FORM 2A Rev 08/19

State of Colorado
Oil and Gas Conservation Commission

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

Oil and Gas Location Assessment

Document Number: 402261082 **(SUBMITTED)**

Date Received: 12/23/2019

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

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:

Expiration Date:

☒ 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: 47120
Name: KERR MCGEE OIL & GAS ONSHORE LP
Address: P O BOX 173779
City: DENVER State: CO Zip: 80217-3779

Contact Information

Name: Mhamed Samet
Phone: (720) 9293317
Fax: ( )
email: Sam_Samet@oxy.com

FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID (Rule 706): 20010124
☐ Gas Facility Surety ID (Rule 711):
☐ Waste Management Surety ID (Rule 704):

LOCATION IDENTIFICATION

Name: S&B Number: 5-11HZ PAD
County: WELD

QuarterQuarter: SWNW Section: 11 Township: 4N Range: 68W Meridian: 6 Ground Elevation: 4998

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: 1894 feet FNL from North or South section line
689 feet FWL from East or West section line

Latitude: 40.330320 Longitude: -104.977307

PDOP Reading: 1.4 Date of Measurement: 01/30/2019

Instrument Operator's Name: Jeremy Groves

LOCAL GOVERNMENT INFORMATION

County: WELD Municipality: Johnstown

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: Municipality

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below. ☒ Yes ☐ No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location. ☒

The local government siting permit type is: Operator Agreement & Use By Special Review Permit

The local government siting permit was filed on: 08/26/2019

The disposition of the application filed with the local government is: In Process

Additional explanation of local process:

The S&B 5-11HZ is located within the town of Johnstown.
The S&B 5-11HZ Pad Operator Agreement has been aproved by the Johnstown Town Council on Dec 2, 2019.
The S&B 5-11HZ Use by Special Review Application is currently in process.
The S&B 5-11HZ Use by Special Review Application has been sent to the Johnstown Local Government Designee, Kim Meyer, for review on August 26,2019.
The Access Permit has been reviewed and approved by the Colorado Department of Transportation (CDOT)
The Emergency Action plan has been submitted to Front Range Fire Rescue for their review.
Pad is located in Johnstown town limits. The Haul Routes will be utilizing I-25 and the 1-25 East Frontage Road. I-25 will be undergoing a major construction project that will affect the access to the S&B pad during Construction, Drilling and Completions. Once initial operations are completed and Highplains Blvd. is constructed the permanent access to S&B will be changed to come from the east. Current schedule - construction begins Q2 2020 and TOTS Q2 2021.The interchange at Highway 56 and I-25 will be closed for construction Spring 2020 (includes frontage road). The interchange at Highway 60 and I-25 will be closed for construction Summer 2020 (includes frontage road).

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	23	Oil Tanks*		Condensate Tanks*	2	Water Tanks*	8	Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks	23	Separators*	22	Injection Pumps*		Cavity Pumps*		Gas Compressors*	
Gas or Diesel Motors*		Electric Motors		Electric Generators*		Fuel Tanks*		LACT Unit*	4
Dehydrator Units*		Vapor Recovery Unit*		VOC Combustor*	2	Flare*		Pigging Station*	

OTHER FACILITIES*

Other Facility Type	Number
Temporary 500 barrel tanks	34
Temporary ECD	6
Temporary Generator	2
Termporary Purge Flare	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:

Two 500 barrel skid-mounted frac tanks will be temporarily placed onsite for use of the pre-spud rig only. One tank will store water and the other will store water-based mud. A temporary ECD may be utilized during drilling.
Up to 32 temporary 500 barrel skid-mounted frac tanks will be utilized during flowback and initially for produced water. It is estimated the 5 temporary ECDs and the temporary tanks will be on location for 9 to 12 months. Two temporary generators may be placed on location if needed, and would be in place until electric power is available. Two temporary purge flares may be placed on location for up to 60 days.

Please see comments for pipeline description.

