

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 Crane 16-4
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		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 <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>	12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
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 <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>	
19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>		

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	1980 FNL 500 FWL	S-NW	4	6.0 N	8.0 E	S
Top of Uppermost Producing Zone	1980 FNL 500 FWL	S-NW	4	6.0 N	8.0 E	S
At Total Depth	1980 FNL 500 FWL	S-NW	4	6.0 N	8.0 E	S

21. COUNTY RICH	22. DISTANCE TO NEAREST LEASE LINE (Feet) 500	23. NUMBER OF ACRES IN DRILLING UNIT 40
25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 0	26. PROPOSED DEPTH MD: 1270 TVD: 1270	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Deseret Ranch- Chapman Ditch & Evanston City
27. ELEVATION - GROUND LEVEL 6863	28. BOND NUMBER 04-002	

Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	14.75	10.75	0 - 250	40.5	J-55 ST&C	9.5	Unknown	185	1.27	15.2
I1	9.875	7	0 - 1120	20.0	J-55 ST&C	9.5	Varocem	140	2.96	11.5
							Varocem	100	1.81	13.5

ATTACHMENTS

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

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP

NAME Terri Hartle	TITLE Admin/Regulatory (Western Land Services)	PHONE 435 896-5501
SIGNATURE	DATE 10/01/2010	EMAIL Terri.Hartle@Westernls.com

API NUMBER ASSIGNED 43033500010000	APPROVAL  Permit Manager
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DRILLING PLAN

Operator: Quaneco, LLC

Crane 16-4

1980'FNL 500'FWL Ungraded GL=6856'

Sec. 4 T6N R8E, Rich County, Utah

1. ESTIMATED TOPS OF GEOLOGIC MARKERS

<u>Formation</u>	<u>Depth</u>	<u>Fluid</u>
Wasatch	Surface – 350'	Potential water sands
Evanston	350' – 800'	Water, Possible Gas
Aspen Shale	800'-1120'	None
Bear River	1120'	Possible Oil
TD	1270'	

2. ESTIMATED FORMATION POTENTIAL

The primary objective is the Bear River 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 9 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.

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

4. CASING PROGRAM

Conductor: 16" in 24" hole preset @ approx. 60' & cemented with redi mix cement.

Surface:

Depth: 250' +/-

OD: 10 3/4" in 14 3/4" drilled hole size

Grade: J55 STC

Wt: 40.50 ppf

Cement: Cemented to surface with 185 sx Standard Cement w/2% CC, 0.125 pps Poly-E-Flake, 0.25 pps Kwik Seal: 15.2ppg and 1.27 cuft/sack yield. Displace with fresh water.

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

Intermediate

Depth: 1120' +/-

OD: 7" in 9 7/8" drilled hole size

Grade: J-55 STC

Wt: 20 ppf

Cement: Cemented to surface with 140 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 100 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.

Packer float shoe, insert float, and 7 centralizers will be utilized to assure proper cement placement.

Surface casing will be cemented to surface, thus protecting shallow aquifers and the associated water. If lead cement for intermediate casing does not circulate to surface, one inch pipe will be utilized for top outside cement placement as necessary.

5. DRILLING FLUID PROGRAM

The 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

DRILLING PLAN

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Sec. 4 T6N R8E, Rich County, Utah

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.

After running and cementing intermediate casing, the casing will be displaced with Tersol fluid which will be utilized to drill the 6 ¼" hole thru the Bear River intervals of interest below the 7" casing for an open hole completion.

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 during drilling.

Open hole: HDIL/GR/SP planned from TD to base of surface casing w/ GR to surface. CDL/CNL/GR/Cal planned from TD to base of intermediate casing, and from base of intermediate casing to base of surface casing if required.

7. ABNORMAL PRESSURES OR TEMPERATURES

No abnormal pressures or temperatures are expected. Maximum anticipated bottom hole pressure is 600 psi or less. The pressure gradient at any depth is expected to be .43 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 objective of the proposed well is the Bear River formation from which no known hydrogen sulfide has been encountered nor in any formations above the Bear River. The presence of hydrogen sulfide in the proposed well is not expected or anticipated.

8. ADDITIONAL INFORMATION

Anticipated spud of the proposed well will be immediately or as soon as practical after State approval.

Quaneco Oil & Gas intends to test and evaluate any zone that indicates potential. The Bear River open hole interval will be swab tested, and any zones behind the intermediate casing will be selectively perforated and swab tested. Packers and bridge plugs will be utilized to isolate zones as necessary for independent zone testing. Testing will be in

DRILLING PLAN

Operator: Quaneco, LLC

Crane 16-4

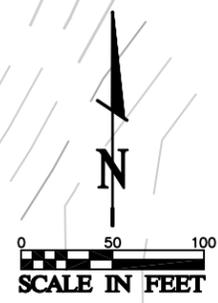
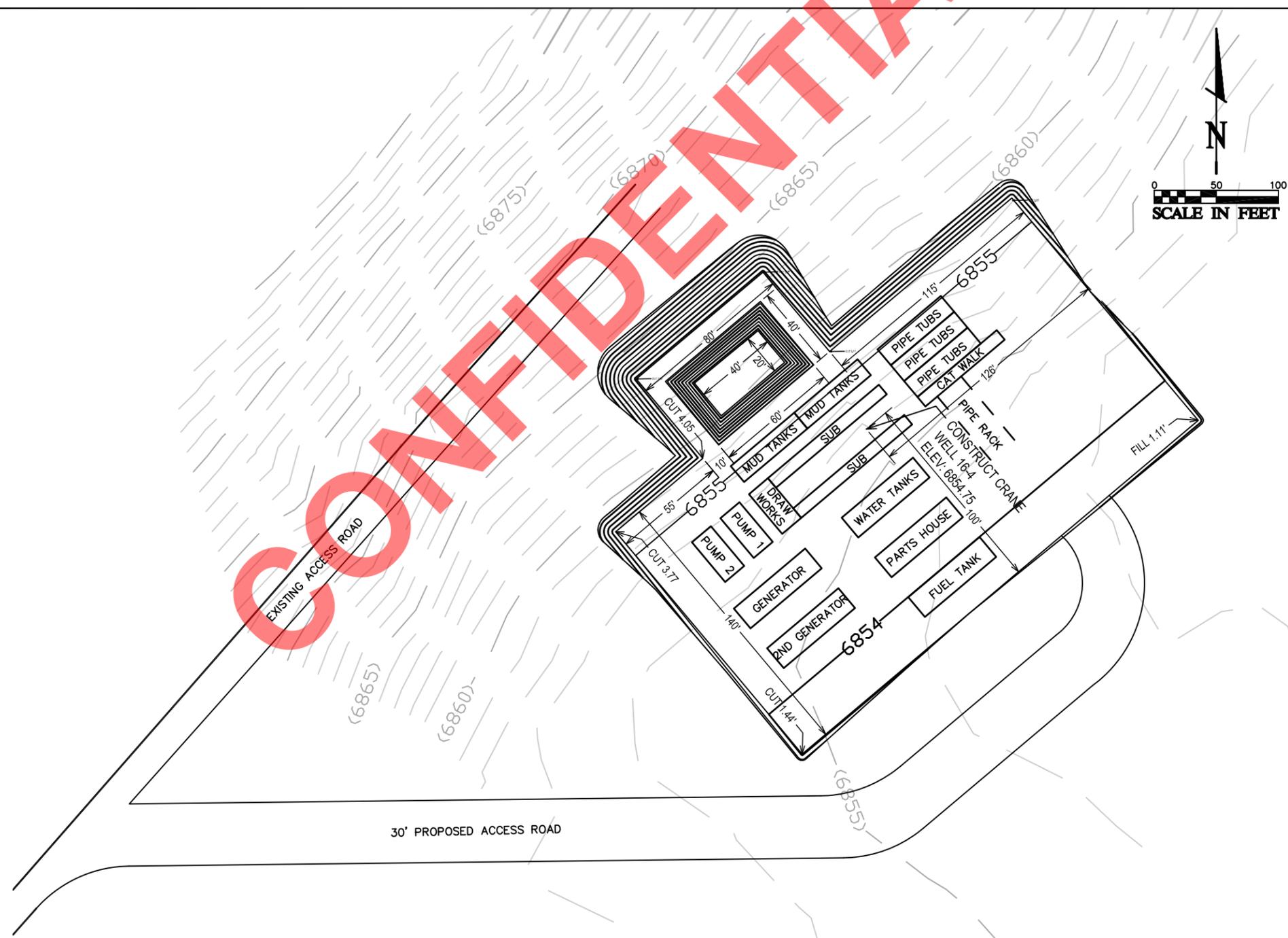
1980'FNL 500'FWL Ungraded GL=6856'

Sec. 4 T6N R8E, Rich County, Utah

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.

CONFIDENTIAL

CONFIDENTIAL



QUANECO LLC.
SECTION 4, T6N, R8E, SLB&M

ESTIMATED EARTHWORK VOLUMES
VOLUMES ARE UNADJUSTED

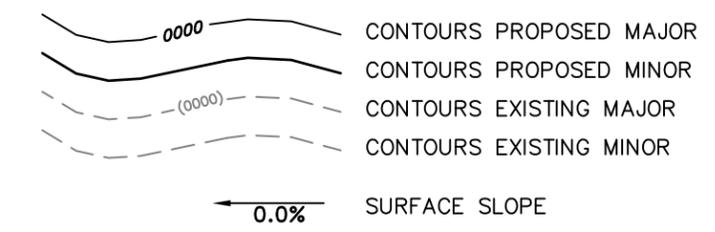
PAD
 WELL ELEV: 6854.75
 TOTAL CUT: 3313 CU.YDS
 TOTAL FILL: 251 CU.YDS
 NET VOLUME: 3062 CU.YDS (CUT)

PIT
 VOLUME: 2070 CU.YDS

CONTRACTOR NOTES:

1. RECLAIM ALL DRAINAGE'S AFTER PROJECT COMPLETION
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL IMPORTING AND EXPORTING OF SOIL MATERIAL NECESSARY TO COMPLETE THE PROJECT AS DESIGNED. EARTHWORK CALCULATIONS SHOWN ON THESE PLANS ARE BASED ON THE INPLACE 95% COMPACTION FILL. CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE SHRINK/SWELL OF EXISTING AND FILL MATERIAL AND FOR ALL EARTHWORK QUANTITIES.

LEGEND



CLIENT: QUANECO LLC	
PROJECT NO: CRANE WELL 16-4	
CALDWELL RICHARDS SORENSEN ANSWERS TO INFRASTRUCTURE	
SALT LAKE CITY OFFICE: 2060 East 2100 South SALT LAKE CITY, UTAH 84109 PHONE: 801-359-5565 FAX: 801-359-4272 www.crsengineers.com	
DRAWN BY: A.REGAL	DATE: 9/24/10
CHECKED BY: J.ATKIN	SCALE: 1"=50'
SHEET NO: 1 OF 1	

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

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

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

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.

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.

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 its 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

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

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.

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:

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

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

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

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

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.

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.

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

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.

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.

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]

CONFIDENTIAL

DATED as of the day and year first above written.

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

By: [Signature]
Warren H. Peterson, Vice President

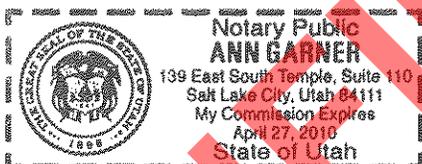
Lessee: QUANTUM ENERGY, L.L.C.,
an Oklahoma limited liability company

By: [Signature]
Paul J. Mysyk, Managing Member

STATE OF UTAH)
:SS
COUNTY OF SALT LAKE)

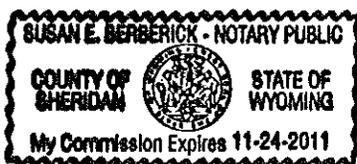
On this 17 day of September, 2008, personally appeared before me Warren H. Peterson, known or satisfactorily proved to me to be the Vice President of FARMLAND RESERVE, INC., a Utah non-profit corporation, who acknowledged to me that he signed the foregoing instrument as the Vice President for said corporation.

[Signature]
Notary Public for the 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.



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

EXHIBIT A

to Surface Use Agreement

(Legal Description of the Property)

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.

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:

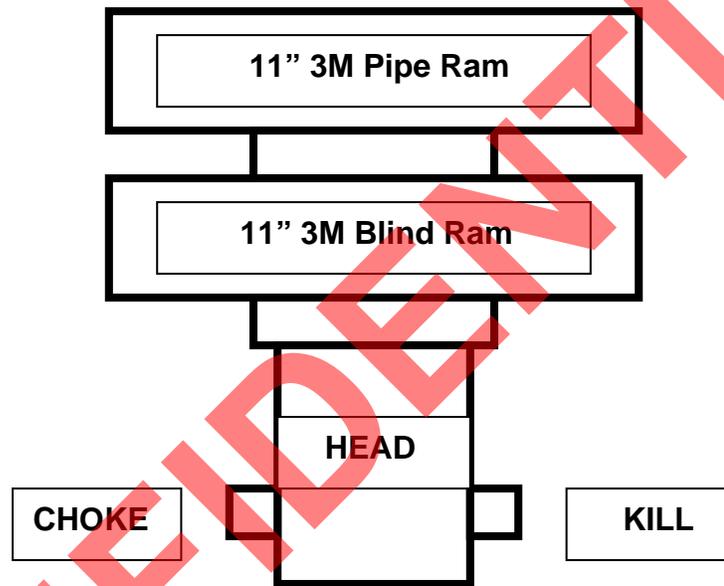
1. Operations of Lessee shall be in a good and workmanlike manner consistent with recognized industry procedures and in accordance with the common practice of Owner.
2. Lessee shall keep the Roads, well locations, Pipeline locations, and adjacent areas clean at all times and free of any trash, cans, 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

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.

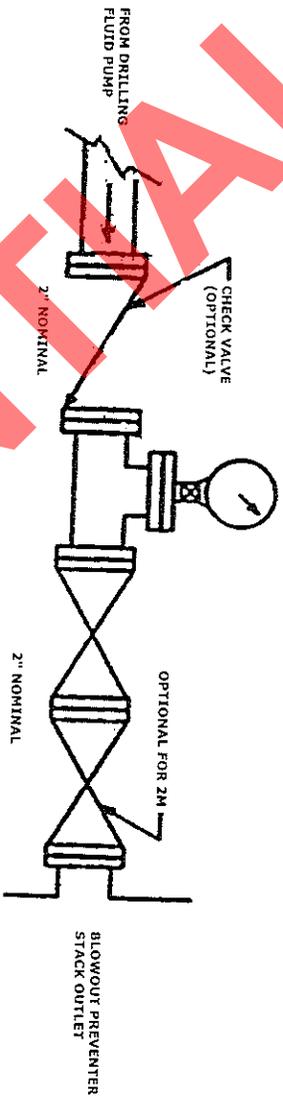
CONFIDENTIAL

BOPE SCHEMATIC

API 3M - 11 - RR



KILL LINE - CHOKE LINE/MANIFOLD SCHEMATIC



THREADED CONNECTIONS OPTIONAL FOR 2M RATED WORKING PRESSURE SERVICE

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

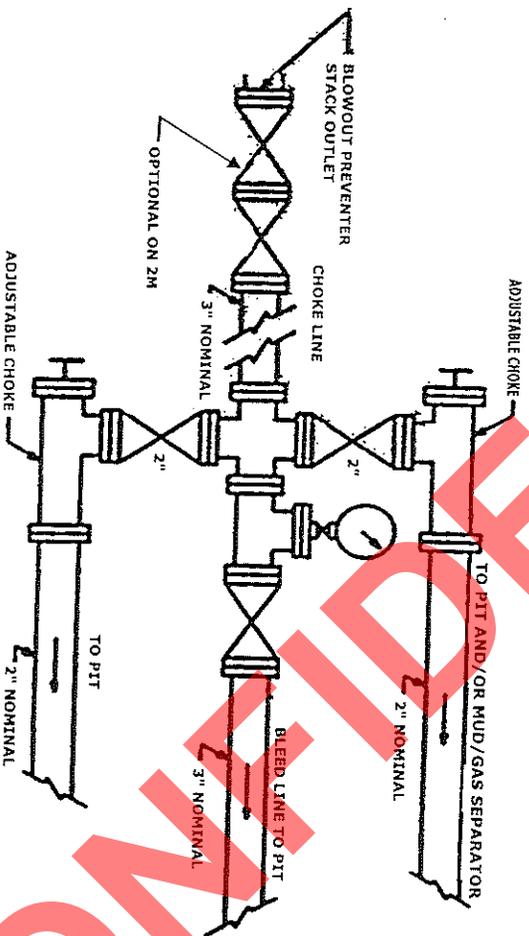


FIGURE K4-1. Typical choke manifold assembly for 2M and 3M rated working pressure service - surface installation.



WESTERN LAND SERVICES

October 4, 2010

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 on the Crane 16-4

Diana:

Pursuant to Rule R649-3-3 of the State's Oil & Gas Conservation regulations, Quaneco hereby makes application for approval to drill the Crane 16-4 well situated in Township 6 North – Range 8 East; Section 4: S-NW (1,980' FNL – 500' FWL). The surface is privately owned and the minerals are also privately owned and leased to Quaneco.

Quaneco proposes to drill the Crane 16-4 well to a total depth of 1270' 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 the steep terrain of the area and being located in an irregular section. 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, Western Land Services
Designated Agent for Quaneco, LLC

QUANECO, LLC
22801 Ventura Blvd, Suite 200
Woodland Hills, CA 91364
818-225-5000

August 18, 2010

Utah Division of Oil Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84116

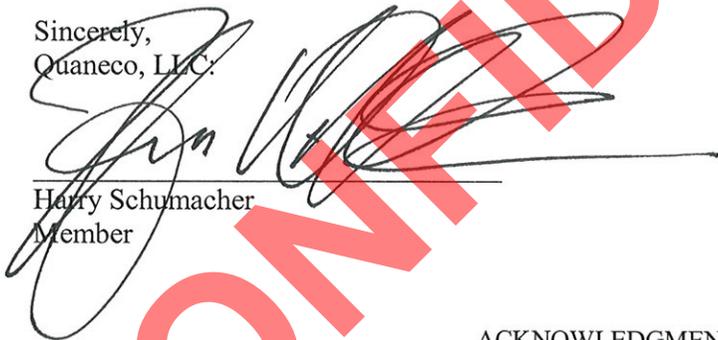
RE: Designated Agent

To Whom It May Concern:

Please allow Western Land Services (WLS), with an office at 195 North 100 East, Richfield, Utah 84701 and their assigns to act as agent in the permitting of Quaneco, LLC's oil, gas and other wells in the State of Utah. They may act in full capacity as our agent to file and request official documents, perform field work, and any other task necessary to file and obtain APD's. Please acknowledge and approve of this agent designation at your earliest convenience.

Thank you and if you should have any problems, please do not hesitate to contact me at 818-225-5000.

Sincerely,
Quaneco, LLC:



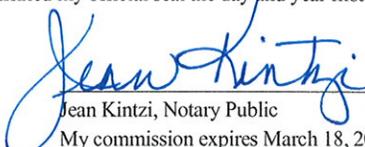
Harry Schumacher
Member

ACKNOWLEDGMENT

STATE OF WYOMING)
) SS.
COUNTY OF SHERIDAN)

Before me, the undersigned, a Notary Public, in and for said County and State, on this 18TH day of August, 2010, personally appeared Harry Schumacher, proved on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged to me to have executed the same.

IN WITNESS WHEREOF, I have hereunto set my official signature and affixed my official seal the day and year first above written.



Jean Kintzi, Notary Public
My commission expires March 18, 2013

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

DOGMA Approval Date: _____
Approved by: _____

REGISTRATION TO FILE ELECTRONIC APPLICATIONS AND REPORTS

COMPANY Name: Quaneco, LLC
Address: 22801 Ventura Blvd, Suite 200
city Woodland Hills
state California zip 91364

Has this company previously permitted, drilled, or operated wells in the state of Utah? No ___ Yes

If 'Yes', enter DOGM Operator Account Number: N 2495

Is this company currently registered with the Utah Division of Corporations to conduct business within Utah? No ___ Yes

If 'Yes', enter Business Registration Number: 4743368-0161

- This form is to be used for the sole purpose of registering and receiving permission to file electronic applications and reports via the internet pertaining to the drilling or operating of Utah oil and gas wells, or service wells related to such oil and gas wells.
- Those names shown in the "Authorized Company Representatives" section are the only individuals recognized by the Utah Division of Oil, Gas and Mining as having permission to file electronic reports in behalf of the company shown above.
- It is the responsibility of the registering company to immediately inform the Utah Division of Oil, Gas and Mining in writing of any changes (additions or removals) to the list of authorized company representatives below.
- This form must be signed by an officer of the above company. All signatures must be witnessed by a notary public.
- This form must be mailed to: OR For overnight delivery send to:
Utah Division of Oil, Gas and Mining OR Utah Division of Oil, Gas and Mining
P.O. Box 145801 1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801 Salt Lake City, UT 84116
- The Utah Division of Oil, Gas and Mining reserves the right to revoke permission to file reports electronically at any time.
- Failure of the above company to comply with any and all rules, recommendations, and guidelines of the Utah Division of Oil, Gas and Mining may result in the revocation of permission to report electronically.

AUTHORIZED COMPANY REPRESENTATIVES

The following information and signatures will be kept on file with the Utah Division of Oil, Gas and Mining and will serve to attest to the accuracy of information submitted electronically to the Division. If additional space is needed, attach a separate page. If the mailing address of any of the individuals listed below is different than the company address shown above, attach a separate page to show their contact information. If an individual listed below is an independent agent (not an employee of the above company), attach a separate page with the agent's company name and mailing address.

The following individuals hereby certify that all permit or report information that will be submitted electronically by them to the Division is complete and accurate to the best of their knowledge and understanding.

Name (Print) Terri L. Hartle	Signature <i>Terri L. Hartle</i>	Title Regulatory Analyst
Phone (435) 896-5501	Fax (435) 896-5515	eMail terri.hartle@westernls.com
What types of reports will this person file?	Applications for Permit to Drill <input checked="" type="checkbox"/>	Sundry Notices <input checked="" type="checkbox"/> Well Completion Reports <input checked="" type="checkbox"/>
Name (Print)	Signature	Title
Phone	Fax	eMail
What types of reports will this person file?	Applications for Permit to Drill ___	Sundry Notices ___ Well Completion Reports ___

I, the undersigned, am an officer of the above company and do hereby certify the accuracy of all information contained herein.*
NAME (PRINT) Harry Schumacher **TITLE** Member **PHONE** 818-225-5000
SIGNATURE *[Signature]* **DATE** 08/18/2010 **E-MAIL** fatchanceog@aol.com

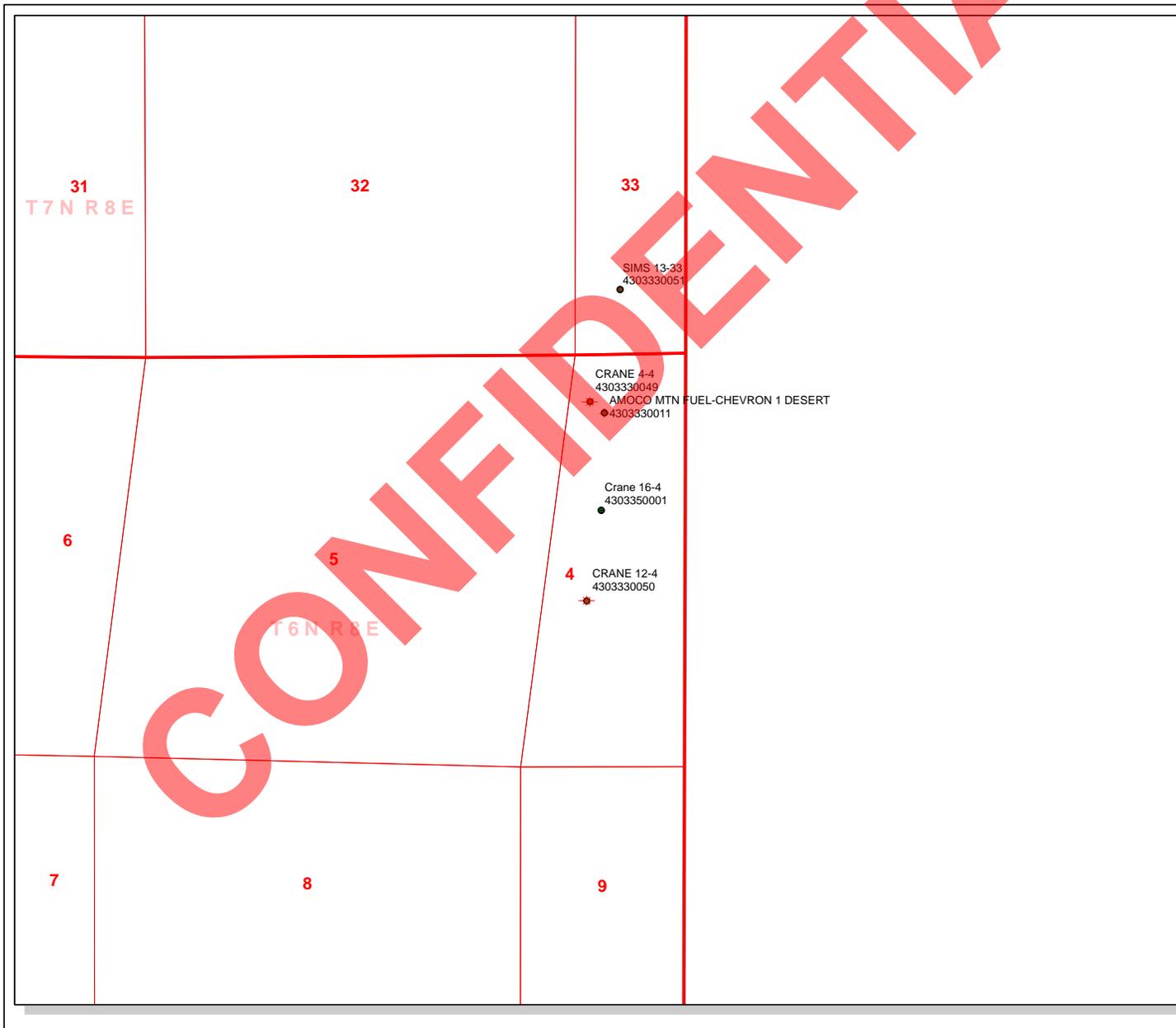
* This individual will be regarded as the main company contact and will receive a copy (via email) of all approvals unless the Division is directed otherwise in writing.

The foregoing document was acknowledged and signed before me this 18th day of August, 2010 (Please affix notary seal)

Notary Public _____ State Wyoming County Sheridan



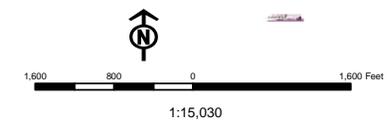
RECEIVED: Jun. 07, 2011



API Number: 4303350001
Well Name: Crane 16-4
Township 06.0 N Range 08.0 E Section 04
Meridian: SLBM
 Operator: QUANECO, LLC

Map Prepared:
 Map Produced by Diana Mason

- | Units | Wells Query |
|-----------------------------|--------------------------------------|
| STATUS | ✕ -call other values- |
| ACTIVE | ◆ APD - Approved Permit |
| EXPLORATORY | ⊙ DRL - Spudded (Drilling Commenced) |
| GAS STORAGE | ⊙ GIW - Gas Injection |
| NF PP OIL | ⊙ GS - Gas Storage |
| NF SECONDARY | ⊙ LA - Location Abandoned |
| PI OIL | ⊙ LOC - New Location |
| PP GAS | ⊙ OPS - Operation Suspended |
| PP GEOTHERML | ⊙ PA - Plugged Abandoned |
| PP OIL | ⊙ PGW - Producing Gas Well |
| SECONDARY | ⊙ POW - Producing Oil Well |
| TERMINATED | ⊙ RET - Returned APD |
| Fields | ⊙ SGW - Shut-in Gas Well |
| Sections | ⊙ SOW - Shut-in Oil Well |
| Township | ⊙ TA - Temp. Abandoned |
| Bottom Hole Location - AGRC | ⊙ TW - Test Well |
| | ⊙ WDW - Water Disposal |
| | ⊙ WW - Water Injection Well |
| | ⊙ WSW - Water Supply Well |





State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Office of the Governor
PUBLIC LANDS POLICY COORDINATION

JOHN HARJA
Director

October 18, 2010

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: APD for Quaneco, LLC Crane 16-4 well
RDCC Project No. 23300

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.

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 or if the proponent perceives full production 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 can 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

BOPE REVIEW QUANECO, LLC Crane 16-4 43033500010000

Well Name	QUANECO, LLC Crane 16-4 43033500010000			
String	Surf	I1		
Casing Size(")	10.750	7.000		
Setting Depth (TVD)	250	1120		
Previous Shoe Setting Depth (TVD)	0	250		
Max Mud Weight (ppg)	9.5	9.5		
BOPE Proposed (psi)	0	3000		
Casing Internal Yield (psi)	3130	3740		
Operators Max Anticipated Pressure (psi)	600	10.3		

Calculations	Surf String	10.750	"
Max BHP (psi)	.052*Setting Depth*MW=	124	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	94	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	69	NO <input type="checkbox"/> OK Reasonable depth <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	69	NO
Required Casing/BOPE Test Pressure=		250	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

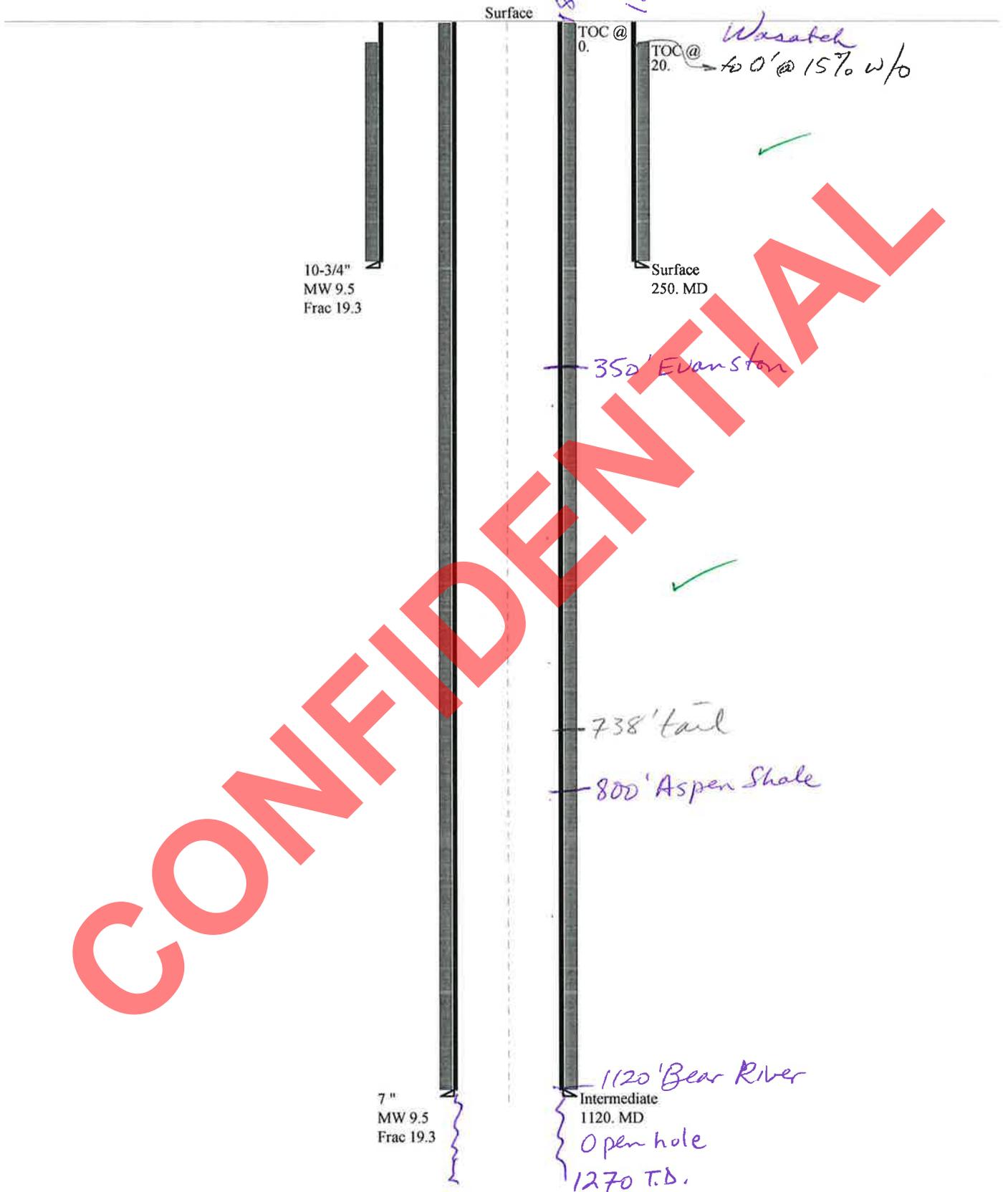
Calculations	I1 String	7.000	"
Max BHP (psi)	.052*Setting Depth*MW=	553	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	419	YES <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	307	YES <input type="checkbox"/> OK <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	362	NO <input type="checkbox"/> Reasonable <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		1120	psi
*Max Pressure Allowed @ Previous Casing Shoe=		250	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="checkbox"/>
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="checkbox"/>
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

43033500010000 Crane 16-4

Casing Schematic



Well name:	43033500010000 Crane 16-4		
Operator:	QUANECO, LLC	Project ID:	43-033-50001
String type:	Surface		
Location:	RICH COUNTY		

Design parameters:

Collapse

Mud weight: 9.500 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 220 psi
Internal gradient: 0.120 psi/ft
Calculated BHP: 250 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor: 1.125

Burst:

Design factor: 1.00

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 215 ft

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 78 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 20 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 1,120 ft
Next mud weight: 9.500 ppg
Next setting BHP: 553 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 250 ft
Injection pressure: 250 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	250	10.75	40.50	J-55	ST&C	250	250	9.925	2171
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	123	1580	12.806	250	3130	12.52	10.1	420	41.48 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801-538-5357
FAX: 801-359-3940

Date: February 17, 2011
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 250 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	43033500010000 Crane 16-4		
Operator:	QUANECO, LLC	Project ID:	43-033-50001
String type:	Intermediate		
Location:	RICH COUNTY		

Design parameters:

Collapse

Mud weight: 9.500 ppg
 Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 90 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft

Cement top: Surface

Burst

Max anticipated surface pressure: 418 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 553 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
 8 Round LTC: 1.80 (J)
 Buttress: 1.60 (J)
 Premium: 1.50 (J)
 Body yield: 1.60 (B)

Tension is based on air weight.
 Neutral point: 961 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 1,120 ft
 Next mud weight: 9.500 ppg
 Next setting BHP: 553 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 1,120 ft
 Injection pressure: 1,120 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	1120	7	20.00	J-55	ST&C	1120	1120	6.331	4805
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	553	2270	4.107	553	3740	6.77	22.4	234	10.45 J

Prepared by: Helen Sadik-Macdonald
 Div of Oil, Gas & Mining

Phone: 801 538-5357
 FAX: 801-359-3940

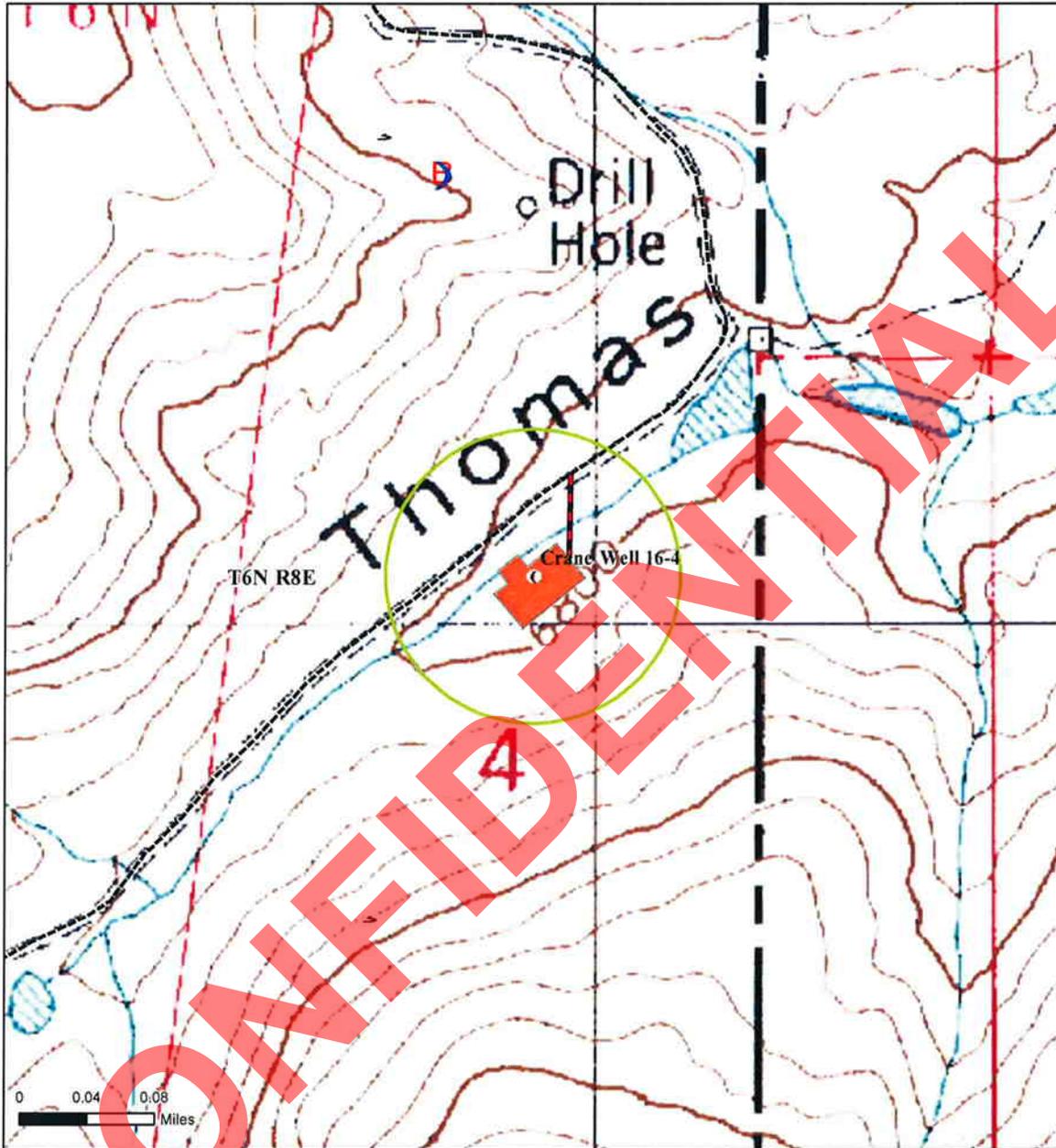
Date: February 17, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 1120 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.



Legend

- Proposed Well
- Plugged and Abandoned Shut-In Gas Well
- 460 ft Buffer
- Existing Road
- Access Road
- Well Pad



4
 1:5,000
 Datum NAD 83
 Zone 12

Quaneco, LLC	
Crane Well 16-4	
 WESTERN LAND SERVICES Richfield, UT 84701 (435) 896-5501	
CONFIDENTIAL	
Prepared By: LB	Date: June 1, 2011

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ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator QUANECO, LLC
Well Name Crane 16-4
API Number 43033500010000 **APD No** 3022 **Field/Unit** WILDCAT
Location: 1/4,1/4 S-NW **Sec 4 Tw 6.0N Rng 8.0E** 1980 FNL 500 FWL
GPS Coord (UTM) **Surface Owner** Farmland Reserve, Inc.

Participants

Cecil Gritz, Consultant (Quaneco), Rick Danvir (Farmland/DL&L), Terry Pruitt (TP Const.), Surveyor, and Lisha Cordova (DOGM).

Regional/Local Setting & Topography

The proposed wellsite is located within a flat drainage area that is covered with sagebrush and native grasses, on private land (Farmland Reserve, Inc.) located in the overthrust belt of northern Utah, east of the Wasatch Cache National Forest, south of Murphy Ridge, and within Thomas Canyon. US Hwy 89 is +/- 4.46 miles east, Evanston (Wyo.) is +/- 2.85 miles SE, Evanston City County Airport is +/- 1.28 miles SE, and US Hwy I-80 & the Union Pacific Railway is +/- 2.36 miles south. The terrain in the area consists of small to moderate sized mountains, incised by "active & intermittent" shallow to moderate drainages, creeks (nearest Wahsatch Creek +/- 180' S/SE), & springs (nearest Three Springs +/- 825' NE); the Bear River is +/- 2 miles NE. The Crane 12-4 SGW (43-033-30050) is +/- 1130' SW, and the Crane 4-4 SGW (43-033-30049) is +/- 1340' NW; both wells are operated by Quaneco and were recompleted 11/23/10.

Surface Use Plan

Current Surface Use

Grazing
Wildlife Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 140 Length 251	Onsite	WSTC

Ancillary Facilities Y

30' new road prop.; however landowner/R. Danvir req. that the road be shortened by +/-20' which Quaneco/C. Gritz agreed to (new road +/-10'); in addition, well pad will be downsized if possible.*Surveyor staking adj. closed buried pipeline; map on file.

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Flora; sagebrush, native grasses.

Fauna; pronghorn deer, elk, antelope, sage grouse, coyote, rabbits, raptors, birds, lizards, rodents, muskrat, etc. *Critical winter range.

Soil Type and Characteristics

Tertiary "Wasatch Formation"; red sandstone, siltstone, shale and conglomerate.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diversion Required? Y

Drainage shall be diverted around the well pad & berms.

Berm Required? Y

The well pad shall be surrounded by compacted berms, and topsoil shall be stockpiled for future reclaim purposes.

Erosion Sedimentation Control Required? N

Paleo Survey Run? N **Paleo Potential Observed?** N **Cultural Survey Run?** N **Cultural Resources?** N

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)	75 to 100	10	
Distance to Surface Water (feet)	100 to 200	15	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)	>1320	0	
Native Soil Type	Mod permeability	10	
Fluid Type	TDS>5000 and	10	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)	10 to 20	5	
Affected Populations			
Presence Nearby Utility Conduits			
	Final Score	50	1 Sensitivity Level

Characteristics / Requirements

20' x 40' x 5' deep/700 bbl capacity (NW end)

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 12 **Pit Underlayment Required?** N

Other Observations / Comments

RDCC; Division of Air Quality rule R307-205-5 for Fugitive Dust - Approval Order not required, but steps need to be taken to minimize fugitive dust, and encourages the use of Best Management Processes to protect air quality.

Lisha Cordova
Evaluator

5/25/2011
Date / Time

Application for Permit to Drill Statement of Basis

6/7/2011

Utah Division of Oil, Gas and Mining

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APD No	API WellNo	Status	Well Type	Surf Owner	CBM
3022	43033500010000	LOCKED	OW	P	No
Operator	QUANECO, LLC		Surface Owner-APD	Farmland Reserve, Inc.	
Well Name	Crane 16-4		Unit		
Field	WILDCAT		Type of Work	DRILL	
Location	S-NW 4 6N 8E S 1980 FNL 500 FWL		GPS Coord (UTM)	495842E	4570065N

Geologic Statement of Basis

It is expected that fresh water aquifers containing significant volumes of high quality ground water will be penetrated. A poorly to moderately permeable soil is developed on the Tertiary clays of the Wasatch formation. There are no underground water rights within a mile of this location, however, Crane Creek, which is an active watercourse is within a mile of the location. The proposed casing and cementing programs should adequately isolate any zones of fresh water that may be penetrated but the operator must extend the surface casing setting depth as needed to completely contain the USDW's encountered and place cement across all fresh water zones. If the well is plugged and abandoned any zone of fresh water will be protected with cement and cement will be circulated to ground level on the surface casing string. As this location is adjacent to an active water drainage and extra care should be taken to protect any ground or surface water sources.

Chris Kierst
APD Evaluator

12/9/2010
Date / Time

Surface Statement of Basis

The surface owner is Farmland Reserve, Inc. (Deseret Land and Livestock Ranch). A copy of the Surface Owners Agreement is on file, some winter restrictions apply; reclamation/reseed operations shall be performed in accordance with the surface owners agreement. Proposed 30' access road is to be shortened by +/-20' & well pad downsized if possible per landowner request. *Critical winter range.

A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit, and the reserve pit shall be fenced upon completion of drilling operations to deter livestock & wildlife. In addition, the reserve pit shall be reclaimed within 1 year following completion operations.

The terrain in the area consists of small to moderate sized mountains, incised by "active & intermittent" shallow to moderate drainages, creeks (nearest Wahsatch Creek +/- 180' S/SE), & springs (nearest Three Springs +/- 825' NE); the Bear River is +/- 2 miles NE. The well pad shall be surrounded by compacted berms, and drainage shall be diverted around the well pad & berms. Topsoil shall be stockpiled for future reclaim purposes.

The Crane 12-4 SGW (43-033-30050) is +/- 1130' SW, and the Crane 4-4 SGW (43-033-30049) is 1340' NW; both wells operated by Quaneco were recompleted 11/23/10.

Lisha Cordova
Onsite Evaluator

5/25/2011
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit shall be located on the west side of the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.
Surface	Drainage shall be diverted around the well pad & berms.
Surface	The well pad shall be surrounded by compacted berms, and topsoil shall be stockpiled for future reclaim purposes.

**Application for Permit to Drill
Statement of Basis**

6/7/2011

Utah Division of Oil, Gas and Mining

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CONFIDENTIAL

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/1/2010
WELL NAME: Crane 16-4
OPERATOR: QUANECO, LLC (N2495)
CONTACT: Terri Hartle

API NO. ASSIGNED: 43033500010000

PHONE NUMBER: 435 896-5501

PROPOSED LOCATION: S-NW 04 060N 080E

Permit Tech Review:

SURFACE: 1980 FNL 0500 FWL

Engineering Review:

BOTTOM: 1980 FNL 0500 FWL

Geology Review:

COUNTY: RICH

LATITUDE: 41.28392

LONGITUDE: -111.04965

UTM SURF EASTINGS: 495842.00

NORTHINGS: 4570065.00

FIELD NAME: WILDCAT

LEASE TYPE: 4 - Fee

LEASE NUMBER: FEE

PROPOSED PRODUCING FORMATION(S): BEAR RIVER

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT**
 - Bond:** STATE/FEE - 04-002
 - Potash**
 - Oil Shale 190-5**
 - Oil Shale 190-3**
 - Oil Shale 190-13**
 - Water Permit:** Deseret Ranch- Chapman Ditch & Evanston CIty
 - RDCC Review:** 2011-06-07 00:00:00.0
 - Fee Surface Agreement**
 - Intent to Commingle**
- Commingling Approved**

LOCATION AND SITING:

- R649-2-3.**
- Unit:**
- R649-3-2. General**
- R649-3-3. Exception**
- Drilling Unit**
- Board Cause No:** R649-3-3
- Effective Date:**
- Siting:**
- R649-3-11. Directional Drill**

Comments: Presite Completed
IRR SEC:

Stipulations:

- 1 - Exception Location - bhill
- 5 - Statement of Basis - bhill
- 8 - Cement to Surface -- 2 strings - ddoucet
- 21 - RDCC - dmason
- 23 - Spacing - dmason



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

Permit To Drill

Well Name: Crane 16-4
API Well Number: 43033500010000
Lease Number: FEE
Surface Owner: FEE (PRIVATE)
Approval Date: 6/7/2011

Issued to:

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

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-3. The expected producing formation or pool is the BEAR RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Exception Location:

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. The operator will be required to comply with any applicable recommendations resulting from this review. (See attached)

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volumes for the 10 3/4" and 7" casing strings shall be determined from actual hole diameters in order to place cement from the pipe setting depths back to the surface as indicated in the drilling plan.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:

Approved by:

A handwritten signature in black ink, appearing to read "J. Rogers", written in a cursive style.

For John Rogers
Associate Director, Oil & Gas

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

5. LEASE DESIGNATION AND SERIAL NUMBER:
Fee

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL OIL WELL GAS WELL OTHER _____

8. WELL NAME and NUMBER:
Crane 16-4

2. NAME OF OPERATOR:
Quaneco, LLC

9. API NUMBER:
4303350001

3. ADDRESS OF OPERATOR:
PO Box 7370 CITY Sheridan STATE WY ZIP 82801

PHONE NUMBER:
(307) 673-1500

10. FIELD AND POOL, OR WILDCAT:
Wildcat

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1980' FNL 500' FWL

COUNTY: Rich

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENW 4 T6N R8E S

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>spud</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Well spud on 12/4/2011. Correction needs to be made as to GL on the well. Corrected GL is: 6804.5

(We use GR)

NAME (PLEASE PRINT) Lorna James

TITLE Admin Assistant

SIGNATURE *Lorna James*

DATE 1/12/2012

(This space for State use only)

RECEIVED
JAN 12 2012

DIV. OF OIL, GAS & MINING

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

FORM 6

ENTITY ACTION FORM

Operator: Quaneco, LLC
Address: PO Box 7370
city Sheridan
state WY zip 82801

Operator Account Number: N 2495
Phone Number: (307) 673-1500

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4303350001	Crane 16-4		SENW	H	6N	8E	Rich
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	18372	12/4/2011		1/18/2012		
Comments: <u>BRRVR</u>							CONFIDENTIAL

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Lorna James

Name (Please Print)

Signature

Admin Assistant

Title

1/12/2012

Date

RECEIVED

JAN 12 2012

DIV. OF OIL, GAS & MINING

CONFIDENTIAL

FORM 9

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

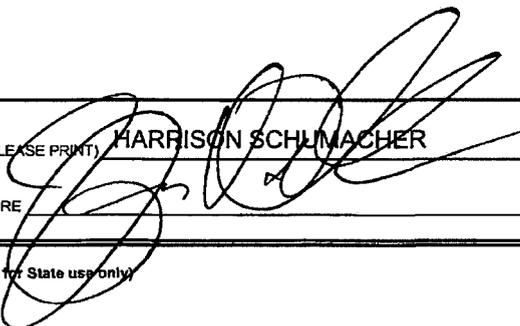
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____	8. WELL NAME and NUMBER: CRANE 16-4	
2. NAME OF OPERATOR: QUANECO, LC	9. API NUMBER: 4303350001	
3. ADDRESS OF OPERATOR: 22801 VENTURA BLVD#200 CITY WOODLAND HILLS STATE CA ZIP 91364	PHONE NUMBER: (818) 225-5000	10. FIELD AND POOL, OR WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1980 FNL 500 FWL		COUNTY: RICH CO.
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: S-NW 4 6N 8E S		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: 9/8/2012	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Drilling & Completion report</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Daily drilling & completion report from inception thru 9/08/2012 is attached.
completion report not included

NAME (PLEASE PRINT) HARRISON SCHUMACHER	TITLE MANAGING MEMBER
SIGNATURE 	DATE 9/12/2012

(This space for State use only)

INSTRUCTIONS

This form shall be submitted by the operator to show the intention and/or completion of the following:

- miscellaneous work projects and actions for which other specific report forms do not exist;
- all other work and events as identified in section 11, Type of Action, or as required by the Utah Oil and Gas Conservation General Rules, including:
 - minor deepening of an existing well bore,
 - plugging back a well,
 - recompleting to a different producing formation within an existing well bore (intent only),
 - re-perforating the current producing formation,
 - drilling a sidetrack to repair a well,
 - reporting monthly the status of each drilling well.

This form is not to be used for proposals to

- drill new wells,
- reenter previously plugged and abandoned wells,
- significantly deepen existing wells below their current bottom-hole depth,
- drill horizontal laterals from an existing well bore,
- drill hydrocarbon exploratory holes such as core samples and stratigraphic tests.

Use Form 3, Application for Permit to Drill (APD) for such proposals.

NOTICE OF INTENT - A notice of intention to do work on a well or to change plans previously approved shall be submitted in duplicate and must be received and approved by the division before the work is commenced. The operator is responsible for receipt of the notice by the division in ample time for proper consideration and action. In cases of emergency, the operator may obtain verbal approval to commence work. Within five days after receiving verbal approval, the operator shall submit a Sundry Notice describing the work and acknowledging the verbal approval.

SUBSEQUENT REPORT - A subsequent report shall be submitted to the division within 30 days of the completion of the outlined work. Specific details of the work performed should be provided, including dates, well depths, placement of plugs, etc.

WELL ABANDONMENT - Proposals to abandon a well and subsequent reports of abandonment should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, and method of parting of any casing, liner, or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

In addition to any Sundry Notice forms submitted, **Form 8, Well Completion or Recompletion Report and Log** must be submitted to the division to report the results of the following operations:

- completing or plugging a new well,
- reentering a previously plugged and abandoned well,
- significantly deepening an existing well bore below the current bottom-hole depth,
- drilling horizontal laterals from an existing well bore,
- drilling hydrocarbon exploratory holes such as core samples and stratigraphic tests,
- recompleting to a different producing formation.

Send to:

Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

DRILLING REPORT	
Operator:	Quaneco, LLC
Well:	Crane 16-4
API No:	43033500010000
Utah Permit	Approved 6/7/2011
Location:	1980' FNL 500' FWL GPS Coord. (UTM) 495842E 4570065N S-NW Sec. 4 T6N R8E Rich County, Utah
GL Elev.:	6805' (Corrected 12/22/2011 by resurvey on ground)
KB Elev.:	6817' (Corrected 12/22/2011)
Lease	Fee

Activity
<p>12/1/2011 Pruitt Construction confirmed that survey stake for well location is still in place. Received and reviewed final proposal from Nucor Drilling for their rig and related equipment to drill well. Discussed final details and tentative schedule for drilling 24"OD conductor hole and setting 16"OD steel conductor pipe & cementing same with redi mix, and digging cellar & setting ring with Rat Hole Managers Inc. in Rock Springs.</p>
<p>12/2/2011 Pruitt Construction moved in equipment and commenced work to prepare well site pad. SDON.</p>
<p>12/3/2011 Continued work on clearing and grading pad. Moved in Rat Hole Managers Inc. rig and related equipment for drilling conductor hole and installing cellar ring. SDON.</p>
<p>12/4/2011 Continued dirt work on pad to widen same. RHM dug cellar and installed 4 foot OD x 4 foot deep cellar ring. Drilled 24" OD conductor hole to 13 feet and encountered first water. Drilled to 14 feet and SDON.</p>
<p>12/5/2011 Finished location and dike around lower side. Drilled additional 24" OD conductor hole to 20 feet below GL and encountered additional water. SDON. Made arrangements for drill bits & stabilizers with Spidle Turbeco. Worked on source for reserve pit liner material.</p>
<p>12/6/2011 Ran 16" OD conductor pipe to 20 feet below GL and cemented same with 3.5 cubic yards redi mix cement. Welded on 6' of 16" OD conductor pipe for riser. RD and moved out all Rat Hole Managers Inc. equipment. SDON.</p>
<p>12/7/2011 Finalized drill bits & stabilizers. Located reserve pit liner material from source in Evanston. Will match pit dimensions with available material. Moved surplus 7" casing from Crane 13-8 location to Spidle yard in Evanston for inspection. Also moved some surplus 2 7/8" tubing in for inspection. Prep to dig reserve pit after confirmation with drilling contractor on exact location. SDON.</p>

<p>12/8/2011 Continued to finalize arrangements with various vendors for required materials & services.</p>
<p>12/9/2011 Located portable mud system and finalized details for rental double gate BOP. Confirmed location dimensions for reserve pit with drilling contractor, and notified Pruitt Construction to complete that work beginning tomorrow AM. Placed order for surface and intermediate casing with chosen supplier. SDON.</p>
<p>12/10/2011 Pruitt made one foot cut strip for skidded mud tank, and worked on reserve pit excavation. SDON.</p>
<p>12/11/2011 Pruitt continued work on and completed reserve pit construction. SDON.</p>
<p>12/12/2011 Prep to install reserve pit liner this AM. Installed liner, made final arrangements for portable mud system, circulating pump, generator, choke manifold, BOP, diesel fuel, wireline services, and casing. SDON.</p> <p>ECTD: \$54,886</p>
<p>12/13/2011 Prep to move in MJ Drilling, Inc. Rig 1 and related equipment. Notified Dan Jarvis @ Utah DNR by telephone message regarding status of well operations. Prepared to grade access road from Thomas Canyon entrance off main road to location in preparation for heavy truck traffic. SDON.</p> <p>ECTD: \$55,986</p>
<p>12/14/2011 Finished grading access road and removed some snow from same. Graded access to fresh water pick up point. Moved in remainder of MJ Drilling equipment. Moved in and spotted portable mud system and rental generator from Zimmerman Equipment in Vernal. SDON</p> <p>ECTD: \$62,076</p>
<p>12/15/2011 Constructed raised pad for rig substructure. Rig crew added 16" pipe to top of conductor for proper flowline height to shale shaker. Fabricated flowline from riser to shale shaker. Fabricated connections for circulating pump. Spotted and rigged up equipment. SDON.</p> <p>ECTD: \$68,370</p>
<p>12/16/2011 Moved in, unloaded, and set rental substructure. Moved in and unloaded 10 3/4" & 7" casing. Moved in and unloaded Newpark drilling mud products. Sanjel delivered float equipment and centralizers for 10 3/4" casing, caught & analyzed fresh water sample from Ranch source, and moved in bulk cement unit. Positioned rig and drill string onto raised ramp portions of substructure. Moved in and unloaded bit, stabilizers, and rental drill collars. Moved in trash receptacle. Continued to rig up and connect all lines and equipment. Hauled 160 bbls fresh water from Deseret Ranch source for mud system. Prepared to pick up drilling tools. SDON. Circulated mud tank with hot oil unit during night.</p> <p>ECTD: \$125,959</p>
<p>12/17/2011</p>

3 hrs Thaw mud pump, valves, and lines.
2 hrs Mix mud and pick up drilling tools. BHA: Bit, BS, short 7 3/4" DC, IBS, short 7 3/4" DC, IBS, short 7 3/4" DC, XO, 5 - 6" DC's.
12 hrs Drill 14 3/4" hole to 170'. MW 8.5 Vis 28
3 hrs Cleaned ice from shale shaker and changed screens.
4 hrs Drilled to 217'.

Note: Circulated mud tank with hot oil unit

ECTD: \$145,768

12/18/2011

1 hr Circ. and prepare to TOOH.
2 1/2 hrs TOOH, LD 2-IBS, and LD bit. Prep to run casing.
1 1/2 hrs Run 10 3/4" 40.5ppf J55 STC to 217'. FC @ 176'. Ran 5 centralizers.
1 1/2 hrs RU Sanjel cementers and held safety meeting.
3/4 hr Pressure test lines to 1700 psig. Pump 10 bbls water preflush, followed by 205 sx Class G + 1/4 pps polyflake + 3% CC. 42 bbls total cement slurry. 15.8 ppg and 1.15 cuft/sk. Displaced top plug with 16.6 bbls water. Bumped plug and pressured casing to 750 psig. Released pressure and float held. Had good circulation throughout cementing procedures. Cement circulated. Had estimated 8 bbls slurry to surface. Job complete 2:15 PM. RD Sanjel.
12 hrs WOC
4 3/4 hrs Cut off conductor and casing. Prepare to install casinghead. Set and prep choke manifold.

Heated fluids with hot oil unit

ECTD: \$182,595

12/19/2011

12 hrs Made initial final cut on casing. Test set casinghead and BOP to verify proper clearance inside small substructure. Set off BOP and casinghead. Made final cut on casing and bevel same. Preheat 11" 3M SOW casinghead, install same and level. Test head with nitrogen to 1260 psig. Installed bleed line and two lines from adjustable chokes on manifold to pit.
12 hrs Install 11" 3M double gate preventer with blind rams on bottom and 3 1/2" pipe rams on top. Install choke line valve on side of preventer at outlet below blind rams, and choke line to manifold. Set test plug in casinghead and IPS pressure tested to 250 psig low and 2000 psig high. Install 11" 3M weld flange on top of preventer for riser connection up to flowline. Fabricate riser and connect same to flowline to shale shaker on mud tank. Prepared to pick up drilling tools for 9 7/8" hole.

Note: Very cold weather conditions making progress slow and difficult. Hot oil unit circulated mud tank for several hours.

ECTD: \$ 222,363

12/20/2011

5 hrs PU BHA, drill float collar, cement in shoe joint, shoe, and new hole below casing to 270'.
4 hrs POOH, change BHA to PDC bit, BS, DC, IBS, DC, IBS, DC, XO, 6 - DC, and drill to 280'.
1/2 hr Drill to 300'
1 hr Pump Repair
1/2 hr Drill to 310'
2 hrs Pump Repair
1 hr Drill to 369'
3/4 hr Circulate, wait on water, and mix mud

9 ¼ hrs Drill to 581' with intermittent pump repairs for 2 hrs. MW 8.6 Vis 28 Solids 2% Sand Trace

Note: Hot oil unit circulated mud tank for several hours to keep fluid warm and shaker screen clean.

ECTD: \$245,760

12/21/2011

1 ½ hrs Pump Repair

1 hr Drill to 611'. MW 8.6 Vis 27 Solids 2% Sand Trace pH 8.5

½ hr Drill to 621'

½ hr Pump Repair and raise suction line in mud tank

1 hr Drill to 642'. Pump down again.

½ hr POOH 5 joints. Pulled tight. String free moving down.

17 ½ hrs Dump & clean out mud tank, mix mud, wait on pump parts, repair pump.

½ hr Thaw lines and test pump

1 hr Circulate and rotate & work string, and work air out of pump

Note: Received approx. 4 inches of snow overnight. Hot oil unit heated fluids.

ECTD: \$260,716

12/22/2011

1 hr Mix mud

1 hr Circulate and condition hole. MW 8.6 Vis 32 Solids 2% Sand Trace pH 9.5

½ hr Finish short trip out of hole

½ hr TBIH

½ hr Service Rig

3 ½ hrs Drill to 806' and make connections

1 hr Circulate hole and pump high vis sweeps

½ hr POOH to base of surface casing

4 hrs Clean mud tank and drain lines, pumps, and all equipment

Hot oil unit kept fluids heated

Shut down for Christmas

ECTD: \$282,597

12/28/2011

Sanjel delivered float equipment for 7" casing. Rig crew started equipment in afternoon, hauled fresh water for heater unit and mud, heated mud system, and mixed mud. SDON.

ECTD: \$302,206

12/29/2011

16 hrs TBIH and drill to 1100'. Circulated & conditioned hole in preparation for open hole log run. MW 8.8 Vis 30 pH 9. TOOH.

2 hrs Wait on Baker Hughes wireline unit

6 hrs Rig up wireline unit and run HDIL/GR/SP up from wireline TD at 1093' followed by CZD/CNL/GR/Cal

Note: 1093' in Crane 16-4 equivalent to 1166' in Crane 12-4.

ECTD: \$325,992

<p>12/30/2011 2 hrs Baker finished open hole log run and rigged down all equipment. ND BOP, choke manifold, and lines. Removed BOP from top of casinghead, and installed riser on top with bypass line to reserve pit. PU and ran 7" 20ppf J55 STC casing to 1097.5' KB by pipe measurement. Ran float shoe, one shoe joint, float collar @ 1055.5', and seven centralizers. RU Sanjel cementers and held safety meeting. Pressure tested surface lines to 2000 psig. Pumped 5 bbls fresh water preflush, followed by 140 sacks Control Set C + additives mixed @ 11.8ppg & 2.66 yield, and 75 sacks Control Set C + additives mixed @ 13.5ppg & 1.74 yield. Total slurry volume 75 bbls. Displaced top plug with 44 bbls water. Bumped plug at proper displacement volume, and pressured casing to 650 psig. Released pressure and floats held. Had good circulation throughout cementing procedures. Cement circulated. Had estimated 10 bbls slurry to surface. Job complete @ 6 PM. RD Sanjel. Vetco Gray set slips in casinghead on 7" casing, removed riser, cut off casing, and installed 11" 3M X 7 1/16" 5M tubinghead and adapter with single master. RD equipment, cleaned mud tank, broke out BHA, and MJ started loading out.</p> <p>Notes: Mountain States hauled in fresh water for cement job, and hauled some fluids from reserve pit to R&G disposal. Used Hydrovac unit to clean solids and fluid from rental mud tank. Very high winds and cold temperatures overnight.</p> <p>ECTD: \$384,785</p>
<p>12/31/2011 Finished rigging down equipment. Lifted substructure from around wellhead with trackhoe. Dug around rental mud tank to free same from frozen ground, and moved same to prepare for loading by Zimmerman transport truck. Loaded out Weatherford rental items for return to Rock Springs. Loaded out remaining mud products for return to Newpark yard in Evanston. Loaded out rental DC's, stabilizers, and bits for return to Alliance Drilling Tools yard in Evanston. MJ Drilling moved off location @ noon.</p> <p>ECTD: \$449,774</p>
<p>01/05/2012 Mountain States resumed hauling fluids from reserve pit to R&G disposal.</p>
<p>01/06/2012 Mountain States completed hauling fluids from reserve pit to R&G disposal.</p> <p>ECTD: \$468,848</p>
<p>Completion Activities</p>
<p>06/06/2012 Placed order with Enviro-Treatment Solutions Inc. for delivery of 130+ bbls Tersol to be delivered directly from plant facilities to well location on 06/14/2012. Also made arrangements with Mountain States Oilfield Services in Evanston, WY to clean and prepare a storage tank to receive Tersol on location.</p>
<p>06/14/2012 TP Construction prepared pad for rental storage tank. Ranch Hand Services provided and placed pit liner material for tank pad. Moved in and set tank on pad. Installed valve and connections. Obtained rental transfer pump. Moved in Tersol transport and transferred 5734 gallons into rental storage tank.</p>
<p>06/15/2012 Worked to finalize sources for downhole and surface rental equipment needed. Discussed specific completion rig contractor equipment and auxiliary items required with Basic Energy Services in Rock Springs. Contacted RP Oilfield Services to install and test completion rig anchors.</p>

<p>06/16/2012 RP Oilfield Services confirmed to be on location Monday to install rig anchors.</p>
<p>06/18/2012 RP Oilfield Services installed and tested four completion rig anchors in accordance with API specifications. Made final arrangements with Weatherford for rental BOP. Confirmed trucks lined up with Basic Energy Services to move rig and related equipment to location. Made arrangements for portable sanitation unit, seating nipple, rental drill collars, delivery of inspected tubing from Evanston, etc.</p>
<p>06/19/2012 TP Construction prepared location and pad to receive rig & equipment. Moved in Basic Energy Services completion rig & associated equipment, and rental BOP. Spotted circulating tank and rig. Winds too strong to raise derrick. SDON.</p>
<p>06/20/2012 Raised derrick early AM and finished rigging up rig. Basic Energy Services mechanic repaired broken pin in rig transmission. Mountain States hauled in fresh water to circulating tank. Installed 7 1/16" 5M double gate preventer and Washington stripping head on top. Moved in and unloaded 4-4 3/4" OD spiral cut drill collars, 2 7/8" tubing, XO subs, and various handling tools. Spotted and rigged up power swivel unit. Picked up cement mill, bit sub, 4-DC's, XO, and tubing. TIH and found top of 7" wiper plug @ 1055.5' KB. Picked up power swivel and started drilling rubber wiper plug on top of float collar. Plugged string with pieces of rubber from plug. TOOH and cleaned rubber chunk from cement mill. Set back 2-DC's and TBIH. SDON.</p> <p>Note: Spread one load of water on Thomas Canyon road to suppress dust.</p>
<p>06/21/2012 Resumed drilling on wiper plug and drilled thru float collar. Drilled hard cement in shoe joint to 1095' KB. Circulated hole clean @ 3 BPM rate. TOOH. LD cement mill, PU 6 1/4" OD bit, and TBIH with 4-DC's on tubing to TD. Moved in and rigged up super vac truck and cleaned circulating tank. Installed new swabs in rig circulating pump. Displaced hole in reverse @ 2 BPM with Tersol to remove water used to drill cement. Had immediate change from water to 100% Tersol in returns at correct 41 bbl displacement volume. Removed all fluid returned to circulating tank with super vac truck. SDON.</p> <p>Note: Will resume drilling remainder of cement in casing, float shoe, and continue drilling new hole below 7" casing in AM.</p>
<p>06/22/2012 Drilled remainder of cement in casing, float shoe, and new hole below 7" casing to 1142'. Circulated hole clean, pulled up hole one joint, and SDON.</p>
<p>06/23/2012 TOOH for bit change due to slow penetration rate. Outer row of teeth worn down on bit. PU replacement 6 1/4" OD Smith C7 bit. TBIH and resumed drilling ahead. Drilled to 1180'. TOOH due to slow penetration rate. Found all teeth worn down on bit and slightly undergauge. SDON.</p>
<p>06/24/2012 TBIH with 6 1/4" OD insert bit with 3-14 jets. Reamed last two joints to bottom. Drilled to 1228', circulated hole clean, short trip 3 stands, TBIH to TD and found no fill. TOOH for open hole logs. LD 4-DC's on trip out. RU Baker Hughes wireline unit and run HDIL/GR/SP up from wireline TD at 1217' followed by CZD/CNL/GR/Cal. SDON.</p>
<p>06/25/2012 TBIH with seating nipple on tubing to 1090' KB, install tubing hanger, and land same in tubinghead. ND and</p>

<p>remove BOP and stripping head. Load same for return to Weatherford/Rock Springs. Installed tubinghead adapter with single master valve. Loaded rental drill collars and tools for return to Alliance in Evanston. RD & MO Basic completion rig. Transferred Tersol from circulating tank to storage tank. Cleaned circulating tank with hydrovac unit. Pumped out cellar around wellhead. All equipment off location by 2 PM.</p>
<p>Location Cleanup</p> <p>07/11/2012 Removed surplus casing pieces to storage location. Removed reserve pit fence. 07/23/2012 Moved in dozer and started reserve pit backfill. 07/24/2012 Continued work on pit backfill. 08/02/2012 Finished pit backfill and moved out dozer.</p>
<p>Completion Activities Continued</p> <p>08/18/2012 Moved in and rigged up D & D pulling unit and related equipment. Tubing on slight vacuum. Removed tubinghead adapter with single master valve. Installed stripping head on top of tubinghead. Released and unseated tubing hanger, and removed same. PU 5 jts tubing and RIH to TD with no restrictions. TOOH with tubing and SN. Moved in and rigged up Baker Hughes wireline unit. Ran HDIL/GR with three passes across open hole section. Had good repeatability on resistivity data. Tied into Run 1 & Run 2 for proper depth correlation. RD wireline unit. Set tubinghead adapter and single master valve back on top of tubinghead. Secured well and SDON.</p>
<p>08/19/2012 Shut down for Sunday.</p>
<p>08/21/2012 Removed adapter and TBIH with SN on tubing. Installed tubing hanger and adapter. RD & MO pulling unit to wait on equipment for straddle tool.</p>
<p>09/05/2012 Moved in and rigged up D & D pulling unit and related equipment. Tubing on slight vacuum. Removed tubinghead adapter with single master valve. Installed stripping head on top of tubinghead. Released and unseated tubing hanger, and removed same. PU 5 jts tubing and RIH to TD with no restrictions. TOOH with tubing and SN. SLM out = 1228' KB for TD. Moved in and unloaded 4 ½" spacer joint, 2-pup joints, and 2-rental safety clamps from Alliance Drilling Tools. Secured well and SDON.</p>
<p>09/06/2012 Moved in and unloaded Smith/Schlumberger open hole hydraulic set straddle packer tool assembly equipment and setting tools. Picked up and assembled all items and TIH with same on 2 7/8" tbg to within 15' of planned setting depth. Moved in and rigged up Baker Hughes wireline unit. Ran GR/TCL thru tubing and correlated to CZD/CNL/GR/Cal dated 06/24/2012. Positioned packers to straddle the interval 1121' – 1137' with respect to same open hole log. Joint of pre-perforated 4 ½" casing between packers. Pressured setting tool with Tersol fluid utilizing Mtn. States trailer mounted low volume triplex pump to activate and set packers. Released setting adapter and checked to make sure packers were set and holding. Top collar of 4 ½" casing joint above top packer is at 1082' inside 7" casing @ 1098'. TOOH with tubing and setting tools. TBIH with SN on tubing to 1118' KB. Installed tubing hanger and adapter. RD & MO pulling unit. Secured well and SDON.</p>
<p>09/07/2012 Moved in and rigged up D & D Swabbing unit. Made total of 30 swab runs. Beginning fluid level @ 460', lowest fluid level was @ 900', ending fluid level was @ 460'. Recovered 86.6 total bbls fluid. Caught one fluid sample at top of recovery on each swab run. Emptied swab tank for transport to disposal facility. Petroleum Systems International picked up all recovered fluid samples for transport to SLC and analyses.</p> <p>Note: Additional details on accompanying swab report.</p>

09/08/2012

Resumed swab testing this AM. Found fluid level on first run 150 feet down from surface. Made total of 59 swab runs. Recovered 138.75 total bbls fluid. Caught one fluid sample on each swab run. Emptied swab tank for transport to disposal facility. Rigged down and moved out swabbing unit. Petroleum Systems International picked up all recovered samples for transport to SLC and analyses.

Note: Additional details on accompanying swab report.



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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
2. NAME OF OPERATOR: QUANECO, LLC		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 22801 VENTURABLVD#200 CITY WOODLAND HILLS STATE CA ZIP 91364		7. UNIT or CA AGREEMENT NAME:
PHONE NUMBER: (818) 225-5000		8. WELL NAME and NUMBER: CRANE 16-4
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1980 FNL 500 FWL		9. API NUMBER: 4303350001
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: S-NW 4 6N 8E S		10. FIELD AND POOL, OR WILDCAT: WILDCAT
COUNTY: RICH CO.		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: 11/1/2012	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>DRILLING REPORT</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

DAILY DRILLING REPORT FROM 10/12/2012 TO 11/01/2012 ATTACHED

NAME (PLEASE PRINT) <u>HARRISON SHUMACHER</u>	TITLE <u>MANAGING MEMBER</u>
SIGNATURE	DATE <u>11/2/2012</u>

(This space for State use only)

DRILLING REPORT	
Operator:	Quaneco, LLC
Well:	Crane 16-4
API No:	43033500010000
Utah Permit	Approved 6/7/2011
Location:	1980' FNL 500' FWL GPS Coord. (UTM) 495842E 4570065N S-NW Sec. 4 T6N R8E Rich County, Utah
GL Elev.:	6805' (Corrected 12/22/2011 by resurvey on ground)
KB Elev.:	6817' (Corrected 12/22/2011)
Lease	Fee

10/12/2012

Finalized arrangements with Basic Energy Services to provide a rig to resume swab testing of well. Had rain overnight.

10/13/2012

Checked access road and location for any necessary repairs. Road needs grading. Too wet to complete work today. Made arrangements with TP Construction to complete required work tomorrow in preparation for move in of Basic rig on Monday. Alerted Mountain States to be prepared for hauling recovered fluids to disposal.

10/14/2012

TP Construction moved grader from ranch to location. Made four passes over access road and location. Improved sharp turn at entrance to location. Access road now in good shape. Moved grader back to ranch. Ordered fluid sample containers from PSI in SLC for delivery Monday AM in preparation for arrival of Basic rig and commencement of swabbing operations.

10/15/2012

Basic rig arrived on location @ 1:30 PM. Rigged up and ready to begin swab runs @ 4:00 PM. Made 23 total runs and recovered 57.3 bbls total fluid. Pulled from SN @ 1118' KB after first two runs. Petroleum Systems International transported all recovered fluid samples to SLC for analyses. Secured well and SDON @ 7 PM. Scheduled recovered fluid pick up for transport to disposal by Mountain States truck @ 9 AM tomorrow morning.

Notes: Corrected total fluid recovered shown above. Basic tank capacity was wrong. Strapped tank and corrected volumes.

10/16/2012

Resumed swabbing well @ 8 AM. Made 68 total swab runs today and recovered 212.7 bbls additional total fluid thru final run @ 4:17 PM. Pulled from SN @ 1118' KB on each run. Fluid level on final run tagged @ 575' down from surface. Recovered fluid changed to yellow in color after swab run #64 of 91 total for two days. Secured well and SDON due to high winds and heavy rain. PSI picked up swab samples caught today for transport to SLC.

Note: Additional details on accompanying swab report.

10/17/2012

Resumed swabbing well @ 8 AM. Made 131 total swab runs and recovered 313.8 bbls additional total fluid thru final run @ 6:36 PM. Pulled from SN @ 1118' KB on each run. Fluid level on final run tagged @ 615' down from surface. Yellow fluid color remained throughout the day. Retrieved standing valve. Secured well and SDON. PSI picked up swab samples caught today for transport to SLC.

Note: Additional details on accompanying swab report.

10/18/2012

Rigged down and moved out Basic pulling unit and swab tank.

11/01/2012

Moved in and rigged up D & D Swabbing unit and 80 bbl swab tank. Could not locate larger tank in the area. Made 22 swab runs and recovered 75.5 bbls total fluid. Found fluid level on first run 100 feet down from surface. Waited three hours for a water truck to transport fluids. Resumed swabbing. Made 13 additional runs and recovered 40 bbls additional fluid. Final fluid level 400 feet down from surface on last run. Caught fluid samples from top & bottom of first two runs, and one sample from each subsequent run. Dropped standing valve to SN @ 1118' after second swab run. Secured well and SDON @ 5 PM.



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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____	8. WELL NAME and NUMBER: CRANE 16-4	
2. NAME OF OPERATOR: QUANECO, LLC	9. API NUMBER: 4303350001	
3. ADDRESS OF OPERATOR: 22801 VENTURA BLVD#200 CITY WOODLAND HILLS STATE CA ZIP 91364	PHONE NUMBER: (818) 225-5000	10. FIELD AND POOL, OR WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1980 FNL 500 FWL		COUNTY: RICH CO.
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: S-NW 4 6N 8E S		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
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	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: 11/6/2012	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>DRILLING REPORT</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
DAILY DRILLING REPORT FROM 11/02/2012 TO 11/06/2012

NAME (PLEASE PRINT) HARRISON SCHUMACHER	TITLE MANAGING MEMBER
SIGNATURE	DATE 12/10/2012

(This space for State use only)

DRILLING REPORT

Operator:	Quaneco, LLC
Well:	Crane 16-4
API No:	43033500010000
Utah Permit	Approved 6/7/2011
Location:	1980' FNL 500' FWL GPS Coord. (UTM) 495842E 4570065N S-NW Sec. 4 T6N R8E Rich County, Utah
GL Elev.:	6805' (Corrected 12/22/2011 by resurvey on ground)
KB Elev.:	6817' (Corrected 12/22/2011)
Lease	Fee

11/02/2012

Resumed swab testing well @ 8 AM. Made 72 swab runs today and recovered 246.42 bbls additional total fluid. Secured well and SDON.

Notes: Total fluid recovered last two days was 361.9 bbls. Additional details on accompanying swab report.

11/03/2012

Resumed swab testing well this AM. Made 80 swab runs today and recovered 263.07 bbls additional fluid. Secured well and SDON.

Notes: Total fluid recovered last three days was 625 bbls. Additional details on accompanying swab report.

11/04/2012

Resumed swab testing well this AM. Made 87 swab runs today and recovered 280.33 bbls additional fluid. Secured well and SDON.

Notes: Total fluid recovered last four days was 905 bbls. Additional details on accompanying swab report.

11/05/2012

Continued to swab test well this AM. Made 90 swab runs today and recovered 295.26 bbls additional fluid. Secured well and SDON.

Notes: Total fluid recovered last five days was 1200 bbls. Additional details on accompanying swab report.

11/06/2012

Continued swab testing well today. Made 82 swab runs today and recovered 271.95 bbls additional fluid. Retrieved standing valve. Secured well. Rigged down and moved out swabbing unit & swab tank.

Notes: Total fluid recovered last six days was 1472 bbls. Total fluid recovered from all swabbing operations commencing with 9/7/2012 was 2282 bbls. Additional details on accompanying swab report.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
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1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: Crane 16-4	
2. NAME OF OPERATOR: QUANECO, LLC	9. API NUMBER: 43033500010000	
3. ADDRESS OF OPERATOR: 22801 Venture Blvd. Ste 200 , Wooldand Hills, CA, 91364	PHONE NUMBER: 818-225-5000 Ext	9. FIELD and POOL or WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1980 FNL 0500 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: S-NW Section: 04 Township: 06.0N Range: 08.0E Meridian: S		COUNTY: RICH
		STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 4/26/2013	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

NO ACTIVITY SINCE LAST REPORT.

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
April 29, 2013**

NAME (PLEASE PRINT) Warren Nicholson	PHONE NUMBER 818 225-5000	TITLE
SIGNATURE N/A	DATE 4/26/2013	

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER:
2. NAME OF OPERATOR: QUANECO, LLC		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 22801 Ventura Blvd, Ste:200 CITY Woodland Hills STATE CA ZIP 91364		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 500' FWL 1,980' FNL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 4 6N 8E S		8. WELL NAME and NUMBER: CRANE 16-4
PHONE NUMBER: (818) 225-5000		9. API NUMBER: 4303350001
COUNTY: RICH COUNTY		10. FIELD AND POOL, OR WILDCAT: WILDCAT
STATE: UTAH		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>10/2/2013</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
 Plug and abandon well per attached procedure. Work will commence on entire P&A project on or around October 2nd, 2013. Depending on land owner and weather conditions for MIRU.

COPY SENT TO OPERATOR

Date: 10/10/2013
Initials: KS

RECEIVED
SEP 23 2013

DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) <u>Richard DeHatcher</u>	TITLE <u>MM</u>
SIGNATURE <u>[Signature]</u>	DATE <u>13 SEPT 13</u>

(This space for State use only)

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
 DATE: 10/3/2013
 BY: [Signature]
 (See Instructions on Reverse Side)
 * See Conditions of Approval (Attached)

Proposed P&A Procedure for the Crane 16-4

Operator: Quaneco, LLC
Lease: Crane 16-4
Location: Sec 4 - 6N - 8E
Rich County, Utah

Surface Casing: 9 5/8" @ 250 TOC at surface

Long String: 7" at 1,120' TOC at surface

Perfs:

Tubing:

Prior to MIRU, check rig anchors and blow the well down

MIRU

NDWH, and NUBOP

POH and check tubing, if no tubing, move in a work string

RIH tag TD and set a 25 sxs plug (25 sxs is 130' in 7" 23#)

Roll hole with corrosion inhibitor treated water

Pressure test casing, if it fails call for orders

POH, NDWH

RIH to 250' and circulate cement to surface (50 sxs of cement)

Cut off wellhead 3' down

Fill annulus with cement if necessary

Weld on a plate with well information

Backfill the hole

RDMO

All cement is 15.8# class G neat



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

CONDITIONS OF APPROVAL TO PLUG AND ABANDON WELL

Well Name and Number: Crane 16-4
API Number: 43-033-50001
Operator: Quaneco, LLC
Reference Document: Original Sundry Notice dated September 13, 2013,
received by DOGM on September 23, 2013.

Approval Conditions:

1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.
2. **Amend Plug #1:** Records indicate TD @ 1228'. Plug should be from TD to 900' (100' above casing shoe). Estimated quantity of cement required is 50 sx, not 25 sx as proposed.
3. All balanced plugs shall be tagged to ensure that they are at the depth specified.
4. All annuli shall be cemented from a minimum depth of 100' to the surface.
5. Surface reclamation shall be done in accordance with R649-3-34 – Well Site Restoration.
6. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.
7. If there are any changes to the procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 (ofc) or 801-733-0983 (home) prior to continuing with the procedure.
8. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.

Dustin K. Doucet
Petroleum Engineer

October 3, 2013

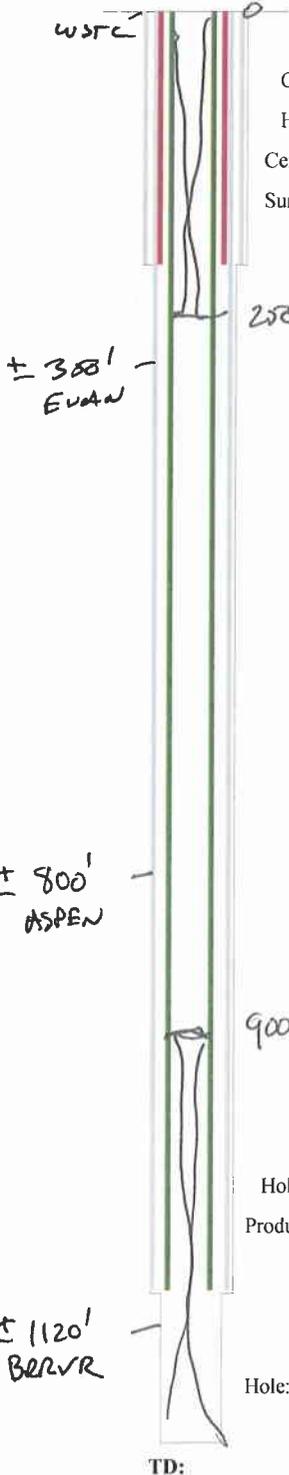
Date

Wellbore Diagram

API Well No: 43-033-50001-00-00 **Permit No:** **Well Name/No:** Crane 16-4
Company Name: QUANECO, LLC
Location: Sec: 4 T: 6N R: 8E Spot: S-NW
Coordinates: X: 495780 Y: 4570271
Field Name: WILDCAT
County Name: RICH

String Information

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)	Capacity (t/cf)
HOL1	217	14.75			
SURF	217	10.75	40.5		
HOL2	1100	9.875			
PROD	1097	7	20		4.399
HOL3	1228	6.25			
		9 7/8" x 7" (108)			2.658
		6 1/4" OH (108)			3.879



Cement from 217 ft. to surface
 Hole: 14.75 in. @ 217 ft.
 Cement from 1097 ft. to surface
 Surface: 10.75 in. @ 217 ft.

Plug # 2
 $(50\%)(1.15)(4.399) = 252'$
 ✓ OK

Cement Information

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
PROD	1097	0	LT	140
PROD	1097	0	C	75
SURF	217	0	G	205

Perforation Information

Formation Information

Formation	Depth
WSTC	0
EVAN	350
ASPEN	800
BRRVR	1120

Hole: 9.875 in. @ 1100 ft.
 Production: 7 in. @ 1097 ft.

* Amend Plug # 1
 * Note TO @ 1228'

Hole: 6.25 in. @ 1228 ft. $\frac{131'}{7"} / (1.15)(3.879) = 305x$
 $\frac{100'}{7"} / (1.15)(4.399) = 205x$

TD: **TVD:** **PBTD:**

50% reqd.



GARY R. HERBERT
Governor

SPENCER J. COX
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

December 12, 2013

Certified Mail No. 7003 2260 0003 2358 7110

DIVISION WELL PLUGGING ORDER

Harrison Schumacher
Quaneco, LLC
22801 Ventura Blvd #200
Woodland Hills, CA 91364

LN 8E 4

Subject: Division Order to Plug and Abandon the Crane 4-4, Crane 12-4, Stacy Hollow 14-35
Murphy Ridge 1-32 and Crane 16-4 wells operated by Quaneco, LLC in Rich County,
Utah.

Dear Mr. Schumacher:

The Division of Oil, Gas and Mining ("division") issued Quaneco, LLC ("Quaneco") a Notice of Violation for the five wells ("subject wells") listed below on April 2, 2013. The wells are in violation of Oil, and Gas Conservation General Rule R649-3-36 (Shut-in and Temporarily Abandoned Wells). As a result of the Notice of Violation Quaneco agreed, last August, to plug the subject wells by early October of this year. As of the date of this letter Quaneco has not plugged and abandoned the wells.

<u>Well Name</u>	<u>API</u>	<u>Completed</u>	<u>Production</u>
Crane 4-4	43-033-30049	3/31/2001	None
Crane 12-4	43-033-30050	9/15/2001	None
Stacey Hollow 14-35	43-033-30056	9/11/2001	None
Murphy Ridge 1-32	43-033-30045	8/18/2002	None
→ Crane 16-4	43-033-50001	Spud 12/4/2011	None

Quaneco submitted notice of intent plugging sundries for the subject wells on September 13, 2013. The sundries were approved and returned to Quaneco with a Condition of Approval Letter by the division in early October.

The Director of the Division of Oil, Gas and Mining received a letter on December 6, 2013, from Wells Fargo Bank with an attached legal document from American Express Bank for a judgment against Harrison Schumacher on any and all assets located at Wells Fargo Bank. In essence, a lien against Quaneco's \$120,000.00 blanket bond (R649-3-1.1). Bond liability is for the duration of the drilling, operating and plugging of the wells and restoration of the well site (R649-3-1.3). The bond for drilling or operating wells shall remain in full force and effect until liability is released by the division (R649-3-1.3.1).



The Division is concerned with Quanecos's ability to continue operating within the legal and financial constraints of the Utah Oil and Gas Conservation Act. Quaneco is required to be able to meet its duty to plug each dry or abandoned well, prevent waste and pollution and maintain and restore each well site (Utah Code 40-6-5).

The Division is hereby ordering Quaneco to Plug and Abandon the five subject wells by January 31, 2014.

Division authority to order the wells plugged is found in the Oil, and Gas Conservation General Rule R649-3-36. The wells shall be plugged in accordance with R649-3-24.

Quaneco has the right to appeal the Division Plugging Order by filing to the Board of Oil, Gas and Mining ("Board") a request for review according to the procedures set forth in R649-10-6. A request for review of a Division Order must be filed with the secretary to the Board, Julie Ann Carter (801) 538-5277, within 30 days of issuance of the order.

In the event Quaneco does not plug and abandon the subject wells the Division will file for a formal hearing before the Board, as described in the Utah Administrative Code R641, requesting a Board Order to plug and restore the well sites. Should this matter be brought before the Board, the Division will seek bond forfeiture (R649-3-36 and R649-3-1.16), liability for plugging costs in excess of bond forfeiture amounts (R649-3-1.16.5) and civil penalties of up to \$10,000 per day for each day of violation (Utah Oil and Gas Conservation Act 40-6-11).

Questions regarding this order may be directed to Clinton Dworshak, Compliance Manager at (801) 538-5280 or John Rogers, Oil and Gas Associate Director at (801) 538-5349.

Sincerely,



Clinton Dworshak
Compliance Manager

cc: John Rogers, Oil and Gas Associate Director
Steve Alder, Assistant Attorney General
Dustin Doucet, Petroleum Engineer
Well file
Compliance File



GARY R. HERBERT
Governor

SPENCER J. COX
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

January 27, 2014

Certified Mail No. 7003 2260 0003 2358 6861

Harrison Schumacher
Quaneco, LLC
22801 Ventura Blvd #200
Woodland Hills, CA 91364

43 033 50001
Crane 16-4
6N 8E 4

Subject: Board Action

Dear Mr. Schumacher:

The Division of Oil, Gas and Mining ("division") sent to Quaneco, LLC ("Quaneco") a Well Plugging Order, dated December 12, 2013, for the Crane 4-4, Crane 12-4, Stacey Hollow 14-35, Murphy Ridge 1-32 and Crane 16-4 wells ("subject wells").

Since that time you have discussed with Mr. Alder, through telephone and e-mail conversations, various possible options to meet Quanecos' plugging obligation. You have also indicated your desire to resolving this matter in a manner agreeable to all parties involved.

The division currently holds a \$120,000.00 blanket bond for the plugging and site restoration of the wells. It is also the divisions' understand that Quaneco and Deseret Land and Livestock ("DL&L") have \$150,000.00 in escrow for site reclamation. DL&L has estimated site reclamation to be \$25,000.00 per location. DL&Ls' dirt contractor is Terry Pruitt, his contact number is (307) 679-4407. The division has been informed by Magna Energy Resources ("Magna") that the plugging cost for the subject wells is approximately \$138,000.00. Magna currently has a rig in the area doing work for other operators. This rig should remain in the area for the next month or two.

The division encourages you to use all resources available to Quaneco and to work with the above mentioned parties, secure sufficient plugging and reclamation funds and put together a plan to timely and properly plug and reclaim the subject wells.

If Quaneco is unable to demonstrate to the divisions' satisfaction that it has the necessary resources available and a plan to properly plug and reclaim each well site by February 10, 2014 the division will file a Notice of Agency Action (NAA) for the March 26, 2014 formal hearing before the Board of Oil, Gas and Mining (Board"). The request will be for a Board Order to plug the subject wells and restore the well sites. If Quaneco still does not demonstrate prior to the

Page 2
Quaneco, LLC
January 27, 2014

hearing that it has sufficient plugging and reclamation funds and a plan to properly plug and reclaim each well, the division will be prepared to give testimony at the hearing supporting its request. In addition to a Board Order to plug the subject wells and restore the well sites, the division will seek bond forfeiture (R649-3-36 and R649-3-1.16) and liability for plugging costs in excess of bond forfeiture amounts (R649-3-1.16.5).

Questions regarding this matter may be directed to Clinton Dworshak, Compliance Manager at (801) 538-5280 or John Rogers, Oil and Gas Associate Director at (801) 538-5349.

Sincerely,



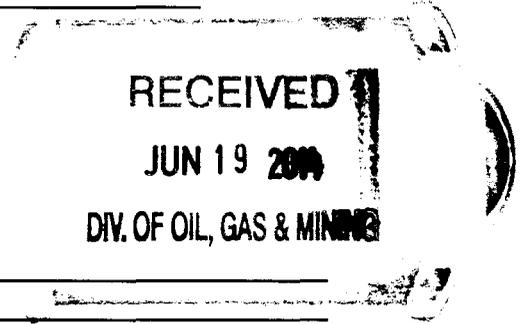
Clinton Dworshak
Compliance Manager

CLD/js

cc: John Rogers, Oil and Gas Associate Director
Steve Alder, Assistant Attorney General
Dustin Doucet, Petroleum Engineer
American Safety Casualty Insurance Company
Well File
Compliance File

N:\O&G Reviewed Docs\ChronFile\Enforcement

Company Name: Quaneco Company Man: warren nicholson Date: 6/18/2014
 AFE or Project #: _____ Projected Well Days: 5 Days on Well: 6
 Well Name: Crane 16-4 Sec: 4 TWNSHP: 6 North Range: 8 East
 Magna RIG # 23 SUB
 Tool Pusher: Jorge Valencia 14 Yes Tool Pusher Cell: 970-646-3890
 Operator: Antonio Hernandez 8 Yes Company Man Cell: 818-225-5000
 Rig Hand: Daniel Tarango 9.5 Yes
 Rig Hand: Matthew Rodriguez 8 Yes
 Rig Hand: Fransisco Javier Mendez 8 Yes
 Rig Hand: _____
 Rig Hand: _____



Daily Report:

7:00am	7:45am	Drove from Evenston, WY to loc
7:45am	8:15am	safety meeting, do jsa, check/Start Equipment,
8:15am	9:15am	check well pressure, pressure was 200 psi, pump press to 550 psi, and hold for 15 min, and Blow down
9:15am	10:00am	trip in with pipe, tag cement at 535', wait on call from state main office
10:00AM	2:00pm	Start TOH and LD tubing, Started RD Equipment
2:00pm	3:00pm	Rig down, called for orders, Orders: Shut down rig for the day due to weather and road conditions
3:00pm	3:30pm	Cruw Travel back to Evenston
3:30pm	4:30pm	Help pull sanitation Truck in/out (Jorge & Daniel)
4:30pm	9:30pm	travel to Rock Springs, pick up 5.5" for the New well, and travel back to Evanston, work on Daily Report

Remarks, Equipment Problems, ETC:

Company Name: Quaneco Company Man: Warren Nicholson Date: 6/17/2014
 AFE or Project #: _____ Projected Well Days: 2 Days on Well: 2
 Well Name: Crane 16-4 Sec: 4 TWNSHP: 6 north Range: 8 East
 Magna RIG # 23 SUB
 Tool Pusher: Jorge Valencia 14.5 Yes Tool Pusher Cell: 970-646-3890
 Operator: Antonio Hernandez 14 Yes Company Man Cell: _____
 Rig Hand: Daniel Tarango 14 Yes
 Rig Hand: Matthew Rodriguez 14 Yes
 Rig Hand: Fransisco Javier Mendez 14 Yes
 Rig Hand: _____
 Rig Hand: _____



RECEIVED
 JUN 19 2014
 DIV OF OIL, GAS & MINING

Daily Report:

5:30am	6:30am	Drove From Evenston Wy to location
6:30am	7:00am	safety meeting do jsa
7:00am	8:00am	check Equipment and tools, check casing pressure, no pressure
8:00am	8:30am	wait on packer
8:30am	11:30am	pick up packer, trip in to 850', test casing, test no good, trip out with 9 joints to 535', test, no good, tripout, LD packer
11:30am	12:30pm	trip to 990' with open and tubing tag cement .
12:30pm	3:30pm	pull out to 980' and pump 115 sacks of cement and trip out of well, close Bop and pressure test casing to 500 psi, Shut in well
3:30pm	5:30pm	work on Equipment, cement unit, and repair water hoses
5:30pm	7:30pm	work on the road
7:30pm	8:00pm	work on reports

Remarks, Equipment Problems, ETC:

MAGNA ENERGY SERVICE Rig 23

DATE	LOCATION
6-16-14	Company: Quaneco LLC Crane 16-4

SUMMARY

6:00-Crew travel
 6:30-JSA meeting
 7:00-Spot in & rig up (had problems with dogs kicking in)
 -Nd WH-Nu BOP-Ru floor
 12:40-TOOH-came out with 35 jts-lunch
 1:40-TIH open ended-tag @1120' (37 jts)-establish circ.-Ru cmt equip.
 2:50-Start pumping 15.8# cmt (1 bbl FW ahead-50sxs/10 bbls cmt-1 bbl FW-3.5 bbls disp.)(Cmt: 1120' to 864')
 3:15-Lay down 12 jts-circ. well with 24 bbls (with corrosion inhibitor)
 3:45-TOOH-pressure test csg to 1000 psi (failed/.25 bbl injection rate @400 psi)
 4:30-Shut well in-secure rig & location
 5:00-Crew travel
 5:30/1:00

RECEIVED

JUN 16 2014

DIV. OF OIL, GAS & MINING

NAMES	HOURS	SUBSISTANCE
Darie Roehm	11	Yes
Kendall Sitts	19	Yes
Brandon Lafoya	19	Yes
Armando Lopez	19	Yes
Mike Bossie	19	Yes

NOTES

Tomorrows Tasks: TIH with packer to find for hole-call for orders

REVINUE	COST
----------------	-------------

0	
---	--

Lisha Cordova - Quaneco Crane 16-4

From: Cecil Gritz <cecilgritz@hotmail.com>
To: "Lisha Cordova" <lishacordova@utah.gov>
Date: 12/31/2011 6:31 AM
Subject: Quaneco Crane 16-4

Casing and cement job went well. Happy New Year!

PU and ran 7" 20ppf J55 STC casing to 1097.5' KB by pipe measurement. Ran float shoe, one shoe joint, float collar @ 1055.5', and seven centralizers. RU Sanlel cementers and held safety meeting. Pressure tested surface lines to 2000 psig. Pumped 5 bbls fresh water preflush, followed by 140 sacks Control Set C + additives mixed @ 11.8ppg & 2.66 yield, and 75 sacks Control Set C + additives mixed @ 13.5ppg & 1.74 yield. Total slurry volume 75 bbls. Displaced top plug with 44 bbls water. Bumped plug and pressured casing to 650 psig. Released pressure and floats held. Had good circulation throughout cementing procedures. Cement circulated. Had estimated 10 bbls slurry to surface. Job complete @ 6 PM. RD Sanjel.

Lisha Cordova - RE: Quaneco Crane 16-4

From: Cecil Gritz <cecilgritz@hotmail.com>
To: "Lisha Cordova" <lishacordova@utah.gov>
Date: 12/19/2011 5:45 AM
Subject: RE: Quaneco Crane 16-4

Cement job went well here yesterday. Here are the details:

1 ½ hrs RU Sanjel cementers and held safety meeting.
3/4 hr Pressure test lines to 1700 psig. Pump 10 bbls water preflush, followed by 205 sx Class G + ¼ pps polyflake + 3% CC. 42 bbls total cement slurry. 15.8 ppg and 1.15 cuft/sk. Displaced top plug with 16.6 bbls water. Bumped plug and pressured casing to 750 psig. Released pressure and float held. Had good circulation throughout cementing procedures. Cement circulated. Had estimated 8 bbls slurry to surface. Job complete 2:15 PM. RD Sanjel.
12 hrs WOC

Cold here this morning!

Cecil

From: Cecil Gritz [mailto:cecilgritz@hotmail.com]
Sent: Sunday, December 18, 2011 9:00 AM
To: 'Lisha Cordova'
Subject: RE: Quaneco Crane 16-4

Attached is Quaneco's planned cement program for surface and intermediate strings.

From: Cecil Gritz [mailto:cecilgritz@hotmail.com]
Sent: Thursday, December 15, 2011 4:06 PM
To: 'Lisha Cordova'
Subject: Quaneco Crane 16-4



December 6, 2011

Quaneco, LLC
P.O. Box 7370
Sheridan, WY 82801

RECEIVED
DEC 18 2011
DIV. OF OIL, GAS & MINING

Attention: Mr. Cecil Gritz
Phone: 817-579-8260
Cell: 817-235-1618
Email: cecilgritz@hotmail.com

Crane 16-4

Rich County, Utah

Sec. 4 T6N-R8E

Primary Cementing Procedure v.2

Prepared by:
Brent Allen
Sanjel USA, Denver
(303) 519-2693
Email: brallen@sanjel.com

Service Location:
Riverton, WY
(307) 857-1300

Quaneco
Crane 16-4

10 3/4" Surface Casing

Hole Size; 14 3/4 inch
Casing: 10 3/4 inch 40.5#
Depth: 250 ft
Excess: 70%
BHST: 55° F

Cement Blend

Tail Cement 0:1:0 'G' + 3% CaCl₂ + 1/4 lb/sack Polyflake
250 ft to Surface ft = 250 ft

Cement Data

		<u>Tail Cement</u>
Water Requirement	:gal/sk	5.01
Yield	:ft ³ /sk	1.15
Density	:lbs/gal	15.8
Thickening Time	:hrs:min	2:10
Working Time	:hrs:min	1:30
Compressive Strength	:psi/hrs	650/8 1900/24 2600/48
Temperature	:°F	55

Calculations

Tail: 250 ft x 0.5563 ft³/ft = 139 ft³
 139 ft³ + 70% Excess = 236 ft³
 236 ft³ / 1.15 ft³/sk = **205 sacks**

10 ¾" Surface Casing Procedure

1. Make up float equipment and centralizers as required on 10 ¾ inch casing and run in to total depth.
2. Break circulation and condition hole and drilling fluid as required prior to cementing.
3. Rig in a Sanjel Cementing Unit, Surface treating lines and a 10 ¾ inch head to casing.
4. Pressure test surface treating lines to 2000 psi.
5. Mix and pump:
 - 1) Pump 20 bbls Fresh Water
 - 2) **205 sacks** 0:1:0 'G'+ additives mixed at 15.8 lbs/gal.
6. Drop a 10 ¾ top rubber plug and displace to floats with water. Bump plug with a minimum of 500 psi over final pumping pressure.
7. Hold pressure for 1 minute(s), then bleed back casing pressure to ensure float is holding.
8. Rig down Sanjel.
9. Sanjel recommends waiting a minimum of 12 hours prior to drill out.

NOTE:

This recommendation is to be used as a guide. Job conditions and field experience must dictate job procedures. Please check all calculations on location.

Quaneco
Crane 16-4

COST ESTIMATE:		F.O.B.	RIVERTON, WY		
SURFACE CASING		10 3/4 inch			
SERVICES					
Pumping Unit Travel			120 miles	\$7.50 / mile	\$900.00
Pumping Unit Base Charge			250 feet	\$3,550.00 / 6 hours	\$3,550.00
Bulk Cement Blending			219 ft^3	\$3.30 / ft^3	\$722.70
Bulk Cement Delivery			10 tons	\$2.55 / ton*mile	\$3,060.00
SAM III - Data Acquisition			1 job	\$1,015.00 / job	\$1,015.00
TAIL CEMENT					
0:1:0 'G' Cement			205 sacks	\$27.00 / sack	\$5,535.00
CaCl2	3.00 %		579 lbs	\$1.80 / lb	\$1,042.20
Polyflake	0.25 lbs/sk		52 lbs	\$5.00 / lb	\$260.00
OTHER MATERIALS					
Envirobag	1.00 bag			\$78.00 / bag	\$78.00
DF-3	1.00 gal			\$141.00 / gal	\$141.00
NON-DISCOUNTED ITEMS					
Environmental Surcharge	1.00 job			\$50.00 / job	\$50.00
Fuel Surcharge	2.00 trucks			\$825.00 / truck	\$1,650.00
NON-DISCOUNTED TOTAL					\$18,003.90
					DISCOUNT: 47% (\$7,662.83)
GRAND TOTAL					\$10,341.07

FLOAT EQUIPMENT					
10 3/4" Guide Shoe	1 unit			\$530.00 / unit	\$530.00
10 3/4" Float Collar	1 unit			\$700.00 / unit	\$700.00
10 3/4" Centralizer	5 units			\$120.00 / unit	\$600.00
10 3/4" Limit Clamp	1 unit			\$72.00 / unit	\$72.00
Threadlok	1 unit			\$36.00 / unit	\$36.00
FLOAT EQUIPMENT TOTAL					\$1,938.00

A minimum of two additional hours of pumping time per pumping operation will be charged after initial 6 hours location time. Hours will be charged as follows:

Twin Cement Pumping Unit – per unit, per hour

Pumping Time..... \$450/hr
Standby Time..... \$285/hr

Bulk Cement Unit – per unit, per hour

Standby Time..... \$285/hr

Note: *Additional location time will be charged (undiscounted) for periods exceeding four hours on location. The additional time includes both pumping and standby time.*

7" Production Casing

Hole Size: 9 7/8 inch
Casing: 7 inch 20#
Depth: 1120 ft.
Excess: 70%

Cement Blend

Lead Cement Control Set 'C' + 1.0% CaCl₂ + 1.0% SMS + 1.0% OGC-60 + ¼ lb/sk Polyflake
820 ft to Surface = 820 ft

Tail Cement Control Set 'C' + ¼ lb/sk Polyflake
1120 ft to 820 = 300 ft

Cement Data

BHST: 80 F

BHCT: 80 F

		<u>Lead</u>	<u>Tail</u>
Water Requirement	:gal/sk	15.9	9.16
Yield	:ft ³ /sk	2.66	1.74
Density	:lbs/gal	11.8	13.5
Thickening Time	:hrs:min	4:00	1:30
Compressive Strength	:psi/hrs	450/12 630/24 750/48	900/8 2100/24 2450/48
Temperature (BHST)	:°F	80	80

Calculations

Lead: 820 ft x 0.2647 ft³/ft = 217 ft³
217 ft³ + 70% Excess = 369 ft³
369 ft³ / 2.66 ft³/sk = **140 sacks**

Tail: 300 ft x 0.2647 ft³/ft = 75 ft³
75 ft³ + 70% Excess = 128 ft³
128 ft³ / 1.74 ft³/sk = **75 sacks**

7" Production Casing Procedure

1. Make up float equipment and centralizers as required on 9 5/8 inch casing and run in to total depth.
2. Break circulation and condition hole and drilling fluid as required prior to cementing.
3. Rig in a Sanjel Cementing Unit, Surface treating lines and a 9 5/8 inch head to casing.
4. Pressure test surface treating lines to 2000 psi.
5. Mix and pump:
 - 1) Pump 20 bbls Fresh Water
 - 2) **140 sacks** Control Set 'C' + additives mixed at 11.8 lbs/gal.
 - 3) **75 sacks** Control Set 'C' + additives mixed at 13.5 lbs/gal.
6. Drop an 9 5/8 top rubber plug and displace to floats with water. Bump plug with a minimum of 500 psi over final pumping pressure.
7. Hold pressure for 1 minute(s), then bleed back casing pressure to ensure float is holding.
8. Rig down Sanjel.
9. Sanjel recommends waiting a minimum of 12 hours prior to drill out.

NOTE:

This recommendation is to be used as a guide. Job conditions and field experience must dictate job procedures. Please check all calculations on location.

Quaneco
Crane 16-4

COST ESTIMATE:		F.O.B.	RIVERTON, WY		
PRODUCTION CASING		7 inch			
SERVICES					
Pumping Unit Travel		120 miles	\$7.50 / mile		\$900.00
Pumping Unit Base Charge		1120 feet	\$3,550.00 / 6 hours		\$3,550.00
Bulk Cement Blending		226 ft ³	\$3.30 / ft ³		\$745.80
Bulk Cement Delivery		11 tons	\$2.55 / ton*mile		\$3,366.00
SAM III - Data Acquisition		1 job	\$1,015.00 / job		\$1,015.00
LEAD CEMENT					
Control Set 'C'		140 sacks	\$40.00 / sack		\$5,600.00
CaCl ₂	1.00 %	140 lbs	\$1.80 / lb		\$252.00
SMS	1.00 %	140 lbs	\$3.60 / lb		\$504.00
OGC-60	1.00 %	140 lbs	\$1.70 / lb		\$238.00
Polyflake	0.25 lbs/sk	35 lbs	\$5.00 / lb		\$175.00
TAIL CEMENT					
Control Set 'C'		75 sacks	\$40.00 / sack		\$3,000.00
Polyflake	0.25 lbs/sk	19 lbs	\$5.00 / lb		\$95.00
OTHER MATERIALS					
Envirobag	1.00 bag		\$78.00 / bag		\$78.00
DF-3	1.00 gal		\$141.00 / gal		\$141.00
NON-DISCOUNTED ITEMS					
Environmental Surcharge	1.00 job		\$50.00 / job		\$50.00
Fuel Surcharge	2.00 trucks		\$825.00 / truck		\$1,650.00
NON-DISCOUNTED TOTAL					\$21,359.80
					DISCOUNT: 50% (\$9,829.90)
GRAND TOTAL					\$11,529.90
 FLOAT EQUIPMENT					
7" Float Shoe K-55	1 unit		\$505.00 / unit		\$505.00
7" Insert Float	1 unit		\$700.00 / unit		\$700.00
7" Centralizer	7 units		\$84.00 / unit		\$588.00
7" Limit Clamp	1 unit		\$54.00 / unit		\$54.00
7" Rubber Plug	1 unit		\$192.00 / unit		\$192.00
Threadlok	1 unit		\$36.00 / unit		\$36.00
FLOAT EQUIPMENT TOTAL					\$2,075.00

A minimum of two additional hours of pumping time per pumping operation will be charged after initial 6 hours location time. Hours will be charged as follows:

Twin Cement Pumping Unit – per unit, per hour

Pumping Time..... \$450/hr
Standby Time..... \$285/hr

Bulk Cement Unit – per unit, per hour

Standby Time..... \$285/hr

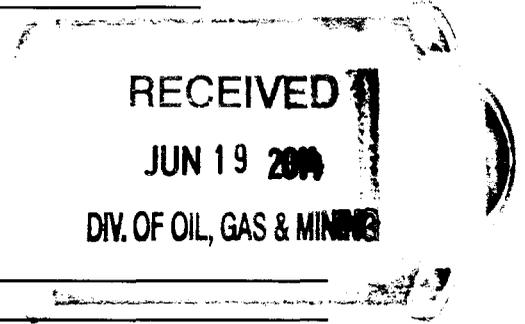
Note: *Additional location time will be charged (undiscounted) for periods exceeding four hours on location. The additional time includes both pumping and standby time.*

Please refer to the General Terms and Conditions (“Terms”) contained within this Proposal. All pricing and services (including any supply of materials or consumables) described in this Proposal, and any other services performed or materials or consumables supplied by Sanjel to Customer which may be outside the scope of this Proposal, are subject to the Terms, which form part of this Proposal. By accepting this Proposal (either expressly or by calling out Sanjel for any services or supply), Customer hereby agrees to be bound by the Terms. Such acceptance shall constitute an acknowledgment by Customer that it has reviewed the Terms and has had the opportunity to seek proper legal advice.

GENERAL TERMS & CONDITIONS

1. **Agreement for Services.** Sanjel (USA) Inc. ("Sanjel") and the customer for whom Sanjel is providing the Services ("Customer"), (collectively, the "Parties"), expressly understand and agree that the terms and conditions in this agreement (the "Agreement") shall govern and control the provision of all services provided by Sanjel to Customer, including any services, materials or consumables provided or performed by Sanjel under written or oral requests for services or job orders ("Services").
2. **Entire Agreement and Conflict.** Subject to any Master Service Agreement ("MSA") in effect between the Parties, this Agreement constitutes the entire agreement of the Parties with respect to the subject matter herein. This Agreement shall not be superseded or replaced by any other agreement (including any terms and conditions which may be found in any purchase order, service order, or invoice produced by Customer or found in Sanjel's Price Book) unless specifically agreed to by the Parties in writing. If there is any conflict between the terms of this Agreement and the MSA, the provisions of the MSA shall prevail.
3. **Results of Services.** The Customer acknowledges and agrees that the Services are of such a nature that no results of the work performed can be guaranteed and Sanjel specifically does not make any representations, warranties or guarantees with respect to the results of the Services.
4. **Price and Price Changes.** Customer shall pay for the Services at the rates set out in Sanjel's current Price Book ("Price Book"). All rates and prices quoted in the Price Book are subject to change without prior notice to the Customer, including the imposition of fuel or other surcharges related to increases in commodity prices. Special jobs undertaken by Sanjel outside of the scope of the Services shall not be subject to Price Book or any previously agreed upon discounts.
5. **Taxes.** All prices are exclusive of any municipal, state, federal, and/or special taxes or levies imposed on the sale of the Services. Customer shall be responsible for all taxes applicable to the provision of the Services.
6. **Additional Services Requests.** Services, equipment or materials not listed in the Price Book or a Sanjel proposal but purchased or rented by Sanjel at Customer's request shall be charged to Customer at actual cost plus twenty five percent (25%). Sanjel shall have no liability to Customer in respect of such services, equipment or materials.
7. **Payment Terms.** Payment terms are cash, net thirty (30) days. Interest shall be charged at eighteen percent (18%) per annum on all overdue accounts, and where necessary, all costs of collection of overdue accounts, including any legal fees and disbursements.
8. **Standby Charge.** In the event that Sanjel is unable to perform a job or provide requested Services to Customer due to circumstances beyond its control, including instances of force majeure, Sanjel retains the right to charge Customer seventy five percent (75%) of the applicable base charge, plus 100% of costs including, but not limited to, mileage, blending, material handling/hauling, materials and/or return delivery and restocking charges, and all location time in excess of the location time allowance.
9. **Warranties.** Sanjel warrants only that title to the product, supplies and materials, shall pass and vest in Customer, free and clear of all liens, claims and encumbrances of any nature, and that the same are free from defects in workmanship. There are no warranties, express or implied, of merchantability, use, and fitness or otherwise which extend beyond those expressly stated herein.
10. **Proprietary Rights.** Customer acknowledges that any intellectual property which is used by Sanjel for the provision of Services, or is created or developed by Sanjel in the course of performing the Services, is and shall remain the property of and is owned by Sanjel at all times.
11. **Confidentiality.** The Parties agree to take all reasonable precautions to protect the confidential information of the other from unauthorized use and disclosure and each Party shall use the confidential information of the other only for the purpose of conducting the Services.
12. **LIABILITY AND INDEMNITY. (A) SUBJECT TO SECTIONS 12(b),13,14 & 15 BELOW, CUSTOMER SHALL BE LIABLE TO SANJEL FOR ALL CLAIMS, DEMANDS, ACTIONS, CAUSES OF ACTION, DAMAGES, LOSSES, DEFICIENCIES, COSTS, LIABILITIES, EXPENSES (INCLUDING LEGAL FEES, ON A SOLICITOR-CLIENT BASIS ("CLAIMS"), THAT MAY BE MADE OR BROUGHT AGAINST SANJEL (EITHER DIRECTLY BY CUSTOMER, ITS AFFILIATES OR SUBSIDIARIES OR BY ANY THIRD PARTY) OR WHICH SANJEL MAY SUFFER OR INCUR AS A RESULT OF, ARISING OUT OF OR INCIDENT TO THIS AGREEMENT OR ANY SERVICES PROVIDED HEREUNDER, WHETHER SUCH CLAIM IS FOUNDED IN CONTRACT, TORT OR ANY OTHER CAUSE OF ACTION WHATSOEVER, UNLESS CAUSED BY THE NEGLIGENCE OR WILLFUL MISCONDUCT OF SANJEL. (B) NOTWITHSTANDING SECTION 12(A), CUSTOMER SHALL AT ALL TIMES BE SOLELY LIABLE FOR ANY CLAIMS MADE OR BROUGHT AGAINST SANJEL (EITHER BY CUSTOMER, ITS AFFILIATES OR SUBSIDIARIES OR BY ANY THIRD PARTY) OR WHICH SANJEL MAY SUFFER OR INCUR AS A RESULT OF, ARISING OUT OF OR INCIDENT TO: WELL BLOWOUT OR ANY UNCONTROLLED WELL CONDITION, FIRE, CRATERING, REDRILL OR SIDETRACKING, SEEPAGE OR RESERVOIR DAMAGE, LOSS OR DAMAGE TO THE HOLE, POLLUTION AND CONTAMINATION (EXCEPT SUDDEN AND ACCIDENTAL POLLUTION ORIGINATING ABOVE THE SERVICE OF THE EARTH AND EMANATING FROM SANJEL'S EQUIPMENT WHILE SUCH EQUIPMENT IS IN SANJEL'S CARE, CUSTODY AND CONTROL); EVEN IF CAUSED IN WHOLE OR IN PART BY THE SOLE, JOINT OR CONCURRENT NEGLIGENCE, GROSS NEGLIGENCE, WILLFUL MISCONDUCT OR OTHER FAULT (ACTIVE OR PASSIVE) OF SANJEL OR ANY OTHER PERSON. (C) CUSTOMER SHALL PROTECT, DEFEND, INDEMNIFY AND SAVE HARMLESS SANJEL, ITS AFFILIATES AND SUBSIDIARIES, FROM AND AGAINST ALL OF THE CLAIMS DESCRIBED IN SECTIONS 12(A) AND 12(B) ABOVE.**
13. **LIABILITY CAP. NOTWITHSTANDING SECTION 12 OR ANY OTHER TERM HEREIN TO THE CONTRARY, SANJEL'S MAXIMUM LIABILITY TO CUSTOMER ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT AND ANY SERVICES PROVIDED HEREUNDER IS LIMITED TO THE COST OF THE PRODUCTS OR SERVICES SUPPLIED FOR THE PARTICULAR JOB IN WHICH SUCH DAMAGES AROSE.**
14. **Consequential damages.** Notwithstanding section 12 or any other term herein to the contrary, neither Party shall be liable to the other for business interruptions, punitive, indirect or consequential damages relating thereto (including but not limited to any loss of profit, loss of expected revenue, loss of hydrocarbons or loss of rig time).
15. **Equipment and Materials.** Customer shall be liable to Sanjel for any and all loss or damage to Sanjel equipment, tools or materials: (i) while located down hole; and (ii) while being transported to or from the work-site by Customer at any time or while such equipment, tools or materials are being loaded onto or attached to any transportation unit or vehicle furnished by or arranged for by Customer. In the event any Sanjel equipment is lost, damaged or destroyed during the provision of Service, Customer shall use reasonable efforts to diligently recover or repair said equipment, and in the event recovery or repair are not possible, Customer agrees to reimburse Sanjel for the lost, damaged or destroyed equipment at actual replacement cost value plus twenty-five percent (25%).
16. **Disposal of Chemicals.** Customer shall arrange for and be responsible for the disposal of any used chemicals, hazardous material(s), including but not limited to, any waste produced or accumulated during the provision of Services.
17. **Waiver.** Failure to enforce any or all of the above terms and conditions shall not relieve the Parties of their rights and obligations hereunder or constitute a waiver thereof or preclude subsequent enforcement of same.
18. **Amendments.** This Agreement may only be amended by a written agreement between the Parties signed by a duly authorized representative of each Party.
19. **Governing Law.** The Parties agree that the laws of the State of Colorado shall govern this Agreement, without the application of choice of law rules. The parties voluntarily submit to the jurisdiction and venue of the federal or state courts (as applicable) of the State of Colorado for the adjudication of all disputes under this Agreement.

Company Name: Quaneco Company Man: warren nicholson Date: 6/18/2014
 AFE or Project #: _____ Projected Well Days: 5 Days on Well: 6
 Well Name: Crane 16-4 Sec: 4 TWNSHP: 6 North Range: 8 East
 Magna RIG # 23 SUB
 Tool Pusher: Jorge Valencia 14 Yes Tool Pusher Cell: 970-646-3890
 Operator: Antonio Hernandez 8 Yes Company Man Cell: 818-225-5000
 Rig Hand: Daniel Tarango 9.5 Yes
 Rig Hand: Matthew Rodriguez 8 Yes
 Rig Hand: Fransisco Javier Mendez 8 Yes
 Rig Hand: _____
 Rig Hand: _____



Daily Report:

7:00am	7:45am	Drove from Evenston, WY to loc
7:45am	8:15am	safety meeting, do jsa, check/Start Equipment,
8:15am	9:15am	check well pressure, pressure was 200 psi, pump press to 550 psi, and hold for 15 min, and Blow down
9:15am	10:00am	trip in with pipe, tag cement at 535', wait on call from state main office
10:00AM	2:00pm	Start TOH and LD tubing, Started RD Equipment
2:00pm	3:00pm	Rig down, called for orders, Orders: Shut down rig for the day due to weather and road conditions
3:00pm	3:30pm	Cruw Travel back to Evenston
3:30pm	4:30pm	Help pull sanitation Truck in/out (Jorge & Daniel)
4:30pm	9:30pm	travel to Rock Springs, pick up 5.5" for the New well, and travel back to Evanston, work on Daily Report

Remarks, Equipment Problems, ETC:

Company Name: Quaneco Company Man: Warren Nicholson Date: 6/17/2014
 AFE or Project #: _____ Projected Well Days: 2 Days on Well: 2
 Well Name: Crane 16-4 Sec: 4 TWNSHP: 6 north Range: 8 East
 Magna RIG # 23 SUB
 Tool Pusher: Jorge Valencia 14.5 Yes Tool Pusher Cell: 970-646-3890
 Operator: Antonio Hernandez 14 Yes Company Man Cell: _____
 Rig Hand: Daniel Tarango 14 Yes
 Rig Hand: Matthew Rodriguez 14 Yes
 Rig Hand: Fransisco Javier Mendez 14 Yes
 Rig Hand: _____
 Rig Hand: _____



RECEIVED
 JUN 19 2014
 DIV OF OIL, GAS & MINING

Daily Report:

5:30am	6:30am	Drove From Evenston Wy to location
6:30am	7:00am	safety meeting do jsa
7:00am	8:00am	check Equipment and tools, check casing pressure, no pressure
8:00am	8:30am	wait on packer
8:30am	11:30am	pick up packer, trip in to 850', test casing, test no good, trip out with 9 joints to 535', test, no good, tripout, LD packer
11:30am	12:30pm	trip to 990' with open and tubing tag cement .
12:30pm	3:30pm	pull out to 980' and pump 115 sacks of cement and trip out of well, close Bop and pressure test casing to 500 psi, Shut in well
3:30pm	5:30pm	work on Equipment, cement unit, and repair water hoses
5:30pm	7:30pm	work on the road
7:30pm	8:00pm	work on reports

Remarks, Equipment Problems, ETC:

MAGNA ENERGY SERVICE Rig 23

DATE	LOCATION
6-16-14	Company: Quaneco LLC Crane 16-4

SUMMARY

<p>6:00-Crew travel 6:30-JSA meeting 7:00-Spot in & rig up (had problems with dogs kicking in) -Nd WH-Nu BOP-Ru floor 12:40-TOOH-came out with 35 jts-lunch 1:40-TIH open ended-tag @1120' (37 jts)-establish circ.-Ru cmt equip. 2:50-Start pumping 15.8# cmt (1 bbl FW ahead-50sxs/10 bbls cmt-1 bbl FW-3.5 bbls disp.)(Cmt: 1120' to 864') 3:15-Lay down 12 jts-circ. well with 24 bbls (with corrosion inhibitor) 3:45-TOOH-pressure test csg to 1000 psi (failed/.25 bbl injection rate @400 psi) 4:30-Shut well in-secure rig & location 5:00-Crew travel 5:30/1:00</p>
--

RECEIVED

JUN 16 2014

DIV. OF OIL, GAS & MINING

NAMES	HOURS	SUBSISTANCE
Darie Roehm	11	Yes
Kendall Sitts	19	Yes
Brandon Lafoya	19	Yes
Armando Lopez	19	Yes
Mike Bossie	19	Yes

NOTES

Tomorrows Tasks: TIH with packer to find for hole-call for orders

REVINUE	COST
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0	
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Lisha Cordova - Quaneco Crane 16-4

From: Cecil Gritz <cecilgritz@hotmail.com>
To: "Lisha Cordova" <lishacordova@utah.gov>
Date: 12/31/2011 6:31 AM
Subject: Quaneco Crane 16-4

Casing and cement job went well. Happy New Year!

PU and ran 7" 20ppf J55 STC casing to 1097.5' KB by pipe measurement. Ran float shoe, one shoe joint, float collar @ 1055.5', and seven centralizers. RU Sanlel cementers and held safety meeting. Pressure tested surface lines to 2000 psig. Pumped 5 bbls fresh water preflush, followed by 140 sacks Control Set C + additives mixed @ 11.8ppg & 2.66 yield, and 75 sacks Control Set C + additives mixed @ 13.5ppg & 1.74 yield. Total slurry volume 75 bbls. Displaced top plug with 44 bbls water. Bumped plug and pressured casing to 650 psig. Released pressure and floats held. Had good circulation throughout cementing procedures. Cement circulated. Had estimated 10 bbls slurry to surface. Job complete @ 6 PM. RD Sanjel.

Lisha Cordova - RE: Quaneco Crane 16-4

From: Cecil Gritz <cecilgritz@hotmail.com>
To: "Lisha Cordova" <lishacordova@utah.gov>
Date: 12/19/2011 5:45 AM
Subject: RE: Quaneco Crane 16-4

Cement job went well here yesterday. Here are the details:

1 ½ hrs RU Sanjel cementers and held safety meeting.
3/4 hr Pressure test lines to 1700 psig. Pump 10 bbls water preflush, followed by 205 sx Class G + ¼ pps polyflake + 3% CC. 42 bbls total cement slurry. 15.8 ppg and 1.15 cuft/sk. Displaced top plug with 16.6 bbls water. Bumped plug and pressured casing to 750 psig. Released pressure and float held. Had good circulation throughout cementing procedures. Cement circulated. Had estimated 8 bbls slurry to surface. Job complete 2:15 PM. RD Sanjel.
12 hrs WOC

Cold here this morning!

Cecil

From: Cecil Gritz [mailto:cecilgritz@hotmail.com]
Sent: Sunday, December 18, 2011 9:00 AM
To: 'Lisha Cordova'
Subject: RE: Quaneco Crane 16-4

Attached is Quaneco's planned cement program for surface and intermediate strings.

From: Cecil Gritz [mailto:cecilgritz@hotmail.com]
Sent: Thursday, December 15, 2011 4:06 PM
To: 'Lisha Cordova'
Subject: Quaneco Crane 16-4



December 6, 2011

Quaneco, LLC
P.O. Box 7370
Sheridan, WY 82801

RECEIVED
DEC 18 2011
DIV. OF OIL, GAS & MINING

Attention: Mr. Cecil Gritz
Phone: 817-579-8260
Cell: 817-235-1618
Email: cecilgritz@hotmail.com

Crane 16-4

Rich County, Utah

Sec. 4 T6N-R8E

Primary Cementing Procedure v.2

Prepared by:
Brent Allen
Sanjel USA, Denver
(303) 519-2693
Email: brallen@sanjel.com

Service Location:
Riverton, WY
(307) 857-1300

Quaneco
Crane 16-4

10 3/4" Surface Casing

Hole Size;	14 3/4 inch
Casing:	10 3/4 inch 40.5#
Depth:	250 ft
Excess:	70%
BHST:	55° F

Cement Blend

Tail Cement	0:1:0 'G' + 3% CaCl ₂ + 1/4 lb/sack Polyflake
	250 ft to Surface ft = 250 ft

Cement Data

		<u>Tail Cement</u>
Water Requirement	:gal/sk	5.01
Yield	:ft ³ /sk	1.15
Density	:lbs/gal	15.8
Thickening Time	:hrs:min	2:10
Working Time	:hrs:min	1:30
Compressive Strength	:psi/hrs	650/8 1900/24 2600/48
Temperature	:°F	55

Calculations

Tail:	250 ft x 0.5563 ft ³ /ft	= 139 ft ³
	139 ft ³ + 70% Excess	= 236 ft ³
	236 ft ³ / 1.15 ft ³ /sk	= <u>205 sacks</u>

10 ¾" Surface Casing Procedure

1. Make up float equipment and centralizers as required on 10 ¾ inch casing and run in to total depth.
2. Break circulation and condition hole and drilling fluid as required prior to cementing.
3. Rig in a Sanjel Cementing Unit, Surface treating lines and a 10 ¾ inch head to casing.
4. Pressure test surface treating lines to 2000 psi.
5. Mix and pump:
 - 1) Pump 20 bbls Fresh Water
 - 2) **205 sacks** 0:1:0 'G'+ additives mixed at 15.8 lbs/gal.
6. Drop a 10 ¾ top rubber plug and displace to floats with water. Bump plug with a minimum of 500 psi over final pumping pressure.
7. Hold pressure for 1 minute(s), then bleed back casing pressure to ensure float is holding.
8. Rig down Sanjel.
9. Sanjel recommends waiting a minimum of 12 hours prior to drill out.

NOTE:

This recommendation is to be used as a guide. Job conditions and field experience must dictate job procedures. Please check all calculations on location.

Quaneco
Crane 16-4

COST ESTIMATE:		F.O.B.	RIVERTON, WY		
SURFACE CASING		10 3/4 inch			
SERVICES					
Pumping Unit Travel			120 miles	\$7.50 / mile	\$900.00
Pumping Unit Base Charge			250 feet	\$3,550.00 / 6 hours	\$3,550.00
Bulk Cement Blending			219 ft^3	\$3.30 / ft^3	\$722.70
Bulk Cement Delivery			10 tons	\$2.55 / ton*mile	\$3,060.00
SAM III - Data Acquisition			1 job	\$1,015.00 / job	\$1,015.00
TAIL CEMENT					
0:1:0 'G' Cement			205 sacks	\$27.00 / sack	\$5,535.00
CaCl2	3.00 %		579 lbs	\$1.80 / lb	\$1,042.20
Polyflake	0.25 lbs/sk		52 lbs	\$5.00 / lb	\$260.00
OTHER MATERIALS					
Envirobag	1.00 bag			\$78.00 / bag	\$78.00
DF-3	1.00 gal			\$141.00 / gal	\$141.00
NON-DISCOUNTED ITEMS					
Environmental Surcharge	1.00 job			\$50.00 / job	\$50.00
Fuel Surcharge	2.00 trucks			\$825.00 / truck	\$1,650.00
NON-DISCOUNTED TOTAL					\$18,003.90
					DISCOUNT: 47% (\$7,662.83)
GRAND TOTAL					\$10,341.07

FLOAT EQUIPMENT					
10 3/4" Guide Shoe	1 unit			\$530.00 / unit	\$530.00
10 3/4" Float Collar	1 unit			\$700.00 / unit	\$700.00
10 3/4" Centralizer	5 units			\$120.00 / unit	\$600.00
10 3/4" Limit Clamp	1 unit			\$72.00 / unit	\$72.00
Threadlok	1 unit			\$36.00 / unit	\$36.00
FLOAT EQUIPMENT TOTAL					\$1,938.00

A minimum of two additional hours of pumping time per pumping operation will be charged after initial 6 hours location time. Hours will be charged as follows:

Twin Cement Pumping Unit – per unit, per hour

Pumping Time..... \$450/hr
Standby Time..... \$285/hr

Bulk Cement Unit – per unit, per hour

Standby Time..... \$285/hr

Note: *Additional location time will be charged (undiscounted) for periods exceeding four hours on location. The additional time includes both pumping and standby time.*

7" Production Casing

Hole Size: 9 7/8 inch
 Casing: 7 inch 20#
 Depth: 1120 ft.
 Excess: 70%

Cement Blend

Lead Cement Control Set 'C' + 1.0% CaCl₂ + 1.0% SMS + 1.0% OGC-60 + ¼ lb/sk Polyflake
 820 ft to Surface = 820 ft

Tail Cement Control Set 'C' + ¼ lb/sk Polyflake
 1120 ft to 820 = 300 ft

Cement Data

BHST: 80 F BHCT: 80 F

		<u>Lead</u>	<u>Tail</u>
Water Requirement	:gal/sk	15.9	9.16
Yield	:ft ³ /sk	2.66	1.74
Density	:lbs/gal	11.8	13.5
Thickening Time	:hrs:min	4:00	1:30
Compressive Strength	:psi/hrs	450/12 630/24 750/48	900/8 2100/24 2450/48
Temperature (BHST)	:°F	80	80

Calculations

Lead: 820 ft x 0.2647 ft³/ft = 217 ft³
 217 ft³ + 70% Excess = 369 ft³
 369 ft³ / 2.66 ft³/sk = **140 sacks**

Tail: 300 ft x 0.2647 ft³/ft = 75 ft³
 75 ft³ + 70% Excess = 128 ft³
 128 ft³ / 1.74 ft³/sk = **75 sacks**

7" Production Casing Procedure

1. Make up float equipment and centralizers as required on 9 5/8 inch casing and run in to total depth.
2. Break circulation and condition hole and drilling fluid as required prior to cementing.
3. Rig in a Sanjel Cementing Unit, Surface treating lines and a 9 5/8 inch head to casing.
4. Pressure test surface treating lines to 2000 psi.
5. Mix and pump:
 - 1) Pump 20 bbls Fresh Water
 - 2) **140 sacks** Control Set 'C' + additives mixed at 11.8 lbs/gal.
 - 3) **75 sacks** Control Set 'C' + additives mixed at 13.5 lbs/gal.
6. Drop an 9 5/8 top rubber plug and displace to floats with water. Bump plug with a minimum of 500 psi over final pumping pressure.
7. Hold pressure for 1 minute(s), then bleed back casing pressure to ensure float is holding.
8. Rig down Sanjel.
9. Sanjel recommends waiting a minimum of 12 hours prior to drill out.

NOTE:

This recommendation is to be used as a guide. Job conditions and field experience must dictate job procedures. Please check all calculations on location.

Quaneco
Crane 16-4

COST ESTIMATE:		F.O.B.	RIVERTON, WY		
PRODUCTION CASING		7 inch			
SERVICES					
Pumping Unit Travel		120 miles	\$7.50 / mile		\$900.00
Pumping Unit Base Charge		1120 feet	\$3,550.00 / 6 hours		\$3,550.00
Bulk Cement Blending		226 ft ³	\$3.30 / ft ³		\$745.80
Bulk Cement Delivery		11 tons	\$2.55 / ton*mile		\$3,366.00
SAM III - Data Acquisition		1 job	\$1,015.00 / job		\$1,015.00
LEAD CEMENT					
Control Set 'C'		140 sacks	\$40.00 / sack		\$5,600.00
CaCl ₂	1.00 %	140 lbs	\$1.80 / lb		\$252.00
SMS	1.00 %	140 lbs	\$3.60 / lb		\$504.00
OGC-60	1.00 %	140 lbs	\$1.70 / lb		\$238.00
Polyflake	0.25 lbs/sk	35 lbs	\$5.00 / lb		\$175.00
TAIL CEMENT					
Control Set 'C'		75 sacks	\$40.00 / sack		\$3,000.00
Polyflake	0.25 lbs/sk	19 lbs	\$5.00 / lb		\$95.00
OTHER MATERIALS					
Envirobag	1.00 bag		\$78.00 / bag		\$78.00
DF-3	1.00 gal		\$141.00 / gal		\$141.00
NON-DISCOUNTED ITEMS					
Environmental Surcharge	1.00 job		\$50.00 / job		\$50.00
Fuel Surcharge	2.00 trucks		\$825.00 / truck		\$1,650.00
NON-DISCOUNTED TOTAL					\$21,359.80
					DISCOUNT: 50% (\$9,829.90)
GRAND TOTAL					\$11,529.90
 FLOAT EQUIPMENT					
7" Float Shoe K-55	1 unit		\$505.00 / unit		\$505.00
7" Insert Float	1 unit		\$700.00 / unit		\$700.00
7" Centralizer	7 units		\$84.00 / unit		\$588.00
7" Limit Clamp	1 unit		\$54.00 / unit		\$54.00
7" Rubber Plug	1 unit		\$192.00 / unit		\$192.00
Threadlok	1 unit		\$36.00 / unit		\$36.00
FLOAT EQUIPMENT TOTAL					\$2,075.00

A minimum of two additional hours of pumping time per pumping operation will be charged after initial 6 hours location time. Hours will be charged as follows:

Twin Cement Pumping Unit – per unit, per hour

Pumping Time..... \$450/hr
Standby Time..... \$285/hr

Bulk Cement Unit – per unit, per hour

Standby Time..... \$285/hr

Note: *Additional location time will be charged (undiscounted) for periods exceeding four hours on location. The additional time includes both pumping and standby time.*

Please refer to the General Terms and Conditions (“Terms”) contained within this Proposal. All pricing and services (including any supply of materials or consumables) described in this Proposal, and any other services performed or materials or consumables supplied by Sanjel to Customer which may be outside the scope of this Proposal, are subject to the Terms, which form part of this Proposal. By accepting this Proposal (either expressly or by calling out Sanjel for any services or supply), Customer hereby agrees to be bound by the Terms. Such acceptance shall constitute an acknowledgment by Customer that it has reviewed the Terms and has had the opportunity to seek proper legal advice.

GENERAL TERMS & CONDITIONS

1. **Agreement for Services.** Sanjel (USA) Inc. ("Sanjel") and the customer for whom Sanjel is providing the Services ("Customer"), (collectively, the "Parties"), expressly understand and agree that the terms and conditions in this agreement (the "Agreement") shall govern and control the provision of all services provided by Sanjel to Customer, including any services, materials or consumables provided or performed by Sanjel under written or oral requests for services or job orders ("Services").
2. **Entire Agreement and Conflict.** Subject to any Master Service Agreement ("MSA") in effect between the Parties, this Agreement constitutes the entire agreement of the Parties with respect to the subject matter herein. This Agreement shall not be superseded or replaced by any other agreement (including any terms and conditions which may be found in any purchase order, service order, or invoice produced by Customer or found in Sanjel's Price Book) unless specifically agreed to by the Parties in writing. If there is any conflict between the terms of this Agreement and the MSA, the provisions of the MSA shall prevail.
3. **Results of Services.** The Customer acknowledges and agrees that the Services are of such a nature that no results of the work performed can be guaranteed and Sanjel specifically does not make any representations, warranties or guarantees with respect to the results of the Services.
4. **Price and Price Changes.** Customer shall pay for the Services at the rates set out in Sanjel's current Price Book ("Price Book"). All rates and prices quoted in the Price Book are subject to change without prior notice to the Customer, including the imposition of fuel or other surcharges related to increases in commodity prices. Special jobs undertaken by Sanjel outside of the scope of the Services shall not be subject to Price Book or any previously agreed upon discounts.
5. **Taxes.** All prices are exclusive of any municipal, state, federal, and/or special taxes or levies imposed on the sale of the Services. Customer shall be responsible for all taxes applicable to the provision of the Services.
6. **Additional Services Requests.** Services, equipment or materials not listed in the Price Book or a Sanjel proposal but purchased or rented by Sanjel at Customer's request shall be charged to Customer at actual cost plus twenty five percent (25%). Sanjel shall have no liability to Customer in respect of such services, equipment or materials.
7. **Payment Terms.** Payment terms are cash, net thirty (30) days. Interest shall be charged at eighteen percent (18%) per annum on all overdue accounts, and where necessary, all costs of collection of overdue accounts, including any legal fees and disbursements.
8. **Standby Charge.** In the event that Sanjel is unable to perform a job or provide requested Services to Customer due to circumstances beyond its control, including instances of force majeure, Sanjel retains the right to charge Customer seventy five percent (75%) of the applicable base charge, plus 100% of costs including, but not limited to, mileage, blending, material handling/hauling, materials and/or return delivery and restocking charges, and all location time in excess of the location time allowance.
9. **Warranties.** Sanjel warrants only that title to the product, supplies and materials, shall pass and vest in Customer, free and clear of all liens, claims and encumbrances of any nature, and that the same are free from defects in workmanship. There are no warranties, express or implied, of merchantability, use, and fitness or otherwise which extend beyond those expressly stated herein.
10. **Proprietary Rights.** Customer acknowledges that any intellectual property which is used by Sanjel for the provision of Services, or is created or developed by Sanjel in the course of performing the Services, is and shall remain the property of and is owned by Sanjel at all times.
11. **Confidentiality.** The Parties agree to take all reasonable precautions to protect the confidential information of the other from unauthorized use and disclosure and each Party shall use the confidential information of the other only for the purpose of conducting the Services.
12. **LIABILITY AND INDEMNITY.** (A) SUBJECT TO SECTIONS 12(b),13,14 & 15 BELOW, CUSTOMER SHALL BE LIABLE TO SANJEL FOR ALL CLAIMS, DEMANDS, ACTIONS, CAUSES OF ACTION, DAMAGES, LOSSES, DEFICIENCIES, COSTS, LIABILITIES, EXPENSES (INCLUDING LEGAL FEES, ON A SOLICITOR-CLIENT BASIS ("CLAIMS"), THAT MAY BE MADE OR BROUGHT AGAINST SANJEL (EITHER DIRECTLY BY CUSTOMER, ITS AFFILIATES OR SUBSIDIARIES OR BY ANY THIRD PARTY) OR WHICH SANJEL MAY SUFFER OR INCUR AS A RESULT OF, ARISING OUT OF OR INCIDENT TO THIS AGREEMENT OR ANY SERVICES PROVIDED HEREUNDER, WHETHER SUCH CLAIM IS FOUNDED IN CONTRACT, TORT OR ANY OTHER CAUSE OF ACTION WHATSOEVER, UNLESS CAUSED BY THE NEGLIGENCE OR WILLFUL MISCONDUCT OF SANJEL. (B) NOTWITHSTANDING SECTION 12(A), CUSTOMER SHALL AT ALL TIMES BE SOLELY LIABLE FOR ANY CLAIMS MADE OR BROUGHT AGAINST SANJEL (EITHER BY CUSTOMER, ITS AFFILIATES OR SUBSIDIARIES OR BY ANY THIRD PARTY) OR WHICH SANJEL MAY SUFFER OR INCUR AS A RESULT OF, ARISING OUT OF OR INCIDENT TO: WELL BLOWOUT OR ANY UNCONTROLLED WELL CONDITION, FIRE, CRATERING, REDRILL OR SIDETRACKING, SEEPAGE OR RESERVOIR DAMAGE, LOSS OR DAMAGE TO THE HOLE, POLLUTION AND CONTAMINATION (EXCEPT SUDDEN AND ACCIDENTAL POLLUTION ORIGINATING ABOVE THE SERVICE OF THE EARTH AND EMANATING FROM SANJEL'S EQUIPMENT WHILE SUCH EQUIPMENT IS IN SANJEL'S CARE, CUSTODY AND CONTROL); EVEN IF CAUSED IN WHOLE OR IN PART BY THE SOLE, JOINT OR CONCURRENT NEGLIGENCE, GROSS NEGLIGENCE, WILLFUL MISCONDUCT OR OTHER FAULT (ACTIVE OR PASSIVE) OF SANJEL OR ANY OTHER PERSON. (C) CUSTOMER SHALL PROTECT, DEFEND, INDEMNIFY AND SAVE HARMLESS SANJEL, ITS AFFILIATES AND SUBSIDIARIES, FROM AND AGAINST ALL OF THE CLAIMS DESCRIBED IN SECTIONS 12(A) AND 12(B) ABOVE.
13. **LIABILITY CAP.** NOTWITHSTANDING SECTION 12 OR ANY OTHER TERM HEREIN TO THE CONTRARY, SANJEL'S MAXIMUM LIABILITY TO CUSTOMER ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT AND ANY SERVICES PROVIDED HEREUNDER IS LIMITED TO THE COST OF THE PRODUCTS OR SERVICES SUPPLIED FOR THE PARTICULAR JOB IN WHICH SUCH DAMAGES AROSE.
14. **Consequential damages.** Notwithstanding section 12 or any other term herein to the contrary, neither Party shall be liable to the other for business interruptions, punitive, indirect or consequential damages relating thereto (including but not limited to any loss of profit, loss of expected revenue, loss of hydrocarbons or loss of rig time).
15. **Equipment and Materials.** Customer shall be liable to Sanjel for any and all loss or damage to Sanjel equipment, tools or materials: (i) while located down hole; and (ii) while being transported to or from the work-site by Customer at any time or while such equipment, tools or materials are being loaded onto or attached to any transportation unit or vehicle furnished by or arranged for by Customer. In the event any Sanjel equipment is lost, damaged or destroyed during the provision of Service, Customer shall use reasonable efforts to diligently recover or repair said equipment, and in the event recovery or repair are not possible, Customer agrees to reimburse Sanjel for the lost, damaged or destroyed equipment at actual replacement cost value plus twenty-five percent (25%).
16. **Disposal of Chemicals.** Customer shall arrange for and be responsible for the disposal of any used chemicals, hazardous material(s), including but not limited to, any waste produced or accumulated during the provision of Services.
17. **Waiver.** Failure to enforce any or all of the above terms and conditions shall not relieve the Parties of their rights and obligations hereunder or constitute a waiver thereof or preclude subsequent enforcement of same.
18. **Amendments.** This Agreement may only be amended by a written agreement between the Parties signed by a duly authorized representative of each Party.
19. **Governing Law.** The Parties agree that the laws of the State of Colorado shall govern this Agreement, without the application of choice of law rules. The parties voluntarily submit to the jurisdiction and venue of the federal or state courts (as applicable) of the State of Colorado for the adjudication of all disputes under this Agreement.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL		7. UNIT or CA AGREEMENT NAME:
2. NAME OF OPERATOR:		8. WELL NAME and NUMBER: Crane 16-4
3. ADDRESS OF OPERATOR: _____ Ext _____ PHONE NUMBER: _____		9. API NUMBER: 43033500010000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1980 FNL 0500 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: S-NW Section: 04 Township: 06.0N Range: 08.0E Meridian: S		9. FIELD and POOL or WILDCAT: WILDCAT
		COUNTY: RICH
		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 6/25/2014	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The subject well was Plugged and Abandoned as part of the Orphan Well Plugging Program through agreement and Board Order in Cause No. 281-01. Plugging commenced on 6/16/2014 and was completed on 6/25/2014. See attached daily report of operations and daily inspection reports.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 January 15, 2015**

NAME (PLEASE PRINT) Dustin Doucet	PHONE NUMBER 801 538-5281	TITLE Engineer
SIGNATURE N/A	DATE 1/13/2015	

MAGNA ENERGY SERVICE Rig 23

DATE	LOCATION
6-16-14	Company: Quaneco LLC Crane 16-4

SUMMARY

<p>6:00-Crew travel 6:30-JSA meeting 7:00-Spot in & rig up (had problems with dogs kicking in) -Nd WH-Nu BOP-Ru floor 12:40-TOOH-came out with 35 jts-lunch 1:40-TIH open ended-tag @1120' (37 jts)-establish circ.-Ru cmt equip. 2:50-Start pumping 15.8# cmt (1 bbl FW ahead-50sxs/10 bbls cmt-1 bbl FW-3.5 bbls disp.)(Cmt: 1120' to 864') 3:15-Lay down 12 jts-circ. well with 24 bbls (with corrosion inhibitor) 3:45-TOOH-pressure test csg to 1000 psi (failed/.25 bbl injection rate @400 psi) 4:30-Shut well in-secure rig & location 5:00-Crew travel 5:30/1:00</p>
--

NAMES	HOURS	SUBSISTANCE
Darie Roehm	11	Yes
Kendall Sitts	19	Yes
Brandon Lafoya	19	Yes
Armando Lopez	19	Yes
Mike Bossie	19	Yes

NOTES

Tomorrows Tasks: TIH with packer to find for hole-call for orders

REVINUE	COST
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0	
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MAGNA ENERGY SERVICE Rig 23

DATE	LOCATION
6-17-14	Company: Quaneco Crane 16-4

SUMMARY

7:00-Pick up a key for the gate at the murphy ridge well-travel to location 10:00-Help out with the relief crew 5:00-Travel 11:00
--

NAMES	HOURS	SUBSISTANCE
Darie Roehm	16	Yes
Kendall Sitts	0	Yes
Brandon Lafoya	0	Yes
Armando Lopez	0	Yes
Mike Bossie	0	Yes

NOTES

Tomorrows Tasks:

REVINUE	COST
0	

Company Name:	<u>Quaneco</u>	Company Man:	<u>Warren Nicholson</u>	Date:	<u>6/17/2014</u>
AFE or Project #:	<u></u>	Projected Well Days:	<u>2</u>	Days on Well:	<u>2</u>
Well Name:	<u>Crane 16-4</u>	Sec:	<u>4</u>	TWNSHP:	<u>6 north</u>
Magna RIG #	<u>23</u>			Range:	<u>8 East</u>
Tool Pusher:	<u>Jorge Valencia</u>			Tool Pusher Cell:	<u>970-646-3890</u>
Operator:	<u>Antonio Hernandez</u>	14.5	Yes	Company Man Cell:	<u></u>
Rig Hand:	<u>Daniel Tarango</u>	14	Yes		
Rig Hand:	<u>Matthew Rodriguez</u>	14	Yes		
Rig Hand:	<u>Fransisco Javier Mendez</u>	14	Yes		
Rig Hand:	<u></u>				
Rig Hand:	<u></u>				



Daily Report:

5:30am	6:30am	Drove From Evenston Wy to location
6:30am	7:00am	safety meeting do jsa
7:00am	8:00am	check Equipment and tools, check casing pressure, no pressure
8:00am	8:30am	wait on packer
8:30am	11:30am	pick up packer, trip in to 850', test casing, test no good, trip out with 9 joints to 535', test, no good, tripout, LD packer
11:30am	12:30pm	trip to 990' with open and tubing tag cement .
12:30pm	3:30pm	pull out to 980' and pump 115 sacks of cement and trip out of well, close Bop and pressure test casing to 500 psi, Shut in well
3:30pm	5:30pm	work on Equipment, cement unit, and repair water hoses
5:30pm	7:30pm	work on the road
7:30pm	8:00pm	work on reports

Remarks, Equipment Problems, ETC:

Company Name:	<u>Quanco llc</u>	Company Man:	<u>warren nicholson</u>	Date:	<u>6/19/2014</u>
AFE or Project #:	<u>049-037-20718</u>	Projected Well Days:	<u>5</u>	Days on Well:	<u>6</u>
Well Name:	<u>North Sheep Camp #1</u>	Sec:	<u>4</u>	TWNSHP:	<u>6</u>
Magna RIG #	<u>23</u>			Range:	<u>8 East</u>
Tool Pusher:	<u>Jorge Valencia</u>			Tool Pusher Cell:	<u>970-646-3890</u>
Operator:	<u>Antonio Hernandez</u>			Company Man Cell:	<u>818-225-5000</u>
Rig Hand:	<u>Daniel Tarango</u>				
Rig Hand:	<u>Matthew Rodriguez</u>				
Rig Hand:	<u>Fransisco Javier Mendez</u>				
Rig Hand:					
Rig Hand:					

	SUB
17	Yes
16	Yes



Daily Report:

5:30am	6:00am	Drove from Evenston, WY to loc
6:30am	8:30am	safety meeting do jsa check) Start Equipment) Start to Rig up unit and Bop and Equipment
8:30am	11:00am	taly 8 joints)worck on cement unit w w o wire line
11:00am	1:00pm	pick up pfg and trip in with tubing to 250 feet and perf t t c l aws able cirulate T H O RD wirlin gun
1:00pm	2:00pm	wait on call from the State
2:00pm	3:00pm	pick up one more pfg and trip in with tubing to 100 feet p f g dint work no circulation t o h) l d g. t b l with new gun
3:00pm		QUANCO
3:30pm	4:30pm	Daniel and I Help pull Ther sanitatio Tuck in)out with the water truck
4:30pm	9:30pm	travel to Rock Springs) pick up 5.5 inch fore the New well and tbt Evenston)worck on Daily Report

Remarks, Equipment Problems, ETC:

Company Name:	<u>Quanco llc</u>	Company Man:	<u>warren nicholson</u>	Date:	<u>6/19/2014</u>
AFE or Project #:	<u></u>	Projected Well Days:	<u></u>	Days on Well:	<u></u>
Well Name:	<u>Crane 12-4</u>	Sec:	<u>4</u>	TWNSHP:	<u>6</u>
Magna RIG #	<u>23</u>			Range:	<u>8 East</u>
Tool Pusher:	<u>Jorge Valencia</u>			Tool Pusher Cell:	<u>970-646-3890</u>
Operator:	<u>Antonio Hernandez</u>			Company Man Cell:	<u>818-225-5000</u>
Rig Hand:	<u>Daniel Tarango</u>				
Rig Hand:	<u>Matthew Rodriguez</u>				
Rig Hand:	<u>Fransisco Javier Mendez</u>				
Rig Hand:	<u></u>				
Rig Hand:	<u></u>				

	SUB
16	Yes
10.5	Yes
14	Yes
10.5	Yes
10.5	Yes



Daily Report:

5:30am	6:00am	Drove from Evenston, WY to loc
6:30am	8:30am	safety meeting do jsa check/Start Equipment, Start to Rig up Rig, BOP and Equipment
8:30am	11:00am	Tallied 8 joints, worked on cementing equipment, Waited on Wireline
11:00am	1:00pm	PU Tubing conveyed perforating gun, Trip in with tubing to 250' and perf, was unable circulate, TOH LD TCP
1:00pm	2:00pm	wait on call from the State
2:00pm	3:30pm	pick up one more TCP and trip in with tubing to 100' and perf, no circulation, TOH
3:30pm	4:30pm	Daniel and Jorge helpded pull Sanatation truck in/out with the water truck
4:30pm	9:30pm	travel to Rock Springs, pick up 5-1/2" sub for the next well travel to Evanston, work on Daily Report

Remarks, Equipment Problems, ETC:

MAGNA ENERGY SERVICE Rig 23

DATE	LOCATION
6-24-14	Company: Quaneco Crane 4-4 & Crane 16-4

SUMMARY

6:00-Crew travel
 6:30-JSA meeting
 7:00-Road cementer & back hoe to the crane 4-4-dig out well-cut off WH (had problems with cutting torch-had to buy a new one)-top well off with 35sxs cmt-weld cap & marker onto well-back fill
 1:00-Move equip. to the crane 16-4-dig out well-cut off WH (will have to 1" the annulus)-fill up cementer
 8:00-Travel
 8:30

NAMES	HOURS	SUBSISTANCE
Darie Roehm	14.5	Yes
Kendall Sitts	14.5	Yes
Joseph Soliz	14.5	Yes
Armando Lopez	14.5	Yes
Mike Bossie	14.5	Yes

NOTES

Tomorrows Tasks: Ru WL on the Stacey hollow (shoot hole @ surf. shoe)-RD WL-move to the crane 12-4-Ru WL-shoot holes @270'-Rd WL-circ. cmt to surf. On both wells-dig out-cut off WHs-top off if needed-weld cap & marker onto well-back fill

REVINUE	COST
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0	
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Company ORPHAN-NO RESPONSIBLE OPERAT

API Number 43033500010000

<i>Well Name :</i> Crane 16-4	
<i>Sec</i> 4 <i>Twn</i> 6 N <i>Rng</i> 8 E <i>Qtr/Qtr</i> S-NW	

Date Inspected : 6/16/2014

Notes

10:00 a.m. arrv site. 54 degrees, overcast, light breeze from SW. Site is 8" deep in powdery clay. Crew just rigging up after move from adjacent well. Some delay with mast, but finally rigged up and BOPE bolted on and ready to go by 12:30 a.m. Cmt truck needed backhoe to help it move into place due to loose soil. 12:45 RIH with tbg, tag btm at 1120'. 2:50 p.m. M & P 50 sx @ 15.6-7 ppg. Exiting fluid smells of d-limonene and is orangish-yellow. Break connection POOH 11 jts of tbg. Pump 24 bbls corrosion inhibited wtr for spacer . PT - bleed down. Suspect hole/s in csg. 3:45 POOH. Crew engaged in site clean-up for crew change tomorrow. Lv site, head to Evanston to clean truck windows. 4:30 p.m. leave for SLC.

Inspector _____

Company ORPHAN-NO RESPONSIBLE OPERAT

API Number 43033500010000

<i>Well Name :</i> Crane 16-4	
<i>Sec</i> 4 <i>Twn</i> 6 N <i>Rng</i> 8 E <i>Qtr/Qtr</i> S-NW	

Date Inspected : 6/19/2014

Notes

8:15 a.m. Met Magna Wellsite Svcs WL guy at gate - one man on crutches in a pick-up truck! Arrv well site 9:00. Temp in high 50's, light breeze from NW. Well pad area a foot deep in mud due to rain and snow the day before. Jorge, tool pusher Magna Wellsite Services, rigging up mast to tbg-set perf gun. 11:30 RIH with perf gun to 250', fire, POOH. PT, no pressure drop. Call office for instructions. 1:30 RIH to 100' perf, POOH - gun did not fire. Re-set gun. 2:30 RIH second time with perf gun, fire, POOH. PT, no pressure drop. 2:45 RIH with 9 jts tbg to ~ 270', M & P 100 sx 16.5#-15.3# cmt. Pump water, lay down tbg. 5:15 p.m. lv for Salt Lake.

Inspector _____

Company ORPHAN-NO RESPONSIBLE OPERAT**API Number** 43033500010000

Well Name :	<i>Crane 16-4</i>
Sec 4 Tw n	6 N Rng 8 E Qtr/Qtr S-NW

Date Inspected : 6/17/2014**Notes**

Magna, Rig 23 (Jorge Valencia & Darie Roehm, Toolpushers): Plug 1; at time of arrival TIH w/2 7/8" tbg & pkr to 1100', failed csg pressure test & should of tagged Plug 1 cmt @900'. Called DOGM Eng./DD to discuss situation & change of plans (extra cmt & perms @250 now required). TOOH w/all tbg & pkr & realized that their tbg tally was off by +/-250' (3.96 stds), failed csg pressure tests @850' & 535'. TIH w/15.71 stds & tagged cmt @990' (-90'). Notified DOGM Eng./DD of tbg tally mistake (extra cmt & perms @250 still required). HU cmtr, mixed & pumped 115 sxs (23.56 bbls) cmt (Class G Neat, 1.15yld, 15.8#) 990-400', disp, PU LD & reverse out. Std 8/504' & LD 15.42/486'. Load hole w/corrosion inhibitor treated water 400'-250'. Close BOP & pressure test csg to 500#, will leave pressure on csg to sqz cmt thru any leaks. Will tag in the AM. Pic(s) in M Drive.

Inspector _____

Company ORPHAN-NO RESPONSIBLE OPERAT

API Number 43033500010000

Well Name : Crane 16-4

Sec 4 *Twn* 6 N *Rng* 8 E *Qtr/Qtr* S-NW

Date Inspected : 6/18/2014

Notes

Magna, Rig 23 (Jorge Valencia, Toolpusher); Plug 1 completed, at time of arrival csg pressure 200#, bled off pressure, & pressured up to 550#, held 15 min. with no bleed off. TIH (8.49 stds) & tagged cmt @535' (135' low). Notified DOGM Eng./DD, no add'l cmt required. At time of departure, crew RD & moving to the Crane 12-4/4303330050, will do Plug 2/surface at a later date. Pic(s) in M Drive.

Inspector _____

Company ORPHAN-NO RESPONSIBLE OPERAT

API Number 43033500010000

<i>Well Name :</i>	<i>Crane 16-4</i>
<i>Sec</i> 4 <i>Twn</i> 6 N <i>Rng</i> 8 E <i>Qtr/Qtr</i> S-NW	

Date Inspected : 6/24/2014

Notes

Magna, Rig 23 (Darie Roehm, Toolpusher); Plug 2/surface, cutoff WH/csg, cmt to surf in 6.25" but not in backside (6.25"-7"). Crew will bring a 1" hose in the AM to tag cmt, top off if necessary, & complete Plug 2. Pic(s) in M Drive.

Inspector _____

Company ORPHAN-NO RESPONSIBLE OPERAT

API Number 43033500010000

Well Name : Crane 16-4

Sec 4 *Twn* 6N *Rng* 8E *Qtr/Qtr* S-NW

Date Inspected : 6/25/2014

Notes

Magna, Rig 23 (Darie Roehm, Toolpusher): Plug 2/surface completed, ran 1" hose down backside & tagged cmt, cmt top off not necessary. Prepared marker plates/2, welded a -9 5/8" mkr plate w/weep hole inside 9 5/8" csg, and a mkr plate w/op & well info on top. Pic(s) in M Drive.

Inspector _____

Company ORPHAN-NO RESPONSIBLE OPERAT

API Number 43033500010000

<i>Well Name :</i>	<i>Crane 16-4</i>
<i>Sec</i> 4 <i>Twn</i> 6 N <i>Rng</i> 8 E <i>Qtr/Qtr</i> S-NW	

Date Inspected : 6/26/2014

Notes

Magna, Rig 23 (Darie Roehm, Toolpusher): Kendall/Magna on location, waiting on delivery of Acetylene gas to finish surface plug. Darie in town getting gas & permits to move rig & equipment. 7:50 am Darie arrived with gas. Prepared mkr plates/2, welded -9 5/8" mkr plate w/weep hole in 9 5/8" csg & mkr plate w/op & well info on top. Pic(s) in M Drive.

Inspector _____

Company ORPHAN-NO RESPONSIBLE OPERAT

API Number 43033500010000

Well Name : Crane 16-4

Sec 4 *Twn* 6 N *Rng* 8 E *Qtr/Qtr* S-NW

Date Inspected : 6/28/2014

Notes

Well/mkr plate buried & Mike/Magna removing anchors & clearing pad of all equipment & debris. *Requested that site be cleared so TP Construction can conduct site reclamation in accordance with DL&L/Landowners agreement with Quaneco & TP Construction.

Inspector _____

Division of Oil, Gas and Mining
ORPHAN-NO RESPONSIBLE OPERATOR
CHANGE WORKSHEET (for state use only)

Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective:	9/16/2014
FROM: (Old Operator): N2495-Quaneco, LLC	TO: (New Operator): N9999-Orphan-No Responsible Operator

Docket Number:	2014-013
Cause Number:	281-01

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	Mineral	Surface	WELL TYPE	WELL STATUS
Crane 16-4	4	060N	080E	4303350001	18372	4	4	OW	DRL
MURPHY RIDGE 1-32	32	080N	080E	4303330045	12970	3	4	GW	S
CRANE 4-4	4	060N	080E	4303330049	13056	4	4	GW	S
CRANE 12-4	4	060N	080E	4303330050	13057	4	4	GW	S
STACEY HOLLOW 14-35	35	070N	070E	4303330056	13104	4	4	GW	S

DATA ENTRY:

1. Date bond received on: 9/11/2014
2. Changes entered in the Oil and Gas Database on: 1/9/2015
3. Date RBDMS changed to "Claimed" on: 7/29/2014

COMMENTS:

Per the Board of Oil, Gas and Mining well(s) moved to N9999 Orphan-No Resonsible Operator for Division plugging.

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER:
2. NAME OF OPERATOR: <i>Duane Co</i>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR:		7. UNIT or CA AGREEMENT NAME:
PHONE NUMBER:	8. WELL NAME and NUMBER: <i>CRANE 16-4</i>	9. API NUMBER: <i>4303350001</i>
STATE ZIP	10. FIELD AND POOL, OR WILDCAT:	

4. LOCATION OF WELL
FOOTAGES AT SURFACE: COUNTY: *Rich*

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: STATE: *UTAH*
S-NW 4 6N 8E

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: <i>9/2015</i>	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input checked="" type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
Reclamation of Well Site is complete



NAME (PLEASE PRINT) *Michael Meek Sr Franland Reserves Inc. Manager* TITLE _____

SIGNATURE *Michael Meek* DATE *10/6/2015*



Lisha Cordova <lishacordova@utah.gov>

Quaneco

1 message

Lisha Cordova <lishacordova@utah.gov> 435.535.6262
To: "Mike Meek (DL&L)" <msmeek@ari-slc.com>

Tue, Sep 8, 2015 at 12:36 PM

Mr. Meek,

**AKA Farmland Reserves Inc.*

As discussed earlier today, attached is a list of wells that the Division is seeking a Landowners Release for.

Please call if you have any questions, and thank you so much for your assistance & patience throughout this process.

Much appreciated!

Lisha

Lisha Cordova, Env. Scientist
Division of Oil, Gas and Mining
1594 W. North Temple, Suite 1210
Salt Lake City, Utah 84116
T: 801-538-5296
C: 801-396-3902
lishacordova@utah.gov

2 attachments **20150908 List of Wells (for Landowners Release).xlsx**
11K **Form 9 Sundry Notices & Reports On Wells.PDF**
102K

Operator	API #	Well Name	Qtr/Qtr	Section	Township	Range	County	Status
Quaneco	4303330049	Crane 4-4	NWNW	4	6 N	8 E	Rich	PA
Quaneco	4303330050	Crane 12-4	NWSW	4	6 N	8 E	Rich	PA
Quaneco	4303350001	Crane 16-4	S-NW	4	6 N	8 E	Rich	PA
Quaneco	4303330052	Crane 13-8	SWSW	8	6 N	8 E	Rich	PA
Quaneco	4303350002	Crane 17-8	SESW	8	6 N	8 E	Rich	LA
Quaneco	4303330056	Stacy Hollow 14-35	SESW	35	7 N	7 E	Rich	PA
Quaneco	4303330045	Murphy Ridge 1-32	NENE	32	8 N	8 E	Rich	PA