

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
Document 2315025
Received 7/6/2015
REM 9166

OGCC Employee:

Spill	Complaint
Inspection	NOAV

Tracking No:

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.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

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

OGCC Operator Number: _____	Contact Name and Telephone: _____
Name of Operator: _____	_____
Address: _____	No: _____
City: _____ State: _____ Zip: _____	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	_____	_____

REMEDIALTION 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: _____

REMEDIATION WORKPLAN (Cont.)

OGCC Employee: _____

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

Depth to groundwater at this locaiton is expected to be deeper than 50 feet.

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.

See attached document

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:

See attached document

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

See attached document

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: TBD Date Site Investigation Completed: TBD Date Remediation Plan Submitted: 9/7/1/2015
Remediation Start Date: TBD Anticipated Completion Date: TBD Actual Completion Date: TBD

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

Print Name: Karolina Blaney Signed: Karolina Blaney
Title: Environmental Specialist Date: 7/1/2015

OGCC Approved: _____ Title: _____ Date: _____

Form 15

FORM
15
Rev 6/99

State of Colorado
Oil and Gas Conservation Commission

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EARTHEN PIT REPORT/PERMIT

This form is to be used for both reporting and permitting pits. Rule 903 describes when a Permit with prior approval, or a Report within 30 days, is required for pits. Submit required attachments and forms.

Complete the
Attachment Checklist
Oper OGCC

FORM SUBMITTED FOR:

Pit Report Pit Permit

Detailed Site Plan	
Topo Map w/ Pit Location	
Water Analysis (Form 25)	
Source Wells (Form 26)	
Pit Design/Plan & Cross Sect	
Design Calculations	
Sensitive Area Determ.	
Mud Program	
Form 2A	

05-045-11018

OGCC Operator Number: 96850
Name of Operator: Williams Production RMT Co.
Address: 1515 Arapahoe Street, Tower 3, #1000
City: Denver State: CO Zip: 80202

Contact Name and Telephone:
Greg Davis
No: 303-606-4071
Fax: 303-629-8285

API Number (of associated well): AP 41-14-695 OGCC Facility ID (of other associated facility): _____
Pit Location (Qtr, Sec, Twp, Rng, Meridian): NENE Section 14-T6S-R95W
Latitude: 39 31' 46.6307" Longitude: 107 57' 40.1114" County: Garfield
Pit Use: Production Drilling (Attach mud program) Special Purpose (Describe Use): _____
Pit Type: Lined Unlined Surface Discharge Permit: Yes No
Offsite disposal of pit contents: Injection Commercial Pit/Facility Name: _____ Pit/Facility No: _____
Attach Form 25 to identify Source Wells and Form 25 to provide Produced Water Analysis results.

Existing Site Conditions

Is the location in a "Sensitive Area?" Yes No Attach data used for determination.
Distance (in feet) to nearest surface water: CW Guide Apps 800 ground water: None shown on Topo water wells: Pump House 4765
LAND USE (or attach copy of Form 2A if previously submitted for associated well) Select one which best describes land use:
Crop Land: Irrigated Dry Land Improved Pasture Hay Meadow CRP
Non-Crop Land: Rangeland Timber Recreational Other (describe): _____
Subdivided: Industrial Commercial Residential
SOILS (or attach copy of Form 2A if previously submitted for associated well)
Soil map units from USNRCS survey: Sheet No: 8 Soil Complex/Series No: 62
Soils Series Name: See Attached Form 2A Horizon thickness (in inches): A: ; B: ; C:
Soils Series Name: _____ Horizon thickness (in inches): A: ; B: ; C:
Attach detailed site plan and topo map with pit location.

