Id: 30168001
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

TargetAnalyteQuantitation

Method - Cyanide

Test Name: EXES-790
Defect Message: The following samples have analyte results greater than or equal to detection limit (MDL) and below quantitation limit (CRQL). Detects are qualified as estimated J.
Associated Samples: MF1D13, MF1D15, MF1D17, MF1D18, MF1D18D, MF1D19, MF1D22

Defective Analyte	Defective Samples/Analyses
Cyanide	MF1D18D, MF1D22, MF1D18, MF1D17, MF1D15, MF1D13, MF1D19

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 15:24:35

Lab Code: ALS	SDG: MFID18	Contract: EPW14027	Submission Group Id: 30168001
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

SampleAnalysis

NONE FOUND

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 15:24:35

Lab Code: ALS	SDG: MF1D18	Contract: EPW14027	Submission Group Id: 30168001
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

Duplicates

NONE FOUND

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 15:24:35

Lab Code: ALS	SDG: MFID18	Contract: EPW14027	Submission Group Id: 30168001
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

InitialCalibrationVerification

NONE FOUND

ED_004144A_00003946-00035

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

September 2, 2016

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review

FROM: Raymond Flores, Alternate ESAT Regional Project Officer
Environmental Services Branch (6MD-HL)

TO: Bret Kendrick, Superfund Project Manager (6SF-TR)

Site: LANE PLATING WORKS

Case#: 46321

SDG#: MF1D37

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: August 26, 2016

TO: Marvelyn Humphrey, ESAT PO, Region 6 EPA

FROM: Linda Hoffman, Data Reviewer, ESAT

THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT DGJ

SUBJECT: CLP Data Review

Contract No.:	EP-W-13-026
TO No.:	002
Task/Sub-Task:	2-12
ESAT Doc. No.:	1602-212-0024
TDF No.:	6-16-295A
ESAT File No.:	I-0690

Attached is the data review summary for Case # 46321
SDG # MFID37
Site Lane Plating Works

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 46321	SITE Lane Plating Works
LABORATORY ALS	NO. OF SAMPLES 13
CONTRACT# EP-W-14-027	MATRIX Water
SDG# MF1D37	REVIEWER (IF NOT ESB) ESAT
SOW# ISM02.3	REVIEWER'S NAME Linda Hoffman
SF# 303DD2A6MS	COMPLETION DATE August 26, 2016

SAMPLE NO.					
	MF1D27	MF1D32	MF1D37	MF1D41	
	MF1D29	MF1D33	MF1D38		
	MF1D30	MF1D34	MF1D39		
	MF1D31	MF1D35	MF1D40		

DATA ASSESSMENT SUMMARY

		CN
1.	HOLDING TIMES	O
2.	CALIBRATIONS	O
3.	BLANKS	O
4.	MATRIX SPIKES	O
5.	DUPLICATE ANALYSIS	O
6.	ICP QC	N/A
7.	LCS	N/A
8.	SAMPLE VERIFICATION	O
9.	OTHER QC	N/A
10.	OVERALL ASSESSMENT	O

O = Data had no problems.
M = Data qualified due to major or minor problems.
Z = Data unacceptable.
NA = Not applicable.

ACTION ITEMS:

AREAS OF CONCERN:

COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW

CASE 46321 SDG MF1D37 SITE Lane Plating Works LAB ALS

COMMENTS: This SDG consisted of thirteen water samples for cyanide analysis following SOW ISM02.3. The sampler designated sample MF1D37 for QC analyses.

The target analyte of concern with an action level of 5.2 ug/L was cyanide. However, the CRQL for cyanide is 10 ug/L, which is greater than the action level. Cyanide was not detected above 10 ug/L (the CRQL) in any of the samples.

S3VEM Review was performed for this package as requested by the Region. For this review option, laboratory contractual compliance and technical usability of the sample results are primarily determined by the EDM CCS Defect Report and NFG Data Review Results Report, respectively. The reviewer performs supplemental hardcopy forms checking and applies Region 6 guidelines, where necessary, to account for known limitations of the electronic review process. Therefore, the reviewer's final assessments may deviate from those found in the EDM reports. The NFG Data Review Results Report for the SDG is attached to this report as an addendum for additional information.

OVERALL ASSESSMENT: All results were acceptable. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

The laboratory was contacted for a CSF issue (see Resubmission Request). The laboratory resubmission will not impact the DST, so the DST included is the final version.

