FORM 15 Rev 10/11

State of Colorado
Oil and Gas Conservation Commission

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

OGCC RECEPTION

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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.

Form Type: [X] **PERMIT** [ ] **REPORT** OGCC PIT NUMBER: 432534

NOTE: Operator to provide OGCC Pit Number only if available on an existing pit for pit report

ATTACHMENTS

Detailed Site Plan	
Design/Cross Sec	
Topo Map	
Calculations	
Sensitive Area Info	
Mud Program	
Form 2A	
Form 26	
Water Analysis	

OGCC Operator Number: 96850 Contact Name: Karolina Blaney

Name of Operator: WPX ENERGY ROCKY MOUNTAIN LLC

Address: 1001 17TH STREET - SUITE #1200 Phone: (970) 6832295

City: DENVER State: CO Zip: 80202 Email: Karolina.Blaney@WPXEnergy.com

Pit Location Information

Operator's Pit/Facility Name: Smith Gulch 31-32-796 Operator's Pit/Facility Number:

API Number (associated well): 05- 00

OGCC Location ID (associated location): 430110 Or Form 2A #

Pit Location (QtrQtr, Sec, Twp, Rng, Meridian): NWNE-32-7S-96W-6

Latitude: 39.398863 Longitude: -108.129210 County: GARFIELD

Operation Information

Pit Use/Type (Check all that apply): Pit Type: [X] Lined [ ] Unlined

[ ] Drilling: (Ancillary, Completion, Flowback, Reserve Pits) [ ] Oil-based Mud; [ ] Salt Sections or High Chloride Mud

[ ] Production: [ ] Skimming/Settling; [ ] Produced Water Storage; [ ] Percolation; [ ] Evaporation

[ ] Special Purpose: [ ] Flare; [ ] Emergency; [ ] Blowdown; [ ] Workover; [ ] Plugging; [ ] BS&W/Tank Bottoms

[X] Multi-Well Pit: Construction Date: 04/01/2013 Actual or Planned: Planned

Method of treatment prior to discharge into pit: four phase separation

Offsite disposal of pit contents: [X] Injection; [X] Commercial; [X] Reuse/Recycle; [ ] NPDES; Permit Number:

Other Information:

Site Conditions

Distance (in feet) to the nearest surface water: 163 Ground Water (depth): 6 Water Well: 4994

Is this location in a Sensitive Area? Yes Existing Location?

Pit Design and Construction

Size of Pit (in feet): Length: 350 Width: 160 Depth: 16 Calculated Working Volume (in barrels): 97700

Flow Rates (in bbl/day): Inflow: 2000 Outflow: Evaporation: Percolation: 0

Primary Liner. Type: HDPE Thickness (mil): 60

Seconday Liner (if present): Type: HDPE + clay liner Thickness (mil): 40

Is Pit Fenced? Yes Is Pit Netted? Yes Leak Detection? Yes

Other Information: Flow rates will vary

Operator Comments:

Certification

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

Signed: Print Name: Karolina Blaney

Title: Environmental Specialist Email: Karolina.Blaney@WPXEnergy.com Date: 03/01/2013

Approval

Signed: Matthew Lee Title: Director of Cogcc Date: 04/18/2013

BMP

Type	Comment

CONDITIONS OF APPROVAL:

TEMPORARY SURFACE PIPELINES COAs:

Operator must implement best management practices to contain any unintentional release of fluids along all portions of the surface pipeline route where temporary pumps and other necessary equipment are located.

Operator must routinely inspect the entire length of the surface pipeline to ensure integrity.

Operator must ensure 110 percent secondary containment for any potential volume of fluids that may be released from the surface pipeline at all stream, intermittent stream, ditch, and drainage crossings.

Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing the surface pipelines. This will reduce surface disturbance and fragmentation of wildlife habitat in the area.