Pit Design and Construction

Size of pit (feet): Length: 100' Width: 50' Depth: 6'
Calculated pit volume (bbls): 3952' Daily inflow rate (bbls/day): 28
Daily disposal rates (attach calculations): Evaporation: 309 bbls/day Percolation: Lined bbls/day
Type of liner material: Poly Thickness: 12 mil
Attach description of proposed design and construction (include sketches and calculations).
Method of treatment of produced water prior to discharge into pit (separator, heater treater, other): _____
Is pit fenced? Yes No Is pit netted? Yes No

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

Print Name: Greg Davis Signed: Greg Davis
Title: Supervisor Permits Date: 7/13/05

OGCC Approved: [Signature] Title: EPS Date: 8/16/05

CONDITIONS OF APPROVAL, IF ANY:

FACILITY NUMBER: 279358



Form 27 Attachment

State of Colorado
Oil and Gas Conservation Commission

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DRILL SITE/ACCESS ROAD RECLAMATION FORM

This form shall be submitted in duplicate with the application for permit-to-drill (OGCC Form 2) unless a Federal 13-point surface plan is included. Also required are a minimum of two photographs (site and access road). Soil and plant community information from United States Natural Resources Conservation Services (USNRCS).

1. OGCC Operator Number: <u>96850</u>	4. Contact Name and Telephone: <u>Greg Davis</u>	<p align="center">Complete the Attachment Checklist</p> <table border="1"> <thead> <tr> <th></th> <th>Oper</th> <th>OGC</th> </tr> </thead> <tbody> <tr> <td>Drill site and access photographs</td> <td></td> <td></td> </tr> <tr> <td>COE Section 404 documentation</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Oper	OGC	Drill site and access photographs			COE Section 404 documentation											
	Oper		OGC																	
Drill site and access photographs																				
COE Section 404 documentation																				
2. Name of Operator: <u>Williams Production RMT Company</u>	No: <u>(303) 606-4071</u>																			
3. Address: <u>1515 Arapahoe Street, Tower 3, Suite 1000</u>	Fax: <u>(303) 629-8275</u>																			
City: <u>Denver</u> State: <u>CO</u> Zip: <u>80202</u>																				
5. Well Name and No: <u>AP 41-14-695</u>	6. County: <u>Garfield</u>																			
7. Location (Qtr, Sec, Twp, Rng, Meridian): <u>NENE 14 6S 95W 6th P.M.</u>																				

**Pre-Drilling Information
Current Land Use**

8. Crop Land: Irrigated Dry Land Improved Pasture Hay Meadow CRP

9. Non-crop land: Rangeland Timber Recreational Other (describe): _____

10. Subdivided: Industrial Commercial Residential

Attach color photographs of drill site and access road; identify each photo by date, well name and location.

Soils

11. Soil map units from USNRCS survey: Sheet No: 8 Soil Complex/Series No: 62

Soils Series name: Rock outcrop-Torriorthents complex, very steep Horizon thickness (in inches): A: _____ ; B: _____ ; C: _____

Soils Series name: _____ Horizon thickness (in inches): A: _____ ; B: _____ ; C: _____

Soils Series name: _____ Horizon thickness (in inches): A: _____ ; B: _____ ; C: _____

Soils Series name: _____ Horizon thickness (in inches): A: _____ ; B: _____ ; C: _____

Plant Community

Complete this section only if operations are to be conducted upon non-crop land.

12. Plant species from: USNRCS or Field Observation Date of Observation: 6/15/05

List individual species: _____

13. Check one predominant plant community for the drill site:

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye, Thistle)
- Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- Shrub and Brush Land (Mahogany Oak Sage Serviceberry Chokecherry)
- Plains Deciduous Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- Mountain Conifer Riparian (Spruce, Fir, Ponderosa Pine)
- Evergreen Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Piñon)
- Aquatic (Bulrush, Sedges, Cattail, Arrowhead)
- Tundra (Alpine, Willow, Currant, Raspberry)

Other (describe): _____

14. Was an Army Corps of Engineers Section 404 Permit filed? Yes No If yes, attach appropriate documentation.

Comments: Appears not to have been mapped for soil types. Soil Series estimated to be Rock-outcrop Torriorthents complex very steep.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions which presently exist, that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Greg Davis

