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HOBBS OCD
Form 3160-3
(March 2012)
MAY 05 2014

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

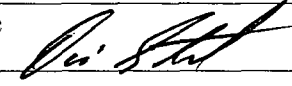
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM107395
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator OXY USA Inc. 16696		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 50250 Midland, TX 79710		8. Lease Name and Well No. Foxglove 29 Federal #4H 304827
3b. Phone No. (include area code) 432-685-5717		9. API Well No. 30-025- 41827
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 340 FNL 980 FWL NWNW(D) At proposed prod. zone 340 FSL 980 FWL SWSW(M)		10. Field and Pool, or Exploratory Triple X Bone Spring 59900
14. Distance in miles and direction from nearest town or post office* 24 miles southwest from Eunice, NM		11. Sec., T. R. M. or Blk. and Survey or Area Sec 29 T23S R33E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 340'	16. No. of acres in lease 600ac	12. County or Parish Lea
17. Spacing Unit dedicated to this well 160ac	13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1000'	19. Proposed Depth 15439'M 11146'V	20. BLM/BIA Bond No. on file NMB000862 - ESB000226
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3692.1' GL	22. Approximate date work will start* 05/01/2014	23. Estimated duration 35days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature 	Name (Printed/Typed) David Stewart	Date 11/8/13
Title Sr. Regulatory Advisor david_stewart@oxy.com		
Approved by (Signature) Steve Caffey	Name (Printed/Typed)	Date MAY 1 - 2014
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval 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.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. 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.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Ke
04/06/14

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

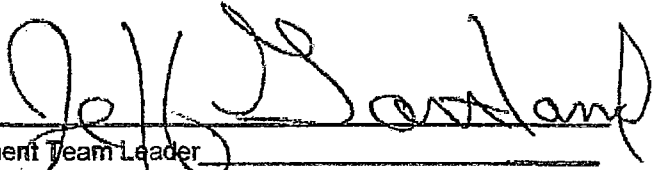
Approval Subject to General Requirements
& Special Stipulations Attached

MAY 13 2014

7m

OPERATOR CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed this 8th day of November, 2013.


Name: Jeff Gartland
Position: Reservoir Management Team Leader
Address: 5 Greenway Plaza, Suite 110, Houston, TX 77046
Telephone: 713-552-8567
E-mail: (optional): jeff_gartland@oxy.com
Company: Occidental Permian LP / OXY USA Inc / OXY USA WTP LP
Field Representative (if not above signatory): Dusty Weaver
Address (if different from above): P.O. Box 50250 Midland, TX 79710
Telephone (if different from above): 432-685-5723
E-mail (if different from above): calvin_weaver@oxy.com

OXY USA Inc
Foxglove 29 Federal #4H
APD Drilling Data

OPERATOR NAME / NUMBER: OXY USA Inc

16696

LEASE NAME / NUMBER: Foxglove 29 Federal #4H Federal Lease No: NMNM107395

STATE: NM

COUNTY: Lea

POOL NAME/NUMBER: Triple X Bone Spring 59900

SURFACE LOCATION: 340 FNL 980 FWL NWNW(D) Sec 29 T23S R33E

SL: LAT: 32.2819229N **LONG:** 103.5992389W **X:** 726869.0 **Y:** 467057.1 **NAD:** 27

BOTTOM HOLE LOCATION: 340 FSL 980 FWL SWSW(M) Sec 29 T23S R33E

SL: LAT: 32.2692771N **LONG:** 103.5992320W **X:** 726902.6 **Y:** 462456.8 **NAD:** 27

APPROX GR ELEV: 3692.1'

EST KB ELEV: 3716.1' (24' KB-GL)

1. GEOLOGIC NAME OF SURFACE FORMATION

a. Permian

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS

Formation	TVD - RKB	Expected Fluids
T. Rustler	1227	--
T. Salt	1732	--
B. Salt	5094	--
T. Lamar / B. Anhydrite	5104	--
T. Bell Canyon	5131	Form Water
T. Cherry Canyon	6012	Oil/Gas
T. Brushy Canyon	7343	Oil/Gas
T. 1 st BSPG	8922	Oil/Gas
T. 2 nd BSPG	10320	Oil/Gas
Target 2 nd BSPG Sand	11146	Oil/Gas
T. 3 rd BSPG	11154	Oil/Gas

- Fresh water may be present above the Rustler formation. Surface casing will be set below the top of the Rustler to protect any possible fresh water. See COA

GREATEST PROJECTED TD LATERAL: 15439'MD/11146'VD **OBJECTIVE:** 2nd Bone Spring

3. CASING PROGRAM

New Surface Casing ran in a 14.75" hole filled with 8.50 ppg mud

Hole Size (in)	Interval (ft)	OD (in)	Wt (ppf)	Grade	Conn	ID (in)	Condition	Burst (psi)	Collapse (psi)	Burst SF	Coll SF	Ten SF
14.75	0-1280	11.75	47	J55	BTC	11.000	New	3072	1514	1.42	3.16	4.97

1375'

New Intermediate Casing ran in a 10.625" hole filled with 10.2 ppg mud

Hole Size (in)	Interval (ft)	OD (in)	Wt (ppf)	Grade	Conn	ID (in)	Condition	Burst (psi)	Collapse (psi)	Burst SF	Coll SF	Ten SF
10.625	0-5150	8.625	32	J55	LTC	7.921*	New	3928	2533	1.23	1.52	1.78

New Production Casing ran in a 7.875" hole filled with 9.2 ppg mud

Hole Size (in)	Interval (ft)	OD (in)	Wt (ppf)	Grade	Conn	ID (in)	Condition	Burst (psi)	Collapse (psi)	Burst SF	Coll SF	Ten SF
7.875	0-15439	5.500	17	P110	BTC	4.892	New	10640	7480	1.22	2.11	1.47

*SPECIAL DRIFT TO 7.875"

Casing Design Assumptions:

Burst Loads

CSG Test (Surface)

- Internal: Displacement fluid + 70% CSG Burst rating
- External: Pore Pressure from section TD to surface

CSG Test (Intermediate)

- Internal: Displacement fluid + 70% CSG Burst rating
- External: Pore Pressure from the Intermediate hole TD to Surface CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

CSG Test (Production)

- Internal: Displacement fluid + 80% CSG Burst rating
- External: Pore Pressure from the well TD the Intermediate CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Gas Kick (Surface/Intermediate)

- Internal: Gas Kick based on Pore Pressure or Fracture Gradient @ CSG shoe with a gas 0.115psi/ft Gas gradient to surface while drilling the next hole section (e.g. Gas Kick while drilling the production hole section is a burst load used to design the intermediate CSG)
- External: Pore Pressure from section TD to previous CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Stimulation (Production)

- Internal: Displacement fluid + Max Frac treating pressure (not to exceed 80% CSG Burst rating)
- External: Pore Pressure from the well TD to the Intermediate CSG shoe and 8.5 ppg MWE to surface

Collapse Loads

Lost Circulation (Surface/Intermediate)

- Internal: Losses experienced while drilling the next hole section (e.g. losses while drilling the production hole section are used as a collapse load to design the intermediate CSG). After losses there will be a column of mud inside the CSG with an equivalent weight to the Pore Pressure of the lost circulation zone
- External: MW of the drilling mud that was in the hole when the CSG was run

Cementing (Surface/Intermediate/Production)

- Internal: Displacement Fluid
- External: Cement Slurries to TOC, MW to surface

Full Evacuation (Production)

- Internal: Atmospheric Pressure
- External: MW of the drilling mud that was in the hole when the CSG was run

Tension Loads

Running CSG (Surface/Intermediate/Production)

- Axial load of the buoyant weight of the string plus either 100 klb over-pull or string weight in air, whichever is less

Green Cement (Surface/Intermediate/Production)

- Axial load of the buoyant weight of the string plus the cement plug bump pressure (Final displacement pressure + 500 psi)

Burst, Collapse and Tensile SF are calculated using Landmark's Stress Check (Casing Design) software.

4. CEMENT PROGRAM

Surface Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
0' – 900' (125% Excess)	510	900	Premium Plus cement with 1 % Calcium Chloride - Flake (Accelerator), 4 % Bentonite (Light Weight Additive), 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	9.14	13.5	1.73	888
900' – 1280' ^{1375'} (125% Excess)	280	380	Premium Plus cement with 1 % Calcium Chloride - Flake (Accelerator)	6.34	14.8	1.34	1416

Intermediate Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Lead: 0' – 4190' (125% Excess)	950	4190	Halliburton Light Premium Plus Cement with 5% Salt (Accelerator), 0.25 % HR-800 (Retarder)	9.84	12.9	1.85	771
Tail: 4190' – 5150' (125% Excess)	350	960	Premium Plus cement	6.34	14.8	1.33	1779

Production Casing

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Lead: 4000' – 10000' (100% Excess)	660	6000	TUNED LIGHT (TM) SYSTEM 3 lbm/sk Kol-Seal (Lost Circulation Additive), 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive), 0.25 lbm/sk HR-800 (Retarder)	14.05	10.2	2.95	947
Tail: 10000' – 15439' (40% Excess)	800	5439	Super H Cement, 0.5 % Halad(R)-344 (Low Fluid Loss Control), 0.4 % CFR-3 (Dispersant), 3 lbm/sk Salt (Salt), 0.3 % HR-800 (Retarder), 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	8.38	13.2	1.66	615

The volumes indicated above may be revised depending on caliper measurement.

5. DIRECTIONAL PLAN

Please see attached directional plan

6. PRESSURE CONTROL EQUIPMENT

Surface: ~~0' – 1280'~~^{1375'} None.

Intermediate and Production: ~~1280'~~^{1375'} MD/TVD – 15439' MD / 11146' TVD. Intermediate and Production hole will be drilled with a 13-5/8" 10M three ram stack with a 5M annular preventer and a 5M Choke Manifold.