INORGANIC ACRONYMS

CCB	Continuing Calibration Blank
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CN	Cyanide
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DST	Data Summary Table
EDM	EXES Data Manager
HG	Mercury
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma-Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
ICS	Interference Check Sample
ICV	Initial Calibration Verification
IS	Internal Standard
LCS	Laboratory Control Sample
MDL	Method Detection Limit
NFG	National Functional Guidelines
PE	Performance Evaluation
%D	Percent Difference
%R	Percent Recovery
%RI	Percent Relative Intensity
%RSD	Percent Relative Standard Deviation
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RPD	Relative Percent Difference
RSCC	Regional Sample Control Center
S3VEM	Stage 3 Validation Electronic and Manual (previously called Modified CADRE Review)
S4VEM	Stage 4 Validation Electronic and Manual (previously called Standard Review)
SDG	Sample Delivery Group
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
TAL	Target Analyte List

HEADER DEFINITIONS FOR INORGANIC EXCEL DST

CASE:	Case Number
SDG:	SDG Number
EPASAMP:	EPA Sample Number
LABID:	Laboratory File/Sample ID
MATRIX:	Sample Matrix
QCCOD:	Sample QC Code
SMPQUAL:	Sample Qualifier
ANDATE:	Sample Analysis Date
ANTIME:	Sample Analysis Time
CASNUM:	Compound CAS Number
ANALYTE:	Compound Name
CONC:	Compound Concentration
VALDQAL:	Region 6 Inorganic Data Validation Qualifier (see Inorganic Data Qualifier Definitions on the next page)
UNITS:	Concentration Units
ADJCRQL:	Adjusted Contract Required Quantitation Limit Value
SMPDATE:	Sampling Date
PRPDATE:	Sample Preparation Date
LRDATE:	Laboratory Receipt Date
LEVEL:	Sample Level
PERSOLD:	Sample Percent Solids
SMPWTVL:	Sample Weight (Soil Samples)/Initial Sample Volume (Water Samples)
FINLVOL:	Final Sample Volume
METHOD:	Method of Analysis
STATLOC:	Station Location

Disclaimer: ESAT verified the accuracy of the information reported in the Excel DST only for the following data fields: CASE, SDG, EPASAMP, MATRIX, ANALYTE, CONC, UNITS, ADJCRQL, VALDQAL, and PERSOLD. The data qualifiers in the VALDQAL column indicate the technical usability of the reported results.

INORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

U Not detected at reported quantitation limit.

L Reported concentration is between the MDL and the CRQL.

J Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, etc., or the result is below the CRQL.

R Result is unusable.

F A possibility of a false negative exists.

UC Reported concentration should be used as a raised quantitation limit because of blank effects and/or laboratory or field contamination.

\+ High biased. Actual concentration may be lower than the concentration reported.

\- Low biased. Actual concentration may be higher than the concentration reported.

W The result should be used with caution. The result was reported on a dry weight basis although the sample did not conform to the EPA Office of Water definition of a soil sample because of its high water content (>70% moisture).

CASE	SDG	EPASAMP	LABID	MATRIX	QCCODE	ANDATE	ANTIME	CASNUM	ANALYTE	CONC	VALDQAL	UNITS	ADJCRQL	SMPDATE	PRPDATE	LRDATE	LEVEL	PERSOLD	SMPWTVL	FINVOL	METHOD	STATLOC
46321	MF1D37	MF1D27	1620335001	W	Field_Sample	07/28/2016	13:17:09	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/20/2016	07/27/2016	07/21/2016	Low	0.00	6	6	AS	SW-01
46321	MF1D37	MF1D29	1620335002	W	Field_Sample	07/28/2016	13:20:21	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/20/2016	07/27/2016	07/21/2016	Low	0.00	6	6	AS	SW-03
46321	MF1D37	MF1D30	1620335003	W	Field_Sample	07/28/2016	13:20:39	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/20/2016	07/27/2016	07/21/2016	Low	0.00	6	6	AS	SW-04
46321	MF1D37	MF1D31	1620230001	W	Field_Sample	07/28/2016	13:16:09	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/19/2016	07/27/2016	07/20/2016	Low	0.00	6	6	AS	SW-05
46321	MF1D37	MF1D32	1620230002	W	Field_Sample	07/28/2016	13:16:27	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/19/2016	07/27/2016	07/20/2016	Low	0.00	6	6	AS	SW-06
46321	MF1D37	MF1D33	1620230003	W	Field_Sample	07/28/2016	13:17:21	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/19/2016	07/27/2016	07/20/2016	Low	0.00	6	6	AS	SW-07
46321	MF1D37	MF1D34	1620468001	W	Field_Sample	07/28/2016	13:21:33	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/21/2016	07/27/2016	07/22/2016	Low	0.00	6	6	AS	SW-08
46321	MF1D37	MF1D35	1620468002	W	Field_Sample	07/28/2016	13:21:51	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/21/2016	07/27/2016	07/22/2016	Low	0.00	6	6	AS	SW-09
46321	MF1D37	MF1D37	1620159001	W	Field_Sample	07/28/2016	13:09:15	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/18/2016	07/27/2016	07/19/2016	Low	0.00	6	6	AS	SW-11
46321	MF1D37	MF1D38	1620159004	W	Field_Sample	07/28/2016	13:13:10	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/18/2016	07/27/2016	07/19/2016	Low	0.00	6	6	AS	SW-12
46321	MF1D37	MF1D39	1620159005	W	Field_Sample	07/28/2016	13:13:27	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/18/2016	07/27/2016	07/19/2016	Low	0.00	6	6	AS	SW-13
46321	MF1D37	MF1D40	1620468003	W	Field_Sample	07/28/2016	13:24:33	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/21/2016	07/27/2016	07/22/2016	Low	0.00	6	6	AS	SW-14
46321	MF1D37	MF1D41	1620468004	W	Field_Sample	07/28/2016	13:24:51	57-12-5	Cyanide	10.0	U	ug/L	10.0	07/21/2016	07/27/2016	07/22/2016	Low	0.00	6	6	AS	SW-15

