API Well Number: 43033500040000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
McKay Hollow 2-4

2. TYPE OF WORK
DRILL NEW WELL ■ REENTER P&A WELL ☐ DEEPEN WELL ☐

3. FIELD OR WILDCAT
WILDCAT

4. TYPE OF WELL
Oil Well Coalbed Methane Well: NO

5. UNIT or COMMUNITIZATION AGREEMENT NAME

6. NAME OF OPERATOR
QUANECO, LLC

7. OPERATOR PHONE
818-225-5000

8. ADDRESS OF OPERATOR
22801 Venture Blvd. Ste 200, Wooldand Hills, CA, 91364

9. OPERATOR E-MAIL
fatchanceog@aol.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
FEE

11. MINERAL OWNERSHIP
FEDERAL ☐ INDIAN ☐ STATE ☐ FEE ■

12. SURFACE OWNERSHIP
FEDERAL ☐ INDIAN ☐ STATE ☐ FEE ■

13. NAME OF SURFACE OWNER (if box 12 = 'fee')
Farmland Reserve, Inc.

14. SURFACE OWNER PHONE (if box 12 = 'fee')
801-715-9114

15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')
139 E. South Temple, Suite 600, Salt Lake City, UT 84111

16. SURFACE OWNER E-MAIL (if box 12 = 'fee')

17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')

18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS
YES ☐ (Submit Commingling Application) NO ■

19. SLANT
VERTICAL ■ DIRECTIONAL ☐ HORIZONTAL ☐

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	246 FNL 2332 FEL	NWNE	4	6.0 N	7.0 E	S
Top of Uppermost Producing Zone	246 FNL 2332 FEL	NWNE	4	6.0 N	7.0 E	S
At Total Depth	246 FNL 2332 FEL	NWNE	4	6.0 N	7.0 E	S

21. COUNTY
RICH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
2332

23. NUMBER OF ACRES IN DRILLING UNIT
40

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
9662

26. PROPOSED DEPTH
MD: 3000 TVD: 3000

27. ELEVATION - GROUND LEVEL
6691

28. BOND NUMBER
04-002

29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE
Evanston City

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	11.25	8.625	0 - 800	24.0	J-55 ST&C	9.5	Varocem	100	2.96	11.5
							Varocem	90	1.81	13.5
Prod	7.875	4.5	0 - 3000	9.5	J-55 ST&C	9.5	Varocem	185	2.96	11.5
							Varocem	75	1.81	13.5

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

- ✔ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ✔ COMPLETE DRILLING PLAN
- ✔ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)
- ☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
- ☐ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)
- ✔ TOPOGRAPHICAL MAP

NAME Terri Hartle	**TITLE** Admin/Regulatory (Western Land Services)	**PHONE** 435 896-5501
SIGNATURE	**DATE** 07/25/2011	**EMAIL** Terri.Hartle@Westernls.com

API NUMBER ASSIGNED 43033500040000 **APPROVAL**

Returned Unapproved
CONFIDENTIAL

Received: November 30, 2011

DRILLING PLAN

Operator: Quaneco, LLC
McKay Hollow 2-4
246' FNL & 2332' FEL Ungraded GL = 6691'
Sec. 4 T6N R7E, Rich County, Utah

1. ESTIMATED TOPS OF GEOLOGIC MARKERS

Formation	Depth	Fluid
Wasatch	Surface – 950'	Potential water sands
Evanston	950' – 1550'	Water, Possible Oil/Gas
Oyster Ridge SS	1550' – 1680'	Possible Oil/Gas
Allen Hollow Shale	1680'	Possible Oil/Gas
Allen Hollow Marine SS	2260'	Possible Oil/Gas
Chalk Creek	2390'	Possible Oil/Gas
TD	3000'	

2. ESTIMATED FORMATION POTENTIAL

The primary objective is the Oyster Ridge Sandstone formation. Operator intends to evaluate shows if present in other intervals shown above. The anticipated tops and zone thickness are listed in section one of this drilling plan.

3. PRESSURE CONTROL EQUIPMENT

Minimum Specifications:

1. 11" 3M BOP stack consisting of a pipe ram and blind ram.
2. 2M choke manifold consisting of two adjustable chokes and bleed line.
3. 2" Kill Line
4. 2" Choke Line

All components of the BOP stack are to be installed and pressure tested before drilling out from under the 8 5/8" surface casing. Rams, manifold and lines are to be tested to both a low pressure of 250 psig and a high pressure equal to the working pressure rating.

An adequate accumulator system will be utilized to hydraulically operate all components of the BOP equipment.

The surface casing will be pressure tested to 750 psig.

The BOP equipment will be tested as necessary, and whenever a pressure seal is broken.

Returned Unapproved
CONFIDENTIAL

Received: July 25, 2011

DRILLING PLAN

Operator: Quaneco, LLC
McKay Hollow 2-4
246' FNL & 2332' FEL Ungraded GL = 6691'
Sec. 4 T6N R7E, Rich County, Utah

Operator will adhere to Utah Oil and Gas Conservation General Rule R649-3-7(Well Control).

4. CASING PROGRAM

Conductor: 14" in 20" hole preset @ approx. 60' & cemented with redi mix cement.

Surface:

Depth:	800' +/-
OD:	8 5/8" in 11 1/4" drilled hole size
Grade:	J55 STC
Wt:	24.00 ppf
Cement:	Cemented with 100 sx Varicem RSI lead cement w/0.125 pps Poly-E-Flake, 0.25 pps Kwik Seal: 11.5 ppg and 2.96 cuft/sack yield; and 90 sx Varicem tail cement w/ 0.125 pps Poly-E-Flake, 0.25 pps Kwik Seal: 13.5 ppg and 1.81 cuft/ sack yield. Displace with fresh water.

Guide shoe, float collar, and ten centralizers will be utilized to assure proper cement placement.

Production:

Depth:	3000' +/-
OD:	4 1/2" in 7 7/8" drilled hole size
Grade:	J-55 STC
Wt:	9.5 ppf
Cement:	Cemented with 185 sx Varicem RSI lead cement w/0.125 pps Poly-E-Flake, 0.25 pps Kwik Seal: 11.5 ppg and 2.96 cuft/sack yield; and 75 sx Varicem tail cement w/ 0.125 pps Poly-E-Flake, 0.25 pps Kwik Seal: 13.5 ppg and 1.81 cuft/ sack yield. Displace with fresh water.

Float shoe, float collar, and 15 centralizers will be utilized to assure proper cement placement.

Surface casing will be cemented to surface, thus protecting shallow aquifers and the associated water. Slurry volumes for lead and tail cement to be utilized behind production casing will be adjusted based on callipered open hole volume.

Returned Unapproved
CONFIDENTIAL

Received: July 25, 2011

DRILLING PLAN

Operator: Quaneco, LLC
McKay Hollow 2-4
246' FNL & 2332' FEL Ungraded GL = 6691'
Sec. 4 T6N R7E, Rich County, Utah

5. DRILLING FLUIDS PROGRAM

The surface hole drilling fluid will be a lightly treated fresh water native mud. Hole conditions will dictate if additives such as chemicals, gel or weighting materials are added. It is anticipated that occasional gel with LCM and/or polymer sweeps will be required to adequately clean the hole. Mud weight will be maintained at 9.5 ppg or less. Adequate quantities of barite to raise the mud weight as dictated by hole conditions will be stored and available on location before drilling out the surface casing cement plug.

Mud pits will be visually monitored. The hole will be filled during trips and kept full at all times unless lost circulation is encountered.

The main hole below surface casing will be drilled with an inhibited fluid.

6. EVALUATION PROGRAM

Coring:

No full hole cores are planned. Wireline rotary sidewall cores will be taken if necessary.

Logging:

One-man mud logging unit from base of surface casing to TD.

Resistivity/GR/SP planned from TD to base of surface casing w/ GR to surface.
CDL/CNL/GR/Cal planned from TD to base of surface casing.

Testing:

Open hole drill stem tests will be run across oil/gas shows of sufficient interest.

7. ABNORMAL PRESSURES OR TEMPERATURES

No abnormal pressures or temperatures are expected. Maximum anticipated bottom hole pressure is 1200 psi or less. The pressure gradient at any depth is expected to be 0.4 psi/ft or less.

Hydrogen sulfide gas is produced from deeper formations in wells located within the general area of the proposed well. However, the primary objective of the proposed well is the Oyster Ridge Sandstone formation from which no known hydrogen sulfide has been encountered, nor in any formations above the Oyster Ridge SS, or below to projected TD. Therefore the presence of hydrogen sulfide in the proposed well is not expected or anticipated.

Returned Unapproved
CONFIDENTIAL

Received: July 25, 2011

DRILLING PLAN

Operator: Quaneco, LLC
McKay Hollow 2-4
246' FNL & 2332' FEL Ungraded GL = 6691'
Sec. 4 T6N R7E, Rich County, Utah

8. ADDITIONAL INFORMATION

Anticipated commencement of operations for the proposed well will be as soon as practical after approval and issuance of the permit by State of Utah Department of Natural Resources.

Deviation control is expected to be necessary during drilling operations below surface casing, and will be implemented with mud motors and proper downhole drilling assemblies as required and dictated by hole deviation and conditions.

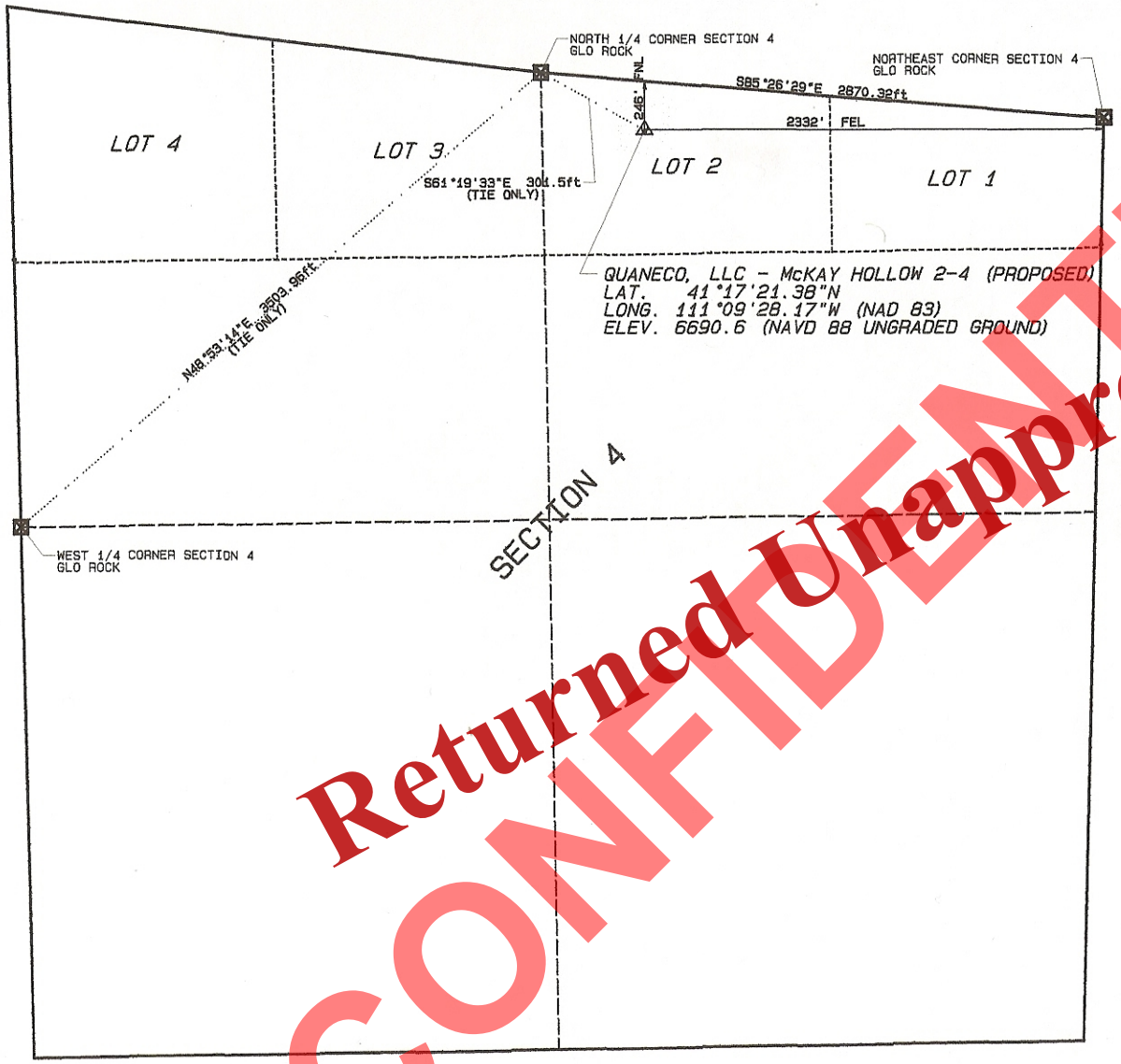
Quaneco, LLC intends to test and evaluate any zone that indicates oil/gas potential. Packers and bridge plugs will be utilized inside production casing to isolate zones as necessary for independent zone testing. Testing will be in accordance with Utah Oil and Gas rule R649-3-19(Well Testing) and results will be submitted in writing to the Division of Oil, Gas and Mining.

