15-274

OCD Hobbs

HOBBS OCD

JUN 10 2015

RECEIVED

Form 3160-3
(March 2012)

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.
NMNM0359295A

6. If Indian, Allotee or Tribe Name

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.
Van Doo Dah 33 Fed 3H (39989)

2. Name of Operator
Devon Energy Production Company, L.P. (6137)

9. API Well No.
30-025-42624

3a. Address
333 West Sheridan Avenue
Oklahoma City, OK 73102-5010

3b. Phone No. *(include area code)*
405.228.7203

10. Field and Pool, or Exploratory
Jennings; Upper Bone Spring Shale (97838)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 200 FSL & 610 FEL, Unit P PP: 330 FSL & 400 FEL
At proposed prod. zone 330 FNL & 400 FEL, Unit A

11. Sec., T. R. M. or Blk. and Survey or Area
Section 33 T25S R32E

14. Distance in miles and direction from nearest town or post office*
Approximately 27 miles SE of Malaga, NM

12. County or Parish
Lea County

13. State
NM

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

16. No. of acres in lease
NMNM0359295A - 880 ac

17. Spacing Unit dedicated to this well
160 ac

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
See attached map

19. Proposed Depth
TVD - 9,478'
MD - 14,014'

20. BLM/BIA Bond No. on file
CO-1104; NBM-000801

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3317.2' GL

22. Approximate date work will start*
5/2/2015

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
Trina C. Couch

Name *(Printed/Typed)*
Trina C. Couch

Date
12/4/2014

Title
Regulatory Analyst

Approved by (Signature)
Steve Caffey

Name *(Printed/Typed)*

Date
JUN 3 2015

Title
FIELD MANAGER

Office
CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KA 06/10/15

PM

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

JUN 10 2015

Devon Energy, Van Doo Dah 33 Fed 3H

1. Geologic Formations

TVD of target	9,478	Pilot hole depth	N/A
MD at TD:	14,014'	Deepest expected fresh water:	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	1,195	?	
Top of Salt	1,550	?	
Castile	2,855	?	
Base of Salt	4,350	?	
Delaware	4,560	?	
Bone Spring, Avalon Shale	8,650	?	

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

See COA

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0	~~1,300'~~ 1200'	13.375"	48	H-40	STC	2.19	4.93	15.03
12.25"	0	3,400'	9.625"	36	J-55	LTC	1.15	1.66	1.97
12.25"	3,400'	4,500'	9.625"	40	J-55	LTC	1.18	1.81	3.10
8.75"	0	14,014'	5.5"	17	P-110	BTC	1.53	2.18	3.08
				BLM Minimum Safety Factor			1.10	1.10	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	H_20 gal/sk	Yld ft3/ sack	500# Comp. Strength (hours)	Slurry Description
Surf.	650	13.5	9.07	1.72	12	Lead: Class C Cement + 4% Bentonite Gel + 0.125 lbs/sack Poly-E-Flake
	560	14.8	6.32	1.33	7	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
Inter.	920	12.9	9.81	1.85	17	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	430	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
Prod.	630	12.5	10.86	1.96	30	1st Lead: (65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake
	1360	14.5	5.31	1.2	25	1st Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
	DV/ECP Tool 5000'					
	70	11	14.81	2.55	22	2nd stage Lead: Tuned Light® Cement + 0.125 lb/sk Pol-E-Flake
	120	14.8	6.32	1.33	6	2nd stage Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	75%
Production	1st Stage = 5000' / 2nd Stage = 4300'	25%

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	x	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other *		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other *		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.

Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	Y	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. Devon proposes using a multi-bowl wellhead assembly (FMC Uni-head). This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi. • Wellhead will be installed by FMC's representatives. • If the welding is performed by a third party, the FMC's representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal. • FMC representative will install the test plug for the initial BOP test. • FMC will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 5M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time. • If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted. • Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating. • Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2. After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the FMC Uni-head wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2. After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the FMC Uni-head. The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.	

	Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	~~1,300'~~ 1200'	FW Gel	8.6-8.8	28-34	N/C
~~675'~~ 1200'	4,500'	Saturated Brine	10.0-10.2	28-34	N/C
4,500'	14,014'	Cut Brine	8.5-9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
x	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned		Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4265 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

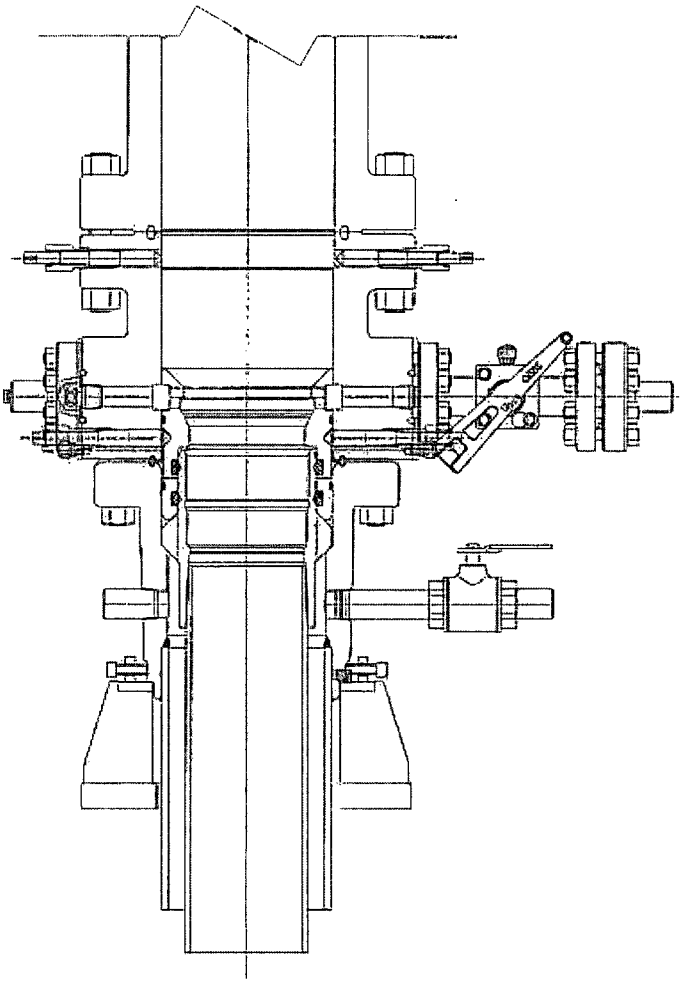
Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

Is this a walking operation? No.
Will be pre-setting casing? No.

Attachments
_x_ Directional Plan
___ Other, describe

FMC Technologies



PRIMARY MODE

DEVON ENERGY

ARTESIA
S.E.N.M
13 3/8 X 9 5/8

QUOTE LAYOUT
F18648
REF: DM100161737
DM100151315

REVISIONS	
A	05-08-13
B	1-22-14
C	5-13-14

DESCRIPTION

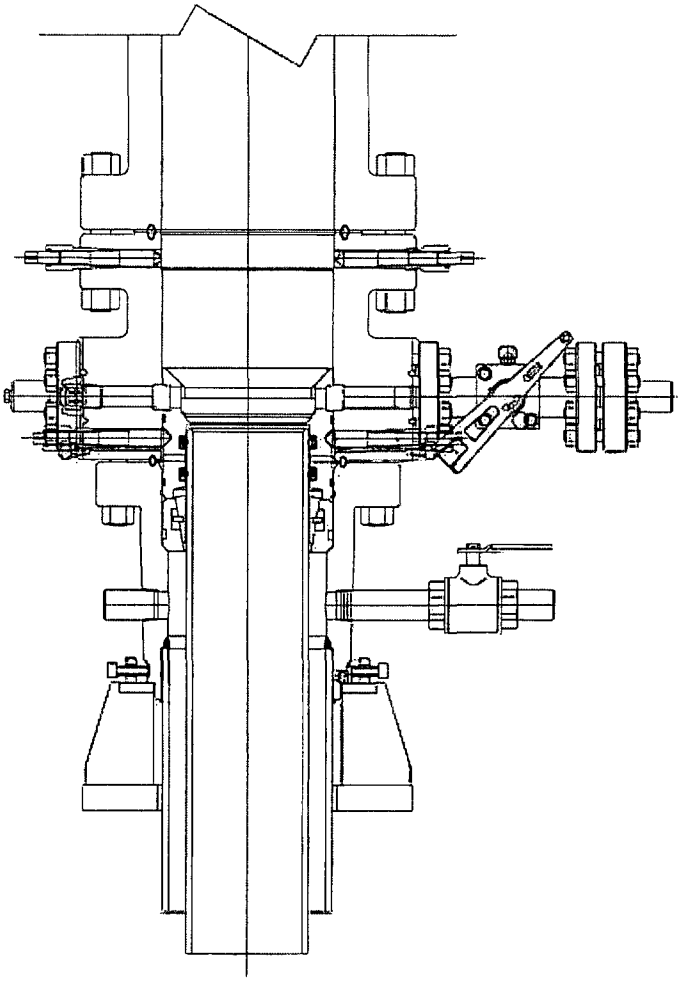
SURFACE WELLHEAD LAYOUT
UNIHEAD, UH-1, SOW,
DEVON ENERGY, ODESSA

DRAWN BY	K. VU	05-08-13
DRAFTING REVIEW	Z. MARQUEZ	05-08-13
DESIGN REVIEW	K. TAHA	05-08-13
APPROVED BY	R. HAMILTON	05-08-13

FMC Technologies

DRAWING NUMBER
DM100161771-2A

FMC Technologies



CONTINGENCY MODE

DEVON ENERGY

ARTESIA

S.E.N.M

13 3/8 X 9 5/8

QUOTE LAYOUT
F18648
REF: DM100161737
DM100151315

REVISIONS		DESCRIPTION
A	05-08-13	
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C	5-13-14	

SURFACE WELLHEAD LAYOUT
UNIHEAD, UH-1,SOW,
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DRAFTING REVIEW	Z. MARQUEZ	05-08-13
DESIGN REVIEW	K. TAHA	05-08-13
APPROVED BY	R. HAMILTON	05-08-13

FMC Technologies

DRAWING NUMBER
DM100161771-2B

Devon

Project: Lea County, NM (NAD 83)
Site: Sec 33 T. 25 S., R.32E.
Well: Van Doo Dah 33 FED 33H
Wellbore: Wellbore #1
Plan: Plan#1 111214 RevA0 (Van Doo Dah 33 FED 33H/Wellbore #1)
HP212

HALLIBURTON
Sperry Drilling

WELL DETAILS: Van Doo Dah 33 FED 33H

Ground Level: 3317.20

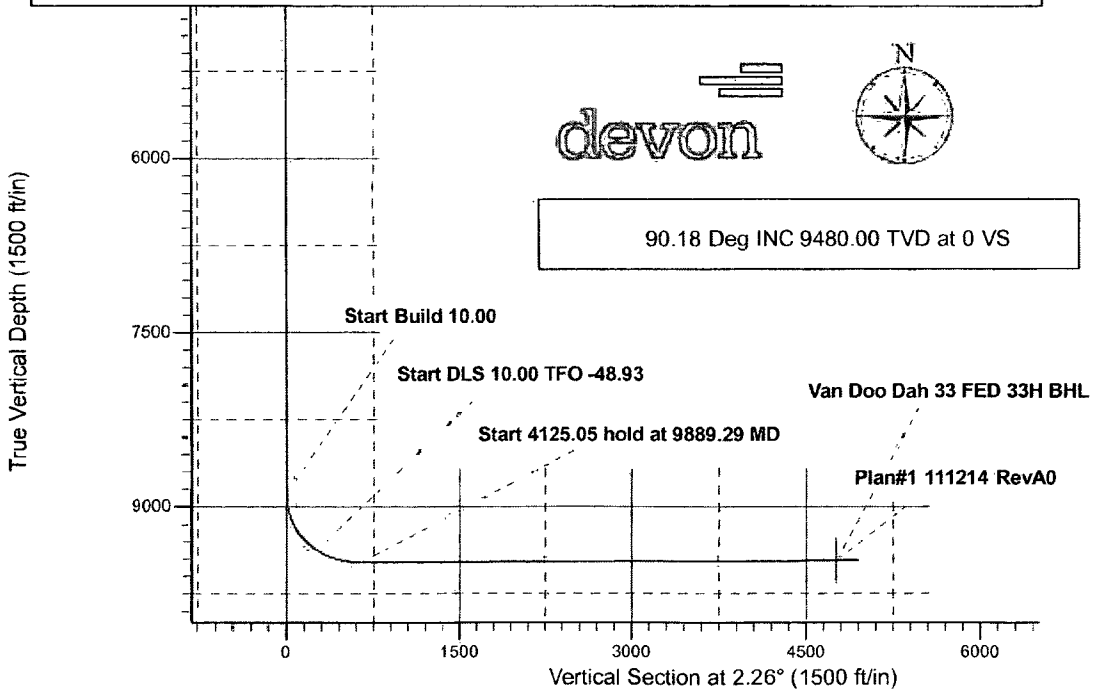
Northing	Easting	Latitude	Longitude
393542.04	745714.70	32° 4' 48.750 N	103° 40' 24.449 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Target
0.00	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8873.82	0.0000	0.00	8873.82	0.00	0.00	0.00	0.00	0.00	
9473.82	60.0000	29.40	9370.02	249.58	140.63	10.00	29.40	254.93	
9889.29	90.1806	359.40	9478.00	630.89	230.76	10.00	-48.93	639.50	Van Doo Dah 33 FED 33H BHL
14014.34	90.1806	359.40	9465.00	4755.70	187.55	0.00	0.00	4759.40	Van Doo Dah 33 FED 33H BHL

WELLBORE TARGET DETAILS

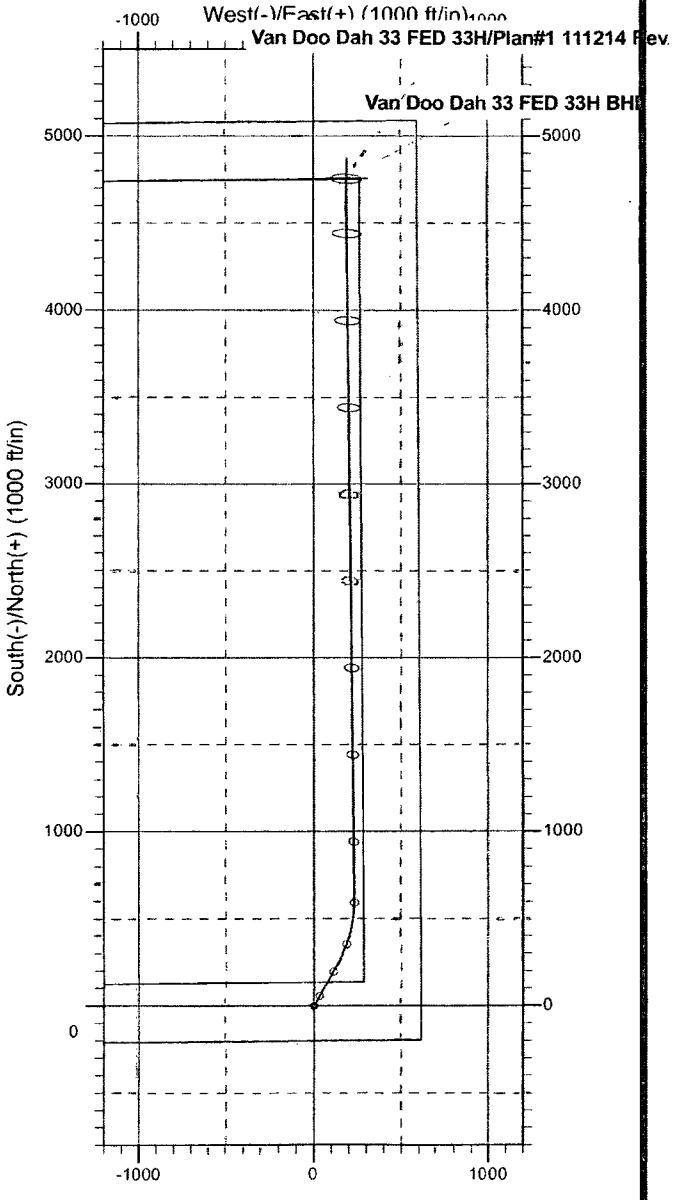
Name	TVD	+N/-S	+E/-W	Shape
Van Doo Dah 33 FED 33H BHL	9465.00	4755.70	187.55	Point



devon

N

90.18 Deg INC 9480.00 TVD at 0 VS



Job#
HP212

Devon

Lea County, NM (NAD 83) Sec 33 T. 25 S., R.32E.
API#
Van Doo Dah 33 FED 33H
200' FSL & 610 FEL
Wellbore #1
Plan: Plan#1 111214 RevA0

Sperry Drilling Services
Combo Report

13 November, 2014

Well Coordinates:	32° 04' 48.75" N 103° 40' 24.45" W	North American Datum 1983 New Mexico Eastern Zone 393,542.04 N 745,714.70 E
Ground Level: 3,317.20 ft		
Local Coordinate Origin:		Centered on Well Van Doo Dah 33 FED 33H
Viewing Datum:		Well @ 3342.20ft (HP212)
TVDs to System:		N
North Reference:		**Grid**
Unit System:		API US Survey Feet

Version: 5000.1 Build: 73

Report Version: Midcon Combo v1.50

HALLIBURTON

Plan Report for Van Doo Dah 33 FED 33H - Plan#1 111214 RevA0

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates Northing (ft)	Local Coordinates Easting (ft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Dogleg Rate (°/100usft)	Vertical Section (ft)	Comments
0.00	0.0000	0.00	-3,342.20	0.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
100.00	0.0000	0.00	-3,242.20	100.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
200.00	0.0000	0.00	-3,142.20	200.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
300.00	0.0000	0.00	-3,042.20	300.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
400.00	0.0000	0.00	-2,942.20	400.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
500.00	0.0000	0.00	-2,842.20	500.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
600.00	0.0000	0.00	-2,742.20	600.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
700.00	0.0000	0.00	-2,642.20	700.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
800.00	0.0000	0.00	-2,542.20	800.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
900.00	0.0000	0.00	-2,442.20	900.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
1,000.00	0.0000	0.00	-2,342.20	1,000.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
1,100.00	0.0000	0.00	-2,242.20	1,100.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
1,200.00	0.0000	0.00	-2,142.20	1,200.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
1,300.00	0.0000	0.00	-2,042.20	1,300.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
1,400.00	0.0000	0.00	-1,942.20	1,400.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
1,500.00	0.0000	0.00	-1,842.20	1,500.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
1,600.00	0.0000	0.00	-1,742.20	1,600.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
1,700.00	0.0000	0.00	-1,642.20	1,700.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
1,800.00	0.0000	0.00	-1,542.20	1,800.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
1,900.00	0.0000	0.00	-1,442.20	1,900.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
2,000.00	0.0000	0.00	-1,342.20	2,000.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
2,100.00	0.0000	0.00	-1,242.20	2,100.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
2,200.00	0.0000	0.00	-1,142.20	2,200.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
2,300.00	0.0000	0.00	-1,042.20	2,300.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
2,400.00	0.0000	0.00	-942.20	2,400.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
2,500.00	0.0000	0.00	-842.20	2,500.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
2,600.00	0.0000	0.00	-742.20	2,600.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
2,700.00	0.0000	0.00	-642.20	2,700.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
2,800.00	0.0000	0.00	-542.20	2,800.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
2,900.00	0.0000	0.00	-442.20	2,900.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
3,000.00	0.0000	0.00	-342.20	3,000.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
3,100.00	0.0000	0.00	-242.20	3,100.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
3,200.00	0.0000	0.00	-142.20	3,200.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
3,300.00	0.0000	0.00	-42.20	3,300.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
3,400.00	0.0000	0.00	57.80	3,400.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
3,500.00	0.0000	0.00	157.80	3,500.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
3,600.00	0.0000	0.00	257.80	3,600.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
3,700.00	0.0000	0.00	357.80	3,700.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
3,800.00	0.0000	0.00	457.80	3,800.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
3,900.00	0.0000	0.00	557.80	3,900.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
4,000.00	0.0000	0.00	657.80	4,000.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	

Plan Report for Van Doo Dah 33 FED 33H - Plan#1 111214 RevA0

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates Northing (ft)	Local Coordinates Easting (ft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Dogleg Rate (°/100usft)	Vertical Section (ft)	Comments
4,100.00	0.0000	0.00	757.80	4,100.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
4,200.00	0.0000	0.00	857.80	4,200.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
4,300.00	0.0000	0.00	957.80	4,300.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
4,400.00	0.0000	0.00	1,057.80	4,400.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
4,500.00	0.0000	0.00	1,157.80	4,500.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
4,600.00	0.0000	0.00	1,257.80	4,600.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
4,700.00	0.0000	0.00	1,357.80	4,700.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
4,800.00	0.0000	0.00	1,457.80	4,800.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
4,900.00	0.0000	0.00	1,557.80	4,900.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
5,000.00	0.0000	0.00	1,657.80	5,000.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
5,100.00	0.0000	0.00	1,757.80	5,100.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
5,200.00	0.0000	0.00	1,857.80	5,200.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
5,300.00	0.0000	0.00	1,957.80	5,300.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
5,400.00	0.0000	0.00	2,057.80	5,400.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
5,500.00	0.0000	0.00	2,157.80	5,500.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
5,600.00	0.0000	0.00	2,257.80	5,600.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
5,700.00	0.0000	0.00	2,357.80	5,700.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
5,800.00	0.0000	0.00	2,457.80	5,800.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
5,900.00	0.0000	0.00	2,557.80	5,900.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
6,000.00	0.0000	0.00	2,657.80	6,000.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
6,100.00	0.0000	0.00	2,757.80	6,100.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
6,200.00	0.0000	0.00	2,857.80	6,200.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
6,300.00	0.0000	0.00	2,957.80	6,300.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
6,400.00	0.0000	0.00	3,057.80	6,400.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
6,500.00	0.0000	0.00	3,157.80	6,500.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
6,600.00	0.0000	0.00	3,257.80	6,600.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
6,700.00	0.0000	0.00	3,357.80	6,700.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
6,800.00	0.0000	0.00	3,457.80	6,800.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
6,900.00	0.0000	0.00	3,557.80	6,900.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
7,000.00	0.0000	0.00	3,657.80	7,000.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
7,100.00	0.0000	0.00	3,757.80	7,100.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
7,200.00	0.0000	0.00	3,857.80	7,200.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
7,300.00	0.0000	0.00	3,957.80	7,300.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
7,400.00	0.0000	0.00	4,057.80	7,400.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
7,500.00	0.0000	0.00	4,157.80	7,500.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
7,600.00	0.0000	0.00	4,257.80	7,600.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
7,700.00	0.0000	0.00	4,357.80	7,700.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
7,800.00	0.0000	0.00	4,457.80	7,800.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
7,900.00	0.0000	0.00	4,557.80	7,900.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
8,000.00	0.0000	0.00	4,657.80	8,000.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
8,100.00	0.0000	0.00	4,757.80	8,100.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	

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Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates Northing (ft)	Local Coordinates Easting (ft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Dogleg Rate (°/100usft)	Vertical Section (ft)	Comments
8,200.00	0.0000	0.00	4,857.80	8,200.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
8,300.00	0.0000	0.00	4,957.80	8,300.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
8,400.00	0.0000	0.00	5,057.80	8,400.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
8,500.00	0.0000	0.00	5,157.80	8,500.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
8,600.00	0.0000	0.00	5,257.80	8,600.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
8,700.00	0.0000	0.00	5,357.80	8,700.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
8,800.00	0.0000	0.00	5,457.80	8,800.00	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	
8,873.82	0.0000	0.00	5,531.62	8,873.82	0.00 N	0.00 E	393,542.04	745,714.70	0.00	0.00	Start Build 10.00
8,900.00	2.6180	29.40	5,557.79	8,899.99	0.52 N	0.29 E	393,542.56	745,714.99	10.00	0.53	
9,000.00	12.6180	29.40	5,656.78	8,998.98	12.06 N	6.79 E	393,554.10	745,721.49	10.00	12.31	
9,100.00	22.6180	29.40	5,751.97	9,094.17	38.39 N	21.63 E	393,580.43	745,736.33	10.00	39.21	
9,200.00	32.6179	29.40	5,840.46	9,182.66	78.73 N	44.36 E	393,620.77	745,759.06	10.00	80.41	
9,300.00	42.6179	29.40	5,919.57	9,261.77	131.84 N	74.29 E	393,673.88	745,788.99	10.00	134.66	
9,400.00	52.6179	29.40	5,986.90	9,329.10	196.11 N	110.50 E	393,738.15	745,825.20	10.00	200.31	
9,473.82	60.0000	29.40	6,027.82	9,370.02	249.58 N	140.63 E	393,791.62	745,855.33	10.00	254.93	Start DLS 10.00 TFO -48.93
9,500.00	61.7389	27.16	6,040.56	9,382.76	269.72 N	151.46 E	393,811.76	745,866.16	10.00	275.48	
9,600.00	68.6766	19.22	6,082.52	9,424.72	353.10 N	186.99 E	393,895.14	745,901.69	10.00	360.19	
9,700.00	75.9525	12.01	6,112.92	9,455.12	444.76 N	212.48 E	393,986.80	745,927.18	10.00	452.78	
9,800.00	83.4284	5.25	6,130.82	9,473.02	541.91 N	227.16 E	394,083.95	745,941.85	10.00	550.44	
9,889.29	90.1806	359.40	6,135.80	9,478.00	630.89 N	230.76 E	394,172.93	745,945.46	10.00	639.50	Start 4125.05 hold at 9889.29 MD
9,900.00	90.1806	359.40	6,135.77	9,477.97	641.61 N	230.64 E	394,183.65	745,945.34	0.00	650.20	
10,000.00	90.1806	359.40	6,135.45	9,477.65	741.60 N	229.60 E	394,283.64	745,944.30	0.00	750.07	
10,100.00	90.1806	359.40	6,135.14	9,477.34	841.59 N	228.55 E	394,383.63	745,943.25	0.00	849.95	
10,200.00	90.1806	359.40	6,134.82	9,477.02	941.59 N	227.50 E	394,483.63	745,942.20	0.00	949.82	
10,300.00	90.1806	359.40	6,134.51	9,476.71	1,041.58 N	226.45 E	394,583.62	745,941.15	0.00	1,049.70	
10,400.00	90.1806	359.40	6,134.19	9,476.39	1,141.58 N	225.41 E	394,683.61	745,940.11	0.00	1,149.57	
10,500.00	90.1806	359.40	6,133.88	9,476.08	1,241.57 N	224.36 E	394,783.61	745,939.06	0.00	1,249.45	
10,600.00	90.1806	359.40	6,133.56	9,475.76	1,341.57 N	223.31 E	394,883.60	745,938.01	0.00	1,349.32	
10,700.00	90.1806	359.40	6,133.25	9,475.45	1,441.56 N	222.26 E	394,983.60	745,936.96	0.00	1,449.20	
10,800.00	90.1806	359.40	6,132.93	9,475.13	1,541.55 N	221.22 E	395,083.59	745,935.92	0.00	1,549.07	
10,900.00	90.1806	359.40	6,132.62	9,474.82	1,641.55 N	220.17 E	395,183.58	745,934.87	0.00	1,648.95	
11,000.00	90.1806	359.40	6,132.30	9,474.50	1,741.54 N	219.12 E	395,283.58	745,933.82	0.00	1,748.82	
11,100.00	90.1806	359.40	6,131.99	9,474.19	1,841.54 N	218.08 E	395,383.57	745,932.77	0.00	1,848.70	
11,200.00	90.1806	359.40	6,131.67	9,473.87	1,941.53 N	217.03 E	395,483.57	745,931.73	0.00	1,948.57	
11,300.00	90.1806	359.40	6,131.36	9,473.56	2,041.52 N	215.98 E	395,583.56	745,930.68	0.00	2,048.45	
11,400.00	90.1806	359.40	6,131.04	9,473.24	2,141.52 N	214.93 E	395,683.55	745,929.63	0.00	2,148.32	
11,500.00	90.1806	359.40	6,130.72	9,472.92	2,241.51 N	213.89 E	395,783.55	745,928.59	0.00	2,248.20	
11,600.00	90.1806	359.40	6,130.41	9,472.61	2,341.51 N	212.84 E	395,883.54	745,927.54	0.00	2,348.07	
11,700.00	90.1806	359.40	6,130.09	9,472.29	2,441.50 N	211.79 E	395,983.53	745,926.49	0.00	2,447.95	
11,800.00	90.1806	359.40	6,129.78	9,471.98	2,541.49 N	210.74 E	396,083.53	745,925.44	0.00	2,547.82	
11,900.00	90.1806	359.40	6,129.46	9,471.66	2,641.49 N	209.70 E	396,183.52	745,924.40	0.00	2,647.70	

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Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates Northing (ft)	Local Coordinates Easting (ft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Dogleg Rate (°/100usft)	Vertical Section (ft)	Comments
12,000.00	90.1806	359.40	6,129.15	9,471.35	2,741.48 N	208.85 E	396,283.52	745,923.35	0.00	2,747.57	
12,100.00	90.1806	359.40	6,128.83	9,471.03	2,841.48 N	207.60 E	396,383.51	745,922.30	0.00	2,847.45	
12,200.00	90.1806	359.40	6,128.52	9,470.72	2,941.47 N	206.55 E	396,483.50	745,921.25	0.00	2,947.32	
12,300.00	90.1806	359.40	6,128.20	9,470.40	3,041.46 N	205.51 E	396,583.50	745,920.21	0.00	3,047.20	
12,400.00	90.1806	359.40	6,127.89	9,470.09	3,141.46 N	204.46 E	396,683.49	745,919.16	0.00	3,147.07	
12,500.00	90.1806	359.40	6,127.57	9,469.77	3,241.45 N	203.41 E	396,783.48	745,918.11	0.00	3,246.95	
12,600.00	90.1806	359.40	6,127.26	9,469.46	3,341.45 N	202.36 E	396,883.48	745,917.06	0.00	3,346.82	
12,700.00	90.1806	359.40	6,126.94	9,469.14	3,441.44 N	201.32 E	396,983.47	745,916.02	0.00	3,446.70	
12,800.00	90.1806	359.40	6,126.63	9,468.83	3,541.43 N	200.27 E	397,083.47	745,914.97	0.00	3,546.57	
12,900.00	90.1806	359.40	6,126.31	9,468.51	3,641.43 N	199.22 E	397,183.46	745,913.92	0.00	3,646.45	
13,000.00	90.1806	359.40	6,126.00	9,468.20	3,741.42 N	198.17 E	397,283.45	745,912.87	0.00	3,746.32	
13,100.00	90.1806	359.40	6,125.68	9,467.88	3,841.42 N	197.13 E	397,383.45	745,911.83	0.00	3,846.20	
13,200.00	90.1806	359.40	6,125.37	9,467.57	3,941.41 N	196.08 E	397,483.44	745,910.78	0.00	3,946.07	
13,300.00	90.1806	359.40	6,125.05	9,467.25	4,041.40 N	195.03 E	397,583.44	745,909.73	0.00	4,045.95	
13,400.00	90.1806	359.40	6,124.74	9,466.94	4,141.40 N	193.98 E	397,683.43	745,908.68	0.00	4,145.82	
13,500.00	90.1806	359.40	6,124.42	9,466.62	4,241.39 N	192.94 E	397,783.42	745,907.64	0.00	4,245.70	
13,600.00	90.1806	359.40	6,124.11	9,466.31	4,341.39 N	191.89 E	397,883.42	745,906.59	0.00	4,345.58	
13,700.00	90.1806	359.40	6,123.79	9,465.99	4,441.38 N	190.84 E	397,983.41	745,905.54	0.00	4,445.45	
13,800.00	90.1806	359.40	6,123.48	9,465.68	4,541.37 N	189.80 E	398,083.40	745,904.49	0.00	4,545.33	
13,900.00	90.1806	359.40	6,123.16	9,465.36	4,641.37 N	188.75 E	398,183.40	745,903.45	0.00	4,645.20	
14,000.00	90.1806	359.40	6,122.84	9,465.04	4,741.36 N	187.70 E	398,283.39	745,902.40	0.00	4,745.08	
14,014.34	90.1806	359.40	6,122.80	9,465.00	4,755.70 N	187.55 E	398,297.73	745,902.25	0.00	4,759.40	TD at 14014.34

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
8,873.82	8,873.82	0.00	0.00	Start Build 10.00
9,473.82	9,370.02	249.58	140.63	Start DLS 10.00 TFO -48.93
9,889.29	9,478.00	630.89	230.76	Start 4125.05 hold at 9889.29 MD
14,014.34	9,465.00	4,755.70	187.55	TD at 14014.34

Vertical Section Information

	Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (ft)	Origin +E/-W (ft)	Start TVD (ft)
TD		No Target (Freehand)	2.26	Slot	0.00	0.00	0.00

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Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	14,014.02	Plan#1 111214 RevA0	MWD

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Van Doo Dah 33 FED 33H BHL ()									
- plan hits target center - Point	0.00	0.00	9,465.00	4,755.70	187.55	398,297.73	745,902.25	32° 5' 35.799 N	103° 40' 21.930 W

Directional Difficulty Index

Average Dogleg over Survey:	0.72 °/100usft	Maximum Dogleg over Survey:	10.00 °/100usft at 9,473.82 ft
Net Tortousity applicable to Plans:	0.72 °/100usft	Directional Difficulty Index:	6.016

Audit Info

SAP=346244

North Reference Sheet for Sec 33 T. 25 S., R.32E. - Van Doo Dah 33 FED 33H - Wellbore #1

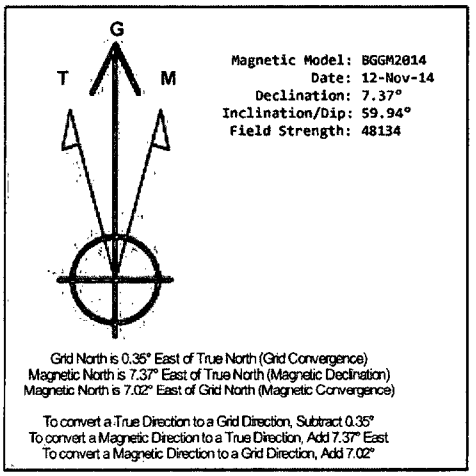
All data is in Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.
Vertical Depths are relative to Well @ 3342.20ft (HP212). Northing and Easting are relative to Van Doo Dah 33 FED 33H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980
Projection method is Transverse Mercator (Gauss-Kruger)
Central Meridian is 104° 20' 0.000 W°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:0° 0' 0.000 N°
False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99995693

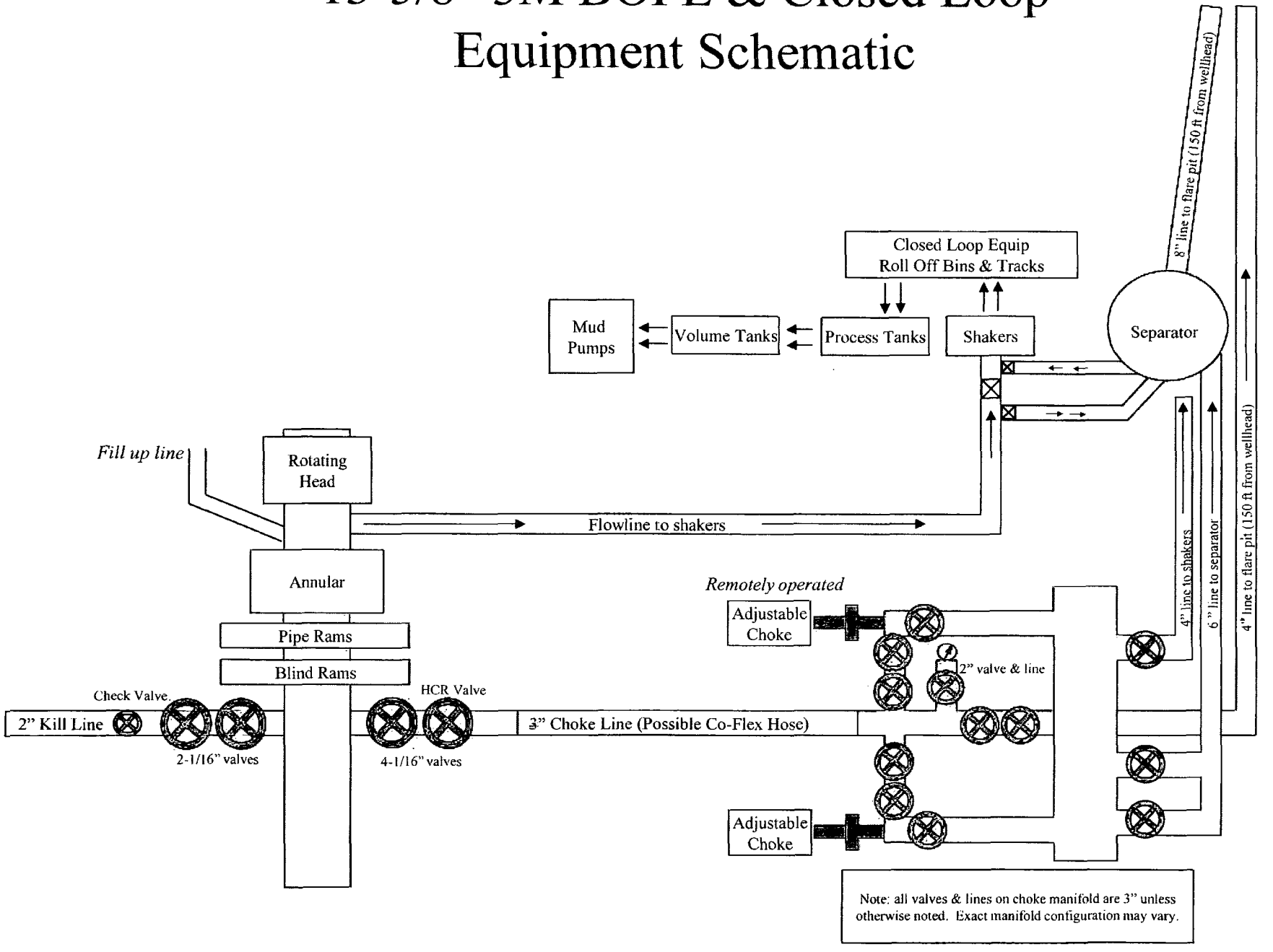
Grid Coordinates of Well: 393,542.04 usft N, 745,714.70 usft E
Geographical Coordinates of Well: 32° 04' 48.75" N, 103° 40' 24.45" W
Grid Convergence at Surface is: 0.35°

Based upon Minimum Curvature type calculations, at a Measured Depth of 14,014.34ft
the Bottom Hole Displacement is 4,759.40ft in the Direction of 2.26° (Grid).

Magnetic Convergence at surface is: -7.02° (12 November 2014. , BGGM2014)



13-5/8" 3M BOPE & Closed Loop Equipment Schematic



NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, L.P.
Van Doo Dah 33 Fed Com 3H

1. Drilling Nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.

2. Wear ring will be properly installed in head.

3. Blowout preventer and all associated filings will be in operable condition to withstand a minimum of 3000psi working pressure.

4. All fittings will be flanged.

5. A fill bore safety valve tested to a minimum of 3000psi WP with proper thread connections will be available on the rotary rig floor at all times.

6. All choke lines will be anchored to prevent movement.

7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.

8. Will maintain a kelly cock attached to the kelly.

9. Hand wheels and wrenches will be properly installed and tested for safe operation.

10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.

11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

Continental CONTITECH

Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly it is good practice to use lifting & safety equipment but not mandatory

Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com

RIG 212

PHOENIX

QUALITY DOCUMENT

PHOENIX RUBBER INDUSTRIAL LTD.

6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 152
Phone: (3662) 566-737 • Fax: (3662) 568-738

SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 26
Phone: (361) 456-4200 • Fax: (361) 217-2972, 456-4273 • www.taurusemerge.hu

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE					CERT. N°: 552
PURCHASER: Phoenix Beattie Co.					P.O. N°: 1519FA-871
PHOENIX RUBBER order N°: 170466		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N°: 34128		NOMINAL / ACTUAL LENGTH:		11,43 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	720 719	AISI 4130	C7626
4 1/16" Flange end		AISI 4130	47357

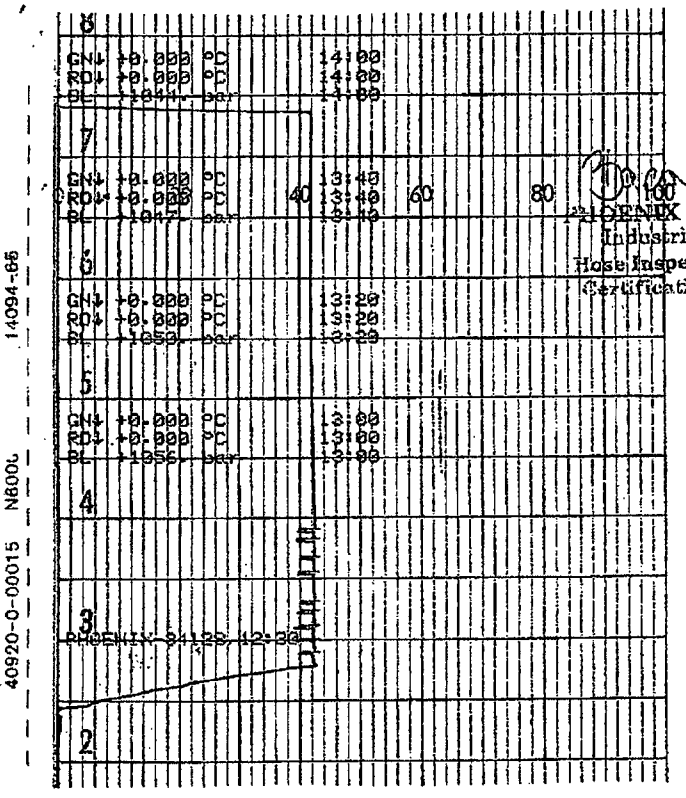
API Spec 16 C
Temperature rate:"B"

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
29. April. 2002.		PHOENIX RUBBER Industrial Ltd. Hose Inspection and Certification Dept. PHOENIX RUBBER Q.C.

CERTIFIED TRUE COPY



PHOENIX RUBBER
Industrial Ltd.
Hose Inspection and
Certification Dept.

VERIFIED TRUE COPY
PHOENIX RUBBER I.C.

H&P Flex Rig Location Layout