- a. All BOP's and associated equipment will be tested in accordance with Onshore Order #2 (250/5000 psi on rams for 10 minutes each and 250/3500 psi for 10 minutes for annular preventer, equal to 70% of working pressure) with a third party BOP testing service before drilling out the surface casing shoe. A Multibowl wellhead system will be used in this well therefore the BOPE test will cover the test requirements for the Intermediate and Production sections.
- b. The Surface and Intermediate casings strings will be tested to 70% of their burst rating for 30 minutes. This will also test the seals of the lock down pins that hold the pack-off in place in the Multibowl wellhead system.

See
COA

- c. Pipe rams will be function tested every 24 hours and blind rams will be tested each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. A 2" kill line and 3" choke line will be accommodated on the drilling spool below the ram-type BOP.
- d. The BOPE test will be repeated within 21 days of the original test, on the first trip, if drilling the intermediate or production section takes more time than planned.
- e. Other accessory BOP equipment will include a floor safety valve, choke lines, and choke manifold having a 5000 psi working pressure rating and tested to 5000 psi.
- f. The Operator also requests a variance to connect the BOP choke outlet to the choke manifold using a co-flex hose manufactured by Contitech Rubber Industrial KFT. It is a 3" ID x 35' flexible hose with a 10,000 psi working pressure. It has been tested to 15,000 psi and is built to API Spec 16C. Once the flex line is installed it will be tied down with safety clamps (certifications attached).
- g. BOP & Choke manifold diagrams attached.

7. MUD PROGRAM:

See COA 1375'

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0' - 1280'	8.5	28 - 38	NC	Fresh Water / Spud Mud
1280' - 5150'	10.2	28 - 32	NC	Fresh Water / NaCl Brine
5150' - 10400' (Vertical)	9.2	28 - 34	NC	Cut Brine / Sweeps
10400' - 15439' (Curve & Horizontal)	9.2	32 - 50	< 18	Duo Vis / Salt Gel / Starch / PAC

Remarks: Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

8. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT

- a. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.
- b. Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. **If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the BLM.**

9. POTENTIAL HAZARDS:

- a. H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6.
- b. No abnormal temperatures or pressures are anticipated. The highest anticipated pressure gradient is **0.463 psi/ft**. Maximum anticipated bottom hole pressure is **5158 psi**.
- c. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS

Road and location construction will begin after the APD approval. Move in operations and drilling is expected to take 35 days. If production casing is run, then an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flow lines in order to place well on production.

11. WIRELINE LOGGING / MUD LOGGING / LWD

See COA

- a. Wireline logging: None
- b. Mud loggers to be rigged up from conductor shoe to TD.
- c. Acquire GR while drilling, from Int casing shoe to TD.

COMPANY PERSONNEL:

<u>Name</u>	<u>Title</u>	<u>Office Phone</u>	<u>Mobile Phone</u>
Anar Khalilov	Drilling Engineer	(713)985-6959	(832) 205-6365
Sebastian Millan	Drilling Engineer Supervisor	(713)350-4950	(832) 528-3268
Roger Allen	Drilling Superintendent	(713)215-7617	(281) 682-3919
Oscar Quintero	Drilling Manager	(713)985-6343	(713) 689-4946

The following well is in the Triple X Bone Spring Pool.

1. Foxglove 29 Federal #1 – 30-025-36593 – TVD-12251' – Unit L – 3rd Bone Spring

From: Ruidiaz-Santiago, Cyd M
Sent: Tuesday, January 07, 2014 10:58 AM
To: Cranfill, John R; Stewart, David
Cc: Evans, Joseph M; Gartland, Jeff; Garoon, Jeffrey A
Subject: RE: APD Deficiencies- Foxglove 29 Federal #4H, 5H, 6H, 7H

David,

Here are the top most perforation depths for the Foxglove wells:

Foxglove 29 Fed 4H- -7160 SS/10,915 TVD/ 10,950 MD

Foxglove 29 Fed 5H- -7170 SS/10,940 TVD/ 11,000 MD

Foxglove 29 Fed 6H- -7198 SS/10,960 TVD/ 11,050 MD

Foxglove 29 Fed 7H- -7210 SS/ 10,973 TVD/ 11,070 MD

Let me know if you need anything else.

Cyd M. Ruidiaz-Santiago

Geologist

Permian-Primary SE NM RMT | OXY USA Inc.

Rm. 25.091 | Tel. 713.985.6973 | Cel.832.331.5913

5 Greenway Plaza, Suite110

Houston, TX 77049

From: Cranfill, John R
Sent: Monday, January 06, 2014 2:14 PM
To: Stewart, David
Cc: Evans, Joseph M; Ruidiaz-Santiago, Cyd M; Gartland, Jeff; Garoon, Jeffrey A; Wilson, Jim B (RWI Construction Inc)
Subject: RE: APD Deficiencies- Foxglove 29 Federal #4H, 5H, 6H, 7H

David,

Cyd will be providing you the top most perforation depths for these wells. In short we will be completing back into the heel of the lateral some but not totally. On average we should be a total of 500-530' off the lease line @ 45 degrees based on the top most productive interval of the 2nd Bone Spring Sand.

We checked and this is what Cimarex also did in their Federal wells in the area (Dos Equis 12 #1-3).

Thanks,

John Cranfill

Sr. Reservoir Engineer / Permian Primary Southeast New Mexico

OXY USA Inc.

p. 713.985.6953 / c. 832.312.9593 / f. 713.985.1268

John_Cranfill@oxy.com



F29F 4H
Lea County, New Mexico
Northing: 467057.10
Easting: 726869.00
Design #1



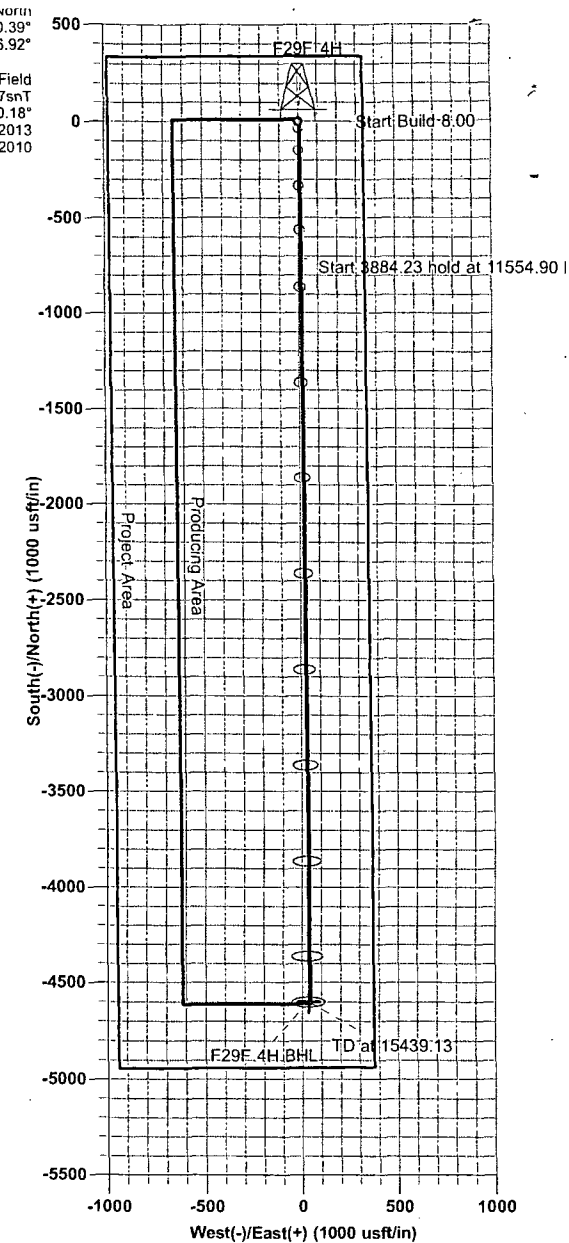
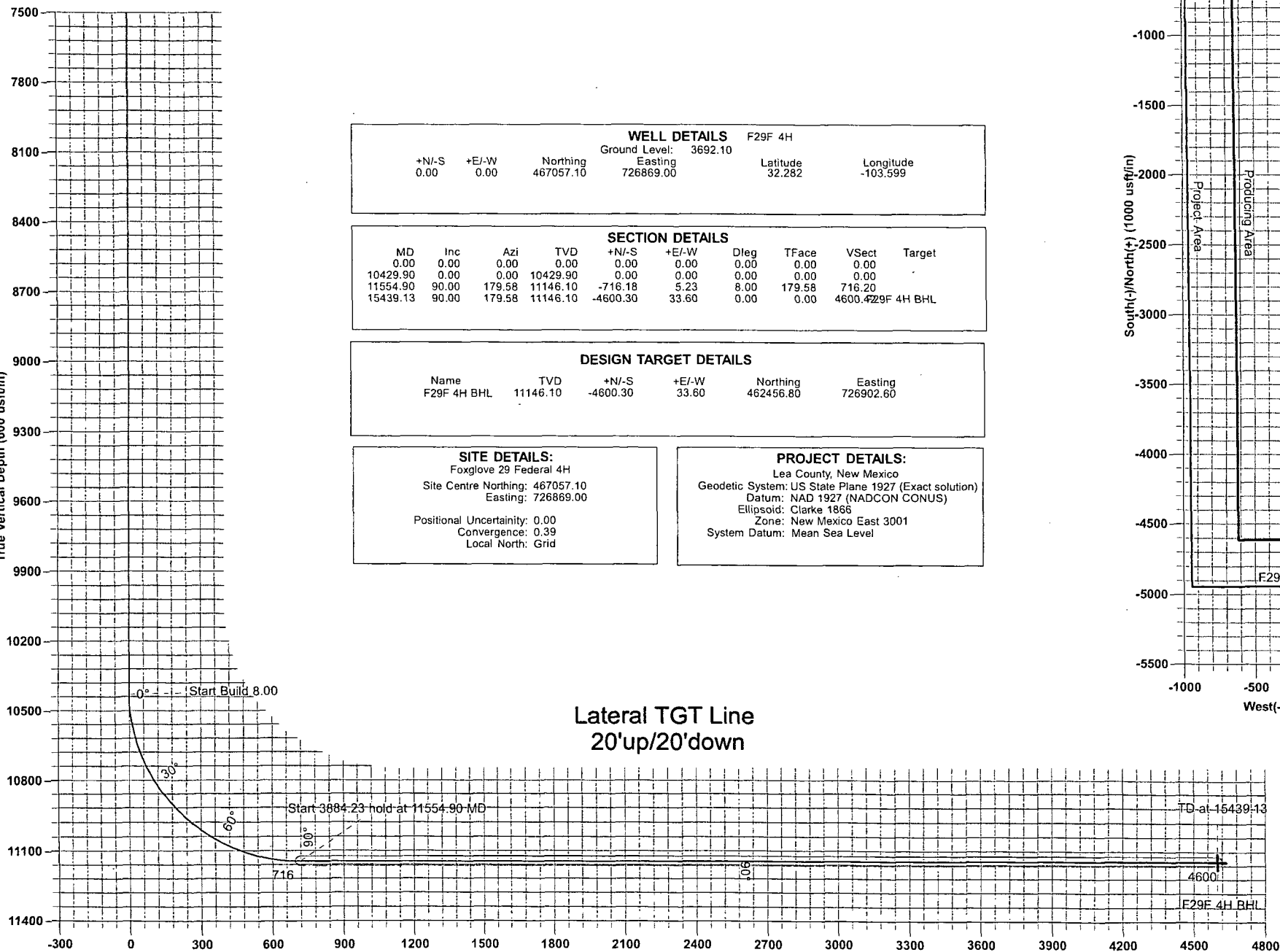
To convert a Magnetic Direction to a Grid Direction, Add 6.92°
To convert a True Direction to a Grid Direction, Subtract 0.39°

Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.92°

Magnetic Field
Strength: 48413.7nT
Dip Angle: 60.18°
Date: 10/11/2013
Model: IGRF2010



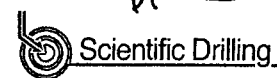
KB @ 3716.10usft
Gr @ 3692.10



Jody Barclay
13:31, October 11 2013
Scientific Drilling
2740 N. Highway 287



Scientific Drilling Planning Report



DP-2

Database:	CompassC	Local Co-ordinate Reference:	Well F29F 4H
Company:	OXY	TVD Reference:	KB @ 3716.10usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3716.10usft
Site:	Foxglove 29 Federal 4H	North Reference:	Grid
Well:	F29F 4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #1		

Project	Lea County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Foxglove 29 Federal 4H		
Site Position:		Northing:	467,057.10 usft
From:	Map	Easting:	726,869.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.282
		Longitude:	-103.599
		Grid Convergence:	0.39 °

Well	F29F 4H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32.282
		Longitude:	-103.599
		Ground Level:	3,692.10 usft

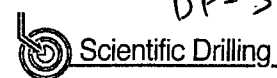
Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/11/2013	7.32	60.18	48,414

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	179.58	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10,429.90	0.00	0.00	10,429.90	0.00	0.00	0.00	0.00	0.00	0.00	
11,554.90	90.00	179.58	11,146.10	-716.18	5.23	8.00	8.00	0.00	179.58	
15,439.13	90.00	179.58	11,146.10	-4,600.30	33.60	0.00	0.00	0.00	0.00	F29F 4H BHL



Scientific Drilling
Planning Report



DP-3

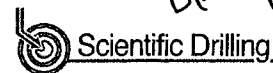
Database:	CompassC	Local Co-ordinate Reference:	Well F29F 4H
Company:	OXY	TVD Reference:	KB @ 3716.10usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3716.10usft
Site:	Foxglove 29 Federal 4H	North Reference:	Grid
Well:	F29F 4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00



Scientific Drilling
Planning Report



DP-4

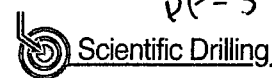
Database:	CompassC	Local Co-ordinate Reference:	Well F29F 4H
Company:	OXY	TVD Reference:	KB @ 3716.10usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3716.10usft
Site:	Foxglove 29 Federal 4H	North Reference:	Grid
Well:	F29F 4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00
10,429.90	0.00	0.00	10,429.90	0.00	0.00	0.00	0.00	0.00	0.00
10,450.00	1.61	179.58	10,450.00	-0.28	0.00	0.28	8.00	8.00	0.00
10,500.00	5.61	179.58	10,499.89	-3.43	0.03	3.43	8.00	8.00	0.00



Scientific Drilling Planning Report



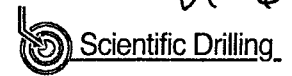
DP-5

Database:	CompassC	Local Co-ordinate Reference:	Well F29F 4H
Company:	OXY	TVD Reference:	KB @ 3716.10usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3716.10usft
Site:	Foxglove 29 Federal 4H	North Reference:	Grid
Well:	F29F 4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,550.00	9.61	179.58	10,549.44	-10.05	0.07	10.05	8.00	8.00	0.00	
10,600.00	13.61	179.58	10,598.41	-20.10	0.15	20.10	8.00	8.00	0.00	
10,650.00	17.61	179.58	10,646.55	-33.55	0.25	33.55	8.00	8.00	0.00	
10,700.00	21.61	179.58	10,693.64	-50.33	0.37	50.33	8.00	8.00	0.00	
10,750.00	25.61	179.58	10,739.45	-70.35	0.51	70.35	8.00	8.00	0.00	
10,800.00	29.61	179.58	10,783.75	-93.51	0.68	93.52	8.00	8.00	0.00	
10,850.00	33.61	179.58	10,826.32	-119.71	0.87	119.72	8.00	8.00	0.00	
10,900.00	37.61	179.58	10,866.96	-148.82	1.09	148.82	8.00	8.00	0.00	
10,950.00	41.61	179.58	10,905.48	-180.69	1.32	180.69	8.00	8.00	0.00	
11,000.00	45.61	179.58	10,941.67	-215.16	1.57	215.17	8.00	8.00	0.00	
11,050.00	49.61	179.58	10,975.38	-252.08	1.84	252.09	8.00	8.00	0.00	
11,100.00	53.61	179.58	11,006.42	-291.26	2.13	291.27	8.00	8.00	0.00	
11,150.00	57.61	179.58	11,034.66	-332.51	2.43	332.52	8.00	8.00	0.00	
11,200.00	61.61	179.58	11,059.95	-375.63	2.74	375.64	8.00	8.00	0.00	
11,250.00	65.61	179.58	11,082.17	-420.41	3.07	420.42	8.00	8.00	0.00	
11,300.00	69.61	179.58	11,101.22	-466.63	3.41	466.64	8.00	8.00	0.00	
11,350.00	73.61	179.58	11,116.99	-514.06	3.75	514.08	8.00	8.00	0.00	
11,400.00	77.61	179.58	11,129.41	-562.48	4.11	562.50	8.00	8.00	0.00	
11,450.00	81.61	179.58	11,138.43	-611.65	4.47	611.67	8.00	8.00	0.00	
11,500.00	85.61	179.58	11,144.00	-661.33	4.83	661.35	8.00	8.00	0.00	
11,554.90	90.00	179.58	11,146.10	-716.18	5.23	716.20	8.00	8.00	0.00	
11,600.00	90.00	179.58	11,146.10	-761.27	5.56	761.29	0.00	0.00	0.00	
11,700.00	90.00	179.58	11,146.10	-861.27	6.29	861.29	0.00	0.00	0.00	
11,800.00	90.00	179.58	11,146.10	-961.27	7.02	961.29	0.00	0.00	0.00	
11,900.00	90.00	179.58	11,146.10	-1,061.27	7.75	1,061.29	0.00	0.00	0.00	
12,000.00	90.00	179.58	11,146.10	-1,161.26	8.48	1,161.29	0.00	0.00	0.00	
12,100.00	90.00	179.58	11,146.10	-1,261.26	9.21	1,261.29	0.00	0.00	0.00	
12,200.00	90.00	179.58	11,146.10	-1,361.26	9.94	1,361.29	0.00	0.00	0.00	
12,300.00	90.00	179.58	11,146.10	-1,461.26	10.67	1,461.29	0.00	0.00	0.00	
12,400.00	90.00	179.58	11,146.10	-1,561.25	11.40	1,561.29	0.00	0.00	0.00	
12,500.00	90.00	179.58	11,146.10	-1,661.25	12.13	1,661.29	0.00	0.00	0.00	
12,600.00	90.00	179.58	11,146.10	-1,761.25	12.86	1,761.29	0.00	0.00	0.00	
12,700.00	90.00	179.58	11,146.10	-1,861.24	13.59	1,861.29	0.00	0.00	0.00	
12,800.00	90.00	179.58	11,146.10	-1,961.24	14.32	1,961.29	0.00	0.00	0.00	
12,900.00	90.00	179.58	11,146.10	-2,061.24	15.06	2,061.29	0.00	0.00	0.00	
13,000.00	90.00	179.58	11,146.10	-2,161.24	15.79	2,161.29	0.00	0.00	0.00	
13,100.00	90.00	179.58	11,146.10	-2,261.23	16.52	2,261.29	0.00	0.00	0.00	
13,200.00	90.00	179.58	11,146.10	-2,361.23	17.25	2,361.29	0.00	0.00	0.00	
13,300.00	90.00	179.58	11,146.10	-2,461.23	17.98	2,461.29	0.00	0.00	0.00	
13,400.00	90.00	179.58	11,146.10	-2,561.23	18.71	2,561.29	0.00	0.00	0.00	
13,500.00	90.00	179.58	11,146.10	-2,661.22	19.44	2,661.29	0.00	0.00	0.00	
13,600.00	90.00	179.58	11,146.10	-2,761.22	20.17	2,761.29	0.00	0.00	0.00	
13,700.00	90.00	179.58	11,146.10	-2,861.22	20.90	2,861.29	0.00	0.00	0.00	
13,800.00	90.00	179.58	11,146.10	-2,961.22	21.63	2,961.29	0.00	0.00	0.00	
13,900.00	90.00	179.58	11,146.10	-3,061.21	22.36	3,061.29	0.00	0.00	0.00	
14,000.00	90.00	179.58	11,146.10	-3,161.21	23.09	3,161.29	0.00	0.00	0.00	
14,100.00	90.00	179.58	11,146.10	-3,261.21	23.82	3,261.29	0.00	0.00	0.00	
14,200.00	90.00	179.58	11,146.10	-3,361.20	24.55	3,361.29	0.00	0.00	0.00	
14,300.00	90.00	179.58	11,146.10	-3,461.20	25.28	3,461.29	0.00	0.00	0.00	
14,400.00	90.00	179.58	11,146.10	-3,561.20	26.01	3,561.29	0.00	0.00	0.00	
14,500.00	90.00	179.58	11,146.10	-3,661.20	26.74	3,661.29	0.00	0.00	0.00	
14,600.00	90.00	179.58	11,146.10	-3,761.19	27.47	3,761.29	0.00	0.00	0.00	
14,700.00	90.00	179.58	11,146.10	-3,861.19	28.20	3,861.29	0.00	0.00	0.00	
14,800.00	90.00	179.58	11,146.10	-3,961.19	28.93	3,961.29	0.00	0.00	0.00	



