12-828

Form 3160-3
(March 2012)

OCD Artesia

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. LC-050797 JES

6. If Indian, Allotee or Tribe Name 12/11/2012

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. <39582?
GOVERNMENT AC 13 FEDERAL #5H

2. Name of Operator OXY USA WTP Limited Partnership <192463?

9. API Well No. 30-015-40880

3a. Address P.O. BOX 4294
HOUSTON, TX 77210

3b. Phone No. *(include area code)* 713-513-6640

10. Field and Pool, or Exploratory
Russell; 2nd Bone Spring (52805)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 1980' FNL & 350' FWL
At proposed prod. zone 1980' FNL & 330' FEL

11. Sec., T. R. M. or Blk. and Survey or Area
E, SEC 13, T20S, R28E

14. Distance in miles and direction from nearest town or post office*
12 miles Northwest of Carlsbad, NM

12. County or Parish EDDY

13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 350'

16. No. of acres in lease 1200

17. Spacing Unit dedicated to this well 160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 390.3'

19. Proposed Depth 11978' MD / 7621' TVD

20. BLM/BIA Bond No. on file ESB000226

21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3267.5'

22. Approximate date work will start* 08/22/2012

23. Estimated duration 10 DAYS

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature [signature] Name *(Printed/Typed)* Jennifer Duarte (jennifer_duarte@oxy.com) Date 05/30/2012

Title Regulatory Analyst

Approved by *(Signature)* /s/ Don Peterson Name *(Printed/Typed)* Date DEC - 5 2012

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)

Capitan Controlled Water Basin

RECEIVED
DEC 11 2012
NMOCD ARTESIA

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-40880	52805	Russell; B.S.

Property Code	Property Name	Well Number
39582	GOVERNMENT AC "13" FEDERAL	5H

OGRID No.	Operator Name	Elevation
192463	OXY USA WTP Limited Partnership	3267.5'

Surface Location

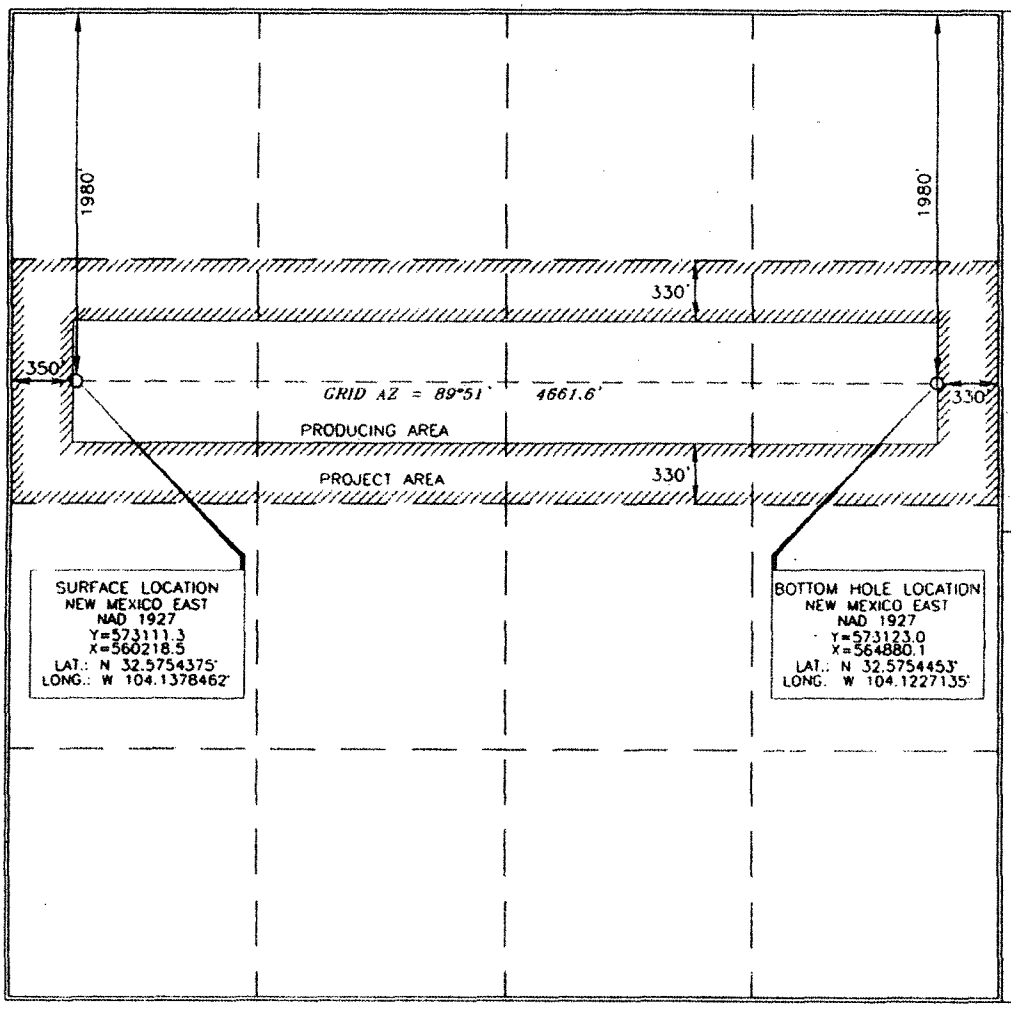
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	13	20 SOUTH	28 EAST, N.M.P.M.		1980'	NORTH	350'	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	13	20 SOUTH	28 EAST, N.M.P.M.		1980'	NORTH	330'	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 5/30/12
Date

Jennifer Duarte
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

NEW MEXICO 15079 REGISTERED PROFESSIONAL LAND SURVEYOR

SEPTEMBER 20, 2011
Date of Survey

Signature and Seal of Professional Surveyor

11/22/2011

Certificate Number 15079

WO# 110920WL-e (KA)

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 30th day of May, 2012.

Name: David Schellstede

Position: Reservoir Management Team Leader

Address: 5 Greenway Plaza, Suite 110, Houston, TX 77046

Telephone: 713-366-5013

E-mail: (optional): david_schellstede@oxy.com

Company: OXY USA WTP Limited Partnership

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 WTP LP

Government AC 13 Federal 5H
APD Data

OPERATOR NAME / NUMBER: OXY USA WTP LP

LEASE NAME / NUMBER: GOVERNMENT AC 13 FEDERAL 5H

STATE: NM **COUNTY: Eddy**

SURFACE LOCATION: 1980' FNL & 350' FWL, Sec13, T20S, R28E

BOTTOM HOLE LOCATION: 1980' FNL & 330' FEL, Sec13, T20S, R28E

SL Y: 573111.3 **X: 560218.5** **NAD: 1927**
BH Y: 573123.0 **X: 564880.1** **NAD: 1927**

C-102 PLAT APPROX GR ELEV: 3267.5'

EST KB ELEV: 3291.5' (24' KB)

1. **GEOLOGIC NAME OF SURFACE FORMATION**
   a. Permian

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

Formation	TV Depth Top	Expected Fluids
Top of Rustler	275	---
Top of Salt	474	---
Base of Salt	809	---
T. Tansill	809	---
T. Yates	914	---
T. Seven Rivers	1131	---
T. Capitan Reef	2174	Poss Fresh Water
T. Delaware	3015	Oil
T. Bone Spring Limestone	5294	Oil
T. 1st Bone Spring Sand	6609	Oil
T. 2nd Bone Spring Lime	6820	Oil
T. 2nd Bone Spring Sand	7154	Oil
T. 2nd Bone Spring Target	7619	Oil
TD	7621	TD

GREATEST PROJECTED TD 11978' MD / 7621' TVD **OBJECTIVE:** Second Bone Spring

3. CASING PROGRAM

Surface Casing: 20" casing set at ± 300' MD300' TVD in a 26" hole filled with 8.40 ppg mud

Interval	Length	New/ Used	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'300'	300'	New	94	J55	ST&C	~~770~~ 520	~~2410~~ 2110	~~913~~ 783	~~19.00~~ 21.00	18.81	**3.72**	**7.76**	**2.81**

Intermediate1 Casing: 13⅜" casing set at ~~±2100'~~ MD / 2100'TVD in a 17.5" hole filled with 10 ppg mud

Interval	Length	New/ Used	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'- ~~2100'~~	~~2100'~~ 1200	New	61	J-55	ST&C	1540	3090	595	12.51	12.36	**3.46**	**1.40**	**2.83**

See COA

Intermediate2 Casing: 9⅝" casing set at ±3100'MD / 31 00'TVD in a 12¼" hole filled with 10 ppg mud

Interval	Length	New/ Used	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'- 3100'	3100'	New	40	J-55	LT&C	2570	3950	520	8.835	8.75	**4.66**	**1.26**	**2.01**

Production Casing: 5.5" casing set at ±11,978'MD / 7621'TVD in a 8¾" hole filled with 9.20 ppg mud

Interval	Length	New/ Used	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'- 11978'	11978'	New	17	L-80	LT&C	6280	7740	348	4.89	4.77	**1.37**	**1.33**	**1.63**

Collapse and burst loads calculated using Stress Check with actual anticipated loads.

4. CEMENT PROGRAM:

Surface Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Surface (TOC: 0')							
Lead: 0' - 253' (165% Excess)	520	253	Premium Plus Cement, with 4% Bentonite, 2% Calcium Chloride, & 0.125 lb/sk Poly-E-Flake	9.18	13.50	1.75	1069 psi
Tail: **253' – 300'** (165% Excess)	200	47	Premium Plus cement with 2% Calcium Chloride	6.39	14.80	1.35	1827 psi

Intermediate1 Interval

13 3/8

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Intermediate (TOC: 0')							
Lead: 0' - 1937 (105 % Excess)	1410	1937	Light Premium Plus Cement, with 5% Salt, 5 lb/sk Kol-Seal, & 0.125 lb/sk Poly-E-Flake	9.87	12.90	1.90	760 psi
Tail: 1937' –2100' (105 % Excess)	200	163	Premium Plus cement with 1% Calcium Chloride	6.36	14.80	1.34	2032 psi

Intermediate2 Interval

9 5/8 See COA

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Intermediate (TOC: 0')							
Lead: 0' – 2606' (150% Excess)	630	2606	Light Premium Plus Cement, with 5% Salt, 5 lb/sk Kol-Seal, & 0.125 lb/sk Poly-E-Flake	9.99	12.9	1.91	625 psi
Tail: 2606' –3100' (150% Excess)	300	494	Premium Plus cement with 2% Calcium Chloride	6.39	14.80	1.35	1746 psi

Production Interval

5 1/2

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Production (TOC: 5500') 1st Stage							
Lead: 5500' –6900' (85 % Excess)	320	1400	Light Premium Plus Cement, with 3% Salt, 3 lb/sk Kol-Seal, & 0.3 lb/sk HR-601	11.46	12.40	2.09	460 psi
Tail: 6900'– 11978' (85% Excess)	1400	5078	Super H Cement – 0.5% Halad®-344, 0.4% CFR-3, 3 lbm/sk Kol-Seal, 3 lbm/sk Salt, 0.125 lbm/sk Poly-E-Flake, 0.2% HR-601	8.44	13.20	1.67	1515 psi
DV Tool @ 5500							
Production (TOC: 3150') 2nd Stage							
Lead: 3150' – 5265' (125% Excess)	600	2115	Light Premium Plus, 5 lbm/sk Kol-Seal, 0.125 lbm/sk Poly-E-Flake, 3 lbm/sk Salt, 0.1% HR-601	11.56	12.4	2.10	431 psi
Tail: 5265'– 5500' (125% Excess)	100	235	Premium Plus cement with 1% Calcium Chloride	6.36	14.80	1.34	1907 psi
Pack-Off Stage Tool @ 3150'							
Production (TOC: Surface) 3rd Stage							
Lead: 0' – 2680' (35 % Excess)	380	2680	Light Premium Plus with 3 lb/sk Salt	11.39	12.4	2.05	500 psi
Tail: 2680' - 3150' 35 % Excess of Annular Volume)	100	470	Premium Plus cement with 2% Calcium Chloride	6.39	14.80	1.35	2100 psi

See COA

A. Description of Cement Additives:

Bentonite: Light Weight Additive
Calcium Chloride: Accelerator
CFR-3: Dispersant
Halad-344: Low Fluid Loss Control
HR-601: Retarder
Kol-Seal: Lost Circulation Additive
Poly-E-Flake: Lost Circulation Additive

5. DIRECTIONAL PLAN

Please see attached directional plan

6. PRESSURE CONTROL EQUIPMENT

Surface: 0 – 300' None.