Returned Unapproved
CONFIDENTIAL

Received: July 25, 2011

API Well Number: 43033500040000

WELL PLAT FOR "QUANECO, LLC - McKAY HOLLOW 2-4"
SECTION 4, T6N, R7E, SLB&M, RICH COUNTY, UTAH



T6N, R7E, SLB&M

SCALE 1"=900'

0 900 1800

SURVEYOR'S CERTIFICATE

I, DOUGLAS G. MAGLEBY DO HEREBY CERTIFY THAT I HOLD LICENSE NO. 149021 AS A DULY REGISTERED LAND SURVEYOR IN THE STATE OF UTAH AND THAT THE SURVEY DEPICTED ON THIS PLAT WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE THE RESULTS OF SAID SURVEY ARE CORRECTLY SHOWN HEREON.

6/13/11
DATE

PROFESSIONAL LAND SURVEYOR
DOUGLAS G. MAGLEBY
149021
STATE OF UTAH

NARRATIVE

THE PURPOSE OF THIS SURVEY IS TO PLAT THE LOCATION OF THE PROPOSED WELL FOR "QUANECO, LLC - McKAY HOLLOW 2-4 WHICH IS LOCATED IN THE NW 1/4 OF THE NE 1/4 (LOT 2) OF SECTION 4, T6N, R7E, SLB&M, RICH COUNTY, UTAH

THE BASIS OF BEARING IS UTAH STATE PLANE COORDINATES, NORTHERN ZONE, DISTANCES ARE GRID, SCALE FACTOR IS 1.000341 TO GROUND.

THE BASIS OF ELEVATION IS THE FIRST CLASS II NGS STATION "E 371" NAVD 88 ELEVATION 6419.25 FEET.

LEGEND

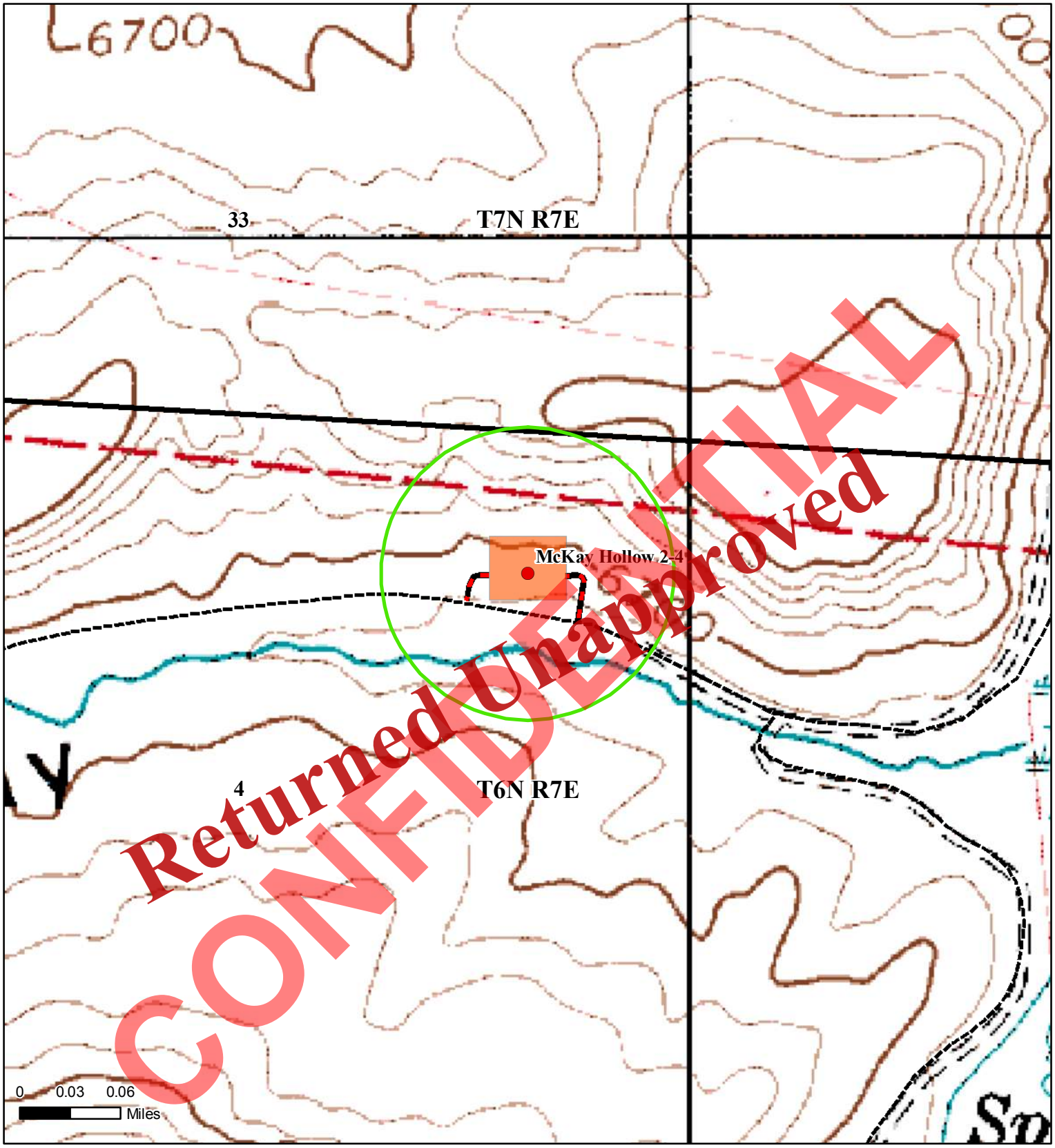
- PROPOSED WELL LOCATION
- GLO ROCK SECTION CORNER OR 1/4 CORNER
- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE (40 ACRE LINE)

MAGLEBY & ASSOCIATES INC.
415 E. 580 S.
MONROE UT, 84754
(435) 527-3444
(435) 979-5070 CELL

"QUANECO, LLC - McKAY HOLLOW 2-4" | DATE 6/13/11

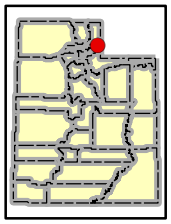
Returned Unapproved
CONFIDENTIAL

API Well Number: 43033500040000



Legend

- Proposed Well
- 460 ft Buffer
- Existing Road
- Construct New Road
- Well Pad



N
W E
S

1:5,000
Datum NAD 83
Zone 12

Quaneco, LLC

McKay Hollow 2-4

WESTERN LAND SERVICES
Richfield, UT 84701 (435) 896-5501

CONFIDENTIAL

Prepared By: **LB** | Date: **July 15, 2011**

No warranty is made for data usage purposes other than those intended by Western Land Services. Maps are created as part of a GIS that compiles records, information, and data from various sources. This data experiences frequent updates and accordingly, WLS shall not be liable for any errors or omissions herein.

Received: July 25, 2011

SURFACE OWNERS AGREEMENT

[Deseret Land and Livestock Ranch]

THIS SURFACE OWNERS AGREEMENT (this "Agreement") is made and entered into as of the **28th** day of **July**, 2008, by and between FARMLAND RESERVE, INC., a Utah non-profit corporation ("Owner"), and QUANTUM ENERGY, L.L.C., an Oklahoma limited liability company ("Lessee").

RECITALS

A. Owner is the owner of the surface estate of certain parcels of real property situated in the Counties of Summit, Morgan, and Rich, in the State of Utah, and in the County of Uinta, in the State of Wyoming, as more specifically described on Exhibit A, attached hereto and incorporated herein by this reference (the "Property").

B. Lessee leases or will lease certain mineral interests underlying all or portions of the Property.

C. Lessee desires to develop the mineral interests.

D. Lessee and Owner desire to enter into this Agreement setting forth the obligations of Lessee as related to Owner's surface estate and the payment to be paid to Owner as a result of any and all of Lessee's mineral development, to all depths and zones, and use of the surface estate.

TERMS AND CONDITIONS

NOW, THEREFORE, in consideration of the covenants and promises set forth herein to be kept and performed by the parties hereto, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is hereby agreed as follows:

1. Permission to Access the Property. Owner hereby grants Lessee and Lessee's agents, servants, employees, consultants, contractors and subcontractors, or any party acting as an agent of Lessee (collectively, "Lessee's Agents"), a nonexclusive right to enter upon and use the surface of the Property for the purpose of drilling, completing, equipping, producing, and operating oil and gas wells on the Property and for installing, constructing, and maintaining production facilities, access roads, power lines, and pipelines to gather oil, gas, and water produced from Permitted Well Sites (defined below) on the Property, all subject to the terms and conditions of this Agreement. Lessee shall have no rights to import onto the Property gas, oil, or water from areas not comprising the Property, unless such oil, gas or water is from an agreed upon, in writing, AMI (Area of Mutual Interest) that is moved across Owners acreage to get to a pipeline connection. Notwithstanding anything to the contrary herein, the Property and Lessee's rights, as defined and set forth in this Agreement, will be limited to those portions of the Property that Lessee has a current lease for mineral, oil, and/or gas interests, and except as provided expressly herein, Lessee shall have no other rights to use or access the Property. Owner reserves the right to terminate any of Lessee's

Returned Unapproved
CONFIDENTIAL

consultants, contractors or subcontractors, if said consultants, contractors or subcontractors are found to be in willful breach of this agreement.

2. Reservation of Rights by Landlord. The rights granted to Lessee herein are nonexclusive, and Owner specifically reserves the right to use the Property, to use access roads, to use the surface and subsurface of the Property, and to grant easements, licenses, and other rights in the Property, except that successive rights in the Property shall not materially interfere with or obstruct Lessee's rights under this Agreement.

3. Termination. This Agreement and Lessee's obligations hereunder will terminate as to the Property, or portions thereof, upon the last to occur of: (i) termination of the mineral, oil, and/or gas leases that grant Lessee an interest in the Property (the "Gas Leases"); or (ii) upon complete reclamation and restoration of the surface of the Property according to the "Reclamation Standards" prescribed herein and written acceptance of the reclamation and restoration by Owner and state and federal agencies having jurisdiction over such matters. The "Reclamation Standards" are defined and set forth on Exhibit B, attached hereto and incorporated herein by this reference.

4. Condition of the Property; Release. Lessee accepts the Property and all aspects thereof in "AS IS", "WHERE IS" condition, without warranties, either express or implied, "with all faults", including but not limited to both latent and patent defects, and the existence of Hazardous Substances, if any. Lessee hereby waives all warranties, express or implied, regarding the title, condition and use of the Property, including, but not limited to any warranty of merchantability or fitness for a particular purpose. Lessee shall obtain any and all consents, approvals, permissions, and agreements to cross, encumber or encroach upon any other easements or rights of others related to its use and improvement of the Property. Owner makes no representations or warranties regarding the existing or non-existence of any prior leases, rights-of-way, easements, licenses and other instruments and agreements affecting the Property, whether recorded or unrecorded. All operations of Lessee and Lessee's Agents shall be conducted at the sole risk, cost, and expense of Lessee. Lessee shall enter upon the Property at its sole risk and hazard, and Lessee, and its successors and assigns, hereby release Owner from any claims relating to the condition of the Property and the entry upon the Property by Lessee and Lessee's Agents. Lessee is not responsible for any pre-existing, third party hazards, and hazardous substances.

5. Notification Upon Entry. Except for reasonable routine production and monitoring operations, Lessee shall: (i) notify Owner prior to Lessee or Lessee's Agents entry upon the Property (Unless otherwise noted, this notification will be 72 hours for survey work and 30 days for all other major work); and (ii) consult with Owner, and obtain Owner's consent, as to the location of Permitted Well Sites (defined below), Roads (defined below), Pipelines (defined below) and all other facilities/improvements permitted by this Agreement.

