Inspector Name: Carlile, Craig

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

DE	ET	OE	ES

Inspection Date: 09/02/2015

Document Number: 674002746

Overall Inspection: ACTION REQUIRED

FIELD INSPECTION FORM

Location Identifier	Facility ID	Loc ID	Inspector Name:	On-Site Inspection	2A Doc Num:
	442246	442246	Carlile, Craig	☐	

Operator Information:

OGCC Operator Number: 10110

Name of Operator: GREAT WESTERN OPERATING COMPANY LLC

Address: 1801 BROADWAY #500

City: 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
Hartnet, Shannon		shartnett@gwogco.com	
Donato, Scot	(303) 398-0537	sdonato@gwgco.com	Inspections
Precup, Jim		james.precup@state.co.us	
Arthur, Denise		denise.arthur@state.co.us	
Musgrave, Tim	970-768-6097	tmusgrave@gwogco.com	All Inspections

Compliance Summary:

QtrQtr: SWSW Sec: 7 Twp: 4N Range: 66W

Inspector Comment:

Related Facilities:

Facility ID	Type	Status	Status Date	Well Class	API Num	Facility Name	Insp Status
442237	WELL	XX	06/30/2015		123-41741	Schneider HD 11-249HN	XX
442238	WELL	XX	06/30/2015		123-41742	Schneider HD 11-209HC	XX
442239	WELL	XX	06/30/2015		123-41743	Schneider HD 11-272HC	XX
442240	WELL	XX	06/30/2015		123-41744	Schneider HD 11-369HN	XX
442241	WELL	XX	06/30/2015		123-41745	Schneider HD 11-289HN	XX
442242	WELL	XX	06/30/2015		123-41746	Schneider HD 11-369HC	XX
442243	WELL	XX	06/30/2015		123-41747	Schneider HD 11-392HN	XX
442244	WELL	XX	06/30/2015		123-41748	Schneider HD 11-352HN	XX
442245	WELL	XX	06/30/2015		123-41749	Schneider HD 11-329HN	XX
442247	WELL	XX	06/30/2015		123-41750	Schneider HD 11-272HN	XX
442248	WELL	XX	06/30/2015		123-41751	Schneider HD 11-329HC	XX
442766	WELL	XX	08/06/2015		123-42005	Schneider HD 11-209HN	XX

Equipment: Location Inventory

Inspector Name: Carlile, Craig

Special Purpose Pits:		Drilling Pits:		Wells:	12	Production Pits:	
Condensate Tanks:		Water Tanks:	6	Separators:	30	Electric Motors:	
Gas or Diesel Mortors:		Cavity Pumps:		LACT Unit:		Pump Jacks:	
Electric Generators:		Gas Pipeline:		Oil Pipeline:		Water Pipeline:	
Gas Compressors:	6	VOC Combustor:		Oil Tanks:	36	Dehydrator Units:	
Multi-Well Pits:		Pigging Station:		Flare:		Fuel Tanks:	

Location

Emergency Contact Number (S/A/V): Corrective Date:

Comment:

Corrective Action:

Spills:				
Type	Area	Volume	Corrective action	CA Date

☐ Multilple Spills and Releases?

Venting:	
Yes/No	Comment

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

Predrill

Location ID: 442246

Site Preparation:

Lease Road Adeq.: SATISFACTORY Pads: SATISFACTORY Soil Stockpile: SATISFACTORY

S/A/V: SATISFACT

Corrective Action: Date: CDP Num.:

Form 2A COAs:

Group	User	Comment	Date
OGLA	treitzr	Operator shall provide notice to COGCC 48 hours prior to commencing construction of this Oil and Gas Location via Form 42 per Rule 316C.c	06/24/2015

S/A/V: ACTION **Comment:** Construction of location appears to have begun prior to the start date indicated on the Form 42.

CA: Contant COGCC Reclamation manager. **Date:** 09/09/2015

Wildlife BMPs:

BMP Type	Comment
Drilling/Completion Operations	GWOC strives to utilize multi-well pads wherever technically and economically practicable to minimize potential impacts to neighbors and the environment. Multi-well pads are not always feasible due to numerous possible issues including but not limited to; landowner requirements, topographic constraints, well bore reaches, setback requirements, etc. This pad will be constructed in such a manner that noise mitigation may be installed and removed without disturbing the site or landscaping. The pad has all weather access roads to allow for operator and emergency response. This pad has been placed as far as possible from building units.