Intermediate1: 0 - 2100' First intermediate hole will be drilled with a 2M Annular Diverter system.

Intermediate2: 0 - 3100' Second intermediate hole will be drilled with a 13-5/8" 10M three ram stack w/ 5M annular preventer, & 10M Choke Manifold. Oxy requires the use of 5M BOP stack or higher.

Production: 0 – 11978' Production hole will be drilled with a 13-5/8" 10M three ram stack w/ 5M annular preventer, & 10M Choke Manifold. Oxy requires the use of 5M BOP stack or higher.

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 for 10 minutes for annular preventer-70% of WP) with a third party BOP testing service before drilling out the 13-3/8" casing shoe. Wellhead pressure rating will support this test and 13-3/8" casing will be protected from high pressure. Since the wellhead system is a multibowl design, this initial test will cover the requirements prior to drilling out the 9-5/8" casing shoe.

b. Pipe rams will be operated and checked each 24 hour period and 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. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines, and choke manifold having a 5000 psi WP rating. Oxy requests that the system be tested at 5,000 psi WP rating.

c. Oxy requests a variance to use a 2M Diverter on the 20" surface casing. Being an annular preventer, it will be tested at 250/1400 psi for 10 minutes (70% of WP.)

d. Oxy requests a variance to connect the BOP choke outlet to the choke manifold using a co-flex hose made by Contitech Rubber Industrial KFT. It is a 3" ID x 35' flexible hose rated to 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. Please see attached certifications.

e. See attached Diverter, BOP & Choke manifold diagrams.

7. MUD PROGRAM:

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0 – 300'	8.4 – 8.9	32 – 34	NC	Fresh Water /Spud Mud
300' – 2100'	9.8 – 10	28 – 29	NC	Brine Water
2100' – 3100'	8.6 - 8.8	28- 29	NC	Fresh Water
3100' – 6600'	8.8 – 9.0	28- 29	NC	Fresh Water
6600' - TD	9.0 – 9.2	50 - 50	8 - 15	LSND

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 Kelly cock will be in the drill string at all times.

b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.

c. 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. LOGGING / CORING AND TESTING PROGRAM:

A. Mud Logger: None.

B. DST's: None.

C. Open Hole Logs as follows: GR-NEU-DEN-RES-SONIC from TD to Int casing. GR-NEU to surface. See COA

10. 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. The bottomhole pressure is anticipated to be between 3000 psi and 3200 psi.

C. No abnormal temperatures or pressures are anticipated. **The highest anticipated pressure gradient is 0.54 psi/ft or 3700 psi**. 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.

11. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 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.

12. COMPANY PERSONNEL:

Name	Title	Office Phone	Mobile Phone
Douglas Muir	Drilling Engineer	713-566-8582	713-213-9739
Luis Tarazona	Drilling Engineer Supervisor	713-366-5771	713-628-9526
Roger Allen	Drilling Superintendent	713- 215-7617	281-682-3919
Douglas Chester	Drilling Manager	713- 366-5194	713-918-9124

Weatherford®

Drilling Services

Proposal

OCCIDENTAL PERMIAN LTD.

GOVERNMENT 13 AC FED #5H

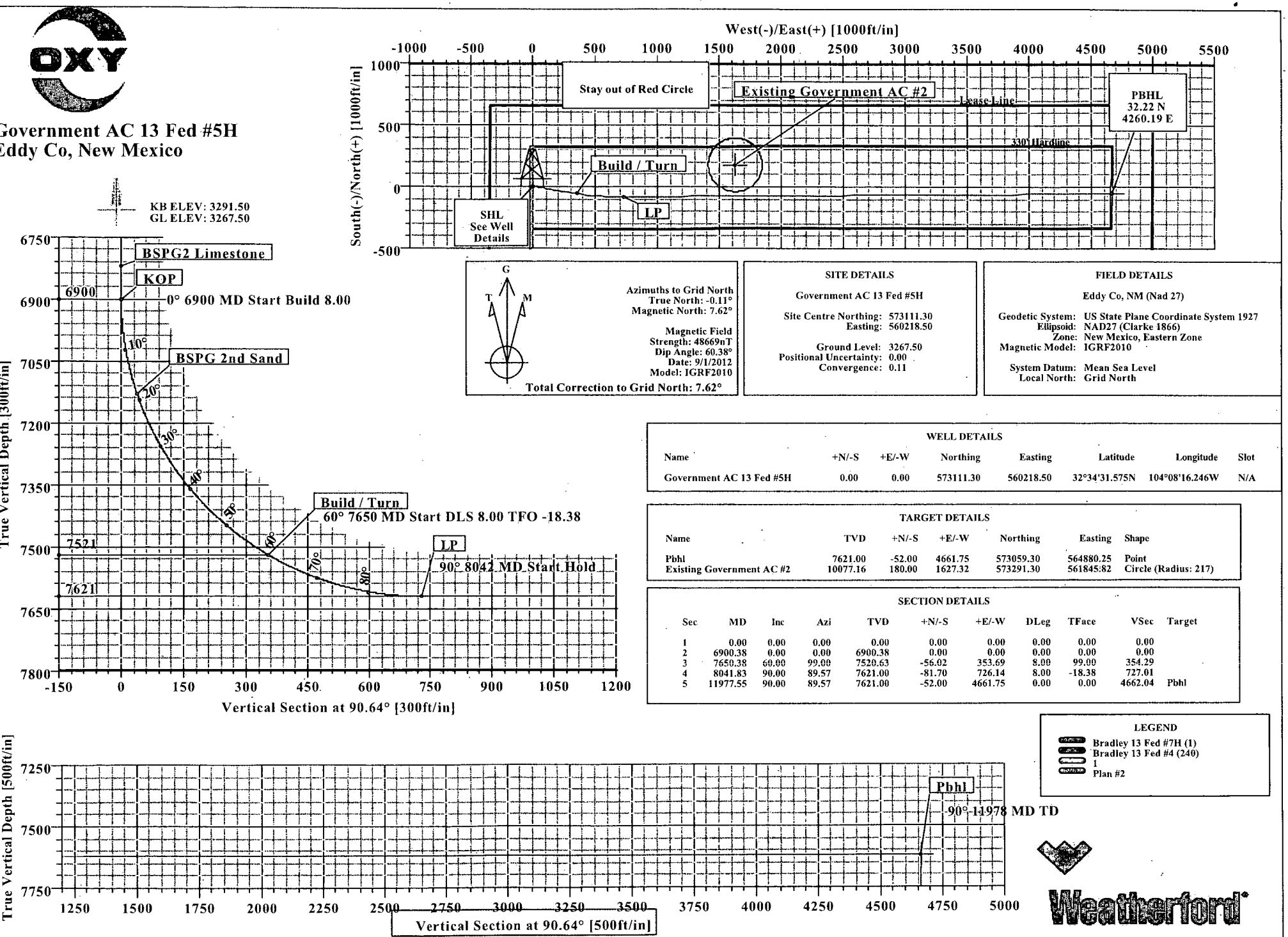
EDDY CO, NM

WELL FILE: **PLAN 2**

MARCH 5, 2012

Weatherford International, Ltd.
P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
+1.432.561.8895 Fax
www.weatherford.com

Government AC 13 Fed #5H
Eddy Co, New Mexico



G T M

Azimuths to Grid North
True North: -0.11°
Magnetic North: 7.62°

Magnetic Field
Strength: 48669nT
Dip Angle: 60.38°
Date: 9/1/2012
Model: IGRF2010

Total Correction to Grid North: 7.62°

SITE DETAILS

Government AC 13 Fed #5H

Site Centre Northing: 573111.30
Easting: 560218.50

Ground Level: 3267.50
Positional Uncertainty: 0.00
Convergence: 0.11

FIELD DETAILS

Eddy Co, NM (Nad 27)

Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

System Datum: Mean Sea Level
Local North: Grid North

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Government AC 13 Fed #5H	0.00	0.00	573111.30	560218.50	32°34'31.575N	104°08'16.246W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	7621.00	-52.00	4661.75	573059.30	564880.25	Point
Existing Government AC #2	10077.16	180.00	1627.32	573291.30	561845:82	Circle (Radius: 217)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6900.38	0.00	0.00	6900.38	0.00	0.00	0.00	0.00	0.00	
3	7650.38	60.00	99.00	7520.63	-56.02	353.69	8.00	99.00	354.29	
4	8041.83	90.00	89.57	7621.00	-81.70	726.14	8.00	-18.38	727.01	
5	11977.55	90.00	89.57	7621.00	-52.00	4661.75	0.00	0.00	4662.04	Pbhl

LEGEND

Bradley 13 Fed #7H (1)
Bradley 13 Fed #4 (240)
1
Plan #2

Weatherford

Plan: Plan #2 (Government AC 13 Fed #5H/1)

Created By: Patrick Rudolph Date: 3/5/2012

Weatherford International Ltd.