6. Roads. Lessee shall have the right to access the Property on existing roads, to use existing gates, and to enter upon the Property for the purposes permitted by this Agreement. Lessee, at Lessee's sole cost and expense, agrees to maintain existing roads located on the Property, that are used by Lessee or Lessee's Agents for its exploration and production activities, which maintenance must be conducted in accordance with the provisions of this Section 6 and the provisions set forth in

Returned CONFIDENTIAL Approved

the "Works Standards" defined in Exhibit C, attached hereto and incorporated herein by this reference. Lessee also has the right, at its sole cost and expense, to improve existing roads on the Property, as well as the right, at its sole cost and expense, to construct and use new roads on the Property, along with the obligation to maintain said improved or new roads (the existing roads and the new roads used by Lessee are collectively referred to herein as the "Roads"). Lessee's rights to improve existing Roads, or construct and use new Roads, is also subject to Lessee and Lessee's Agents complying with the provisions of this Section 6 and the Work Standards set forth on Exhibit C. Owner will provide Lessee with a map of all existing roads. This map will be used by Lessee as a base map showing all existing roads that are planned for operational use by Lessee. Lessee's activities in relationship to existing or new Roads are subject to the following:

6.1. Prior to the construction, use, or improvement of a Road, Lessee shall advise Owner in reasonable detail of the location, width, cuts, fills, and bar ditches of each new Road that it proposes to construct or each existing Road it proposes to modify or use (in the case of use only, Lessee shall only provide details of the location) on the Property and Lessee shall not commence the construction of any new Road or modification of an existing Road without first providing Owner such information and allowing Owner a reasonable time, (10 days) to review such information. For each new Road it proposes to construct, Lessee and Owner agree to work together in good faith to select locations and designs of Roads that will minimize disturbance of the Property while providing reasonable access to Lessee. In the event that producing wells are permitted and developed, Lessee and Owner agree to develop reasonable and prudent standards for the permanent/semi-permanent Roads that will be necessary for the ongoing operation of equipment and wells including gravel thickness and Road and bar ditch dimensions. In connection with Lessee's obligations and rights to maintain, improve, use, and construct the Roads on the Property, Lessee will purchase, under a separate agreement, if available, all necessary gravel from Owner, which will be at market rate, as established by local contractors in Evanston Wyoming.

6.2. For the proper protection and handling of Owner's livestock and to secure the Property from trespass, Lessee shall construct and install steel gates or cattle guards in all fences crossed or affected by Lessee's maintenance, use, or construction of the Roads on the Property, as may be necessary (as determined by Owner), due to the activities of Lessee. In the event cattle guards are installed by Lessee pursuant to this Section, the cattle guards shall be 8' X 16' in size with wings and wire or steel gates installed adjacent to such cattle guards to allow the movement of cattle between pastures. Lessee shall also install culverts necessary to protect the Road beds and to control erosion and divert water.

6.3. Lessee shall maintain the Roads, gates, cattle guards, bridges, culverts and any other similar improvements (not to include any oil field equipment) to be used or constructed by Lessee pursuant to this Agreement (the "Road Improvements") in a good and usable condition during the use thereof and, shall keep the Roads free of weeds, debris, litter, and trash. Upon termination of use or abandonment by Lessee of any such Road Improvements, Lessee shall do whatever is practical to return the land upon which such Road Improvements are located to its original condition (including topography and drainage channels) to the extent it can reasonably do so, provided that Lessee shall notify Owner in writing of any Road Improvements it intends to cease using and, if Owner so requests within ten (10) days of receipt of such notice, any such Road Improvements shall

Returned CONFIDENTIAL Approved

be left in place in a good and usable condition and will thereupon become the sole property of Owner.

6.4. All gates will be kept closed at all times and when requested by Owner will be kept locked to restrict unauthorized entry. At Lessee's option, Lessee may maintain guards at any gates in lieu of locking said gates.

6.5. It is agreed and understood that traffic may be delayed for short periods while Owner is moving livestock through the Property and Lessee's traffic movement must be coordinated with Owner's Representative (as defined in Section 31) so that such traffic movement will not interfere with Owner's movement of its livestock.

6.6. Owner shall have the right to close Roads to all traffic for one twenty-four (24) hour period during each twelve (12) month period and shall give Lessee at least ten (10) days notice of when said Road shall be closed. Owner shall provide Lessee access during this period.

6.7. Owner shall have the right to use the Roads constructed or improved by Lessee hereunder for any purpose and without cost.

7. Well Locations. Lessee has the right to construct, maintain, and use drilling sites and/or well locations on the Property, subject to the Work Standards, and the following terms and conditions:

7.1. Lessee shall advise Owner in reasonable detail, including an as built map, of the location, size, cuts, and fills of each new proposed drilling site which it proposes to construct and Lessee shall not commence the construction of any new drilling site without first providing such information to Owner and allowing Owner a reasonable time to review such information. Lessee agrees to provide Owner with copies of drilling applications prepared for the Utah Division of Oil, Gas and Mining or the Wyoming Oil & Gas Conservation Commission, including site locations on a topographical map and an as built survey. Lessee and Owner agree to work in good faith together to select locations and designs of drilling sites and wells so that the disturbance of the Property is minimized and Lessee has reasonable access to the Property. Unless otherwise agreed to by the parties in writing, the parties understand and agree that Lessee shall have no right whatsoever to access the following portions of the Property (Map of these portions of the property will be provided by Owner):

7.1.1 Within a one mile radius of ranch headquarters.

7.1.2 Within a one mile radius of Shearing Corral headquarters

7.1.3 Within a one mile radius of Salaratus Reservoirs, and Squaw Ponds.

7.1.4 On any irrigated land belonging to Owner where damage may occur.

Returned Unapproved
CONFIDENTIAL

7.1.5 Within one half mile of existing sage grouse lek. (Map of current lek sites will be provided by Owner prior to work).

7.2. At the sole risk, cost and expense of Lessee, upon completion of drilling at a location where a well will not be operated, all drilling sites including reserve and mud pits, shall be reclaimed and restored in accordance with the Reclamation Standards as nearly as practical to their original condition, including topography and successfully revegetated after completion of any wells drilled.

7.3. At Lessee's sole risk, cost, and expense: (i) all drilling sites, including reserve and mud pits, where a well will be operated, shall be reduced to the minimum area of disturbance needed, and (ii) Lessee shall reclaim and restore as nearly as practical to its original condition and successfully revegetated according to the Reclamation Standards, all areas whereupon a well or staging area is constructed after completion of any wells drilled. Both parties also agree to work together to minimize the existence of aboveground structures and those deemed necessary by the parties shall be constructed by Lessee at Lessee's sole cost, and be of a common color scheme to blend with the surrounding viewscape. No wells will be permitted within 1,500 feet of any residence or barn, corral, or feedlot. Earth tones such as tan, beige, or brown will be used.

7.4. At the sole risk, cost and expense of Lessee, upon completion of the operating life of any well, all well sites shall be reclaimed and restored as nearly as possible to their original condition (including topography) and successfully revegetated all pursuant to the Reclamation Standards and this Section 7.

7.5. Those wells/drilling sites drilled by Lessee that comply with the terms of this Agreement shall be referred to herein as the "Permitted Well Sites."

8. Pipelines. Lessee has the right to construct, maintain, repair and replace and use Pipelines on the Property, subject to compliance with the following terms and conditions:

8.1. For purposes of this Agreement, a "Pipeline" shall be defined as including an injection line, flow line, gas or water line, and related facilities designed to primarily service Permitted Well Sites operated by Lessee that are located on the Property. For purposes of compensation, one Pipeline shall include any of the foregoing lines that are installed in the same ditch at the same time.

8.2. Lessee shall advise Owner in reasonable detail, including an as built map, of the location, size, cuts, and fills of each new Pipeline that it proposes to construct and shall not commence the construction of any Pipelines without first providing such information to Owner and providing Owner a reasonable time to review such information. Lessee and Owner agree to work together in good faith to select locations of each Pipeline so as to minimize disturbance of the Property while providing reasonable access to Lessee.

Returned Unapproved
CONFIDENTIAL

8.3. All Pipelines, unless otherwise agreed in writing, shall be buried below the surface of the Property below plow depth, which shall mean forty eight inches (48") or more in depth to the top of the Pipeline, unless otherwise agreed to in writing.

8.4. Upon completion of the installation of a Pipeline or upon completion of any modifications or maintenance work resulting in disturbance of the soil, and at the sole risk, cost and expense of Lessee, all disturbance resulting from such installation, modification, or maintenance, shall be reclaimed and restored to their original condition and successfully revegetated, as approved by Owner and in accordance with the Reclamation Standards, which may include additional restoration in successive years.

8.5. If Lessee fails to use any Pipeline for a period in excess of twelve (12) months, the Pipeline shall be deemed abandoned. Upon abandonment of a Pipeline, unless otherwise agreed in writing, Lessee shall, at the discretion of Owner, either: remove the Pipeline and restore the affected Property to the condition that existed prior to the construction of the Pipeline; or abandon the Pipeline in-place and remove all other surface facilities or equipment placed upon the Property, to the depth of the Pipeline, and restore the right-of-way to as near an original condition as reasonably practicable and will successfully revegetate, all in accordance with the Reclamation Standards. Abandoned Pipelines will be abandoned according to federal, state, and local regulations, and in the event current or future federal, state, or local regulations require the removal of Pipelines, Lessee shall be responsible for complying with these regulations.

9. Power lines. All Power lines shall be underground, buried below plow depth which shall be defined as being forty eight inches (48"), unless otherwise agreed in writing. All costs associated with installing and using electrical service for Lessee's operations shall be borne by Lessee. Owner shall have the right to run lines to connect to all power lines with no connection cost and shall be responsible for the payment for any electricity used in Owner's operations. Upon termination or abandonment of power lines by Lessee the lines will be removed and the Property restored to it's original condition and successfully revegetated as near as possible in accordance with the Reclamation Standards, provided that Lessee shall notify Owner in writing of any improvements it intends to cease using and, if Owner so requests within ten [10] days of receipt of such notice, any such improvements shall be left in place in a good and usable condition and will thereupon become the sole property of Owner.

10. Other Uses. Lessee shall confer with Owner's Representative prior to commencing any uses on the Property not described in this Agreement.

11. Work Standards and Maintenance. All operations of Lessee on the Property shall be conducted in accordance with the "Work Standards" set forth and defined on Exhibit C. Lessee shall at all times keep the Permitted Well Sites, Roads, and other areas of the Property used by Lessee safe and in good order, free of noxious weeds, litter and debris. Lessee shall conduct periodic trash pickup if requested by Owner.

12. Compensation. Lessee agrees to the following initial rental and subsequent annual rental compensation to Owner: For initial rental for Roads, drill sites, Permitted Well Sites, electric

Returned Unapproved
CONFIDENTIAL

lines, Pipelines, and compressor sites to be constructed across the Property, Lessee agrees to pay Owner a sum of money in advance for surface impact of such use. Said sum shall be calculated upon an estimated roddage/acreage and is consideration for entry and construction. Said sum shall be not less than ninety percent (90%) of the estimated end use. Upon completion, an additional initial rental payment shall be paid to Owner to reflect the actual acres used by Lessee as determined by a survey. For all existing Roads, Permitted Well Sites, and open locations currently in use, the first annual rental payment needs to be made at the time of signing this Agreement. The following are the "Payments" due to Owner pursuant to this Agreement:

12.1. Lessee shall pay to Owner the sum of $25.00 per rod initial rental for each Road upon the initial use or construction of said Road, and for exploration and development of the Roads by Lessee on the Property. Subsequently, Lessee agrees to pay Owner $10.00 per rod annual rental for the use of any Roads from the first anniversary of this Agreement forward.

12.2. Lessee shall pay to Owner the initial rental sum of $10,000 for each Permitted Well Site up to six (6) acres in size. For every additional acre or portion thereof, Lessee shall pay to Owner the sum of $1,500 per acre (to be pro rated for partial acres). Lessee shall then pay Owner $2,000 annual rental for each Permitted Well Site not abandoned and reclaimed from the first anniversary of this Agreement forward. Any previously un-reclaimed locations and Roads held over from expired agreements, used by Lessee, shall fall under this Agreement for all current and future exploration and production activities.

12.3. Prior to the construction or installation of a Pipeline on the Property, Lessee shall pay to Owner the sum of $25.00 per rod initial rental for each Pipeline. After the initial Pipeline rental payment, Lessee shall pay Owner $15.00 per rod annual rental for all Pipelines on the Property from the first anniversary of this Agreement forward. If Pipelines, water discharge lines, and or electrical lines all occupy the same trench, all will be included in the Pipeline initial rental and Pipeline annual rental. At the point at which Pipelines, water discharge lines, and or electrical lines, diverge into individual trenches, they will each be subject to their individual initial and annual rental payments.

12.4. Prior to the construction or installation of a water discharge line, not included in the same trench as a pipeline or electrical line, on the Property, Lessee shall pay to Owner $17.50 per rod initial rental for each water discharge line. After the initial rental payment, Lessee shall then pay Owner $7.50 per rod annual rental for each water discharge line located on the Property from the first anniversary of this Agreement forward.