GROUNDWATER/SURFACE WATER BASELINE SAMPLING COA:

Baseline Water Testing: Prior to pit operations, operator shall sample at a minimum two (2) domestic water wells or springs within a one (1) mile radius of the proposed oil and gas location. Testing preference shall be given to domestic water wells and springs over surface water. If possible, the water wells or springs selected should be on opposite sides of the oil and gas location not exceeding a one (1) mile radius. If water wells or springs on opposite sides of the oil and gas location cannot be identified, then the two (2) closest wells or springs within a one (1) mile radius of the oil and gas location shall be sampled. The sample location shall be surveyed in accordance with Rule 215. Sampling and analysis shall be conducted in conformance with an accepted industry standard as described in Rule 910.b.(2).
Initial baseline testing shall include: pH, specific conductance, total dissolved solids (TDS), dissolved gases (methane, ethane, propane), alkalinity (total bicarbonate and carbonate as CaCO3), major anions (bromide, chloride, fluoride, sulfate, nitrate and nitrite as N, phosphorus), major cations (calcium, iron, magnesium, manganese, potassium, sodium), other elements (barium, boron, selenium and strontium), presence of bacteria (iron related, sulfate reducing, slime and coliform), total petroleum hydrocarbons (TPH) and BTEX compounds (benzene, toluene, ethylbenzene and xylenes). Hydrogen sulfide shall also be measured using a field test method. Field observations such as pH, temperature, specific conductance, odor, water color, sediment, bubbles, and effervescence shall also be included. COGCC recommends that the latest version of EPA SW 846 analytical methods be used where possible and that analyses of samples be performed by laboratories that maintain state or national accreditation programs.
If free gas or a dissolved methane concentration greater than 1.0 milligram per liter (mg/l) is detected in a water well, gas compositional analysis and stable isotope analysis of the methane (carbon and hydrogen: 12C, 13C, 1H and 2H) shall be performed to determine gas type. If test results indicated thermogenic or a mixture of thermogenic and biogenic gas, then the operator shall submit to the Director an action plan to determine the source of the gas. If the methane concentration increases by more than 5.0 mg/l between sampling periods, or increases to more than 10. mg/l, the operator shall notify the Director and the owner of the water well immediately.
After 90 days, but less than 180 days of use of the pit for completion operations, a “second” test shall be performed for the same analytical parameters listed above and repeated once every 12 months. Additional test(s) may be required if changes in water quality are identified during follow-up testing. The Director may require further water well sampling at any time in response to complaints from water well owners.
Copies of all test results described above shall be provided to the Director and the landowner where the water quality testing well is located within three (3) months of collecting the samples used for the test. The analytical data and surveyed well locations shall also be submitted to the Director in an electronic data deliverable format.
Documented refusal to grant access by well owner or surface owner (for water well or spring sampling), or if no water wells or springs are located/identified within one mile, shall not constitute a violation of this COA.

FORM 15 EARTHEN PIT PERMIT COAs:

The multi-well pit must be double-lined. The pit will also require a leak detection system (Rule 904.e).

Delivery and vacuum truck hoses will not be allowed to be placed directly onto the pit liner. Operator will construct a loading/unloading station located next to the pit, to deliver fluids to or remove fluids from the pit by truck. The loading/unloading station shall be designed and utilized to prevent hoses from being dropped into the pits and dragged over the liner, which could lead to liner damage. The loading/unloading station will be the only permitted

access for manual fluids transfers to or from the pit. Vehicles will not be allowed to approach the pit any closer than the loading/unloading station. Each station will have a catch basin in case a leak occurs while operations personnel are connecting or disconnecting hoses. Signs clearly marking the truck loading/unloading station shall be provided and maintained by the operator.

Operator must submit a professional engineer (PE) approved/stamped as-built drawing (plan view and cross-sections) of the multi-well pit within 30 calendar days of construction.

After installation of the uppermost liner and prior to operating the pit, the synthetic liner(s) shall be tested by filling the pit with at least 70 percent of operating capacity of water, measured from the base of the pit (not to exceed the 2-foot freeboard requirement). The operator shall monitor the pit for leaks for a period of 72 hours prior to either draining the pit or commencing operations. Operator shall notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) 48 hours prior to start of the hydrotest. Hydrotest monitoring results must be maintained by the operator for the life of the pit and provided to COGCC prior to using the pit (via Form 4 Sundry to Dave Kubeczko; email dave.kubeczko@state.co.us) .

