

Environmental, Audit & Assessment, Inc.

225 North 5th St. Suite #8, Grand Junction, CO 81501, (970) 245-5897, Fax 245-0259, Email info@eaa-co.com
Web Site: www.eaa-co.com

13 April 2009

TN-09-116

Chris Canfield
Environmental Protection Specialist
Colorado Oil and Gas Conservation Commission
707 Wapiti Ct., Suite 204
Rifle, CO 81650

Thru: Williams Production RMT Company

RE: 298-26-2

Excavation of the Sandridge production pit at site 298-26-2 occurred between September 22 and September 24, 2008. Material moved off-site was taken to the William's Ryan Gulch Ranch for stockpiling. An estimated 140 yards of material was removed from the excavation. Soil samples were screened onsite using the PetroFLAG Hydrocarbon Analyzer Kit to drive the excavation. Six final soil samples were collected and submitted to a laboratory for analysis: a background sample, a sample from the bottom of the excavation, and four sidewall samples (Table 1). Sidewall samples were collected at approximately 12 to 14 feet below ground level (BGL), and the bottom sample was collected at approximately 24 feet BGL.

Table 1 – Analytical Results 298-26-2

298-26-2	Sample #	PetroFLAG - Field (ppm)	T.E.H (mg/Kg)	TVH (mg/Kg)	TPH (mg/Kg)	pH	E.C. (mS)	SAR
	Background	-	< 19.6	< 0.35	< 19.95	6.95	0.1674	0.222
	SSW-1	4100	330	1100	1430	8.08	0.568	2.92
	NSW-1	5580	140	1400	1540	8	0.835	4.4
	WSW-1	1010	< 20	3.4	< 23.4	7.46	0.758	1.73
	ESW-1	4210	184	930	1114	7.49	0.832	2.75
	BE-4	1120	73.4	400	473.4	7.89	0.651	2.7

The analytical results for site 298-26-2 are in compliance with the Colorado Oil and Gas Conservation Commission's requirements stated in Table 910-1; therefore, the production pit at 298-26-2 meets the requirements for closure.

Please feel free to contact our office if you have any questions at 970-245-5897 or email me at emcdowell@eaa-co.com. Thank you for your time and attention.

Sincerely,

Elizabeth McDowell
Geologist
Environmental, Audit & Assessment, Inc

Enclosures:

Form 27
Site Sample Map

State of Colorado
Oil and Gas Conservation Commission

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



FOR OGCC USE ONLY

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

OGCC Employee:

Spill Complaint
Inspection NOAV

Tracking No:

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): _____

OGCC Operator Number: _____

Name of Operator: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Name and Telephone: _____

No: _____

Fax: _____

API Number: _____

County: _____

Facility Name: _____

Facility Number: _____

Well Name: _____

Well Number: _____

Location: (QtrQtr, Sec, Twp, Rng, Meridian): _____ Latitude: _____ Longitude: _____

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): _____

Site Conditions: Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): _____

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: _____

Potential receptors (water wells within 1/4 mi, surface waters, etc.): _____

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):

Extent of Impact:

How Determined:

Soils

Vegetation

Groundwater

Surface Water

REMEDIATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Describe how source is to be removed:

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:



Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

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REMEDIATION WORKPLAN (Cont.)

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

Groundwater was not impacted.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

The pit was replaced with a partially buried double-walled produced water tank, which was placed in the excavation upon removal of the contaminated soils. Further reclamation will be pursuant to the stormwater management plan and applicable COGCC 900 and 1000 Series Rules.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☐ Y ☒ N If yes, describe:

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

Contaminated soil was transported to the Williams Ryan Gulch Ranch for stockpiling.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: <u>9/22/08</u>	Date Site Investigation Completed: <u>9/25/08</u>	Date Remediation Plan Submitted: <u>9/26/08</u>
Remediation Start Date: <u>9/29/08</u>	Anticipated Completion Date: <u>11/28/08</u>	Actual Completion Date: <u>10/03/08</u>