CONSTRUCTION

Date planned to commence construction: 02/29/2020 Size of disturbed area during construction in acres: 33.90

Estimated date that interim reclamation will begin: 07/30/2020 Size of location after interim reclamation in acres: 8.14

Estimated post-construction ground elevation: 4998

DRILLING PROGRAM

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

Is H_2S 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:

PLEASE SEE ATTACHED WASTE MANAGEMENT PLAN.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: or Document Number:

Centralized E&P Waste Management Facility ID, if applicable: 149021

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: ANADARKO E&P ONSHORE LLC Phone:
Address: PO BOX 173779 Fax:
Address: Email:
City: DENVER State: CO Zip: 80217
Surface Owner: [X] Fee [ ] State [ ] Federal [ ] Indian
Check all that apply. The Surface Owner: [X] is the mineral owner
[X] is committed to an oil and Gas Lease
[X] has signed the Oil and Gas Lease
[X] is the applicant

The Mineral Owner beneath this Oil and Gas Location is: [X] 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: applicant is owner

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

Date of Rule 306 surface owner consultation

If this Form 2A is associated with Drilling and Spacing Unit applications, list docket number(s):

CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land: [X] Irrigated [ ] Dry land [ ] Improved Pasture [ ] Hay Meadow [ ] CRP
Non-Crop Land: [ ] Rangeland [ ] Timber [ ] Recreational [ ] Other (describe):
Subdivided: [ ] Industrial [ ] Commercial [ ] Residential

Future Land Use (Check all that apply):

Crop Land: [X] Irrigated [ ] Dry land [ ] Improved Pasture [ ] Hay Meadow [ ] CRP
Non-Crop Land: [ ] Rangeland [ ] Timber [ ] Recreational [ ] Other (describe):
Subdivided: [ ] Industrial [ ] Commercial [ ] 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:	761 Feet	1168 Feet
Building Unit:	872 Feet	1280 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	674 Feet	1255 Feet
Above Ground Utility:	640 Feet	1138 Feet
Railroad:	588 Feet	419 Feet
Property Line:	346 Feet	369 Feet
School Facility::	5280 Feet	5280 Feet
School Property Line:	5280 Feet	5280 Feet
Child Care Center:	5280 Feet	5280 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, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.
-For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

SCHOOL SETBACK INFORMATION

Was Notice required under Rule 305.a.(4)? ☐ Yes ☒ No

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.
- Large UMA Facility – 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: 01/05/2019

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

☐ Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on 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 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: 42 Nunn clay loam, 1 to 3 percent slopes

NRCS Map Unit Name: 82 Wiley-Colby complex, 1 to 3 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:

List individual species:

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: 2 Feet

water well: 842 Feet

Estimated depth to ground water at Oil and Gas Location 16 Feet

Basis for depth to groundwater and sensitive area determination:

Ditch 1: 2' W Elev: 4997'
Ditch 2: 3' N Elev: 5017'
Ditch 3: 25' W Elev: 4995'
Ditch 4: 197' S Elev: 4964'
Ditch 5: 285' N Elev: 5018'
Ditch 6: 311' W Elev: 4998'
Pond 1: 357' S Elev: 4983'
Pond 2: 398' S Elev: 4984'
Loc Elev: 4998'
Nearest water wells:
842' N, Permit 8160-, depth unknown, Static Water Level unknown, Elev 5020'
843' N, Permit 42286-MH, depth 16', Static Water Level 6', Elev 5020'
Sensitive Area Determination: SENSITIVE AREA, downgradient surface water feature within 1,000' AND depth to groundwater less than 20'.
Location is NOT in floodplain according to Weld County and FEMA
(SWL calc: (4998 - 5020) + 6 = 16)

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 zone: No

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: No

Is the Location within a Floodplain? ☒ No ☐ Yes

Floodplain Data Sources Reviewed (check all that apply)

- ☒ Federal (FEMA)
- ☐ State
- ☒ County
- ☐ Local
- ☐ Other

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

WILDLIFE

- ☐ This location is included in a Wildlife Mitigation Plan
- ☐ This location was subject to a pre-consultation meeting with CPW held on

Operator Proposed Wildlife BMPs

No BMP

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of a Building Unit) and is in an Urban Mitigation Area
- ☐ 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

Currently, Weld County Assessor`s Office has not updated the surface ownership to reflect the aquisition of the property by KMG.

A NICO has not been sent because the building unit within the buffer is owned by KMG. The tenant living in the building unit is aware of KMG's operational plans. KMG will provide the tenant with a copy of the CDPHE health study and COGCC fact sheet.

No ditches will be impacted by construction of S&B 5-11HZ Pad. No permitting is required with USACE.