12.5. Prior to the construction or installation of an electric line, not included in the same trench as a pipeline or water discharge line, on the Property, Lessee shall pay to Owner $17.50 per rod initial rental for each electrical line. After the initial payment, Lessee shall then pay Owner $7.50 per rod annual rental for each electric line located on the Property from the first anniversary of this Agreement forward.

12.6. Prior to the construction of the following improvements on the Property, Lessee shall pay to Owner $2,000 per acre initial rental for each compressor station, sales meter

Returned Unapproved
CONFIDENTIAL

house, or other building. After the initial payment, Lessee shall then pay to Owner $2,000 per acre rental for each compressor station or sales meter house located on the Property from the first anniversary of this Agreement forward.

12.7. Payment for any other impact caused by Lessee not enumerated in this Section shall be on a fair and reasonable basis to be negotiated by the parties for each such use.

12.8. All initial payments described in this Section shall be paid in full prior to commencement of any work relating to said payment.

12.9. Quantum Energy, L. L. C. (Quantum) will assign, or cause to be assigned, a 3% (percent) overriding royalty interest (ORRI) in favor of Farmland Reserve, Inc, (Farmland Reserve) on all mineral leases acquired by Quantum, which are located within the surface area owned by Farmland Reserve and subject to the surface use agreement between Quantum and Farmland Reserve.

12.10. Payment Escalation. On the first anniversary of this Agreement, and annually thereafter, all Payments described in this Agreement shall be subject to escalation. Such adjustments shall be determined applying the percentage change Producer Price Index-Commodities, for Finished Goods (Series Id: WPUSOP3000) published by the U. S. Department of Commerce, Bureau of Labor Statistics, which index is accessible at the Bureau of Labor Statistics website at http://data.bls.gov/cgi-bin/surveymost. The total of the initial Payment due Owner hereunder (and, in the case of an over payment, less any overpayment) and all Payments relating to well bores, Roads, Pipelines, reservoirs, surface towers, structures, and any additional item relative to a stated or negotiated payment, shall, when paid, constitute full and total consideration to Owner.

13. Use Restrictions.

13.1. General Use Restrictions. Lessee shall not permit any of Lessee's Agents operating hereunder to bring any dogs, explosive devices, weapons (including bows, guns, and firearms), alcoholic beverages, or illegal drugs on the Property or to recreationally use horses, trail bikes, motorcycles, ATV's, snowmobiles, or recreational vehicles on the Property. Lessee and Lessee's Agents shall not prospect for antlers, prospect for fossils or antiquities, hunt, fish, recreational camp, recreational hike, trap or conduct any recreational activities on the Property. Lessee's and Lessee's Agents shall at all times carry identification which identifies them as agents of Lessee, and shall promptly and courteously produce such identification upon request by Owner's representatives. Lessee shall not place any trash, rubbish or debris on the Property. Any employee, agent or contractor who violates any of the provisions of this Section may, in Owner's sole discretion, be forever denied access to the Property. Lessee shall instruct each of its employees, agents and contractors concerning the material terms of this Agreement, and Lessee's major contractors shall be provided with a copy of this Agreement, prior to their entry upon the Property. During the exploration and development phase Lessee agrees to abide by decisions of Owner wildlife biologists and the Utah Division of Wildlife concerning wildlife critical needs. Additionally, Lessee shall not unnecessarily disturb the livestock and wildlife on the Property.

Returned Unapproved
CONFIDENTIAL

13.2. Fire. Lessee shall take reasonable steps to prevent fire and to promptly extinguish fire, including, but not limited to, (i) maintaining a fire extinguisher, shovel, ax, bucket, and, if requested by Owner, a filled water backpack sprayer in each service vehicle entering upon the Property, and (ii) utilizing spark arresters on all gas or diesel powered equipment. Lessee shall endeavor to use diesel powered vehicles whenever possible to avoid fires resulting from catalytic converters. Lessee may not construct open fires on the Property. No trash or timber slash will be burned by Lessee on the Property. Lessee shall promptly and fully compensate Owner for all damages caused by fire arising out of Lessee's operations, including, without limitation, any charges incurred by Owner for fire suppression, replacement of fences and other property damaged or destroyed by fire, the reasonable cost of moving livestock to unburned pastures, and, if necessary, the reasonable cost of renting unburned pastures.

13.3. Stacking. Lessee shall have no right whatsoever to stack on the Property equipment, supplies, materials, tubular goods, pipes, and any other item to be used in connection with Lessee's operations on the Property (collectively, the "Operational Equipment"), unless Lessee and Owner have entered into a separate written agreement concerning the particular piece of Operational Equipment Lessee desires to stack. Notwithstanding the foregoing, Lessee may stack Operational Equipment on the Property for less than thirty (30) consecutive days, so long as Lessee removes or begins to actively use the Operational Equipment prior to the expiration of the thirty (30) days.

14. Extraordinary Loss. Lessee agrees to compensate Owner for extraordinary loss or damage to the Property, its personal property, or livestock or wildlife management program resulting from Lessee's operations or negligence.

15. Digital maps and other images. Lessee agrees to provide, if available, digital maps or other imaging of all its Permitted Well Sites, installations, equipment, Pipelines, flowlines, structures or other installations in a format compatible with Owner's computer hardware and software systems.

16. Water Wells and Springs.

16.1. Background. Owner has existing water wells and springs on the Property. Lessee has acquired leases for the development of Coal Bed Methane Gas ("Methane Gas") and intends to drill and complete wells for the production of methane. The development and production of Methane Gas usually requires the production of water in conjunction with Methane Gas and may cause the localized reduction of water levels within certain individual strata of the ground water aquifers. Lessee has advised Owner that the production of water in association with gas could adversely affect the productive capacity of Owner's or neighbors' existing water localities which draw water from the underground aquifers. In order to facilitate the multiple usage of the natural resources consistent with sound environmental practices, to mitigate potential adverse effects on Owner's or its neighbors' springs or water wells, to assure prompt and effective remediation, and reduce the need for regulatory intervention by State and Federal agencies, Owner and Lessee agree to comply with the following terms and conditions:

16.2. Definitions. These terms and phrases will have the following meanings:

Returned Unapproved CONFIDENTIAL

16.2.1 "Circle of Influence ("COI")" shall mean the area that falls within a circle, the center of which is the location of a producing Methane Gas Well, which has a radius of one-half mile (2,640 feet) and contains approximately 502.66 acres.

16.2.2 "Impaired Springs or Water Wells" shall mean any springs or water wells existing on Owner's property within the COI, existing at the time of the Methane Gas development, which spring or well experiences a significant reduction of capacity to deliver water in quantity and/or quality sufficient to support the ordinary and customary use of the well or spring.

16.2.3 "Methane Gas Well" shall mean any well drilled and completed for the production of coal bed methane that withdraws water and/or gas and water from the aquifer for a period exceeding thirty (30) days.

16.3. Permission to Discharge of Water. Surface discharge of produced water will be permitted by Lessee only if: (i) Owner expressly agrees to said discharge and is provided a water discharge plan from Lessee; (ii) the discharged water meets all governmental standards for discharged water and will not create wetlands; (iii) the discharged water does not unreasonably degrade or adversely affect the quality of water and water courses on or damage or threaten to damage the Property or the soils or vegetation located thereon; and (iv) the produced and discharged water can be put to beneficial use such as irrigation or livestock water. If Owner consents to the surface discharge or storage of produced water, Lessee shall follow all applicable rules and regulations of any governmental authority concerning the method, quality, and location of the discharge or storage of produced water. Lessee will not appropriate any of the produced water for beneficial use, and Lessee will fully cooperate with Owner to permit Owner, if Owner so desires, to appropriate and apply the produced water for beneficial use.

16.4. Duty to Test. Upon establishment of a COI, Lessee, at its sole risk will measure, or cause to be measured, the static water level and productive capacity (the baseline measurement) of water wells and springs within the COI and will attempt to determine the depth and configuration of these wells through consultation with Owner and from the records of the State Engineer of the State of Wyoming or Utah. Lessee shall also test for the presence of Methane Gas or other components in the water, which may be caused by Lessee's activities, in the water wells or springs. Tests shall be performed in accordance with recognized and accepted test procedures appropriate for water wells or springs.

16.5. Allowance of Test. Owner will, upon reasonable notice, allow the testing of water wells and springs within the COI, including a static water level test that may require the cessation of withdrawals of water from the well for a period not to exceed twenty-four (24) hours.

16.6. Well monitoring program. Lessee will establish a continuing spring and water well monitoring program, the intent of which is to enable Lessee to identify changes in the capacity of Owner's water wells and springs within the COI. Lessee will, upon request of Owner, provide all test data, both baseline data and monitoring data to Owner. Lessee agrees, at its sole cost and expense, to test for water quality and quantity of all produced water and springs, and wells, and all

Returned Unapproved
CONFIDENTIAL

water wells drilled by Lessee upon the Property. Said testing shall continue on a semi-annual basis for the first two (2) years. If there is a significant change in water quality or quantity, Lessee will determine and, if responsible, rectify the cause of that change. If there is no significant change in water quality or quantity during this time, the interval for testing shall be reduced to once a year thereafter, for so long as Lessee continues its operations. Water analysis records and results will be provided to Owner.

16.7. Failure of a Well. If a spring or water well becomes an Impaired Spring or Water Well, Owner shall first take reasonable steps to certify that the impairment is not due to mechanical, electrical, down hole integrity, or pump problems and, if none of these problems appear to be the cause of the impairment, Owner will then notify Lessee of the impairment by phone and by writing.

16.8. Duty to restore water. Within thirty (30) days of receipt of notice of impairment, Lessee shall restore Owner's access to water of sufficient quantity and quality to offset such impairment by reconfiguring, redrilling the Methane Gas Well, the drilling of a new Methane Gas Well, or by other means. It is recognized that additional power or Pipeline costs may be associated with any reconfiguration of an Impaired Spring or Water Well. The additional costs of the restoration of water are those of Lessee. The specific site of the well or water access may be changed by mutual agreement of Lessee and Owner.

16.9. Duty to Provide Immediate Water. Lessee agrees that upon notice of impairment and during the thirty (30) day curative period, in order to provide and make water available for wildlife, domestic and livestock usage in quantity, quality, and location required for the maintenance of normal and customary wildlife, and domestic livestock needs, Lessee shall develop emergency procedures for immediate delivery of water to any such affected area within twenty-four (24) hours of notice by Owner. Lessee shall notify Owner of Lessee's Agent appointed to handle such matters, providing a local contact and a twenty-four (24) hour emergency contact. Owner shall make a good faith effort to inform Lessee by phone, fax, or other expedient method of communication of any impending loss or damage to wildlife or livestock, allowing Lessee a reasonable opportunity to mitigate such damage. Under extraordinary water loss circumstances, where death of livestock is imminent, Lessee shall mobilize relief water via tanker truck, within one (1) hour of being notified by Owner.

16.10. Expansion of the COI. In the event it is determined that there is an Impaired Spring or Water Well, as defined above, in any COI, that COI shall be expanded based on the location of the impaired spring or wells. The COI shall be divided into equal quadrants (NE, NW, SW, SE) and based upon which quadrant the impaired water is located in, that quadrant shall be expanded by the area included within an arc one eighth of a mile wide (660 feet) outside the existing COI. Likewise, should it be determined that there is an Impaired Spring or Water Well within the expanded quadrant of the COI, that quadrant shall be again expanded by another 660 feet increment. This expansion approach shall be used to expand any COI in any direction where Impaired Spring or Water Well is determined during the life of the Methane Gas Well. Notwithstanding the above, if no water well or spring exists within any COI or quadrant thereof, the

CONFIDENTIAL
Returned Unapproved

arcs and associated quadrants not containing a water well or spring shall be expanded to include the next nearest water well or spring.

16.11. Duty to Cooperate. At any time that Lessee undertakes activities to enhance Owner's springs or water well capacity or to restore an Impaired Spring or Water Well's water quality and quantity, and should such activities require permits from regulatory agencies or permissions from third parties for surface entry, Owner shall aid and assist Lessee in the obtaining of permits and permissions necessary to conduct the operations. All costs of the operations, including fees for obtaining permits and permissions, shall be borne by Lessee.

16.12. Mediation Board. In connection with settling disputes under this Section 16, a mediation board may be formed for the purpose of mediating disputes between Lessee and Owner under this Agreement. The board shall consist of three (3) members, with one (1) member being selected by nomination of Owner and one (1) member being selected by Lessee and one (1) member being selected by the parties nominees.

16.13. Dispute Resolution. In instances where a water well or spring has become an Impaired Spring or Water Well as defined herein, and Owner and Lessee have not been able to agree on the cause of the damage, the mediation board shall determine the cause of the impairment and decide which of the parties shall ultimately be responsible for bearing the cost of remediation. The mediation board shall have the right to apportion and divide the costs among the parties in the event that both mechanical elements, the responsibility of Owner, and aquifer drawdown, the responsibility of Lessee, are both factors in causing the water well to become impaired.