Scientific Drilling Planning Report

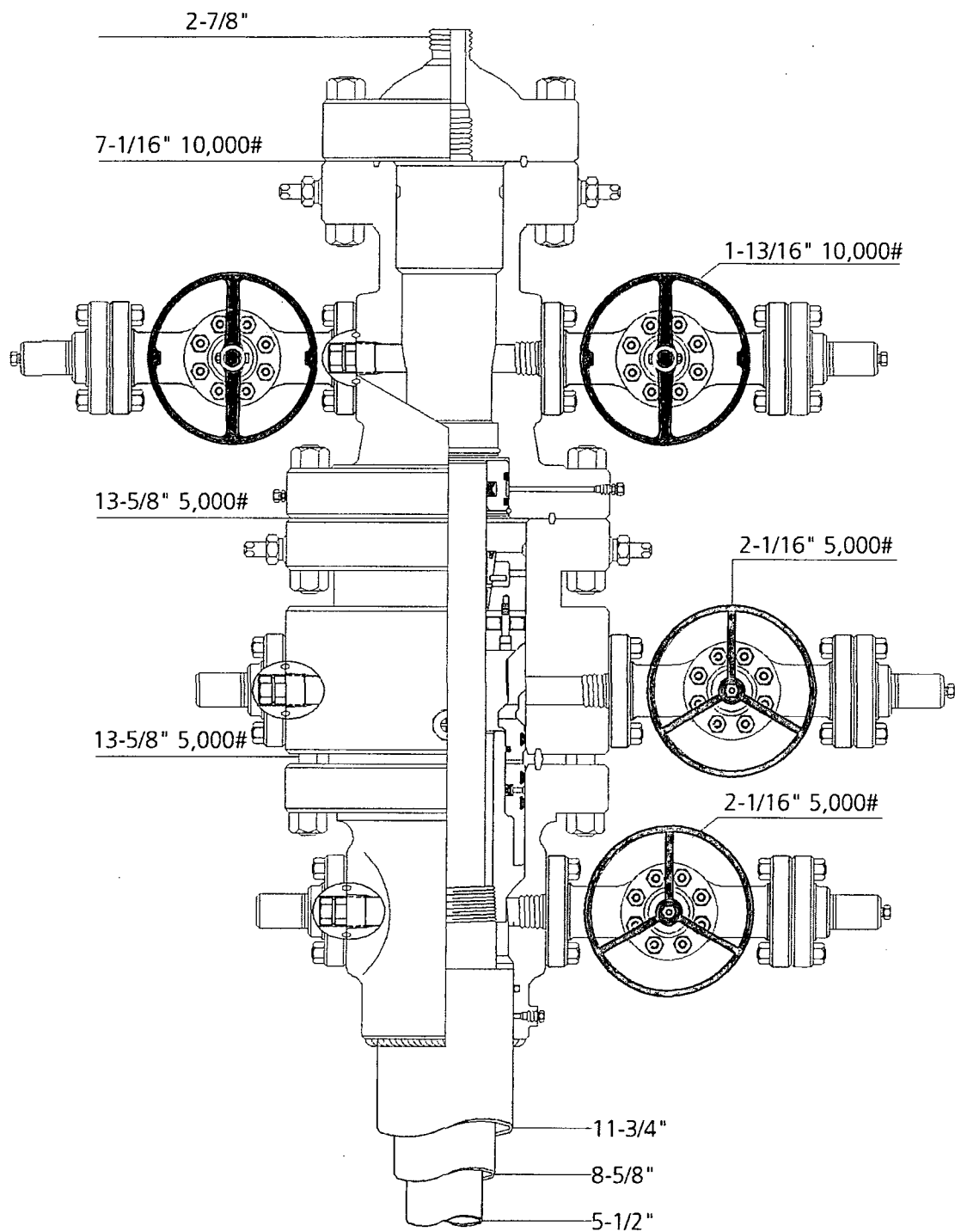


DP-6

Database:	CompassC	Local Co-ordinate Reference:	Well F29F 4H
Company:	OXY	TVD Reference:	KB @ 3716.10usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3716.10usft
Site:	Foxglove 29 Federal 4H	North Reference:	Grid
Well:	F29F 4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,900.00	90.00	179.58	11,146.10	-4,061.19	29.66	4,061.29	0.00	0.00	0.00
15,000.00	90.00	179.58	11,146.10	-4,161.18	30.39	4,161.29	0.00	0.00	0.00
15,100.00	90.00	179.58	11,146.10	-4,261.18	31.12	4,261.29	0.00	0.00	0.00
15,200.00	90.00	179.58	11,146.10	-4,361.18	31.85	4,361.29	0.00	0.00	0.00
15,300.00	90.00	179.58	11,146.10	-4,461.18	32.58	4,461.29	0.00	0.00	0.00
15,400.00	90.00	179.58	11,146.10	-4,561.17	33.31	4,561.29	0.00	0.00	0.00
15,439.13	90.00	179.58	11,146.10	-4,600.30	33.60	4,600.42	0.00	0.00	0.00

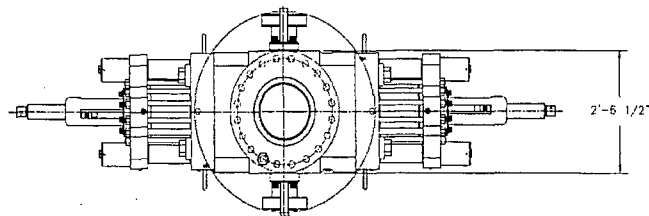
Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
F29F 4H BHL	0.00	0.00	11,146.10	-4,600.30	33.60	462,456.80	726,902.60	32.269	-103.599
- plan hits target center									
- Point									



Permian Basin
MBS



Name: Jeanette	Date: 1-31-13	Working Pressure:	# 21073221
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- LEGEND**
- ① - 4 1/16"-10M FLANGED END GATE VALVE
 - ② - 4 1/16"-10M FLANGED END GATE VALVE WITH DOUBLE ACTING HYDRAULIC ACTUATOR
 - ③ - 2 1/16"-10M FLANGED END GATE VALVE
 - ④ - 2 1/16"-10M FLANGED END CHECK VALVE
 - ⑤ - DOUBLE STUDDED ADAPTER

SHAFFER BOLTED-COVER SPHERICAL ANNULAR PREVENTER, (API 16A MONOGRAMMED, 13 5/8"-5M WP), 10M BOTTOM FLANGE + 5M STUDDED TOP (WEIGHT = 14,300 LBS WITH SHAFFER API 16A HOT OIL RESISTANT ACRYLONITRILE ELEMENT)

CAMERON UM DOUBLE RAM-TYPE PREVENTER (API 16A MONOGRAMMED, 13 5/8"-10M WP), WITH 5" CAMERON PIPE RAMS (CAMRAM FRONT PACKERS & TOP SEALS) IN TOP CAVITY AND CAMERON DS SHEARING BLIND RAMS IN BOTTOM CAVITY. BOTTOM FLANGE + STUDDED TOP (WEIGHT = 21,100 LBS, WITH RAMS)

13 5/8"-10M WP CAMERON DRILLING SPOOL (API 16A MONOGRAMMED), STUDDED TOP + FLANGED BOTTOM, WITH 4 1/16"-10M WP FLANGED OUTLETS (WEIGHT APPROXIMATELY 6,000 LBS)

CAMERON UM SINGLE RAM-TYPE PREVENTER (API 16A MONOGRAMMED, 13 5/8"-10M WP), WITH 5" CAMERON PIPE RAMS (CAMRAM FRONT PACKERS & TOP SEALS) BOTTOM FLANGE + STUDDED TOP (WEIGHT = 10,900 LBS)

H&P FURNISHED
13 5/8"-10M x 13 5/8"-5M
ADAPTER SPOOL 2'-0" LONG

SEE LIFT LUG DETAIL

3'-11 7/8"

4'-3 7/8"

14'-7 1/2"

1'-8 7/8"

2'-6 1/8"

2'-0"

11'-1 5/8" CLOSED

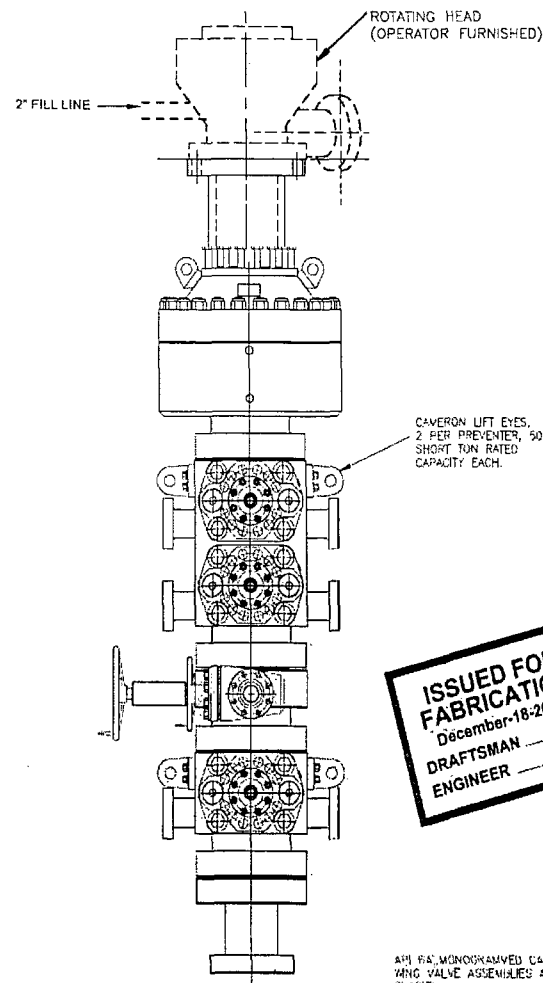
12'-8 3/8" OPERATING

18'-5" OPENED

13 5/8 - 10M BOP STACK WITH 13 5/8 - 5M ANNULAR

PROPRIETARY

THIS DRAWING AND THE IDEAS AND INFORMATION INCLUDED IN THIS DRAWING ARE PROPRIETARY AND ARE NOT TO BE REPRODUCED, DISSEMINATED OR DISCLOSED IN ANY MANNER WITHOUT THE PRIOR WRITTEN CONSENT OF A DULY AUTHORIZED OFFICER OF HELMERICH & PAYNE INT'L DRILLING CO.



