

ANALYTICAL RESULTS SUMMARY

METALS

PROJECT NAME : FORMER SCHLUMBERGER STC PTC SITE D3868221

JACOBS ENGINEERING GROUP, INC.

412 Mt. Kemble Ave

Downtown Building

Morristown, NJ - 07960

Phone No: 9732670555

ORDER ID : Q1769

ATTENTION : John Ynfante



Laboratory Certification ID # 20012



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Cover Page

Order ID : Q1769

Project ID : Former Schlumberger STC PTC Site D3868221

Client : JACOBS Engineering Group, Inc.

Lab Sample Number

Q1769-02
Q1769-03
Q1769-04
Q1769-08
Q1769-09
Q1769-10
Q1769-11

Client Sample Number

S-875-KI-SO-1.0-1.5-040925
S-874-KI-SO-1.0-1.5-040925
S-874-KI-SO-1.0-1.5-040925-FD
EB01-040925
S-873-KI-SO-1.0-1.5-040925
Q1769-09MS
Q1769-09MSD

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature :

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 1:35 pm, Apr 28, 2025

Date: 4/22/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger STC PTC Site D3868221

Project # N/A

Chemtech Project # Q1769

Test Name: Metals Group4

A. Number of Samples and Date of Receipt:

6 Solid samples were received on 04/09/2025.

1 Water sample was received on 04/09/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Metals Group4. This data package contains results for Metals Group4.

C. Analytical Techniques:

The analysis of Metals Group4 was based on method 6010D, digestion based on method 3010 (waters). The analysis of Metals Group4 was based on method 6020B and digestion based on method 3050 (soils).

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature _____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 1:35 pm, Apr 28, 2025

CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger STC PTC Site D3868221

Project # N/A

Chemtech Project # Q1769

Test Name: Metals Group4

A. Number of Samples and Date of Receipt:

6 Solid samples were received on 04/09/2025.

1 Water sample was received on 04/09/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Metals Group4. This data package contains results for Metals Group4.

C. Analytical Techniques:

The analysis of Metals Group4 was based on method 6010D, digestion based on method 3010 (waters). The analysis of Metals Group4 was based on method 6020B and digestion based on method 3050 (soils).

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike (S-873-KI-SO-1.0-1.5-040925MS) analysis met criteria for all samples except for Silver due to matrix interference.

The Matrix Spike Duplicate(S-873-KI-SO-1.0-1.5-040925MSD) analysis met criteria for all samples except for Silver due to matrix interference.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements.

E. Additional Comments:

All samples analyzed and reported with straight 5X dilution because of soil sample matrix was very smelly and possible contains organic chemical interference which causes enhancement effect to the internal standard causing QC failure and possible not the correct concentration of required analyte.

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.



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APPROVED

By Nimisha Pandya, QA/QC Supervisor at 1:36 pm, Apr 28, 2025

Signature _____

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

- J** Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
- U** Indicates the analyte was analyzed for, but not detected.
- ND** Indicates the analyte was analyzed for, but not detected
- E** Indicates the reported value is estimated because of the presence of interference
- M** Indicates Duplicate injection precision not met.
- N** Indicates the spiked sample recovery is not within control limits.
- S** Indicates the reported value was determined by the Method of Standard Addition (MSA).
- *** Indicates that the duplicate analysis is not within control limits.
- +** Indicates the correlation coefficient for the MSA is less than 0.995.
- D** Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
- M** Method qualifiers
 - “**P**” for ICP instrument
 - “**PM**” for ICP when Microwave Digestion is used
 - “**CV**” for Manual Cold Vapor AA
 - “**AV**” for automated Cold Vapor AA
 - “**CA**” for MIDI-Distillation Spectrophotometric
 - “**AS**” for Semi -Automated Spectrophotometric
 - “**C**” for Manual Spectrophotometric
 - “**T**” for Titrimetric
 - “**NR**” for analyte not required to be analyzed
- OR** Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
- Q** Indicates the LCS did not meet the control limits requirements
- H** Sample Analysis Out Of Hold Time