In lieu of conducting an initial hydrostatic test of the pit, the operator can monitor fluid levels in the pit continuously using a minimum of two pressure transducers located at the upgradient and downgradient ends of the pit (based on the original topographic profile). These pressure transducers should be linked to the operator's SCADA system such that they can be remotely monitored. In addition, the pit liner will be marked at the two foot freeboard depth line so that operations personnel (as well as COGCC inspectors) can easily verify that the required fluid free board is being maintained. The electronically collected water level measurement data shall be used to confirm changes in pit inflow and outflow during operations based on estimates from truck and/or pipeline delivery or removal activities. Any abnormalities that are noticed during operations will be reported to the operator's field supervisor immediately so that any necessary follow-up can be scheduled.

No portion of any pit that will be used to hold liquids shall be constructed on fill material, unless the pit and fill slope are designed and certified by a professional engineer, subject to review and approval by the director prior to construction of the pit. The construction and lining of the pit shall be supervised by a professional engineer or their agent. The entire base of the pit must be in cut.

The nearby downgradient hillside below the pit location must be periodically monitored for any day-lighting of fluids throughout pit operations.

The multi-well pit must be fenced and netted. The operator must maintain the fencing and netting until the pit is closed.

Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface pipelines or configuration of the permanent pipeline network.

This multi-well pit will comply with Rule 902. PITS - GENERAL AND SPECIAL RULES. e. Pits used for a period of no more than three (3) years for storage, recycling, reuse, treatment, or disposal of E&P waste or fresh water, as applicable, may be permitted in accordance with Rule 903 to service multiple wells.

Operator has indicated that this facility may be in operation from 3 to 5 years. Should the operation of this facility continue more than three years, a Form 28 shall be submitted and approved prior to the expiration of the Form 2A and Form 15.

Surface water samples (one upgradient and one downgradient from the frac pad/multi-well pit location) from the unnamed intermittent stream located east-northeast of the location (if water is present) shall be collected prior to pit use and every 12 months (until pit closure) to evaluate potential impacts from pit operations. If water is not present in the unnamed intermittent stream, then surface water samples from Smith Gulch, located approximately 1100' to the west (if water is present), shall be collected. At a minimum, the surface water samples will be analyze for the following parameters: major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); and BTEX/DRO.

The operator shall submit, and receive approval of, a reuse and recycling plan per Rule 907.a.(3), prior to any offsite reuse/recycling of pit fluids.

The multi-well pit shall be closed in accordance with Rule 905. Closure of Pits, and Buried or Partially Buried Produced Water Vessels; with an approved Site Investigation and Remediation Workplan, Form 27.

Submit additional disposal facilities (wells, pits, etc.), if necessary (i.e., if original disposal option changes), for pit liquid contents to COGCC via a Form 4 Sundry prior to disposal.

At the time of pit closure, operator must submit disposal information for solids, if necessary, via a Form 4 Sundry Notice to the COGCC Location Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us).

The disposal method will need to be approved prior to operator starting pit closure.

SITE SPECIFIC COAs:

Notify the COGCC 48 hours prior to start of frac pad construction, pit liner installation, start of hydrostatic test, and start of hydraulic stimulation operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

Operator must implement best management practices to contain any unintentional release of fluids at the pit location, as well as any fluids conveyed via temporary surface or buried permanent pipelines.

Operator must ensure secondary containment for any volume of fluids contained at frac pad site during completion operations (as described on the BMP tab); including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the frac pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into the multi-well pit or storage vessel on the frac pad; or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the frac pad or nearby well pads in an area with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material.

Additional containment shall be required where temporary or permanent pumps and other necessary equipment or chemicals are located.

Berms or other containment devices shall be constructed to be sufficiently impervious (preferably corrugated steel with poly liner) to contain any spilled or released material around crude oil, condensate, and produced water storage tanks.