Pipelines: Buried pipelines will be utilized to gather the gas and oil product from the location (3 gas pipelines, 1 oil pipeline). 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 4" to 20"; oil pipelines from 4" to 12". Capacity of pipelines will vary based on diameter. Pipelines will begin at the location and terminate at larger trunk lines in the area.

Temporary above ground polyethylene water pipelines (diameter 10" – 12" with a 60 BPM capacity) will deliver water to location operations from larger trunk lines.

23 flow lines will flow to the production facility location. During production, flow direction in the flow lines is from the wellhead to the production facility. The size of flow lines is typically 2". Flow lines will be constructed from steel pipe, buried, and will equal the distance between the well heads and the production facility, approximately 534' (North wells to North Facility) to 557' (South wells to south Facility).

23 compressed air supply lines will also be installed from the well head to the 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 steel pipe, buried, and will equal the distance between the well heads and the production facility, approximately 534' (North wells to North Facility) to 557' (South wells to south Facility).

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 equal the distance between the well heads and the tank battery, approximately 534' (North wells to North Facility) to 557' (South wells to South Facility).

CUSTODY TRANSFER: Gas custody transfer occurs at the custody transfer meter located on the proposed production facility location. Oil custody transfer occurs at the LACT Unit located on the proposed production facility location. Oil is transferred from the LACT Unit into a pipeline owned by Anadarko Wattenberg Oil Complex LLC.

DISTANCES TO TEMPORARY EDGES OF EQUIPMENT:
BUILDING:1170 FT
BUILDING UNIT:1333 FT
HIGH OCCUPANCY BUILDING UNIT:5280 FT
DESIGNATED OUTSIDE ACTIVITY AREA:5280 FT
PUBLIC ROAD:1304 FT
ABOVE GROUND UTILITY:1171 FT
RAILROAD:239 FT
PROPERTY LINE:211 FT
SCHOOL FACILITY:5280 FT
SCHOOL PROPERTY LINE:5280 FT
CHILD CARE CENTER:5280 FT
CHILD CARE CENTER:5280 FT

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.
Signed: _____ Date: 12/23/2019 Email: DJRegulatory@anadarko.com

Print Name: Mhamed Samet Title: Regulatory Analyst

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: _____ **Director of COGCC** Date: _____

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

Best Management Practices

No	BMP/COA Type	Description
1	Planning	Multi-Well Pads: In order to reduce surface impact, this application is for a 23-well pad.
2	Planning	Guy Line Anchors: Guy line anchors will not be used. Base Beams will be used to stabilize the rig and removed after drilling.
3	Planning	Access Roads: KMG will temporarily utilize an access road from the I-25 East Frontage road for drilling, completions, and production operations, including maintenance equipment. The temporary road will be properly constructed and maintained to accommodate for local emergency vehicle access. A permanent road to access the facility from the east will be established when the town of Johnstown builds a future road east of the pad location. Right of way for this future road will be donated to the town of Johnstown.
4	Planning	As a part of planning this proposed location, Kerr-McGee has held multi-disciplinary Surface Impact Planning Meetings regarding the impacts and mitigations associated with this proposed location. The toll-free hotline number and email for the Colorado Response Line will be posted at the entrance to the lease access road for stakeholders during drilling and completion operations at this proposed location.
5	Community Outreach and Notification	KMG organized a community meeting for this pad location on October 2, 2019. Invitations were sent to 319 surrounding property owners. Courtesy Notifications will be sent to stakeholders within one mile of the proposed location prior to drilling operations and again prior to completions operations, providing contact information for the Colorado Response Line and online resources.
6	Traffic control	KMG currently plans to use the water-on-demand system on this location which is a network of over 140 miles of underground pipeline that stretches the length of the 20-mile by 30-mile field to source and transport water to completions crews. This system eliminates more than 2,000 truck trips per day, also reducing associated concerns of traffic, noise, emissions and dust.
7	Traffic control	Traffic Plan: Prior to the commencement of operations, the operator will obtain access and ROW permits per Town of Johnstown regulations and implement traffic control plans as required.
8	General Housekeeping	Loadlines: All loadlines shall be bullplugged or capped.
9	General Housekeeping	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. Upon completion of operations, the commercial trash bin will be removed from the location and disposed of in an appropriate manner.
10	General Housekeeping	803. Lighting: Site lighting shall be shielded and directed downward and inward toward operations to avoid glare on public roads and nearby Building Units.