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

Print Name: Michael J. Gardner

Signed: [Signature] For Mike Gardner

Title: Environmental Team Manager

Date: 10/7/10

OGCC Approved: _____ Title: _____ Date: _____



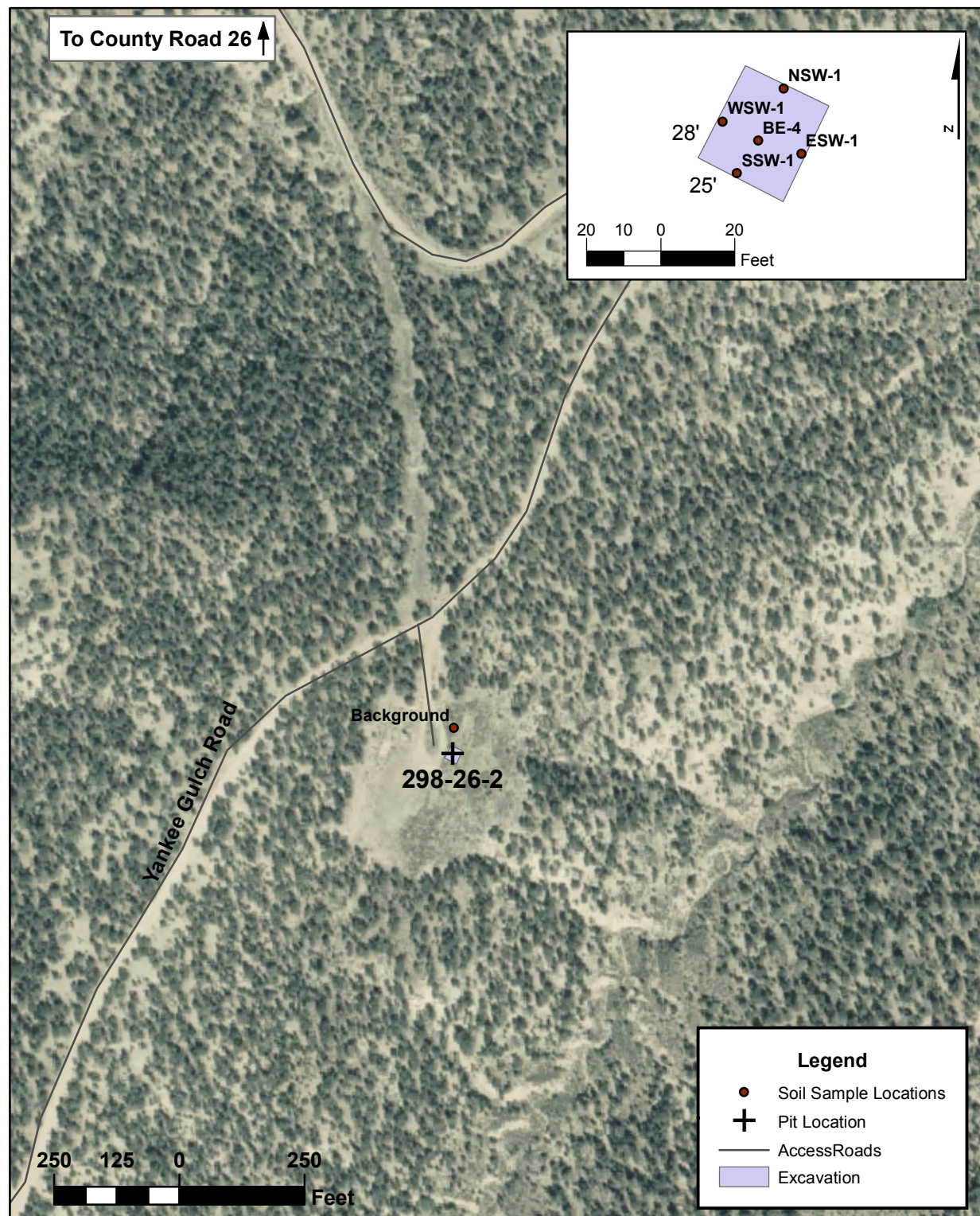
Soil Sample Locations Government 298-26-2

Williams Production R.M.T.
Yankee Gulch Road
Rio Blanco County, Colorado

SampleID	SampleLoc	SampleDepth
NSW-1	North Sidewall	12
ESW-1	East Sidewall	12
SSW-1	South Sidewall	14
WSW-1	West Sidewall	14
BE-4	Bottom of Excavation	24
Background	Background Sample	2



Environmental Audit & Assessment
225 North 5th Street, Suite 8
Grand Junction, Colorado 81501
www.eaa-co.com 970-245-5897



Gasoline Range Organics TVH

[illegible]

10/3/08 Ψ Preliminary Results

TEH RESULTS

Page 1 of 2

Key Laboratories

2479 River Road, Unit A
Grand Junction, Colorado 81502
Phone (970) 243-5311 Fax (970) 243-6010

Client : **Environmental Audit & Assessment**

Client Project Name : **Williams**

Client Sample Number : **BE-4**

Key Lab # : **08-2625**

Work Order # : **0925082619**

Date Received : **09/25/08**

Analysis Method : **EPA ICP-MS Methods 6020 / 200.8**

Prep Method : **1:1 Slurry >> Centrifuge >> Dilute >> Acidify >> Direct Aspiration**

Sampling Date : **9/24/2008**

Sampling Time : **11:45**

Sample Matrix : **Soil**

Sampler : **Elizabeth**

Technician :

10/03/08 JP

Date Analyzed:

Thursday, October 02, 2008 19:19:29 12, 2008 19:26:21 rsday, October 02, 2008 17:23:04

Key Lab Sample ID# SAR-08-2625 SAR-08-2625 CAL0 CCB

Sample Description: CAL0 CCB

Sample Aliquot: 1000 1000 1000

Surrogate Spike: 1.000 1.000 1.000

Prep DF==>> 50 50 1

Total DF==>> 50 2500 1

SAR==>> 2.7

Analysis Method	Ion Mass	Time [ms]	Symbol	Atomic wt	MEQ	08-2625	Audit	Analyte	Total Metals	Total Metals	Units	Total DF	MDL ppm	PQL ppm	Max QL ppm
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x <==Audit [X=Pass]

ICP-MS	9	9	Be					Beryllium			mg/Kg		1	0.00004	0.00016	0.2
ICP-MS	11	90	B					Boron			mg/Kg		1	0.001	0.004	1
ICP-MS	23	90	Na	22.9898	5.959	137	x	Sodium	137	133	mg/Kg	<	1	0.01	0.04	20
ICP-MS	24	90	Mg	24.312	0.6561	31.9	x	Magnesium	31.9	35.3 J	mg/Kg	<	1	0.005	0.02	20
ICP-MS	27	9	Al					Aluminum			mg/Kg		1	0.001	0.004	1
ICP-MS	28	9	Si					Silicon			mg/Kg		1	0.01	0.04	10
ICP-MS	31	9	P					Phosphorous			mg/Kg		1	0.01	0.04	20
ICP-MS	39	90	K	39.102				Potassium			mg/Kg		1	0.08	0.32	20
ICP-MS	44	180	Ca	40.08	4.204	337	x	Calcium	337	364	mg/Kg	<	1	0.025	0.1	20
ICP-MS	48	9	Ti					Titanium			mg/Kg		1	0.003	0.012	0.2
ICP-MS	51	90	V					Vanandium			mg/Kg		1	0.005	0.02	0.4
ICP-MS	52	90	Cr					Chromium			mg/Kg		1	0.0006	0.0024	0.2
ICP-MS	55	9	Mn					Manganes			mg/Kg		1	0.00015	0.0006	2
ICP-MS	54	9	Fe					Iron			mg/Kg		1	0.02	0.08	20
ICP-MS	59	9	Co					Cobalt			mg/Kg		1	0.00004	0.00016	0.2
ICP-MS	60	9	Ni					Nickel			mg/Kg		1	0.0002	0.0008	1
ICP-MS	63	9	Cu					Copper			mg/Kg		1	0.0002	0.0008	0.2
ICP-MS	66	9	Zn					Zinc			mg/Kg		1	0.01	0.04	2
ICP-MS	75	9	As					Arsenic			mg/Kg		1	0.0003	0.0012	0.4
ICP-MS	82	9	Se					Selenium			mg/Kg		1	0.0006	0.0024	0.4
ICP-MS	88	90	Sr	87.62				Strontium			mg/Kg		1	0.0002	0.0008	2
ICP-MS	98	9	Mo					Molybdenum			mg/Kg		1	0.0002	0.0008	0.2
ICP-MS	107	9	Ag					Silver			mg/Kg		1	0.0004	0.0016	0.2
ICP-MS	111	9	Cd					Cadmium			mg/Kg		1	0.00004	0.00016	1
ICP-MS	123	9	Sb					Antimony			mg/Kg		1	0.00004	0.00016	0.2
ICP-MS	137	90	Ba	137.34				Barium			mg/Kg		1	0.0002	0.0008	0.4
ICP-MS	202	36	Hg					Mercury			mg/Kg		1	0.0001	0.0004	0.1
ICP-MS	205	9	Tl					Thallium			mg/Kg		1	0.0003	0.0012	1
ICP-MS	204	9	Pb					Lead			mg/Kg		1	0.0006	0.0024	0.2
ICP-MS	232	9	Th					Thorium			mg/Kg		1	0.00005	0.0002	1
ICP-MS	238	9	U					Uranium			mg/Kg		1	0.00004	0.00016	0.2