WFT Plan Report - X & Y's

Company:	Occidental Permian Ltd.	**Date:** 3/5/2012	**Time:** 14:27:48	**Page:**	1
Field:	Eddy Co, NM (Nad 27)	**Co-ordinate(NE) Reference:**	Well: Government AC 13 Fed #5H		
Site:	Government AC 13 Fed #5H	**Vertical (TVD) Reference:**	SITE 3291.5		
Well:	Government AC 13 Fed #5H	**Section (VS) Reference:**	Well (0.00N,0.00E,90.64Azi)		
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Plan:	Plan #2	**Date Composed:**	3/5/2012
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Field:	Eddy Co, NM (Nad 27)		
Map System:	US State Plane Coordinate System 1927	**Map Zone:**	New Mexico, Eastern Zone
Geo Datum:	NAD27 (Clarke 1866)	**Coordinate System:**	Well Centre
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	IGRF2010

Site:	Government AC 13 Fed #5H				
Site Position:		**Northing:**	573111.30 ft	**Latitude:**	32 34 31.575 N
From:	Map	**Easting:**	560218.50 ft	**Longitude:**	104 8 16.246 W
Position Uncertainty:	0.00 ft			**North Reference:**	Grid
Ground Level:	3267.50 ft			**Grid Convergence:**	0.11 deg

Well:	Government AC 13 Fed #5H				**Slot Name:**	
Well Position:	**+N/-S**	0.00 ft	**Northing:**	573111.30 ft	**Latitude:**	32 34 31.575 N
	+E/-W	0.00 ft	**Easting :**	560218.50 ft	**Longitude:**	104 8 16.246 W
Position Uncertainty:		0.00 ft				

Wellpath:	1			**Drilled From:**	Surface
				Tie-on Depth:	0.00 ft
Current Datum:	SITE	**Height**	3291.50 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	9/1/2012			**Declination:**	7.73 deg
Field Strength:	48669 nT			**Mag Dip Angle:**	60.38 deg

Vertical Section:	**Depth From (TVD)**	**+N/-S**	**+E/-W**	**Direction**
	ft	ft	ft	deg
	7621.00	0.00	0.00	90.64

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6900.38	0.00	0.00	6900.38	0.00	0.00	0.00	0.00	0.00	0.00	
7650.38	60.00	99.00	7520.63	-56.02	353.69	8.00	8.00	0.00	99.00	
8041.83	90.00	89.57	7621.00	-81.70	726.14	8.00	7.66	-2.41	-18.38	
11977.55	90.00	89.57	7621.00	-52.00	4661.75	0.00	0.00	0.00	0.00	Pbhl

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
6900.38	0.00	0.00	6900.38	0.00	0.00	0.00	0.00	573111.30	560218.50	KOP
6950.00	3.97	99.00	6949.96	-0.27	1.70	1.70	8.00	573111.03	560220.20	
7000.00	7.97	99.00	6999.68	-1.08	6.83	6.84	8.00	573110.22	560225.33	
7050.00	11.97	99.00	7048.91	-2.44	15.38	15.41	8.00	573108.86	560233.88	
7100.00	15.97	99.00	7097.43	-4.32	27.30	27.35	8.00	573106.98	560245.80	
7134.13	18.70	99.00	7130.00	-5.91	37.34	37.41	8.00	573105.39	560255.84	BSPG 2nd Sand
7150.00	19.97	99.00	7144.98	-6.74	42.53	42.60	8.00	573104.56	560261.03	
7200.00	23.97	99.00	7191.34	-9.66	61.00	61.11	8.00	573101.64	560279.50	
7250.00	27.97	99.00	7236.28	-13.09	82.62	82.77	8.00	573098.21	560301.12	
7300.00	31.97	99.00	7279.58	-16.99	107.29	107.47	8.00	573094.31	560325.79	
7350.00	35.97	99.00	7321.04	-21.36	134.88	135.11	8.00	573089.94	560353.38	
7400.00	39.97	99.00	7360.45	-26.17	165.25	165.54	8.00	573085.13	560383.75	
7450.00	43.97	99.00	7397.62	-31.40	198.27	198.61	8.00	573079.90	560416.77	
7500.00	47.97	99.00	7432.36	-37.03	233.77	234.17	8.00	573074.27	560452.27	
7550.00	51.97	99.00	7464.52	-43.01	271.58	272.04	8.00	573068.29	560490.08	
7600.00	55.97	99.00	7493.92	-49.34	311.51	312.04	8.00	573061.96	560530.01	

Weatherford International Ltd.

WFT Plan Report - X & Y's

Company:	Occidental Permian Ltd.	**Date:** 3/5/2012	**Time:** 14:27:48	**Page:**	2
Field:	Eddy Co, NM (Nad 27)	**Co-ordinate(NE) Reference:**	Well: Government AC 13 Fed #5H		
Site:	Government AC 13 Fed #5H	**Vertical (TVD) Reference:**	SITE 3291.5		
Well:	Government AC 13 Fed #5H	**Section (VS) Reference:**	Well (0.00N,0.00E,90.64Azi)		
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
7650.38	60.00	99.00	7520.63	-56.02	353.69	354.29	8.00	573055.28	560572.19	Build / Turn
7700.00	63.77	97.61	7544.00	-62.33	396.99	397.66	8.00	573048.97	560615.49	
7750.00	67.59	96.29	7564.59	-67.83	442.21	442.94	8.00	573043.47	560660.71	
7800.00	71.42	95.04	7582.09	-72.45	488.81	489.58	8.00	573038.85	560707.31	
7850.00	75.25	93.85	7596.43	-76.16	536.55	537.37	8.00	573035.14	560755.05	
7900.00	79.09	92.70	7607.53	-78.94	585.21	586.06	8.00	573032.36	560803.71	
7950.00	82.93	91.58	7615.34	-80.79	634.56	635.42	8.00	573030.51	560853.06	
8000.00	86.78	90.48	7619.82	-81.68	684.34	685.21	8.00	573029.62	560902.84	
8041.83	90.00	89.57	7621.00	-81.70	726.14	727.01	8.00	573029.60	560944.64	LP
8100.00	90.00	89.57	7621.00	-81.26	784.31	785.17	0.00	573030.04	561002.81	
8200.00	90.00	89.57	7621.00	-80.51	884.31	885.15	0.00	573030.79	561102.81	
8300.00	90.00	89.57	7621.00	-79.75	984.31	985.14	0.00	573031.55	561202.81	
8400.00	90.00	89.57	7621.00	-79.00	1084.30	1085.12	0.00	573032.30	561302.80	
8500.00	90.00	89.57	7621.00	-78.24	1184.30	1185.10	0.00	573033.06	561402.80	
8600.00	90.00	89.57	7621.00	-77.49	1284.30	1285.08	0.00	573033.81	561502.80	
8700.00	90.00	89.57	7621.00	-76.73	1384.30	1385.07	0.00	573034.57	561602.80	
8800.00	90.00	89.57	7621.00	-75.98	1484.29	1485.05	0.00	573035.32	561702.79	
8900.00	90.00	89.57	7621.00	-75.22	1584.29	1585.03	0.00	573036.08	561802.79	
9000.00	90.00	89.57	7621.00	-74.47	1684.29	1685.01	0.00	573036.83	561902.79	
9100.00	90.00	89.57	7621.00	-73.71	1784.28	1785.00	0.00	573037.59	562002.78	
9200.00	90.00	89.57	7621.00	-72.96	1884.28	1884.98	0.00	573038.34	562102.78	
9300.00	90.00	89.57	7621.00	-72.21	1984.28	1984.96	0.00	573039.09	562202.78	
9400.00	90.00	89.57	7621.00	-71.45	2084.28	2084.94	0.00	573039.85	562302.78	
9500.00	90.00	89.57	7621.00	-70.70	2184.27	2184.93	0.00	573040.60	562402.77	
9600.00	90.00	89.57	7621.00	-69.94	2284.27	2284.91	0.00	573041.36	562502.77	
9700.00	90.00	89.57	7621.00	-69.19	2384.27	2384.89	0.00	573042.11	562602.77	
9800.00	90.00	89.57	7621.00	-68.43	2484.26	2484.87	0.00	573042.87	562702.76	
9900.00	90.00	89.57	7621.00	-67.68	2584.26	2584.86	0.00	573043.62	562802.76	
10000.00	90.00	89.57	7621.00	-66.92	2684.26	2684.84	0.00	573044.38	562902.76	
10100.00	90.00	89.57	7621.00	-66.17	2784.26	2784.82	0.00	573045.13	563002.76	
10200.00	90.00	89.57	7621.00	-65.41	2884.25	2884.80	0.00	573045.89	563102.75	
10300.00	90.00	89.57	7621.00	-64.66	2984.25	2984.79	0.00	573046.64	563202.75	
10400.00	90.00	89.57	7621.00	-63.90	3084.25	3084.77	0.00	573047.40	563302.75	
10500.00	90.00	89.57	7621.00	-63.15	3184.24	3184.75	0.00	573048.15	563402.74	
10600.00	90.00	89.57	7621.00	-62.40	3284.24	3284.73	0.00	573048.90	563502.74	
10700.00	90.00	89.57	7621.00	-61.64	3384.24	3384.72	0.00	573049.66	563602.74	
10800.00	90.00	89.57	7621.00	-60.89	3484.24	3484.70	0.00	573050.41	563702.74	
10900.00	90.00	89.57	7621.00	-60.13	3584.23	3584.68	0.00	573051.17	563802.73	
11000.00	90.00	89.57	7621.00	-59.38	3684.23	3684.66	0.00	573051.92	563902.73	
11100.00	90.00	89.57	7621.00	-58.62	3784.23	3784.65	0.00	573052.68	564002.73	
11200.00	90.00	89.57	7621.00	-57.87	3884.22	3884.63	0.00	573053.43	564102.72	
11300.00	90.00	89.57	7621.00	-57.11	3984.22	3984.61	0.00	573054.19	564202.72	
11400.00	90.00	89.57	7621.00	-56.36	4084.22	4084.59	0.00	573054.94	564302.72	
11500.00	90.00	89.57	7621.00	-55.60	4184.22	4184.58	0.00	573055.70	564402.72	
11600.00	90.00	89.57	7621.00	-54.85	4284.21	4284.56	0.00	573056.45	564502.71	
11700.00	90.00	89.57	7621.00	-54.09	4384.21	4384.54	0.00	573057.21	564602.71	
11800.00	90.00	89.57	7621.00	-53.34	4484.21	4484.52	0.00	573057.96	564702.71	
11900.00	90.00	89.57	7621.00	-52.59	4584.20	4584.51	0.00	573058.71	564802.70	
11977.55	90.00	89.57	7621.00	-52.00	4661.75	4662.04	0.00	573059.30	564880.25	Pbhl

Weatherford International Ltd.
WFT Plan Report - X & Y's

Company:	Occidental Permian Ltd.	**Date:**	3/5/2012	**Time:** 14:27:48	**Page:** 3
Field:	Eddy Co, NM (Nad 27)	**Co-ordinate(NE) Reference:**	Well: Government AC 13 Fed #5H		
Site:	Government AC 13 Fed #5H	**Vertical (TVD) Reference:**	SITE 3291.5		
Well:	Government AC 13 Fed #5H	**Section (VS) Reference:**	Well (0.00N,0.00E,90.64Azi)		
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature	**Db:** Sybase	

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----> Deg Min Sec	<--- Longitude ---> Deg Min Sec
Pbhl			7621.00	-52.00	4661.75	573059.30	564880.25	32 34 30.972 N	104 7 21.768 W
Existing Government AC #2 -Circle (Radius: 217)			10077.16	180.00	1627.32	573291.30	561845.82	32 34 33.326 N	104 7 57.225 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
215.00	215.00	0.000	0.000	Csg
3150.00	3150.00	0.000	0.000	Csg

Annotation

MD ft	TVD ft	
6900.38	6900.38	KOP
7650.38	7520.63	Build / Turn
8041.83	7621.00	LP
11977.54	7621.00	Pbhl

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
600.00	600.00	Base Salt		0.00	0.00
3050.00	3050.00	Base Anhydrite		0.00	0.00
5270.00	5270.00	Bone Spring Limestone		0.00	0.00
6130.00	6130.00	BSPG1 Limestone		0.00	0.00
6585.00	6585.00	BSPG 1st Sand		0.00	0.00
6820.00	6820.00	BSPG2 Limestone		0.00	0.00
7134.13	7130.00	BSPG 2nd Sand		0.00	0.00

