

**APPLICATION FOR PERMIT TO:**

**Drill**       Deepen       Re-enter       Recomplete and Operate

Date Received:  
05/07/2014

TYPE OF WELL    OIL     GAS     COALBED     OTHER \_\_\_\_\_

ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES

Refiling   
Sidetrack

Well Name: SCR KIEHN      Well Number: 22-4NHZ

Name of Operator: SYNERGY RESOURCES CORPORATION      COGCC Operator Number: 10311

Address: 20203 HIGHWAY 60

City: PLATTEVILLE      State: CO      Zip: 80651

Contact Name: RUBEN MARKARIAN      Phone: (720)420-5700      Fax: (720)420-5800

Email: ruben.markarian@iptenergyservices.com

**RECLAMATION FINANCIAL ASSURANCE**

Plugging and Abandonment Bond Surety ID: 20090043

**WELL LOCATION INFORMATION**

QtrQtr: SWSE      Sec: 4      Twp: 4N      Rng: 68W      Meridian: 6

Latitude: 40.335803      Longitude: -105.005702

Footage at Surface:      201 feet      FNL/FSL      1895 feet      FEL/FWL

Field Name: WATTENBERG      Field Number: 90750

Ground Elevation: 5064      County: WELD

GPS Data:

Date of Measurement: 12/12/2013    PDOP Reading: 1.2    Instrument Operator's Name: BRETT BIRCH

If well is     Directional       Horizontal (highly deviated)      **submit deviated drilling plan.**

Footage at Top of Prod Zone:    FNL/FSL      FEL/FWL      Bottom Hole:    FNL/FSL      FEL/FWL

470      FSL      2205      FWL      470      FNL      2145      FWL

   Sec: 4      Twp: 4N      Rng: 68W      Sec: 4      Twp: 4N      Rng: 68W

**LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT**

Surface Ownership:     Fee       State       Federal       Indian

The Surface Owner is:     is the mineral owner beneath the location.  
(check all that apply)     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 by this Well:    Yes

The right to construct the Oil and Gas Location is granted by:    oil and gas lease

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

## LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

ALL OF SECTION 4 T4N-R68W

Total Acres in Described Lease: 640 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # \_\_\_\_\_

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 470 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1324 Feet

Building Unit: 1528 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 1703 Feet

Above Ground Utility: 1596 Feet

Railroad: 5280 Feet

Property Line: 201 Feet

### INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).

- 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: \_\_\_\_\_

## SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 440 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 470 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

ALL OF SECTION 4 T4N-R68W. SYNERGY RESOURCES CORP HAS LEASED ALL THE MINERALS WITHIN THE PROPOSED SPACING UNIT.

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR		640	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 11427 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 22 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than

or equal to 100 ppm?   No   (If Yes, attach an H2S Drilling Operations Plan)

Will salt sections be encountered during drilling?   No  

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

Will oil based drilling fluids be used?   No  

BOP Equipment Type:  Annular Preventor     Double Ram     Rotating Head     None

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule   318A  

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal:   OFFSITE        Drilling Fluids Disposal Methods:   Land application  

Cuttings Disposal:   OFFSITE        Cuttings Disposal Method:   Other  

Other Disposal Description:

Drilling Fluids offsite at Land Application location to be determined.  
Cutting disposal offsite at Land Farming location to be determined.

Beneficial reuse or land application plan submitted?                   

Reuse Facility ID:                         or Document Number:                   

## CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	12+1/4	9+5/8	36	0	550	290	550	0
1ST	8+3/4	7	26	0	7250	640	7250	3000
1ST LINER	6+1/8	4+1/2	11.6	7050	11427			

Conductor Casing is NOT planned

## 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)

## GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

## RULE 502.b VARIANCE REQUEST

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

## OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number \_\_\_\_\_
- Rule 603.a.(2) Exception Location (Property Line Setback).

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

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: \_\_\_\_\_

Is this application being submitted with an Oil and Gas Location Assessment application?

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

Signed: \_\_\_\_\_ Print Name: RUBEN MARKARIAN

Title: ENGINEERING TECH Date: 5/7/2014 Email: ruben.markarian@iptenergyser

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: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

API NUMBER

05

## Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

### COA Type

### Description

COA Type	Description

## Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Bradenhead Monitoring BMP: Operator will comply with COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.
2	Drilling/Completion Operations	Anti-Collision BMP: 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 wells. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as constructed gyro survey will be submitted to COGCC with the Form 5.

Total: 2 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400584926	FORM 2 SUBMITTED
400584935	OffsetWellEvaluations Data
400584940	WELL LOCATION PLAT
400601358	DIRECTIONAL DATA
400601359	PROPOSED SPACING UNIT
400601360	DEVIATED DRILLING PLAN
400601361	WAIVERS
400601362	EXCEPTION LOC REQUEST
400601363	EXCEPTION LOC WAIVERS
400601364	OTHER
400601365	WAIVERS

Total Attach: 11 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Return to draft. Submitter not a designated agent.	5/9/2014 8:24:00 AM

Total: 1 comment(s)