Notes: LMB = laboratory method blank, M and MD = sample matrix replicates

Notes: LCS = spiked laboratory method blank, MS and MSD = spiked sample matrix replicates

Notes: Rh = Rhodium spiked as sample prep surrogate, DF = Dilution Factor, MDL = Method Detection Limit,

Notes: PQL = Primary Quantitation Limit, MQL = Maximum Quantitation Limit,

Notes: < = less than MDL, E = Estimated Value over MQL, J = Greater than MDL but less than PQL (4 x MDL)

Notes: n.a. = Not Applicable, Blank Space = Not Requested or Not Reported

Analyst/Reviewer

JP

Key Laboratories

2479 River Road, Unit A
Grand Junction, Colorado 81502
Phone (970) 243-5311 Fax (970) 243-6010

Client : **Environmental Audit & Assessment**Client Project Name : **Williams**Client Sample Number : **WSW-1**Key Lab # : **08-2624**Work Order # : **0925082619**Date Received : **09/25/08**Analysis Method : **EPA ICP-MS Methods 6020 / 200.8**Prep Method : **1:1 Slurry >> Centrifuge >> Dilute >> Acidify >> Direct Aspiration**Sampling Date : **9/24/2008**Sampling Time : **11:20**Sample Matrix : **Soil**Sampler : **Elizabeth**

Technician :

10/03/08

Date Analyzed:

Thursday, October 02, 2008 19:05:46 12, 2008 19:12:37 rsday, October 02, 2008 17:23:04

Key Lab Sample ID# SAR-08-2624 SAR-08-2624 CAL0 CCB

Sample Description:

CAL0 CCB

Sample Aliquot: 1000 1000 1000

Surrogate Spike: 1.000 1.000 1.000

Prep DF==>> 50 50 1

Total DF==>> 50 2500 1

SAR==>> 1.73

Analysis Method	Ion Mass	Time [ms]	Symbol	Atomic wt	MEQ	08-2624	Audit	Analyte	Total Metals	Total Metals	Units	Total DF	MDL ppm	PQL ppm	Max QL ppm
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x <==Audit [X=Pass]

ICP-MS	9	9	Be					Beryllium			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	11	90	B					Boron			mg/Kg	1	0.001	0.004	1
ICP-MS	23	90	Na	22.9898	2.906	66.8	x	Sodium	66.8	66.6 J	mg/Kg	1	0.01	0.04	20
ICP-MS	24	90	Mg	24.312	0.4627	22.5	x	Magnesium	22.5	25 J	mg/Kg	1	0.005	0.02	20
ICP-MS	27	9	Al					Aluminum			mg/Kg	1	0.001	0.004	1
ICP-MS	28	9	Si					Silicon			mg/Kg	1	0.01	0.04	10
ICP-MS	31	9	P					Phosphorous			mg/Kg	1	0.01	0.04	20
ICP-MS	39	90	K	39.102				Potassium			mg/Kg	1	0.08	0.32	20
ICP-MS	44	180	Ca	40.08	2.345	188	x	Calcium	188	206 J	mg/Kg	1	0.025	0.1	20
ICP-MS	48	9	Ti					Titanium			mg/Kg	1	0.003	0.012	0.2
ICP-MS	51	90	V					Vanadium			mg/Kg	1	0.005	0.02	0.4
ICP-MS	52	90	Cr					Chromium			mg/Kg	1	0.0006	0.0024	0.2
ICP-MS	55	9	Mn					Manganese			mg/Kg	1	0.00015	0.0006	2
ICP-MS	54	9	Fe					Iron			mg/Kg	1	0.02	0.08	20
ICP-MS	59	9	Co					Cobalt			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	60	9	Ni					Nickel			mg/Kg	1	0.0002	0.0008	1
ICP-MS	63	9	Cu					Copper			mg/Kg	1	0.0002	0.0008	0.2
ICP-MS	66	9	Zn					Zinc			mg/Kg	1	0.01	0.04	2
ICP-MS	75	9	As					Arsenic			mg/Kg	1	0.0003	0.0012	0.4
ICP-MS	82	9	Se					Selenium			mg/Kg	1	0.0006	0.0024	0.4
ICP-MS	88	90	Sr	87.62				Strontium			mg/Kg	1	0.0002	0.0008	2
ICP-MS	98	9	Mo					Molybdenum			mg/Kg	1	0.0002	0.0008	0.2
ICP-MS	107	9	Ag					Silver			mg/Kg	1	0.0004	0.0016	0.2
ICP-MS	111	9	Cd					Cadmium			mg/Kg	1	0.00004	0.00016	1
ICP-MS	123	9	Sb					Antimony			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	137	90	Ba	137.34				Barium			mg/Kg	1	0.0002	0.0008	0.4
ICP-MS	202	36	Hg					Mercury			mg/Kg	1	0.0001	0.0004	0.1
ICP-MS	209	9	Tl					Thallium			mg/Kg	1	0.0003	0.0012	1
ICP-MS	204	9	Pb					Lead			mg/Kg	1	0.0006	0.0024	0.2
ICP-MS	232	9	Th					Thorium			mg/Kg	1	0.00005	0.0002	1
ICP-MS	238	9	U					Uranium			mg/Kg	1	0.00004	0.00016	0.2