Weatherford Drilling Services

GeoDec v5.03

Report Date:	March 05, 2012
Job Number:	
Customer:	Occidental Permian Ltd.
Well Name:	Government AC 13 Fed #5H
API Number:	
Rig Name:	
Location:	Eddy Co, NM (Nad 27)
Block:	
Engineer:	Patrick Rudolph

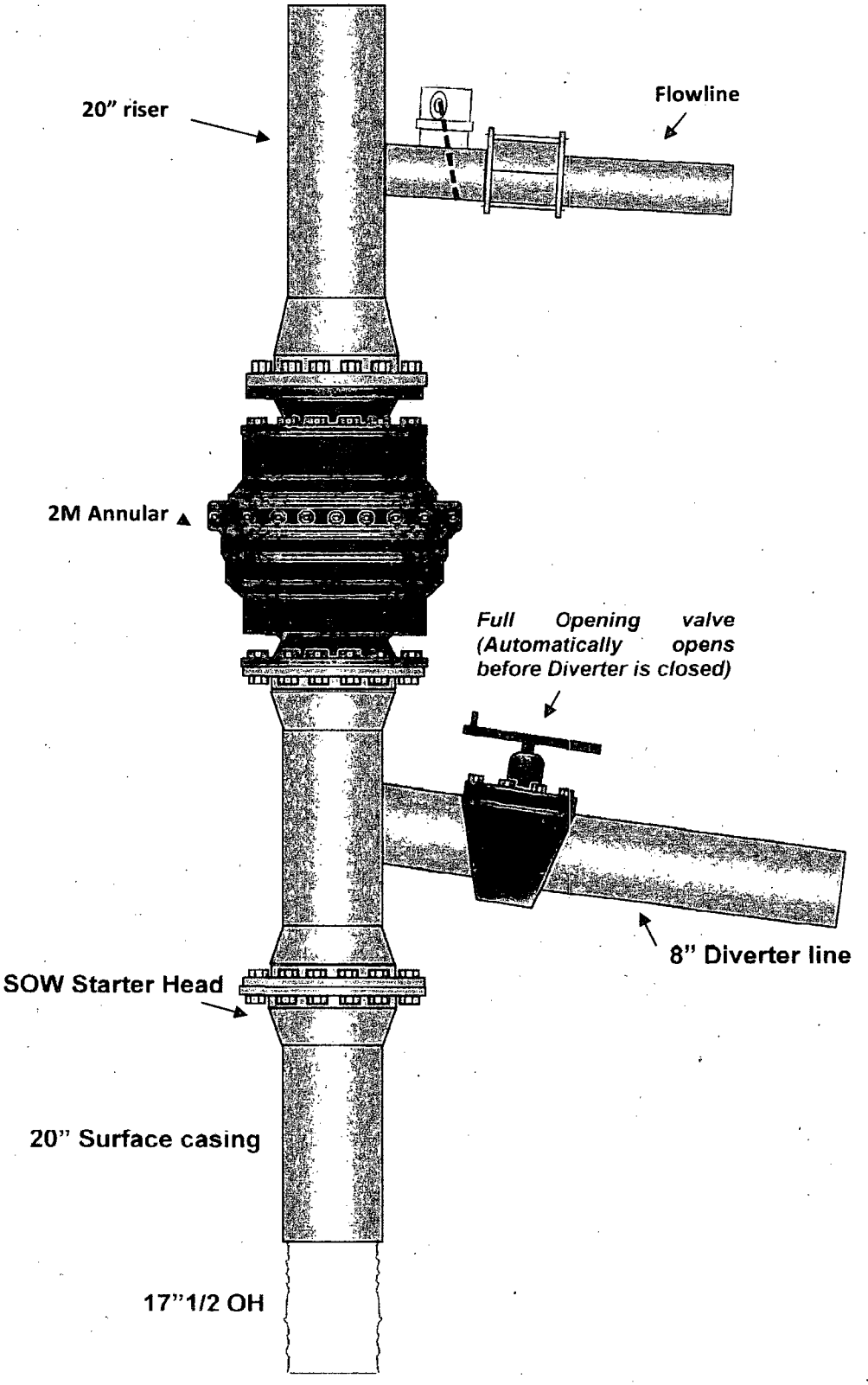
US State Plane 1927	Geodetic Latitude / Longitude
System: New Mexico East 3001 (NON-EXACT)	System: Latitude / Longitude
Projection: SPC27 Transverse Mercator	Projection: Geodetic Latitude and Longitude
Datum: NAD 1927 (NADCON CONUS)	Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866	Ellipsoid: Clarke 1866
North/South 573111.300 USFT	Latitude 32.5754375 DEG
East/West 560218.500 USFT	Longitude -104.1378462 DEG
Grid Convergence: .11°	
Total Correction: +7.62°	

Geodetic Location WGS84	Elevation = 0.0 Meters	
Latitude =	32.57544° N	32° 34 min 31.575 sec
Longitude =	104.13785° W	104° 8 min 16.247 sec

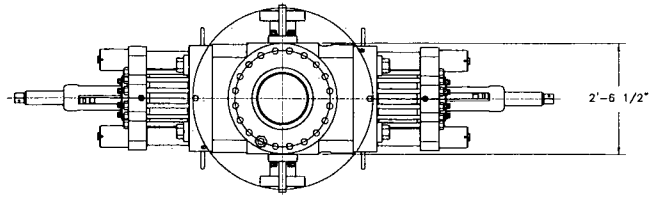
Magnetic Declination =	7.73°	[True North Offset]	
Local Gravity =	.9988 g	CheckSum =	6667
Local Field Strength =	48665 nT	Magnetic Vector X =	23831 nT
Magnetic Dip =	60.38°	Magnetic Vector Y =	3233 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z =	42308 nT
Spud Date =	Sep 01, 2012	Magnetic Vector H =	24049 nT

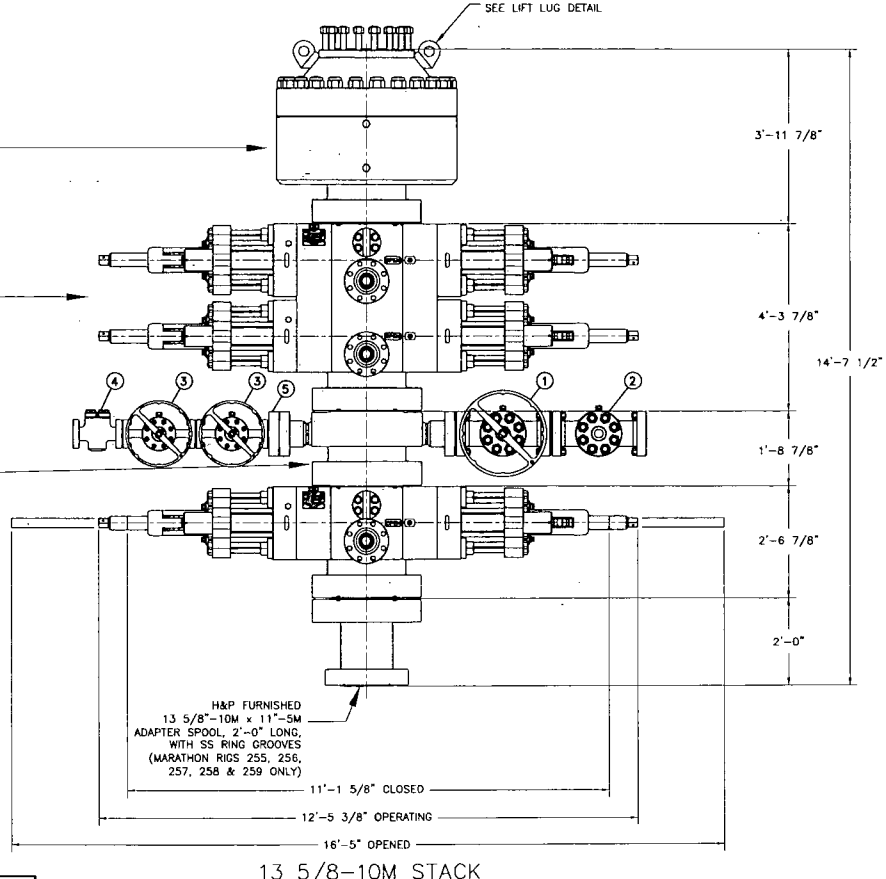
Signed:_____ Date:_____

20" Casing Diverter Diagram

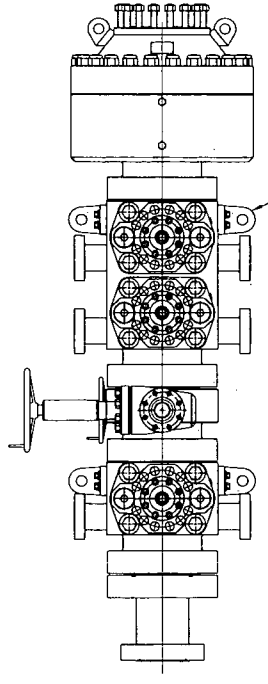


LEGEND
① 4 1/16"-10M FLANGED END GATE VALVE
② 4 1/16"-10M FLANGED END GATE VALVE WITH DOUBLE ACTING HYDRAULIC ACTUATOR
③ 2 1/16"-10M FLANGED END GATE VALVE
④ 2 1/16"-10M FLANGED END CHECK VALVE
⑤ DOUBLE STUDDED ADAPTER





13 5/8-10M STACK



ISSUED FOR FABRICATION
December-18-2007
DRAFTSMAN
ENGINEER

API 6A MONOGRAMMED CAMERON CHOKE AND KILL WING VALVE ASSEMBLIES ARE NOT SHOWN FOR CLARITY

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

REV	DATE	DESCRIPTION	BY
E	12/18/07	ADDED SHEET 03	JAV
D	4-10-07	ORIENTATION REVISED, DOUBLE STUDDED ADAPTER, VALVES 1, 2, & 3, AND MS CHECK VALVE ADDED	JBG
C	4-04-07	6" ADDED TO SPACER ADAPTER SPOOL	JBG
B	02-07-07	ADDED ADAPTER SPOOL	MWL
A	06-13-02	CORRECTED BOP STACK	MWL