Planning	All newly installed or replaced crude oil and condensate storage tanks shall be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). GWOC shall maintain written records verifying proper design, construction, and maintenance, and shall make these records available for inspection by the Director. Only the 2008 version of NFPA Code 30 applies to this rule.
Drilling/Completion Operations	At a minimum GWOC installs appropriate fencing to restrict access by any unauthorized persons. This fencing may vary depending on site-specific situations. Fencing will be properly noted on facility layout diagrams for both drilling/completion and the production phases of operations.
Drilling/Completion Operations	Conventional drill stem tests will not be conducted on DJ Basin horizontal wells currently being executed or planned by GWOC. If plans change in the future a well specific drill stem testing plan will be prepared for that particular well. Note that GWOC may elect to use one of several available wireline deployed tools for the purpose of measuring downhole formation pressures and/or collecting downhole fluid samples from the target formation(s) of a particular well.
Planning	A minimum containment capacity of 150% of the single largest storage vessel inside the containment will be constructed around any liquids storage area within a designated setback zone. For this location, steel containment with sealed liners will be utilized at all storage facilities on this location. Tanks and all visible pipelines and valves etc. will be inspected informally on a daily basis by company lease operators. In addition, GWOC also conducts formal annual SPCC inspections, and formal site specific and random audits, by third-party consultants to inspect for general site conditions as well as condition of tanks, pipelines, and containment structures.
Planning	GWOC is utilizing a Closed Loop Drilling System on the subject facility. No open pit storage of water is foreseen for this facility. If open pit storage of fresh water is required, a Form 15 will be submitted and approved prior to use of such pit, and appropriate signage and escape provisions will be provided as required. Cuttings and drilling fluids will be removed from location and properly treated or disposed of according to applicable regulations.
Drilling/Completion Operations	GWOC does not typically utilize pits in any of its operations. If a pit was to be used proper pit Level indicators would be installed to indicate pit levels and compliance with pit volume rules.
Noise mitigation	The subject Great Western Operating Company, L.L.C. (GWOC) location will operate in accordance with maximum permissible noise levels per COGCC Rule 604.c.(2)A. and 802, as applicable. GWOC will utilize reasonable and cost-effective best practices to endeavor to reduce noise levels below these limits in areas where occupied structures occur within a Designated Setback Zone. Where possible, drilling rig and completion equipment engine exhaust will be directed away from occupied buildings to assist with noise mitigation. No noise compliance issues are expected from the production area.
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 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 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	GWOC constructs and operates our facilities to meet state and API codes, as appropriate, including API RP 500 electrical classifications inside bermed areas. Any unused potentially flammable materials are moved a minimum distance of 25-feet from wellhead, tanks, and separator areas. In addition, GWOC implements a Hot Work Permit Program for employees and contractors doing any defined ‘Hot Work’ activities on GWOC locations.
Noise mitigation	Great Western's production equipment lies 346' away from the nearest railroad. Due to the proximity of the railroad higher noise levels are expected at times when railroad traffic is present. Great Western does not anticipate any noise complaints, especially since the surface owner is the nearest building unit owner, however, if noise complaints do occur Great Western will take appropriate action which may include, but is not limited to constructing sound walls or other noise barricades to mitigate the disturbance.

Planning	As applicable, per COGCC Rule 805, GWOC will utilize all reasonable and cost-efficient best practices, including but not limited to those listed in Rule 805, to maximize resource recovery and mitigate releases to the environment. • Initial frac and drillout effluent is routed through a sand catcher/trap and a junk/sand tank to remove sand and well frac debris. • Once any hydrocarbons are detected but prior to encountering salable quality combustible gas or significant volumes of liquid hydrocarbons (condensate or oil) (greater than 10 barrels per day average) the effluent is routed through a high-pressure separator and closed-top tanks to minimize emissions to the environment. Hydrocarbon liquids, produced water, and sand are separated utilizing the high-pressure separator. • The quality (combustibility) of the gas is typically monitored directly at the high-pressure separator. When salable (combustible) quality gas is measured/detected the gas stream is immediately diverted to the sales pipeline or the well is shut in or a from 42 for flaring will be submitted for approval. • The separated produced water and hydrocarbon liquids (condensate/oil) are directed to specific tanks for storage until being unloaded and hauled to disposal or sales as appropriate.
Drilling/Completion Operations	A BOPE with a minimum pressure rating of 3,000 psi will be utilized. At a minimum it will consist of 2 ram preventers and 1 annular preventer. The blind rams will be positioned below the pipe rams. A backup system of pressure control will be onsite consisting of at a minimum 1,000 psi accumulator (backup pressure). Accumulator is tested to 1,000 psi. Operator may use fixed sized pipe rams matching the tubular size. The annular preventer will be pressure tested to 250 psi low and 2,000 psi high for 10 minutes each. The ram preventers will be tested to 250 psi low and 2,500 psi high for 10 minutes each. All remaining well control equipment will be tested to 250 psi low and 2,500 psi high for 10 minutes each. The pressure tests will be conducted when the equipment is first installed and every 30 days thereafter. Pipe rams and blind rams will be function tested before every well service operation. Annual BOP inspections and pressure tests will be performed by the service company and will be charted & retained for 1 year. Backup stabbing valves shall be used on operations that require reverse circulation. Valves will be pressure tested before each well service operation in low pressure and high pressure range. The GWOC onsite representative will be certified in Well Control Operations by a Well-Cap certified training service.
Planning	GWOC designs its new facilities to both avoid leaks or releases as well as to help detect them in a time-efficient manner to minimize potential impacts. Tanks and all visible pipelines and valves etc. are inspected informally on a daily basis by company lease operators. In addition, GWOC also conducts formal annual SPCC inspections, and formal site specific and random audits, by third-party consultants to inspect for general site conditions as well as condition of tanks, pipelines, and containment structures. In addition, our company lease operators and Production staff review production records, including volumes and pressures, looking for irregularities that may indicate a problem with a tank or pipeline. If an irregularity is detected that may indicate a potential release the suspect tank and/or pipeline(s) are removed from service, isolated, and either pressure tested or visibly inspected for indications of a potential leak.
Drilling/Completion Operations	All newly installed or replaced crude oil and condensate storage tanks shall be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). GWOC shall maintain written records verifying proper design, construction, and maintenance, and shall make these records available for inspection by the Director. Only the 2008 version of NFPA Code 30 applies to this rule.
General Housekeeping	All surface debris, trash, unusable scrap, or solid waste from the facility will be properly temporarily stored on location in a secure container and ultimately removed and disposed of in a legal manner.
Traffic control	GWOC works closely with all municipalities as appropriate to develop a mutually acceptable road traffic access plan addressing site specific traffic-related issues. These plans may address issues such as; routes, construction specification of access roads, maintenance, dust control, jake brake limits, traffic controls, enforcement, emergency response, etc. GWOC will work with municipalities, the County's Planning Department and/or Road Department to address complaints related to traffic or dust issues as appropriate. Dust control measures may include surface stabilization, or dust control with appropriate chemical or water applications.

Drilling/Completion Operations	Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage. On a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Drilling Completion Report - Form 5 for every well on the pad shall identify which well was logged.
Planning	Where possible, GWOC shall provide for the development of multiple reservoirs by drilling on existing pads. GWOC strives to utilize multi-well pads wherever technically and economically practicable to minimize potential impacts to neighbors and the environment. Multi-well pads are not always feasible due to numerous possible issues including but not limited to; landowner requirements, topographic constraints, well bore reaches, setback requirements, etc.
General Housekeeping	General housekeeping will consist of neat and orderly storage of materials and fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at offsite, suitable facilities. If spills occur prompt cleanup is required to minimize any commingling of waste materials with storm water runoff. Routine maintenance will be limited to fueling and lubrication of equipment. Drip pans will be used during routine fueling and maintenance to contain spills or leaks. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling. There will be no major equipment overhauls conducted onsite. Equipment will be transported offsite for major overhauls. Cleanup will consist of patrolling the roadways, access areas, and other work areas to pick up trash, scrap debris, other discarded materials, and any contaminated soil. These materials will be disposed of properly and promptly.
Drilling/Completion Operations	GWOC shall identify the location of the P&A wellbore with a permanent monument as specified in Rule 319.a.(5). The operator shall also inscribe or imbed the well number and date of plugging upon the permanent monument. P&A wellbores shall be cutoff well below ground surface in agricultural areas to provide for landowners to safely farm the reclaimed well area.
Material Handling and Spill Prevention	Spill Prevention Control and Countermeasures (SPCC) plans in place to address any possible spills associated with Oil and Gas operations throughout the state of Colorado in accordance with CFR 112. In accordance with COGCC Rule 1002.f.(2)A. & B., shall provide a designated storage area for dry bulk chemicals and miscellaneous fluids. The storage area shall be covered to prevent contact of precipitation with chemicals, shall be elevated above storm- or standing water, and shall provide sufficient containment to prevent release of spilled fluids or chemicals from impacting soil, surface water or groundwater and will prevent the co-mingling of spilled fluids or chemicals with other E & P Waste.
Drilling/Completion Operations	Load line containment is a necessary part of a complete secondary containment system. In any designated setback zone all loadlines are capped or bullplugged or locked shut to reduce the likelihood of a release occurring. In addition, GWOC places all load line receivers/valves inside secondary containment areas or in a proper load line containment device or both.
Planning	Guy line anchors left buried for future use shall be identified by a brightly colored marker at least 4-feet in height and within 1-foot to the east of the anchor.
Drilling/Completion Operations	GWOC will comply with the “COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area”, dated May 29, 2012
Storm Water/Erosion Control	Storm Water Management Plans (SWMP) are in place to address construction, drilling and operations associated with Oil and Gas development throughout the state of Colorado in accordance with Colorado Department of Public Health and Environment (CDPHE). Barriers will be constructed around the perimeter of the site prior to construction. Typically, GWOC utilizes a ditch and berm system of storm water control at its sites. BMP’s used are determined just prior to construction by a third-party storm water contractor and may vary according to the location. Storm water controls will remain in place until the pad is stabilized or reaches final reclamation.
Odor mitigation	Where possible, drilling rig and completion equipment engine exhaust will be directed away from occupied buildings to assist in mitigating potential odors. Light sources will be directed downwards, and away from occupied structures where possible. While GWOC does not anticipate any mitigation measures will be necessary for odors, sealed tanks with pressure relief valves and emissions controls will be utilized for the production phase. Once the drilling and completion rigs leave the site, there will be no permanently installed lighting on site.

S/A/V: _____ **Comment:** _____

CA: _____ **Date:** _____

Stormwater:

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:

Summary of Operator Response to Landowner Issues:

Onsite Inspection Memorandum Summarizing Discussions at Inspection as Attachment:

Facility

Facility ID: 0 Type: _____ API Number: - Status: _____ Insp. Status: _____

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: IRRIGATED

Comment:

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1003a. Debris removed? _____ CM _____

CA _____ CA Date _____

Waste Material Onsite? _____ 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 removed? _____ 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

Cropland

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: 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 _____

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

Weeds present _____ Subsidence _____

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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	Pass					

S/A/V: SATISFACTORY Corrective Date:

Comment: Berm along west edge of location.

CA:

Pits: ☐ NO SURFACE INDICATION OF PIT

COGCC Comments

Comment	User	Date
Location is immediately East of Milliken. New residential sub-division construction has been begun approximately one half mile to the north west of the location. At time of inspection, top soil had been moved to the south edge of the location and a berm has been established on the western edge of the location. No construction activity at taking place at time of inspection. Great Western Drilling Superintendent Steve Jolly stopped by the location during the inspection. A series of photos are attached.	carlilec	09/02/2015

Attached Documents

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

Document Num	Description	URL
674002758	Location Photos	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=3675401

ACTION REQUIRED

ANY ACTION REQUIRED items listed on this report indicate that the oil and gas facility or the oil and gas operations listed on the report may be in violation of the rules and regulations of the Colorado Oil and Conservation Commission ("COGCC") and corrective action is required.

There is reasonable cause to believe that a violation of the Oil and Gas Conservation Act, or of any rule, regulation, or order of the Commission, or of any permit issued by the Commission, has occurred. The Operator's compliance with this Inspection Report is required to resolve these alleged violations. This document requires the Operator to timely respond to the COGCC and to comply with directives as listed by the **Corrective Action Deadline Date.** Failure to do so will result in the issuance of a Notice of Alleged Violation and initiation of enforcement proceedings in which COGCC will seek monetary penalties for the alleged violations pursuant to § 34 -60-121, C.R.S. and Rule 523, COGCC Rules of Practice and Procedure, 2 CCR 404-1. (Please note that the COGCC's penalty authority was recently increased to a maximum of $15,000 per day and penalties are no longer capped at a maximum of $10,000 per violation.)