11	General Housekeeping	Drilling Pipe and other Large Tubulars Loading. Operator shall make all attempts possible to avoid loading large tubulars between 7:00 p.m. and 7:00 a.m. Mountain Time.
12	Storm Water/Erosion Control	Berm Construction: Kerr-McGee will create tertiary containment around the well pad and facility by constructing a berm or diversion dike, site grading, or other comparable measures sufficient to further protect adjacent water features, including the Ditch: 2' W and Ditch: 3' N at this proposed oil and gas location. *The ditch/berm will be constructed between the well pad/facility and the ditch within the oil and gas location. This ditch will remained undisturbed other than a portion which will be filled in for access road construction. During flowback fluids will be piped via surface pipe to flowback tanks on the well pad. Piping is pressure tested and inspected for leaks prior beginning flowback. During the entirety of flowback operations each crew member is equipped with gas monitors, and the above ground piping is visually inspected for fluid leaks throughout the 24 hour operation. Once the wells have been turned over to production (oil, gas and water through the facility) produced water will be diverted to the temporary tanks north of the ditch until the tanks are no longer needed. The pipelines connecting to the temporary 500bbl tanks will be buried and will be bored beneath the ditch. Prior to produced water being transported through the pipe pressure tests will confirm pipe integrity.
13	Storm Water/Erosion Control	604c.(2).W. Site-Specific Measures: KMG maintains a Storm Water Management Plan that assesses erosion control for every KMG operated location. This location will be added to this plan once construction begins. During active construction, drilling, and completions, with personnel on location, daily inspections will occur. During non-active, but while under construction, site inspections will occur every 14 days or after major rain events. When construction is completed and the location is on production, site inspections will occur every 28 days with additional inspections after major rain events. During construction, stormwater features will be checked more frequently (up to daily, depending on the intensity of construction activity). These construction checks will not be formally documented, since they occur as part of construction oversight, and minor issues will be corrected with no further documentation. If and when larger issues are noted in these construction checks, the associated corrective actions would be documented and closed out, as required under KMG's approved area-wide permit.
14	Material Handling and Spill Prevention	Berm Construction: The temporary produced water storage tanks will be staged on a geosynthetic liner and surrounded by an earthen berm. The berms shall enclose an area sufficient to provide secondary containment for 150% of the volume of the largest single tank, and shall be sufficiently impervious to contain spilled or released material. Berms and the liner shall be inspected at the same time as stormwater inspections, with personnel on location, daily inspections will occur. During non-active, but while under construction, site inspections will occur every 14 days. When construction is completed and the location is on production, site inspections will occur every 28 days.
15	Material Handling and Spill Prevention	Tank Specifications: A geosynthetic liner will be laid under the tanks on this location and a steel containment will be constructed. Storage tanks will be designed, constructed and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). KMG will maintain written records to verify proper design, construction and maintenance. All records will be available for inspection by the Director.
16	Material Handling and Spill Prevention	Leak Detection Plan: Automation technology will be utilized at this facility. This technology includes the use of fluid level monitoring for the tanks and produced water sumps, high-level shut offs, and electronic sensors to monitor the interstitial space of double-walled produced water sumps. All automation is monitored by Kerr-McGee's Integrated Operations Center (IOC), which is manned 24 hours per day, 7 days per week.
17	Material Handling and Spill Prevention	Pit Level Indicators: All storage tanks used for active drilling operations (used in lieu of pits) contain pit level monitors with Electronic Drilling Recorders (EDR). KMG uses EDRs with pit level monitor(s) and alarm(s) for production rigs. Basic level gauges are used on tanks utilized for the surface rig.