Signed: *Greg Davis* Title: Supervisor Permits Date: 7/13/05

FORM 27 ATTACHMENT:

Describe initial Action taken:

- At the location(s) of the pit which are the furthest downgradient, lowest in elevation and/or have the potential for pooling of liquid, field-screening will be performed and will utilize appropriate field equipment which may include, but is not limited to the following.
 - a PetroFlag unit,
 - a photoionization gas detector (PID),
 - or similar, for detection of volatile hydrocarbons, in the immediate area of the pit footprint.
- Confirmation sample(s), Rule 905.b.(4), will be collected and submitted for lab analysis and verification to confirm compliance with Rule 910 and Table 910-1 (reference to specific analytes is provided below) relative to the aforementioned field screen activity.
- Other areas of the pit walls and floor will be inspected for evidence of impact via field screening and visual observation. Grab samples will be collected, as appropriate, to demonstrate diligence and thoroughness of investigation activities performed as directed in Rule 905.b.(1). In addition, all field screening activities and results will be documented and compiled into a summary report, table and/or map to be provided with the Site Closure Plan.
- Grab sample(s) will be submitted for laboratory analysis to confirm field screening activities. Sub-liner sample analytes will include considerations identified by Rule 910 and all contaminants of concern for soils from Table 910-1 excluding boron (see attached analyte list in Table 1).
- A visual assessment will be performed throughout the entire investigation process and will be adequately documented (e.g. field notes, observations, photographs, etc.) by qualified personnel.

Describe how source is to be removed:

The presence of impact has not been determined at this point. No impacts have been observed to date or any other indication that would suggest there has been an event that would result in impact to the surrounding environment. However, should contamination be encountered the following actions will be taken:

- Any spill or release will be reported via a Form 19 and in accordance with Rule 906 and remediation shall be performed in accordance with requirements specified in Rules 909 and 910.
- Notification and consultation with the affected surface owner(s) shall be made with good faith effort and in accordance with Rule 906.c.
- Should a release be identified and attributed to the contents of the pit, the impacted area will be:
 - excavated in which field screen instruments will guide the excavation and laboratory confirmation samples collected to demonstrate compliance with Table 910-1 of the COGCC 900-series rule; and
 - placed within a bermed containment cell pending remediation or disposal as described below.
- All pit contents will be evacuated and managed in accordance with all applicable local, state [i.e. Rule 905.b.(2)] and federal regulations. If disposal is required, the relevant media will be disposed of at the Parachute Centralized E&P Waste Management Facility (COGCC Location # 149015).

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, in-situ bioremediation, burning of oily vegetation, etc.:

The presence of impact has not been determined at this point. No impacts have been observed to date or any other indication that would suggest there has been an event that would result in impact to the surrounding environment. However, should contamination be encountered the following actions will be taken:

- Any area(s) determined to be impacted/contaminated will be excavated and managed in accordance with all applicable rules and regulations regarding solid waste including applicable portion of COGCC Rule 907.
- Field screen equipment will be used to guide the excavation to ensure compliance with Table 910-1 of the COGCC 900 series rule.
- The excavated material will be placed within a bermed containment cell pending an on-site landfarming/bioremediation,

If groundwater has been impacted, describe proposed monitoring plan:

- The presence of impact has not been determined at this point. No impacts have been observed to date or any other indication that would suggest there has been an event that would result in impact to the surrounding environment. However, should it be observed or determined that groundwater impacts exist an appropriate site specific monitoring and remediation plan will be developed and submitted for COGCC approval.
- The anticipated depth to ground water is expected to be deeper than 50 feet.

