

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:

400497923

Date Received:

10/18/2013

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:

435083

Expiration Date:

11/20/2016

☒ 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: 10392

Name: TEKTON WINDSOR LLC

Address: 640 PLAZA DRIVE #290

City: HIGHLANDS RANCH State: CO Zip: 80129

Contact Information

Name: CLAYTON DOKE

Phone: (720) 420-5700

Fax: (720) 420-5800

email: cdoke@iptengineers.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20110188

☐ Gas Facility Surety ID: _____

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: DIAMOND VALLEY EAST

Number: PAD

County: WELD

QuarterQuarter: SWSW Section: 23 Township: 6N Range: 67W Meridian: 6 Ground Elevation: 4769

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: 800 feet FSL from North or South section line

155 feet FWL from East or West section line

Latitude: 40.467400 Longitude: -104.869810

PDOP Reading: 2.1 Date of Measurement: 08/19/2013

Instrument Operator's Name: MARK ANGELL

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	13	Oil Tanks		Condensate Tanks	8	Water Tanks	4	Buried Produced Water Vaults	
Drilling Pits		Production Pits		Special Purpose Pits		Multi-Well Pits		Temporary Large Volume Above Ground Tanks	
Pump Jacks		Separators	4	Injection Pumps		Cavity Pumps			
Gas or Diesel Motors		Electric Motors		Electric Generators		Fuel Tanks		Gas Compressors	
Dehydrator Units		Vapor Recovery Unit		VOC Combustor	10	Flare		LACT Unit	
								Pigging Station	

OTHER FACILITIES

Other Facility Type

Number

Vapor Recovery Tower

2

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

There will be buried pipelines between the wellheads and the separators, and buried pipelines between the separators and condensate & water tanks

CONSTRUCTION

Date planned to commence construction: 11/14/2013 Size of disturbed area during construction in acres: 9.75

Estimated date that interim reclamation will begin: 05/14/2014 Size of location after interim reclamation in acres: 2.00

Estimated post-construction ground elevation: 4769

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?

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: Land application

Cutting Disposal:

Cuttings Disposal Method:

Other Disposal Description:

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: _____

Phone: _____

Address: _____

Fax: _____

Address: _____

Email: _____

City: _____ State: _____ Zip: _____

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: _____

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 _____

CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land: ☒ 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: ☒ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☐ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): _____

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 219 Feet
Building Unit: 260 Feet
High Occupancy Building Unit: 3450 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 778 Feet
Above Ground Utility: 826 Feet
Railroad: 1526 Feet
Property Line: 155 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.

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: 09/01/2013

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: 41- Nunn clay loam, 0 to 1 percent slopes

NRCS Map Unit Name: _____

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: 550 Feet

water well: 1247 Feet

Estimated depth to ground water at Oil and Gas Location 23 Feet

Basis for depth to groundwater and sensitive area determination:

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 _____

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

The closest building unit is owned by the applicant and waives the 30 day notification. 318A.a & 318A.c request is attached.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

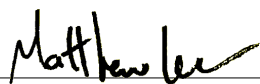
Signed: _____ Date: 10/18/2013 Email: cdoke@iptengineers.com

Print Name: CLAYTON DOKE

Title: SENIOR ENGINEER

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: 11/21/2013

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

	"This oil and gas location is permitted for production and oil and gas operations associated with the onsite wells. Management of produced fluids or E&P Waste from off site is not permitted without submittal of an amended Form 2A first.
	Operator must implement site-specific best management practices in accordance with good engineering practices, including, but not limited to, construction of a berm or diversion dike, site grading, or other comparable measures, sufficient to protect the irrigation ditches located 150 feet west and 550 feet east of the oil and gas location from a release of drilling, completion, produced fluids, and chemical products.

Best Management Practices

No BMP/COA Type

Description

1	Planning	Multi-well Pads. It is a multi-well pad located in a manner which allows for resource extraction while maintaining the highest distances possible from the offsetting residential areas.
2	Traffic control	Traffic Plan. Traffic plans will be reviewed with the Town of Windsor in order to minimize impact to streets and residents
3	Traffic control	Access roads. The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times
4	General Housekeeping	Fencing requirements. A permanent fencing plan will be reviewed by the surface owner, the applicant.
5	General Housekeeping	Removal of surface trash. All trash, debris and material not intrinsic to the operation of the oil and gas facility shall be removed and legally disposed of as applicable.
6	Material Handling and Spill Prevention	Leak Detection Plan. Pumper will visit the location daily and visually inspect all tanks and fittings for leaks. Additionally, monthly documented SPCCP inspections are conducted pursuant to 40 CFR §112.
7	Material Handling and Spill Prevention	Berm construction. Tank berms shall be constructed of steel rings with a synthetic or engineered liner and designed to contain 150% of the capacity of the largest tank. All berms will be visually checked periodically to ensure proper working condition.
8	Material Handling and Spill Prevention	Loadlines. All loadlines shall be bullplugged or capped.
9	Material Handling and Spill Prevention	Tank specifications. Tanks will be designed, constructed and maintained in accordance with NFPA Code 30. The tanks are visually inspected once a day for issues, and recorded inspections are conducted once a month.