Notes: LMB = laboratory method blank, M and MD = sample matrix replicates

Notes: LCS = spiked laboratory method blank, MS and MSD = spiked sample matrix replicates

Notes: Rh = Rhodium spiked as sample prep surrogate, DF = Dilution Factor, MDL = Method Detection Limit,

Notes: PQL = Primary Quantitation Limit, MQL = Maximum Quantitation Limit,

Notes: < = less than MDL, E = Estimated Value over MDL, J = Greater than MDL but less than PQL (4 x MDL)

Notes: n.a. = Not Applicable, Blank Space = Not Requested or Not Reported

Analyst/Reviewer

30

Key Laboratories

2479 River Road, Unit A
Grand Junction, Colorado 81502
Phone (970) 243-5311 Fax (970) 243-6010

Client : **Environmental Audit & Assessment**

Client Project Name : **Williams**

Client Sample Number : **NSW-1**

Key Lab # : **08-2623**

Work Order # : **0925082619**

Date Received : **09/25/08**

Analysis Method : **EPA ICP-MS Methods 6020 / 200.8**

Prep Method : **1:1 Slurry >> Centrifuge >> Dilute >> Acidify >> Direct Aspiration**

Technician :

Sampling Date : **9/24/2008**

Sampling Time : **11:00**

Sample Matrix : **Soil**

Sampler : **Elizabeth**

10/03/08

Date Analyzed:

Thursday, October 02, 2008 18:52:07 12, 2008 18:58:56 rsday, October 02, 2008 17:23:04

Key Lab Sample ID# SAR-08-2623 SAR-08-2623 CAL0 CCB

Sample Description:

CAL0 CCB

Sample Aliquot:

1000

Surrogate Spike:

1.000

Prep DF==>>

1

Total DF==>>

1

SAR==>> 4.4

Analysis Method	Ion Mass	Time [ms]	Symbol	Atomic wt	MEQ	08-2623	Audit	Analyte	Total Metals	Total Metals	Units	Total DF	MDL ppm	PQL ppm	Max QL ppm
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x <=<=Audit [X=Pass]

ICP-MS	9	9	Be					Beryllium			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	11	90	B					Boron			mg/Kg	1	0.001	0.004	1
ICP-MS	23	90	Na	22.9898	8.83	203	x	Sodium	203	188	mg/Kg	1	0.01	0.04	20
ICP-MS	24	90	Mg	24.312	0.8555	41.6	x	Magnesium	41.6	45.6 J	mg/Kg	1	0.005	0.02	20
ICP-MS	27	9	Al					Aluminum			mg/Kg	1	0.001	0.004	1
ICP-MS	28	9	Si					Silicon			mg/Kg	1	0.01	0.04	10
ICP-MS	31	9	P					Phosphorous			mg/Kg	1	0.01	0.04	20
ICP-MS	39	90	K	39.102				Potassium			mg/Kg	1	0.08	0.32	20
ICP-MS	44	150	Ca	40.08	3.169	254	x	Calcium	254	276	mg/Kg	1	0.025	0.1	20
ICP-MS	46	9	Ti					Titanium			mg/Kg	1	0.003	0.012	0.2
ICP-MS	51	90	V					Vanadium			mg/Kg	1	0.005	0.02	0.4
ICP-MS	52	90	Cr					Chromium			mg/Kg	1	0.0006	0.0024	0.2
ICP-MS	55	9	Mn					Manganese			mg/Kg	1	0.00015	0.0006	2
ICP-MS	54	9	Fe					Iron			mg/Kg	1	0.02	0.08	20
ICP-MS	59	9	Co					Cobalt			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	60	9	Ni					Nickel			mg/Kg	1	0.0002	0.0008	1
ICP-MS	63	9	Cu					Copper			mg/Kg	1	0.0002	0.0008	0.2
ICP-MS	66	9	Zn					Zinc			mg/Kg	1	0.01	0.04	2
ICP-MS	75	9	As					Arsenic			mg/Kg	1	0.0003	0.0012	0.4
ICP-MS	82	9	Se					Selenium			mg/Kg	1	0.0006	0.0024	0.4
ICP-MS	88	90	Sr	87.62				Strontium			mg/Kg	1	0.0002	0.0008	2
ICP-MS	98	9	Mo					Molybdenum			mg/Kg	1	0.0002	0.0008	0.2
ICP-MS	107	9	Ag					Silver			mg/Kg	1	0.0004	0.0016	0.2
ICP-MS	111	9	Cd					Cadmium			mg/Kg	1	0.00004	0.00016	1
ICP-MS	123	9	Sb					Antimony			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	137	90	Ba	137.34				Barium			mg/Kg	1	0.0002	0.0008	0.4
ICP-MS	202	36	Hg					Mercury			mg/Kg	1	0.0001	0.0004	0.1
ICP-MS	205	9	Tl					Thallium			mg/Kg	1	0.0003	0.0012	1
ICP-MS	204	9	Pb					Lead			mg/Kg	1	0.0006	0.0024	0.2
ICP-MS	232	9	Th					Thorium			mg/Kg	1	0.00005	0.0002	1
ICP-MS	238	9	U					Uranium			mg/Kg	1	0.00004	0.00016	0.2

Notes: LMB = laboratory method blank, M and MD = sample matrix replicates

Notes: LCS = spiked laboratory method blank, MS and MSD = spiked sample matrix replicates

Notes: Rh = Rhodium spiked as sample prep surrogate, DF = Dilution Factor, MDL = Method Detection Limit,