16.14. Disposal of the Water. Lessee shall engage in a written plan of disposal of all water produced from any producing Methane Gas Wells on Owner's property (the "Disposal Plan"). The Disposal Plan shall reasonably consider the water salts sodium absorption ratio, and all other components, the effect upon animals, soils, neighbors, growing crops, riparian zones, and hay meadows and other ranch uses and shall seek to minimize water damage while making lawful beneficial use of the produced water. If disposed water is causing harm to the Property, the surrounding environment, or the animals located thereon, as determined by Owner in Owner's sole discretion, Lessee shall immediately cease disposing water on the Property. Any and all produced water from any wells drilled by Lessee will be made available for wildlife and stock watering purposes and the formation of productive riparian habitat within State law. The water shall be directed from the wells to water troughs and storage reservoirs through a piped system constructed by Lessee in locations approved by Owner. These storage troughs and reservoirs are to be constructed within State law and to Owner's specifications, with inspection and approval by Owner's representative. Overflow from these reservoirs is to be controlled by Lessee and cannot be discharged into any surface drainage system. All legal responsibility, costs, and expenses associated with the management of the produced water will be that of Lessee. Maintenance of water facilities shall be the responsibility of Lessee.

17. Permits/Legal Requirements. Lessee shall comply will all laws, rules, and regulations pertaining to the Property and to Lessee's operations thereon. Lessee shall apply for and obtain such permits as may be required by any county, state, federal, or other duly constituted authorities. Lessee

Returned Unapproved
CONFIDENTIAL

agrees to indemnify and save harmless Owner for any penalty, fine, or assessment for failure to obtain such permits.

18. Taxes. Lessee shall pay: (i) all taxes and assessments that may be levied against the buildings, equipment, supplies, fixtures, and improvements placed on the Property by Lessee; and (ii) all increases in taxes against the Property resulting from the construction of facilities upon or change in use by Lessee of the Property.

19. Encumbrances. Lessee shall not act nor omit to take any action which could result in encumbrances or liens of any kind or nature whatsoever to be asserted against the Property. The assertion of any lien or encumbrance shall require Lessee, within thirty (30) days after receipt of notice of the filing or recording of such lien, either to remove the same from the Property as an encumbrance or to provide a corporate security or other bond acceptable to Owner, to the benefit of Owner in the sum of at least twice the amount of such encumbrance or lien. Upon the provision of satisfactory surety as to such lien amount, Lessee may litigate and contest such lien fully. If at the end of thirty (30) days no surety has been provided Owner may pay the lien or encumbrance, and Lessee shall immediately reimburse Owner for all funds expended, including, but not limited to, reasonable attorneys' fees and recording costs.

20. Other Structures. Lessee acknowledges that Owner has made no representation of the existence or nonexistence of other structures or improvements, including but not limited to, fiber optic, power and telephone lines or pipelines located within or adjacent to the Property, and Lessee agrees that it will be solely responsible for, and will repair or replace at its own expense, any and all damage to these structures, improvements or pipelines resulting from Lessee's operations.

21. Indemnification. Lessee and its successors and assigns hereby agree to indemnify, defend (with counsel acceptable to Owner) and hold harmless Owner, and any entity controlling, controlled by or under control with Owner ("**Affiliates**"), and its and their Affiliates' officers, directors, employees, managers, members, agents, servants, successors, and assigns from and against any and all liens, liabilities, encumbrances, costs, demands, claims, penalties, fines, judgments, losses, and/or damage (including, without limitation, diminution in the value of the Property), costs or expenses (including attorneys' fees, consultant fees, and expert fees) including for the death of or injury to any person or damage to any property whatsoever, arising from or caused in whole or in part, directly or indirectly out of: (i) the presence in, on, under, or about the Property, or any discharge or release in or from the Property of any Hazardous Substances relating to Lessee's presence upon or use of the Property in any respect, or Lessee's use, analysis, storage, transportation, disposal, release, threatened release, discharge, or generation of Hazardous Substances to, in, on, under, about, or from the Property, except that this clause (i) shall not apply to Hazardous Substances existing on the Property prior to the effective date of this Agreement, unless the release or discharge of the Hazardous Substances existing on the Property prior to the effective date of this Agreement was caused by Lessee or Lessee's Agents, in which case this clause (i) shall apply; (ii) Lessee's failure to comply with any law or regulation now or hereafter enacted, including any Hazardous Substances Law; (iii) the acts and omissions of Lessee and Lessee's Agents; (iv) the use of the Property by Lessee and Lessee's Agents; (v) claims against Owner, its Affiliates, and its and their Affiliates' officers, directors, employees, managers, members, agents, servants, successors, and

Returned Unapproved
CONFIDENTIAL

assigns, by third parties damaged caused by Lessee's use and occupancy of the Property; (vi) any breach or default by Lessee or Lessee's Agents of any of Lessee's obligations under this Agreement; and (vii) any work performed on the Property by Lessee or Lessee's Agents, provided, however, that the foregoing indemnity shall not apply to the extent any such claim is caused by the gross negligence or willful misconduct of Owner. Lessee's obligations hereunder shall include, without limitation, and whether foreseeable or unforeseeable, any and all reasonable costs incurred in connection with any investigation of site conditions, and any and all reasonable costs of any required or necessary repair, cleanup, detoxification, or decontamination of the Property, and the preparation and implementation of any closure, remedial action, or other required plans in connection therewith. The terms and conditions of this provision shall remain effective after the expiration or termination of this Agreement, so long as the event for which the indemnification is needed occurred prior to such expiration or termination.

As used in this Agreement, the term "Hazardous Substances" means all hazardous and toxic substances, wastes or materials, including without limitation, hydrocarbons (including naturally occurring or man-made petroleum and hydrocarbons), flammable materials, explosives, urea formaldehyde insulation, radioactive materials, biologically hazardous substances, PCBs, pesticides, herbicides, and any other kind and/or type of pollutants or contaminants (including, without limitation, asbestos and raw materials which include hazardous constituents), sewage sludge, industrial slag, solvents and/or any other similar substances or materials which, because of toxic, flammable, ignitable, explosive, corrosive, reactive, radioactive, or other properties may be hazardous to human health or the environment and/or are included under, subject to or regulated by any Hazardous Waste Laws, but which Hazardous Substances shall not include properly handled and transported oil, gas or associated produced water that originates from Permitted Well Sites drilled by Lessee on the Property.

As used in this Agreement, the term "Hazardous Waste Laws" means any and all present and future applicable (i) federal, state and local statutes, laws, rules or regulations, including without limitation the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, the Resource Conservation and Recovery Act of 1976, as amended by the Used Oil Recycling Act of 1980, the Solid Waste Disposal Act Amendment of 1980, the Hazardous and Solid Waste Amendments of 1984, the Hazardous Substances Transportation Act; the Clean Water Act, the Clean Air Act, the Toxic Substances Control Act, the Safe Drinking Water Act, the Occupational Safety and Health Act, the Federal Water Pollution Control Act, the Federal Insecticide, Fungicide and Rodenticide Act, and all state and local statutes governing Hazardous Substances; (ii) judicial or administrative interpretations thereof, including any judicial or administrative orders or judgments; and (iii) ordinances, codes, plans, injunctions, decrees, permits, demand letters, concessions, grants, franchises, licenses, agreements, notices, or other governmental restrictions, relating to the protection of the public health, welfare, and the environment, or to any actual, proposed or threatened storage, holding, existence, release, emission, discharge, spilling, leaking, pouring, pumping, injection, dumping, discarding, burying, abandoning, generation, processing, abatement, treatment, removal, disposition, handling, transportation or other management of any Hazardous Substance or any other activity or occurrence that causes or would cause any such event to exist.

Returned CONFIDENTIAL Unapproved

22. Duty to Provide Insurance. Prior to and at all times after initially entering upon the Property for any purpose, Lessee and Lessee's Agents shall at their sole expense maintain with a reputable company or companies acceptable to Owner: (i) a policy or policies of commercial general liability insurance with respect to the Property and the operations of or on behalf of Lessee and/or Lessee's Agents on or about the Property, including but not limited to owned and nonowned automobile (vehicle) liability, personal and advertising injury, blanket contractual, broad form property damage and product/completed operations liability coverage for not less than three million dollars ($3,000,000.00) combined single limit bodily injury, death and property damage liability per occurrence; (ii) Endorsement CG 00 39 (removing the pollution exclusion) or its equivalent, with the same limits of liability as set forth above; and (iii) workers compensation insurance in an amount required by law, together with employers liability, with a Waiver of Subrogation endorsement by the insurance carrier as respects Owner.

Lessee, for itself and its insurers, hereby waives any rights of recovery Lessee may have against Owner to the extent of the indemnity obligations herein. Lessee shall provide that the policies of insurance required above shall be primary and shall name Owner as additional insured as respects the obligations in this Agreement, and shall apply severally to Owner and Lessee, with the provision that any other insurance carried by Owner shall be non-contributing.

Neither the amount nor the scope of any of the obligations of Lessee under this agreement or otherwise, including without limitation, indemnity obligations, shall be limited to the amount of the insurance Lessee is required to maintain hereunder.

Any policies or certificates of insurance required under the provisions of this Section must contain an endorsement or provision that not less than thirty (30) days' prior written notice be given to Owner prior to cancellation or reduction of coverage or amount of such policy. A certificate issued by the insurance carrier of each policy of insurance required to be maintained by Lessee, stating the limits and other provisions required hereunder and in a form reasonably acceptable to Owner, shall be delivered to Owner prior to Lessee entering upon the Property for any purpose, and thereafter not later than thirty (30) days prior to the expiration of the term of each such policy. Any policies required hereunder may be made a part of a blanket policy of insurance, so long as such blanket policy contains all of the provisions required herein and does not in any way reduce the coverage, impair the rights of Owner hereunder or negate the requirements of this Agreement.

23. Access to Work Area and Records. Lessee shall, except as otherwise provided herein, permit Owner or its duly authorized representatives, at Owner's expense, full and free access at all reasonable times to all operations of every kind and character being conducted on the Property and to the records of operations conducted thereon or production therefrom, including Lessee's books and records relating thereto. Lessee will furnish to Owner upon request copies of any and all reports and information obtained by Lessee in connection with production and related items, including, without limitation, meter and chart reports, production purchaser statements, run tickets and monthly gage reports, but excluding purchase contracts and pricing information to the extent not applicable to the production of Owner. Lessee will file and upon written request promptly furnish copies to Owner of all operational notices, reports or applications required to be filed with all local, State, or Federal agencies or authorities having jurisdiction over operations hereunder.

Returned by Approved
CONFIDENTIAL

24. Right to Purchase Gas. Owner shall have the right, but not the obligation, to purchase any or all gas produced from the Property at prevailing market rates.

25. Right to Assume Operations as Water Well. Upon notice of abandonment of a Methane Gas Well, Permitted Wells, or water wells on the Property given by Lessee to Owner, Owner shall have sixty (60) days to elect to assume the operations of said well as a water well. Owner shall notify Lessee of its election to assume ownership of said well for the purposes of producing water, and Lessee shall assign and transfer to Owner all rights in said well. Lessee shall plug the well below the fresh water-bearing formation identified by Owner in its election notice to acquire the well, or if no depth election is made, to plug back as per State of Utah regulatory requirements. Lessee shall leave all casing above the formation in the hole. In electing to acquire the well, Owner shall assume and be responsible for all liabilities and any incremental costs to complete the well as a water well to the water bearing formation that it selects or is selected during the election period, and Owner AGREES TO INDEMNIFY, DEFEND AND RELEASE Lessee FROM ANY AND ALL CLAIMS ARISING FROM SAID ASSUMED WELLS, unless said claims arose prior to Owner's assumption of the well, including without limitation, the plugging and abandonment of said well. If Owner elects to assume operations of an abandoned well as a water well, Owner shall take over said well bore in accordance with the rule and regulations of any State regulatory agency which oversee such matters.

26. Default. In the event of the following: (i) a default by Lessee of its obligations stated herein; (ii) Owner has provided Lessee written notice of Lessee's default; and (iii) thirty (30) days have expired since Lessee received written notice from Owner regarding Lessee's default and Lessee has failed to cure its default within the proscribed thirty (30) day period, Owner, at its option, may: (a) pursue any remedy available at law or in equity; (b) pursue the remedy of specific performance or injunction; (c) seek declaratory relief; (d) pursue an action for damages for loss; and/or (e) terminate this Agreement. If Owner chooses to terminate this Agreement, Lessee shall be obligated to comply with all restoration and reclamation activities stated herein until the Property is restored and reclaimed pursuant to the Reclamation Standards and the other relevant terms and conditions of this Agreement.