**ISSUED FOR
FABRICATION**
December-18-2007
DRAFTSMAN
ENGINEER

API 16A MONOGRAMMED CAMERON CHOKES AND KILLING VALVE ASSEMBLIES ARE NOT SHOWN FOR CLARITY

WEIGHTS DO NOT INCLUDE HOSES, ADAPTER SPOOLS OR QUICK CONNECT FITTINGS

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

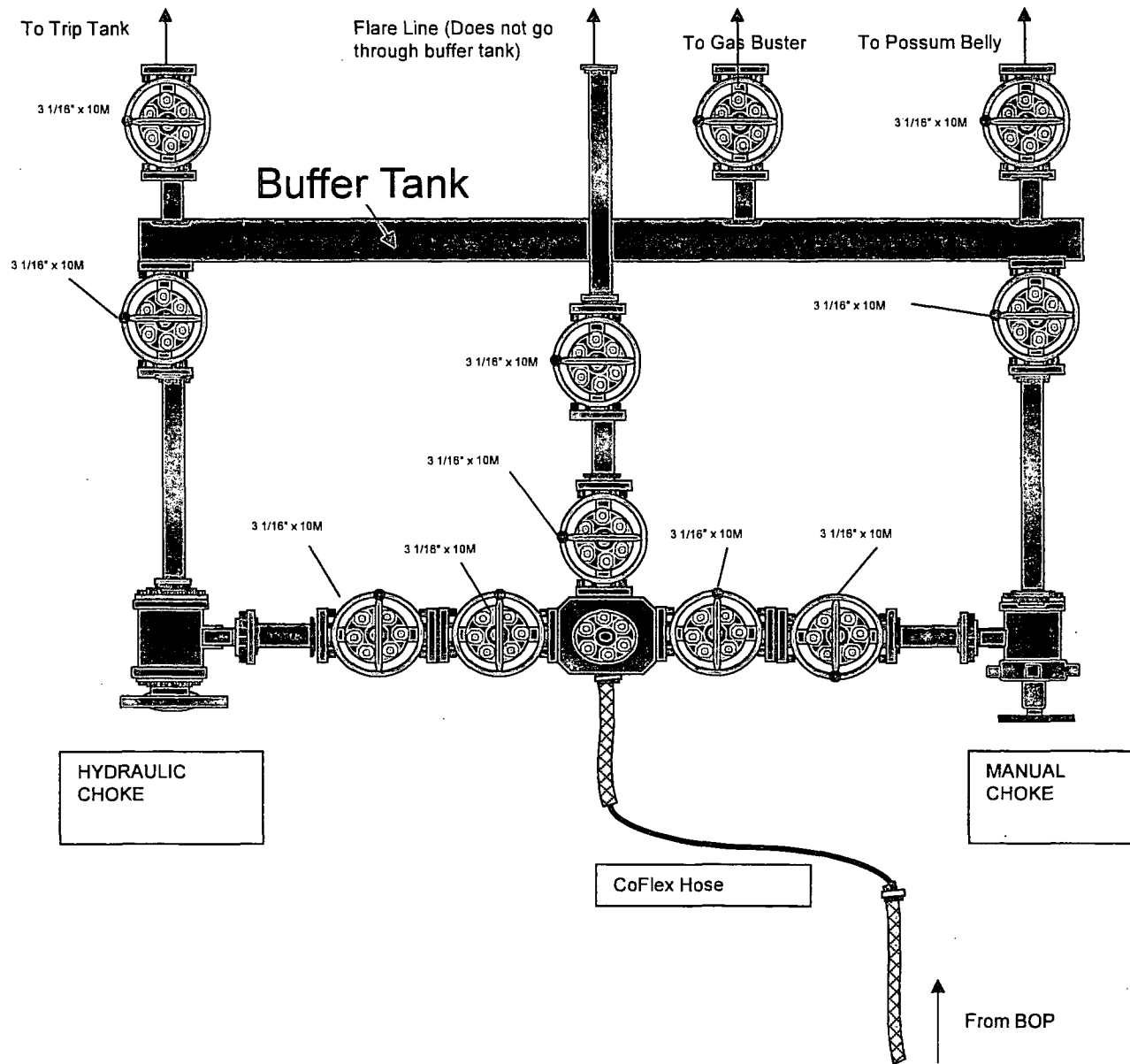
13 5/8"-10M BOP 3 RAM STACK
FLEXRIG'S

CUSTOMER: H&P
PROJECT: FLEXRIG3
DATE: 8-5-02
DWG. NO.: 210-P1-07
SCALE: 3/4"=1'
SHEET 1 OF 1

REV	DATE	DESCRIPTION	BY
1	12/18/07	ADDED SHEET 01	JAV
2	4-19-07	CONNECTIONS TO 13 5/8" DRILLING SPOOL ADDED	JIC
3	4-24-07	8" ADDED TO SPACER ADAPTER SPOOL	JIC
4	02-07-07	ADDED ADAPTER SPOOL	JAV
5	06-13-02	CORRECTED BOP STACK	JAV