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 46321 SDG No. MF1D37 SDG Nos. To Follow Mod. Ref No. Date Rec. 08/11/16

EPA Lab ID: ALS

Lab Location: Salt Lake City, UT

Region: 6 Audit No.: 46321/MF1D37

Re_Submitted CSF? Yes ____ No X

Box No(s): 1

COMMENTS:

14./15. Sample tags were not required for this case.

Over for additional comments.

ORIGINALS	YES	NO	N/A
CUSTODY SEALS			
1. Present on package?	X		
2. Intact upon receipt?	X		
FORM DC-2			
3. Numbering scheme accurate?	X		
4. Are enclosed documents listed?	X		
5. Are listed documents enclosed?	X		
FORM DC-1			
6. Present?	X		
7. Complete?	X		
8. Accurate?	X		
TRAFFIC REPORT /CHAIN-OF-CUSTODY RECORD(s)			
9. Signed?	X		
10. Dated?	X		
AIRBILLS/AIRBILL STICKER			
11. Present?	X		
12. Signed?	X		
13. Dated?	X		
SAMPLE TAGS			
14. Does DC-1 list tags as being included?			X
15. Present?			X
OTHER DOCUMENTS			
16. Complete?	X		
17. Legible?	X		
18. Original?		X	
18a. If "NO", does the copy indicate where original documents are located?	X		

Audited by: L. Hoffman / ESAT Data Reviewer Date 08/26/16

Audited by: ____ Date ____

Signature Printed Name/Title

DC-2___

In Reference To: (I-0690)
Case No.: 46321 SDG(s): MF1D37

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Resubmission Request

Laboratory Name: ALS
Lab Contact: Roxanne Olson

Region: 6
Regional Contact: Raymond Flores - EPA
ESAT Reviewer: Linda Hoffman - ESAT

In reference to data for the following fractions:

CSF Issue

Summary of Questions/Issues:

The airbill number on the traffic report on page 13 does not agree with the airbill number recorded on the associated Form DC-1 (p. 17) or submitted airbill (p. 69). Please resolve and document this discrepancy in a revised SDG Narrative.

NOTE: Any submitted laboratory resubmission should be clearly marked as "Additional Data" with a cover letter included describing what data is being delivered, which Case the data pertains, and who requested the data (ISM02.3, p. B-9, sec. 2.2.1). Custody seals are required only for regular mail shipments.