ENGINEERING APPROVAL DATE

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

TITLE: 13 5/8"-10M BOP 3 RAM STACK FLEXRIG3

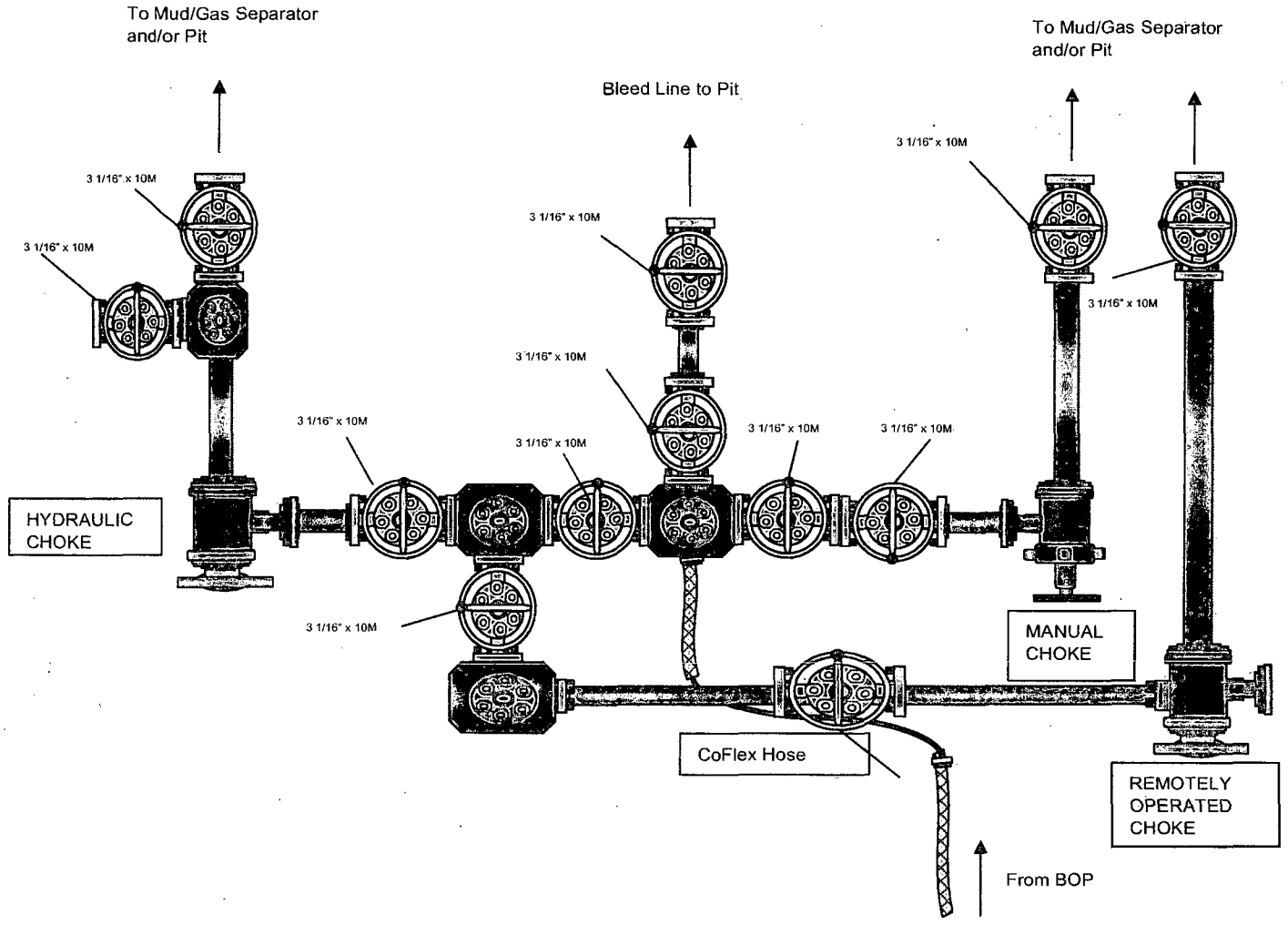
CUSTOMER: H&P

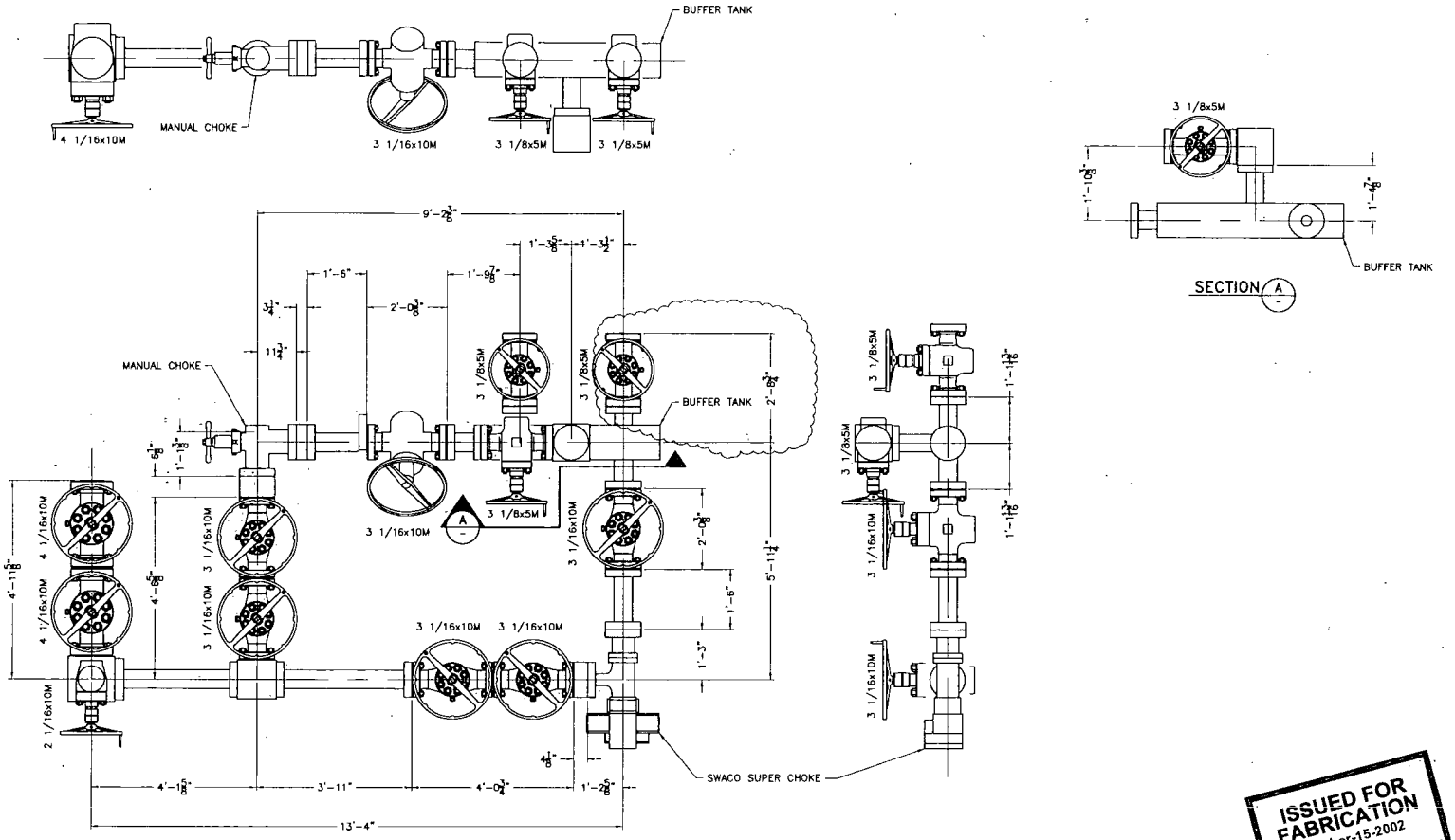
PROJECT: FLEXRIG3

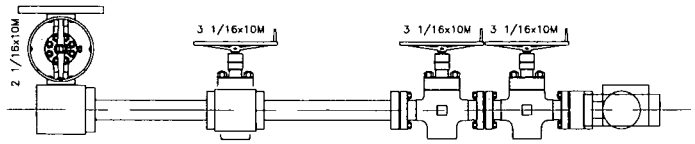
DRAWN: MTS | DATE: 6-5-02 | DWG. NO.: 210-P1-07 | REV: E

