

JUN -8 2009

LM

OCD-ARTESIA

Form 3160-5
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1 Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5 Lease Serial No NM 029528
2. Name of Operator BOPCO, L. P.		6 If Indian, Allottee or Tribe Name
3a Address P. O. Box 2760 Midland, TX 79702	3b Phone No (include area code) 432-683-2277	7 If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec, T, R, M, or Survey Description) Surf: SENW, 2428' FNL & 1340' FWL, Sec 36, T22S, R30E, Lat N 32.349161, Lon W 103.838597 BHL: 1830' FNL, 660' FWL, Sec 35, T22S, R30E, Lat N 32.35084, Lon W 103.85817		8 Well Name and No James Ranch Unit #105H
		9 API Well No 30-015-37064
		10 Field and Pool, or Exploratory Area Quahada Ridge SE (Delaware)
		11 County or Parish, State Eddy Co., NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

- 13 Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

BOPCO L.P. respectfully request the changes listed below to be approved for the captioned well:

5-1/2" casing will be replaced by 7", 26#, N-80, LTC casing thru the curve (7603' MD) and cemented in two stages with cement circulated to surface and a 4-1/2", 11.6#, N-80, FJT liner from 7400' (approxomately) to TD 13,196', with Baker Frac-Point Mechanical packers for isolation of lateral pay zones.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

BOPCO L.P. Bond # on file: COB00050

14 I hereby certify that the foregoing is true and correct Name (Printed/Typed) Annette Childers		Title Regulatory Clerk
Signature <i>Annette Childers</i>	Date 5-28-09	APPROVED JUN 4 2009 WESLEY W. INGRAM PETROLEUM ENGINEER
THIS SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Title Office	

Title 18 USC Section 1001 and Title 43 USC Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

712

Surface casing to be set into the Rustler below all fresh water sands.

7" casing will be set at approximately 7603' (thru curve) and cemented in two stages with DV Tool set at approximately 5000'. Cement will be circulated to surface.

Production casing will be 4-1/2" run with Baker Frac-Point Mechanical packers. Top of 4-1/2" liner will be approximately 7400' MD. TD 13,196' MD, 7244' TVD.

Drilling procedure, BOP diagram, and anticipated tops attached.

This well is located within the R111 Potash area.

The surface location and bottom hole location are both orthodox.

BOPCO, L.P., at P. O. Box 2760, Midland, TX, 79702 is a subsidiary of BOPCO, L.P., 201 Mail Street, Ft. Worth, TX, 76102. Bond No. COB000050 (Nationwide).

EIGHT POINT DRILLING PROGRAM

BOPCO, L.P.

NAME OF WELL: James Ranch Unit #105H

LEGAL DESCRIPTION - SURFACE: 2428' FNL, 1340' FWL, Section 36, T22S, R30E, Eddy County, NM.
 BHL: 1830' FNL, 660' FWL, Section 35, T22S, R30E, Eddy County, New Mexico.

POINT 1: ESTIMATED FORMATION TOPS

(See No. 2 Below)

POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops: KB 3330' (estimated)
 GL 3311'

<u>FORMATION</u>	<u>ESTIMATED TOP FROM KB</u>		<u>ESTIMATED SUB-SEA TOP</u>	<u>BEARING</u>
	<u>TVD</u>	<u>MD</u>		
T/Rustler	222'	222'	+ 3108'	Barren
B/Rustler	575'	575'	+ 2755'	Barren
T/Salt	685'	685'	+ 2643'	Barren
B/Salt	3547'	3547'	- 217'	Barren
T/Lamar Lime	3791'	3791'	- 461'	Barren
T/Ramsey	3852'	3852'	- 522'	Oil/Gas
T/Lower Cherry Canyon	5941'	5941'	- 2611'	Oil/Gas
KOP (Kick Off Point)	6841'	6841'	- 3511'	N/A
T/Brushy Canyon "U" Sand	7173'	7207'	- 3843'	Oil/Gas
EOC Target	7318'	7530'	- 3993'	Oil/Gas
TD (end of lateral)	7243'	13,196'	- 3913'	Oil/Gas

POINT 3: CASING PROGRAM

<u>TYPE</u>	<u>INTERVALS (MD)</u>	<u>Hole Size</u>	<u>PURPOSE</u>	<u>CONDITION</u>
20"	0' - 60'	24"	Conductor	Contractor Discretion
13-3/8", 48#, H-40, ST&C	0' - 604'	17-1/2"	Surface	New
9-5/8", 36#, J-55, 8RD, LT&C	0' - 3822'	12-1/4"	Intermediate	New
7", 26#, N-80, LT&C	0' - 7603'	8-3/4"	Production	New
4-1/2", 11.6#, N-80, Ultra Flush JT	7603' - 13,196'	6-1/8"	Production	New