27. No Partnership. Nothing contained in this Agreement shall create or be construed as creating a partnership, joint venture, or employment relationship between Owner and Lessee. Neither Owner nor Lessee shall be liable, except as otherwise expressly provided in this Agreement, for any obligations or liabilities of the other. Lessee expressly agrees to indemnify and hold Owner, and the property of Owner free and harmless from any and all obligations and liabilities incurred by Lessee in conducting operations, whether conducted pursuant to this Agreement or otherwise on the Property.

28. Environment. Except as provided herein, Lessee shall not commit or permit to be committed any waste upon the Property or permit a nuisance thereon. Furthermore, Lessee shall not store (except as necessary for operations) or dispose of or allow to be stored (except as necessary for operations) or disposed of on the Property any Hazardous Substances, including oil, gas, and all other petroleum products. Lessee agrees to comply with all federal, state, and local environmental

Returned Unapproved
CONFIDENTIAL

laws and to reimburse and indemnify and defend Owner from any costs or liabilities incurred by Owner as a result of Lessee's breach of this provision. To the extent materials abandoned by Lessee on the Property are deemed at any time to be Hazardous Substances under federal, state, or local law, Lessee shall be responsible for removal of such substances and complying with any and all laws or regulations relating thereto.

29. Waiver. The failure of either party to insist upon strict performance of any of the covenants or conditions of this Agreement in any one or more instances shall not be construed as a waiver or relinquishment for the future of any such covenants or conditions, but the same shall be and remain in full force and effect.

30. Notice. All notices and other communications provided for in this Agreement shall be in writing and shall be sufficient for all purposes if: (i) sent by fax to the fax number set forth below or at such other number as the respective party may designate by notice as provided herein, and concurrently sent by 1st class U.S. mail, (ii) is personally delivered, or (iii) sent by certified or registered U.S. mail, return receipt requested, postage prepaid, and addressed to the respective party at the address set forth below or at such other address as such party may hereafter designate by written notice to the other parties as herein provided.

31. Payments. All Payments shall be made out to:

Farmland Reserve, Inc.
139 E. South Temple, Suite 600
Salt Lake City, UT 84111
Fax: (801) 715-9108

And sent to

Deseret Land and Livestock
P.O. Box 250
Woodruff, UT. 84086
Fax (801) 793-4280

so that said Payments can be properly coded, and verified. A notice of all payments, with amounts, shall also be sent to:

Natural Resources
50 East North Temple Street
12th Floor East
Salt Lake City Utah, 84150

And to

Farmland Reserve, Inc.
139 E. South Temple, Suite 600
Salt Lake City, UT 84111
Fax: (801) 715-9108

for record keeping purposes.

Returned unapproved
CONFIDENTIAL

Until a successor representative is designated in writing to Lessee, Warren Peterson shall be "Owner's Representative" for purposes of this Agreement.

To Lessee: Quantum Energy, L.L.C.
Attn: Paul J. Mysyk
35010 Chardon Road, Suite 200
Willoughby Hills, OH 44094
Fax: (440) 954-5026

Notice by mail shall be deemed effective and complete at the time it is received or served. Notice by fax shall be deemed effective and completed at the time the facsimile is sent.

32. Assignment/Run with the Land/Successors. Subject to the terms and conditions of this Agreement, the provisions of this Agreement shall be binding upon the heirs, executors, administrators, personal representatives, successors and assigns of the parties hereto. Notwithstanding, Lessee may not assign this Agreement, in whole or in part, without the prior written consent of Owner, which consent shall not be unreasonably withheld in the case of assignment to a reputable entity who expressly assumes the obligations of Lessee hereunder with proven financial capability demonstrated by financial reports satisfactory to Owner in connection with the request for approval to fully perform all of Lessee's responsibilities under this Agreement, both at the time of assignment and for the reasonably foreseeable term of this Agreement.

33. Miscellaneous Provisions. The parties hereto agree to the following additional provisions:

33.1. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Utah.

33.2. No modification or variation of this Agreement shall be of any force or effect unless in writing executed by both of the parties hereto.

33.3. It is expressly stipulated and agreed that time shall be of the essence in this Agreement.

33.4. Owner and Lessee each agree to pay and discharge all reasonable costs and expenses, including attorneys' fees that shall be made and incurred by the prevailing party in enforcing the covenants and agreements of this Agreement.

33.5. The invalidity or unenforceability of any particular provision of this Agreement shall not affect the other provisions hereof and the Agreement shall be construed in all respects as if such invalid provision were omitted.

33.6. The parties hereto agree to execute such additional documents as may be necessary or desirable to carry out the intent of this Agreement.

Returned Unapproved
CONFIDENTIAL

33.7. The section headings used herein are for the convenience of the parties and shall not be deemed to modify or construe the meaning hereof. Definitions given anywhere in this Agreement apply throughout the Agreement.

[signatures are on the following page]

Returned Unapproved
CONFIDENTIAL

DATED as of the day and year first above written.

Owner: FARMLAND RESERVE INC.,
a Utah non-profit corporation

By: _____
Warren H. Peterson, Vice President

Lessee: QUANTUM ENERGY, L.L.C.,
an Oklahoma limited liability company

By: _____
Paul J. Mysyk, Managing Member

STATE OF UTAH)
:ss
COUNTY OF SALT LAKE)

On this 17 day of September, 2008, personally appeared before me Warren H. Peterson, known or satisfactorily proved to me to be the Vice President of FARMLAND RESERVE, INC., a Utah non-profit corporation, who acknowledged to me that he signed the foregoing instrument as the Vice President for said corporation.

_____
Notary Public for the State of Utah

Notary Public
ANN BARNER
136 East South Temple, Suite 110
Salt Lake City, Utah 84111
My Commission Expires
April 27, 2010
State of Utah

STATE OF Wyoming)
:ss
COUNTY OF Sheridan)

On this 2nd day of October, 2008, personally appeared before me Paul J. Mysyk, known or satisfactorily proved to me to be the Managing member of QUANTUM ENERGY, L.L.C., an Oklahoma limited liability company, who acknowledged to me that he signed the foregoing instrument as Same for said company.

SUSAN E. BERBERICK - NOTARY PUBLIC
COUNTY OF SHERIDAN
STATE OF WYOMING
My Commission Expires 11-24-2011

_____
Notary Public for Sheridan Co., Wyoming
Residing at: Sheridan, WY
My commission expires: 11-24-2011

Returned
CONFIDENTIAL
Approved

1011119

EXHIBIT A

to Surface Use Agreement

(Legal Description of the Property)

Returned Unapproved
CONFIDENTIAL

EXHIBIT B

to Surface Use Agreement

(the Reclamation Standards)

Reclamation Standards. For the purposes of this Agreement "Reclamation" or "Restoration" or the "Reclamation Standards", as used in this Agreement, shall mean:

1. Prior to commencement of any work which will necessitate revegetation, all top soil shall be set aside in such a reasonably practical manner that upon completion of the work or abandonment, the top soil can be replaced.

2. All revegetation shall be done according to a revegetation program and plant mix approved by or provided by Owner. Seed mix cost will not exceed that of a reasonable comparative native mix for the area and all seed used will be certified seed. Owner reserves the right to perform all reseeding work at competitive cost.

3. Revegetation efforts shall continue until established stands have been obtained.

4. As requested by Owner, Lessee shall use its best efforts to control the infestation of noxious weeds on any portion of the Property which is disturbed by Lessee by the timely spraying of control chemicals or other methods of control acceptable to Owner. At Owner's option, the appropriate county weed control supervisor will visit and inspect the area of use by Lessee to assess lawful compliance with county weed control law and Lessee will comply with local standard at Lessee's expense. Lessee agrees to be responsible for the reimbursement, at fair market value, of Owners cost for noxious weed control for a period of five [5] years following abandonment.

5. As discussed herein, all areas disturbed by Lessee during operating, maintaining, protecting, marking, repairing, removing, or replacing the Roads, Permitted Well Sites, drill sites, Pipelines, appurtenances, equipment, and facilities shall be immediately filled, leveled, and restored to original contour at the expense of Lessee to blend the disturbed area with the landscape as nearly as practical.

6. Lessee agrees to use a dirt contractor, approved by Owner, for all dirt work on the property as long as prices and performance are competitive.

Returned unapproved
CONFIDENTIAL

EXHIBIT C
to Surface Use Agreement
(the Work Standards)

Work Standards. For the purposes of this Agreement "Work Standards," as used in this Agreement, shall mean:

1. Operations of Lessee shall be in a good and workmanlike manner consistent with recognized industry procedures and in accordance with the common practice of Owner.

2. Lessee shall keep the Roads, well locations, Pipeline locations, and adjacent areas clean at all times and free of any trash, cans, papers, bottles or other debris resulting from Lessee's operations hereunder.

3. Lessee shall construct stock-tight fences around any dangerous area, including any pits on the Permitted Well Sites. Lessee shall, at its expense, construct permanent fencing around all wellheads and other surface facilities, which fencing shall be constructed of portable type livestock panels anchored to the ground and painted natural earth tone colors. Maintenance around Lessee's Permitted Well Sites and other facilities shall be the responsibility of Lessee, and Owner shall not be responsible for damage to such fences or Lessee's surface facilities in the event livestock gain access to these areas. Construction techniques and materials of fences constructed by Lessee shall be approved by Owner in advance and shall be installed to Owner's satisfaction.

4. In addition to any compensation specifically set forth herein, Lessee shall repair, replace or reimburse Owner for all damages resulting from the operations of Lessee on the Property to any Roads, fences, corrals, gates, buildings, structures, water sources, water storage ponds and reservoirs, water pipelines and troughs, crops, livestock, or other improvements on the Property owned by Owner.

5. Lessee agrees to replace or repair any levees or other improvements disturbed or damaged by Lessee's operations on the Property and to take the reasonably necessary precautions to channel and protect drainages and waterways affected by its operations on the Property.

6. Lessee shall coordinate all operations so that they are conducted in a manner compatible with stringent security implemented by Owner.

7. Lessee agrees that permission for exploration, drilling, construction, or development may be temporarily suspended for threats to wildlife program management, weather conditions that will cause excessive damage to property, or special livestock concerns or movement. Owner agrees to cooperate to minimize negative impacts on the efforts of Lessee. Specifically during winter months when snow cover exceeds 12 inches of snow on the ground, but no later than November 20th, operations will need to shut down for the winter in North Sessions, South Sessions, State Section, West Murphy, Bartlett, and Simms Canyon pastures as they are critical winter range areas, and will only be able to resume after April 30th. The total number of wells to be drilled or worked over in these areas, during the winter, must be limited to one per section. Permitted Well

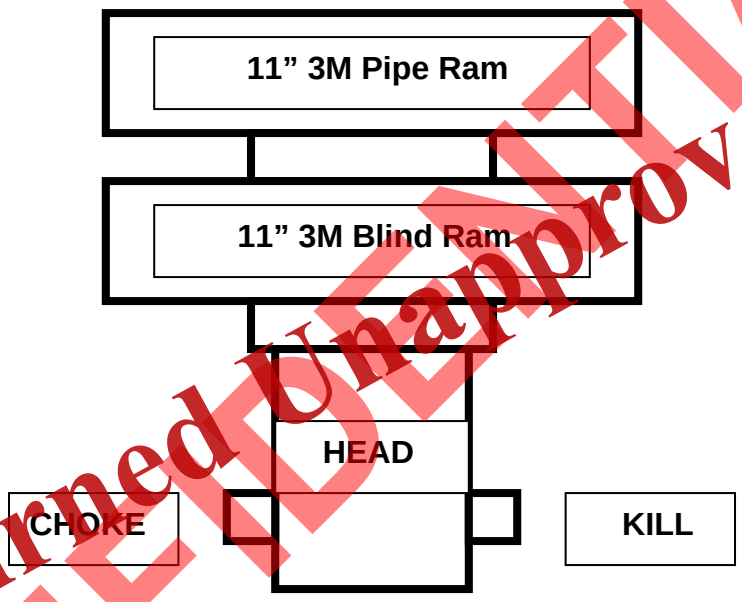
Returned by Approved
CONFIDENTIAL

Sites would be a much smaller issue, as long as the density does not exceed one per 160 acres. Further information such as section numbers of restricted areas will be provided by Owner.