Describe reclamation plan:

- The pit will be reclaimed in accordance with the COGCC 1000 Series Rules in addition to any SUA/COAs defined by the surface owner.
- The pit will be reclaimed to the present grade of the location or to the approximate original contour of the landscape
- Seeding of the disturbed area will be performed in accordance with its' intended use. The seed mix will be prescribed by the landowner.
- As a preventative measure, WPX Energy seeds all disturbed areas as soon as practicable with temporary or sterile annual seed mixes to provide soil stability, and

Attach samples and analytical results taken to verify remediation of impacts. Show location of samples on an onsite schematic or drawing. Is further site investigation required?:

- The presence of impact has not been determined at this point; therefore, the need for further site investigation has not been determined at this time.
- A determination of whether further site investigation is required and is pending field assessments and screening, which are to be confirmed by analytical results from an accredited - NELAP - laboratory.
- Final documentation of investigation and closure activities shall be submitted to the Division within thirty (30) days after conclusion of any and all remediation and reclamation activity and in accordance with all applicable sections and subsections of Rule 909.

Final disposition of E&P waste:

- If the stockpiled volume is small enough to manage on-site, there is available area on location, concentrations are within a reasonable range to be remediated in a timely manner and the identified contaminants are conducive to bioremediation, landfarming or in-situ remediation may occur as approved and in accordance with Rule 907.
- Should the aforementioned attributes do not exist or concentrations are not conducive to bioremediation then off-site disposal will be the final disposition of all impacted materials.
- If the latter option is taken, disposal will occur at an approved treatment, storage or disposal facility which may include, but is not limited to, the following facilities:
- Any soils requiring treatment that, once treated, fall below the allowable concentrations and levels provided in Table 910-1 will be reused as fill material during pit reclamation activities.

Confirmatory Analyte List for Potential Contaminants of Concern in Soil:

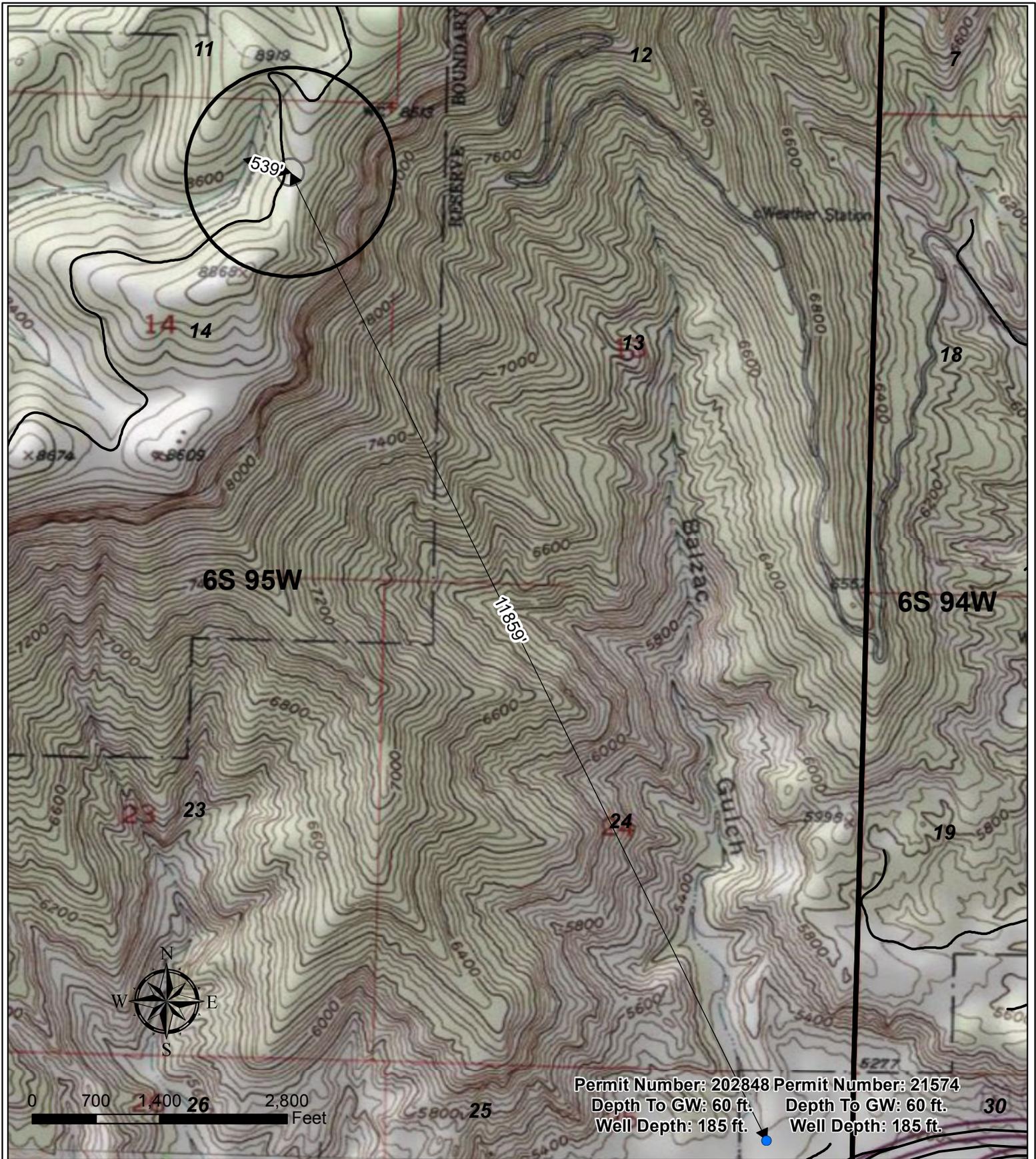
Table 1 – Sample collection, handling and analysis summary