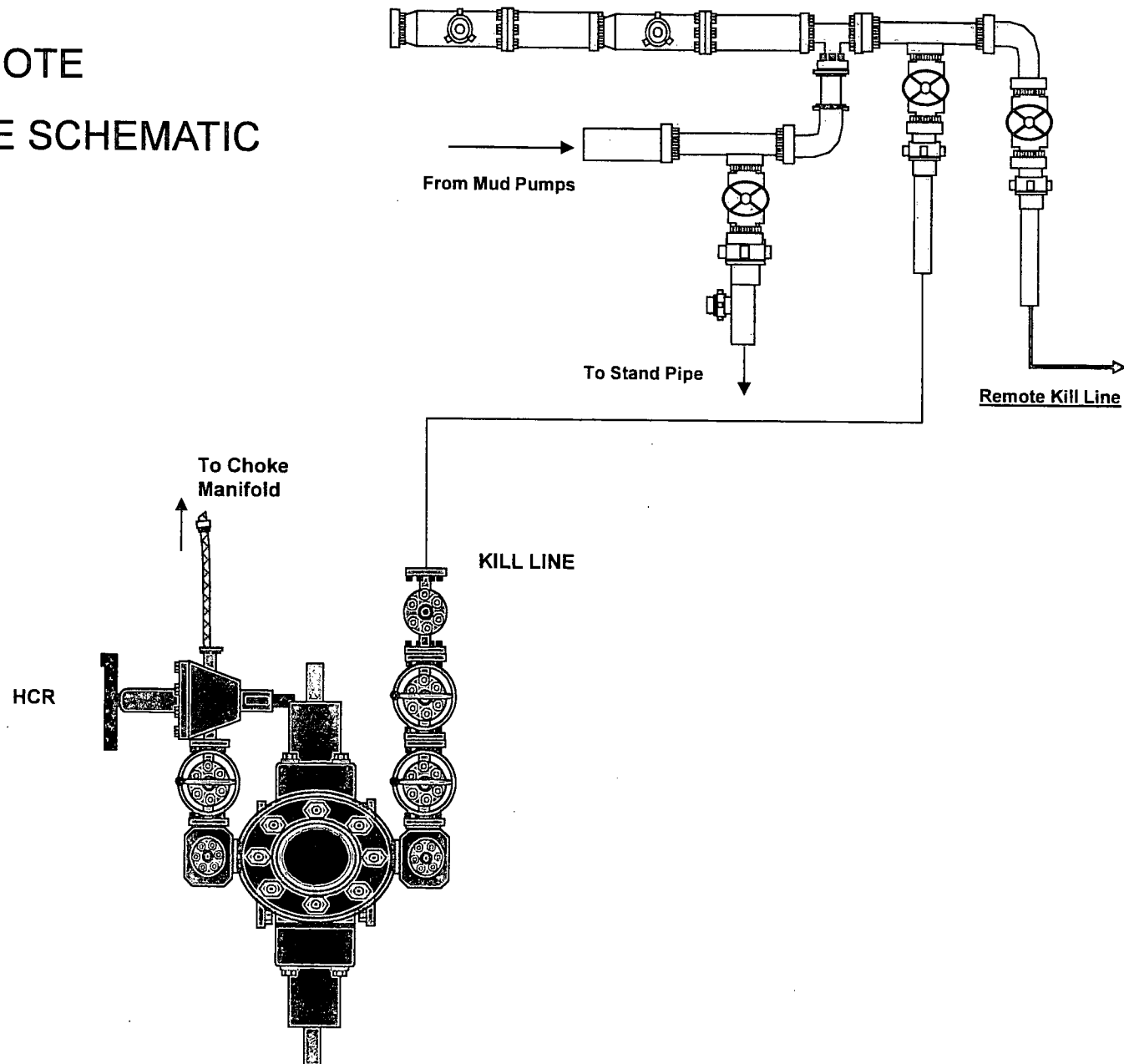
Box-1

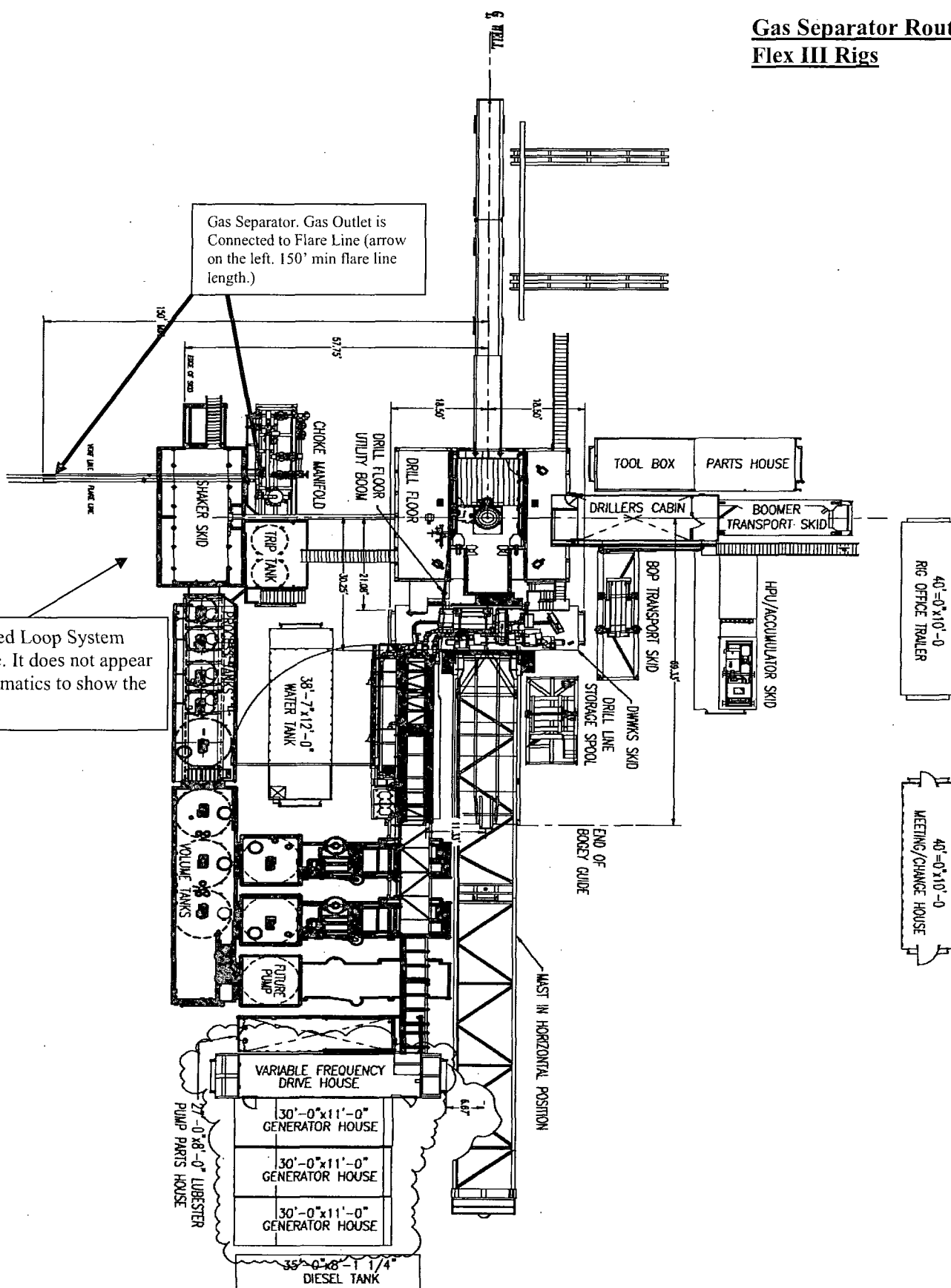
FLEX3 STD CHOKE MANIFOLD (COMPREHENSIVE)

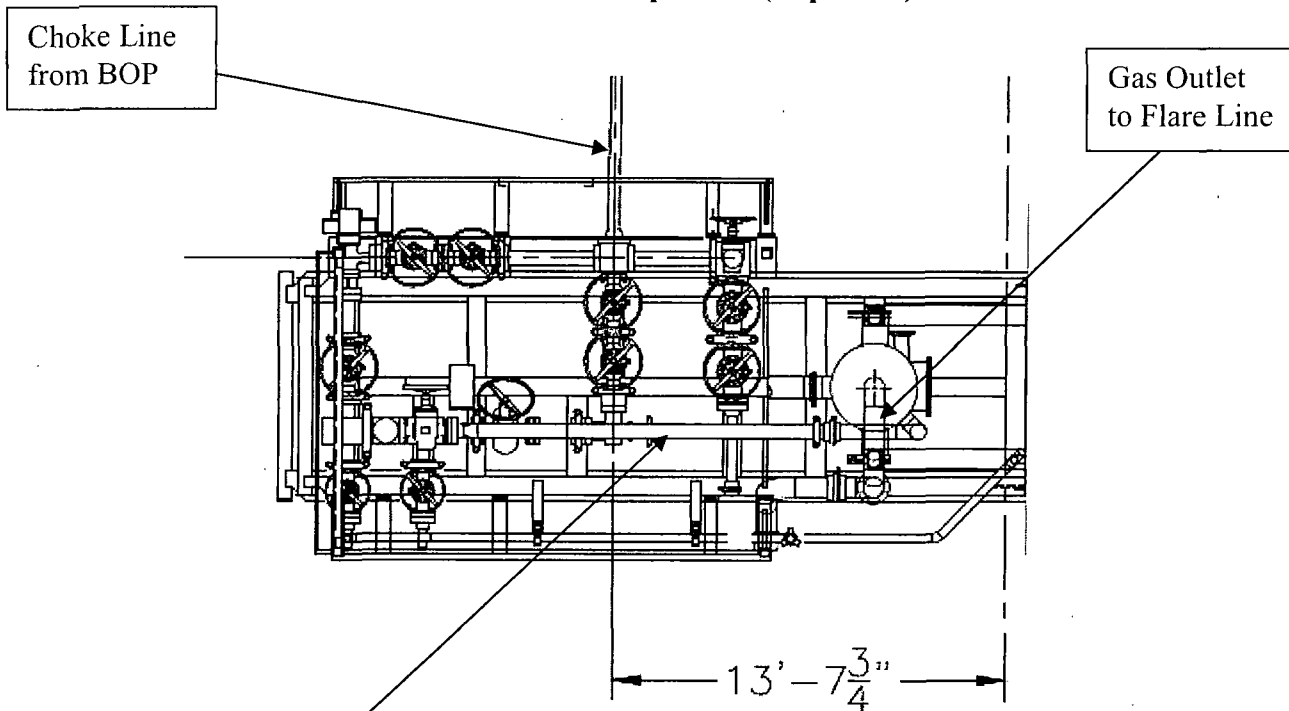
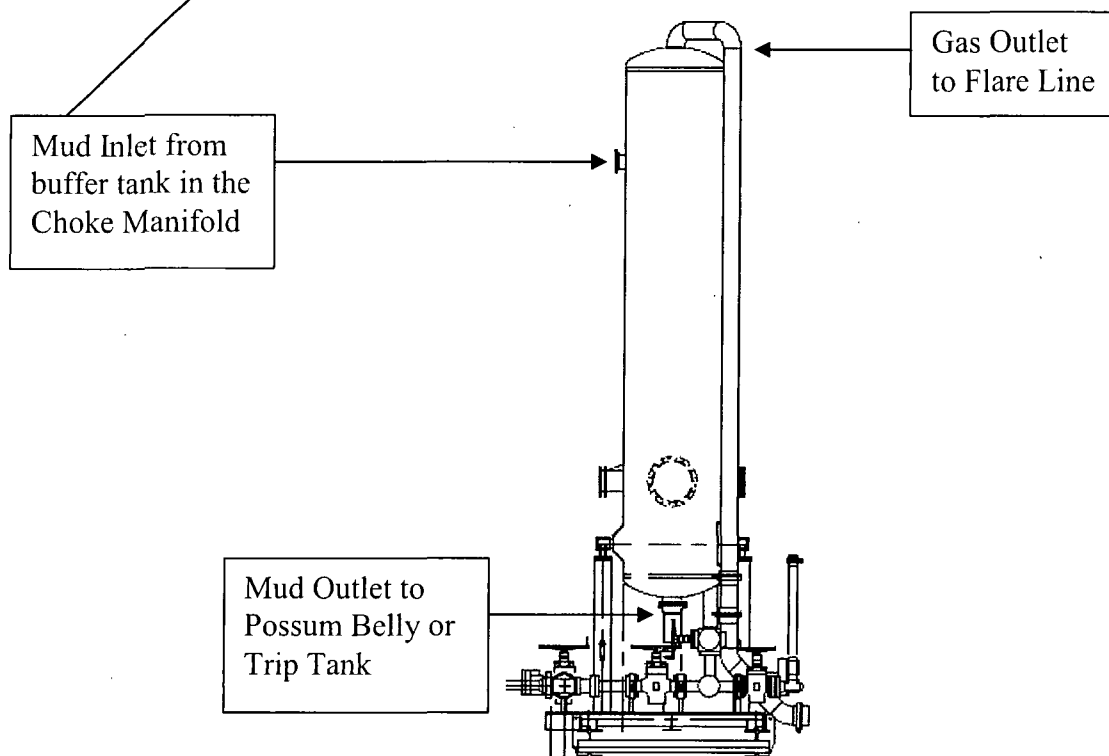


CM-1

10M REMOTE KILL LINE SCHEMATIC





Choke Manifold – Gas Separator (Top View)**Choke Manifold – Gas Separator (Side View)**

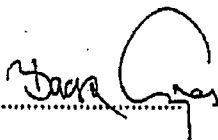
CERTIFICATE OF CONFORMITY

Supplier : CONTITECH RUBBER INDUSTRIAL KFT.
Equipment : 6 pcs. Choke and Kill Hose with installed couplings
Type : 3" x 10,67 m WP: 10000 psi
Supplier File Number : 412638
Date of Shipment : April. 2008
Customer : Phoenix Beattie Co.
Customer P.o. : 002491
Referenced Standards
/ Codes / Specifications : API Spec 16 C
Serial No.: 52754,52755,52776,52777,52778,52782

STATEMENT OF CONFORMITY

We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

COUNTRY OF ORIGIN HUNGARY/EU

Signed : 

Position: Q.C. Manager

ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(1)

Date: 04. April. 2008

Coflex Hose Certification

Page: 1/1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Material Identification Certificate

PA No	006330	Client	HELMERICH & PAYNE INT'L DRILLING	Client Ref	370-369-001	Page	1
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[illegible]

We hereby certify that these goods have been inspected by our Quality Management System, and to the best of our knowledge are found to conform to relevant industry standards within the requirements of the purchase order as issued to Phoenix Beattie Corporation.