CASING DESIGN SAFETY FACTORS:

<u>TYPE</u>	<u>TENSION</u>	<u>COLLAPSE</u>	<u>BURST</u>
13-3/8", 48#, H-40, ST&C	16.10	2.85	3.49
9-5/8", 36#, J-55, LT&C	4.03	1.30	1.13
7", 26#, N-80, LT&C	3.04	1.51	2.99
4-1/2", 11.6#, N-80, Ultra Flush JT	6.10	2.11	1.90

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:

SURFACE CASING

Tension	A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).
Collapse	A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.
Burst	A 1.3 design factor with a surface pressure equal to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure at that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient. The effects of tension on burst will not be utilized.

PROTECTIVE CASING

Tension	A 1.6 design factor utilizing the effects of buoyancy (10 ppg).
Collapse	A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.

In the case of development drilling, collapse design should be analyzed using internal evacuation equal to 1/3 the proposed total depth of the well. This criterion will be used when there is absolutely no potential of the protective string being used as a production casing string.

Burst	A 1.0 surface design factor and a 1.3 downhole design factor with a surface pressure equivalent to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure at that depth. Back pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient.
-------	---

PRODUCTION CASING

Tension	A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).
Collapse	A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.
Burst	A 1.25 design factor with anticipated maximum tubing pressure (3529 psig) on top of the maximum anticipated packer fluid gradient. Backup on production strings will be formation pore pressure. The effects of tension on burst will not be utilized.

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

The blowout preventer equipment will be as shown in Diagram #1 and Diagram #2. The BOP on the surface will be as shown in Diagram #1 and will consist of hydril, mud cross and choke manifold. (see attached manifold drawing) The Diagram #2 BOPE will be installed on the intermediate casinghead and on all subsequent casing strings. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. when installed on the surface casinghead will be hydro-tested to 250 psig & 2000 psig with independent tester. The BOPE when rigged up on the intermediate casing spool will be tested to 3000 psig by independent tester. In addition to the high pressure test, a low pressure (250 psig) test will be required.

These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) Fifteen days after a previous test
- d) As required by well conditions

A function test to insure that the preventers are operating correctly will be performed on each trip.

POINT 5: MUD PROGRAM

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - 604'	FW Spud Mud	8.5 – 9.2	38-70	NC	NC	NC	10.0
604' - 3822'	Brine Water	9.8 – 10.2	28-30	NC	NC	NC	9.5 – 10.5
3822' - 7610'	FW/Gel	8.7 – 9.0	28-36	NC	NC	NC	9.5 – 10.0
7610' - 13,196'	FW/Gel	8.7 – 9.0	28-36	NC	NC	NC	9.5 – 10.0

NOTE: May increase vis for logging purposes only.

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

None anticipated.

B) LOGGING

Run #1: GR with MWD during drilling of curve and horizontal portions of 8-3/4" and 6-1/8" openhole.

Run #2: Drill pipe conveyed GR-NL-Density-Caliper, TD to 250' above the curve.

C) CONVENTIONAL CORING

None anticipated.

D) CEMENT

<u>INTERVAL</u>	<u>AMOUNT SXS</u>	<u>FT OF FILL</u>	<u>TYPE</u>	<u>GALS/SX</u>	<u>PPG</u>	<u>FT³/SX</u>
SURFACE:						
Lead: 0 – 381' (100% excess Circ to surface)	290	381	EconoCem-HLC + 2.7 #/sk Salt	10.25	12.8	1.88
Tail: 381' – 681' (100% excess)	310	300	HalCem-C + 2% CaCl ₂	6.39	14.8	1.35
INTERMEDIATE:						
Lead: 0' – 3318' (100% excess Circ to surface)	750	3318	EconoCem-C + 0.125 pps Poly-e-flake	16.62	11.5	2.78
Tail: 3318' – 3815' (100% excess)	250	500	HalCem-C + 1% CaCl ₂	6.36	14.8	1.34
2nd INTERMEDIATE:						
Stage 1:						
Lead: 5000' – 6654' (50% excess)	200	1654	Halco Tuned Lite + 0.125 #/sk CFR-3 + 1 #/sk Salt + 0.15 #/sk WG-17	14.5	9.7	3.13
Tail: 6654' – 7654' (50% excess)	200	1000	HalCem H + 0.6% Halad-9	11.34	15	1.20
DV Tool @ 5,000'						
Stage 2:						
Lead: 0' – 4900' (50% excess)	400	4900	EconoCem-C	14.3	11.9	2.47
Tail: 4900' – 5000' (50% excess)	50	100	HalCem-C	6.34	14.8	1.33