Analyte Class	Analysis	Method	COGCC Table 910-1 Standard	
Organics	TVPH (GRO)	SW8015 mod	500 mg/kg	
	TEPH (DRO)			
	Benzene	SW8021	0.17 mg/kg	
	Toluene		85 mg/kg	
	Ethylbenzene		100 mg/kg	
	Xylenes (total)		175 mg/kg	
	Acenaphthene		SW8270	1,000 mg/kg
	Anthracene			0.22 mg/kg
	Benzo(A)anthracene			
	Benzo(B)fluoranthene			
	Benzo(K)fluoranthene			
	Benzo(A)pyrene	0.022 mg/kg		
	Chrysene	22 mg/kg		
	Dibenzo(A,H)anthracene	0.022 mg/kg		
	Fluoranthene	1,000 mg/kg		
	Fluorne	0.22 mg/kg		
	Indeno(1,2,3,C,D)pyrene			
Naphthalene				
Pyrene	1,000 mg/kg			
Inorganics	Electrical Conductivity	USDA Hdbk	<4 mmhos/cm or 2x background	
	Sodium Adsorption Rate	USDA Hdbk 60 Method 20B or 3A	<12	
	pH	SW9045	6-9	
Total Metals*	Arsenic	SW 6010, 6020, 7470	0.39 mg/kg	
	Barium		15,000 mg/kg	
	Cadmium		70 mg/kg	
	Chromium (III)		120,000 mg/kg	
	Chromium (VI)		23 mg/kg	
	Copper		3,100 mg/kg	
	Lead		400 mg/kg	
	Mercury		23 mg/kg	
	Nickel		1,600 mg/kg	
	Selenium		390 mg/kg	
	Silver		390 mg/kg	
Chloride	15,000 mg/kg			

General note: Preservation standards for organics and inorganics in soil are < 4°C as per EAL protocol. Of the above sample methods and procedures, none require a preservative to preserve sample integrity.

Note(): Boron (hot water soluble) has been excluded from this analyte list as no crops (citrus or nuts) or other vegetation which may be sensitive to boron are known or are expected to be encountered. Should the Director or COGCC EPS decide to, at his discretion, require a Boron analysis the above analyte list will be modified to reflect that change and requirement, at that point in time.*

Hydrology Map



Legend

- Water Well
- Existing Road
- Pad
- 1000' Buffer (from edge of pad)

WPX Energy Rocky Mountain, LLC

Plat 5C

AP 41-14-695 Hydrology Map
 T6S R95W, Section 14