Returned Unapproved
CONFIDENTIAL

BOPE SCHEMATIC

API 3M - 11 - RR



Returned Unapproved
CONFIDENTIAL

Received: July 25, 2011

KILL LINE – CHOKE LINE/MANIFOLD SCHEMATIC

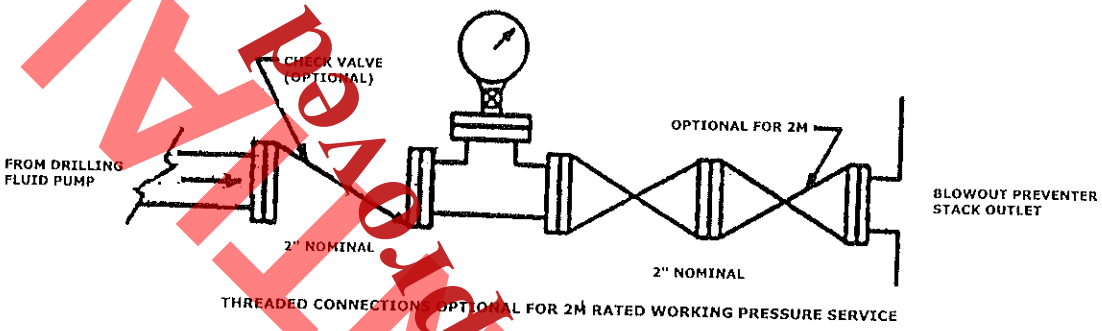


FIGURE K5-1. Typical kill line assembly for 2M and 3M rated working pressure service - surface installation.

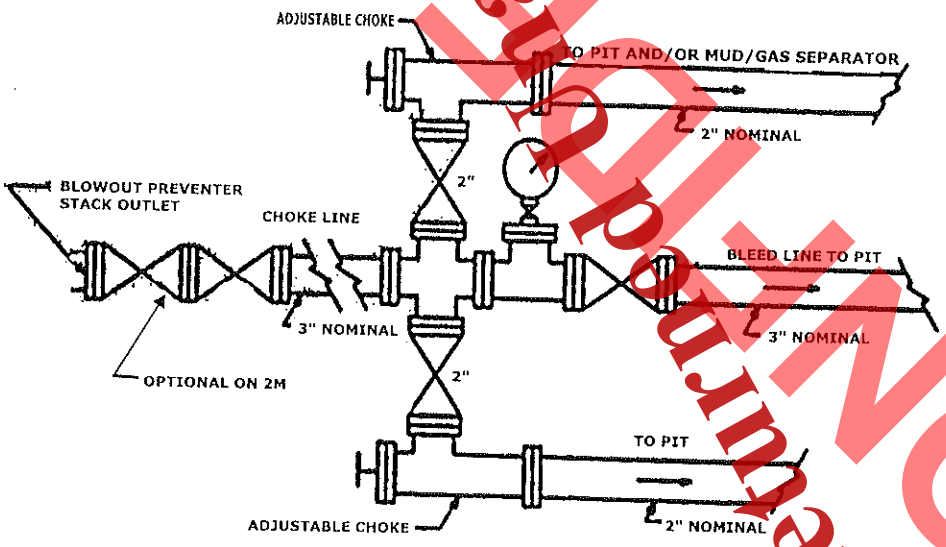


FIGURE K4-1. Typical choke manifold assembly for 2M and 3M rated working pressure service - surface installation.

Required Development
CONFIDENTIAL

API Well Number: 43033500040000

API Well Number: 43033500040000

WESTERN LAND SERVICES

July 20, 1011

Utah Division of Oil, Gas & Mining
Diana Mason
1594 W. N. Temple Suite 1210
Salt Lake City, Utah 84114-5801

RE: Quaneco, LLC Exception Location for the McKay Hollow 2-4 Well

Diana:

Pursuant to Rule R649-3-3 of the State's Oil & Gas Conservation regulations, Quaneco hereby makes application for approval to drill the McKay Hollow 2-4 well situated in Township 6 North – Range 7 East; Section 4: NWNE (246' FNL – 2,332' FEL). The surface is privately owned and the minerals are also privately owned and leased to Quaneco.

Quaneco proposes to drill the McKay Hollow 2-4 well to a total depth of 3000' feet and is an exception to Rule R649-3-3. Quaneco is the only leasehold owner and operator within a 460 foot radius of the bore hole.

This well is situated outside of the legal drilling window due to being located in an irregular section, to minimize impact on the surrounding areas, take advantage of most favorable terrain for access routes and location construction, and to best satisfy surface owner considerations. Other alternatives were identified but the proposed access route and well location provides the most environmentally sensitive options. Attached hereto is a plat as required by the Commissions rules and regulations.

If no objections are filed, the applicant requests that this application be approved. If objections are filed, applicant requests the matter be set for hearing and that it be advised of the hearing date.

Respectfully submitted,

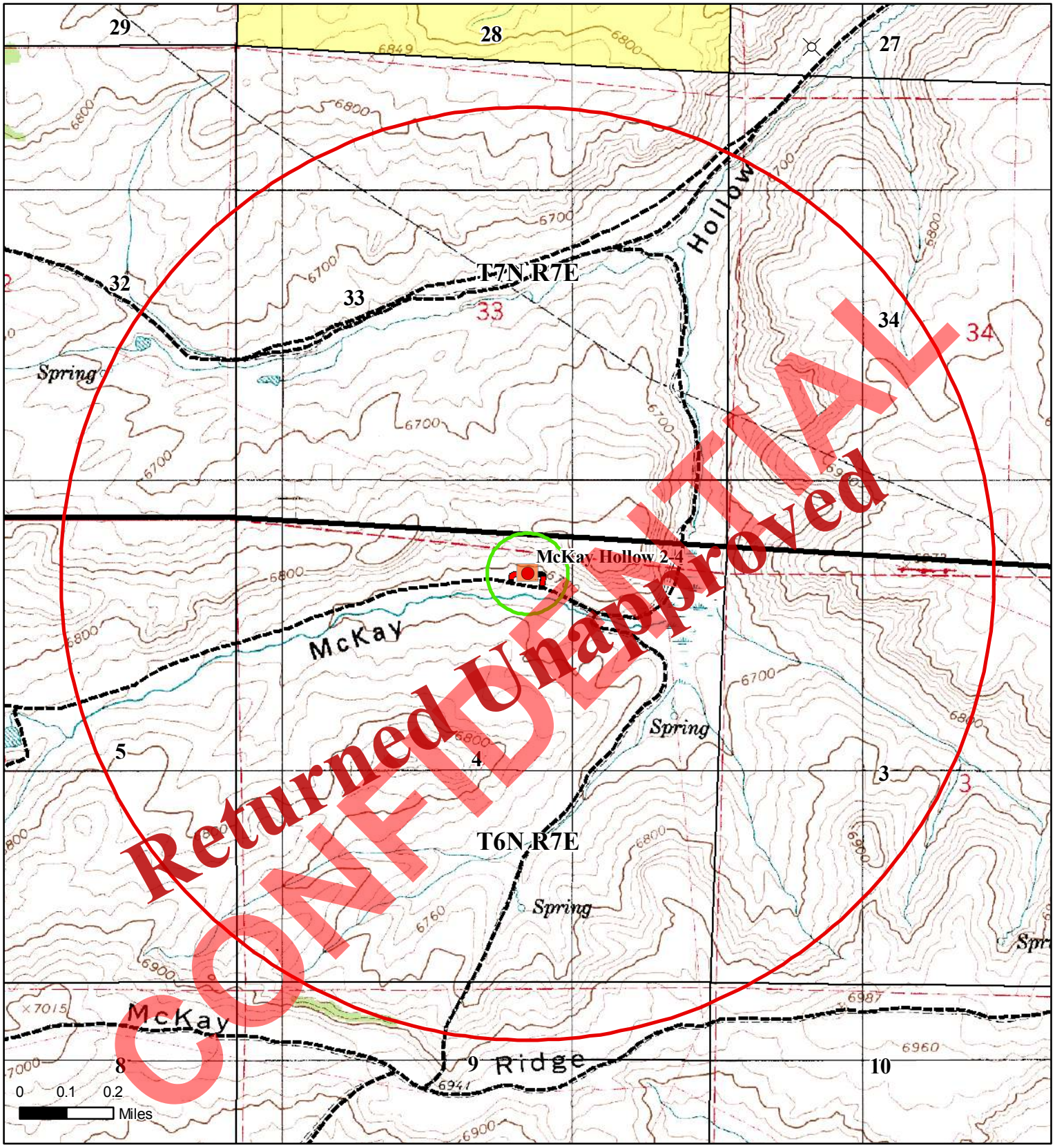
Terri Hartle

Terri Hartle, Western Land Services
Designated Agent for Quaneco, LLC

Returned Unapproved
CONFIDENTIAL

WESTERN LAND SERVICES - UTAH DIVISION
195 North 100 East, Suite 201 • Richfield, UT 84701 • Phone: (435) 896-5501 • Fax: (435) 896-5515
Web: www.westernls.com

API Well Number: 43033500040000



Legend

- Proposed Well
- Location Abandoned
- 460 ft Buffer
- 1 Mile Buffer
- Existing Road
- Construct New Road
- Well Pad
- BLM
- Private

N W E S

1:18,000
Datum NAD 83
Zone 12

Quaneco, LLC

McKay Hollow 2-4

WESTERN LAND SERVICES
Richfield, UT 84701 (435) 896-5501

CONFIDENTIAL

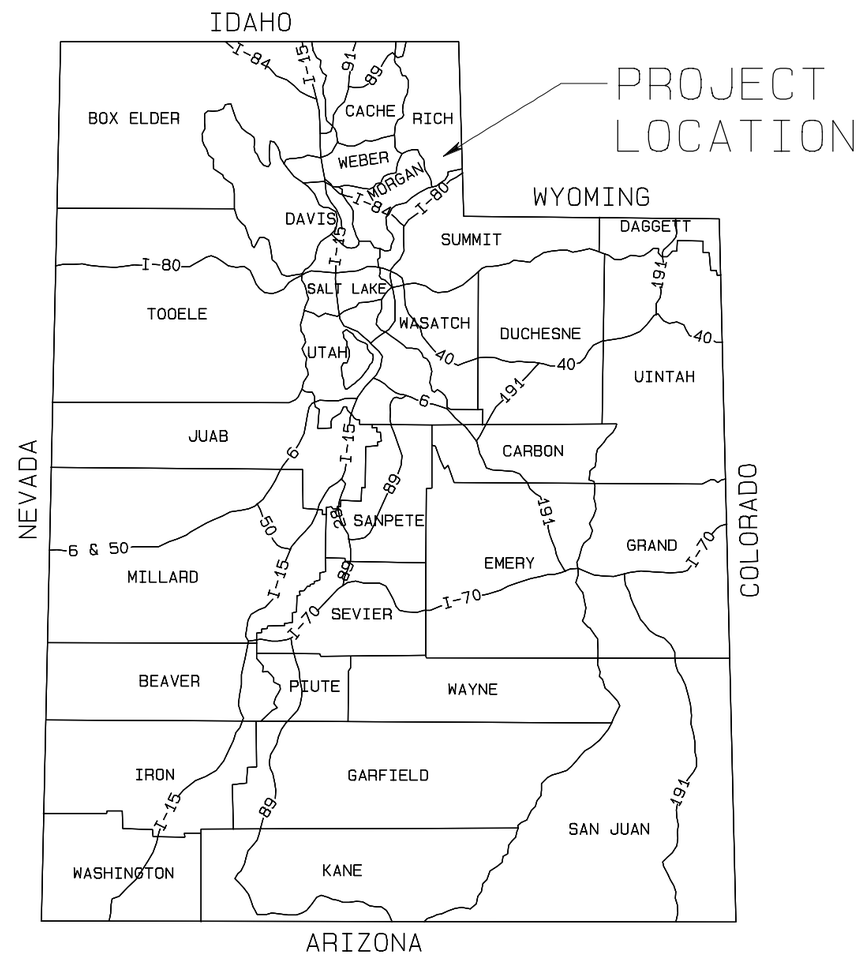
Prepared By: **LB** Date: **July 15, 2011**

No warranty is made for data usage purposes other than those intended by Western Land Services. Maps are created as part of a GIS that compiles records, information, and data from various sources. This data experiences frequent updates and accordingly, WLS shall not be liable for any errors or omissions herein.

