

**FORM
INSP**Rev
05/11**State of Colorado
Oil and Gas Conservation Commission**1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

Inspection Date:

08/18/2016

Document Number:

682401166

Overall Inspection:

ACTION REQUIRED**FIELD INSPECTION FORM**

Location Identifier	Facility ID	Loc ID	Inspector Name:	On-Site Inspection	2A Doc Num:
	430412	430411	Binschus, Chris	<input type="checkbox"/>	

Operator Information:OGCC Operator Number: 10459Name of Operator: EXTRACTION OIL & GAS LLCAddress: 370 17TH STREET SUITE 5300City: DENVER State: CO Zip: 80202

- ☐ THIS IS A FOLLOW UP INSPECTION
- ☒ FOLLOW UP INSPECTION REQUIRED
- ☐ NO FOLLOW UP INSPECTION REQUIRED
- ☒ INSPECTOR REQUESTS FORM 42 WHEN CORRECTIVE ACTIONS ARE COMPLETED

Contact Information:

Contact Name	Phone	Email	Comment
		COGCCInspections@extracti onog.com	All inspections
Arthur, Denise		denise.arthur@state.co.us	

Compliance Summary:QtrQtr: NWSW Sec: 5 Twp: 6N Range: 67W**Inspector Comment:**

This is a stormwater inspection. See Stormwater section for corrective actions and corrective action dates. Corrective action date will be shorter than normal because this time of the year is monsoon season increasing the potential for erosion.

Related Facilities:

Facility ID	Type	Status	Status Date	Well Class	API Num	Facility Name	Insp Status	
430411	LOCATION	AC	08/08/2016		-	Varra 5-I Pad	AC	<input type="checkbox"/>
430412	WELL	XX	10/12/2012	LO	123-36160	VARRA 5-13	XX	<input type="checkbox"/>
438461	WELL	DG	08/08/2016	LO	123-39982	Varra 2	RI	<input checked="" type="checkbox"/>
438462	WELL	DG	08/06/2016	LO	123-39983	Varra 4	RI	<input checked="" type="checkbox"/>
438463	WELL	DG	08/07/2016	LO	123-39984	Varra 3	RI	<input checked="" type="checkbox"/>
438464	WELL	DG	08/06/2016	LO	123-39985	Varra 5	RI	<input checked="" type="checkbox"/>
438465	WELL	DG	08/03/2016	LO	123-39986	Varra 9	RI	<input checked="" type="checkbox"/>
438466	WELL	DG	08/04/2016	LO	123-39987	Varra 7	RI	<input checked="" type="checkbox"/>
438467	WELL	DG	08/04/2016	LO	123-39988	Varra 8	RI	<input checked="" type="checkbox"/>
438468	WELL	DG	08/05/2016	LO	123-39989	Varra 6	RI	<input checked="" type="checkbox"/>
438469	WELL	DG	08/02/2016	LO	123-39990	Varra 10	RI	<input checked="" type="checkbox"/>

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438470	WELL	DG	08/02/2016	LO	123-39991	Varra 11	RI	<input checked="" type="checkbox"/>
438471	WELL	DG	08/01/2016	LO	123-39992	Varra 12	RI	<input checked="" type="checkbox"/>

Equipment:Location Inventory

Special Purpose Pits: _____	Drilling Pits: _____	Wells: 12	Production Pits: _____
Condensate Tanks: _____	Water Tanks: 6	Separators: 12	Electric Motors: 6
Gas or Diesel Motors: _____	Cavity Pumps: _____	LACT Unit: _____	Pump Jacks: _____
Electric Generators: _____	Gas Pipeline: _____	Oil Pipeline: _____	Water Pipeline: _____
Gas Compressors: _____	VOC Combustor: _____	Oil Tanks: 30	Dehydrator Units: _____
Multi-Well Pits: _____	Pigging Station: _____	Flare: _____	Fuel Tanks: _____

Location

Emergency Contact Number (S/AR): _____

Corrective Date: _____

Comment: _____

Corrective Action: _____

Spills:

Type	Area	Volume	Corrective action	CA Date
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☐ Multiple Spills and Releases?**Venting:**

Yes/No	_____
Comment	_____

Flaring:

Type	Satisfactory/Action Required
Comment:	_____
Corrective Action:	Correct Action Date: _____

Predrill

Location ID: 430412

Lease Road Adeq.: _____

Pads: _____

Soil Stockpile: _____

S/AR: _____

Corrective Action: _____ Date: _____ CDP Num.: _____

Form 2A COAs:

Group	User	Comment	Date
OGLA	allisonr	If drill cuttings will be land applied, then a Waste Management Plan meeting the general requirements of Rule 907.a. must be submitted for the land application of drill cuttings. Submit the Waste Management Plan on a Form 4 Sundry Notice via email to ogcc.envirosundry@state.co.us prior to drilling.	10/02/2012

S/AR: _____ **Comment:** _____**CA:** _____ **Date:** _____**Wildlife BMPs:**

BMP Type	Comment
General Housekeeping	<p>Fence the well site after drilling to restrict public and wildlife access.</p> <p>Keep well site location, the road, and the pipeline easement free of noxious weeds, litter and debris.</p> <p>Spray for noxious weeds, and implement dust control, as needed.</p> <p>Operator will not permit the release or discharge of any toxic or hazardous chemicals or wastes on Owner's Land.</p> <p>Construct and maintain gates where any roads used by operator, its employees, or contractors cross through fences on the leased premises.</p> <p>Visual Impact Mitigation: All long term facility structures will be painted a color that enables the facilities to blend in with the natural background color of the landscape, as seen from a viewing distance and location typically used by the public. Maintain appearance with garbage clean-up; a trash bin will be located on site to accumulate waste by the personnel drilling the wells. Site will have unused equipment, trash and junk removed immediately.</p>
Drilling/Completion Operations	<p>A closed-loop drilling mud system will be used to preclude the use of an earthen reserve pit.</p> <p>Light Sources will likewise be directed downwards and away from occupied structures where possible. Once the drilling and completion rigs leave the site, there will be no permanently installed lighting on site.</p> <p>Prior to drilling operations, Operator may perform an anti-collision review of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision review may include MWD or gyro surveys and surface locations of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed well path with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottom hole location. The proposed well may only be drilled if the anti-collision review results indicate that the risk of collision is sufficiently low as defined by the anticollision plan, with separation factors greater than 1.5, or if the risk of collision has been mitigated through other means including shutting in wells, plugging wells, increased drilling fluid in the event of lost returns or as is appropriate for the specific situation. In the event of an increased risk of collision, that risk will be mitigated to prevent harm to people, the environment or property. For the proposed well, upon conclusion of drilling operations, an as-constructed directional survey will be submitted to the COGCC with the Form 5.</p> <p>Pursuant to COGCC 207.a. ("Policy"), operator, acknowledges and will comply with said policy for Bradenhead Monitoring during hydraulic fracturing treatments in the Greater Wattenberg Area (GWA), dated May 29, 2012.</p> <p>Blowout Preventer Equipment: A double ram and annular preventer will be used during drilling. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.</p> <p>BOPE- Well servicing operations. Adequate BOP equipment shall be used. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.</p>

Construction	<p>COGCC MLVT BMPs</p> <ul style="list-style-type: none"> • Operator has an MLVT Design Package, certified and sealed by a licensed professional engineer, which is on file in their office and available upon request. • The MLVT will be at least 75 feet from a wellhead, fired vessel, heater-treater, or a compressor with a rating of 200 horsepower or more. It will be placed at least 50 feet from a separator, well test unit, or other non-fired equipment. • All liner seams will be welded and tested in accordance with applicable ASTM International standards. • Operator will be present during initial filling of the MLVT and the contractor will supervise and inspect the MLVT for leaks during filling. • Operator will comply with the testing and reinspection requirements and associated written standard operating procedures (SOP) listed on the design package. • Signs will be posted on the MLVT indicating that the contents are freshwater. • The MLVT will be operated with a minimum of 1 foot of freeboard at all times. • Access to the MLVT will be limited to operational personnel and authorized regulatory agency personnel. • Operator or contractor will conduct daily visual inspections of the exterior wall and surrounding area for integrity deficiencies. • Operator has developed a contingency plan/emergency response plan associated with the MLVT and it is on file at their office. • Dust: Operator shall employ practices for control of fugitive dust caused by their operations. Such practices shall include but are not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. Additional management practices such as road surfacing, wind breaks and barriers, or automation of wells to reduce truck traffic may also be required if technologically feasible and economically reasonable to minimize fugitive dust emissions. • Construction: Operator acknowledges and will comply with the Colorado Oil & Gas Conservation Commission Policy on the Use of Modular Large Volume Tanks in Colorado dated June 13, 2014. • Noise: Operator will stay under the maximum permissible noise levels stated in COGCC Rule 604.c.(2)A. If necessary, operator will use appropriately sized sound walls that will be installed around compressors to dampen noise.
Material Handling and Spill Prevention	<p>Leak Detection Plan:</p> <p>Pumper will visit the location daily and visually inspect all tanks and fittings for leaks. Additionally, monthly documented SPCCP inspections are conducted pursuant to 40 CFR 112.</p>
Emissions mitigation	<p>Green Completions; Emission Control System. Test separators and associated flow lines and sand traps shall be installed on-site to accommodate green completions techniques pursuant to COGCC Rules. In the anticipated absence of a viable gas sales line, the flowback gas shall be thermally oxidized in an emissions control device (ECD), which will be installed and kept in operable condition for least the first 90-days of production pursuant to CDPHE rules. This ECD shall have an adequate capacity for 1.5 times the largest flowback within a 10 mile radius, will be flanged to route gas to other or permanent oxidizing equipment and shall be provided with the equipment needed to maintain combustions where non-combustible gases are present.</p>
Odor mitigation	<p>Odors and Dust:</p> <p>Operator will regulate odors in accordance with COGCC Rule 805. The production facilities will have VOC Combustors with emission control devices to comply with the Department of Public Health and Environment, Air Quality Control Commission. Fugitive dust will be controlled by speed restrictions on all neighboring roads, regular road maintenance and repair, and avoiding construction activity during high wind days. If technologically and economically feasible, additional management practices may also be required to minimize fugitive dust, as well as to control silica dust while handling sand during frac'ing operations.</p>
Noise mitigation	<p>Noise:</p> <p>A baseline noise survey will be performed prior to the start of drilling and completion operations. Some type of sound wall mitigation will be implemented based on the study results to insure that noise levels are maintained below the permissible level for Light Industrial Zones, as measured at the nearest Building Unit.</p>

Construction	<p>Remove only the minimum amount of vegetation necessary for the construction of roads and facilities. Conserve topsoil during excavation and reuse as cover on disturbed areas to facilitate regrowth of vegetation. No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment.</p> <p>Berm Construction: Tanks berms shall be constructed of steel rings with a synthetic or engineered liner and designed to contain 150% of the capacity of the largest tank. All berms will be visually checked periodically to ensure proper working condition.</p> <p>Control of Fire Hazards: All material that is considered a fire hazard shall be a minimum of 25' from the wellhead tanks or separators. Electrical equipment shall comply with the current national electrical code.</p> <p>Tank Specifications: Tanks will be designed, constructed and maintained in accordance with NFPA Code 30. The tanks are visually inspected once a day for issues, and recorded inspections are conducted once a month.</p>
Final Reclamation	Well site cleared- Within 90-day subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site.
Storm Water/Erosion Control	Use water bars, and other measures to prevent erosion and non-source pollution. Implement and maintain BMPs to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, and site degradation. Co-locate gas and water gathering lines whenever feasible, and mitigate any erosion problems that arise due to the construction of any pipeline(s).
Interim Reclamation	Utilize only such area around each producing well as is reasonably necessary. Restore the remainder of the well site location to its original condition within a reasonable time after the completion of operations. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner.
Planning	When feasible develop multiple well sites by using directional drilling to reduce cumulative impacts and adverse impacts on wildlife resources.
Traffic control	<p>Access Roads - The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times.</p> <p>Traffic will be routed to minimize local interruption.</p>
Dust control	Traffic dust control will be done utilizing water on all County Roads leading up to the pad site.
Noise mitigation	Sound walls and/ or hay bales will be used during drilling and completion operations. Sound walls and/ or hay bales will be installed on the West and South edges of the pad.

S/AR: _____ **Comment:** _____

CA: _____ **Date:** _____

Comment: _____

Staking:

On Site Inspection (305):

Surface Owner Contact Information:

Name: _____ Address: _____

Phone Number: _____ Cell Phone: _____

Operator Rep. Contact Information:

Landman Name: _____ Phone Number: _____

Date Onsite Request Received: _____ Date of Rule 306 Consultation: _____

Request LGD Attendance: _____

LGD Contact Information:

Name: _____ Phone Number: _____ Agreed to Attend: _____

Summary of Landowner Issues:

Inspector Name: Binschus, Chris

Summary of Operator Response to Landowner Issues:

Onsite Inspection Memorandum Summarizing Discussions at Inspection as Attachment:

Facility

Facility ID:	438461	Type:	WELL	API Number:	123-39982	Status:	DG	Insp. Status:	RI
Facility ID:	438462	Type:	WELL	API Number:	123-39983	Status:	DG	Insp. Status:	RI
Facility ID:	438463	Type:	WELL	API Number:	123-39984	Status:	DG	Insp. Status:	RI
Facility ID:	438464	Type:	WELL	API Number:	123-39985	Status:	DG	Insp. Status:	RI
Facility ID:	438465	Type:	WELL	API Number:	123-39986	Status:	DG	Insp. Status:	RI
Facility ID:	438466	Type:	WELL	API Number:	123-39987	Status:	DG	Insp. Status:	RI
Facility ID:	438467	Type:	WELL	API Number:	123-39988	Status:	DG	Insp. Status:	RI
Facility ID:	438468	Type:	WELL	API Number:	123-39989	Status:	DG	Insp. Status:	RI
Facility ID:	438469	Type:	WELL	API Number:	123-39990	Status:	DG	Insp. Status:	RI
Facility ID:	438470	Type:	WELL	API Number:	123-39991	Status:	DG	Insp. Status:	RI
Facility ID:	438471	Type:	WELL	API Number:	123-39992	Status:	DG	Insp. Status:	RI

Environmental

Spills/Releases:

Type of Spill: _____ Description: _____ Estimated Spill Volume: _____
Comment: _____
Corrective Action: _____ Date: _____
Reportable: _____ GPS: Lat _____ Long _____
Proximity to Surface Water: _____ Depth to Ground Water: _____

Water Well:

Lat _____ Long _____
DWR Receipt Num: _____ Owner Name: _____ GPS : _____

Field Parameters:

Sample Location: _____

Emission Control Burner (ECB): _____

Comment: _____

Pilot: _____ Wildlife Protection Devices (fired vessels): _____

Reclamation - Storm Water - Pit**Interim Reclamation:**

Date Interim Reclamation Started: _____ Date Interim Reclamation Completed: _____

Land Use: IMPROVED PASTURE, IRRIGATED

Comment: _____

1003a. Waste and Debris removed? _____

CM _____

CA _____ CA Date _____

Unused or unneeded equipment onsite? _____

CM _____

CA _____ CA Date _____

Pit, cellars, rat holes and other bores closed? _____

CM _____

CA _____ CA Date _____

Guy line anchors marked? _____

CM _____

CA _____ CA Date _____

1003b. Area no longer in use? _____

Production areas stabilized ? _____

1003c. Compacted areas have been cross ripped? _____

1003d. Drilling pit closed? _____ Subsidence over on drill pit? _____

Cuttings management: _____

1003e. Areas no longer needed for drilling or subsequent operations for have been re-vegetated to 80% of pre-existing? _____

Production areas have been stabilized? _____

Segregated soils have been replaced? _____

RESTORATION AND REVEGETATIONCropland

Top soil replaced _____

Recontoured _____

Perennial forage re-established _____

Non-Cropland

Top soil replaced _____

Recontoured _____

80% Revegetation _____

1003 f. Weeds Noxious weeds? _____

Comment: _____

Overall Interim Reclamation _____

Final Reclamation/ Abandoned Location:

Date Final Reclamation Started: _____ Date Final Reclamation Completed: _____

Final Land Use: IMPROVED PASTURE, IRRIGATED

Reminder: _____

Comment: _____

Well plugged _____

Pit mouse/rat holes, cellars backfilled _____

Debris removed _____

No disturbance /Location never built _____

Inspector Name: Binschus, Chris

Access Roads Regraded _____ Contoured _____ Culverts removed _____
Gravel removed _____

Location and associated production facilities reclaimed _____ Locations, facilities, roads, recontoured _____

Compaction alleviation _____ Dust and erosion control _____

Non cropland: Revegetated 80% _____ Cropland: perennial forage _____

Weeds present _____ Subsidence _____

Comment: _____

Corrective Action: _____ Date _____

Overall Final Reclamation _____ Well Release on Active Location ☐ Multi-Well Location ☐

Storm Water:

Loc Erosion BMPs	BMP Maintenance	Lease Road Erosion BMPs	Lease BMP Maintenance	Chemical BMPs	Chemical BMP Maintenance	Comment
Berms	Fail					
Ditches	Fail					

S/A/V: **ACTION REQUIRED** Corrective Date: **09/01/2016**

Comment: Insufficient stormwater and sediment control BMPs throughout entire perimeter of location. Shallow ditches and unconsolidated berms would not appear to mitigate transport of stormwater and control sedimentation offsite. In addition, there are two potential discharge areas at the southwest location with no outlet protection. Also, fill slopes along the western and southern location are not stabilized. Refer to attached photos in Document #682401170.

CA: Stabilize fill slopes, and construct sufficient stormwater and sediment control BMPs pursuant to: Manual of Stormwater BMPs (Revised: 2015) attached to Extraction's Stormwater Management Plan ("SWMP") submitted to Colorado Department of Health and Environment on or before corrective action date of 9/1/16.

Pits: ☐ NO SURFACE INDICATION OF PIT

Attached Documents

You can go to COGCC Images (<https://cogcc.state.co.us/weblink/>) and search by document number:

Document Num	Description	URL
682401166	INSPECTION APPROVED	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=3932761
682401170	Location Photos	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=3932759