05/23/09

Coflex Hose Certification

TH-1



Phoenix Beattie Corp

11535 Brittsmore Park Drive
Houston, TX 77041
Tel: (832) 327-0141
Fax: (832) 327-0148
E-mail: mail@phoenixbeattie.com
www.phoenixbeattie.com

Delivery Note

Customer Order Number	370-369-001	Delivery Note Number	003078	Page	1
Customer / Invoice Address HELMERICH & PAYNE INT'L DRILLING CO 1437 SOUTH BOULDER TULSA, OK 74119		Delivery / Address HELMERICH & PAYNE IDC ATTN: JOE STEPHENSON - RIG 370 13609 INDUSTRIAL ROAD HOUSTON, TX 77015			

Customer Acc No	Phoenix Beattie Contract Manager	Phoenix Beattie Reference	Date
H01	JJL	006330	05/23/2008

Item No	Beattie Part Number / Description	Qty Ordered	Qty Sent	Qty To Follow
1	HP10CK3A-35-4F1 3" 10K 16C C&K HOSE x 35ft OAL CW 4.1/16" API SPEC FLANGE E/ End 1: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange End 2: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange c/w BX155 Standard ring groove at each end Suitable for H2S Service Working pressure: 10,000psi Test pressure: 15,000psi Standard: API 16C Full specification Armor Guarding: Included Fire Rating: Not Included Temperature rating: -20 Deg C to +100 Deg C	1	1	0
2	SECK3-HPF3 LIFTING & SAFETY EQUIPMENT TO SUIT HP10CK3-35-F1 2 x 160mm ID Safety Clamps 2 x 244mm ID Lifting Collars & element C's 2 x 7ft Stainless Steel wire rope 3/4" OD 4 x 7.75t Shackles	1	1	0
3	SC725-200CS SAFETY CLAMP 200MM 7.25T C/S GALVANISED	1	1	0

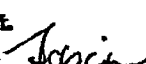
Continued...

All goods remain the property of Phoenix Beattie until paid for in full. Any damage or shortage on this delivery must be advised within 5 days.
Returns may be subject to a handling charge.



Fluid Technology

Quality Document

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 746	
PURCHASER: Phoenix Beattie Co.			P.O. N°: 002491		
CONTITECH ORDER N°: 412638		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 52777		NOMINAL / ACTUAL LENGTH: 10,67 m			
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 ~ min.	
Pressure test with water at ambient temperature See attachment. (1 page)					
↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS					
Type	Serial N°		Quality	Heat N°	
3" coupling with 4 1/16" Flange end	917	913	AISI 4130	T7998A	
			AISI 4130	26984	
INFOCHIP INSTALLED				API Spec 16 C Temperature rate: "B"	
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
Date: 04. April. 2008	Inspector		Quality Control  		

ContiTech Rubber
Industrial Kit.
Quality Control Dept.
(1)



Phoenix Beattie Corp

11535 Brittmoore Park Drive
Houston, TX 77041
Tel: (832) 327-0141
Fax: (832) 327-0148
E-mail: mail@phoenixbeattie.com
www.phoenixbeattie.com

Delivery Note

Customer Order Number	370-369-001	Delivery Note Number	003078	Page	2
Customer / Invoice Address HELMERICH & PAYNE INT'L DRILLING CO 1437 SOUTH BOULDER TULSA, OK 74119		Delivery / Address HELMERICH & PAYNE IDC ATTN: JOE STEPHENSON - RIG 370 13609 INDUSTRIAL ROAD HOUSTON, TX 77015			

Customer Acc'No	Phoenix Beattie Contract Manager	Phoenix Beattie Reference	Date
H01	JJL	006330	05/23/2008

Item No	Beattie Part Number / Description	Qty Ordered	Qty Sent	Qty To Follow
4	SC725-132CS SAFETY CLAMP 132MM 7.25T C/S GALVANIZED C/W BOLTS	1	1	0
5	00CERT-HYDRO HYDROSTATIC PRESSURE TEST CERTIFICATE	1	1	0
6	00CERT-LOAD LOAD TEST CERTIFICATES	1	1	0
7	00FREIGHT INBOUND / OUTBOUND FREIGHT PRE-PAY & ADD TO FINAL INVOICE NOTE: MATERIAL MUST BE ACCOMPANIED BY PAPERWORK INCLUDING THE PURCHASE ORDER, RIG NUMBER TO ENSURE PROPER PAYMENT	1	1	0

Phoenix Beattie Inspection Signature :