Notes: PQL = Primary Quantitation Limit, MQL = Maximum Quantitation Limit,

Notes: < = less than MDL, E = Estimated Value over MQL, J = Greater than MDL but less than PQL (4 x MDL)

Notes: n.a. = Not Applicable, Blank Space = Not Requested or Not Reported

Analyst/Reviewer

50

Key Laboratories

2479 River Road, Unit A
Grand Junction, Colorado 81502
Phone (970) 243-5311 Fax (970) 243-6010

Client : **Environmental Audit & Assessment**Client Project Name : **Williams**Client Sample Number : **ESW-1**Key Lab # : **08-2622**Work Order # : **0925082619**Date Received : **09/25/08**Analysis Method : **EPA ICP-MS Methods 6020 / 200.8**Prep Method : **1:1 Slurry >> Centrifuge >> Dilute >> Acidify >> Direct Aspiration**Sampling Date : **9/24/2008**Sampling Time : **10:30**Sample Matrix : **Soil**Sampler : **Elizabeth**

Technician :

10/03/08 JS

Date Analyzed:

Thursday, October 02, 2008 18:38:31 12, 2008 18:45:18 rsday, October 02, 2008 17:23:04Key Lab Sample ID# **SAR-08-2622 SAR-08-2622 CAL0 CCB**Sample Description: **CAL0 CCB**Sample Aliquot: **1000 1000 1000**Surrogate Spike: **1.000 1.000 1.000**Prep DF====> **50 50 1**Total DF====> **50 2500 1****SAR====> 2.75**

Analysis Method	Ion Mass	Time (ms)	Symbol	Atomic wt	MEQ	08-2622	Audit	Analyte	Total Metals	Total Metals	Units	Total DF	MDL ppm	PQL ppm	Max QL ppm
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x <==Audit [X=Pass]

ICP-MS	9	9	Be					Beryllium			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	11	90	B					Boron			mg/Kg	1	0.001	0.004	1
ICP-MS	23	90	Na	22.9898	3.684	84.7	x	Sodium	84.7	83.2 J	mg/Kg	1	0.01	0.04	20
ICP-MS	24	90	Mg	24.312	0.253	12.3	x	Magnesium	12.3	13.6 J	mg/Kg	1	0.005	0.02	20
ICP-MS	27	9	Al					Aluminum			mg/Kg	1	0.001	0.004	1
ICP-MS	28	9	Si					Silicon			mg/Kg	1	0.01	0.04	10
ICP-MS	31	9	P					Phosphorous			mg/Kg	1	0.01	0.04	20
ICP-MS	39	90	K	39.102				Potassium			mg/Kg	1	0.08	0.32	20
ICP-MS	44	180	Ca	40.08	1.547	124	x	Calcium	124	140 J	mg/Kg	1	0.025	0.1	20
ICP-MS	48	9	Ti					Titanium			mg/Kg	1	0.003	0.012	0.2
ICP-MS	51	90	V					Vanadium			mg/Kg	1	0.005	0.02	0.4
ICP-MS	52	90	Cr					Chromium			mg/Kg	1	0.0006	0.0024	0.2
ICP-MS	55	9	Mn					Manganese			mg/Kg	1	0.00015	0.0006	2
ICP-MS	54	9	Fe					Iron			mg/Kg	1	0.02	0.08	20
ICP-MS	59	9	Co					Cobalt			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	60	9	Ni					Nickel			mg/Kg	1	0.0002	0.0008	1
ICP-MS	63	9	Cu					Copper			mg/Kg	1	0.0002	0.0008	0.2
ICP-MS	66	9	Zn					Zinc			mg/Kg	1	0.01	0.04	2
ICP-MS	75	9	As					Arsenic			mg/Kg	1	0.0003	0.0012	0.4
ICP-MS	82	9	Se					Selenium			mg/Kg	1	0.0006	0.0024	0.4
ICP-MS	88	90	Sr	87.62				Strontium			mg/Kg	1	0.0002	0.0008	2
ICP-MS	98	9	Mo					Molybdenum			mg/Kg	1	0.0002	0.0008	0.2
ICP-MS	107	9	Ag					Silver			mg/Kg	1	0.0004	0.0016	0.2
ICP-MS	111	9	Cd					Cadmium			mg/Kg	1	0.00004	0.00016	1
ICP-MS	123	9	Sb					Antimony			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	137	90	Ba	137.34				Barium			mg/Kg	1	0.0002	0.0008	0.4
ICP-MS	202	36	Hg					Mercury			mg/Kg	1	0.0001	0.0004	0.1
ICP-MS	209	9	Tl					Thallium			mg/Kg	1	0.0003	0.0012	1
ICP-MS	204	9	Pb					Lead			mg/Kg	1	0.0006	0.0024	0.2
ICP-MS	232	9	Th					Thorium			mg/Kg	1	0.00005	0.0002	1
ICP-MS	238	9	U					Uranium			mg/Kg	1	0.00004	0.00016	0.2

Notes: LMB = laboratory method blank, M and MD = sample matrix replicates

Notes: LCS = spiked laboratory method blank, MS and MSD = spiked sample matrix replicates

Notes: Rh = Rhodium spiked as sample prep surrogate, DF = Dilution Factor, MDL = Method Detection Limit,

Notes: PQL = Primary Quantitation Limit, MQL = Maximum Quantitation Limit,

Notes: < = less than MDL, E = Estimated Value over MQL, J = Greater than MDL but less than PQL (4 x MDL)

Notes: n.a. = Not Applicable, Blank Space = Not Requested or Not Reported

Analyst/Reviewer

JS

Key Laboratories

2479 River Road, Unit A
Grand Junction, Colorado 81502
Phone (970) 243-5311 Fax (970) 243-6010

Client : **Environmental Audit & Assessment**

Client Project Name : **Williams**

Client Sample Number : **SSW-1**

Key Lab # : **08-2621**

Work Order # : **0925082619**

Date Received : **09/25/08**

Analysis Method : **EPA ICP-MS Methods 6020 / 200.8**

Prep Method : **1:1 Slurry >> Centrifuge >> Dilute >> Acidify >> Direct Aspiration**