SCALE: 3/4"=1' | SHEET: 1 OF 3

10M CHOKE MANIFOLD CONFIGURATION







ISSUED FOR FABRICATION
October-15-2002
DRAFTSMAN
ENGINEER

REV	DATE	DESCRIPTION	BY
1	10/15/02	ADJUST DIM TO FIELD CONFIRMED DIM	RAY

ENGINEERING APPROVAL | DATE

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

TITLE: CHOKE MANIFOLD
RIG 216-234

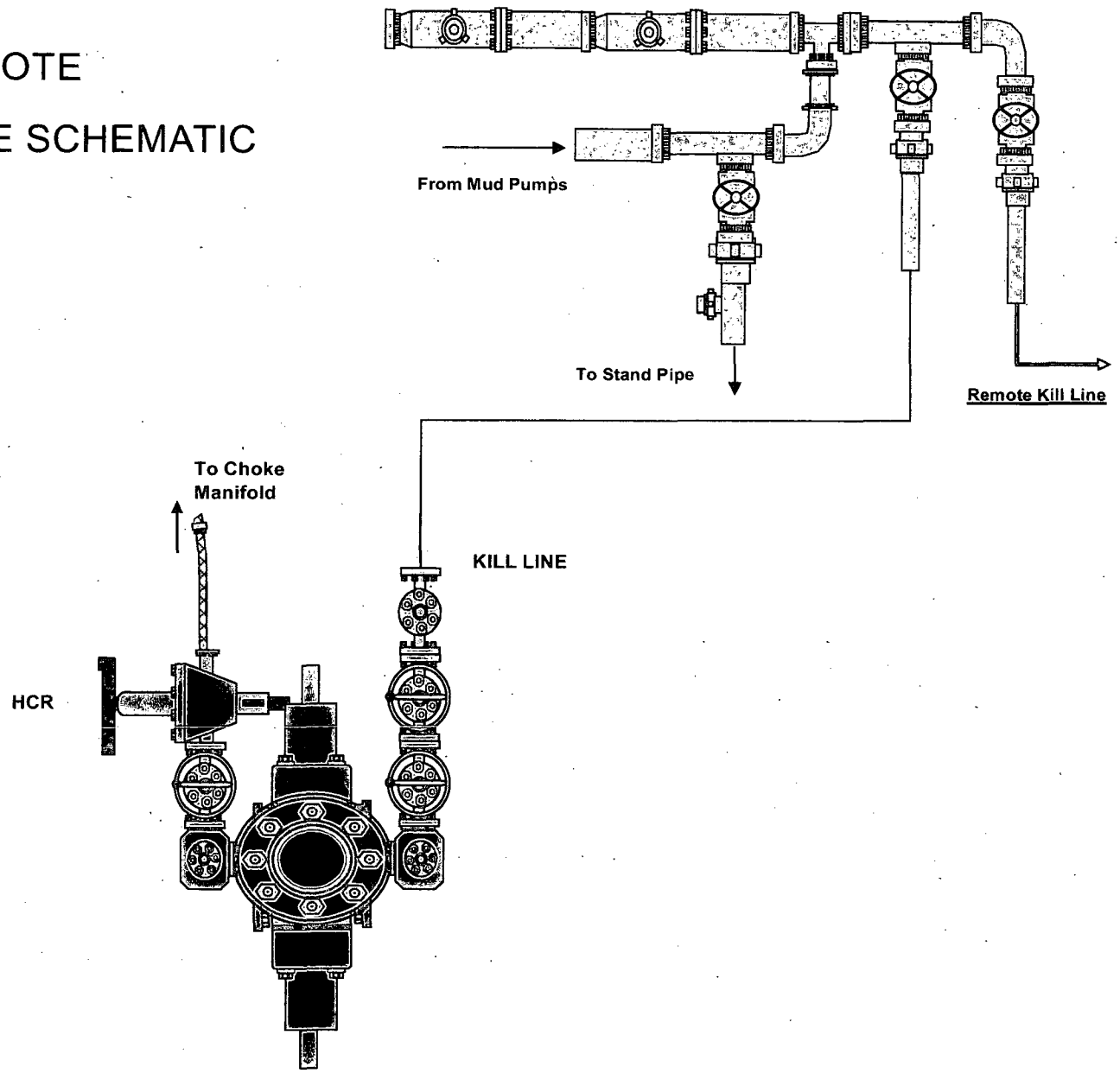
CUSTOMER: H&P

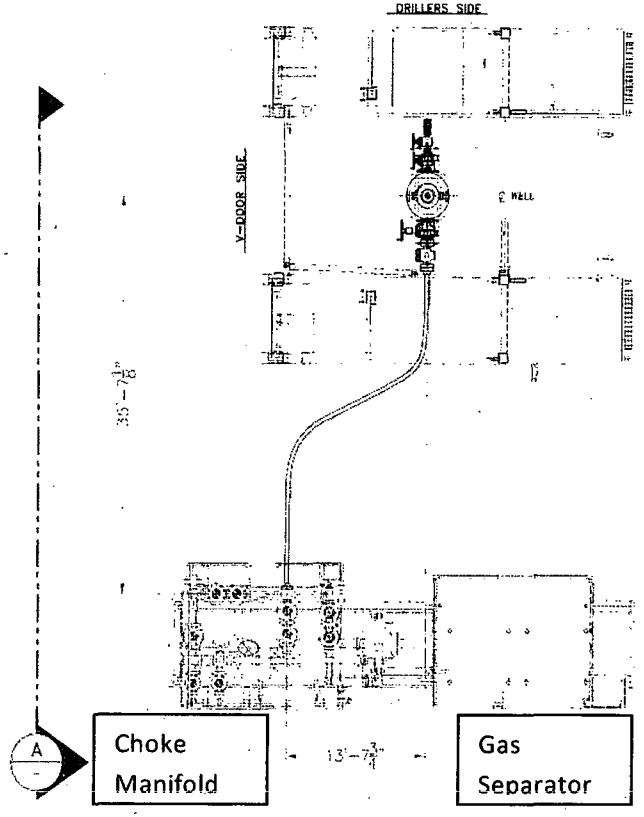
PROJECT: FLEXRIG3

DRAWN: MTS | DATE: 2-28-02 | DWG. NO.: 216-P1-05 | REV: A

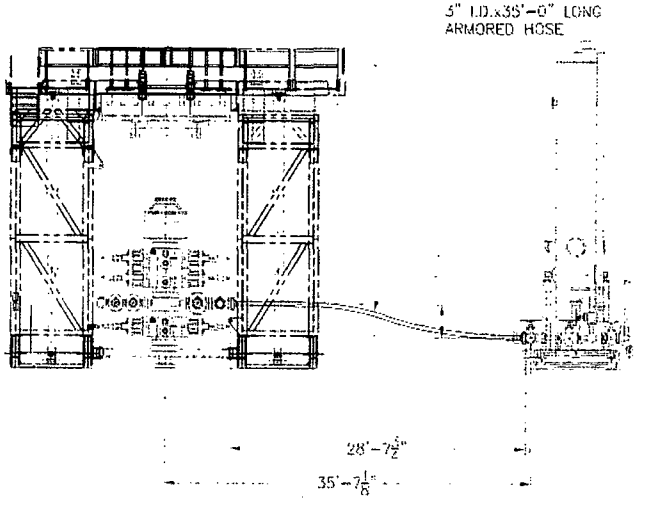
SCALE: 3/4"=1' | SHEET: 1 OF 1

10M REMOTE KILL LINE SCHEMATIC





PLAN VIEW



SECTION "A"

→ To Shakers

ISSUED FOR FABRICATION
December-19-2007
DRAFTSMAN .....
ENGINEER .....

REV.	DATE	DESCRIPTION	BY
4			
3			
2			
1			
A	12/18/07	REMOVED SHEET TOTAL CALLOUT	JAV

ENGINEERING APPROVAL DATE

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

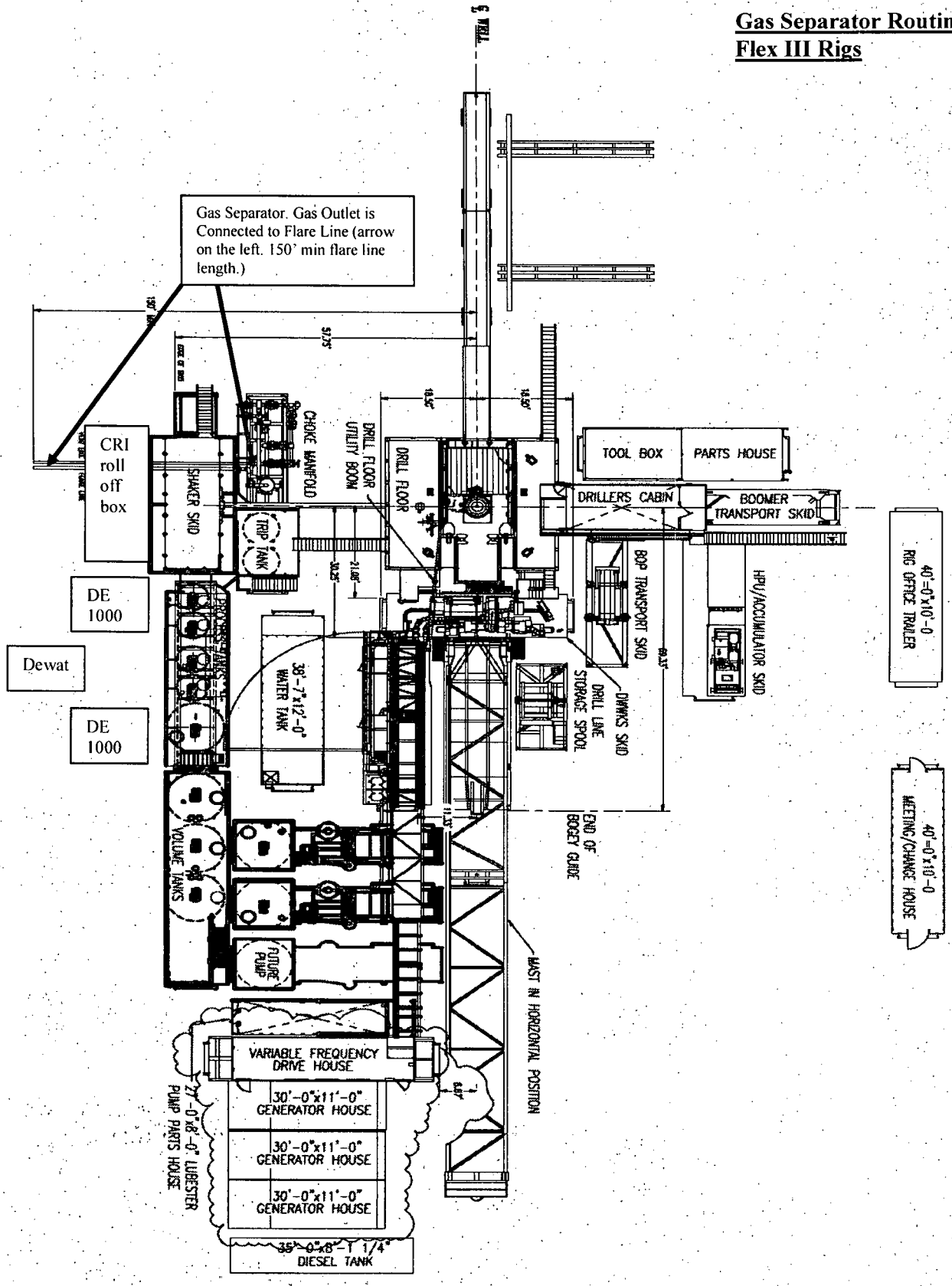
TITLE: CHOKE LINE SYSTEM FLEXRIG3

CUSTOMER:

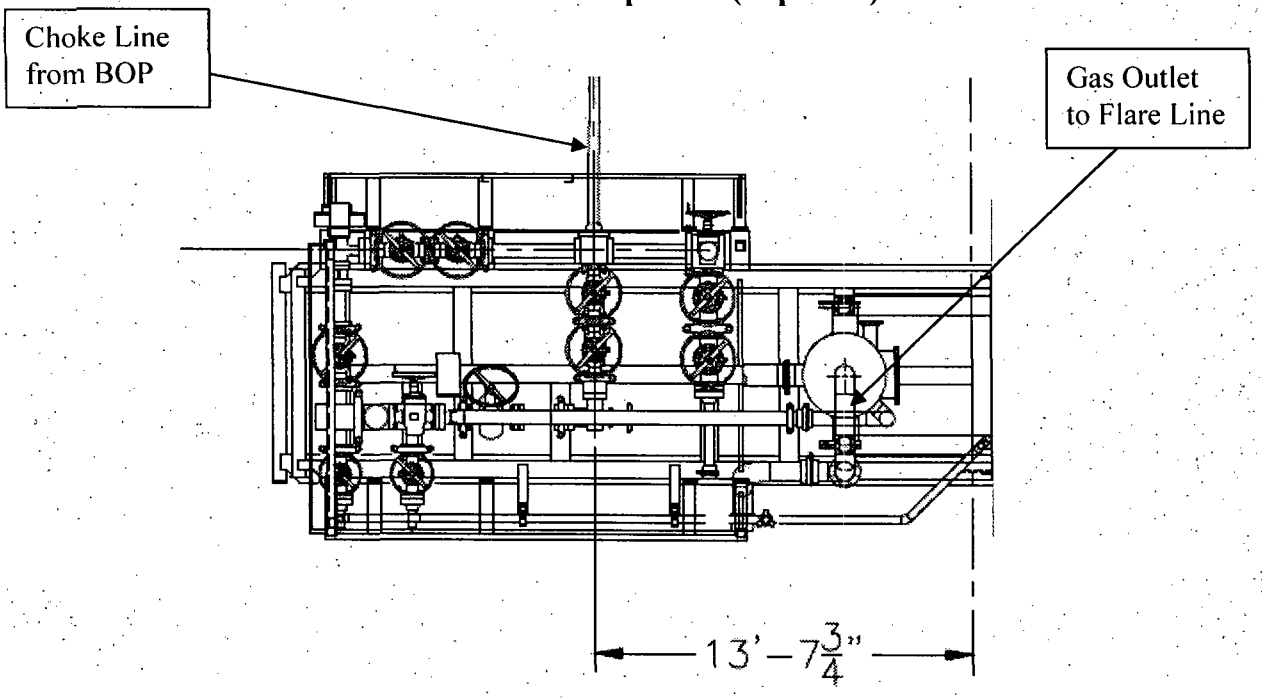
PROJECT:

DRAWN: JBC	DATE: 4-10-07	DWG. NO.: 210-P1-07	REV: A
SCALE: 3/16"=1'	SHEET: 2 OF		

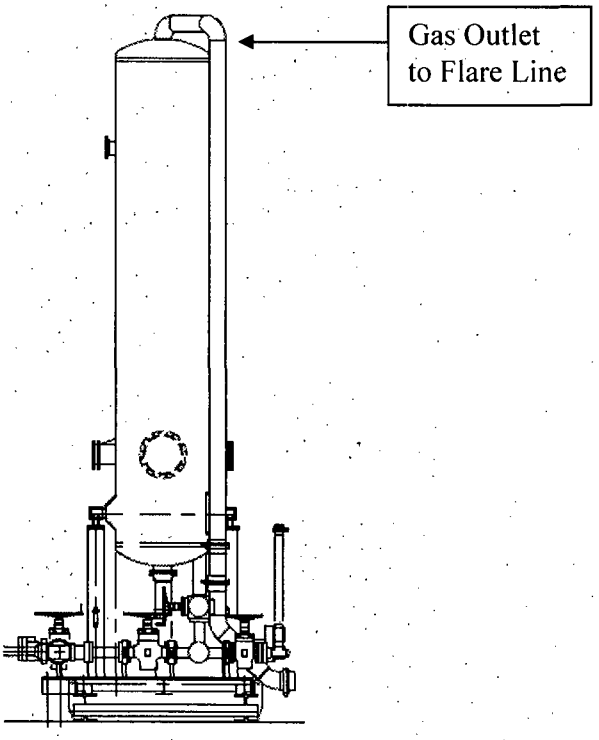
Gas Separator Routing
Flex III Rigs



Choke Manifold – Gas Separator (Top View)



Choke Manifold – Gas Separator (Side View)



Coflex Hose Certification

Continental CONTITECH

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	917 913	AISI 4130	T7998A
4 1/16" Flange end		AISI 4130	26984

INFOCHIP INSTALLED

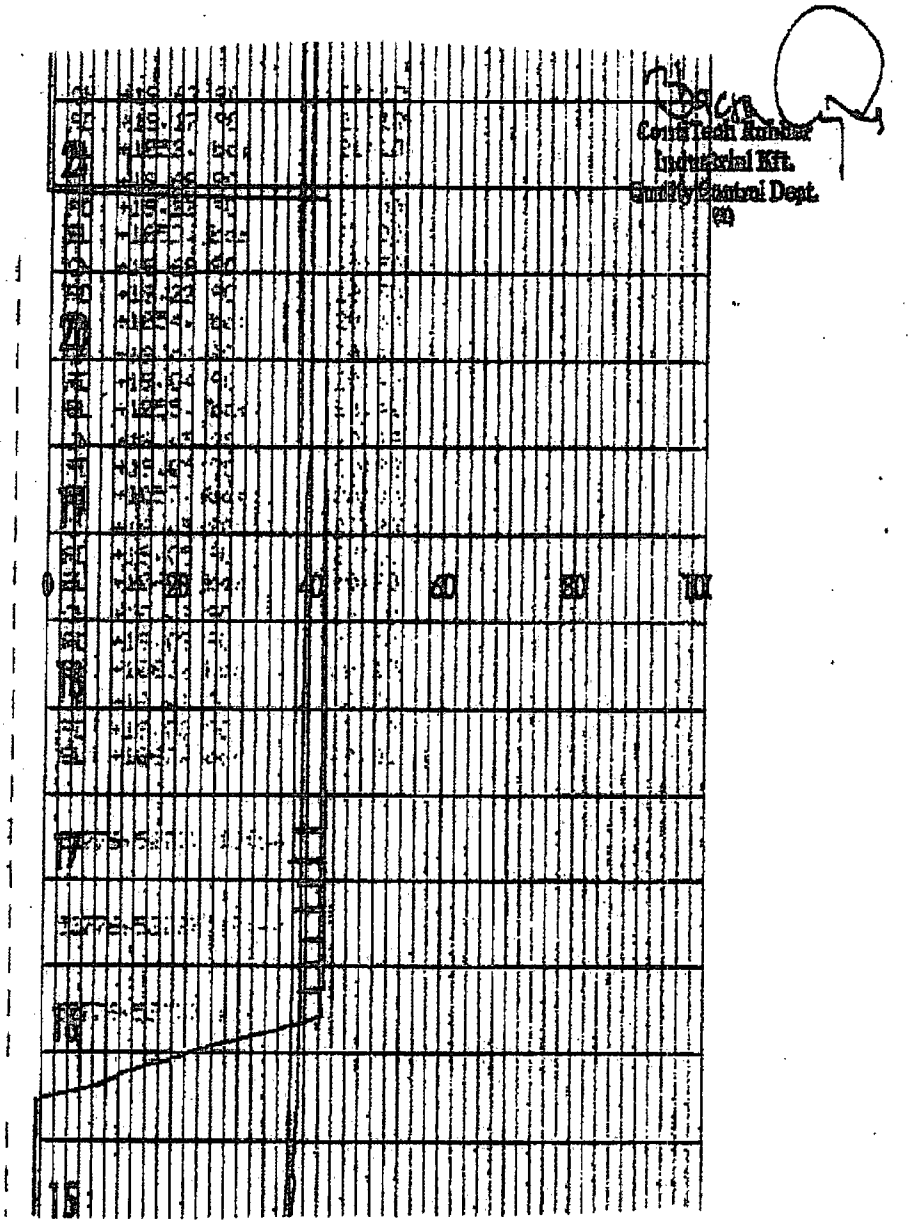
API Spec 16 C
Temperature rate:"B"

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:	Inspector	Quality Control
04. April. 2008		ContiTech Rubber Industrial Kft. Quality Control Dept. (1)

Coflex Hose Certification



PHOENIX Beattie

Material Identification Certificate

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

Part No	Description	Material Desc	Material Spec	Qty	WO No	Batch No	Test Cert No	Bin No	Drg No	Issue No
HP10CK3A-35-4F1	3" 10K 16C CHK HOSE x 35ft OAL			1	2491	52777/H884		WATER		
SECK3-HPF3	LIFTING & SAFETY EQUIPMENT TO			1	2440	002440		R/STK		
SC725-200CS	SAFETY CLAMP 200MM 7.25T	CARBON STEEL		1	2519	H568		22C		
SC725-132CS	SAFETY CLAMP 132MM 7.25T	CARBON STEEL		1	2242	H439		22		

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.

08/23/20

Coflex Hose Certification

Coflex Hose Certification

Form No 100/12

PHOENIX Beattie

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	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...

Coflex Hose Certification

Form No 100/12

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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.

Continental CONTITECH

Fluid Technology

Quality Document

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

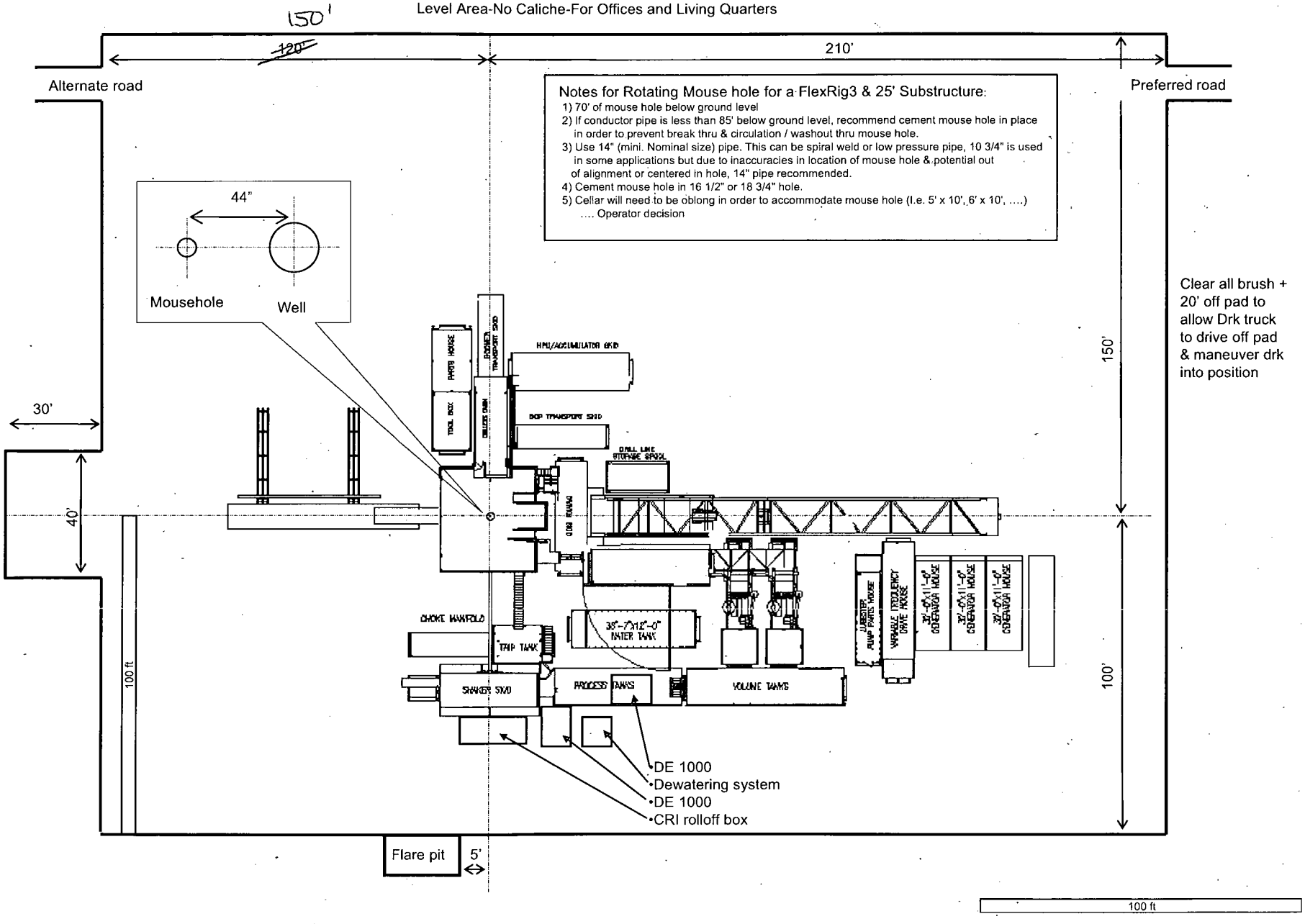
Signed : .....