Received In Good Condition : Signature

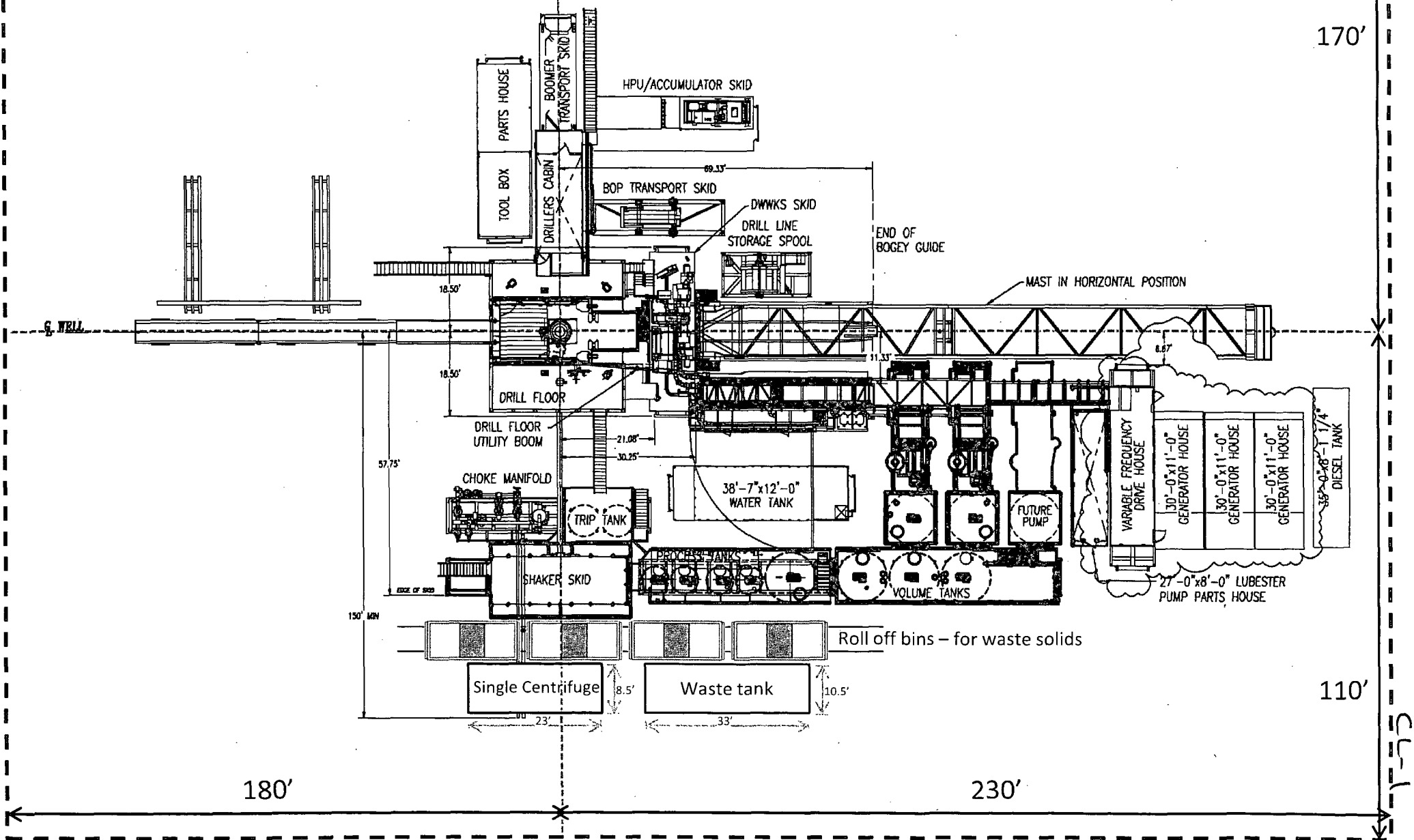
Print Name

Date

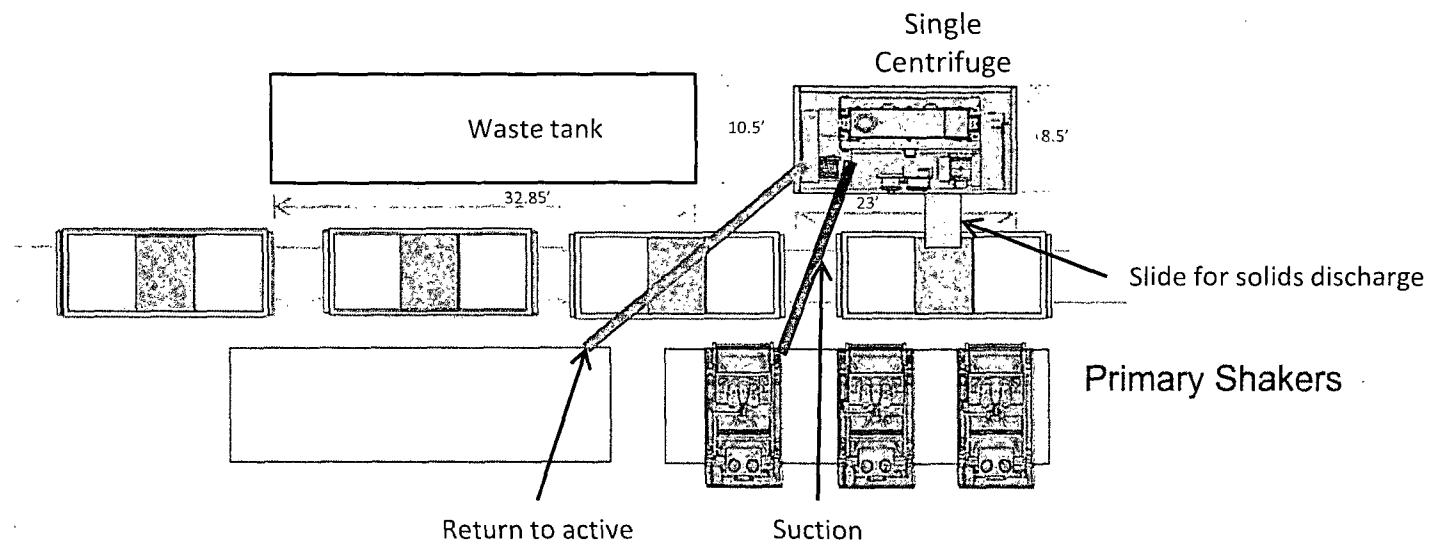
All goods remain the property of Phoenix Beattie until paid for in full. Any damage or shortage on this delivery must be advised within 5 days. Returns may be subject to a handling charge.

Oxy Single Centrifuge
Closed Loop System – New
Mexico Flex III

May 28, 2013



Oxy



Well Head



Oxy Single Centrifuge
Closed Loop System – New
Mexico Flex III

May 28, 2013

C-1-2

Oxy U.S.A Inc.

New Mexico Staking Form

Date Staked: 9-5-13

Lease/Well Name: FoxGlove 29 Fed #4H

Legal Description: 340 FNL 980 FWL Sec 29 T23S R33E

Latitude: 32.16¹5.35"

Longitude: 103.3559.04"

Move Information: 0

County: Lea

Surface Owner/Tenant: Brinnins Tool - BLM

Nearest Residence: 1.5 miles

Nearest Water Well: _____

V-Door: EAST

Road Description: Road into SW corner from SOUTH

New Road: 500'

Upgrade Existing Road: _____

Interim Reclamation: 50' NORTH 80' WEST 30' EAST

Source of Caliche: _____

Top Soil: NORTH

Onsite Date Performed: 9-12-13

Onsite Attendees: Legion Brumley - BLM Jim Wilson - Oxy
Terry Aseel - Aseel Survey

Special Notes: None

Needs Arc

▲ H2S Detectors. At least three detectors will be installed: bell nipple, rig floor and Shakers.

● Briefing Areas. At least two briefing areas will be placed, 90 deg off.

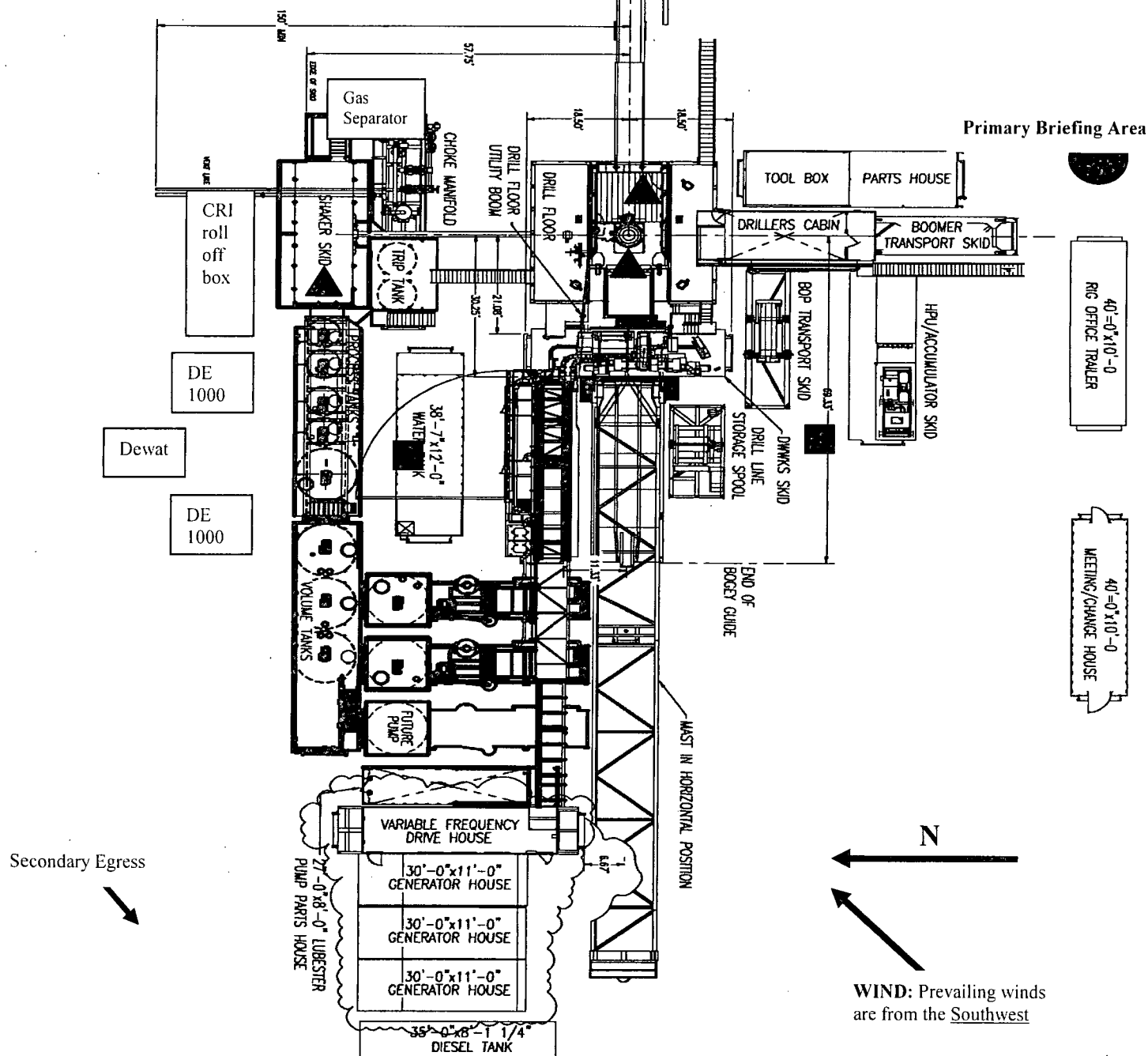
■ Wind direction indicators. Visible from rig floor and from the mud pits area.

A gas buster is connected to both the choke manifold and flowline outlets.

Rig Layout



Exit to road. Caution sign placed here.



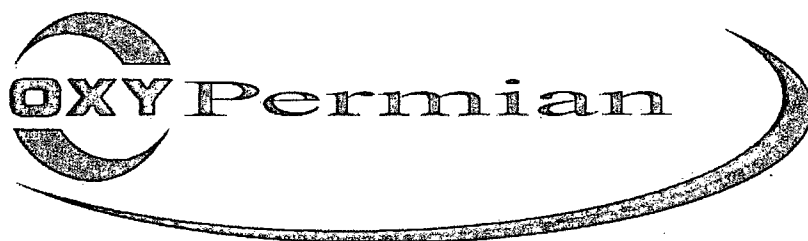


**Permian Drilling
Hydrogen Sulfide Drilling Operations Plan
Foxglove 29 Federal #4H**

Open drill site. No homes or buildings are near the proposed location.

1. Escape

Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the SOUTHEAST side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.



Permian Drilling Hydrogen Sulfide Drilling Operations Plan New Mexico

Scope

This contingency plan establishes guidelines for the public, all company employees, and contract employees who's work activities may involve exposure to hydrogen sulfide (H₂S) gas.

While drilling this well, it is possible to encounter H₂S bearing formations. At all times, the first barrier to control H₂S emissions will be the drilling fluid, which will have a density high enough to control influx.

Objective

1. Provide an immediate and predetermined response plan to any condition when H₂S is detected. All H₂S detections in excess of 10 parts per million (ppm) concentration are considered an Emergency.
2. Prevent any and all accidents, and prevent the uncontrolled release of hydrogen sulfide into the atmosphere.
3. Provide proper evacuation procedures to cope with emergencies.
4. Provide immediate and adequate medical attention should an injury occur.

Discussion

Implementation:	This plan with all details is to be fully implemented before drilling to <u>commence</u> .
Emergency response Procedure:	This section outlines the conditions and denotes steps to be taken in the event of an emergency.
Emergency equipment Procedure:	This section outlines the safety and emergency equipment that will be required for the drilling of this well.
Training provisions:	This section outlines the training provisions that must be adhered to prior to drilling.
Drilling emergency call lists:	Included are the telephone numbers of all persons to be contacted should an emergency exist.
Briefing:	This section deals with the briefing of all people involved in the drilling operation.
Public safety:	Public safety personnel will be made aware of any potential evacuation and any additional support needed.
Check lists:	Status check lists and procedural check lists have been included to insure adherence to the plan.
General information:	A general information section has been included to supply support information.