10	Noise mitigation	Lighting abatement measures shall be implemented, including the installation lighting shield devices on all of the more conspicuous lights, low density sodium lighting where practicable; and rig shrouding is not believed necessary as this is an industrial area and the only building unit within 1,000' is owned by the operator, however, at its election the operator may install temporary engineering controls consisting of perimeter sound walls shall be used on the location during drilling and completion activities to provide noise relief. Permanent equipment on location shall be muffled to reduce noise, or shall be appropriately buffered.
11	Drilling/Completion Operations	Closed Loop Drilling Systems – Pit Restrictions. Not applicable; a closed-loop system will be used for drilling.
12	Drilling/Completion Operations	Green Completions – Emission Control Systems. Test separators and associated flow lines and sand traps shall be installed on-site to accommodate Green completions techniques pursuant to COGCC Rules. In the anticipated absence of a viable gas sales line, the flowback gas shall be thermally oxidized in an emissions control device (ECD), which will be installed and kept in operable condition for least the first 90-days of production pursuant to CDPHE rules. This ECD shall have an adequate capacity for 1.5 times the largest flowback within a 10 mile radius, will be flanged to route gas to other or permanent oxidizing equipment and shall be provided with the equipment needed to maintain combustion where non-combustible gases are present.
13	Drilling/Completion Operations	Blowout preventer equipment (“BOPE”). A double ram and annular preventer will be used during drilling. At least the drilling company shall have a valid well blowout prevention certifications.
14	Drilling/Completion Operations	BOPE for well servicing operations. Adequate BOP equipment shall be used. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.
15	Drilling/Completion Operations	Pit level indicators. Not applicable; a closed-loop system will be used and no pits shall be dug.
16	Drilling/Completion Operations	Drill stem tests. Not applicable; no Drill Stem tests are planned.
17	Drilling/Completion Operations	Control of fire hazards. All materials which are considered fire hazards shall be a minimum of 25' from the wellhead tanks or separators. Electrical equipment shall comply with API RP 500 and will comply with the current national electrical code. An emergency response plan has been generated for this site, please see the attached “EMERGENCY RESPONSE AND FIRE PROTECTION PLAN: DIAMOND VALLEY EAST LOCATION”
18	Drilling/Completion Operations	Guy line anchors. All guy line anchors shall be brightly marked pursuant to Rule 604.c (2)Q
19	Final Reclamation	Well site cleared. Within 90-day subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site.
20	Final Reclamation	Identification of plugged and abandoned wells. P&A'd wells shall be identified pursuant to 319.a.(5).

Total: 20 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1667916	CORRESPONDENCE
1667928	CORRESPONDENCE
1667929	305.a. WAIVER
1667930	RULE 306.e. WAIVER
1667931	OTHER
1667932	FACILITY LAYOUT DRAWING
1667933	CORRESPONDENCE
400497923	FORM 2A SUBMITTED
400497945	HYDROLOGY MAP
400497946	LOCATION DRAWING
400497947	LOCATION PICTURES
400497948	MULTI-WELL PLAN
400497960	ACCESS ROAD MAP
400497995	NRCS MAP UNIT DESC
400499643	WASTE MANAGEMENT PLAN
400499646	EXCEPTION LOC REQUEST

Total Attach: 16 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	11/18/2013 9:33:59 AM
OGLA	Per operator, changed Facilities list to match Facility Layout Drawing. Revised distance to nearest Building, Building Unit, High Occupancy Building Unit, and Above Ground Utility in the Cultural section. Location is now within the Exception Zone. Operator provided Rule 305.a waiver and Rule 306.e. waiver from Building Unit owner. Additional operator provided mitigation measures for noise, lighting, and visual (see Correspondences). OGLA review complete and task passed.	11/15/2013 11:02:36 AM
Permit	Ready to pass pending public comment 11/12/13.	10/29/2013 11:40:45 AM
LGD	<p>Please be advised that the subject property is located within the Town's Growth Management Area (GMA).The Town's Comprehensive Plan states, "The GMA is intended to define those specific areas within the planning area where it is most logical to extend urban services in the near term, that is, within the next five to ten years."</p> <p>Below please find the conditions of approval that are typically applied to conditional use grants for oil and gas operations located within Town.Therefore, the Town recommends the following conditions be placed on the subject oil and gas facilities:</p> <p>1.Prior to the commencement of drilling, the applicant shall submit comprehensive "Drilling and Site Improvement Plans" for review and approval by the Town.Such plans shall address initial drilling activities, initial installation of site improvements and details, and on-going perpetual maintenance of the subject site including, but not limited to, the following:</p> <p>a.Site access plan.The Drilling and Site Improvement Plans and supplemental information shall address site access points and haul routes for review and approval.</p> <p>b.Public street clean-up and tracking prevention.The Drilling and Site Improvement Plans and supplemental information shall include a tracking pad for review and approval.</p>	10/28/2013 10:16:57 AM