E) DIRECTIONAL DRILLING

BOPCO, L.P. plans to drill out the 9-5/8" intermediate casing with an 8-3/4" bit to a TVD of approximately 6846' at which point a directional hole will be kicked off and drilled at an azimuth of 275.53°, building angle at 12.00°/100' to a max angle of 90.82° at a TVD of 7324' (MD 7603'). At this depth 7" casing will be installed and cement circulated to surface in two stages with DV Tool at approximately 5000'. A 6-1/8" openhole will be drilled thru lateral to MD of 13,196'. 4-1/2" casing will be installed in the lateral using Baker Frac-Point Mechanical packers to isolate pay intervals in Brushy Canyon Sand.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section. A BHP of 3197 psi (max) or MWE of 8.4 ppg is expected. Lost circulation may exist in the Delaware Section from 3858'-7324' TVD. No H₂S is anticipated.

POINT 8: OTHER PERTINENT INFORMATION**A) Auxiliary Equipment**

Upper and lower kelly cocks. Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Upon approval

24 days drilling operations

20 days completion operations



Gary E. Gerhard

GEG/mac
May 28, 2009

McVay Rig #7,5

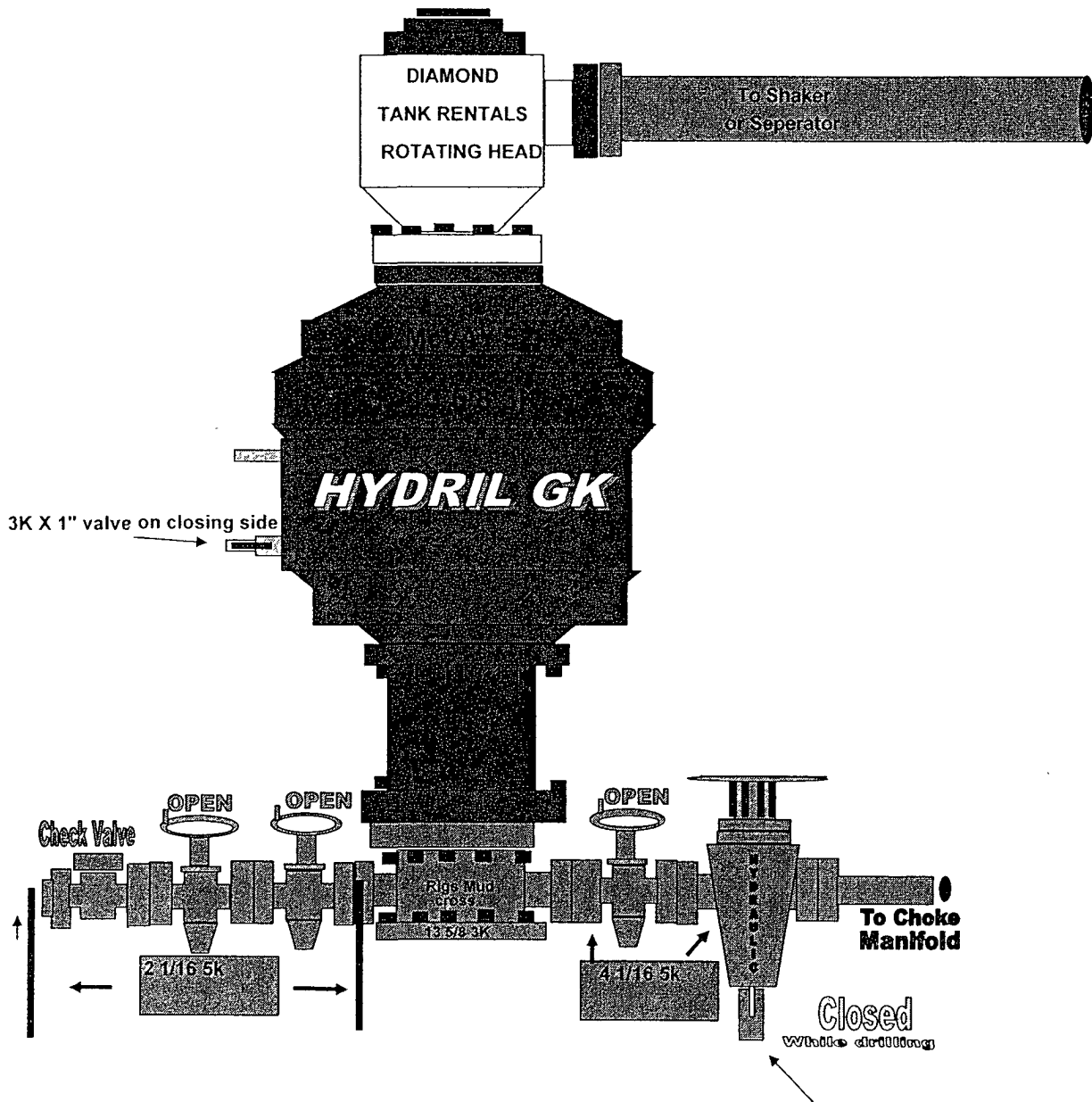


Diagram #1

McVay Rig #7,5

This Stack is for 7 7/8" or 8 3/4" hole.

Rotary Table

RKB=19.66'

RKB to Pipe Rams-

RKB to Blind Rams-

RKB Correction -

Rigs Mud Cross -

Rigs upper spacer spool-

Rigs lower spacer spool"

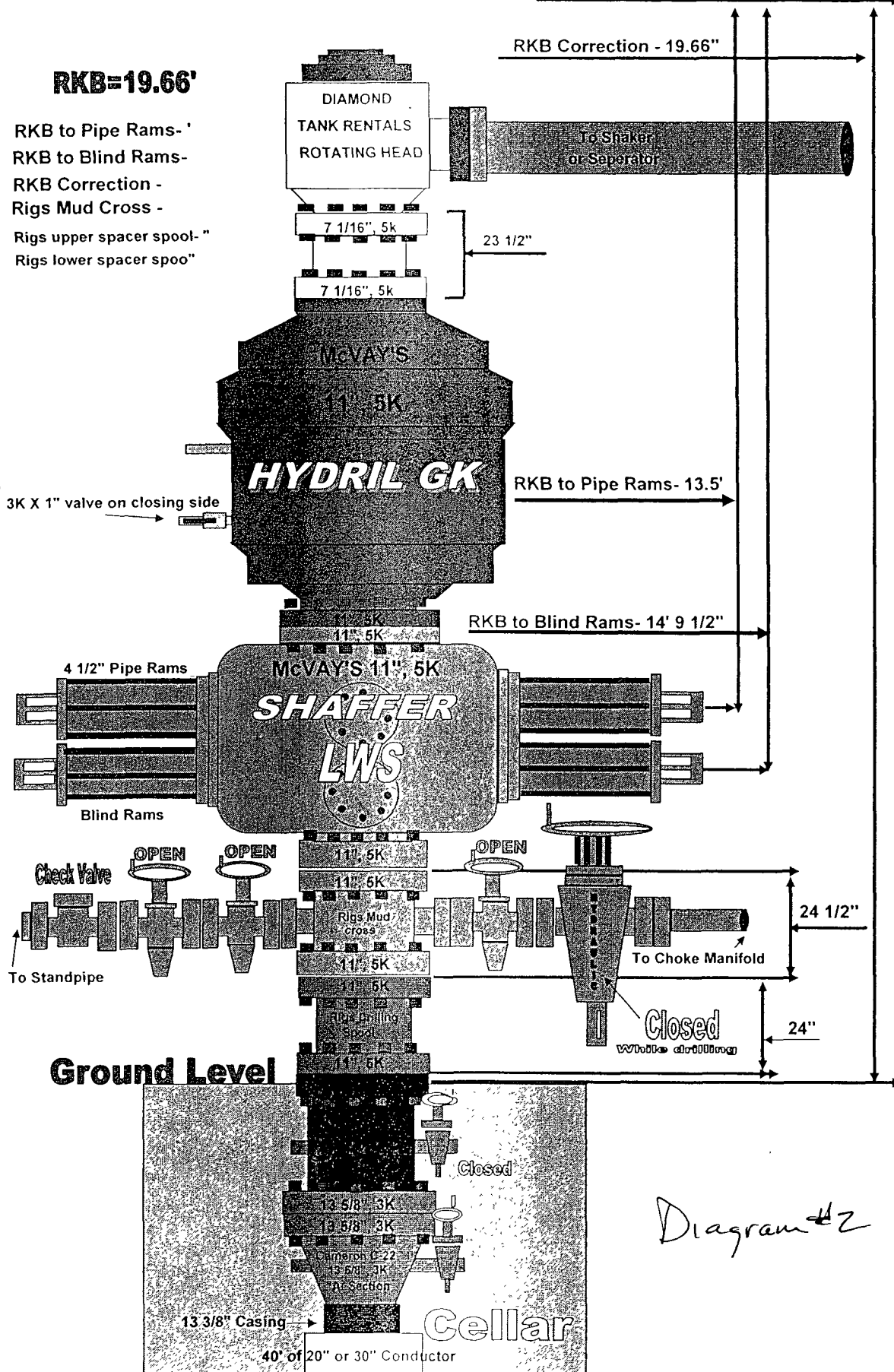
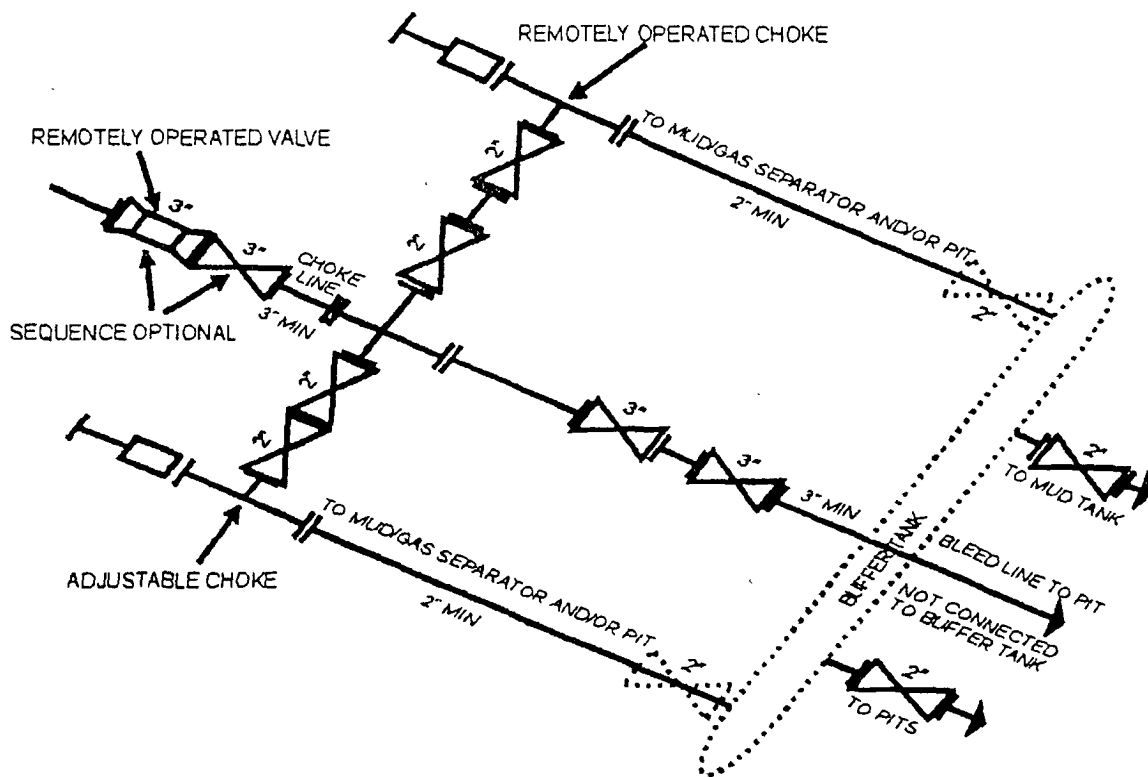


Diagram #2



5M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

Although not required for any of the choke manifold systems, buffer tanks are sometimes installed downstream of the choke assemblies for the purpose of manifolding the bleed lines together. When buffer tanks are employed, valves shall be installed upstream to isolate a failure or malfunction without interrupting flow control. Though not shown on 2M, 3M, 10M, OR 15M drawings, it would also be applicable to those situations.