Please respond to the above item **within 5 business days (ISM02.3, p. B-9, sec. 2.2.1)** by e-mail to Flores.Raymond@epa.gov. If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

USEPA CLP COC (REGION COPY)
DateShipped: 7/18/2016
CarrierName: FedEx
AirbillNo: 809524402173

CHAIN OF CUSTODY RECORD
Lane Plating Works/Texas
Case #: 46321
Cooler #: 1

No: 6-070816-132935-0001
Lab: ALS Laboratory Group - Salt Lake City
Lab Contact: Meredith Edwards
Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
MF1D18	MF1D18	Sediment/ Matthew Hubbard	Grab	CN(21)	1037 (None) (1)	SE-11	07/18/2016 16:05	Lab QC
MF1D19	MF1D19	Sediment/ Stephen Ellis	Grab	CN(21)	1114 (None) (1)	SE-12	07/18/2016 15:47	Field Sample
MF1D20	MF1D20	Sediment/ Stephen Ellis	Grab	CN(21)	1041 (None) (1)	SE-13	07/18/2016 15:20	Field Sample
MF1D37	MF1D37	Surface Water/ Matthew Hubbard	Grab	CN(21)	1077 (NaOH pH >10) (1)	SW-11	07/18/2016 16:03	Lab QC
MF1D38	MF1D38	Surface Water/ Stephen Ellis	Grab	CN(21)	1081 (NaOH pH >10) (1)	SW-12	07/18/2016 15:45	Field Sample
MF1D39	MF1D39	Surface Water/ Stephen Ellis	Grab	CN(21)	1083 (NaOH pH >10) (1)	SW-13	07/18/2016 15:15	Field Sample

Sample(s) to be used for Lab QC: MF1D18 Tag 1037, MF1D37 Tag 1077

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CN-CLP Cyanide

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Adrienne Rose	7/18/16			

Page 10 of 13

USEPA CLP COC (REGION COPY)
DateShipped: 7/20/2016
CarrierName: FedEx
AirbillNo: 810257801011

CHAIN OF CUSTODY RECORD
Lane Plating Works/Texas
Case #: 46321
Cooler #: 1

No: 6-072016-154639-0005
Lab: ALS Laboratory Group - Salt Lake City
Lab Contact: Meredith Edwards
Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
MF1D27	MF1D27	Surface Water/ Stephen Ellis	Grab	CN(21)	1064 (NaOH pH >10) (1)	SW-01	07/20/2016 12:15	Field Sample
MF1D29	MF1D29	Surface Water/ Stephen Ellis	Grab	CN(21)	1060 (NaOH pH >10) (1)	SW-03	07/20/2016 09:40	Field Sample
MF1D30	MF1D30	Surface Water/ Stephen Ellis	Grab	CN(21)	1062 (NaOH pH >10) (1)	SW-04	07/20/2016 09:24	Field Sample

Special Instructions: Samples MF1D02, MF1D03, MF1D04, and MF1D07 may have high concentrations.

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: CN=CLP Cyanide

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Adrienne Lane	7/20/16			

Page 11 of 13

34 047

USEPA CLP COC (REGION COPY)
DateShipped: 7/19/2016
CarrierName: FedEx
AirbillNo: 8095244021 30

CHAIN OF CUSTODY RECORD
Lane Plating Works/Texas
Case #: 46321
Cooler #: 1

No: 6-071916-152450-0003
Lab: ALS Laboratory Group - Salt Lake City
Lab Contact: Meredith Edwards
Lab Phone: 801-268-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
MF1D05	MF1D05	Soil/ Stephen Ellis	Grab	CN(21)	1011 (None) (1)	SO-06	07/19/2016 12:55	Field Sample
MF1D12	MF1D12	Sediment/ Stephen Ellis	Grab	CN(21)	1025 (None) (1)	SE-05	07/19/2016 12:45	Field Sample
MF1D14	MF1D14	Sediment/ Stephen Ellis	Grab	CN(21)	1029 (None) (1)	SE-07	07/19/2016 14:55	Field Sample
MF1D17	MF1D17	Sediment/ Matthew Hubbard	Grab	CN(21)	1035 (None) (1)	SE-10	07/19/2016 09:55	Field Sample
MF1D31	MF1D31	Surface Water/ Stephen Ellis	Grab	CN(21)	1064 (NaOH pH >10) (1)	SW-05	07/19/2016 15:20	Field Sample
MF1D32	MF1D32	Surface Water/ Stephen Ellis	Grab	CN(21)	1066 (NaOH pH >10) (1)	SW-06	07/19/2016 15:05	Field Sample
MF1D33	MF1D33	Surface Water/ Stephen Ellis	Grab	CN(21)	1069 (NaOH pH >10) (1)	SW-07	07/19/2016 14:50	Field Sample

Page 12 of 13

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: CN=CLP Cyanide

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[signature]	7/19/16			

USEPA CLP COC (REGION COPY)
DateShipped: 7/21/2016
CarrierName: FedEx
AirbillNo: 810257801841