	<p>c.Site grading.The Drilling and Site Improvement Plans and supplemental information shall address site grading, including any earth berms for emergency containment.</p> <p>d.Site lighting.The Drilling and Site Improvement Plans and supplemental information shall include details regarding site lighting fixtures and locations.Security and other site lighting shall utilize full cutoff light fixtures to mitigate light pollution.</p> <p>e.Temporary screening. The applicant shall install a buffer to screen the initial drilling activities and installation of site improvements from surrounding neighborhoods and streets. The temporary buffer shall include hay bales to enclose the drilling operations to provide noise mitigation.</p> <p>f.Permanent screening. Given the close proximity to residential neighbors, the Drilling and Site Improvement Plans shall depict proposed long-term screening materials including landscaping, earth berms and any other screening methods to mitigate visual impacts.</p> <p>g.Fencing.The Drilling and Site Improvement Plans shall depict fencing of the perimeter of the site.Fencing materials shall be reviewed for approval by the Town based upon the character of the surrounding neighborhood.</p> <p>h.Oil and gas equipment.</p> <p>(1)The applicant shall utilize electric motors in order to mitigate the noise impacts to the neighboring properties.</p> <p>(2)The applicant shall ensure that the wells and tanks are of the minimum size required to satisfy present and future functional requirements to mitigate visual impacts.</p> <p>(3)Low profile tanks shall be utilized and shall be installed in the least visible manner possible.</p> <p>(4)All tanks and equipment shall be painted to blend-in with the surrounding landscape.</p> <p>i.Air quality.</p> <p>(1)The applicant shall participate in any required Environmental Protection Agency (EPA) air quality monitoring and/or testing by allowing EPA to install equipment on site for said monitoring and testing.</p> <p>(2)The applicant shall install and operate an emissions control device (ECD) capable of reducing Volatile Organic Compound (VOC) emissions on the subject oil and gas equipment in accordance with Colorado Oil and Gas Conservation Commission (COGCC) and/or the Colorado Department of Public Health and Environment (CDPHE) rules and regulations.</p> <p>(3)The applicant shall submit to the Town copies of all air emissions reporting as required by the COGCC and/or the CDPHE's Air Pollution Control Division.</p> <p>j.Water quality.</p> <p>(1)The applicant shall ensure that any hydrocarbon discharges from the site comply with all state and federal water quality requirements.</p> <p>(2)The applicant shall provide test results from Groundwater Baseline Sampling and Monitoring required by COGCC Rule 318A.e(4) to the Town. (condition updated 10/28/13 to reflect updated COGCC rule)</p> <p>k.Emergency containment.The secondary containment berm surrounding all storage vessels shall be designed and constructed to contain a minimum of 110% of the volume of the largest vessel located within the containment area or to State of Colorado standards, whichever requirements are more stringent.</p>		
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	<p>l.Waste disposal.The applicant shall submit to the Town copies of all waste management reports as required by the COGCC and/or the CDPHE rules and regulations.</p> <p>m.The following certification blocks shall be included on the Drilling and Site Improvement Plans:</p> <p>(1)A signed owner's acknowledgement certification block.</p> <p>(2)A signed drilling operator's acknowledgement certification block.</p> <p>n.The following notes shall be included on the Drilling and Site Improvement Plans:</p> <p>(1)The applicant shall comply with all rules and regulations of the Colorado Oil and Gas Conservation Commission (COGCC).</p> <p>(2)The applicant shall comply with all rules and regulations of the Colorado Department of Public Health and Environment (CDPHE).</p> <p>(3)The applicant shall maintain on-going compliance with all conditions of the Town and Windsor-Severance Fire Rescue.</p> <p>(4)The facilities shall be kept clean and otherwise properly maintained at all times.</p> <p>(5)The existing access may be utilized for oil and gas well activities.This access point is temporary and will be required to be removed at such time that permanent access is available in the future.</p> <p>2.The applicant shall address and comply with the conditions of Windsor-Severance Fire Rescue.</p>		
LGD	If access to the site is proposed from a Town of Windsor street, such access point (s) shall require approval from the Town of Windsor Engineering Department and any required access improvements, street clean-up, tracking pads, etc., shall be addressed accordingly.	10/28/2013 10:15:57 AM	
Permit	30-day pre-app certification is not attached.	10/23/2013 3:52:37 PM	
Permit	Returned to draft. Missing Waste Management Plan.	10/21/2013 10:37:49 AM	

Total: 7 comment(s)