[54 FR 39528, Sept. 27, 1989]

Make Up Torque**ULTRA
FJ****ULTRA****premium oilfield services**

ULTRA Premium Oilfield Services
3333 Brazos Avenue
Odessa, TX 79764

(432) 337-2109

(432) 580-6607

Fax (432) 332-5019

For Help Please Call Our ULTRA Field Service Manager, (432) 557-1916

ULTRA-FJ Connection Torque Sheet. (Flush-Joint)

Print Date:

Thursday, March 26, 2009

Pipe Size (in)	Pipe Weight (#)	Pipe Grade
4 1/2	11.60	N-80

Make Up Torque in (Ft-Lbs)

Minimum	Optimum	Maximum
2,700	3,000	3,300

Please ask for and use the latest recommended running procedures!
If the date on this sheet is over 30 days old please call and verify any updates or changes.
Thank You.

ULTRA Odessa
3333 Brazos Avenue
Odessa Texas 79764
Tel. 432-337-2109

ULTRA Houston
8216 Miller Road #0
Houston, Texas 77049
Tel. 281-466-8400

The Strongest Flush-Joint Connection

**ULTRA
FJ**

- ULTRA-FJ has the highest tensile efficiency of any true flush-joint connection.
- ULTRA-FJ has compression efficiency equal to or greater than its tensile efficiency.
- ULTRA-FJ pressure ratings exceed API minimum internal yield and collapse pressure.

DATA SHEET

PARAMETERS

Nominal OD	4 1/2
Nominal Weight	11.80
Grade	N-80

MATERIAL

Minimum Yield	80,000	psi
Minimum Ultimate	100,000	psi

PIPE BODY

PE Weight	11.35	lbs
Wall Thickness	0.250	in
Nominal ID	4.000	in
Drift Diameter	3.875	in
Average Pipe Body Area	3.356	in ²
Yield Strength	268,400	lbs
Tensile Strength	335,600	lbs
Minimum Internal Yield Pressure	7,780	psi
Collapse Pressure	6,360	psi

CONNECTION

Average Pipe Body OD	4.523	in
ID (bored)	3.993	in
Critical Cross Section Area	2.183	in ²
Yield Strength in Tension	174,600	lbs
Tension Efficiency	65.0%	
Fracture Strength	209,400	lbs
Percent Pipe Body Fracture	62.4%	
Yield Strength in Compression	179,800	lbs
Compression Efficiency	67.0%	
Make-Up Loss	3.727	in
Min. Internal Yield Pressure	7,780	psi
Collapse Pressure	6,360	psi

ultra

ULTRA Odessa
3333 Brazos Avenue
Odessa, Texas 79764
Tel. 432-337-2109

ULTRA Houston
8216 Miller Road #3
Houston, Texas 77049
Tel. 281-456-8400

3/26/2009

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BOPCO, L.P.
LEASE NO.:	NM-02952B
WELL NAME & NO.:	James Ranch Unit #105H
SURFACE HOLE FOOTAGE:	2428' FNL & 1340' FWL, Section 36, T. 22 S., R. 30 E
BOTTOM HOLE FOOTAGE:	1830' FNL & 660' FWL, Sec 35, T. 22 S., R. 30 E
LOCATION:	Section 35, T. 22 S., R 30 E., NMPM
COUNTY:	Eddy County, New Mexico

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface. The logs shall be run at a speed which allows the logs to be legible and no faster than manufacturer of the logging tools recommended speed. (R-111-P area only)

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

R-111-P potash/WIPP

High cave/karst.

Possible water flows in the Salado Group and Castile formation.

Possible lost circulation and water flows in the Delaware and Bone Spring formations.

1. The 13-3/8 inch surface casing shall be set **at approximately 604 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **If the salt is encountered at a shallower depth, the casing is to be set a minimum of 25 feet above the salt.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
- ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.
3. The minimum required fill of cement behind the **7** inch production casing is:
- a. First stage to DV tool, cement shall:
- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.
- b. Second stage above DV tool, cement shall:
- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office.
4. The minimum required fill of cement behind the **4-1/2** inch production liner is:
- ☒ No cement required. Operator using Baker Frac-Point Mechanical liner system. Liner to be set 200' into 7" casing.
5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
6. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8" intermediate casing shoe shall be **3000 (3M) psi**.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WIPP Requirements

The proposed well is located more than 330' of the WIPP Land Withdrawal Area boundary. As a result, BOPCO, L. P. is requested, but not required to submit daily logs and deviation survey information to the Department of Energy per requirements of the Joint Powers Agreement. Any future entry into the well for purposes of completing additional drilling will require supplemental information.

BOPCO, L. P. can email the required information to Ms. Susan McCauslin at susan.mccauslin@wipp.ws or fax to her attention at 575-234-7061.

WWI 060409