CHAIN OF CUSTODY RECORD
Lane Plating Works/Texas
Case #: 49321
Cooler #: 1

No: 6-072116-134031-0007
Lab: ALS Laboratory Group - Salt Lake City
Lab Contact: Meredith Edwards
Lab Phone: 801-266-7700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
MF1D13	MF1D13	Sediment/ Stephen Ellis	Grab	CN(21)	1027 (None) (1)	SE-06	07/21/2016 12:05	Field Sample
MF1D15	MF1D15	Sediment/ Stephen Ellis	Grab	CN(21)	1031 (None) (1)	SE-08	07/21/2016 11:10	Field Sample
MF1D16	MF1D16	Sediment/ Stephen Ellis	Grab	CN(21)	1033 (None) (1)	SE-09	07/21/2016 10:40	Field Sample
MF1D21	MF1D21	Sediment/ Stephen Ellis	Grab	CN(21)	1043 (None) (1)	SE-14	07/21/2016 11:15	Field Duplicate
MF1D22	MF1D22	Sediment/ Stephen Ellis	Grab	CN(21)	1045 (None) (1)	SE-15	07/21/2016 10:45	Field Duplicate
MF1D34	MF1D34	Surface Water/ Stephen Ellis	Grab	CN(21)	1071 (NaOH pH >10) (1)	SW-08	07/21/2016 11:00	Field Sample
MF1D35	MF1D35	Surface Water/ Stephen Ellis	Grab	CN(21)	1073 (NaOH pH >10) (1)	SW-09	07/21/2016 10:30	Field Sample
MF1D40	MF1D40	Surface Water/ Stephen Ellis	Grab	CN(21)	1085 (NaOH pH >10) (1)	SW-14	07/21/2016 11:05	Field Duplicate
MF1D41	MF1D41	Surface Water/ Stephen Ellis	Grab	CN(21)	1087 (NaOH pH >10) (1)	SW-15	07/21/2016 10:35	Field Duplicate

Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: CN=CLP Cyanide

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Adrienne Gore	7/21/16			

Page 13 of 13

ADDENDUM

ED_004144A_00003946-00051

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 14:21:37

Lab Code: ALS	SDG: MF1D37	Contract: EPW14027	Submission Group Id: 30168002
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

HoldingTimes_Preservation

Method - Cyanide

Test Name: EXES-461
Defect Message: The following aqueous samples were not maintained at = 6°C (but not frozen) from time of collection until receipt at the laboratory. Use Professional Judgement to qualify detects as J- and nondetects as R.

Associated Samples: MF1D27, MF1D29, MF1D30, MF1D31, MF1D32, MF1D33, MF1D37, MF1D37D, MF1D37S, MF1D38, MF1D39

Defective Analyte	Defective Samples/Analyses
	MF1D33, MF1D32, MF1D31, MF1D30, MF1D37D, MF1D39, MF1D27, MF1D37S, MF1D37, MF1D29, MF1D38

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 14:21:37

Lab Code: ALS	SDG: MF1D37	Contract: EPW14027	Submission Group Id: 30168002
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

InitialCalibration

NONE FOUND

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 14:21:37

Lab Code: ALS	SDG: MFTD37	Contract: EPW14027	Submission Group Id: 30168002
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

ContinuingCalibrationVerification

NONE FOUND

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 14:21:37

Lab Code: ALS	SDG: MF1D37	Contract: EPW14027	Submission Group Id: 30168002
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

Blanks

NONE FOUND

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 14:21:37

Lab Code: ALS	SDG: MF1D37	Contract: EPW14027	Submission Group Id: 30168002
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

MatrixSpikes

NONE FOUND

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 14:21:37

Lab Code: ALS	SDG: MF1D37	Contract: EPW14027	Submission Group Id: 30168002
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

TargetAnalyteQuantitation

NONE FOUND

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 14:21:37

Lab Code: ALS	SDG: MF1D37	Contract: EPW14027	Submission Group Id: 30168002
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

SampleAnalysis

NONE FOUND

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 14:21:37

Lab Code: ALS	SDG: MF1D37	Contract: EPW14027	Submission Group Id: 30168002
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

Duplicates

NONE FOUND

ED_004144A_00003946-00060

Data Validation Report

Data Review Results

Thu, 11 Aug 2016 14:21:37

Lab Code: ALS	SDG: MF1D37	Contract: EPW14027	Submission Group Id: 30168802
Lab Name: ALS Environmental (SLC)	Case: 46321	Client: EPA Region 6	SOW: ISM02.3

InitialCalibrationVerification

NONE FOUND