Sampling Date : **9/24/2008**

Sampling Time : **9:10**

Sample Matrix : **Soil**

Sampler : **Elizabeth**

Technician :

10/03/08 JS

Date Analyzed:

Thursday, October 02, 2008 18:11:03 J2, 2008 18:17:58 rsday, October 02, 2008 17:23:04

Key Lab Sample ID# SAR-08-2621 SAR-08-2621 CAL0 CCB

Sample Description:

CAL0 CCB

Sample Aliquot: 1000 1000 1000

Surrogate Spike: 1.000 1.000 1.000

Prep DF==>> 50 50 1

Total DF==>> 50 2500 1

SAR==>> 2.92

Analysis Method	Ion Mass	Time [ms]	Symbol	Atomic wt	MEQ	08-2621	Audit	Analyte	Total Metals	Total Metals	Units	Total DF	MDL ppm	PQL ppm	Max QL ppm
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x <==Audit [X=Pass]

ICP-MS	9	9	Be					Beryllium			mg/Kg		1	0.00004	0.00016	0.2
ICP-MS	11	90	B					Boron			mg/Kg		1	0.001	0.004	1
ICP-MS	23	90	Na	22.9898	5.394	124	x	Sodium	124	122	mg/Kg	<	1	0.01	0.04	20
ICP-MS	24	90	Mg	24.312	0.6046	29.4	x	Magnesium	29.4	32.6 J	mg/Kg	<	1	0.005	0.02	20
ICP-MS	27	9	Al					Aluminum			mg/Kg		1	0.001	0.004	1
ICP-MS	28	9	Si					Silicon			mg/Kg		1	0.01	0.04	10
ICP-MS	31	9	P					Phosphorous			mg/Kg		1	0.01	0.04	20
ICP-MS	39	90	K	39.102				Potassium			mg/Kg		1	0.08	0.32	20
ICP-MS	44	180	Ca	40.08	2.819	226	x	Calcium	226	248 J	mg/Kg	<	1	0.025	0.1	20
ICP-MS	48	9	Ti					Titanium			mg/Kg		1	0.003	0.012	0.2
ICP-MS	51	90	V					Vanadium			mg/Kg		1	0.005	0.02	0.4
ICP-MS	52	90	Cr					Chromium			mg/Kg		1	0.0006	0.0024	0.2
ICP-MS	55	9	Mn					Manganese			mg/Kg		1	0.00015	0.0006	2
ICP-MS	54	9	Fe					Iron			mg/Kg		1	0.02	0.08	20
ICP-MS	59	9	Co					Cobalt			mg/Kg		1	0.00004	0.00016	0.2
ICP-MS	60	9	Ni					Nickel			mg/Kg		1	0.0002	0.0008	1
ICP-MS	63	9	Cu					Copper			mg/Kg		1	0.0002	0.0008	0.2
ICP-MS	66	9	Zn					Zinc			mg/Kg		1	0.01	0.04	2
ICP-MS	75	9	As					Arsenic			mg/Kg		1	0.0003	0.0012	0.4
ICP-MS	82	9	Se					Selenium			mg/Kg		1	0.0006	0.0024	0.4
ICP-MS	88	90	Sr	87.62				Strontium			mg/Kg		1	0.0002	0.0008	2
ICP-MS	98	9	Mo					Molybdenum			mg/Kg		1	0.0002	0.0008	0.2
ICP-MS	107	9	Ag					Silver			mg/Kg		1	0.0004	0.0016	0.2
ICP-MS	111	9	Cd					Cadmium			mg/Kg		1	0.00004	0.00016	1
ICP-MS	123	9	Sb					Antimony			mg/Kg		1	0.00004	0.00016	0.2
ICP-MS	137	90	Ba	137.34				Barium			mg/Kg		1	0.0002	0.0008	0.4
ICP-MS	202	36	Hg					Mercury			mg/Kg		1	0.0001	0.0004	0.1
ICP-MS	209	9	Tl					Thallium			mg/Kg		1	0.0003	0.0012	1
ICP-MS	204	9	Pb					Lead			mg/Kg		1	0.0006	0.0024	0.2
ICP-MS	232	9	Th					Thorium			mg/Kg		1	0.00005	0.0002	1
ICP-MS	238	9	U					Uranium			mg/Kg		1	0.00004	0.00016	0.2

Notes: LMB = laboratory method blank, M and MD = sample matrix replicates

Notes: LCS = spiked laboratory method blank, MS and MSD = spiked sample matrix replicates

Notes: Rh = Rhodium spiked as sample prep surrogate, DF = Dilution Factor, MDL = Method Detection Limit,

Notes: PQL = Primary Quantitation Limit, MQL = Maximum Quantitation Limit,

Notes: < = less than MDL, E = Estimated Value over MQL, J = Greater than MDL but less than PQL (4 x MDL)

Notes: n.a. = Not Applicable, Blank Space = Not Requested or Not Reported

Analyst/Reviewer

JS

Key Laboratories

2479 River Road, Unit A
Grand Junction, Colorado 81502
Phone (970) 243-5311 Fax (970) 243-6010

Client : Environmental Audit & Assessment

Client Project Name : Williams

Client Sample Number : Background (298-26-2)

Key Lab # : 08-2620
Work Order # : 0925082619
Date Received : 09/25/08
Analysis Method : EPA ICP-MS Methods 6020 / 200.8
Prep Method : 1:1 Slurry >> Centrifuge >> Dilute >> Acidify >> Direct Aspiration

Sampling Date : 9/24/2008

Sampling Time : 12:00

Sample Matrix : Soil

Sampler : Elizabeth

Technician :

10/03/08

Date Analyzed:

Thursday, October 02, 2008 17:57:17 12, 2008 18:04:10 rsday, October 02, 2008 17:23:04

Key Lab Sample ID# SAR-08-2620 SAR-08-2620 CAL0 CCB

Sample Description:

CAL0 CCB

Sample Aliquot: 1000 1000 1000

Surrogate Spike: 1.000 1.000 1.000

Prep DF==> 50 50 1

Total DF==> 50 2500 1

SAR==> 0.222

Analysis Method	Ion Mass	Time [ms]	Symbol	Atomic wt	MEQ	08-2620	Audit	Analyte	Total Metals	Total Metals	Units	Total DF	MDL ppm	PQL ppm	Max QL ppm
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x <=<=Audit [X=Pass]

