

State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109



SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

1. OGCC Operator Number: 96850	4. Contact Name: Jason Rauen
2. Name of Operator: Williams Production RMT Company	Phone: 970/285-9377
3. Address: 1058 County Road 215	Fax: 970/285-9573
City: Parachute State: CO Zip: 81635	
5. API Number: 05-	OGCC Facility ID Number: 284688
6. Well/Facility Name: TR 12-11-597	7. Well/Facility Number:
8. Location (Qtr/Sec, Twp, Rng, Meridian): SWNW, Sec 11, T5S, R97W, 6th PM	
9. County: Garfield	10. Field Name: Trail Ridge
11. Federal, Indian or State Lease Number:	

Complete the Attachment Checklist

OP OGCC

Survey Plat	
Directional Survey	
Surface Eqmpt Diagram	
Technical Info Page	X
Other	X

General Notice

☐ CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qr is substantive and requires a new permit)

Change of Surface Footage from Exterior Section Lines: ☐ FNU/FSL ☐ FEL/FSL

Change of Surface Footage to Exterior Section Lines: ☐ FNU/FSL ☐ FEL/FSL

Change of Bottomhole Footage from Exterior Section Lines: ☐ FNU/FSL ☐ FEL/FSL

Change of Bottomhole Footage to Exterior Section Lines: ☐ FNU/FSL ☐ FEL/FSL attach directional survey

Bottomhole location Qtr/Sec, Twp, Rng, Mer

Latitude: Distance to nearest property line Distance to nearest bldg, public rd, utility or RR

Longitude: Distance to nearest lease line Is location in a High Density Area (rule 603b)? Yes/No

Ground Elevation: Distance to nearest well same formation Surface owner consultation date:

GPS DATA:

Date of Measurement PDOP Reading Instrument Operator's Name

☐ CHANGE SPACING UNIT

Formation Formation Code Spacing order number Unit Acreage Unit configuration

☐ Remove from surface bond

Signed surface use agreement attached

☐ CHANGE OF OPERATOR (prior to drilling):

Effective Date:

Plugging Bond: ☐ Blanket ☐ Individual

☐ CHANGE WELL NAME NUMBER

From:

To:

Effective Date:

☐ ABANDONED LOCATION:

Was location ever built? ☐ Yes ☐ No

Is site ready for inspection? ☐ Yes ☐ No

Date Ready for inspection:

☐ NOTICE OF CONTINUED SHUT IN STATUS

Date well shut in or temporarily abandoned:

Has Production Equipment been removed from site? ☐ Yes ☐ No

MIT required if shut in longer than two years. Date of last MIT

☐ SPUD DATE:

☐ REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing set)

☐ SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK

Method used Cementing tool setting/perm depth Cement volume Cement top Cement bottom Date

\*submit cbl and cement job summaries

☐ RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.

Final reclamation will commence on approximately ☐ Final reclamation is completed and site is ready for inspection.

Technical Engineering/Environmental Notice

☐ Notice of Intent

Approximate Start Date:

☐ Report of Work Done

Date Work Completed:

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

☐ Intent to Recomplete (submit form 2)

☐ Request to Vent or Flare

☐ E&P Waste Disposal

☐ Change Drilling Plans

☐ Repair Well

☐ Beneficial Reuse of E&P Waste

☐ Gross Interval Changed?

☐ Rule 502 variance requested

☐ Status Update/Change of Remediation Plans

☐ Casing/Cementing Program Change

☒ Other: Background for Spills and Releases

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Jason Rauen Date: 10/8/2010 Email: Jason.Rauen1@williams.com

Print Name: Jason Rauen Title: Environmental Specialist II

COGCC Approved: Chris Camfield Date: 10/14/2010

CONDITIONS OF APPROVAL, IF ANY:

EPS NW region

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: 96850 API Number: \_\_\_\_\_
2. Name of Operator: Williams Production RMT Compant OGCC Facility ID # 284688
3. Well/Facility Name: TR 12-11-597 Well/Facility Number: \_\_\_\_\_
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWNW, Sec 11, T5S, R97W, 6th PM

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. **DESCRIBE PROPOSED OR COMPLETED OPERATIONS**

This COGCC Form 4 is being submitted as a request to meet the background concentration levels for arsenic at the TR 12-11-597 well pad relative to production pit closure at the subject facility in accordance with footnote 1 to the COGCC table 910-1.

