

FORM
2A

Rev
08/13

State of Colorado
Oil and Gas Conservation Commission

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



Document Number:

400787676

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Date Received:

02/20/2015

Oil and Gas Location Assessment

☒ New Location ☐ Refile ☐ Amend Existing Location Location#: _____

Submit signed original form. This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

442031

Expiration Date:

06/12/2018

☒ This location assessment is included as part of a permit application.

CONSULTATION

- ☐ This location is included in a Comprehensive Drilling Plan. CDP # _____
- ☐ This location is in a sensitive wildlife habitat area.
- ☐ This location is in a wildlife restricted surface occupancy area.
- ☐ This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 2800
Name: ANADARKO E&P ONSHORE LLC
Address: PO BOX 173779
City: DENVER State: CO Zip: 80217-3779

Contact Information

Name: CINDY HUR VUE
Phone: (720) 929-6832
Fax: (720) 929-7832
email: CINDY.HURVUE@ANADARKO.COM

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20030041 ☐ Gas Facility Surety ID: _____
☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: RESOLUTION FED Number: 12-65-29-20NH
County: WELD
QuarterQuarter: SWSW Section: 29 Township: 12N Range: 65W Meridian: 6 Ground Elevation: 5952
Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.
Footage at surface: 420 feet FSL from North or South section line
715 feet FWL from East or West section line
Latitude: 40.972013 Longitude: -104.692700
PDOP Reading: 1.5 Date of Measurement: 12/10/2014
Instrument Operator's Name: CHRIS KASCHMITTER

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:

LOCATION ID # FORM 2A DOC #

FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	2	Oil Tanks*	8	Condensate Tanks*		Water Tanks*	4	Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks	2	Separators*	2	Injection Pumps*		Cavity Pumps*		Gas Compressors*	
Gas or Diesel Motors*	2	Electric Motors		Electric Generators*	2	Fuel Tanks*		LACT Unit*	
Dehydrator Units*		Vapor Recovery Unit*		VOC Combustor*	2	Flare*	2	Pigging Station*	

OTHER FACILITIES*

Other Facility Type

Number

Heater Treater	2
Flow Lines	2

Those facilities indicated by an asterisk () shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

Please see Comments section for pipelines and flow lines description.

CONSTRUCTION

Date planned to commence construction: 05/01/2016 Size of disturbed area during construction in acres: 9.00
Estimated date that interim reclamation will begin: 11/01/2016 Size of location after interim reclamation in acres: 3.50
Estimated post-construction ground elevation: 5948

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H₂S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? Yes

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: or Document Number:

Centralized E&P Waste Management Facility ID, if applicable:

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: <u>Junior F Stephen Revoc Tr</u>	Phone: <u>970-662-6912</u>
Address: <u>P.O. Box 692,</u>	Fax: _____
Address: _____	Email: _____
City: <u>Cheyenne</u> State: <u>WY</u> Zip: <u>82003-0692</u>	

Surface Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian

Check all that apply. The Surface Owner: ☐ is the mineral owner

☐ is committed to an oil and Gas Lease

☐ has signed the Oil and Gas Lease

☐ is the applicant

The Mineral Owner beneath this Oil and Gas Location is: ☐ Fee ☐ State ☒ Federal ☐ Indian

The Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: Yes

The right to construct this Oil and Gas Location is granted by: Bond

Surface damage assurance if no agreement is in place: Blanket Surface Surety ID: 20030042

Date of Rule 306 surface owner consultation 02/05/2015

CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land: <input type="checkbox"/> Irrigated <input type="checkbox"/> Dry land <input type="checkbox"/> Improved Pasture <input type="checkbox"/> Hay Meadow <input type="checkbox"/> CRP
Non-Crop Land: <input checked="" type="checkbox"/> Rangeland <input type="checkbox"/> Timber <input type="checkbox"/> Recreational <input type="checkbox"/> Other (describe): _____
Subdivided: <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential

Future Land Use (Check all that apply):

