

Dave Kubeczko - DNR

From: Dave Kubeczko - DNR
Sent: Thursday, June 27, 2013 12:38 PM
To: dave.kubeczko@state.co.us
Subject: FW: WPX Energy Rocky Mountain LLC, NE Ryan Gulch Wtr Recycling Pit, Lot 2 (NWNE) Sec 25 T1S R98W, Rio Blanco County, Form 2A (#400432702) and Form 15 (400424218) Review

Categories: Operator Correspondence

Scan No 2106678

CORRESPONDENCE

2A#400432702

15#400424218

From: Dave Kubeczko - DNR [mailto:dave.kubeczko@state.co.us]

Sent: Wednesday, June 26, 2013 9:45 PM

To: greg.j.davis@wpxenergy.com

Subject: WPX Energy Rocky Mountain LLC, NE Ryan Gulch Wtr Recycling Pit, Lot 2 (NWNE) Sec 25 T1S R98W, Rio Blanco County, Form 2A (#400432702) and Form 15 (400424218) Review

Greg,

I have been reviewing the NE Ryan Gulch Wtr Recycling Pit **Form 2A** (#400432702) and **Form 15** (#400424218). COGCC will attach the following conditions of approval (COAs) based on the data WPX Energy has submitted on or attached to the Form 2A and Form 15 prior to passing the Oil and Gas Location Assessment (OGLA) review.

General Site: The following conditions of approval (COAs) will apply:

COA 91 - 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).

COA 5 - 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.

COA 23 - 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.

COA 28 - The location is in an area of moderate to high run-on / run-off potential; therefore the pad and access road shall be constructed to prevent any stormwater run-on and/or stormwater run-off. Standard stormwater BMPs must be implemented at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater run-on and /or stormwater runoff.

COA 25 - 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.

COA 6 - Additional containment shall be required where temporary or permanent pumps and other necessary equipment or chemicals are located.

COA 74 - Operator will use adequately sized containment devices for all chemicals and/or hazardous materials stored or used on location.

COA 79 - Strategically apply fugitive dust control measures, including enforcing established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.

COA 58 - 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.

Groundwater/Surface Water Baseline Sampling: Based on recent COGCC rule changes, COGCC will attach the following additional condition of approval (COA) to the Form 2A to provide the COGCC with some baseline data for surface water and/or groundwater:

COA 9 - 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: The following conditions of approval (COAs) will apply to both the Form 2A and the Form 15 Pit Permit:

COA 47 - The multi-well pit must be double-lined. The pit will also require a leak detection system (Rule 904.e).

COA 66 - 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.

COA 61 - 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.

COA 22 - 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).

COA 67 - 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.

COA 39 - 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.

COA 40 - The nearby downgradient hillside below the pit location must be periodically monitored for any daylighting of fluids throughout pit operations.

COA 59 - The multi-well pit must be fenced and netted. The operator must maintain the fencing and netting until the pit is closed.

COA 19 - 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.

COA 29 - 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.

COA 24 - 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.

COA 27 - 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.

COA 28 - 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.

COA 81 - 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.

Temporary Surface Pipelines: The following conditions of approval (COAs) will apply to both the Form 2A and the Form 15 Pit Permit if any temporary surface pipelines (poly or steel) are used during completion operations at nearby well pads:

COA 11 - 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.

COA 48 - 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.

COA 49 - Operator must routinely inspect the entire length of the surface pipeline to ensure integrity.

COA 54 - 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.

COA 55 - 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.

Based on the information provided in the Form 2A by WPX, COGCC will attach these COAs to the Form 2A and Form 15 permits; WPX does not need to respond, unless you have questions or concerns with details in this email (responses to this email are required within 7 calendar days). If you have any questions, please do not hesitate to call me at (970) 309-2514 (cell), or email. Thanks.

Dave

David A. Kubeczko, PG
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Western Colorado

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