

**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:

05/05/2016

Document Number:

682400718

Overall Inspection:

SATISFACTORY**FIELD INSPECTION FORM**

Location Identifier	Facility ID	Loc ID	Inspector Name:	On-Site Inspection	2A Doc Num:
	445225	445225	Binschus, Chris	<input type="checkbox"/>	

Operator Information:OGCC Operator Number: 69175Name of Operator: PDC ENERGY INCAddress: 1775 SHERMAN STREET - STE 3000City: DENVER State: CO Zip: 80203

- ☐ 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
,		cogccinspection@pdce.com	All inspections

Compliance Summary:QtrQtr: SWNW Sec: 17 Twp: 5N Range: 64W**Inspector Comment:**This is a construction inspection.**Related Facilities:**

Facility ID	Type	Status	Status Date	Well Class	API Num	Facility Name	Insp Status	
445533	WELL	XX	04/20/2016		123-43087	Schaumburg 17F-332	CI	<input checked="" type="checkbox"/>
445534	WELL	XX	04/20/2016		123-43088	Schaumburg 17F-202	CI	<input checked="" type="checkbox"/>
445535	WELL	XX	04/20/2016		123-43089	Schaumburg 17G-214	CI	<input checked="" type="checkbox"/>
445536	WELL	XX	04/20/2016		123-43090	Schaumburg 17G-314	CI	<input checked="" type="checkbox"/>
445537	WELL	XX	04/20/2016		123-43091	Schaumburg 17F-204	CI	<input checked="" type="checkbox"/>
445538	WELL	XX	04/20/2016		123-43092	Schaumburg 17F-334	CI	<input checked="" type="checkbox"/>
445539	WELL	XX	04/20/2016		123-43093	Schaumburg 17G-312	CI	<input checked="" type="checkbox"/>
445540	WELL	XX	04/20/2016		123-43094	Schaumburg 17F-234	CI	<input checked="" type="checkbox"/>
445541	WELL	XX	04/20/2016		123-43095	Schaumburg 17G-202	CI	<input checked="" type="checkbox"/>
445542	WELL	XX	04/20/2016		123-43096	Schaumburg 17F-232	CI	<input checked="" type="checkbox"/>

Equipment:Location Inventory

Special Purpose Pits: _____	Drilling Pits: _____	Wells: <u>10</u>	Production Pits: _____
Condensate Tanks: _____	Water Tanks: _____	Separators: <u>11</u>	Electric Motors: _____
Gas or Diesel Motors: _____	Cavity Pumps: _____	LACT Unit: _____	Pump Jacks: _____
Electric Generators: _____	Gas Pipeline: _____	Oil Pipeline: _____	Water Pipeline: _____
Gas Compressors: _____	VOC Combustor: <u>10</u>	Oil Tanks: <u>21</u>	Dehydrator Units: _____
Multi-Well Pits: _____	Pigging Station: _____	Flare: _____	Fuel Tanks: _____

Location

Inspector Name: Binschus, Chris

Lease Road:				
Type	Satisfactory/Action Required	comment	Corrective Action	Date

Signs/Marker:				
Type	Satisfactory/Action Required	Comment	Corrective Action	CA Date

Emergency Contact Number (S/AR): _____ Corrective Date: _____

Comment: _____

Corrective Action: _____

Good Housekeeping:				
Type	Satisfactory/Action Required	Comment	Corrective Action	CA Date

Spills:				
Type	Area	Volume	Corrective action	CA Date

☐ Multiple Spills and Releases?

Fencing/:				
Type	Satisfactory/Action Required	Comment	Corrective Action	CA Date

Equipment:				
Type:	#	Satisfactory/Action Required:		
Comment				
Corrective Action				Date:

Venting:	
Yes/No	
Comment	

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

Predrill			
Location ID: 445225			
Lease Road Adeq.: _____		Pads: _____	Soil Stockpile: _____
S/AR: _____			
Corrective Action: _____		Date: _____	CDP Num.: _____
Form 2A COAs:			
S/AR: _____	Comment: _____		
CA: _____			Date: _____

Wildlife BMPs:

BMP Type	Comment
Construction	604c.(2).S. Access Roads: PDC will utilize an improved lease access road off of County Road 58 (paved) and a temporary access off of County Road 51 (gravel) for all heavy truck traffic and rig moves along with drilling operations and maintenance equipment. The lease access road will be properly constructed and maintained to accommodate for local emergency vehicle access. Dust will be mitigated as necessary on lease access road. Note: County Road 58 is a Bus Route and County Road 51 has a Municipal Water Line.
Drilling/Completion Operations	604c.(2).T. Well Site Cleared: The wellsite will be cleared of all non-essential equipment within ninety (90) days after all wells associated with the pad have been plugged and abandoned.
Emissions mitigation	604c.(2).C. Green Completions: Flowlines, 48" HLPs, sand traps all capable of supporting green completions as described in rule 805 shall be installed at any Oil and Gas location at which commercial quantities of gas and or oil are reasonable expected to be produced based on existing wells. All green flow back equipment will be able to handle more than 1.5 times the amount of any know volumes in the surrounding field. First sign of salable gas will be put into production equipment and turned down line.
Planning	604c.(2).E. Multiwell Pads: This 2A application is for a 10-well pad. PDC Energy considered all options for this area including Landowner concerns. The Landowner was very adamant about placing the facility where we have it planned due to the way/direction that the north field is irrigated and due to the planned pivot for the south field in 2017. We also tried to split the difference between the home to the SW and the home to the NW. We were also concerned about keeping the battery off of County Road 51. PDC will be combining the production facilities of two vertical wells into this new facility.
General Housekeeping	604c.(2).P. Removal of Surface Trash: A commercial size trash bin for removing debris will be located on site. This bin will be for use by all parties affiliated with the operation.
Odor mitigation	805.b(1)-(c) Odors and Dust: Oil and gas facilities and equipment will operate in a manner that odors and dust do not constitute a nuisance or hazard to public welfare. Odors: Oil and gas operations will be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII. Dust; PDC will employ practices for control of fugitive dust caused by operations include but 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. When necessary, PDC coordinates dust mitigation with the county on gravel roads, places road base where allowed by surface owner around tanks and wellheads to minimize dust, and will water the roads and locations when dry. In addition, automation is used on all new wells to minimize truck traffic.
Construction	604c.(2).A. Noise: WELL PAD: PDC has conducted baseline noise surveys for all drilling rigs that are being contracted and has also conducted a baseline noise survey for hydraulic fracture stimulation operations on a representative horizontal well. These baseline surveys are utilized for site specific noise modeling to determine if any mitigation measures are warranted. A review was conducted to identify potential receptors within 1000 feet of the proposed pad site. There are two (2) building units of concern located 579' NE and 956' NW from the production facility. Light and sound mitigation will be installed to the North and West of the proposed location. Methods of noise mitigation shall include but not be limited to hay bales, sound walls, or customized semi-trailers. PRODUCTION FACILITIES: It is not anticipated that noise mitigation will be necessary at the proposed tank battery location. After construction is completed, equipment installed and production begins, noise levels will be assessed to determine if mitigation measures will be required to be compliant with Rule 802.
Construction	To prevent adverse impacts to shallow groundwater, buried produced water vault shall be installed above an impermeable synthetic or geosynthetic liner system which shall be tied back into the surface liner.

Drilling/Completion Operations	604c.(2).F. Leak Detection Plan: See attached.
General Housekeeping	604c.(2).N. Control of Fire Hazards: PDC will ensure that any material that might be deemed a fire hazard will be will remain no less than twenty-five (25) feet from the wellhead(s), tanks and separator(s). PDC installs automation equipment for tank level and pressure monitoring inside the bermed area that complies with API RP 500 classifications and with the current national electrical code as adopted by the State of Colorado.
Planning	604c.(2).V. Development From Existing Well Pads: An existing pad was not available to utilize to develop these wells.
Construction	604c.(2).R. Tank Specifications: Condensate storage tanks will be designed, constructed and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). PDC will maintain written records to verify proper design, construction and maintenance. All records will be available for inspection by the Director.
Drilling/Completion Operations	604c.(2).K. Pit Level Indicators: PDC uses an Electronic Drilling Recorder (EDR) with pit level monitor(s) and alarm(s) for production rigs. Basic level gages are used on steel pits utilized for the surface rig.
Drilling/Completion Operations	Operator will comply with COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012. The Colorado Oil and Gas Conservation Commission (COGCC) has established this Policy Regarding Bradenhead Monitoring During Hydraulic Fracturing Treatments ("Treatment") in the Greater Wattenberg Area ("GWA") pursuant to COGCC 207.a. ("Policy"). This Policy applies to oil and gas operations in the GWA as defined by the COGCC Rules of Practice and Procedure.
Construction	604.c.(2).W. Site Specific Measures: Lights should be turned downward and away from building units within the 1,000 foot buffer area. Dust mitigation will be provided as necessary on lease access roads.
Drilling/Completion Operations	604c.(2).U. Identification of Plugged and Abandoned Wells: Pursuant to rule 319.a.(5)., once the well has been plugged and abandoned, PDC will identify the location of the wellbore with a permanent monument that will detail the well name and date of plugging.
Storm Water/Erosion Control	This Stormwater Management Plan contains required elements associated with PDC's construction activities, as defined in the CDPS General Permit for Stormwater Discharges Associated with Construction Activity, Authorization to Discharge Under the Colorado Discharge Permit System (Permit No. COR-030000, re-issued and effective July 1, 2007).BMPs for sediment and erosion control will be accomplished through a combination of construction techniques, vegetation and re-vegetation, administrative controls, and structural features.
Construction	804. Visual Impact: Production facilities, regardless of construction date, which are observable from any public highway will be painted with uniform, non-contrasting, non-reflective color tones (similar to the Munsell Soil Color Coding System), and with colors matched to but slightly darker than the surrounding landscape.
Traffic control	604c.(2).D. Traffic Plan: If required by the local government, a traffic plan will be coordinated with the local jurisdiction prior to commencement of operations.
Drilling/Completion Operations	604c.(2).I. BOPE Testing for Drilling Operations: PDC's contractors will supply a double ram BOPE (Blinds and pipes). BOPE is always function tested and all seals and ram block rubbers are inspected. After installation of the BOPE, PDCE conducts a pressure test on the BOPE at a low pressure of (200-400 psi) and a high pressure test with a third party tester, all tests are digitally recorded and any failed equipment or seals are replaced and re-tested.

Construction	<p>MLVTs:</p> <p>PDC Energy, Inc. (PDC) has developed Best Management Practices (BMPS) to prevent injuries, property damage or environmental impacts and a Contingency Plan for any Modular Large Volume Tank (MLVT) leak or catastrophic failure of the tank integrity and resulting loss of fluid. These BMPs include, but not limited to, by the following:</p> <ol style="list-style-type: none"> 1) PDC determines MLVT locations based on size of location, nearby surface waters, site visibility, surrounding land use, property lines, onsite traffic, site security, tear-away tank fill connections, topography (high, low, slope, direction), nearby building units, roads, access points, and surface owner requests. 2) Signs shall be posted on each MLVT to indicate that the contents are fresh water and that no E&P waste fluids are allowed. Location and additional signage shall conform to Rule 210. 3) MLVTs will be operated with a minimum of 1 foot freeboard at all times. 4) Access to the tanks shall be limited to operational personnel. 5) Construction and installation of the tank structure, liner and sub-grade shall meet or exceed the manufacturer specifications. PDC follows manufacturer's Standard Operating Procedures (SOPs) and will provide these SOPs upon request to the COGCC. 6) PDC will conduct daily, visual inspections of the exterior wall and general area for any integrity deficiencies before, during, and after filling the MLVTs. PDC uses Construction Sign-Off, Site Preparation Sign-Off, Completion Sign-Off, Pre-Fill, and Site Visit checklists to maintain a written record of inspections. However, when the fluid level in the MLVTs is less than two (2) feet and there is no activity going on (i.e. during holidays or a small break between completions), only intermittent inspections will be conducted. Two feet is the safe volume of fluid level that is needed to hold the liner down and keep the MLVT stable. 7) Each location where MLVT's are used will have its own set of unique site-specific characteristics and associated risks (e.g., rural vs. urban setting, grade of the location, etc.) to be considered in a worst case scenario. These characteristics must be identified and addressed prior to the MLVT construction phase and should be documented in the MLVT construction checklist. Ensuring the safety of our employees, contractors, and the public are a top priority. This can be addressed with the implementation of MLVT pre-construction risk assessment measures to address safety concerns, and minimize environmental impacts and property damage in the unlikely event of a MLVT release. 8) In the event of a catastrophic MLVT failure, the Operator shall notify the COGCC as soon as practicable but not more than 24 hours after discovery, submit a Form 22-Accident Report within 10 days after discovery, conduct a "root cause analysis", and provide same to COGCC on a Form 4-Sundry Notice within 30 days of the failure. 9) The MLVT shall be constructed and operated in accordance with a design package certified and sealed by a Licensed Professional Engineer either in Colorado or the state where the MLVT was designed or manufactured. 10) COGCC Rules 605.a.(3,5,6,7, and 8), as applicable to tank setbacks at the time of installation shall apply to the siting of this MLVT. 11) All MLVT liner seams shall be welded and tested in accordance with applicable ASTM international standards. Any repairs to liners shall be made using acceptable practices and applicable standards. 12) PDC Energy Inc. hereby certifies to the Director that the Modular Large Volume Tanks, utilized for the afore mentioned location, will be designed and implemented consistent with the Colorado Oil and Gas Conservation Commission policy dated June 13, 2014. <p>MLVT Certification</p> <p>PDC Energy Inc. hereby certifies to the Director that the Modular Large Volume Tanks, utilized for the afore mentioned location, will be designed and implemented consistent with the Colorado Oil and Gas Conservation Commission policy dated June 13, 2014.</p>
Construction	<p>604c.(2).G. Berm Construction: Containment berms shall be constructed of steel rings with a geosynthetic liner, designed and installed to prevent leakage and resist degradation from erosion or routine operation. All berms will be visually checked periodically to ensure proper working condition. Secondary containment devices shall be sufficiently impervious to contain any spilled or released material. Due to a downgradient surface water body within 500', tertiary containment (such as an earthen berm or the like), will be installed around Production Facilities.</p>
Drilling/Completion Operations	<p>604c.(2).J. BOPE for Well Servicing Operations: All valves will also be tested to maximum rating by a third party prior to being delivered to location. Whenever snubbing operations are being used the snubbing stack will be pressure tested at the same time the BOPE is being tested which consist of a single pipe ram and a annular bag.</p>

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Construction	604c.(2).M. Fencing Requirements: The completed wellsites will be surrounded with a fence and gate. PDC personnel will monitor the wellsites regularly upon completion of the wells. Authorized representatives and/or PDC personnel shall be on-site during drilling and completion operations.
Drilling/Completion Operations	604c.(2).Q. Guy Line Anchors: Rig guy wires are anchored to the rig's base beam that the rig stands on, temporary and permanent anchors will not be set on this location.
Drilling/Completion Operations	604c.(2).L. Drill Stem Tests: PDC does not conduct drill stem tests, but will seek prior approval from the director if a drill stem test will be preformed.
Drilling/Completion Operations	Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as-constructed gyro survey will be submitted to COGCC with the Form 5.
Drilling/Completion Operations	604c.(2).O. Loadlines: All loadlines shall be bullplugged or capped.

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

CA: _____ **Date:** _____

Stormwater:

Erosion BMPs	Present	Other BMPs	Present
DITCHES	Yes		

S/AR: SATISFACTORY

Corrective Action: _____ Date: _____

Comments: Erosion BMPs: **BMP installed before construction**

Other BMPs: _____

Comment: **Need to stabilize topsoil stockpile upon completion of salvage process. Refer to attached photos in Document #682400719.**

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:

Summary of Operator Response to Landowner Issues:

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Onsite Inspection Memorandum Summarizing Discussions at Inspection as Attachment:

Facility

Facility ID: 445533 Type: WELL API Number: 123-43087 Status: XX Insp. Status: CI

Facility ID: 445534 Type: WELL API Number: 123-43088 Status: XX Insp. Status: CI

Facility ID: 445535 Type: WELL API Number: 123-43089 Status: XX Insp. Status: CI

Facility ID: 445536 Type: WELL API Number: 123-43090 Status: XX Insp. Status: CI

Facility ID: 445537 Type: WELL API Number: 123-43091 Status: XX Insp. Status: CI

Facility ID: 445538 Type: WELL API Number: 123-43092 Status: XX Insp. Status: CI

Facility ID: 445539 Type: WELL API Number: 123-43093 Status: XX Insp. Status: CI

Facility ID: 445540 Type: WELL API Number: 123-43094 Status: XX Insp. Status: CI

Facility ID: 445541 Type: WELL API Number: 123-43095 Status: XX Insp. Status: CI

Facility ID: 445542 Type: WELL API Number: 123-43096 Status: XX Insp. Status: CI

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:

DWR Receipt Num: Owner Name: GPS : Lat Long

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: 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 REVEGETATION**CroplandTop soil replaced Recontoured Perennial forage re-established Non-CroplandTop 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: IRRIGATED

Reminder: Comment: Well plugged Pit mouse/rat holes, cellars backfilled Debris removed No disturbance /Location never built Access Roads Regraded Contoured Culverts removed Gravel removed Location and associated production facilities reclaimed Locations, facilities, roads, recontoured Compaction alleviation Dust and erosion control

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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

S/A/V: _____ Corrective Date: _____

Comment: _____

CA: _____

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
682400718	INSPECTION APPROVED	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=3857329
682400719	Location Photos	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=3857328