Crop Land: <input type="checkbox"/> Irrigated <input type="checkbox"/> Dry land <input type="checkbox"/> Improved Pasture <input type="checkbox"/> Hay Meadow <input type="checkbox"/> CRP
Non-Crop Land: <input checked="" type="checkbox"/> Rangeland <input type="checkbox"/> Timber <input type="checkbox"/> Recreational <input type="checkbox"/> Other (describe): _____
Subdivided: <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential

CULTURAL DISTANCE INFORMATION

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	1033 Feet	1040 Feet
Building Unit:	1143 Feet	1129 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	419 Feet	497 Feet
Above Ground Utility:	385 Feet	463 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	420 Feet	500 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: ☐ Buffer Zone
☐ Exception Zone
☐ Urban Mitigation Area

- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit.
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

- ☐ Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (onll or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- ☐ By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 4—Ascalon fine sandy loam, 0 to 6 percent slopes

NRCS Map Unit Name: 5—Ascalon sandy loam, 6 to 9 percent slopes

NRCS Map Unit Name: _____

PLANT COMMUNITY:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☐ No ☒

Plant species from: ☐ NRCS or, ☒ field observation Date of observation: 12/08/2014

List individual species: Indian ricegrass, blue grama, Cirsium, needle and thread, pricklypear, curlycup gumweed, Phacelia, Aster, prairie sagewort, unknown perennial grass

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
☒ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
☐ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
☐ Alpine (above timberline)
☐ Other (describe): _____

WATER RESOURCES

Is this a sensitive area: ☐ No ☒ Yes

Distance to nearest

downgradient surface water feature: _____ 0 Feet

water well: _____ 4937 Feet

Estimated depth to ground water at Oil and Gas Location _____ 60 Feet

Basis for depth to groundwater and sensitive area determination:

Nearest surface water features:
Intermittent Stream: 0' E Elev: 5951'
Loc Elev: 5951'
Nearest water wells:
4937' S, Permit 173500, depth 344' , Static Water Level 210', Elev 6011'
5820' No Non-Fox Hills Wells within 1 miles
Sensitive area determination: SENSITIVE AREA- Surface water feature within 1000'
Mitigation Required

Is the location in a riparian area: ☒ No ☐ Yes

Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer _____ No
zone:

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule _____ 609

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
☐

Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)

☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)

☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments	<p>The nearest building unit is located 1033' away from this oil and gas location, therefore it is not within a Designated Setback Location and is exempt from 604.c.</p> <p>Drilling fluids disposal: APC will reuse water-based drilling fluids to the maximum extent possible, at which point they will either be land applied or taken to a licensed, commercial disposal site; the decision will be based upon laboratory analysis of fluids.</p> <p>APC will reuse oil-based drilling fluids to the maximum extent possible, at which point they will be returned to the fluids manufacturer for reconditioning or disposal at a licensed, commercial disposal site.</p> <p>The proposed location is an Exploratory well pad and a determination of need in regards to area trunklines will be determined at a later date. If required in the future, buried pipelines will be utilized to gather the gas and oil product from the location (3 gas pipelines, 1 oil pipeline per well). Both gas and oil pipelines will be constructed from steel of suitable wall thickness and material grade to meet the respective gathering systems design pressure. Gas pipelines will range in diameter from 3" to 20"; oil pipelines from 3" to 12". Capacity of pipelines will vary based on diameter. This site will utilize on-site tank battery. Temporary above ground polyethylene water pipelines (diameter 10"-12" with a 60 BPM capacity) will deliver water to location operations from on-site production facility.</p> <p>Flow Lines: 1 per well will flow to the on-site production facility. During production, flow direction in the flow lines is from the well head to the production facility. The size of flow lines is typically 3". Flow lines will be constructed from steel pipe, buried and will be contained within the identified disturbance area.</p> <p>There will be 1 fuel gas supply line installed from each well head to the on-site production facility. During operation flow direction in the supply lines will be from the production facility to the well head. The size of the supply lines is typically 1". Supply lines will be constructed from poly or steel pipe, buried, and will be contained within the identified disturbance area.</p> <p>Gas lift lines are also occasionally installed (one per well) from the well head to the production facility. During operation flow direction in the gas lift lines will be from the production facility to the well head. The size of the gas lift lines is typically 2". Gas lift lines will be constructed from steel pipe, buried, and will be completely contained within the identified disturbance area if required.</p> <p>Reclamation will commence during the following growing season.</p>
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I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 02/20/2015 Email: CINDY.HURVUE@ANADARKO.COM