ICP-MS	9	9	Be					Beryllium			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	11	90	B					Boron			mg/Kg	1	0.001	0.004	1
ICP-MS	23	90	Na	22.9898	0.184	4.23	x	Sodium	4.23	<	mg/Kg	1	0.01	0.04	20
ICP-MS	24	90	Mg	24.312	0.1855	9.02	x	Magnesium	9.02	<	mg/Kg	1	0.005	0.02	20
ICP-MS	27	9	Al					Aluminum			mg/Kg	1	0.001	0.004	1
ICP-MS	28	9	Si					Silicon			mg/Kg	1	0.01	0.04	10
ICP-MS	31	9	P					Phosphorous			mg/Kg	1	0.01	0.04	20
ICP-MS	39	90	K	39.102				Potassium			mg/Kg	1	0.08	0.32	20
ICP-MS	44	160	Ca	40.08	0.5002	40.1	x	Calcium	40.1	<	mg/Kg	1	0.025	0.1	20
ICP-MS	48	9	Ti					Titanium			mg/Kg	1	0.003	0.012	0.2
ICP-MS	51	90	V					Vanadium			mg/Kg	1	0.005	0.02	0.4
ICP-MS	52	90	Cr					Chromium			mg/Kg	1	0.0006	0.0024	0.2
ICP-MS	55	9	Mn					Manganese			mg/Kg	1	0.00015	0.0006	2
ICP-MS	54	9	Fe					Iron			mg/Kg	1	0.02	0.08	20
ICP-MS	59	9	Co					Cobalt			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	60	9	Ni					Nickel			mg/Kg	1	0.0002	0.0008	1
ICP-MS	63	9	Cu					Copper			mg/Kg	1	0.0002	0.0008	0.2
ICP-MS	66	9	Zn					Zinc			mg/Kg	1	0.01	0.04	2
ICP-MS	75	9	As					Arsenic			mg/Kg	1	0.0003	0.0012	0.4
ICP-MS	82	9	Se					Selenium			mg/Kg	1	0.0006	0.0024	0.4
ICP-MS	88	90	Sr	87.62				Strontium			mg/Kg	1	0.0002	0.0008	2
ICP-MS	98	9	Mo					Molybdenum			mg/Kg	1	0.0002	0.0008	0.2
ICP-MS	107	9	Ag					Silver			mg/Kg	1	0.0004	0.0016	0.2
ICP-MS	111	9	Cd					Cadmium			mg/Kg	1	0.00004	0.00016	1
ICP-MS	123	9	Sb					Antimony			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	137	90	Ba	137.34				Barium			mg/Kg	1	0.0002	0.0008	0.4
ICP-MS	202	36	Hg					Mercury			mg/Kg	1	0.0001	0.0004	0.1
ICP-MS	205	9	Tl					Thallium			mg/Kg	1	0.0003	0.0012	1
ICP-MS	204	9	Pb					Lead			mg/Kg	1	0.0006	0.0024	0.2
ICP-MS	232	9	Th					Thorium			mg/Kg	1	0.00005	0.0002	1
ICP-MS	238	9	U					Uranium			mg/Kg	1	0.00004	0.00016	0.2

Notes: LMB = laboratory method blank, M and MD = sample matrix replicates

Notes: LCS = spiked laboratory method blank, MS and MSD = spiked sample matrix replicates

Notes: Rh = Rhodium spiked as sample prep surrogate, DF = Dilution Factor, MDL = Method Detection Limit,

Notes: PQL = Primary Quantitation Limit, MQL = Maximum Quantitation Limit,

Notes: < = less than MDL, E = Estimated Value over MQL, J = Greater than MDL but less than PQL (4 x MDL)

Notes: n.a. = Not Applicable, Blank Space = Not Requested or Not Reported

Analyst/Reviewer

10/03/08

Key Laboratories

2479 River Road, Unit A
Grand Junction, Colorado 81502
Phone (970) 243-5311 Fax (970) 243-6010

Client : **Environmental Audit & Assessment**

Client Project Name : **Williams**

Client Sample Number : **Background (298-22-2)**

Key Lab # : 08-2619
Work Order # : 0925082619
Date Received : 09/25/08
Analysis Method : EPA ICP-MS Methods 6020 / 200.8
Prep Method : 1:1 Slurry >> Centrifuge >> Dilute >> Acidify >> Direct Aspiration

Sampling Date : 9/22/2008
Sampling Time : 15:15
Sample Matrix : Soil
Sampler : Elizabeth

Technician :

10/03/08 TS

Date Analyzed:

Thursday, October 02, 2008 17:43:33 12, 2008 17:50:25 rsday, October 02, 2008 17:23:04

Key Lab Sample ID# SAR-08-2619 SAR-08-2619 CAL0 CCB

Sample Description: CAL0 CCB

Sample Aliquot: 1000 1000 1000

Surrogate Spike: 1.000 1.000 1.000

Prep DF==> 50 50 1

Total DF==> 50 2500 1

SAR==> 0.311

Analysis Method	Ion	Time [ms]	Symbol	Atomic wt	MEQ	08-2619	Audit	Analyte	Total Metals	Total Metals	Units	Total DF	MDL ppm	PQL ppm	Max QL ppm
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x <==Audit [X=Pass]