The request is based on the analytical results below (see attached laboratory results)

Nine (9) grab samples were collected from locations within the pit footprint between depths of 20' ft and 20.6' ft below pad grade to ascertain the arsenic concentrations of the facility.

TR 12-11-597\_Northeast Pit Bottom - 5.3 mg/kg  
TR 12-11-597\_Northwest Pit Bottom - 5.2 mg/kg  
TR 12-11-597\_Southeast Pit Bottom - 5.8 mg/kg  
TR 12-11-597\_Southwest Pit Bottom - 5.9 mg/kg  
TR 12-11-597\_North Wall - 5.7 mg/kg  
TR 12-11-597\_East Wall - 6.2 mg/kg  
TR 12-11-597\_South Wall - 5.6 mg/kg  
TR 12-11-597\_West Wall - 5.5 mg/kg  
TR 12-11-597\_East Wall AOC - 6.4 mg/kg

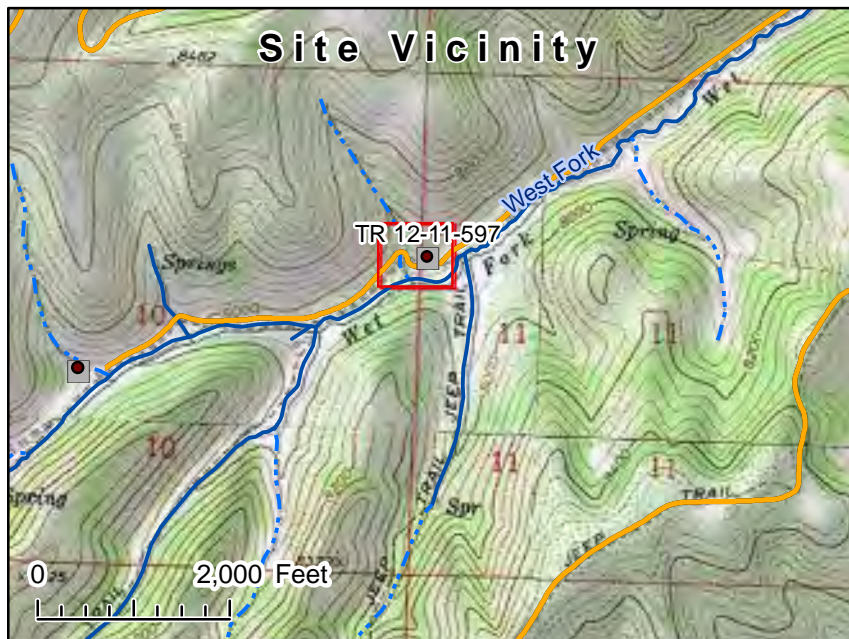
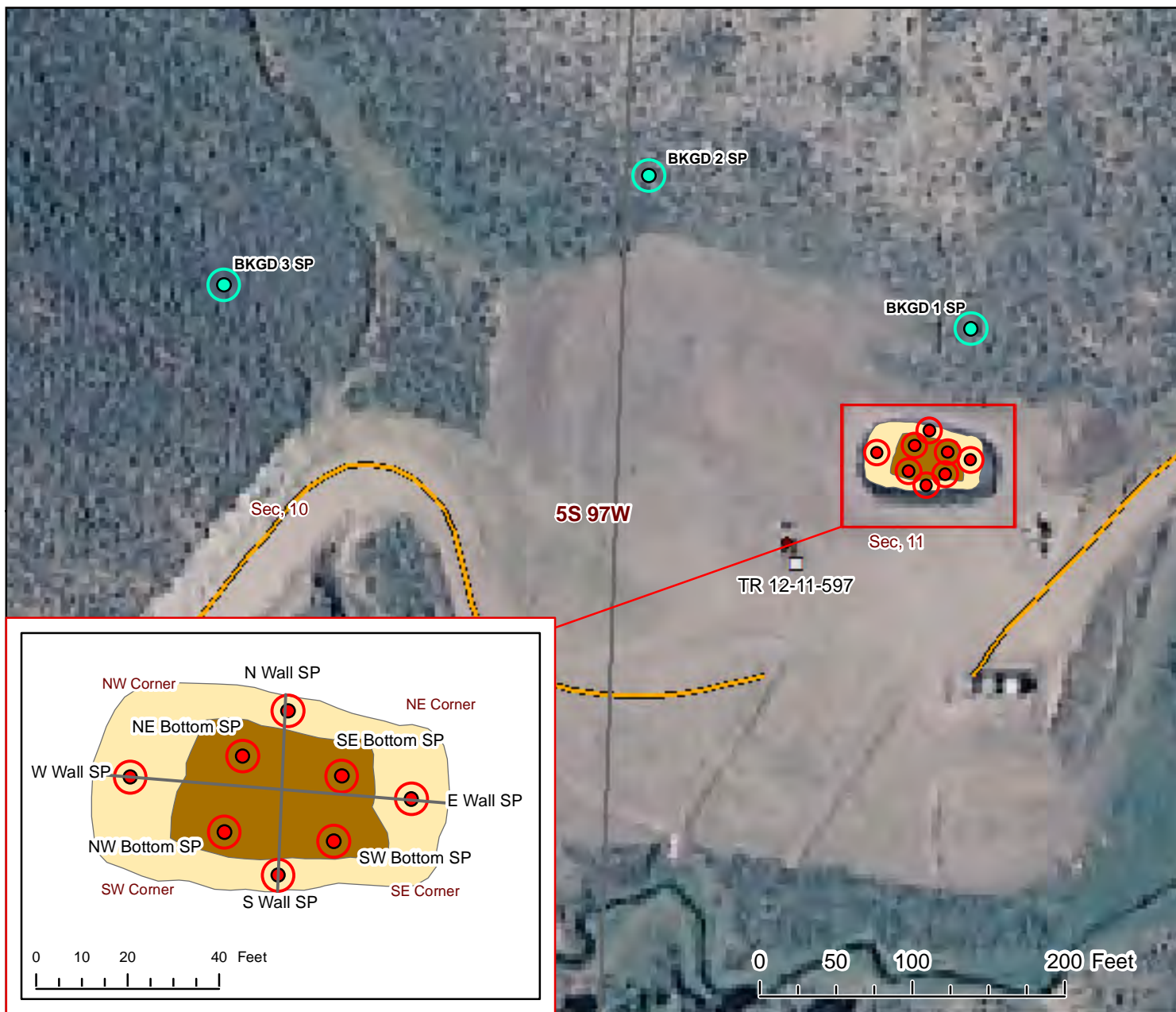
Average concentration - 5.73 mg/kg

Three (3) grab samples were collected from nearby non-impacted, native soil from the surface to 6" inches below to establish the background arsenic concentrations.

TR 12-11-597\_BKGD 1 - 5.4 mg/kg  
TR 12-11-597\_BKGD 2 - 5.5 mg/kg  
TR 12-11-597\_BKGD 3 - 6.4 mg/kg

Average concentration - 5.76 mg/kg

Williams is requesting this approval in order to proceed with closure and reclamation of the produced water pit located on the TR 12-11-597 well pad.



**Sample Location Map**  
**Location: TR 12-11-597**  
*Williams Production RMT*

PLSS: Sec. 11, T5S, R97W  
 Remediation # 4940

**Legend**

**Location Features**

- Well Head Location
- Well Pad Center

- Williams Access Roads
- Perennial Stream
- - - Intermittent Stream
- Section

**Sample Location**

- Pit Sample
- Background Sample

**Reserve Pit Outlines**

- Pit Footprint
- Pit Outline



## Report of Analysis

Page 1 of 1

**Client Sample ID:** TR 12-11-597 BKGD 1**Lab Sample ID:** D16817-3**Matrix:** SO - Soil**Date Sampled:** 08/24/10**Date Received:** 08/26/10**Percent Solids:** 88.0**Project:** Williams VIA HRL, Parachute, CO

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	5.4	0.37	mg/kg	5	09/02/10	09/03/10 GJ	SW846 6020 <sup>1</sup>	SW846 3050B <sup>2</sup>

(1) Instrument QC Batch: MA949

(2) Prep QC Batch: MP2764

RL = Reporting Limit



## Report of Analysis

Page 1 of 1

**Client Sample ID:** TR 12-11-597 BKGD 2**Lab Sample ID:** D16817-4**Matrix:** SO - Soil**Date Sampled:** 08/24/10**Date Received:** 08/26/10**Percent Solids:** 90.5**Project:** Williams VIA HRL, Parachute, CO

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	5.5	0.35	mg/kg	5	09/02/10	09/03/10 GJ	SW846 6020 <sup>1</sup>	SW846 3050B <sup>2</sup>

(1) Instrument QC Batch: MA949

(2) Prep QC Batch: MP2764

RL = Reporting Limit

## Report of Analysis

Client Sample ID: TR 12-11-597 BKGD 3

Lab Sample ID: D16817-5

Date Sampled: 08/24/10

Matrix: SO - Soil

Date Received: 08/26/10

Method: SW846 8270C BY SIM SW846 3540C

Percent Solids: 89.5

Project: Williams VIA HRL, Parachute, CO

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G01934.D	2	08/31/10	TMB	08/30/10	OP2432	E3G54
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

## BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	15	14	ug/kg	
208-96-8	Acenaphthylene	ND	74	15	ug/kg	
120-12-7	Anthracene	ND	15	9.6	ug/kg	
56-55-3	Benzo(a)anthracene	ND	15	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	15	9.4	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	15	11	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	15	9.3	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	15	9.4	ug/kg	
218-01-9	Chrysene	ND	15	7.4	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	15	11	ug/kg	
206-44-0	Fluoranthene	ND	15	9.1	ug/kg	
86-73-7	Fluorene	ND	15	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	15	9.7	ug/kg	
90-12-0	1-Methylnaphthalene	ND	15	13	ug/kg	
91-57-6	2-Methylnaphthalene	24.6	74	23	ug/kg	J
91-20-3	Naphthalene	ND	74	16	ug/kg	
85-01-8	Phenanthrene	ND	15	12	ug/kg	
129-00-0	Pyrene	ND	15	10	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		10-193%
321-60-8	2-Fluorobiphenyl	70%		20-138%
1718-51-0	Terphenyl-d14	71%		17-174%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.5  
3**Client Sample ID:** TR 12-11-597 BKGD 3**Lab Sample ID:** D16817-5**Date Sampled:** 08/24/10**Matrix:** SO - Soil**Date Received:** 08/26/10**Method:** SW846 8015B**Percent Solids:** 89.5**Project:** Williams VIA HRL, Parachute, CO

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA8657.D	1	08/29/10	JL	n/a	n/a	GGA507
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	12	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	100%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	TR 12-11-597 BKGD 3	<b>Date Sampled:</b>	08/24/10
<b>Lab Sample ID:</b>	D16817-5	<b>Date Received:</b>	08/26/10
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	Williams VIA HRL, Parachute, CO		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA8657.D	1	08/29/10	JL	n/a	n/a	GTA508
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	62	62	ug/kg	
108-88-3	Toluene	ND	120	120	ug/kg	
100-41-4	Ethylbenzene	ND	120	120	ug/kg	
1330-20-7	Xylenes (total)	163	120	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	94%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.5  
3**Client Sample ID:** TR 12-11-597 BKGD 3**Lab Sample ID:** D16817-5**Date Sampled:** 08/24/10**Matrix:** SO - Soil**Date Received:** 08/26/10**Method:** SW846-8015B SW846 3550B**Percent Solids:** 89.5**Project:** Williams VIA HRL, Parachute, CO

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FE4035.D	1	09/03/10	JB	09/01/10	OP2443	GFE226
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	36.5	15	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	95%		63-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: TR 12-11-597 BKGD 3

Lab Sample ID: D16817-5

Date Sampled: 08/24/10

Matrix: SO - Soil

Date Received: 08/26/10

Percent Solids: 89.5

Project: Williams VIA HRL, Parachute, CO

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	6.4	0.36	mg/kg	5	09/08/10	09/09/10 GJ	SW846 6020 <sup>3</sup>	SW846 3050B <sup>7</sup>
Barium	305	0.89	mg/kg	1	09/08/10	09/09/10 JM	SW846 6010B <sup>2</sup>	SW846 3050B <sup>6</sup>
Cadmium	< 0.89	0.89	mg/kg	1	09/08/10	09/09/10 JM	SW846 6010B <sup>2</sup>	SW846 3050B <sup>6</sup>
Chromium	28.0	0.89	mg/kg	1	09/08/10	09/09/10 JM	SW846 6010B <sup>2</sup>	SW846 3050B <sup>6</sup>
Copper	14.4	0.45	mg/kg	1	09/08/10	09/09/10 JM	SW846 6010B <sup>2</sup>	SW846 3050B <sup>6</sup>
Lead	12.0	4.5	mg/kg	1	09/08/10	09/09/10 JM	SW846 6010B <sup>2</sup>	SW846 3050B <sup>6</sup>
Mercury <sup>a</sup>	< 0.036	0.036	mg/kg	1	09/04/10	09/07/10 AMA	SW846 7471A <sup>1</sup>	SW846 7471A <sup>5</sup>
Nickel	16.1	2.7	mg/kg	1	09/08/10	09/09/10 JM	SW846 6010B <sup>2</sup>	SW846 3050B <sup>6</sup>
Selenium	< 4.5	4.5	mg/kg	1	09/08/10	09/10/10 JM	SW846 6010B <sup>4</sup>	SW846 3050B <sup>6</sup>
Silver	< 2.7	2.7	mg/kg	1	09/08/10	09/09/10 JM	SW846 6010B <sup>2</sup>	SW846 3050B <sup>6</sup>
Zinc	57.7	2.7	mg/kg	1	09/08/10	09/10/10 JM	SW846 6010B <sup>4</sup>	SW846 3050B <sup>6</sup>

(1) Instrument QC Batch: M:MA12186

(2) Instrument QC Batch: MA962

(3) Instrument QC Batch: MA963

(4) Instrument QC Batch: MA967

(5) Prep QC Batch: M:MP15878

(6) Prep QC Batch: MP2819

(7) Prep QC Batch: MP2820

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

RL = Reporting Limit

## Report of Analysis

**Client Sample ID:** TR 12-11-597 BKGD 3**Lab Sample ID:** D16817-5**Date Sampled:** 08/24/10**Matrix:** SO - Soil**Date Received:** 08/26/10**Percent Solids:** 89.5**Project:** Williams VIA HRL, Parachute, CO

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent <sup>a</sup>	< 0.56	0.56	mg/kg	1	09/02/10 17:40	AMA	SW846 3060A/7196A
Chromium, Trivalent <sup>b</sup>	28.0	1.5	mg/kg	1	09/09/10 20:34	JM	SW846 3060/7196A M
Redox Potential Vs H2 <sup>a</sup>	323		mv	1	08/30/10	AMA	ASTM E1498-76M
Solids, Percent	89.5		%	1	08/26/10	CJ	SM19 2540B M
Specific Conductivity	560	1.0	umhos/cm	1	08/31/10	CJ	DEPT. OF AG, BOOK N9
pH	7.29		su	1	08/26/10 15:40	JD	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

## Report of Analysis

**Client Sample ID:** TR 12-11-597 BKGD 3**Lab Sample ID:** D16817-5A**Date Sampled:** 08/24/10**Matrix:** SO - Soil**Date Received:** 08/26/10**Percent Solids:** 89.5**Project:** Williams VIA HRL, Parachute, CO

## SAR Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	29.7	2.0	mg/l	1	09/09/10	09/10/10 JM	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Magnesium	5.57	1.0	mg/l	1	09/09/10	09/10/10 JM	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>
Sodium	89.0	2.0	mg/l	1	09/09/10	09/10/10 JM	SW846 6010B <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA962

(2) Prep QC Batch: MP2830

RL = Reporting Limit



## Report of Analysis

**Client Sample ID:** TR 12-11-597 BKGD 3**Lab Sample ID:** D16817-5A**Date Sampled:** 08/24/10**Matrix:** SO - Soil**Date Received:** 08/26/10**Percent Solids:** 89.5**Project:** Williams VIA HRL, Parachute, CO

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sodium Adsorption Ratio <sup>a</sup>	3.93		ratio	1	09/10/10 08:18	JM	LADNR29B

(a) Calculated as:  $(\text{Na meq/L}) / \sqrt{[(\text{Ca meq/L}) + (\text{Mg meq/L})/2]}$ 

RL = Reporting Limit