18	Material Handling and Spill Prevention	604c.(2)G. Berm Construction: A geosynthetic liner will be laid under the tanks on this location and a metal containment will be constructed. Secondary containment devices will be constructed around crude oil, condensate, and produced water storage tanks and shall enclose an area sufficient to contain and provide secondary containment for 150% of the largest single tank. Secondary containment devices shall be inspected at the same time as stormwater inspections, with personnel on location, daily inspections will occur. During non-active, but while under construction, site inspections will occur every 14 days. When construction is completed and the Location is on production, site inspections will occur every 28 days.
19	Material Handling and Spill Prevention	Material Handling and Spill Prevention 604.c.(2)R Tank Specifications: Temporary produced water storage tanks shall be designed, constructed, and maintained in accordance with the following portions of the National Fire Protection Association (NFPA) Code 30 (2008 version): 1) Tanks are built to engineering standards using noncombustible materials, with relief devise sizing based on API 2000 standards. 2) Tanks are inspected and maintained while in use. 3) The only pipes within the containment are related to the temporary tanks (i.e. no external piping is co-located within the containment), and firefighting equipment is likewise not stored within the containment area.
20	Dust control	Water will be placed on county roads and dirt access roads to mitigate dust. If water isn't sufficient to abate dust magnesium chloride, lignisite or a combination blend will be used.
21	Construction	Fencing Requirements: The completed wellsites will be surrounded with a fence and gate with adequate lock to restrict access to authorized personnel only. KMG personnel will monitor the wellsites regularly upon completion of the wells. Authorized representatives and/or KMG personnel shall be on-site during drilling and completion operations.
22	Noise mitigation	Noise: Sound surveys have been conducted on each rig type and are utilized to anticipate any additional effective noise mitigation once a drilling rig is determined. A sound wall (3/4) or (75%) wrap will be used on the well pad with an opening to the east to allow ingress/egress to the location.
23	Noise mitigation	Quiet completions fleet will be used for completions operations. Operator agrees to use a quiet rig with modifications such as noise dampening baffels, luvers, muffler enclosures and portable walls as needed. Erect walls around the Well Pad during the drilling and completion of wells. Operator will develop and implement in consultation with the Town of JOhnstown a Noise Mitigation and Monitoring Plan that provides for continuous monitoring and modeling from four (4) sides of the facility at least 350 feet from the sound wall where possible provided that approval from surrounding surface owners can be obtained. The plan should identify site-specific noise mitigation techniques such as dirt moving to attenuate noise, and source- based noise mitigation.
24	Emissions mitigation	ECD(s) will be utilized to mitigate releases of emissions from temporary produced water storage tanks for the duration which the tanks are on location and being used.

25	Odor mitigation	Odor Mitigation. Operator will prevent odors by routing to closed loop systems to the maximum extent practicable. Odor emitting from the Subject Wells must be controlled immediately. Operator must minimize odors by proactively addressing and resolving, to the maximum extent practicable, citizen concerns within 24 hours. Operator must add additives to drilling fluids to prevent or minimize odors but cannot mask odors. Operator commits to implementing the following measures: A. Erect walls around the Well Pads to limit airflow through the well sites during the drilling and completion of wells. B. Utilization of additive concentration to drilling mud to neutralize odors; C. Wiping down the drill pipe each time that the drilling operation “trips” out of the hole; D. Continue to evaluate different additive formulations that have the potential to better suppress odors, including but not limited to non-diesel based additives; E. During flowback and well completions, utilize closed-loop green completion techniques to the maximum extent practicable to minimize emissions and the flaring of natural gas; and F. Drill cutting will be run through a centrifugal dryer to minimize odor during temporary time on location and during transport to disposal.
26	Drilling/Completion Operations	Green Completions -Test separators and associated flow lines, sand traps and emission control systems shall be installed on-site to accommodate green completions techniques. When commercial quantities of salable quality gas are achieved at each well, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, the operator shall not produce the wells without an approved variance per Rule 805.b.(3)C.
27	Final Reclamation	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.
28	Final Reclamation	Identification of Plugged and Abandoned Wells: Pursuant to rule 319.a.(5)., once the well has been plugged and abandoned, KMG will identify the location of the wellbore with a permanent monument that will detail the well name and date of plugging.

Total: 28 comment(s)

Attachment Check List

Att Doc Num	Name
402265267	LOCATION DRAWING
402265547	WELL LOCATION PLAT
402265558	LOCATION PICTURES
402265561	MULTI-WELL PLAN
402265569	HYDROLOGY MAP
402265570	ACCESS ROAD MAP
402265656	NRCS MAP UNIT DESC
402265726	WASTE MANAGEMENT PLAN
402267972	FACILITY LAYOUT DRAWING

Total Attach: 9 Files

General Comments

User Group	Comment	Comment Date
OGLA	Operator contact is not on Company Employee List. Submitter is not on Designated Agent List. Form is being returned to Draft. The remainder of the Form has not been evaluated.	12/27/2019

Total: 1 comment(s)

Public Comments

No public comments were received on this application during the comment period.