Received: July 25, 2011

Returned Unapproved
CONFIDENTIAL

QUANECO, LLC
"McKAY HOLLOW 2-4"
SECTION 24, T6N, R7E, SLB&M,
RICH COUNTY, UTAH

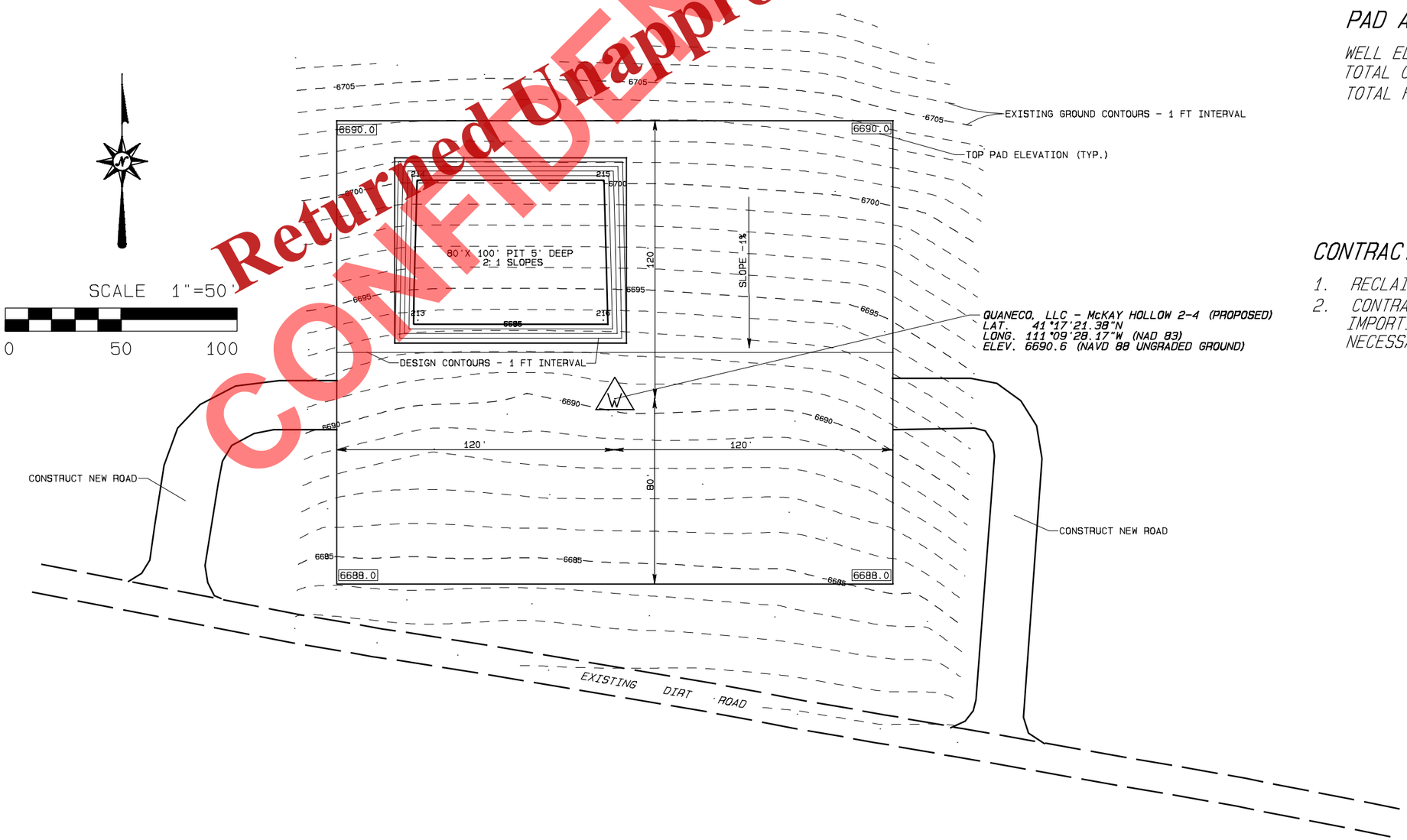


NO SCALE

MAGLEBY & ASSOCIATES, INC.
ENGINEERING AND SURVEYING
383 East 580 South, MONROE, UTAH
Telephone (435) 527-3444 or (435) 979-5070 CELL

Received: July 25, 2011

Returned Unapproved
CONFIDENTIAL



ESTIMATED EARTHWORK VOLUMES

VOLUMES ARE UNADJUSTED

PAD AND PIT

WELL ELEV: 6688.8
TOTAL CUT: 8500 CU. YD.
TOTAL FILL: 943 CU.YD.

CONTRACTOR NOTES

1. RECLAIM ALL AREAS AFTER PROJECT COMPLETION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL IMPORTING AND EXPORTING OF SOIL MATERIAL NECESSARY TO COMPLETE THE PROJECT AS DESIGNED

MAGLEBY & ASSOCIATES, INC.
ENGINEERING AND SURVEYING
383 East 580 South, MONROE, UTAH
Telephone (435) 527-3444 or (435) 979-5070 CELL

QUANECO, LLC
Pad & Pit - McKAY HOLLOW 2-4
PLAN VIEW

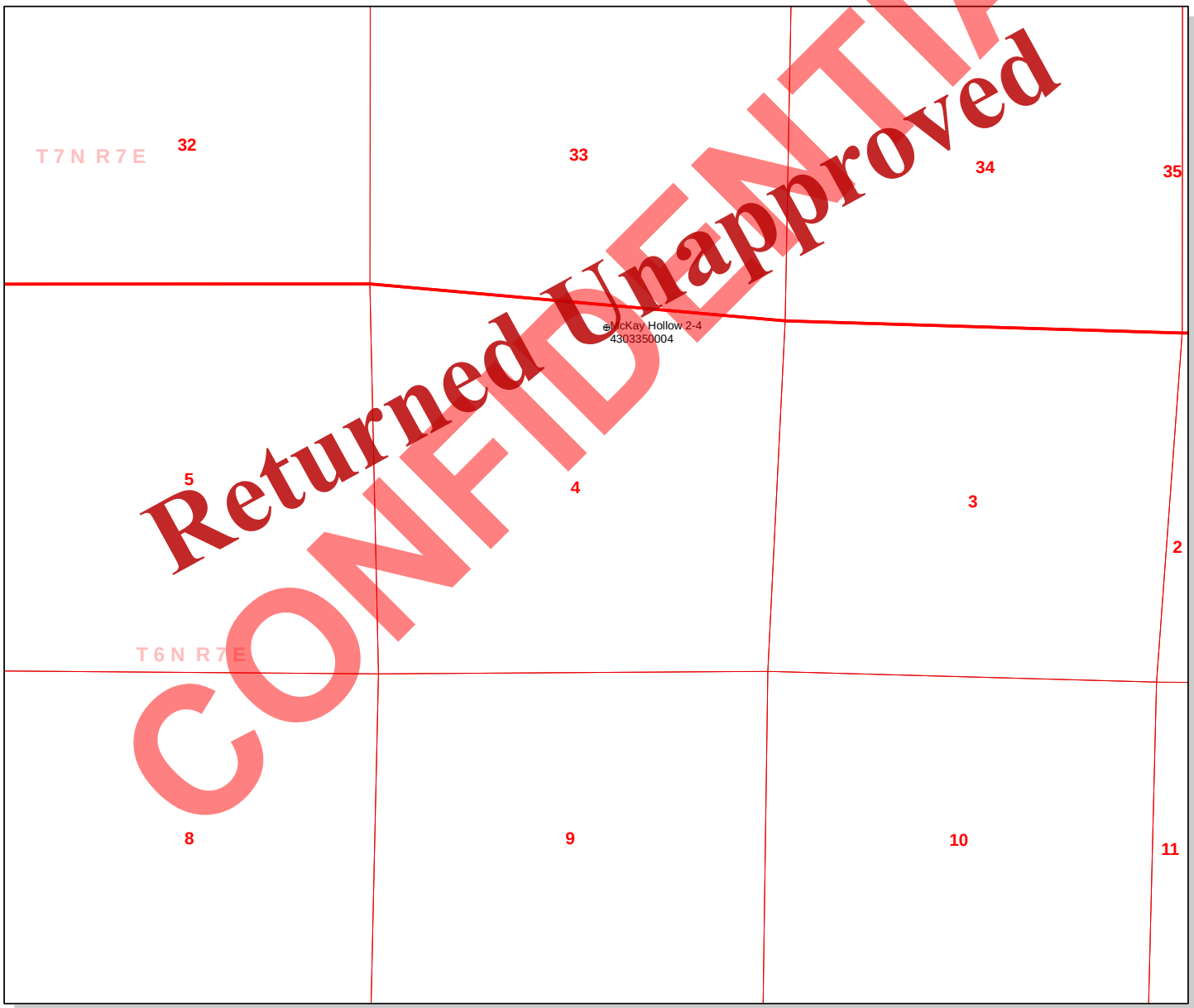
DESIGNED BY: DM CHECK: DATE:
DRAWN BY: CHECK: DATE:
QUANTITIES BY: DM CHECK: DATE:
REVIEW BY: DATE:

APPROVED BY:
DATE

SHEET NO. 2

Received: July 25, 2011

API Well Number: 43033500040000



Returned Unapproved
CONFIDENTIAL

API Number: 4303350004

Well Name: McKay Hollow 2-4

Township T0.6 . Range R0.7 . Section 04

Meridian: SLBM

Operator: QUANECO, LLC

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
ACTIVE
EXPLORATORY
GAS STORAGE
NF PP OIL
NF SECONDARY
PI OIL
PP GAS
PP GEOTHERML
PP OIL
SECONDARY
TERMINATED

Fields
STATUS
Unknown
ABANDONED
ACTIVE
COMBINED
INACTIVE
STORAGE
TERMINATED
Sections
Township

Wells Query
Status
APD - Aproved Permit
DRL - Spuded (Drilling Commenced)
GIW - Gas Injection
GS - Gas Storage
LA - Location Abandoned
LOC - New Location
OPS - Operation Suspended
PA - Plugged Abandoned
PGW - Producing Gas Well
POW - Producing Oil Well
RET - Returned APD
SGW - Shut-in Gas Well
SOW - Shut-in Oil Well
TA - Temp. Abandoned
TW - Test Well
WDW - Water Disposal
WIW - Water Injection Well
WSW - Water Supply Well

1,750 875 0 1,750 Feet

1:16,862

Received: July 28, 2011

State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Office of the Governor

PUBLIC LANDS POLICY COORDINATION

JOHN HARJA
Director

CONFIDENTIAL
Returned Unapproved

August 15, 2011

Diana Mason
Petroleum Specialist
Department of Natural Resources, Division of Oil Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801

Subject: Application for Permit to Drill, Section 246 FNL 2332 FEL, NWNE, Section 4 , Township 6.0N, Range 7.0E, RICH County
RDCC Project Number 27681

Dear Ms. Mason:

The State of Utah, through the Public Lands Policy Coordination Office (PLPCO), has reviewed this project. Utah Code (Section 63J-4-601, *et. seq.*) designates PLPCO as the entity responsible to coordinate the review of technical and policy actions that may affect the physical resources of the state, and to facilitate the exchange of information on those actions among federal, state, and local government agencies. As part of this process, PLPCO makes use of the Resource Development Coordinating Committee (RDCC). The RDCC includes representatives from the state agencies that are generally involved or impacted by public lands management.

Division of Air Quality

Because fugitive dust may be generated during soil disturbance the proposed project will be subject to Air Quality rule R307-205-5 for Fugitive Dust. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules can be found at www.rules.utah.gov/publicat/code/r307/r307.htm.

Received: August 17, 2011

API Well Number: 43033500040000

The state encourages the use of Best Management Processes (BMP s) in protecting air quality in Utah. The state recommends the following BMP s as standard operating procedures:

1) Emission Standards for Stationary Internal Combustion Engines of 2 g/bhp-hr of NOx for engines less than 300 HP (Tier 3) and 1 g/bhp-hr of NOx for engines over 300 HP (Tier 3).

2) No or low bleed controllers for Pneumatic Pumps, Actuators and other Pneumatic devices.

3) Green completion or controlled VOC emissions methods with 90% efficiency for Oil or Gas Atmospheric Storage Tanks, VOC Venting controls or flaring. Glycol Dehydration and Amine Units Units, VOC Venting controls or flaring, Well Completion, Re-Completion, Venting, and Planned Blowdown Emissions.

If compressors or pump stations are constructed at the site a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to R307-401: Permit: Notice of Intent and Approval Order, of the Utah Air Quality Rules. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm.

The State of Utah appreciates the opportunity to review this proposal and we look forward to working with you on future projects. Please direct any other written questions regarding this correspondence to the Public Lands Policy Coordination Office at the address below, or call Judy Edwards at (801) 537-9023.

Sincerely,

John Harja
Director

Returned Unapproved
CONFIDENTIAL

5110 State Office Building, PO Box 141107, Salt Lake City, Utah 84114-1107 · telephone 801-537-9801 · facsimile 801-537-9226

Received: August 17, 2011

GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

July 25, 2013

QUANECO, LLC
22801 Venture Blvd. Ste 200
Wooldand Hills, CA 91364

Re: Application for Permit to Drill - RICH County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the McKay Hollow 2-4 well, API 43033500040000 that was submitted July 25, 2011 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason
Environmental Scientist

Enclosure
cc: Bureau of Land Management, Vernal, Utah

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING