

OCD Hobbs

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.
NMLC-0065710; NMNM-0175774

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.
LUSK 28 WEST FEDERAL COM #1H

9. API Well No.

10. Field and Pool, or Exploratory
LUSK; BONE SPRING SOUTH - 41460

11. Sec., T. R. M. or Blk. and Survey or Area
O; SEC 28, T19S, R32E

12. County or Parish
LEA COUNTY

13. State
NM

1a. Type of work: ☒ DRILL ☐ REENTER

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

2. Name of Operator OCCIDENTAL PERMIAN LIMITED PARTNERSHIP

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

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

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface 652' FSL & 2425' FEL

At proposed prod. zone ~~4284' FSL & 2303' FEL~~ 330'N & 2284'E Unit B

14. Distance in miles and direction from nearest town or post office*
34 MILES NORTHEAST OF CARLSBAD, NM

15. Distance from proposed* 652'
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)

16. No. of acres in lease
1000

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* 450'
to nearest well, drilling, completed,
applied for, on this lease, ft.

19. Proposed Depth
13363' MD / 9420' TVD

20. BLM/BIA Bond No. on file
NM2797 / NMB000819

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3560.8' GL

22. Approximate date work will start*
06/17/2013

23. Estimated duration
45 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

Name (Printed/Typed)

Date

JENNIFER DUARTE (jennifer_duarte@oxy.com)

04/15/2013

Title

REGULATORY ANALYST

Approved by (Signature)

/s/ Jesse J. Juen

Name (Printed/Typed)

/s/ Jesse J. Juen

Date

JUN 28 2013

Title

STATE DIRECTOR

Office

NM STATE OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to these 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)

JUL 05 2013, Capitan Controlled Water Basin

K2
07/10/13

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SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

JUL 15 2013

dm

Occidental Permian Ltd.
Lusk 28 West Fed Com 1H
APD Data

OPERATOR NAME / NUMBER: ~~OXY USA Inc~~ *Occidental Permian Ltd*
LEASE NAME / NUMBER: Lusk 28 West Fed Com 1H
STATE: NM **COUNTY:** Lea
SURFACE LOCATION: 652' FSL & 2425' FEL, Sec 28, T19S, R32E
BOTTOM HOLE LOCATION: 330' FNL & 2284' FEL, Sec 28, T19S, R32E
C-102 PLAT APPROX GR ELEV: 3560.8'
EST KB ELEV: 3585.8' (25' KB)

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1. GEOLOGIC NAME OF SURFACE FORMATION

a. Permian

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

Geological Marker	Top TVD	Fluid Type
Rustler	856'	---
Salado (T. Salt)	1086'	---
Tansill (Base Salt)	2466'	---
T. Yates	2626'	---
T. Seven Rivers (Top of Capitan Reef)	2871'	---
T. Queen (Base of Capitan Reef)	3676'	---
Delaware	5026'	Oil
T. Bone Spring	7336'	Oil
T. BSPG 1st Sand	8486'	Oil
T. BSPG2 Limestone	8786'	Oil
T. BSPG 2nd Sand	9156'	Oil
Target 2nd Bone Spring LP	9366'	Oil
BHL	9356'	Oil

Presence of Fresh Water: Fresh Water may be present above the Rustler formation. Surface casing will cover them.

GREATEST PROJECTED TD 13363' MD / 9356' TVD **OBJECTIVE:** 2nd Bone Spring

3. CASING PROGRAM (ALL NEW CASING)

Surface Casing: 16" casing set at ±880' MD / 880' TVD in a 18-1/2" hole filled with 9.2 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 880' ¹⁰⁰⁰	880' ¹⁰⁰⁰	75	J55	BT&C	1020	2630	1178	15.12	14.93	5.29	5.16	7.6

Intermediate1 Casing: 11-3/4" casing set at ±2600'MD / 2600'TVD in a 14-3/4" hole filled with 10 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 2600' ²⁹⁵⁰	2600' ²⁹⁵⁰	47	J-55	ST&C	1510	3070	477	11.00	10.84	2.06	1.88	2.34

Intermediate2 Casing: 9-5/8" Ultra FJ casing set at ±4600'MD/4600'TVD in a 10-5/8" hole filled with 8.6 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 4600' ⁴³⁰⁰	4600' ⁴³⁰⁰	40	J-55	ULTRA -FJ	2570	3950	523	8.83	8.68	1.85	1.25	1.68

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Production Casing: 5-1/2" casing set at ±13363'MD / 9356'TVD in a 8-1/2" hole filled with 9.6 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	RECEIVED SF Coll	RECEIVED SF Burst	SF Ten
0' - 13363'	13363'	17	L-80	BT&C	6290	7740	397	4.89	4.76	1.35	1.28	1.68

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' - 550' (165%) Excess)	250	550	Premium Plus Cement, with 4% Bentonite, 1% Calcium Chloride, & 0.125 lb/sk Poly-E-Flake	9.14	13.5	1.73	1006 psi
Tail: 550' - 880' (165%) Excess)	200	330	Premium Plus cement with 2% Calcium Chloride	6.39	14.8	1.35	1346 psi

Intermediate1 Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Intermediate (TOC: 0')							
Lead: 0' - 2050' (105 % Excess)	810	2050	Light Premium Plus Cement, with 5% Salt, 5 lb/sk Kol-Seal, & 0.125 lb/sk Poly-E-Flake	9.87	12.9	1.90	760 psi
Tail: 2050' - 2600' (105% Excess)	390	550	Premium Plus cement with 1% Calcium Chloride	6.36	14.8	1.34	2032 psi

Intermediate2 Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Intermediate (TOC: 0')							
Lead: 0' - 3641' (150% Excess)	400	3641	Light Premium Plus Cement, with 5% Salt, 5 lb/sk Kol-Seal, & 0.125 lb/sk Poly-E-Flake	9.88	12.9	1.91	660 psi
Tail: 3641' - 4600' (150% Excess)	210	959	Premium Plus cement with 3 lb/sk Kol-Seal & 0.5% WellLife 734	6.19	14.8	1.35	1586 psi

Production Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Production (TOC: 8000') 1st Stage							
8000'-13363' (85% Excess)	1390	5363	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	13.2	1.67	1558 psi
DV Tool @ 8000							
Production (TOC: 4650') 2nd Stage							

Lead: 4650' – 7742' (125% Excess)	740	3092	Light Premium Plus, 5 lbm/sk Kol-Seal, 0.125 lbm/sk Poly-E-Flake, 5 lbm/sk Salt, 0.3% HR-601	11.78	12.4	2.16	709 psi
Tail: 7742' – 8000' (125% Excess)	100	258	Premium Plus cement with 0.15% HR-601	6.35	14.8	1.33	1303 psi
Pack-Off Stage Tool @ 4650'							

Production (TOC: Surface) 3rd Stage							
Lead: 0' – 4254' (10% Excess)	600	4254	Light Premium Plus with 3 lb/sk Salt	11.39	12.4	2.05	299 psi
Tail: 4254' – 4650' (10% Excess of Annular Volume)	100	396	Premium Plus cement with 1% Calcium Chloride	6.36	14.8	1.34	1745 psi

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

WellLife 734: Cement Enhancer

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5. DIRECTIONAL PLAN:

Please see attached directional plan

6. PRESSURE CONTROL EQUIPMENT:

Surface: 0 – 880' None.

Intermediate1: 0 - 2600' First intermediate hole will be drilled with a 2M Annular Diverter system. The Annular will be tested to 1500 psi (70% of annular WP). This exceeds Onshore Order #2 requirement III.A.

Intermediate2: 0 - 4600' Second intermediate hole will be drilled with a 13-5/8" 10M three ram stack w/ 5M annular preventer, & 10M Choke Manifold.

Production: 0 – 13362' 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 a 5M BOP stack.

- 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, equal to 70% of working pressure) with a third party BOP testing service before drilling out the 11-3/4" casing shoe. Wellhead pressure rating will support this test and 11-3/4" 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.
- 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.
- Oxy requests a variance to use a 2M Annular Diverter on the 16" surface casing
- 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

Two wellheads - surface / multi-bowl

see COH

- 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.

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7. MUD PROGRAM:

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	RECEIVED Type System
0 - 880' ¹⁰⁰⁰	8.4 - 9.2	32 - 36	NC	Fresh Water /Spud Mud
880' - 2800' ²⁹⁵⁰	9.8 - 10.0	28 - 36	NC	Brine Water
2800' - 4600' ⁴³⁰⁰	8.6 - 8.8	28 - 32	NC	Fresh Water
4600' - 8600'	8.8 - 9.2	28 - 32	<15	Cut Brine
8600' - TD	9.0 - 9.6	40 - 50	8 - 15	Salt Gel

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 Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.
- 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: See CA

- Mud Logger: From base of 9-5/8" Intermediate casing to TD.
- DST's: None.
- Open Hole Logs as follows: GR-NEU-DEN-RES from TD to Int Casing. GR-NEU to surface.

10. POTENTIAL HAZARDS:

- 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.
- The bottomhole pressure is anticipated to be between 4350 psi and 4550 psi. **The highest anticipated pressure gradient is 0.48 psi/ft**
- No abnormal temperatures or pressures are anticipated. 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 38 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
Brad Brown	Drilling Engineer	713-985-6950	713-985-6950
Sebastian Millan	Drilling Engineer Supervisor	713-350-4950	832-528-3268
Roger Allen	Drilling Superintendent	713- 215-7617	281-682-3919
Douglas Chester	Drilling Manager	713-366-5194	713-918-9124

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Drilling Services

Proposal



OCCIDENTAL PERMIAN LTD.

LUSK 28 WEST FED COM #1H

LEA CO, NM

WELL FILE: **PLAN 2**

AUGUST 29, 2012

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1.432.561.8892 Main

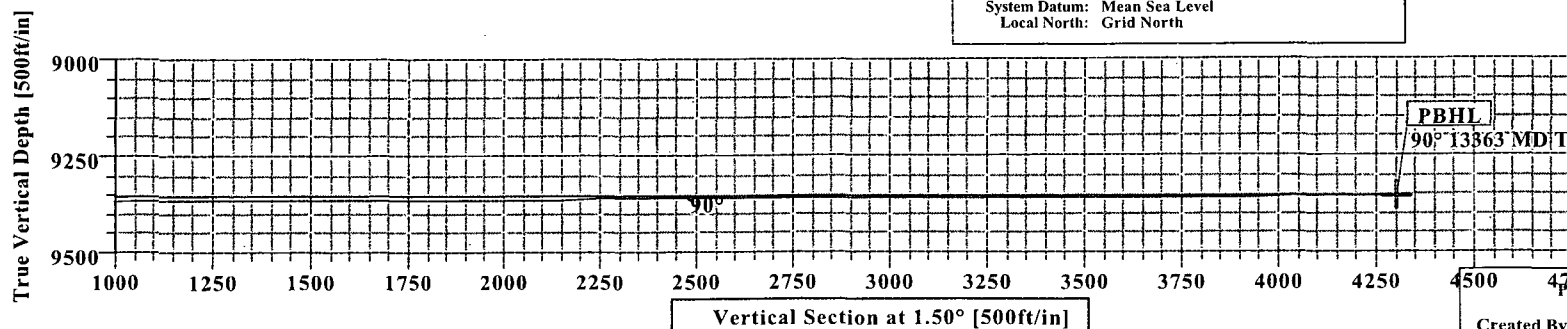
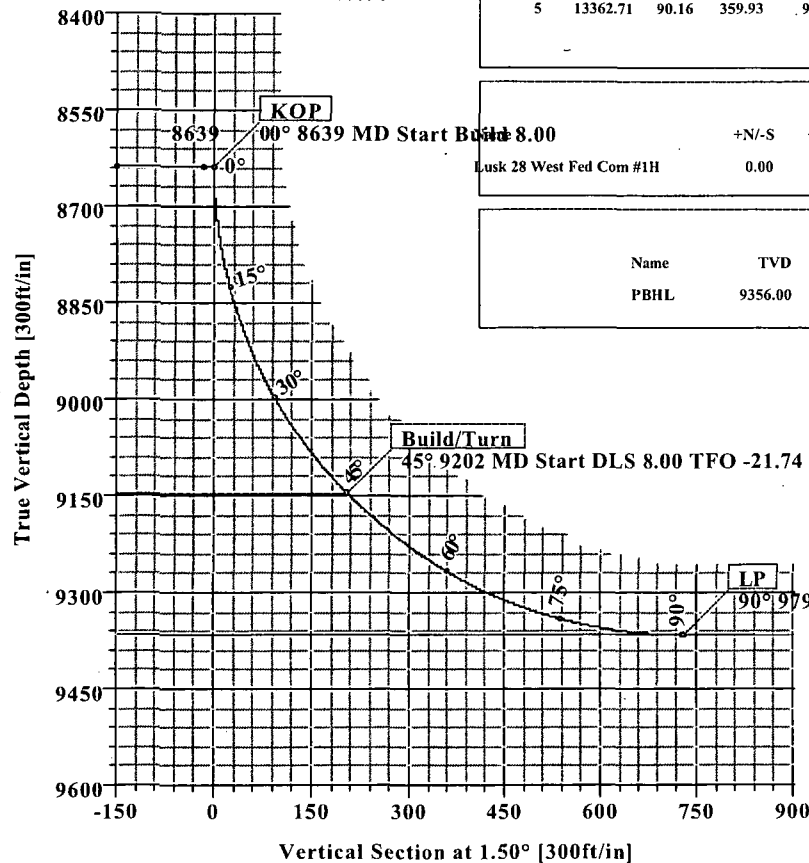
+1.432.561.8895 Fax

www.weatherford.com



Lusk 28 West Fed Com #1H Lea Co, New Mexico

KB ELEV: 3585.8
GL ELEV: 3560.8



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	8638.81	0.00	0.00	8638.81	0.00	0.00	0.00	0.00	0.00	
3	9202.43	45.09	15.70	9146.03	202.71	56.98	8.00	15.70	204.13	
4	9792.29	90.16	359.93	9366.00	728.79	116.57	8.00	-21.74	731.59	
5	13362.71	90.16	359.93	9356.00	4299.20	112.46	0.00	0.00	4300.67	PBHL

WELL DETAILS							
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Lusk 28 West Fed Com #1H	0.00	0.00	591839.70	673445.60	32°37'32.905N	103°46'11.877W	N/A

TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	9356.00	4299.20	112.46	596138.90	673558.06	Point

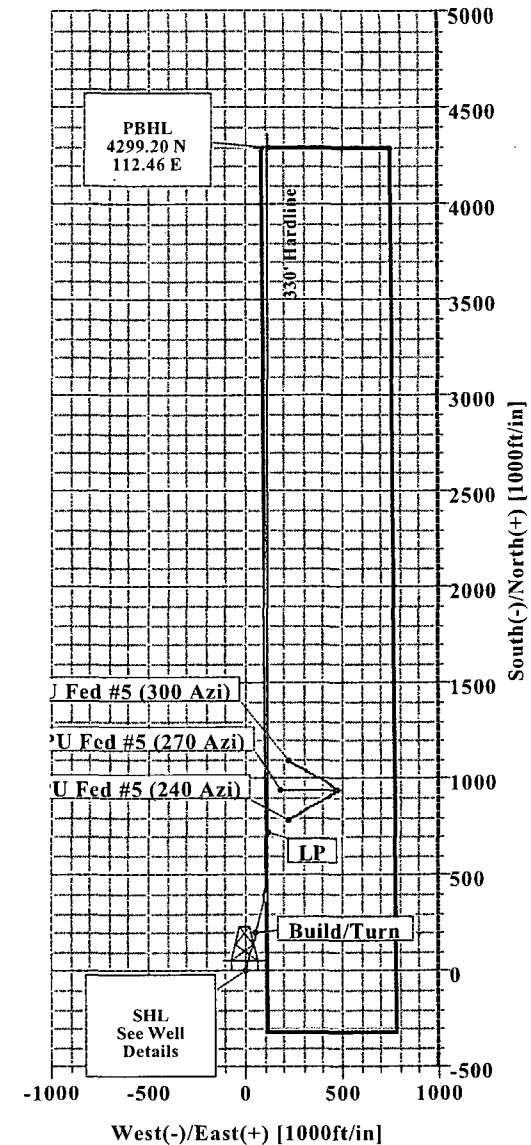
SITE DETAILS
Lusk 28 West Fed Com #1H
Site Centre Northing: 591839.70
Easting: 673445.60
Ground Level: 3560.80
Positional Uncertainty: 0.00
Convergence: 0.30

FIELD DETAILS
Lea Co, New Mexico (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

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Ellipsoid: NAD27 (Clarke 1866)
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System Datum: Mean Sea Level
Local North: Grid North



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WFT Plan Report - X & Y's



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Company: Occidental Permian Ltd. Date: 8/29/2012 Time: 09:53:56 Page: 1
 Field: Lea Co, New Mexico (Nad 27) Co-ordinate(NE) Reference: Well: Lusk 28 West Fed Com #1H
 Site: Lusk 28 West Fed Com #1H Vertical (TVD) Reference: SITE 3585.8
 Well: Lusk 28 West Fed Com #1H Section (VS) Reference: Well (0.00N,0.00E,1.50Azi)
 Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #2 Date Composed: 8/10/2012
 Principal: Yes Version: 1
 Tied-to: From Surface

Field: Lea Co, New Mexico (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: Lusk 28 West Fed Com #1H
 Site Position: Northing: 591839.70 ft Latitude: 32 37 32.905 N
 From: Map Easting: 673445.60 ft Longitude: 103 46 11.877 W
 Position Uncertainty: 0.00 ft North Reference: Grid
 Ground Level: 3560.80 ft Grid Convergence: 0.30 deg

Well: Lusk 28 West Fed Com #1H Slot Name:
 Well Position: +N/-S 0.00 ft Northing: 591839.70 ft Latitude: 32 37 32.905 N
 +E/-W 0.00 ft Easting: 673445.60 ft Longitude: 103 46 11.877 W
 Position Uncertainty: 0.00 ft

Wellpath: 1
 Current Datum: SITE Height 3585.80 ft
 Magnetic Data: 10/15/2012
 Field Strength: 48729 nT
 Vertical Section: Depth From (TVD) +N/-S
 ft ft
 0.00 0.00 0.00 1.50

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	
8638.81	0.00	0.00	8638.81	0.00	0.00	0.00	0.00	0.00	0.00	
9202.43	45.09	15.70	9146.03	202.71	56.98	8.00	8.00	0.00	15.70	
9792.29	90.16	359.93	9366.00	728.79	116.57	8.00	7.64	-2.67	-21.74	
13362.71	90.16	359.93	9356.00	4299.20	112.46	0.00	0.00	0.00	0.00	PBHL

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8600.00	0.00	0.00	8600.00	0.00	0.00	0.00	0.00	591839.70	673445.60	
8638.81	0.00	0.00	8638.81	0.00	0.00	0.00	0.00	591839.70	673445.60	KOP
8650.00	0.90	15.70	8650.00	0.08	0.02	0.08	8.00	591839.78	673445.62	
8700.00	4.90	15.70	8699.93	2.51	0.71	2.53	8.00	591842.21	673446.31	
8750.00	8.90	15.70	8749.55	8.29	2.33	8.35	8.00	591847.99	673447.93	
8800.00	12.90	15.70	8798.64	17.39	4.89	17.51	8.00	591857.09	673450.49	
8850.00	16.90	15.70	8846.95	29.76	8.36	29.97	8.00	591869.46	673453.96	
8900.00	20.90	15.70	8894.25	45.34	12.75	45.66	8.00	591885.04	673458.35	
8950.00	24.90	15.70	8940.30	64.07	18.01	64.52	8.00	591903.77	673463.61	
9000.00	28.90	15.70	8984.88	85.84	24.13	86.44	8.00	591925.54	673469.73	
9050.00	32.90	15.70	9027.78	110.55	31.07	111.32	8.00	591950.25	673476.67	
9100.00	36.90	15.70	9068.78	138.08	38.81	139.05	8.00	591977.78	673484.41	
9150.00	40.90	15.70	9107.69	168.30	47.31	169.48	8.00	592008.00	673492.91	
9202.43	45.09	15.70	9146.03	202.71	56.98	204.13	8.00	592042.41	673502.58	Build/Turn
9250.00	48.64	13.82	9178.55	236.27	65.81	237.91	8.00	592075.97	673511.41	
9300.00	52.40	12.06	9210.34	273.88	74.43	275.73	8.00	592113.58	673520.03	



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WFT Plan Report - X & Y's

HORSE CDD



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Company: Occidental Permian Ltd.
 Field: Lea Co, New Mexico (Nad 27)
 Site: Lusk 28 West Fed Com #1H
 Well: Lusk 28 West Fed Com #1H
 Wellpath: 1

JUL 05 2013

Date: 8/29/2012 Time: 09:53:56 Page: 2
 Co-ordinate(N/E) Reference: Well: Lusk 28 West Fed Com #1H
 Vertical (TVD) Reference: SITE 3585.8
 Section (VS) Reference: Well (0.00N,0.00E,1.50Azi)
 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

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MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9350.00	56.19	10.47	9239.51	313.69	82.35	315.74	8.00	592153.39	673527.95	
9400.00	59.99	9.01	9265.94	355.51	89.51	357.74	8.00	592195.21	673535.11	
9450.00	63.81	7.66	9289.48	399.15	95.90	401.52	8.00	592238.85	673541.50	
9500.00	67.64	6.40	9310.04	444.38	101.47	446.88	8.00	592284.08	673547.07	
9550.00	71.48	5.20	9327.49	490.98	106.19	493.59	8.00	592330.68	673551.79	
9600.00	75.33	4.06	9341.77	538.73	110.06	541.43	8.00	592378.43	673555.66	
9650.00	79.18	2.96	9352.80	587.40	113.03	590.15	8.00	592427.10	673558.63	
9700.00	83.04	1.88	9360.53	636.74	115.12	639.54	8.00	592476.44	673560.72	
9750.00	86.90	0.82	9364.91	686.53	116.29	689.33	8.00	592526.23	673561.89	
9792.29	90.16	359.93	9366.00	728.79	116.57	731.59	8.00	592568.49	673562.17	LP
9800.00	90.16	359.93	9365.98	736.50	116.56	739.30	0.00	592576.20	673562.16	
9900.00	90.16	359.93	9365.70	836.50	116.44	839.27	0.00	592676.20	673562.04	
10000.00	90.16	359.93	9365.42	936.50	116.33	939.23	0.00	592776.20	673561.93	
10100.00	90.16	359.93	9365.14	1036.50	116.21	1039.19	0.00	592876.20	673561.81	
10200.00	90.16	359.93	9364.86	1136.50	116.10	1139.15	0.00	592976.20	673561.70	
10300.00	90.16	359.93	9364.58	1236.50	115.98	1239.11	0.00	593076.20	673561.58	
10400.00	90.16	359.93	9364.30	1336.50	115.87	1339.08	0.00	593176.20	673561.47	
10500.00	90.16	359.93	9364.02	1436.50	115.75	1439.04	0.00	593276.20	673561.35	
10600.00	90.16	359.93	9363.74	1536.50	115.64	1539.00	0.00	593376.20	673561.24	
10700.00	90.16	359.93	9363.46	1636.50	115.52	1638.96	0.00	593476.20	673561.12	
10800.00	90.16	359.93	9363.18	1736.50	115.41	1738.93	0.00	593576.20	673561.01	
10900.00	90.16	359.93	9362.90	1836.50	115.29	1838.89	0.00	593676.20	673560.89	
11000.00	90.16	359.93	9362.62	1936.50	115.18	1938.85	0.00	593776.20	673560.78	
11100.00	90.16	359.93	9362.34	2036.50	115.06	2038.81	0.00	593876.20	673560.66	
11200.00	90.16	359.93	9362.06	2136.50	114.95	2138.77	0.00	593976.20	673560.55	
11300.00	90.16	359.93	9361.78	2236.50	114.83	2238.74	0.00	594076.20	673560.43	
11400.00	90.16	359.93	9361.50	2336.50	114.72	2338.70	0.00	594176.20	673560.32	
11500.00	90.16	359.93	9361.22	2436.50	114.60	2438.66	0.00	594276.20	673560.20	
11600.00	90.16	359.93	9360.94	2536.50	114.49	2538.62	0.00	594376.20	673560.09	
11700.00	90.16	359.93	9360.66	2636.50	114.37	2638.59	0.00	594476.20	673559.97	
11800.00	90.16	359.93	9360.38	2736.50	114.26	2738.55	0.00	594576.20	673559.86	
11900.00	90.16	359.93	9360.10	2836.49	114.14	2838.51	0.00	594676.19	673559.74	
12000.00	90.16	359.93	9359.82	2936.49	114.03	2938.47	0.00	594776.19	673559.63	
12100.00	90.16	359.93	9359.54	3036.49	113.91	3038.44	0.00	594876.19	673559.51	
12200.00	90.16	359.93	9359.26	3136.49	113.80	3138.40	0.00	594976.19	673559.40	
12300.00	90.16	359.93	9358.98	3236.49	113.68	3238.36	0.00	595076.19	673559.28	
12400.00	90.16	359.93	9358.70	3336.49	113.57	3338.32	0.00	595176.19	673559.17	
12500.00	90.16	359.93	9358.42	3436.49	113.45	3438.28	0.00	595276.19	673559.05	
12600.00	90.16	359.93	9358.14	3536.49	113.34	3538.25	0.00	595376.19	673558.94	
12700.00	90.16	359.93	9357.86	3636.49	113.22	3638.21	0.00	595476.19	673558.82	
12800.00	90.16	359.93	9357.58	3736.49	113.11	3738.17	0.00	595576.19	673558.71	
12900.00	90.16	359.93	9357.30	3836.49	112.99	3838.13	0.00	595676.19	673558.59	
13000.00	90.16	359.93	9357.02	3936.49	112.88	3938.10	0.00	595776.19	673558.48	
13100.00	90.16	359.93	9356.74	4036.49	112.76	4038.06	0.00	595876.19	673558.36	
13200.00	90.16	359.93	9356.46	4136.49	112.65	4138.02	0.00	595976.19	673558.25	
13300.00	90.16	359.93	9356.18	4236.49	112.53	4237.98	0.00	596076.19	673558.13	
13362.71	90.16	359.93	9356.00	4299.20	112.46	4300.67	0.00	596138.90	673558.06	PBHL



Weatherford

WFT Plan Report - X & Y's

**Weatherford**

Company: Occidental Permian Ltd.
Field: Lea Co, New Mexico (Nad 27)
Site: Lusk 28 West Fed Com #1H
Well: Lusk 28 West Fed Com #1H
Wellpath: 1

HOESS OGD

JUL 05 2013

Date: 8/29/2012 Time: 09:53:56 Page: 3
Co-ordinate(NE) Reference: Well: Lusk 28 West Fed Com #1H
Vertical (TVD) Reference: SITE 3585.8
Section (VS) Reference: Well (0.00N,0.00E,1.50Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Targets

Name	Description		TVD ft	+N/-S ft	+E/-W ft	Map		<---- Latitude ---->			<--- Longitude --->		
	Dip.	Dir.				Northing ft	Easting ft	Deg	Min	Sec	Deg	Min	Sec
PBHL			9356.00	4299.20	112.46	596138.90	673558.06	32	38	15.441 N	103	46	10.295 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
8638.81	8638.81	KOP
9202.43	9146.03	Build/Turn
9792.29	9366.00	LP
13362.71	9356.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction



Weatherford Anticollision Report



Weatherford

Company: Occidental Permian Ltd. Date: 8/29/2012 Time: 09:59:36 Page: 1
Field: Lea Co, New Mexico (Nad 27)
Reference Site: Lusk 28 West Fed Com #1H Co-ordinate(NE) Reference: Well: Lusk 28 West Fed Com #1H
Reference Well: Lusk 28 West Fed Com #1H Vertical (TVD) Reference: SITE 3585.8
Reference Wellpath: Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria
Interpolation Method: MD Interval: 100.00 ft
Depth Range: 100.00 to 13366.49 ft
Maximum Ratio: 5
Reference: Plan: Plan #2
Error Model: ISCWSA Ellipse
Scan Method: Closest Approach 3D
Error Surface: Ellipse

JUL 05 2013

Plan: Plan #2 Date Composed: 8/10/2012
Principal: Yes Version: 1
RECEIVED: From Surface

Summary

Site	Well	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Factor	Warning
Exist. PU Fed #5	Exist. PU Fed #5	240 Azi V0	9900.00	9368.25	162.06	-295.64	0.35	Level 1
Exist. PU Fed #5	Exist. PU Fed #5	270 Azi V1	10000.00	9367.92	129.41	-330.02	0.28	Level 1
Exist. PU Fed #5	Exist. PU Fed #5	300 Azi V0	10100.00	9367.61	163.75	-297.51	0.36	Level 1

Site: Exist. PU Fed #5
Well: Exist. PU Fed #5
Wellpath: 240 Azi V0

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Factor	Warning
4100.00	4100.00	4127.48	4125.49	13.61	180.66	23.64	885.32	387.56	966.85	772.52	4.98	
4200.00	4200.00	4224.88	4222.83	13.95	185.10	23.52	883.63	384.63	964.05	764.96	4.84	
4300.00	4300.00	4321.52	4319.42	14.29	189.50	23.42	882.12	382.01	961.54	757.71	4.72	
4400.00	4400.00	4415.56	4413.43	14.62	193.79	23.33	880.95	379.98	959.54	751.10	4.60	
4500.00	4500.00	4512.75	4510.60	14.96	198.21	23.27	880.06	378.44	958.07	744.88	4.49	
4600.00	4600.00	4612.73	4610.57	15.30	202.77	23.21	879.18	376.93	956.67	738.59	4.39	
4700.00	4700.00	4716.28	4714.10	15.64	207.48	23.13	878.17	375.17	955.10	731.95	4.28	
4800.00	4800.00	4819.35	4817.14	15.97	212.18	23.04	876.90	372.98	953.14	724.94	4.18	
4900.00	4900.00	4919.32	4917.07	16.31	216.73	22.95	875.60	370.71	951.05	717.95	4.08	
5000.00	5000.00	5019.40	5017.12	16.65	221.29	22.85	874.29	368.44	948.96	710.96	3.99	
5100.00	5100.00	5119.96	5117.65	16.98	225.87	22.75	872.94	366.12	946.83	703.91	3.90	
5200.00	5200.00	5220.53	5218.17	17.32	230.45	22.65	871.56	363.72	944.64	696.80	3.81	
5300.00	5300.00	5321.08	5318.69	17.66	235.03	22.55	870.13	361.25	942.39	689.62	3.73	
5400.00	5400.00	5421.64	5419.20	18.00	239.61	22.44	868.67	358.72	940.08	682.39	3.65	
5500.00	5500.00	5522.19	5519.71	18.33	244.20	22.33	867.16	356.11	937.71	675.10	3.57	
5600.00	5600.00	5618.12	5615.60	18.67	248.56	22.22	865.80	353.74	935.46	668.15	3.50	
5700.00	5700.00	5716.15	5713.60	19.01	253.03	22.14	864.69	351.83	933.67	661.58	3.43	
5800.00	5800.00	5816.65	5814.08	19.34	257.61	22.05	863.56	349.86	931.89	654.87	3.36	
5900.00	5900.00	5917.14	5914.54	19.68	262.19	21.97	862.39	347.83	930.05	648.11	3.30	
6000.00	6000.00	6017.64	6015.01	20.02	266.76	21.87	861.18	345.74	928.16	641.30	3.24	
6100.00	6100.00	6118.12	6115.47	20.36	271.34	21.78	859.94	343.59	926.22	634.43	3.17	
6200.00	6200.00	6218.61	6215.92	20.69	275.92	21.68	858.66	341.37	924.22	627.51	3.11	
6300.00	6300.00	6317.87	6315.14	21.03	280.44	21.58	857.38	339.16	922.20	620.64	3.06	
6400.00	6400.00	6415.85	6413.10	21.37	284.90	21.49	856.23	337.17	920.36	614.01	3.00	
6500.00	6500.00	6513.84	6511.07	21.70	289.37	21.41	855.22	335.41	918.74	607.61	2.95	
6600.00	6600.00	6612.65	6609.86	22.04	293.87	21.35	854.32	333.86	917.33	601.36	2.90	
6700.00	6700.00	6713.10	6710.30	22.38	298.44	21.27	853.42	332.30	915.92	595.03	2.85	
6800.00	6800.00	6813.56	6810.74	22.72	303.02	21.20	852.48	330.67	914.47	588.66	2.81	
6900.00	6900.00	6914.01	6911.17	23.05	307.60	21.12	851.51	328.99	912.96	582.23	2.76	
7000.00	7000.00	7014.47	7011.61	23.39	312.17	21.05	850.50	327.25	911.41	575.76	2.72	
7100.00	7100.00	7114.91	7112.03	23.73	316.75	20.96	849.47	325.46	909.80	569.23	2.67	
7200.00	7200.00	7215.36	7212.46	24.06	321.32	20.88	848.40	323.60	908.14	562.66	2.63	
7300.00	7300.00	7314.74	7311.81	24.40	325.85	20.79	847.33	321.76	906.48	556.14	2.59	
7400.00	7400.00	7413.77	7410.82	24.74	330.36	20.71	846.34	320.03	904.93	549.73	2.55	
7500.00	7500.00	7512.81	7509.84	25.08	334.87	20.64	845.41	318.42	903.47	543.44	2.51	
7600.00	7600.00	7616.29	7613.31	25.41	339.59	20.56	844.42	316.71	902.00	536.88	2.47	



Weatherford

Anticollision Report



Weatherford*

Company: Occidental Permian Ltd.
Field: Lea Co. New Mexico (Nad 27)
Reference Site: Lusk 28 West Fed Com #1H
Reference Well: Lusk 28 West Fed Com #1H
Reference Wellpath:

Date: 8/29/2012

Time: 09:59:36

Page: 2

HOBS Co-ordinate(Ne) Reference: Well: Lusk 28 West Fed Com #1H
Vertical (TVD) Reference: SITE 3585.8

Db: Sybase

Site: Exist. PU Fed #5
Well: Exist. PU Fed #5
Wellpath: 240 Azi V0

JUL 05 2013

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis		Offset		Offset Location		Ctr-Ctr Edge Separation		Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
7700.00	7700.00	7719.50	7716.48	25.75	344.29	20.44	843.00	314.25	899.87	529.68	2.43	
7800.00	7800.00	7813.39	7810.34	26.09	348.56	20.36	841.90	312.35	898.07	523.32	2.40	
7900.00	7900.00	7913.92	7910.85	26.42	353.14	20.28	840.97	310.73	896.64	516.97	2.36	
8000.00	8000.00	8015.85	8012.76	26.76	357.79	20.19	839.89	308.86	895.01	510.33	2.33	
8100.00	8100.00	8117.77	8114.65	27.10	362.43	20.09	838.66	306.74	893.16	503.48	2.29	
8200.00	8200.00	8219.67	8216.52	27.44	367.07	19.98	837.29	304.37	891.10	496.42	2.26	
8300.00	8300.00	8321.47	8318.27	27.77	371.71	19.85	835.78	301.75	888.83	489.15	2.22	
8400.00	8400.00	8422.92	8419.67	28.11	376.33	19.72	834.15	298.93	886.38	481.72	2.19	
8500.00	8500.00	8524.35	8521.04	28.45	380.95	19.57	832.41	295.91	883.76	474.13	2.16	
8600.00	8600.00	8625.77	8622.39	28.78	385.57	19.41	830.56	292.70	880.98	466.38	2.12	
8700.00	8699.93	8725.58	8722.13	29.12	390.12	3.58	828.64	289.38	875.46	456.06	2.09	
8800.00	8798.64	8820.04	8816.53	29.44	394.42	3.59	826.99	286.53	857.44	434.01	2.02	
8900.00	8894.25	8911.41	8907.86	29.77	398.58	3.76	825.67	284.23	826.36	399.54	1.94	
9000.00	8984.88	8998.06	8994.49	30.11	402.53	4.12	824.64	282.46	782.77	353.26	1.82	
9100.00	9068.78	9078.39	9074.81	30.50	406.19	4.74	823.90	281.18	727.45	295.98	1.69	
9200.00	9144.31	9151.72	9148.12	30.99	409.53	5.80	823.39	280.29	661.38	228.64	1.53	
9300.00	9210.34	9217.06	9213.45	31.57	412.50	13.82	822.96	279.55	586.18	152.00	1.35	Level 3
9400.00	9265.94	9271.95	9268.34	32.30	415.00	25.30	822.60	278.93	504.06	67.22	1.15	Level 2
9500.00	9310.04	9315.33	9311.72	33.18	416.98	42.45	822.32	278.44	417.35	-25.52	0.94	Level 1
9600.00	9341.77	9346.34	9342.73	34.22	418.39	64.31	822.12	278.09	329.48	-121.35	0.73	Level 1
9700.00	9360.53	9364.40	9360.79	35.40	419.21	82.70	822.00	277.88	246.62	-208.93	0.54	Level 1
9800.00	9365.98	9369.18	9365.57	36.71	419.43	90.93	821.97	277.83	182.53	-274.53	0.40	Level 1
9900.00	9365.70	9368.25	9364.63	38.18	419.39	90.60	821.97	277.84	162.06	-295.64	0.35	Level 1
10000.00	9365.42	9367.31	9363.70	39.79	419.35	90.27	821.98	277.85	198.00	-261.12	0.43	Level 1
10100.00	9365.14	9366.38	9362.77	41.52	419.30	89.94	821.99	277.86	268.60	-192.22	0.58	Level 1
10200.00	9364.86	9365.45	9361.83	43.35	419.26	89.61	821.99	277.87	353.68	-108.93	0.76	Level 1
10300.00	9364.58	9364.51	9360.90	45.27	419.22	89.28	822.00	277.88	445.00	-19.49	0.96	Level 1
10400.00	9364.30	9363.58	9359.97	47.27	419.18	88.95	822.00	277.89	539.41	72.97	1.16	Level 2
10500.00	9364.02	9362.65	9359.03	49.34	419.13	88.61	822.01	277.90	635.53	167.06	1.36	Level 3
10600.00	9363.74	9361.71	9358.10	51.48	419.09	88.28	822.02	277.91	732.69	262.13	1.56	
10700.00	9363.46	9360.78	9357.17	53.67	419.05	87.95	822.02	277.92	830.52	357.82	1.76	
10800.00	9363.18	9359.85	9356.23	55.91	419.01	87.62	822.03	277.93	928.81	453.93	1.96	
10900.00	9362.90	9358.91	9355.30	58.19	418.96	87.29	822.04	277.94	1027.43	550.33	2.15	
11000.00	9362.62	9357.98	9354.37	60.50	418.92	86.96	822.04	277.95	1126.30	646.93	2.35	
11100.00	9362.34	9357.05	9353.43	62.86	418.88	86.63	822.05	277.96	1225.34	743.69	2.54	
11200.00	9362.06	9356.11	9352.50	65.24	418.84	86.30	822.05	277.97	1324.53	840.56	2.74	
11300.00	9361.78	9355.18	9351.57	67.65	418.79	85.97	822.06	277.99	1423.84	937.52	2.93	
11400.00	9361.50	9354.25	9350.64	70.08	418.75	85.64	822.07	278.00	1523.23	1034.56	3.12	
11500.00	9361.22	9353.31	9349.70	72.53	418.71	85.32	822.07	278.01	1622.70	1131.64	3.30	
11600.00	9360.94	9352.38	9348.77	75.01	418.67	84.99	822.08	278.02	1722.23	1228.78	3.49	
11700.00	9360.66	9351.45	9347.84	77.50	418.62	84.66	822.08	278.03	1821.81	1325.95	3.67	
11800.00	9360.38	9350.52	9346.90	80.00	418.58	84.33	822.09	278.04	1921.43	1423.15	3.86	
11900.00	9360.10	9349.58	9345.97	82.53	418.54	84.01	822.10	278.05	2021.09	1520.38	4.04	
12000.00	9359.82	9348.65	9345.04	85.06	418.50	83.68	822.10	278.06	2120.78	1617.63	4.22	
12100.00	9359.54	9347.72	9344.10	87.61	418.45	83.35	822.11	278.07	2220.50	1714.91	4.39	
12200.00	9359.26	9346.78	9343.17	90.17	418.41	83.03	822.11	278.08	2320.24	1812.20	4.57	
12300.00	9358.98	9345.85	9342.24	92.73	418.37	82.70	822.12	278.09	2420.00	1909.51	4.74	
12400.00	9358.70	9344.92	9341.30	95.31	418.33	82.38	822.13	278.10	2519.79	2006.83	4.91	



Weatherford Anticollision Report



Weatherford

Company: Occidental Permian Ltd.
Field: Lea Co, New Mexico (Nad 27)
Reference Site: Lusk 28 West Fed Com #1H
Reference Well: Lusk 28 West Fed Com #1H
Reference Wellpath:

Date: 8/29/2012 Time: 09:59:36 Page: 3
HOESS OGD
Co-ordinate(NE) Reference: Well: Lusk 28 West Fed Com #1H
Vertical (TVD) Reference: SITE 3585.8
JUL 05 2013

Db: Sybase

Site: Exist. PU Fed #5
Well: Exist. PU Fed #5
Wellpath: 270 Azi V1

RECEIVED

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
4300.00	4300.00	4310.18	4308.08	14.29	188.99	21.24	942.33	366.21	1011.05	807.75	4.97	
4400.00	4400.00	4407.24	4405.12	14.62	193.41	21.10	942.33	363.71	1010.12	802.07	4.86	
4500.00	4500.00	4505.66	4503.52	14.96	197.89	21.01	942.33	361.88	1009.45	796.58	4.74	
4600.00	4600.00	4605.64	4603.49	15.30	202.44	20.92	942.33	360.13	1008.82	791.07	4.63	
4700.00	4700.00	4707.14	4704.97	15.64	207.07	20.81	942.33	358.18	1008.14	785.41	4.53	
4800.00	4800.00	4808.72	4806.52	15.97	211.69	20.68	942.33	355.73	1007.28	779.59	4.42	
4900.00	4900.00	4908.69	4906.45	16.31	216.25	20.54	942.33	353.11	1006.36	773.77	4.33	
5000.00	5000.00	5008.68	5006.40	16.65	220.80	20.40	942.33	350.49	1005.44	767.97	4.23	
5100.00	5100.00	5108.92	5106.61	16.98	225.37	20.26	942.33	347.82	1004.52	762.13	4.14	
5200.00	5200.00	5209.16	5206.81	17.32	229.94	20.11	942.33	345.07	1003.57	756.28	4.06	
5300.00	5300.00	5309.39	5307.00	17.66	234.50	19.96	942.33	342.24	1002.60	750.41	3.98	
5400.00	5400.00	5409.62	5407.19	18.00	239.07	19.80	942.33	339.33	1001.61	744.52	3.90	
5500.00	5500.00	5509.84	5507.37	18.33	243.63	19.64	942.33	336.34	1000.61	738.60	3.82	
5600.00	5600.00	5608.29	5605.77	18.67	248.12	19.49	942.33	333.48	999.64	732.82	3.75	
5700.00	5700.00	5707.09	5704.55	19.01	252.62	19.37	942.33	331.23	998.88	727.22	3.68	
5800.00	5800.00	5807.30	5804.73	19.34	257.18	19.24	942.33	328.97	998.13	721.57	3.61	
5900.00	5900.00	5907.51	5904.91	19.68	261.75	19.12	942.33	326.64	997.37	715.90	3.54	
6000.00	6000.00	6007.71	6005.09	20.02	266.31	18.99	942.33	324.24	996.58	710.22	3.48	
6100.00	6100.00	6107.91	6105.26	20.36	270.88	18.85	942.33	321.77	995.78	704.51	3.42	
6200.00	6200.00	6208.11	6205.42	20.69	275.44	18.71	942.33	319.22	994.97	698.79	3.36	
6300.00	6300.00	6307.87	6305.15	21.03	279.99	18.57	942.33	316.65	994.14	693.08	3.30	
6400.00	6400.00	6406.97	6404.22	21.37	284.50	18.45	942.33	314.30	993.39	687.48	3.25	
6500.00	6500.00	6506.07	6503.30	21.70	289.01	18.33	942.33	312.22	992.73	681.98	3.19	
6600.00	6600.00	6605.46	6602.67	22.04	293.54	18.23	942.33	310.41	992.15	676.54	3.14	
6700.00	6700.00	6705.65	6702.84	22.38	298.10	18.13	942.33	308.61	991.59	671.08	3.09	
6800.00	6800.00	6805.83	6803.01	22.72	302.67	18.03	942.33	306.74	991.02	665.60	3.05	
6900.00	6900.00	6906.02	6903.18	23.05	307.23	17.92	942.33	304.81	990.42	660.10	3.00	
7000.00	7000.00	7006.20	7003.34	23.39	311.80	17.81	942.33	302.82	989.81	654.59	2.95	
7100.00	7100.00	7106.38	7103.50	23.73	316.36	17.70	942.33	300.75	989.18	649.05	2.91	
7200.00	7200.00	7206.55	7203.65	24.06	320.92	17.58	942.33	298.62	988.54	643.51	2.87	
7300.00	7300.00	7306.33	7303.40	24.40	325.47	17.46	942.33	296.48	987.89	637.98	2.82	
7400.00	7400.00	7405.90	7402.96	24.74	330.00	17.35	942.33	294.46	987.28	632.50	2.78	
7500.00	7500.00	7505.49	7502.52	25.08	334.54	17.25	942.33	292.59	986.72	627.07	2.74	
7600.00	7600.00	7606.62	7603.64	25.41	339.15	17.14	942.33	290.69	986.17	621.56	2.70	
7700.00	7700.00	7708.52	7705.50	25.75	343.79	16.99	942.33	287.94	985.38	615.78	2.67	
7800.00	7800.00	7805.88	7802.83	26.09	348.22	16.86	942.33	285.58	984.67	610.32	2.63	
7900.00	7900.00	7905.82	7902.75	26.42	352.77	16.76	942.33	283.73	984.13	604.89	2.59	
8000.00	8000.00	8006.59	8003.50	26.76	357.36	16.64	942.33	281.62	983.53	599.35	2.56	
8100.00	8100.00	8107.35	8104.23	27.10	361.95	16.51	942.33	279.22	982.85	593.74	2.53	
8200.00	8200.00	8208.09	8204.94	27.44	366.54	16.36	942.33	276.55	982.10	588.05	2.49	
8300.00	8300.00	8308.81	8305.61	27.77	371.13	16.19	942.33	273.59	981.28	582.30	2.46	
8400.00	8400.00	8409.35	8406.11	28.11	375.71	16.01	942.33	270.39	980.39	576.49	2.43	
8500.00	8500.00	8509.88	8506.58	28.45	380.29	15.82	942.33	266.97	979.46	570.63	2.40	
8600.00	8600.00	8610.40	8607.03	28.78	384.87	15.61	942.33	263.33	978.48	564.73	2.36	
8700.00	8699.93	8710.57	8707.12	29.12	389.43	-0.31	942.33	259.49	974.84	556.29	2.33	
8800.00	8798.64	8807.55	8804.04	29.44	393.85	-0.52	942.33	256.03	958.47	535.74	2.27	
8900.00	8894.25	8901.46	8897.91	29.77	398.13	359.26	942.33	253.24	928.69	502.43	2.18	
9000.00	8984.88	8990.51	8986.93	30.11	402.18	359.02	942.33	251.09	886.07	457.00	2.07	
9100.00	9068.78	9073.00	9069.41	30.50	405.94	358.72	942.33	249.54	831.41	400.28	1.93	
9200.00	9144.31	9147.62	9144.02	30.99	409.34	358.33	942.33	248.48	765.73	333.31	1.77	
9300.00	9210.34	9213.40	9209.80	31.57	412.34	4.05	942.33	247.61	690.53	257.30	1.59	



Weatherford

Anticollision Report



Weatherford

Company: Occidental Permian Ltd.
Field: Lea Co, New Mexico (Nad 27)
Reference Site: Lusk 28 West Fed Com #1H
Reference Well: Lusk 28 West Fed Com #1H
Reference Wellpath:

Date: 8/29/2012

Time: 09:59:36

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HOE3600

Coordinate (NE) Reference: Well: Lusk 28 West Fed Com #1H
Vertical (TVD) Reference: SITE 3585.8

Db: Sybase

JUL 05 2013

Site: Exist. PU Fed #5
Well: Exist. PU Fed #5
Wellpath: 270 Azi V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis		Offset Location		Ctr-Ctr Edge		Separation		Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
9400.00	9265.94	9268.80	9265.20	32.30	414.86	11.94	942.33	246.89	607.56	173.51	1.40	Level 3
9500.00	9310.04	9312.74	9309.13	33.18	416.86	24.67	942.33	246.31	518.60	81.51	1.19	Level 2
9600.00	9341.77	9344.36	9340.75	34.22	418.30	46.16	942.33	245.90	425.85	-19.66	0.96	Level 1
9700.00	9360.53	9363.05	9359.44	35.40	419.15	73.43	942.33	245.66	332.31	-122.20	0.73	Level 1
9800.00	9365.98	9368.48	9364.87	36.71	419.40	91.00	942.33	245.59	242.93	-214.48	0.53	Level 1
9900.00	9365.70	9368.20	9364.59	38.18	419.39	90.88	942.33	245.59	166.97	-291.72	0.36	Level 1
10000.00	9365.42	9367.92	9364.31	39.79	419.37	90.76	942.33	245.59	129.41	-330.02	0.28	Level 1
10100.00	9365.14	9367.65	9364.03	41.52	419.36	90.63	942.33	245.60	160.04	-300.79	0.35	Level 1
10200.00	9364.86	9367.37	9363.75	43.35	419.35	90.51	942.33	245.60	233.40	-229.27	0.50	Level 1
10300.00	9364.58	9367.09	9363.47	45.27	419.34	90.39	942.33	245.60	321.47	-143.12	0.69	Level 1
10400.00	9364.30	9366.81	9363.20	47.27	419.32	90.26	942.33	245.61	414.98	-51.61	0.89	Level 1
10500.00	9364.02	9366.53	9362.92	49.34	419.31	90.14	942.33	245.61	510.95	42.30	1.09	Level 2
10600.00	9363.74	9366.25	9362.64	51.48	419.30	90.02	942.33	245.61	608.22	137.45	1.29	Level 3
10700.00	9363.46	9365.97	9362.36	53.67	419.29	89.89	942.33	245.62	706.26	233.31	1.49	Level 3
10800.00	9363.18	9365.70	9362.08	55.91	419.27	89.77	942.33	245.62	804.78	329.60	1.69	
10900.00	9362.90	9365.42	9361.80	58.19	419.26	89.65	942.33	245.63	903.62	426.18	1.89	
11000.00	9362.62	9365.14	9361.52	60.50	419.25	89.52	942.33	245.63	1002.69	522.94	2.09	
11100.00	9362.34	9364.86	9361.25	62.86	419.23	89.40	942.33	245.63	1101.93	619.84	2.29	
11200.00	9362.06	9364.58	9360.97	65.24	419.22	89.28	942.33	245.64	1201.30	716.84	2.48	
11300.00	9361.78	9364.30	9360.69	67.65	419.21	89.15	942.33	245.64	1300.76	813.91	2.67	
11400.00	9361.50	9364.02	9360.41	70.08	419.20	89.03	942.33	245.64	1400.30	911.03	2.86	
11500.00	9361.22	9363.75	9360.13	72.53	419.18	88.91	942.33	245.65	1499.90	1008.19	3.05	
11600.00	9360.94	9363.47	9359.85	75.01	419.17	88.78	942.33	245.65	1599.55	1105.38	3.24	
11700.00	9360.66	9363.19	9359.58	77.50	419.16	88.66	942.33	245.65	1699.25	1202.60	3.42	
11800.00	9360.38	9362.91	9359.30	80.00	419.15	88.54	942.33	245.66	1798.97	1299.84	3.60	
11900.00	9360.10	9362.63	9359.02	82.53	419.13	88.41	942.33	245.66	1898.73	1397.08	3.79	
12000.00	9359.82	9362.35	9358.74	85.06	419.12	88.29	942.33	245.67	1998.51	1494.35	3.96	
12100.00	9359.54	9362.07	9358.46	87.61	419.11	88.17	942.33	245.67	2098.31	1591.62	4.14	
12200.00	9359.26	9361.80	9358.18	90.17	419.09	88.04	942.33	245.67	2198.12	1688.89	4.32	
12300.00	9358.98	9361.52	9357.90	92.73	419.08	87.92	942.33	245.68	2297.96	1786.18	4.49	
12400.00	9358.70	9361.24	9357.63	95.31	419.07	87.80	942.33	245.68	2397.81	1883.47	4.66	
12500.00	9358.42	9360.96	9357.35	97.90	419.06	87.67	942.33	245.68	2497.67	1980.76	4.83	

Site: Exist. PU Fed #5
Well: Exist. PU Fed #5
Wellpath: 300 Azi V0

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
4600.00	4600.00	4596.28	4594.13	15.30	202.02	20.56	1005.33	377.18	1073.76	856.45	4.94	
4700.00	4700.00	4695.62	4693.44	15.64	206.54	20.47	1006.27	375.56	1074.07	851.90	4.83	
4800.00	4800.00	4794.73	4792.53	15.97	211.06	20.34	1007.43	373.54	1074.46	847.44	4.73	
4900.00	4900.00	4894.65	4892.41	16.31	215.61	20.21	1008.74	371.27	1074.91	842.99	4.63	
5000.00	5000.00	4994.61	4992.34	16.65	220.16	20.07	1010.05	369.01	1075.36	838.55	4.54	
5100.00	5100.00	5094.44	5092.13	16.98	224.71	19.93	1011.37	366.71	1075.82	834.12	4.45	
5200.00	5200.00	5194.25	5191.91	17.32	229.26	19.79	1012.74	364.35	1076.30	829.72	4.36	
5300.00	5300.00	5294.06	5291.68	17.66	233.80	19.64	1014.14	361.92	1076.80	825.34	4.28	
5400.00	5400.00	5393.86	5391.44	18.00	238.35	19.49	1015.58	359.42	1077.32	820.98	4.20	
5500.00	5500.00	5493.66	5491.19	18.33	242.90	19.33	1017.06	356.86	1077.87	816.64	4.13	
5600.00	5600.00	5594.27	5591.76	18.67	247.48	19.18	1018.55	354.28	1078.42	812.27	4.05	
5700.00	5700.00	5695.21	5692.67	19.01	252.08	19.06	1019.73	352.23	1078.86	807.78	3.98	
5800.00	5800.00	5795.04	5792.48	19.34	256.62	18.94	1020.85	350.29	1079.29	803.32	3.91	



Weatherford

Anticollision Report



Weatherford

Company: Occidental Permian Ltd.
Field: Lea Co, New Mexico (Nad 27)
Reference Site: Lusk 28 West Fed Com #1H
Reference Well: Lusk 28 West Fed Com #1H
Reference Wellpath:

Date: 8/29/2012

Time: 09:59:36

Page: 5

Co-ordinate(Ne) Reference: Well: Lusk 28 West Fed Com #1H
Vertical (TVD) Reference: SITE 3585.8

Db: Sybase

Site: Exist. PU Fed #5
Well: Exist. PU Fed #5
Wellpath: 300 Azi V0

JUL 05 2013

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	FFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
5900.00	5900.00	5894.87	5892.27	19.68	261.17	18.82	1022.01	348.29	1079.74	798.89	3.84	
6000.00	6000.00	5994.69	5992.07	20.02	265.72	18.69	1023.20	346.22	1080.20	794.47	3.78	
6100.00	6100.00	6094.51	6091.86	20.36	270.27	18.57	1024.43	344.10	1080.69	790.07	3.72	
6200.00	6200.00	6194.32	6191.64	20.69	274.81	18.44	1025.69	341.91	1081.19	785.69	3.66	
6300.00	6300.00	6294.32	6291.61	21.03	279.37	18.30	1026.99	339.67	1081.72	781.32	3.60	
6400.00	6400.00	6394.92	6392.17	21.37	283.95	18.18	1028.20	337.57	1082.21	776.89	3.54	
6500.00	6500.00	6495.53	6492.76	21.70	288.53	18.07	1029.27	335.72	1082.64	772.41	3.49	
6600.00	6600.00	6596.02	6593.24	22.04	293.11	17.97	1030.19	334.12	1083.03	767.88	3.44	
6700.00	6700.00	6695.86	6693.05	22.38	297.66	17.88	1031.09	332.57	1083.40	763.37	3.39	
6800.00	6800.00	6795.69	6792.87	22.72	302.21	17.78	1032.01	330.97	1083.79	758.87	3.34	
6900.00	6900.00	6895.52	6892.68	23.05	306.75	17.68	1032.97	329.31	1084.20	754.40	3.29	
7000.00	7000.00	6995.34	6992.49	23.39	311.30	17.58	1033.96	327.59	1084.63	749.94	3.24	
7100.00	7100.00	7095.17	7092.29	23.73	315.85	17.47	1034.99	325.81	1085.07	745.50	3.20	
7200.00	7200.00	7194.99	7192.09	24.06	320.39	17.37	1036.04	323.98	1085.53	741.07	3.15	
7300.00	7300.00	7295.07	7292.15	24.40	324.95	17.25	1037.12	322.12	1086.00	736.65	3.11	
7400.00	7400.00	7395.38	7392.44	24.74	329.52	17.15	1038.14	320.34	1086.46	732.20	3.07	
7500.00	7500.00	7495.70	7492.74	25.08	334.09	17.05	1039.10	318.69	1086.88	727.71	3.03	
7600.00	7600.00	7595.03	7592.05	25.41	338.62	16.96	1040.01	317.11	1087.29	723.27	2.99	
7700.00	7700.00	7692.70	7689.69	25.75	343.07	16.83	1041.27	314.92	1087.88	719.07	2.95	
7800.00	7800.00	7795.05	7792.01	26.09	347.73	16.69	1042.58	312.66	1088.47	714.65	2.91	
7900.00	7900.00	7895.40	7892.33	26.42	352.30	16.60	1043.51	311.05	1088.90	710.17	2.88	
8000.00	8000.00	7994.68	7991.59	26.76	356.82	16.49	1044.54	309.27	1089.38	705.79	2.84	
8100.00	8100.00	8093.94	8090.83	27.10	361.34	16.37	1045.70	307.26	1089.93	701.48	2.81	
8200.00	8200.00	8193.19	8190.05	27.44	365.87	16.24	1047.00	305.01	1090.55	697.25	2.77	
8300.00	8300.00	8292.43	8289.24	27.77	370.39	16.10	1048.44	302.52	1091.24	693.08	2.74	
8400.00	8400.00	8391.80	8388.56	28.11	374.91	15.94	1050.00	299.81	1092.00	688.98	2.71	
8500.00	8500.00	8491.16	8487.87	28.45	379.44	15.77	1051.67	296.92	1092.82	684.94	2.68	
8600.00	8600.00	8590.51	8587.15	28.78	383.96	15.59	1053.45	293.84	1093.71	680.96	2.65	
8700.00	8699.93	8689.80	8686.37	29.12	388.49	-0.31	1055.33	290.58	1092.05	674.54	2.62	
8800.00	8798.64	8790.05	8786.56	29.44	393.05	-0.51	1057.17	287.38	1077.52	655.71	2.55	
8900.00	8894.25	8887.47	8883.93	29.77	397.49	359.28	1058.67	284.79	1049.24	623.77	2.47	
9000.00	8884.88	8979.86	8976.29	30.11	401.70	359.06	1059.82	282.80	1007.76	579.30	2.35	
9100.00	9068.78	9065.36	9061.77	30.50	405.59	358.79	1060.65	281.37	953.93	523.25	2.21	
9200.00	9144.31	9142.01	9138.42	30.99	409.08	358.44	1061.21	280.40	888.82	456.73	2.06	
9300.00	9210.34	9208.31	9204.71	31.57	412.10	4.14	1061.64	279.65	814.06	381.14	1.88	
9400.00	9265.94	9264.27	9260.66	32.30	414.65	11.81	1062.01	279.02	731.47	297.72	1.69	
9500.00	9310.04	9308.81	9305.20	33.18	416.68	23.78	1062.30	278.51	642.79	206.22	1.47	Level 3
9600.00	9341.77	9341.06	9337.45	34.22	418.15	43.67	1062.51	278.15	550.09	105.67	1.24	Level 2
9700.00	9360.53	9360.40	9356.79	35.40	419.03	70.33	1062.63	277.93	455.95	2.18	1.00	Level 2
9800.00	9365.98	9366.49	9362.87	36.71	419.31	90.22	1062.67	277.86	363.87	-93.42	0.80	Level 1
9900.00	9365.70	9366.86	9363.25	38.18	419.33	90.35	1062.68	277.85	277.86	-180.93	0.61	Level 1
10000.00	9365.42	9367.24	9363.62	39.79	419.34	90.48	1062.68	277.85	204.96	-255.26	0.45	Level 1
10100.00	9365.14	9367.61	9364.00	41.52	419.36	90.61	1062.68	277.84	163.75	-297.51	0.36	Level 1
10200.00	9364.86	9367.99	9364.37	43.35	419.38	90.75	1062.68	277.84	177.81	-284.85	0.38	Level 1
10300.00	9364.58	9368.36	9364.75	45.27	419.39	90.88	1062.69	277.84	237.52	-227.07	0.51	Level 1
10400.00	9364.30	9368.74	9365.13	47.27	419.41	91.01	1062.69	277.83	318.15	-148.47	0.68	Level 1
10500.00	9364.02	9369.12	9365.50	49.34	419.43	91.15	1062.69	277.83	407.46	-61.26	0.87	Level 1
10600.00	9363.74	9369.49	9365.88	51.48	419.45	91.28	1062.69	277.82	500.82	29.95	1.06	Level 2
10700.00	9363.46	9369.87	9366.25	53.67	419.46	91.41	1062.70	277.82	596.34	123.27	1.26	Level 3
10800.00	9363.18	9370.24	9366.63	55.91	419.48	91.55	1062.70	277.81	693.13	217.80	1.46	Level 3
10900.00	9362.90	9370.62	9367.00	58.19	419.50	91.68	1062.70	277.81	790.71	313.09	1.66	



Weatherford Anticollision Report



Weatherford*

Company: Occidental Permian Ltd.
Field: Lea Co, New Mexico (Nad 27)
Reference Site: Lusk 28 West Fed Com #1H
Reference Well: Lusk 28 West Fed Com #1H
Reference Wellpath:

Date: 8/29/2012
HOBS

Time: 09:59:36

Page: 6

Co-ordinate(NE) Reference: Well: Lusk 28 West Fed Com #1H

Vertical(TVD) Reference: SITE 3585.8

Db: Sybase

Site: Exist. PU Fed #5

Well: Exist. PU Fed #5

Wellpath: 300 Azi V0

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Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
11000.00	9362.62	9370.99	9367.38	60.50	419.51	91.81	1062.70	277.81	888.83	408.88	1.85	
11100.00	9362.34	9371.37	9367.76	62.86	419.53	91.95	1062.71	277.80	987.33	505.02	2.05	
11200.00	9362.06	9371.75	9368.13	65.24	419.55	92.08	1062.71	277.80	1086.10	601.40	2.24	
11300.00	9361.78	9372.12	9368.51	67.65	419.57	92.21	1062.71	277.79	1185.08	697.96	2.43	
11400.00	9361.50	9372.50	9368.88	70.08	419.58	92.35	1062.71	277.79	1284.22	794.65	2.62	
11500.00	9361.22	9372.87	9369.26	72.53	419.60	92.48	1062.72	277.78	1383.48	891.45	2.81	
11600.00	9360.94	9373.25	9369.63	75.01	419.62	92.61	1062.72	277.78	1482.84	988.33	3.00	
11700.00	9360.66	9373.62	9370.01	77.50	419.63	92.74	1062.72	277.78	1582.28	1085.27	3.18	
11800.00	9360.38	9374.00	9370.39	80.00	419.65	92.88	1062.72	277.77	1681.79	1182.26	3.37	
11900.00	9360.10	9374.38	9370.76	82.53	419.67	93.01	1062.73	277.77	1781.35	1279.30	3.55	
12000.00	9359.82	9374.75	9371.14	85.06	419.69	93.14	1062.73	277.76	1880.96	1376.37	3.73	
12100.00	9359.54	9375.13	9371.51	87.61	419.70	93.28	1062.73	277.76	1980.61	1473.47	3.91	
12200.00	9359.26	9375.50	9371.89	90.17	419.72	93.41	1062.73	277.76	2080.29	1570.59	4.08	
12300.00	9358.98	9375.88	9372.26	92.73	419.74	93.54	1062.74	277.75	2180.00	1667.73	4.26	
12400.00	9358.70	9376.25	9372.64	95.31	419.75	93.67	1062.74	277.75	2279.74	1764.89	4.43	
12500.00	9358.42	9376.63	9373.02	97.90	419.77	93.81	1062.74	277.74	2379.49	1862.06	4.60	
12600.00	9358.14	9377.01	9373.39	100.49	419.79	93.94	1062.74	277.74	2479.27	1959.24	4.77	
12700.00	9357.86	9377.38	9373.77	103.09	419.80	94.07	1062.75	277.73	2579.07	2056.44	4.93	



Weatherford®

Weatherford Drilling Services

GeoDec v5.03

Report Date: August 10, 2012
Job Number: _____
Customer: Occidental Permian, Ltd.
Well Name: Lusk 28 West Fed Com #1H
API Number: _____
Rig Name: _____
Location: Lea Co, New Mexico (Nad 27)
Block: _____
Engineer: RWJ

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 591839.700 USFT	Latitude 32.6258069 DEG
East/West 673445.600 USFT	Longitude -103.7699658 DEG
Grid Convergence: .30°	
Total Correction: +7.25°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.62581° N	32° 37 min 32.905 sec
Longitude =	103.76997° W	103° 46 min 11.877 sec

Magnetic Declination =	7.55°	[True North Offset]	
Local Gravity =	.9988 g	Checksum =	6679
Local Field Strength =	48725 nT	Magnetic Vector X =	23792 nT
Magnetic Dip =	60.49°	Magnetic Vector Y =	3151 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z =	42404 nT
Spud Date =	Oct 15, 2012	Magnetic Vector H =	23999 nT

Signed: _____

Date: _____

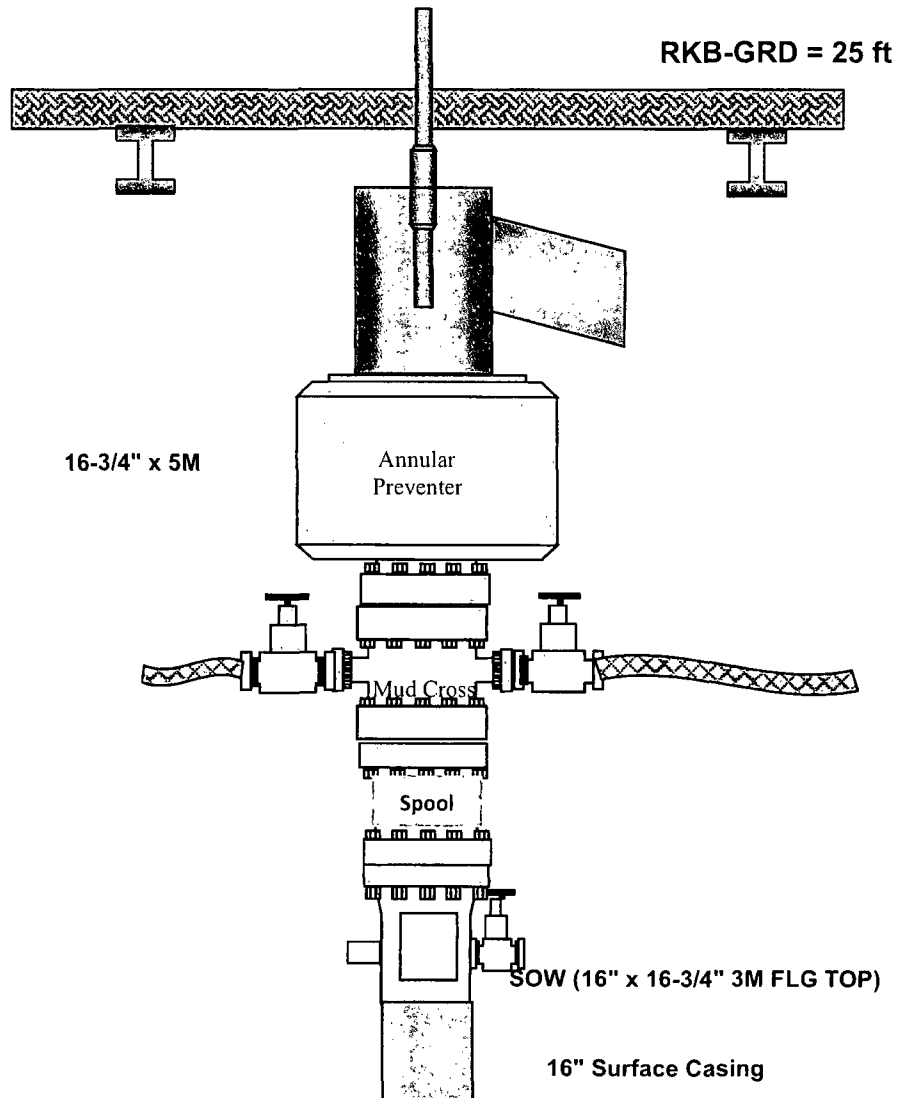
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BOP STACK for 16" Surface Casing

16-3/4" 5M BOP Stack



BOP Diagram

HOESS OCD

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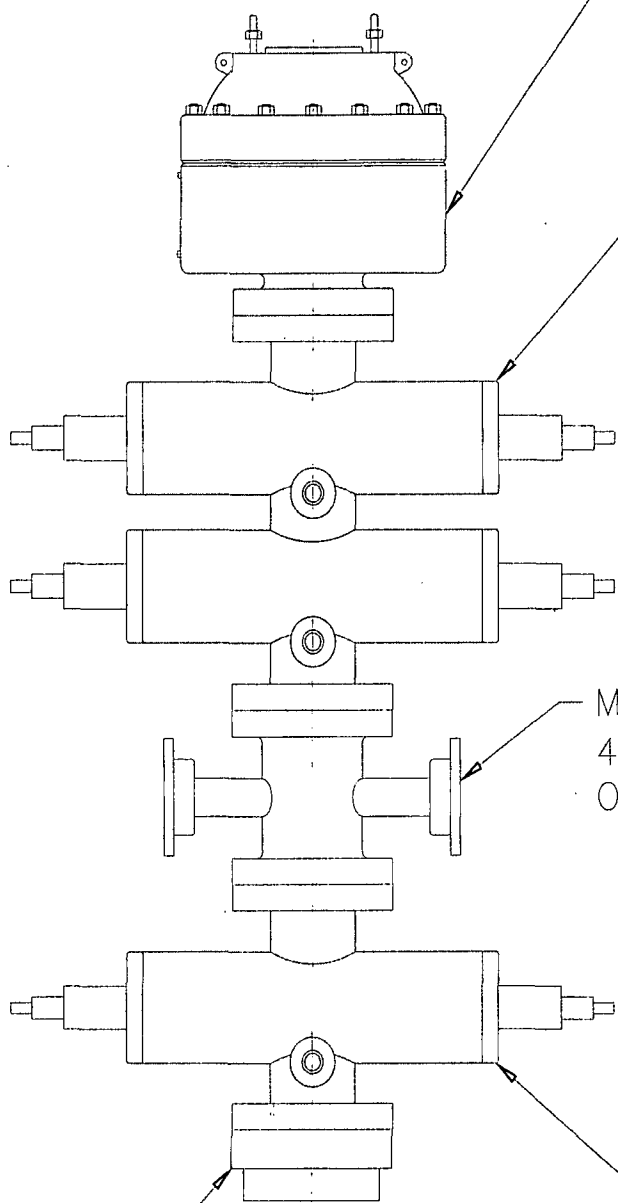
ANNULAR, HYDRAULIC
13 5/8"x5M
(10M FLANGE)

CAMERON
'U' TYPE
DOUBLE

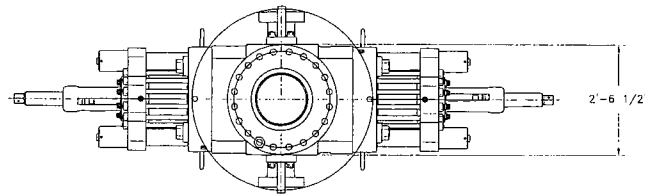
MUD CROSS WITH
4 1/16"x10M
OUTLET FLANGES

CAMERON
'U' TYPE
SINGLE

DSA; 11"x10M TO
13 5/8"x10M

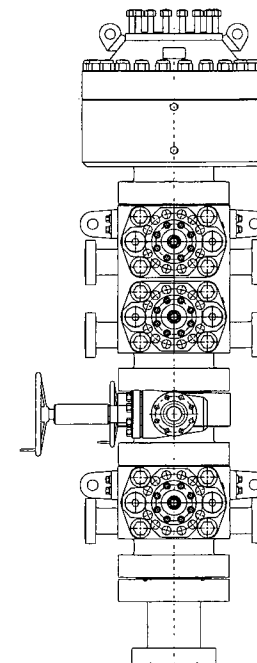
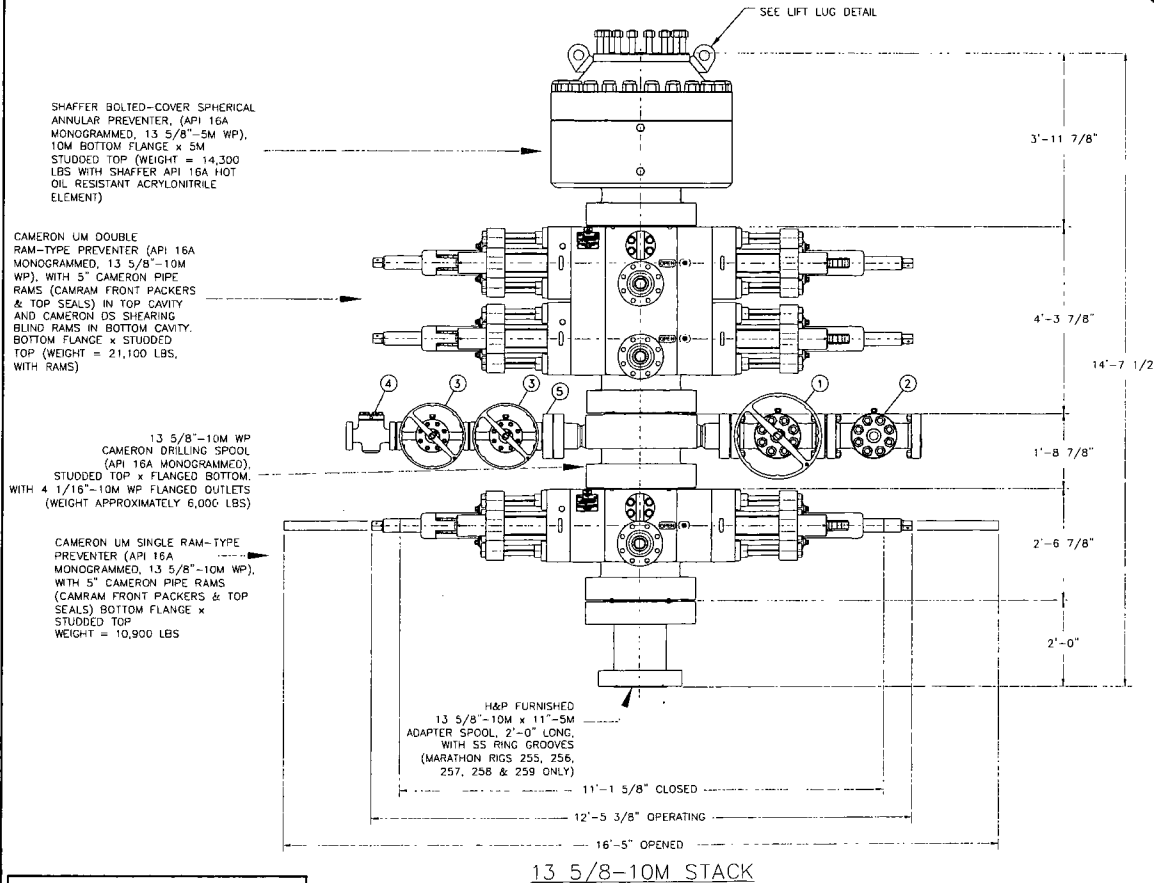


BOP STACK



- 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

HOESS OGD
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CAMERON LIFT EYES, 2 PER PREVENTER, 50 SHORT TON RATED CAPACITY EACH.

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

PROPRIETARY

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

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

ENGINEERING APPROVAL		DATE	TITLE
12/18/07	ADDED SHEET 03	JAV	13 5/8"-10M BOP 3 RAM STACK
4-10-07	ORIENTATION REVERSED DOUBLE STUDDED ADAPTER, VALVES 1, 2, & 3 AND 10 CHECK VALVE ADDED	JBG	FLEXRIG3
4-04-07	" ADDED TO SPACER ADAPTER SPOOL	JBG	
02-07-07	ADDED ADAPTER SPOOL	MWL	
06-13-02	CORRECTED BOP STACK	MWL	
REV	DATE	DESCRIPTION	BY
1	12/18/07	ADDED SHEET 03	JAV
2	4-10-07	ORIENTATION REVERSED DOUBLE STUDDED ADAPTER, VALVES 1, 2, & 3 AND 10 CHECK VALVE ADDED	JBG
3	4-04-07	" ADDED TO SPACER ADAPTER SPOOL	JBG
4	02-07-07	ADDED ADAPTER SPOOL	MWL
5	06-13-02	CORRECTED BOP STACK	MWL

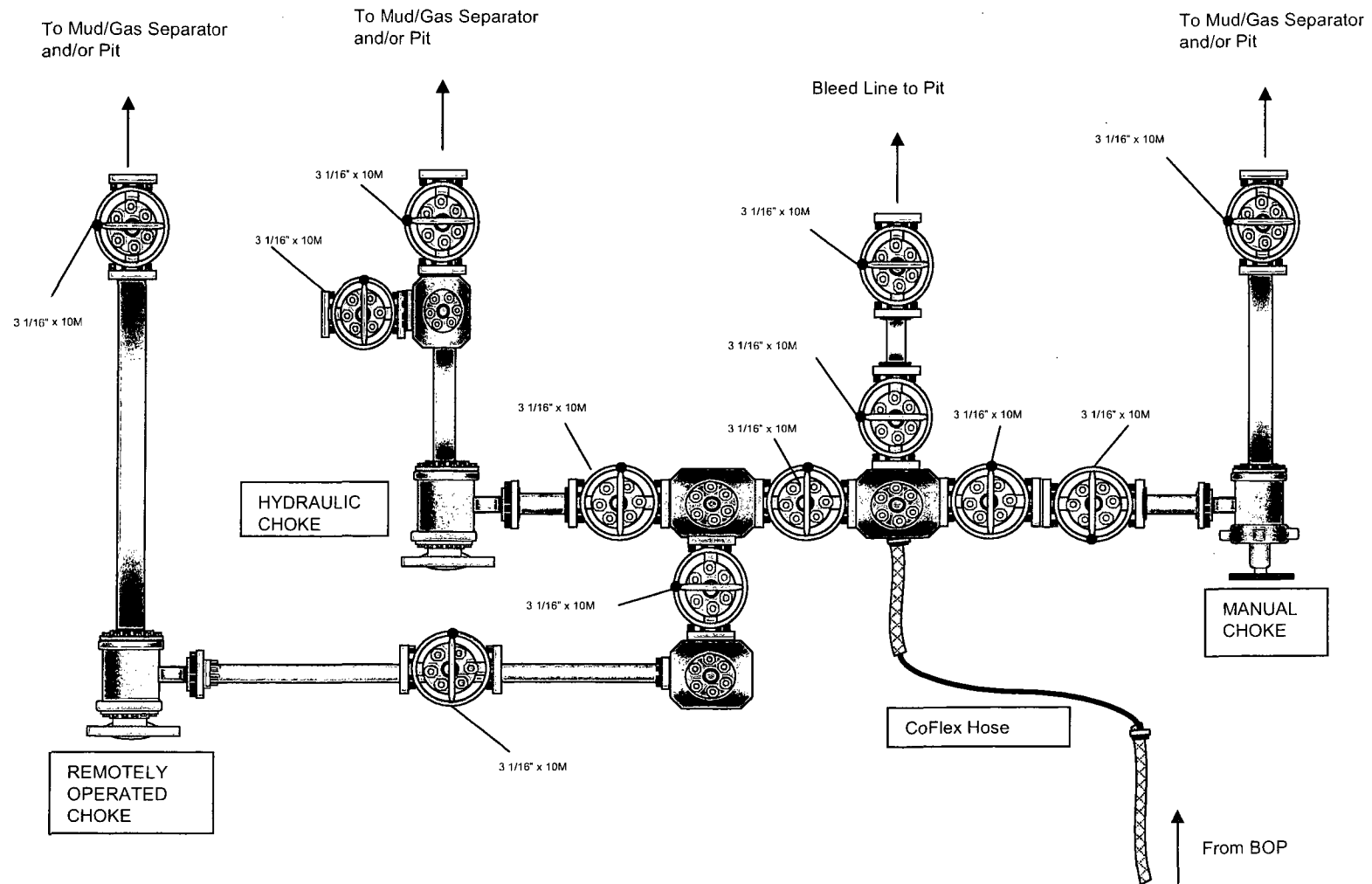
CUSTOMER: H&P

PROJECT: FLEXRIG3

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

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

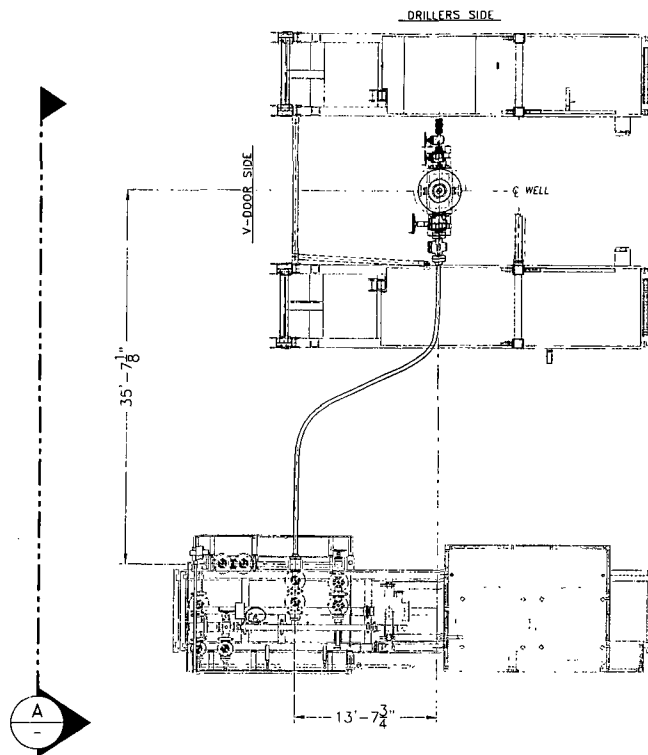
10M CHOKE MANIFOLD CONFIGURATION



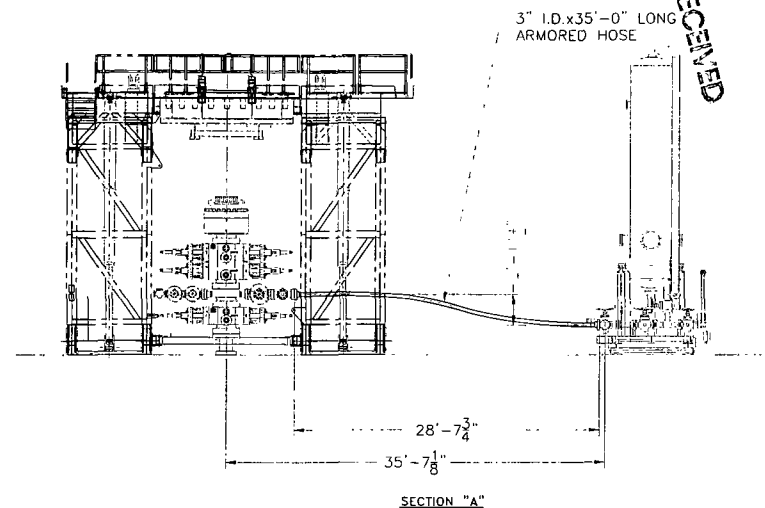
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JUL 05 2013

HOBS OCD



PLAN VIEW



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HOESS OCD
JUL 05 2013

ISSUED FOR
FABRICATION
December-19-2007
DRAFTSMAN
ENGINEER

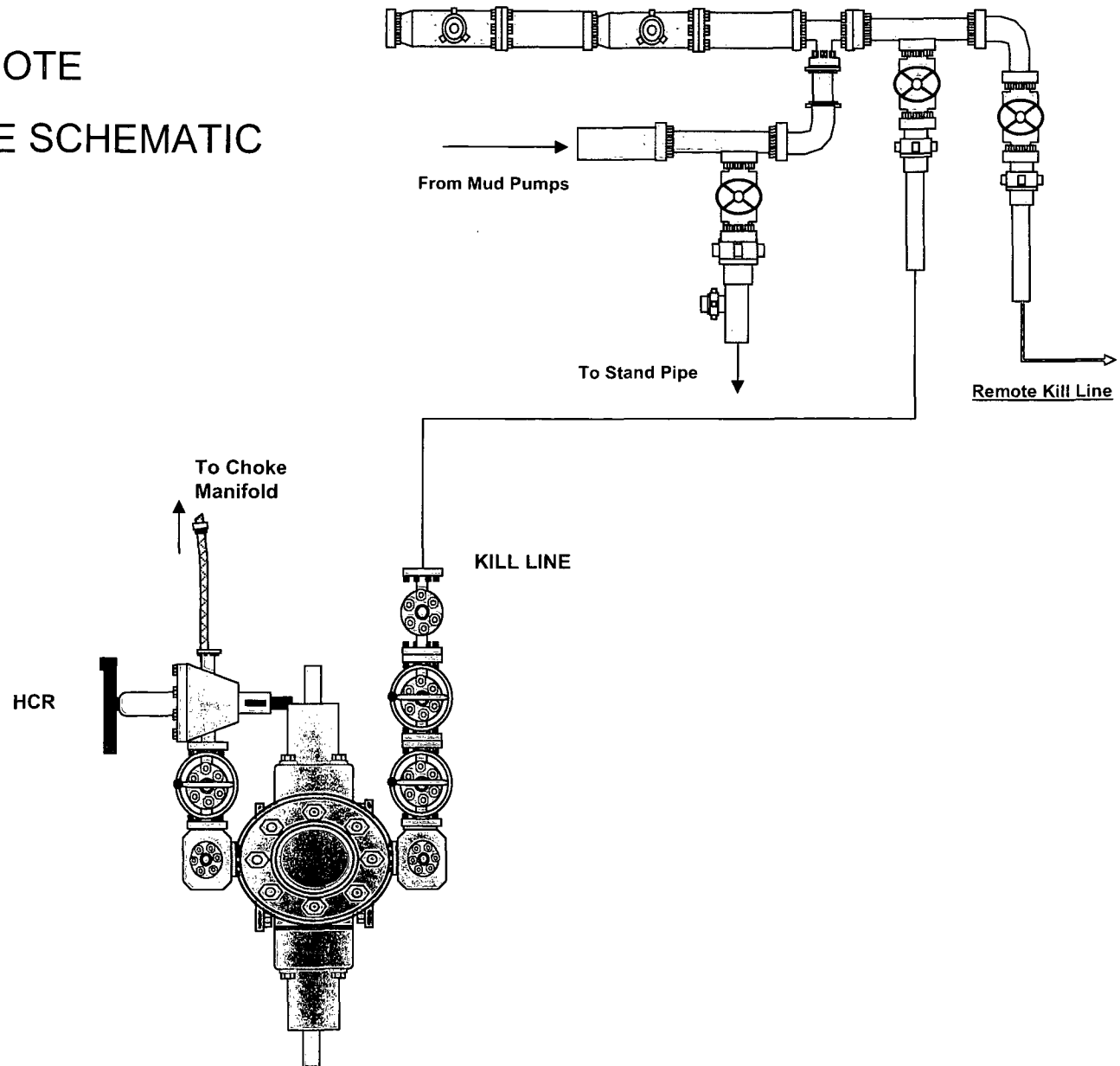
PROPRIETARY

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

ENGINEERING APPROVAL		DATE	TITLE:
△			CHOKE LINE SYSTEM
△			FLEXRIG3
△			CUSTOMER:
△			PROJECT:
△	12/18/07	REMOVED SHEET TOTAL CALLOUT	DRAWN: JBG
REV	DATE	DESCRIPTION	BY
			DATE: 4-10-07
			DWG. NO.: 210-P1-07
			SCALE: 3/16"=1'
			SHEET: 2 OF 2
			REV: A

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

10M REMOTE KILL LINE SCHEMATIC



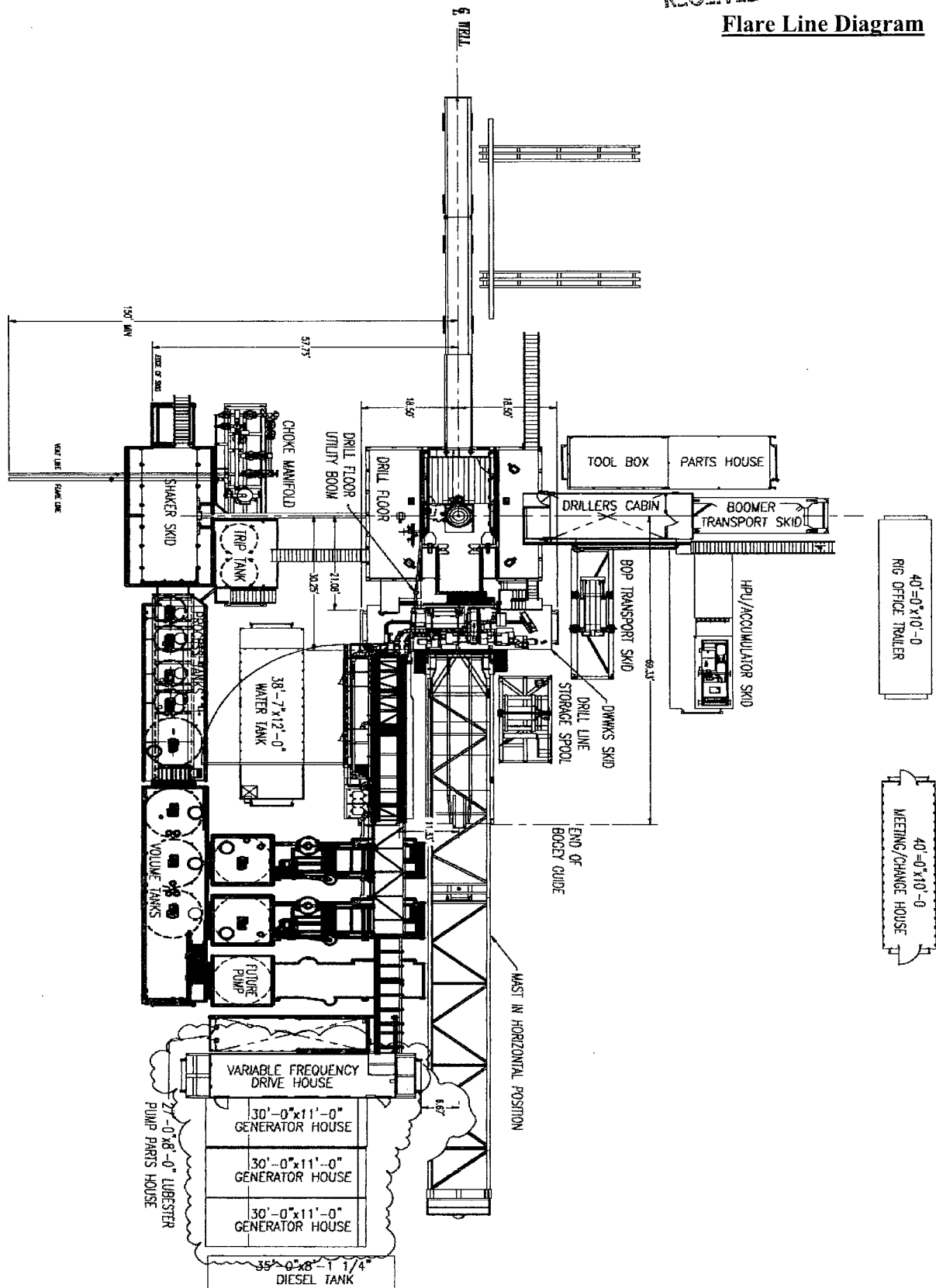
HOESS OCD
JUL 05 2013
RECEIVED

HOESS OCD

JUL 05 2013

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Flare Line Diagram



HOESS OCD

JUL 05 2013

CERTIFICATE OF CONFORMITY

RECEIVED

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

Coflex Hose Certification

Page: 1/1

HOEBS OCD

JUL 05 2013

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21	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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Spach
ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(3)

Coflex Hose Certification



Form No. 100/12
Phoenix Beattie Corp HOESS OCD
11535 Brittsmore Park Drive
Houston, TX 77041
Tel: (832) 327-0141
Fax: (832) 327-0148
E-mail: mail@phoenixbeattie.com
www.phoenixbeattie.com

JUL 05 2013

Delivery Note

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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

JUL 05 2013

Quality Document

RECEIVED

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

Coflex Hose Certification

Form No 100/12



HOESS OCD

JUL 05 2013

Phoenix Beattie Corp

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

Delivery Note

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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 :

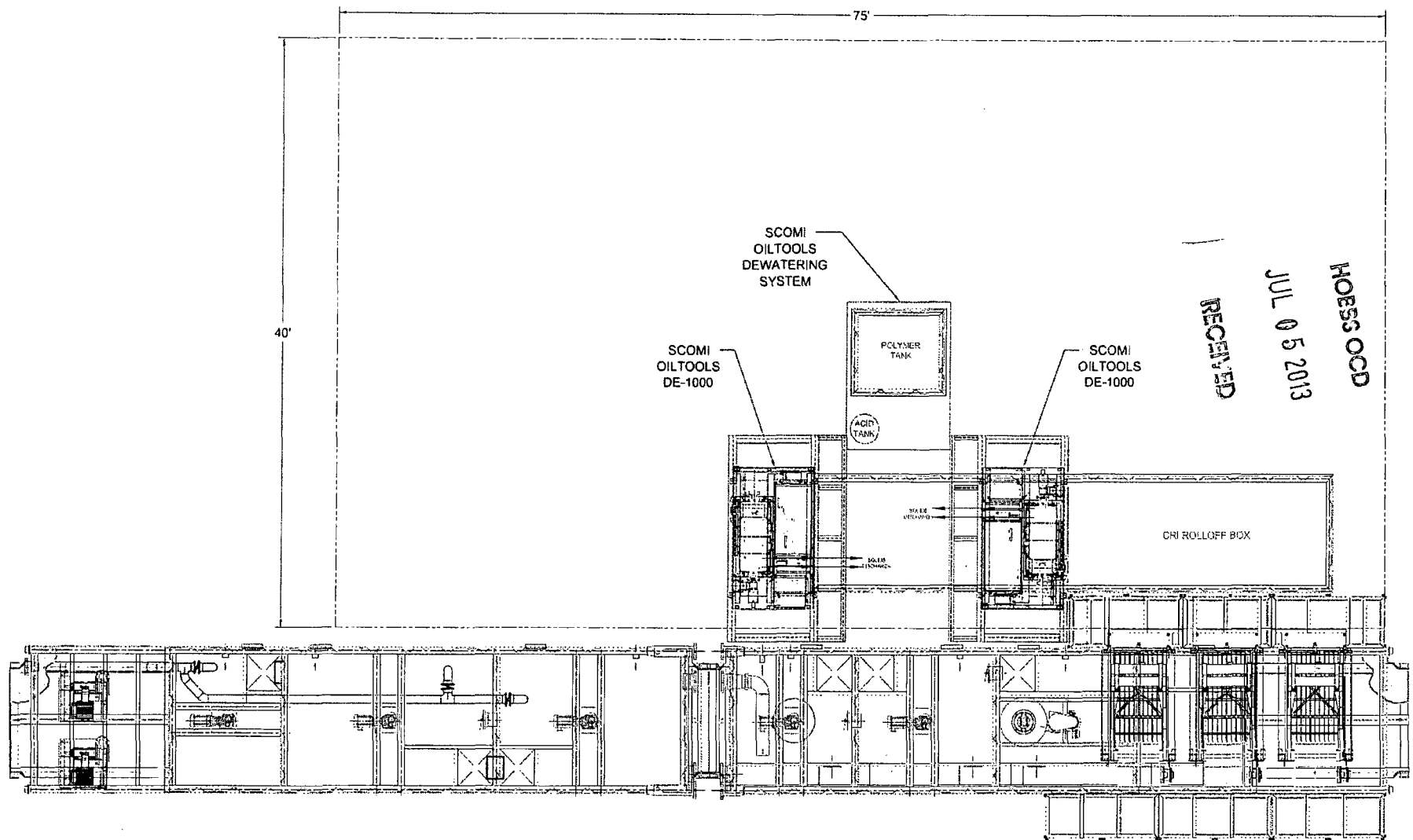
Received In Good Condition : Signature

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.

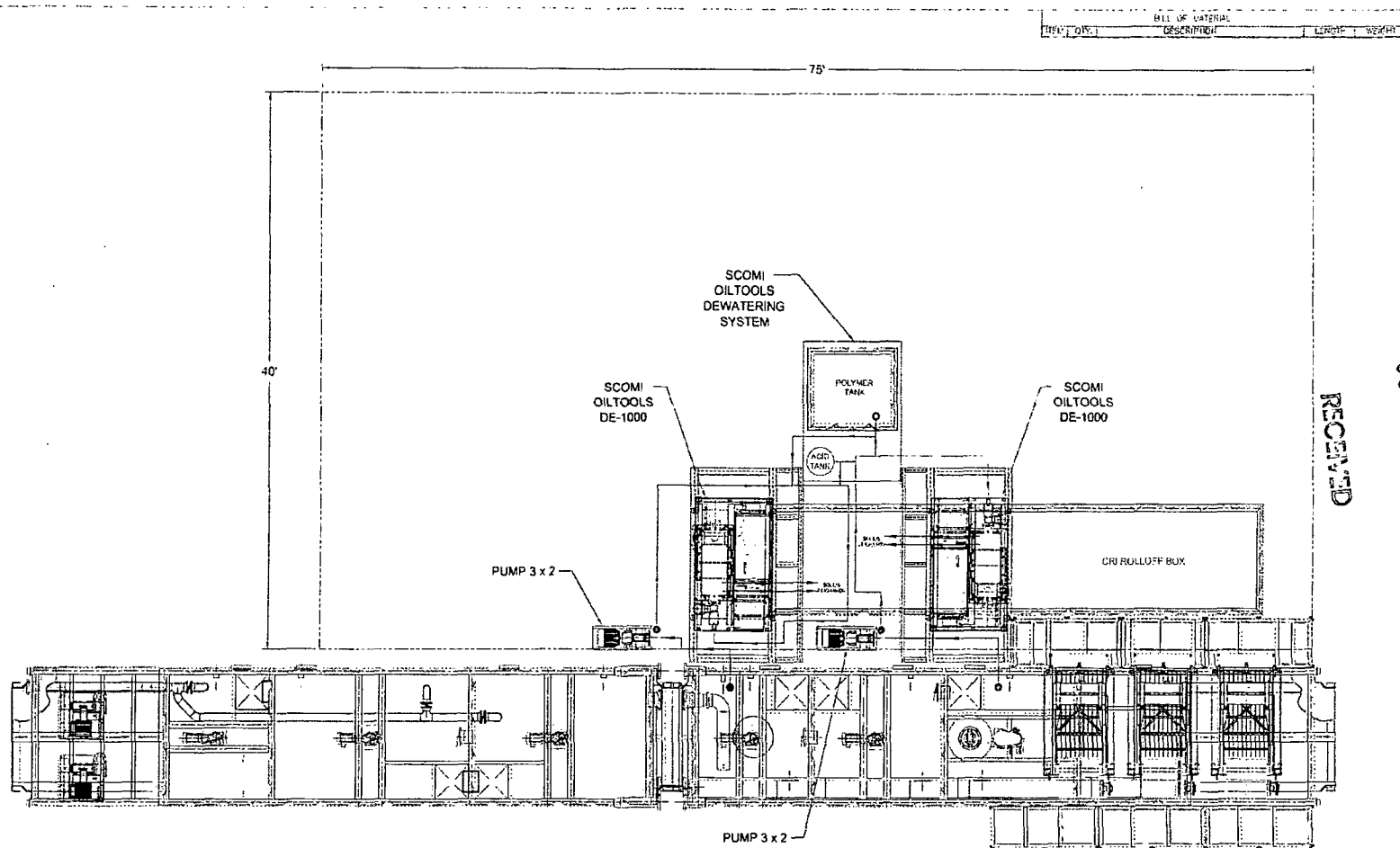
BILL OF MATERIAL			
ITEM	QTY	DESCRIPTION	LENGTH WEIGHT



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				1. ALL STRUCTURAL MATERIAL SHALL BE ASTM - A36. 2. ALL PIPE SCH. 40 MATERIAL SA 106 GR. B. 3. ALL FRAMES SHALL BE SCH. 40 MATERIAL SA 106. 4. ALL FITTINGS SCH. 40 MATERIAL SHALL BE SA 234 OR, AEB. 5. TANK FABRICATION SHALL BE IN ACCORDANCE WITH API-650.				TITLE: CLOSED LOOP SYSTEM BASIC LAYOUT AND TIE IN OXY - H&P - FLEX RIGS / PG 1 OF 2				Scomi 621 N. State Highway Parkway East, Suite 300, Houston, Texas 77060 PHONE: (281)-255-5016, FAX: (281)-255-6269											
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A. ADD PAGE 2 TO SHOW P&ID				P&ID: 01				DATE: 12/30/02															

A	ADDED PAGE 2 TO SHOW PAID	REV	DATE	BY	CHKD	APP	DATE
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