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1769

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 04/22/2025



SAMPLE DATA

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	04/09/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	04/09/25
Client Sample ID:	EB01-040925	SDG No.:	Q1769
Lab Sample ID:	Q1769-08	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	04/11/25 10:15	04/14/25 22:11	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Metals Group4			

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N = Spiked sample recovery not within control limits

LAB CHRONICLE

OrderID: Q1769	OrderDate: 4/9/2025 4:31:06 PM
Client: JACOBS Engineering Group, Inc.	Project: Former Schlumberger STC PTC Site D3868221
Contact: John Ynfante	Location: L31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1769-02	S-875-KI-SO-1.0-1.5-040925	SOIL			04/09/25			04/09/25
			Metals Group4	6020B		04/10/25	04/11/25	
Q1769-03	S-874-KI-SO-1.0-1.5-040925	SOIL			04/09/25			04/09/25
			Metals Group4	6020B		04/10/25	04/11/25	
Q1769-04	S-874-KI-SO-1.0-1.5-040925-FD	SOIL			04/09/25			04/09/25
			Metals Group4	6020B		04/10/25	04/11/25	
Q1769-08	EB01-040925	Water			04/09/25			04/09/25
			Metals Group4	6010D		04/11/25	04/14/25	
Q1769-09	S-873-KI-SO-1.0-1.5-040925	SOIL			04/09/25			04/09/25
			Metals Group4	6020B		04/10/25	04/11/25	



SAMPLE DATA

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	04/09/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	04/09/25
Client Sample ID:	S-875-KI-SO-1.0-1.5-040925	SDG No.:	Q1769
Lab Sample ID:	Q1769-02	Matrix:	SOIL
Level (low/med):	low	% Solid:	78.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Rep Date	Date Ana.	Ana Met.	Prep Met.
7440-22-4	Silver	6.96	DN	5	0.078	0.30	mg/Kg	04/10/25 13:05	04/11/25 14:21	SW6020	SW3050

Color Before:	Black	Clarity Before:	Texture:	Medium
Color After:	Yellow	Clarity After:	Artifacts:	
Comments:	Metals Group4			

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
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Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	04/09/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	04/09/25
Client Sample ID:	S-874-KI-SO-1.0-1.5-040925	SDG No.:	Q1769
Lab Sample ID:	Q1769-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	61.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Rep Date	Date Ana.	Ana Met.	Prep Met.
7440-22-4	Silver	37.2	DN	5	0.092	0.35	mg/Kg	04/10/25 13:05	04/11/25 14:24	SW6020	SW3050

Color Before: Black	Clarity Before:	Texture: Medium
Color After: Yellow	Clarity After:	Artifacts:
Comments: Metals Group4		

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N = Spiked sample recovery not within control limits

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	04/09/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	04/09/25
Client Sample ID:	S-874-KI-SO-1.0-1.5-040925-FD	SDG No.:	Q1769
Lab Sample ID:	Q1769-04	Matrix:	SOIL
Level (low/med):	low	% Solid:	62.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Rep Date	Date Ana.	Ana Met.	Prep Met.
7440-22-4	Silver	44.6	DN	5	0.096	0.37	mg/Kg	04/10/25 13:05	04/11/25 14:27	SW6020	SW3050

Color Before: Black	Clarity Before:	Texture: Medium
Color After: Yellow	Clarity After:	Artifacts:
Comments: Metals Group4		

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N = Spiked sample recovery not within control limits

LAB CHRONICLE

OrderID: Q1769	OrderDate: 4/9/2025 4:31:06 PM
Client: JACOBS Engineering Group, Inc.	Project: Former Schlumberger STC PTC Site D3868221
Contact: John Ynfante	Location: L31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1769-02	S-875-KI-SO-1.0-1.5-040925	SOIL			04/09/25			04/09/25
			Metals Group4	6020B		04/10/25	04/11/25	
Q1769-03	S-874-KI-SO-1.0-1.5-040925	SOIL			04/09/25			04/09/25
			Metals Group4	6020B		04/10/25	04/11/25	
Q1769-04	S-874-KI-SO-1.0-1.5-040925-FD	SOIL			04/09/25			04/09/25
			Metals Group4	6020B		04/10/25	04/11/25	
Q1769-08	EB01-040925	Water			04/09/25			04/09/25
			Metals Group4	6010D		04/11/25	04/14/25	
Q1769-09	S-873-KI-SO-1.0-1.5-040925	SOIL			04/09/25			04/09/25
			Metals Group4	6020B		04/10/25	04/11/25	



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Jacobs
 ADDRESS: 412 Mt Kemble Ave Suite 100
 CITY: Morrisstown STATE: NJ ZIP: 07960
 ATTENTION: John Yafante John.Yafante@Jacobs.com
 PHONE: _____ FAX: _____

CLIENT PROJECT INFORMATION

PROJECT NAME: STC PTC
 PROJECT NO.: 03868221 LOCATION: Pinechick Junction
 PROJECT MANAGER: Mary Murphy
 e-mail: Mary.Murphy@Jacobs.com
 PHONE: _____ FAX: _____

CLIENT BILLING INFORMATION

BILL TO: Mary Murphy PO#: _____
 ADDRESS: _____
 CITY: _____ STATE: _____ ZIP: _____
 ATTENTION: _____ PHONE: _____

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard DAYS* _____
 HARDCOPY (DATA PACKAGE): _____ DAYS* _____
 EDD: _____ DAYS* _____
 *TO BE APPROVED BY CHEMTECH
 STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

- Level 1 (Results Only)
- Level 2 (Results + QC)
- Level 3 (Results + QC + Raw Data)
- Level 4 (QC + Full Raw Data)
- NJ Reduced
- US EPA CLP
- NYS ASP A
- NYS ASP B
- Other _____
- EDD FORMAT _____

1. Ag (60208)
 2. SPLP Ag (60208/1302) (M.D.)
 3. Ag (60208)
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____
 9. _____

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS ← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER		
			COMP	GRAB	DATE	TIME		E	E	B/E									
								1	2	3	4	5	6	7	8	9			
1.	S-878-KI-SO-1.0-1.5-040925	SO	X		4/9/25	1005	1	✓	✓										HOLD!!
2.	S-875-KI-SO-1.0-1.5-040925	SO	X		4/9/25	1030	1	✓	✓										HOLD SPLP!
3.	S-874-KI-SO-1.0-1.5-040925	SO	X		4/9/25	1100	1	✓	✓										HOLD SPLP!
4.	S-874-KI-SO-1.0-1.5-040925-FD	SO	X		4/9/25	1105	1	✓	✓										HOLD SPLP!
5.	S-877-KI-SO-1.0-1.5-040925	SO	X		4/9/25	1235	1	✓	✓										HOLD!!
6.	S-873-KI-SO-1.0-1.5-040925	SO	X		4/9/25	1255	3	✓	✓										MS/MSD HOLD SPLP!
7.	S-876-KI-SO-1.0-1.5-040925	SO	X		4/9/25	1350	1	✓	✓										HOLD!!
8.	EB01-040925	DI	X	X	4/9/25	1420	1			✓									
9.																			
10.																			

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <u>[Signature]</u>	DATE/TIME: <u>4-9-25 1637</u>	RECEIVED BY: 1. <u>[Signature]</u>	DATE/TIME: <u>4-9-25 1637</u>	Conditions of bottles or coolers at receipt: <input type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input type="checkbox"/> COOLER TEMP <u>3.3</u> °C Comments: <u>Hold all SPLP analysis</u> <u>Hold entire sample for S-876, S-877, S-878</u> <u>Temp 3.3°C CA adjustment factor + DIR Gun #1.</u>
RELINQUISHED BY SAMPLER: 2. <u>[Signature]</u>	DATE/TIME: _____	RECEIVED BY: 2. _____	DATE/TIME: _____	
RELINQUISHED BY SAMPLER: 3. <u>[Signature]</u>	DATE/TIME: <u>1800 4-9-25</u>	RECEIVED BY: 3. _____	DATE/TIME: _____	

Page 1 of 1 CLIENT: Hand Delivered Other Shipment Complete YES NO

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488