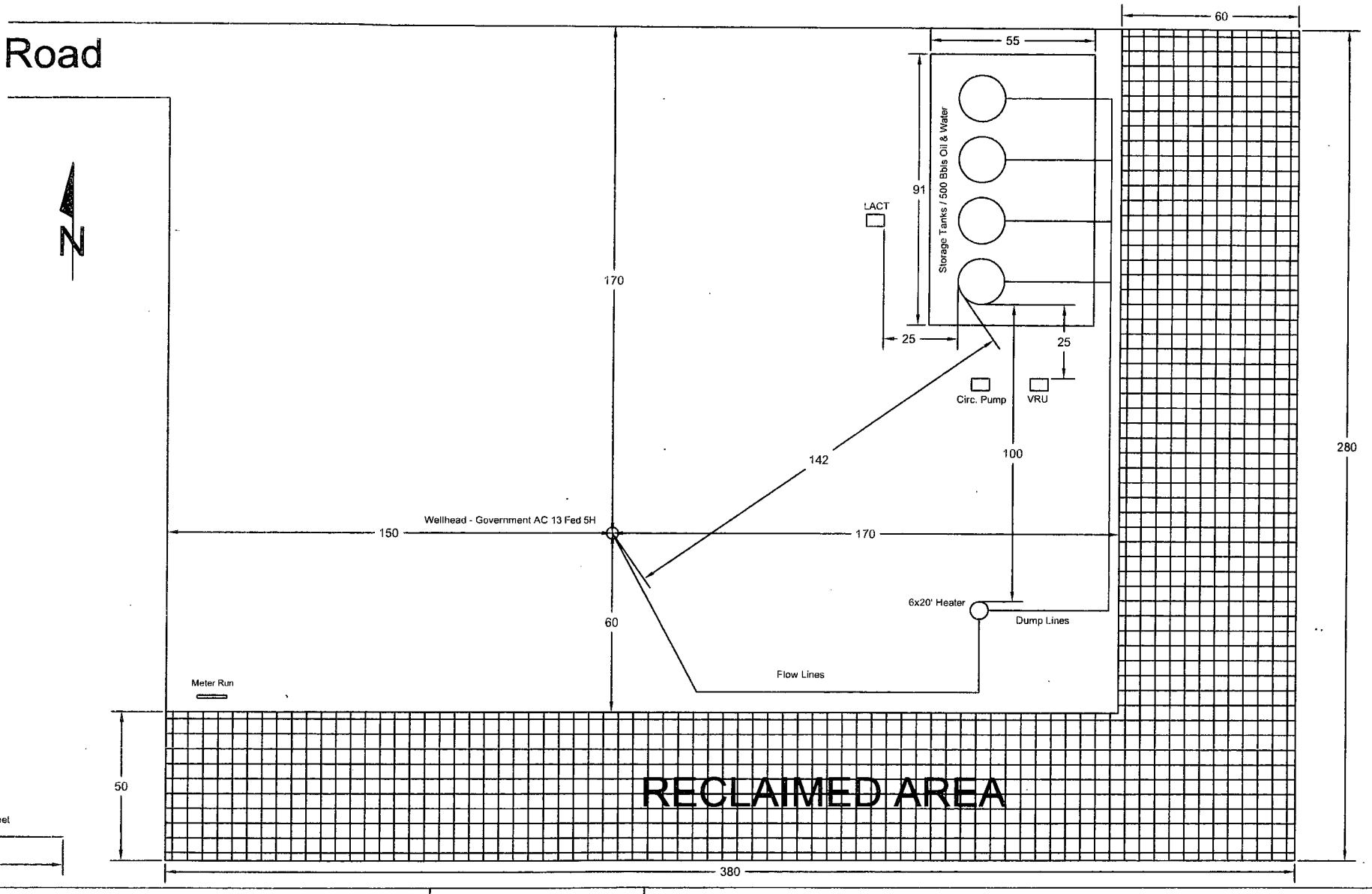
ContiTech Rubber Industrial Kft. Quality Control Dept. (1)

Date: 04. April. 2008

Position: Q.C. Manager

OXY FLEX III PAD (SCOMI Closed Loop System)





REVISION BLOCK						ENGINEERING RECORD	
NO.	DATE	DESCRIPTION	BY	CHK	APP	BY	DATE
A	7/18/12	Plot Plan for Permiting	RJG			RJG	7/18/2012

PRODUCTION FACILITY LAYOUT

Government AC 13 Fed 5H

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA WTP LP
LEASE NO.:	LC-050797
WELL NAME & NO.:	Government AC 13 Federal #5H
SURFACE HOLE FOOTAGE:	1980' FNL & 0350' FWL
BOTTOM HOLE FOOTAGE	1980' FNL & 0330' FEL
LOCATION:	Section 13, T. 20 S., R 28 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:
In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:
No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:
The pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad. All sides will be bermed.

Tank Battery Liners and Berms:
Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:
A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:
Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-6235 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 4 inches in depth. The topsoil will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty (20) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

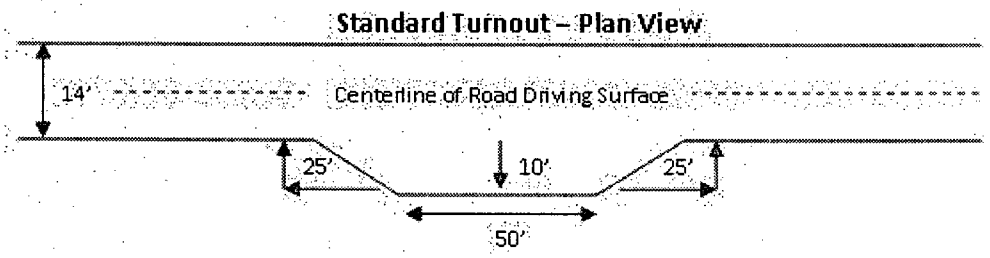
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

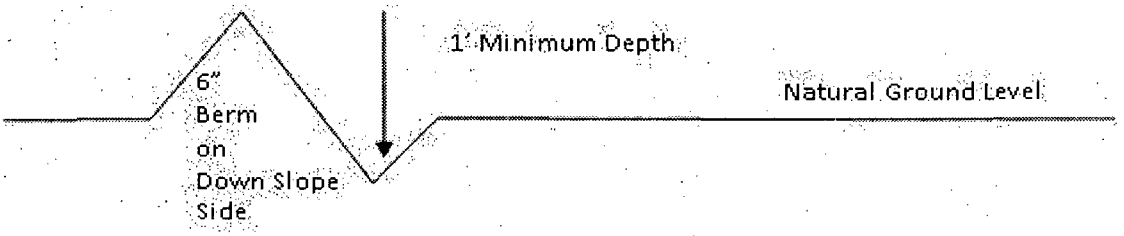
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

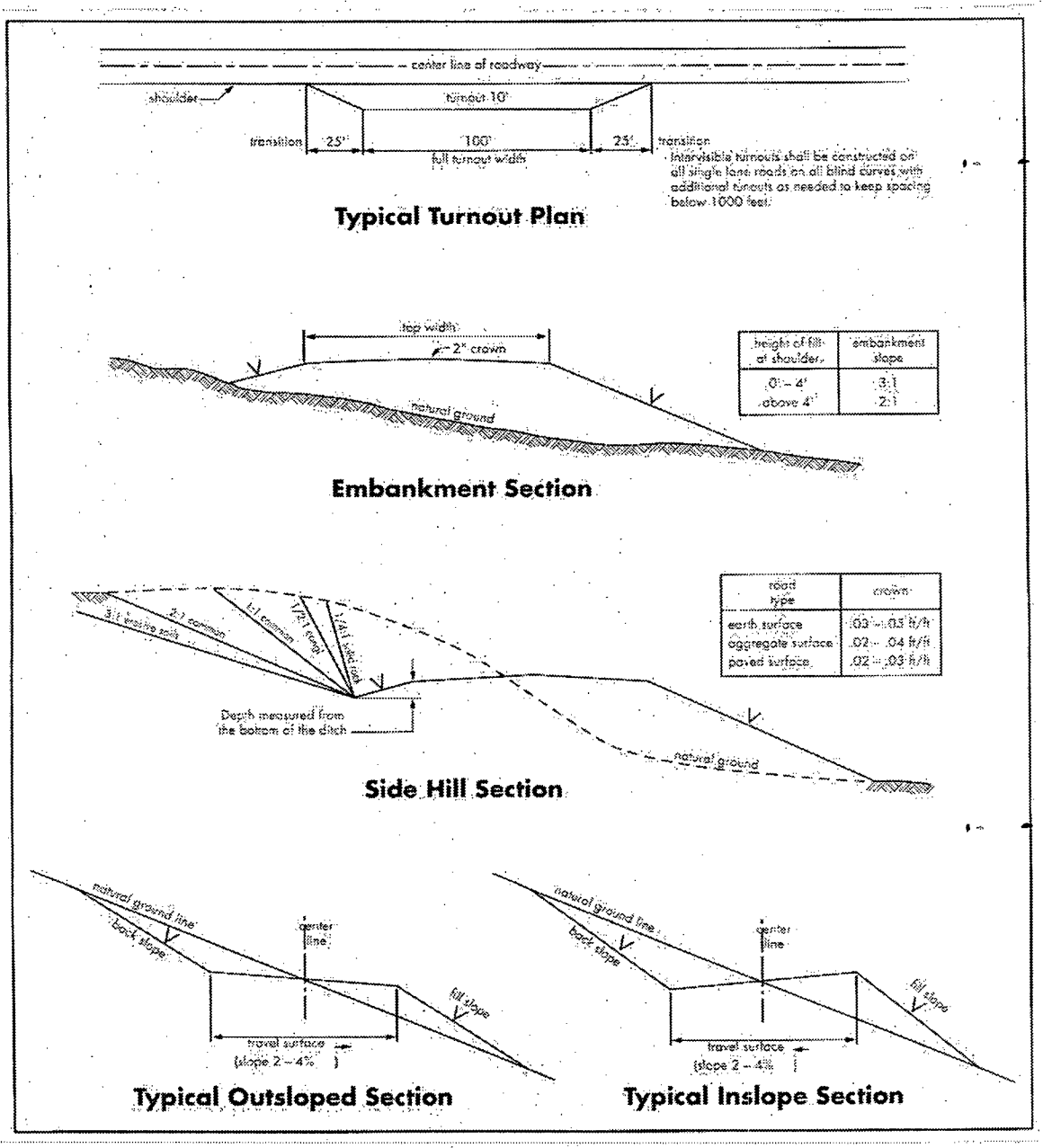
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. 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. **Hydrogen Sulfide has been reported as a hazard in formations deeper than the proposed depth. It is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide. If Hydrogen Sulfide is encountered, please report measurements 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

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. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. Also if present the Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need

prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

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

Wait on cement (WOC) time prior to drilling out 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. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. 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.

High cave/karst.
Possible lost circulation in the Grayburg, San Andres, Delaware, Bone Springs and Capitan Reef formations.
Possible brine and water flows in the Salado Group, Artesia Group and the Capitan Reef if present.

1. The **20** inch surface casing shall be set at approximately **300** feet (in a competent bed and if salt is encountered, set casing at least 25 feet above the salt) and cemented to the surface.

    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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    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 **13-3/8** 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 high cave/karst.**

3. The minimum required fill of cement behind the **9-5/8** inch 2nd intermediate casing is:

   ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to high cave/karst and Capitan Reef. Additional cement may be required – excess calculates to -20%.**

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   a. First stage to DV tool:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

   b. Second stage above DV tool:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with third stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

   c. Third stage above DV tool:

   ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Additional cement may be required – excess calculates to 11%.**

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.

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. **A variance is granted for the use of a diverter on the 20" surface casing.**

3. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review**. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 inch intermediate casing shoe shall be **5000 (5M)** psi.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips or where the float does not hold, the minimum wait time before cut-off is eight hours after bumping the plug or when the cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. BOP/BOPE testing can begin after the above conditions are satisfied.

    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

    c. The results of the test shall be reported to the appropriate BLM office.

    d. 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.**

    e. 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. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

CRW 120412

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES (not applied for in APD)

C. ELECTRIC LINES (not applied for in APD)

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 4, for Gypsum Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Alkali Sacaton (Sporobolus airoides)	1.0
DWS Four-wing saltbush (Atriplex canescens)	5.0

DWS: DeWinged Seed

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed