



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**RECEIVED**

By Alameda County Environmental Health 3:26 pm, Mar 24, 2017

**WorkOrder:** 1610A33

**Report Created for:** Geosolve, Inc.

1807 Santa Rita Road, Suite D-165  
Pleasanton, CA 94566

**Project Contact:** Rob Campbell

**Project P.O.:** 2016-04

**Project Name:** 2016-04; 19th & Harrison

**Project Received:** 10/21/2016

Analytical Report reviewed & approved for release on 10/26/2016 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** Geosolve, Inc.  
**Project:** 2016-04; 19th & Harrison  
**WorkOrder:** 1610A33

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

### Analytical Qualifiers

H samples were analyzed out of holding time



## Analytical Report

**Client:** Geosolve, Inc.  
**Date Received:** 10/21/16 19:15  
**Date Prepared:** 10/24/16  
**Project:** 2016-04; 19th & Harrison

**WorkOrder:** 1610A33  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** µL/L

### Atmospheric gas Oxygen and Nitrogen

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
OG-1	1610A33-001A	Air	10/21/2016	GC26	128694

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Oxygen	130,000	H	10,000	5	10/24/2016 12:41

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
OG-2	1610A33-002A	Air	10/21/2016	GC26	128694

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Oxygen	140,000	H	10,000	5	10/24/2016 13:02

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
OG-3	1610A33-003A	Air	10/21/2016	GC26	128694

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Oxygen	140,000	H	10,000	5	10/24/2016 13:23

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
OG-4	1610A33-004A	Air	10/21/2016	GC26	128694

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Oxygen	140,000	H	10,000	5	10/24/2016 13:44

Analyst(s): AK

(Cont.)

 Angela Rydelius, Lab Manager



## Analytical Report

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**Date Received:** 10/21/16 19:15  
**Date Prepared:** 10/24/16  
**Project:** 2016-04; 19th & Harrison

**WorkOrder:** 1610A33  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** µL/L

### Atmospheric gas Oxygen and Nitrogen

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
OG-5	1610A33-005A	Air	10/21/2016	GC26	128694

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Oxygen	140,000	H	10,000	5	10/24/2016 14:05

Analyst(s): AK

 Angela Rydelius, Lab Manager



## Quality Control Report

<b>Client:</b>	Geosolve, Inc.	<b>WorkOrder:</b>	1610A33
<b>Date Prepared:</b>	10/24/16	<b>BatchID:</b>	128694
<b>Date Analyzed:</b>	10/24/16	<b>Extraction Method:</b>	ASTM D 1946-90
<b>Instrument:</b>	GC26	<b>Analytical Method:</b>	ASTM D 1946-90
<b>Matrix:</b>	Air	<b>Unit:</b>	µL/L
<b>Project:</b>	2016-04; 19th & Harrison	<b>Sample ID:</b>	MB/LCS-128694

### QC Summary Report for ASTM D1946-90

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Oxygen	ND	6770	2000	7000	-	97	70-130

QA/QC Officer



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1610A33

ClientCode: GSP

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Rob Campbell  
Geosolve, Inc.  
1807 Santa Rita Road, Suite D-165  
Pleasanton, CA 94566  
(925) 963-1198    FAX:

Email: rcampbell@geosolve-inc.com  
cc/3rd Party:  
PO: 2016-04  
ProjectNo: 2016-04; 19th & Harrison

**Bill to:**

Lisa Campbell  
Geosolve, Inc.  
1807 Santa Rita Road, Suite D-165  
Pleasanton, CA 94566  
lcampbell@geosolve-inc.com

**Requested TAT: 3 days;**

**Date Received: 10/21/2016**

**Date Logged: 10/21/2016**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1610A33-001	OG-1	Air	10/21/2016 00:00	<input type="checkbox"/>	A												
1610A33-002	OG-2	Air	10/21/2016 00:00	<input type="checkbox"/>	A												
1610A33-003	OG-3	Air	10/21/2016 00:00	<input type="checkbox"/>	A												
1610A33-004	OG-4	Air	10/21/2016 00:00	<input type="checkbox"/>	A												
1610A33-005	OG-5	Air	10/21/2016 00:00	<input type="checkbox"/>	A												

**Test Legend:**

1	ATMOSPHERICGAS_AIR	2		3		4	
5		6		7		8	
9		10		11		12	

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



### WORK ORDER SUMMARY

**Client Name:** GEOSOLVE, INC.  
**Client Contact:** Rob Campbell  
**Contact's Email:** rcampbell@geosolve-inc.com

**Project:** 2016-04; 19th & Harrison

**Work Order:** 1610A33  
**QC Level:** LEVEL 2  
**Date Logged:** 10/21/2016

**Comments:**

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1610A33-001A	OG-1	Air	ASTM D1946-90 (Light Gases, Atmospheric) <Oxygen>	1	Tedlar	<input type="checkbox"/>	10/21/2016	3 days		<input type="checkbox"/>	
1610A33-002A	OG-2	Air	ASTM D1946-90 (Light Gases, Atmospheric) <Oxygen>	1	Tedlar	<input type="checkbox"/>	10/21/2016	3 days		<input type="checkbox"/>	
1610A33-003A	OG-3	Air	ASTM D1946-90 (Light Gases, Atmospheric) <Oxygen>	1	Tedlar	<input type="checkbox"/>	10/21/2016	3 days		<input type="checkbox"/>	
1610A33-004A	OG-4	Air	ASTM D1946-90 (Light Gases, Atmospheric) <Oxygen>	1	Tedlar	<input type="checkbox"/>	10/21/2016	3 days		<input type="checkbox"/>	
1610A33-005A	OG-5	Air	ASTM D1946-90 (Light Gases, Atmospheric) <Oxygen>	1	Tedlar	<input type="checkbox"/>	10/21/2016	3 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).  
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.







### Sample Receipt Checklist

Client Name: **Geosolve, Inc.**  
 Project Name: **2016-04; 19th & Harrison**  
 WorkOrder No: **1610A33** Matrix: Air  
 Carrier: Benjamin Yslas (MAI Courier)

Date and Time Received: **10/21/2016 19:15**  
 Date Logged: **10/21/2016**  
 Received by: **Jena Alfaro**  
 Logged by: **Jena Alfaro**

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No   
 Sample/Temp Blank temperature Temp: NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes  No  NA   
 Samples Received on Ice? Yes  No

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes  No  NA   
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes  No  NA

Comments: Method ASTM D1946-90 (Light Gases, Atmospheric) was received passed its 0.025-day holding time.