Print Name: CINDY HUR VUE Title: REGULATORY ANALYST II

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved:  _____ Director of COGCC Date: 6/13/2015

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

COA Type	Description
	Operator shall minimize post-completion disturbance per COGCC Rule 1003.
	Unnecessary or excessive flaring is prohibited. Operator shall direct all salable quality gas to a sales line as soon as practicable or be shut in and conserved.
	Operator shall provide notice to COGCC 48 hours prior to commencing construction of this Oil and Gas Location via Form 42.

Best Management Practices

No	BMP/COA Type	Description
1	Planning	The nearest building unit is located 1033' away from this oil and gas location, therefore it is not within a Designated Setback Location and is exempt from 604.c.
2	Storm Water/Erosion Control	604c.(2).G. Berm Construction: Kerr-McGee will create tertiary containment by construction of a berm or diversion dike, site grading, or other comparable measures sufficient to further protect the stream located 0' East of the proposed oil and gas location.
3	Storm Water/Erosion Control	<p>In our experience, soil blankets do not work for locations that are in construction. The constant maintenance of this BMP will not be in our best interests to prevent erosion of the referenced slopes. However, by using the soil binder in addition to the diversion ditch and berm with a sediment trap, the sediment will not be allowed to discharge from our area of disturbance. During the construction phase of this project, we will conduct 14 day stormwater inspections, and the soil binder will be maintained or reapplied to the design criteria as defined on the BMP fact sheet as needed. If the soil binder needs to be maintained, then the stormwater inspector will issue a corrective action for our contractor to reapply the BMP to prevent erosion from occurring.</p> <p>Once our construction operations are concluded, the location will be reduced in size, brought back as close as possible to original grade, and planted with a native seed mixture and crimped with a certified weed free straw to create temporary stabilization until vegetation can stabilize the location.</p>
4	Drilling/Completion Operations	317p. Requirement to Log Wells: Open-hole resistivity and gamma logs shall be run on a single well per pad to describe the stratigraphy of the well bore from the kickoff point to the surface, and to adequately verify the setting depth of surface casing and aquifer coverage.

Total: 4 comment(s)

Attachment Check List

Att Doc Num	Name
400787676	FORM 2A SUBMITTED
400796493	WASTE MANAGEMENT PLAN
400796495	NRCS MAP UNIT DESC
400796496	REFERENCE AREA MAP
400796497	HYDROLOGY MAP
400796499	REFERENCE AREA PICTURES
400796500	ACCESS ROAD MAP
400796501	CONST. LAYOUT DRAWINGS
400796503	LOCATION PICTURES
400796504	MULTI-WELL PLAN
400796505	LOCATION DRAWING
400796800	WELL LOCATION PLAT

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	3/9/2015 2:46:15 PM
Permit	IN PROCESS – Spacing Order for associated APD's approved.	3/2/2015 8:31:03 AM
Permit	ON HOLD - Associated APD is waiting on May spacing order hearing.	4/3/2015 11:39:04 AM
OGLA	No Public Comments. OGLA task passed.	3/23/2015 8:41:52 AM
OGLA	IN PROCESS - Operator provided a BMP for soil stabilization and erosion control. OGLA review complete. Waiting on Public Comment period.	3/10/2015 10:06:18 AM
OGLA	ON HOLD - Requested Operator provide a Best Management Practice for soil stabilization of cut and fill slopes on the well pad. Due by 4/2/15.	3/2/2015 11:51:20 AM
Permit	Corrected NRCS map unit name from "5—Ascalon sandy loam, 5 to 9 percent slopes" to "5—Ascalon sandy loam, 6 to 9 percent slopes". Passed completeness.	2/23/2015 1:42:04 PM

Total: 7 comment(s)