ICP-MS	9	9	Be					Beryllium			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	11	90	B					Boron			mg/Kg	1	0.001	0.004	1
ICP-MS	23	90	Na	22.9898	0.2684	6.17	x	Sodium	6.17	<	mg/Kg	1	0.01	0.04	20
ICP-MS	24	90	Mg	24.312	0.1987	9.66	x	Magnesium	9.66	<	mg/Kg	1	0.005	0.02	20
ICP-MS	27	9	Al					Aluminum			mg/Kg	1	0.001	0.004	1
ICP-MS	28	9	Si					Silicon			mg/Kg	1	0.01	0.04	10
ICP-MS	31	9	P					Phosphorous			mg/Kg	1	0.01	0.04	20
ICP-MS	39	90	K	39.102				Potassium			mg/Kg	1	0.08	0.32	20
ICP-MS	44	100	Ca	40.08	0.5464	43.8	x	Calcium	43.8	68.8 J	mg/Kg	1	0.025	0.1	20
ICP-MS	48	9	Ti					Titanium			mg/Kg	1	0.003	0.012	0.2
ICP-MS	51	90	V					Vanadium			mg/Kg	1	0.005	0.02	0.4
ICP-MS	52	90	Cr					Chromium			mg/Kg	1	0.0006	0.0024	0.2
ICP-MS	55	9	Mn					Manganese			mg/Kg	1	0.00015	0.0006	2
ICP-MS	54	9	Fe					Iron			mg/Kg	1	0.02	0.08	20
ICP-MS	59	9	Co					Cobalt			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	60	9	Ni					Nickel			mg/Kg	1	0.0002	0.0008	1
ICP-MS	63	9	Cu					Copper			mg/Kg	1	0.0002	0.0008	0.2
ICP-MS	66	9	Zn					Zinc			mg/Kg	1	0.01	0.04	2
ICP-MS	75	9	As					Arsenic			mg/Kg	1	0.0003	0.0012	0.4
ICP-MS	82	9	Se					Selenium			mg/Kg	1	0.0006	0.0024	0.4
ICP-MS	88	90	Sr	87.62				Strontium			mg/Kg	1	0.0002	0.0008	2
ICP-MS	98	9	Mo					Molybdenum			mg/Kg	1	0.0002	0.0008	0.2
ICP-MS	107	9	Ag					Silver			mg/Kg	1	0.0004	0.0016	0.2
ICP-MS	111	9	Cd					Cadmium			mg/Kg	1	0.00004	0.00016	1
ICP-MS	123	9	Sb					Antimony			mg/Kg	1	0.00004	0.00016	0.2
ICP-MS	137	90	Ba	137.34				Barium			mg/Kg	1	0.0002	0.0008	0.4
ICP-MS	202	36	Hg					Mercury			mg/Kg	1	0.0001	0.0004	0.1
ICP-MS	205	9	Tl					Thallium			mg/Kg	1	0.0003	0.0012	1
ICP-MS	204	9	Pb					Lead			mg/Kg	1	0.0006	0.0024	0.2
ICP-MS	232	9	Th					Thorium			mg/Kg	1	0.00005	0.0002	1
ICP-MS	238	9	U					Uranium			mg/Kg	1	0.00004	0.00016	0.2

Notes: LMB = laboratory method blank, M and MD = sample matrix replicates

Notes: LCS = spiked laboratory method blank, MS and MSD = spiked sample matrix replicates

Notes: Rh = Rhodium spiked as sample prep surrogate, DF = Dilution Factor, MDL = Method Detection Limit,

Notes: PQL = Primary Quantitation Limit, MQL = Maximum Quantitation Limit,

Notes: < = less than MDL, E = Estimated Value over MQL, J = Greater than MDL but less than PQL (4 x MDL)

Notes: n.a. = Not Applicable, Blank Space = Not Requested or Not Reported

Analyst/Reviewer

TS

Key Laboratories

2479 River Road, Unit A

Grand Junction, Colorado 81502

Phone (970) 243-5311 Fax (970) 243-6010

Final Results**Report Date:****10/03/08****pH Results**

Key Lab#	COC#	Client Sample Name	Instrument Result	Units
08-2619	0925082619	Background (298-22-2)	6.62	S.U.
08-2620	0925082619	Background (298-26-2)	6.95	S.U.
08-2621	0925082619	SSW-1	8.08	S.U.
08-2622	0925082619	ESW-1	7.49	S.U.
08-2623	0925082619	NSW-1	8	S.U.
08-2624	0925082619	WSW-1	7.46	S.U.
08-2625	0925082619	BE-4	7.89	S.U.

Conductivity Results

Key Lab#	COC#	Client Sample Name	Instrument Result	Units
08-2619	0925082619	Background (298-22-2)	233	uS
08-2620	0925082619	Background (298-26-2)	167.4	uS
08-2621	0925082619	SSW-1	568	uS
08-2622	0925082619	ESW-1	832	uS
08-2623	0925082619	NSW-1	835	uS
08-2624	0925082619	WSW-1	758	uS
08-2625	0925082619	BE-4	651	uS

CHAIN OF CUSTODY



Environmental Audit & Assessment

225 N 5th Street Suite #8
Grand Junction, Colorado 81501
(970) 245-5897

Project Name: 298-26-2

Client: Williams

Samplers Signature: *Eyt McDowell*

Key Lab Sample Number	EAA Sample Number	Date	Time	Location	TRPH	pH	Electrical Conductivity	Sodium Adsorption Ratio	No. Of Containers	Remarks
<i>0925082619</i>										
<i>08-2619</i>	Background (298-22-2)	9/22/08	1515		X	X	X	X	2	Soil
<i>08-2620</i>	Background (298-26-2)	9/24/08	1200	<i>6</i>	X	X	X	X	2	Soil
<i>08-2621</i>	SSW-1	9/24/08	0910	South Sidewall	X	X	X	X	2	Soil
<i>08-2622</i>	ESW-1	9/24/08	1030	East Sidewall	X	X	X	X	2	Soil
<i>08-2623</i>	NSW-1	9/24/08	1100	North Sidewall	X	X	X	X	2	Soil
<i>08-2624</i>	WSW-1	9/24/08	1120	West Sidewall	X	X	X	X	2	Soil
<i>08-2625</i>	BE-4	9/24/08	1145	Bottom of Excavation	X	X	X	X	2	Soil

	Date	Time	Received By: (Signature)	Date	Time
<i>Eyt McDowell</i>	<i>9/25/08</i>	<i>1535</i>	<i>[Signature]</i>	<i>9/25/08</i>	<i>1535</i>

ADDITIONAL INFORMATION:

Custody Seals: Y N NA
Received In Good Condition: Y N NA