

HOBBS OCD

UNORTHODOX
LOCATION

ATS-13-1077

Form: 3160-3
(March 2012)

DEC 17 2013

OCD Hobbs

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

Split Estate

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		7. If Unit or CA Agreement, Name and No. NM 94480X <u>Gaucha Unit</u>
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		8. Lease Name and Well No. GAUCHO UNIT 15H <u><30863></u>
2. Name of Operator <u>Devon Energy Production Company, L.P.</u>		9. API Well No. <u>30-025-41566</u>
3a. Address <u>333 W. Sheridan Ave.</u> <u>Oklahoma City, OK 73102</u>	3b. Phone No. (include area code) <u>405-552-7848</u>	10. Field Unit Pool Cor. Exploration <u>WCO 0556 DB 5223421Lj</u> <u>Ojo Chise West; Bone Spring</u> <u><97922></u>
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface <u>100 FNL & 660 FWL Unit D</u> PP: <u>100 FNL & 660 FWL</u> At proposed prod. zone <u>330 FNL & 660 FWL Unit D; 17-22S-34E</u>		11. Sec., T. R. M. or Blk. and Survey or Area <u>20-22S-34E</u>
14. Distance in miles and direction from nearest town or post office* <u>Approximately 19 miles southwest of Eunice, NM</u>		12. County or Parish <u>Lea County</u>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <u>100'</u>		13. State <u>NM</u>
16. No. of acres in lease <u>NMNM092781; 960 acres</u> <u>NM 61360 : 960 "</u>	17. Spacing Unit dedicated to this well <u>160 acres</u>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <u>See attached map</u>	19. Proposed Depth <u>TVD: 10,478' MD: 15,263'</u>	20. BLM/BIA Bond No. on file <u>CO-1104 & NMB-000801</u>
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <u>3,471.5' GL</u>	22. Approximate date work will start* <u>11/01/2013</u>	23. Estimated duration <u>20 days</u>

24. Attachments To Be Pad Drilled w/ Gaucha Unit 14H

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

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

25. Signature <u>[Signature]</u>	Name (Printed/Typed) <u>David H. Cook</u>	Date <u>08/01/2013</u>
Title <u>Regulatory Specialist</u>		
Approved by (Signature) <u>/S/ STEPHEN J. CAFFEY</u>	Name (Printed/Typed) <u>CARLSBAD FIELD OFFICE</u>	Date <u>DEC 13 2013</u>
Title <u>FIELD MANAGER</u>		

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

APPROVAL FOR TWO YEARS

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

(Continued on page 2)

*(Instructions on page 2)

Capitan Controlled Water Basin

Kao
12/19/13SEE ATTACHED FOR
CONDITIONS OF APPROVALApproval Subject to General Requirements
& Special Stipulations Attached

DEC 30 2013

DRILLING PROGRAM
Devon Energy Production Company, LP
Gaucha Unit 15H

Surface Location: 100 FNL & 660 FWL, Unit D, Sec 20 T22S R34E, Lea, NM
Bottom Hole Location: 330 FNL & 660 FWL, Unit D, Sec 17 T22S R34E, Lea, NM

1. Geologic Name of Surface Formation

a. Quaternary

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

a. Fresh Water	300'	
b. Rustler	1,640'	
c. Top of Salt	1,925'	
d. Base of Salt	3,700'	
e. Yates	3,930'	
f. Queen	4,100'	Oil/Gas
g. Grayburg	4,710'	Oil/Gas
h. Delaware	5,256'	Oil/Gas
i. Cherry Canyon	6,016'	Oil/Gas
j. Lower Brushy Canyon	8,264'	Oil/Gas
k. Bone Spring Lime	8,443'	Oil/Gas
l. 1 st Bone Spring Sand	9,497'	Oil/Gas
m. 2 nd Bone Spring Sand	10,046'	Oil/Gas

Total Depth 15,263' MD 10,478' TVD

3. Casing Program:

*See
COA*

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight	Collar	Grade
17-1/2"	0' - 1,750' 1,750'	13-3/8"	0' - 1,750' 1,750'	54.5#	STC	J-55
12-1/4"	1,750' - 5,150' 5,150'	9-5/8"	0' - 5,150' 5,150'	40#	BTC	HCK -55
8-3/4"	5,150' - 9,750'	5-1/2"	0' - 9,750'	17#	LTC	HCP-110
8-3/4"	9,750' - 15,263'	5-1/2"	9,750' - 15,263'	17#	BTC	HCP-110

4. Design Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13-3/8"	1.38	3.33	9.53
9-5/8"	1.58	1.47	4.50
5-1/2" LTC	1.84	2.28	3.43
5-1/2" BTC	1.75	2.17	2.19

5. Cement Program:

String	Slurry	Amount and Type of Cement
Surface <i>13 3/8</i>	Lead	1000 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sk Poly-E-Flake + 4% bwoc Bentonite + 70.1% Fresh Water, 13.5 ppg, 1.75 cf/sk
	Tail	550 sacks Class C Cement + 1% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 63.1% Fresh Water, 14.8 ppg, 1.34 cf/sk
9-5/8" Intermediate <i>9 5/8</i>	Lead	1060 sacks (65:35) Class H Cement:Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water, 12.9 ppg, 1.85 cf/sk
	Tail	430 sacks Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.9% Fresh Water, 14.8 ppg, 1.33 cf/sk
Production <i>5 1/2</i> <i>See COA</i>	Lead # 1	390 sacks (50:50) Class H Cement:Poz (Fly Ash) + 10% BWOC Bentonite + 0.15% SA-1015 + 0.1% BWOC HR-601 + 0.25 lb/sk D-Air 5000 + 80.01 % Fresh Water, 11.5 ppg, 2.57 cf/sk
	Lead # 2	330 sacks (65:35) Class H Cement:Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water, 12.5 ppg, 1.96 cf/sk
	Tail	1410 sacks (50:50) Class H Cement:Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg, 1.21 cf/sk
	Contingency Plan For loss of Circulation	
	1 st STAGE	
	Lead	480 sacks (50:50) Class H Cement:Poz (Fly Ash) + 10% BWOC Bentonite + 0.15% SA-1015 + 0.1% BWOC HR-601 + 0.25 lb/sk D-Air 5000 + 80.01 % Fresh Water, 11.5 ppg, 2.57 cf/sk
	Tail	1410 sacks (50:50) Class H Cement:Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg, 1.21 cf/sk
	2 nd STAGE (DV tool and ECP at 6000 ft)	
	Lead	130 sacks (65:35) Class H Cement:Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water, 12.5 ppg, 1.96 cf/sk
	Tail	120 sacks Class C Cement + 63.9% Fresh Water, 14.8 ppg, 1.33 cf/sk

- The above cement volumes based on at least Surface 100% excess, Intermediate 75% excess and Production is 25% excess. Actual cement volumes to be adjusted based on fluid caliper and/or caliper log data.
- If lost circulation is encountered while drilling the production wellbore, a DV tool and ECP will be installed a minimum of 50' below the previous casing shoe and a maximum of 200' above the current shoe. If the DV tool has to be moved, the cement volumes will be adjusted proportionately.

String	TOC
13-3/8" Intermediate	Surface
9-5/8" Intermediate	Surface
5-1/2" Production	4,650' (~500 ft inside of 9-5/8" Casing Shoe)

See COA

6. **Pressure Control Equipment**

Out per Ryan Clark 12/12/13
~~The BOP system used to drill the 17-1/2" hole will consist of a 20" 2M Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 2M system prior to drilling out the casing shoe.~~

The BOP system used to drill the 12-1/4" and 8-3/4" holes will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the casing shoe.

The pipe rams will be operated and checked as per Onshore Order No 2. 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.

See COA
Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line); **if an H&P rig drills this well. Otherwise no flex line is needed.** The line will be kept as straight as possible with minimal turns.

7. **Proposed Mud Circulation System**

See COA

Depth Range	Mud Weight	Viscosity	Fluid Loss	Type System
0 - 1,750' 1650'	8.5 - 8.9	35 - 45	NC	Fresh Water
1,750' - 5,150' 500'	9.8 - 10	29 - 36	NC	Brine
5,150' - 9,882'	8.4 - 8.8	29 - 36	<100	Cut Brine
9,882' - 15,263'	8.6 - 9.0	29 - 36	<100	Cut Brine

The necessary mud products for weight addition and fluid loss control will be on location at all times. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume. If abnormal pressures are encountered, electronic/mechanical mud monitoring equipment will be installed.

8. **Auxiliary Well Control and Monitoring Equipment:**

- See COA*
- 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 at all times.
 - Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

9. Logging, Coring, and Testing Program:

- a. Drill stem tests will be based on geological sample shows.
- b. If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
- c. The open hole electrical logging program will be:
 - i. Total Depth to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
 - ii. Total Depth to Surface Compensated Neutron with Gamma Ray
 - iii. No coring program is planned
 - iv. Additional testing will be initiated subsequent to setting the 5 ½” production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

10. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 4550 psi and Estimated BHT 160°. No H₂S is anticipated to be encountered.

11. Anticipated Starting Date and Duration of Operations:

- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 20 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.



Devon Energy

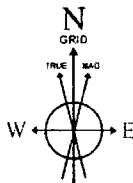
Location: Lea County, NM
Field: (Gaucho) Sec 17, T22S, R34E
Facility: Gaucho Unit No.14H & No.15H

Slot: No.15H SHL
Well: No.15H
Wellbore: No.15H PWB

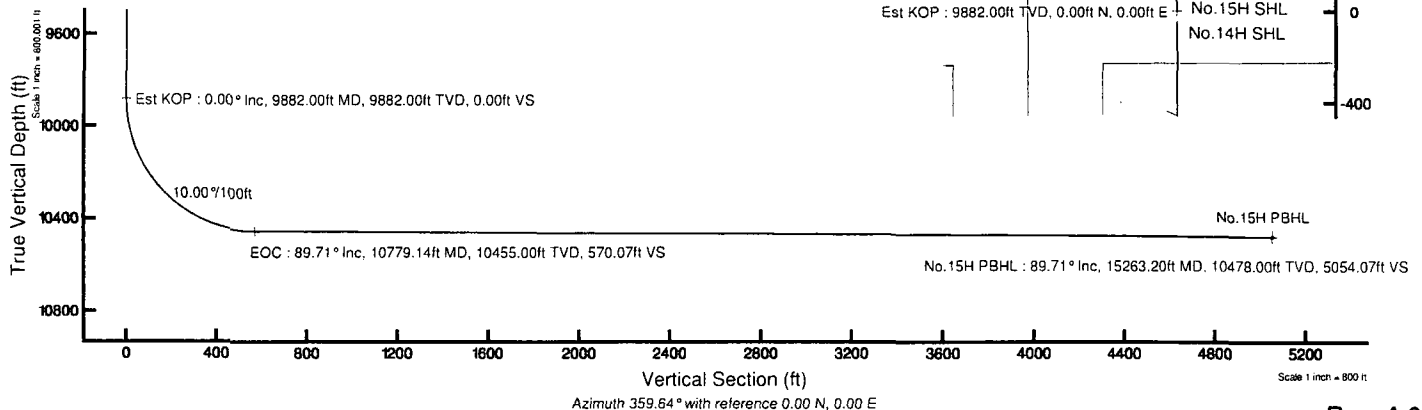
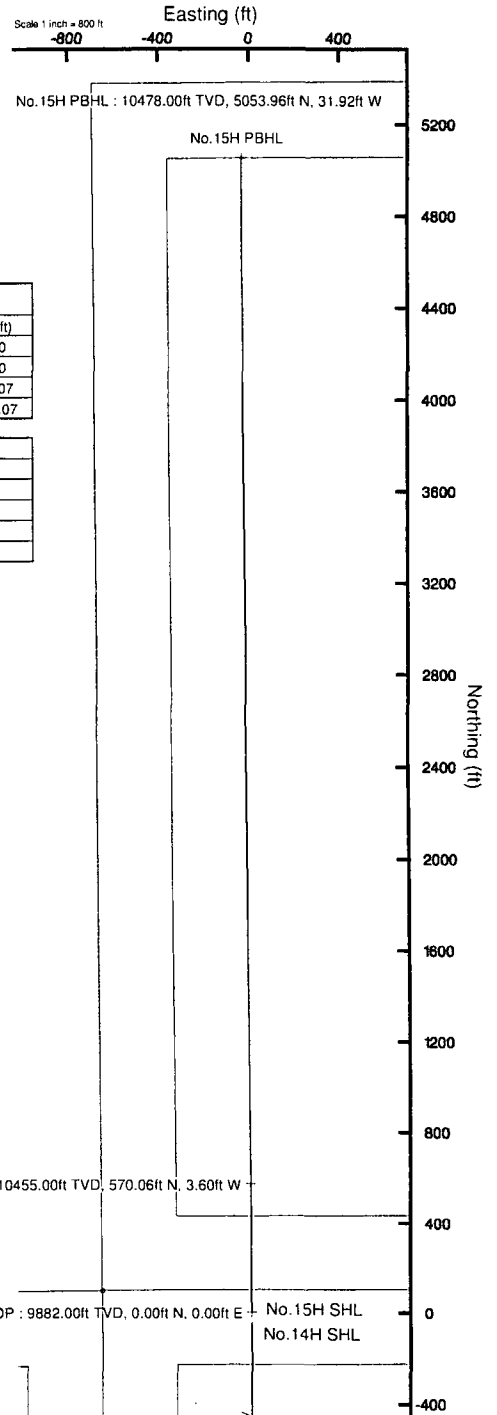


Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	25.00	0.000	359.638	25.00	0.00	0.00	0.00	0.00
Est KOP	9882.00	0.000	359.638	9882.00	0.00	0.00	0.00	0.00
EOC	10779.14	89.706	359.638	10455.00	570.06	-3.60	10.00	570.07
No.15H PBHL	15263.20	89.706	359.638	10478.00	5053.96	-31.92	0.00	5054.07

Plot reference wellpath is Rev-A.0	
True vertical depths are referenced to Rig on No.15H SHL (KB)	Grid System: NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.15H SHL (KB)	North Reference: Grid north
Rig on No.15H SHL (KB) to Mean Sea Level: 3496.5 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.15H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: gentbry on 07/30/2013



BGGM (1945.0 to 2015.0) Dip: 60.29° Field: 48500.2 nT
Magnetic North is 7.41 degrees East of True North (at 07/30/2013)
Grid North is 0.45 degrees East of True North
To correct azimuth from True to Grid subtract 0.45 degrees
To correct azimuth from Magnetic to Grid add 6.96 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 6.96 = 96.96





Planned Wellpath Report

Rev-A.0
Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999985	Report Generated	07/30/2013 at 2:23:22 PM
Convergence at slot	0.45° East	Database/Source file	WA Midland/No.15H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	49.99	-0.32	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W
Facility Reference Pt			799049.77	504450.40	32°23'02.539"N	103°29'54.548"W
Field Reference Pt			800357.93	506259.73	32°23'20.341"N	103°29'39.128"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No.15H SHL (KB) to Facility Vertical Datum	3496.50ft
Horizontal Reference Pt	Slot	Rig on No.15H SHL (KB) to Mean Sea Level	3496.50ft
Vertical Reference Pt	Rig on No.15H SHL (KB)	Rig on No.15H SHL (KB) to Mud Line at Slot (No.15H SHL)	3496.50ft
MD Reference Pt	Rig on No.15H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.64°



Planned Wellpath Report

Rev-A.0
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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

WELLPATH DATA (166 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	359.638	0.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
25.00	0.000	359.638	25.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	Tie On
125.00†	0.000	359.638	125.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
225.00†	0.000	359.638	225.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
325.00†	0.000	359.638	325.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
425.00†	0.000	359.638	425.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
525.00†	0.000	359.638	525.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
625.00†	0.000	359.638	625.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
725.00†	0.000	359.638	725.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
825.00†	0.000	359.638	825.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
925.00†	0.000	359.638	925.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
1025.00†	0.000	359.638	1025.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
1125.00†	0.000	359.638	1125.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
1225.00†	0.000	359.638	1225.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
1325.00†	0.000	359.638	1325.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
1425.00†	0.000	359.638	1425.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
1525.00†	0.000	359.638	1525.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
1625.00†	0.000	359.638	1625.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
1640.00†	0.000	359.638	1640.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	Rustler
1725.00†	0.000	359.638	1725.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
1825.00†	0.000	359.638	1825.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
1925.00†	0.000	359.638	1925.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	Top Salt
2025.00†	0.000	359.638	2025.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
2125.00†	0.000	359.638	2125.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
2225.00†	0.000	359.638	2225.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
2325.00†	0.000	359.638	2325.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
2425.00†	0.000	359.638	2425.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
2525.00†	0.000	359.638	2525.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
2625.00†	0.000	359.638	2625.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
2725.00†	0.000	359.638	2725.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
2825.00†	0.000	359.638	2825.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
2925.00†	0.000	359.638	2925.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3025.00†	0.000	359.638	3025.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3125.00†	0.000	359.638	3125.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3225.00†	0.000	359.638	3225.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3325.00†	0.000	359.638	3325.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3425.00†	0.000	359.638	3425.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3525.00†	0.000	359.638	3525.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3625.00†	0.000	359.638	3625.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3700.00†	0.000	359.638	3700.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	Base Salt
3725.00†	0.000	359.638	3725.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3825.00†	0.000	359.638	3825.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3925.00†	0.000	359.638	3925.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
3930.00†	0.000	359.638	3930.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	Yates
4025.00†	0.000	359.638	4025.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

WELLPATH DATA (166 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4125.00†	0.000	359.638	4125.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
4225.00†	0.000	359.638	4225.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
4325.00†	0.000	359.638	4325.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
4425.00†	0.000	359.638	4425.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
4525.00†	0.000	359.638	4525.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
4625.00†	0.000	359.638	4625.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
4725.00†	0.000	359.638	4725.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
4825.00†	0.000	359.638	4825.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
4925.00†	0.000	359.638	4925.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
5025.00†	0.000	359.638	5025.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
5125.00†	0.000	359.638	5125.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
5225.00†	0.000	359.638	5225.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
5256.00†	0.000	359.638	5256.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	Delaware
5325.00†	0.000	359.638	5325.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
5425.00†	0.000	359.638	5425.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
5525.00†	0.000	359.638	5525.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
5625.00†	0.000	359.638	5625.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
5725.00†	0.000	359.638	5725.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
5825.00†	0.000	359.638	5825.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
5925.00†	0.000	359.638	5925.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
6016.00†	0.000	359.638	6016.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	Cherry Canyon
6025.00†	0.000	359.638	6025.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
6125.00†	0.000	359.638	6125.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
6225.00†	0.000	359.638	6225.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
6325.00†	0.000	359.638	6325.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
6425.00†	0.000	359.638	6425.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
6525.00†	0.000	359.638	6525.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
6625.00†	0.000	359.638	6625.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
6725.00†	0.000	359.638	6725.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
6825.00†	0.000	359.638	6825.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
6925.00†	0.000	359.638	6925.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
7025.00†	0.000	359.638	7025.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
7125.00†	0.000	359.638	7125.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
7225.00†	0.000	359.638	7225.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
7325.00†	0.000	359.638	7325.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
7425.00†	0.000	359.638	7425.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
7525.00†	0.000	359.638	7525.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
7625.00†	0.000	359.638	7625.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
7725.00†	0.000	359.638	7725.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
7825.00†	0.000	359.638	7825.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
7925.00†	0.000	359.638	7925.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
8025.00†	0.000	359.638	8025.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
8125.00†	0.000	359.638	8125.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
8225.00†	0.000	359.638	8225.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
8264.00†	0.000	359.638	8264.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	Lwr Brushy Canyon



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

WELLPATH DATA (166 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8325.00†	0.000	359.638	8325.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
8425.00†	0.000	359.638	8425.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
8443.00†	0.000	359.638	8443.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	Bone Spring Lime
8525.00†	0.000	359.638	8525.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
8625.00†	0.000	359.638	8625.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
8725.00†	0.000	359.638	8725.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
8825.00†	0.000	359.638	8825.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
8925.00†	0.000	359.638	8925.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
9025.00†	0.000	359.638	9025.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
9125.00†	0.000	359.638	9125.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
9225.00†	0.000	359.638	9225.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
9325.00†	0.000	359.638	9325.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
9425.00†	0.000	359.638	9425.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
9497.00†	0.000	359.638	9497.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	1st Bone Spring Sand
9525.00†	0.000	359.638	9525.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
9625.00†	0.000	359.638	9625.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
9725.00†	0.000	359.638	9725.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
9825.00†	0.000	359.638	9825.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	
9882.00	0.000	359.638	9882.00	0.00	0.00	0.00	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W	0.00	Est KOP
9925.00†	4.300	359.638	9924.96	1.61	1.61	-0.01	799049.44	504502.00	32°23'03.050"N	103°29'54.547"W	10.00	
10025.00†	14.299	359.638	10023.52	17.75	17.75	-0.11	799049.34	504518.14	32°23'03.209"N	103°29'54.547"W	10.00	
10048.33†	16.631	359.638	10046.00	23.97	23.97	-0.15	799049.30	504524.36	32°23'03.271"N	103°29'54.547"W	10.00	2nd Bone Spring Sand
10125.00†	24.298	359.638	10117.78	50.76	50.76	-0.32	799049.13	504551.15	32°23'03.536"N	103°29'54.546"W	10.00	
10225.00†	34.297	359.638	10204.88	99.63	99.63	-0.63	799048.82	504600.02	32°23'04.020"N	103°29'54.545"W	10.00	
10325.00†	44.296	359.638	10282.17	162.88	162.88	-1.03	799048.42	504663.27	32°23'04.645"N	103°29'54.544"W	10.00	
10425.00†	54.295	359.638	10347.30	238.60	238.59	-1.51	799047.94	504738.98	32°23'05.395"N	103°29'54.543"W	10.00	
10525.00†	64.294	359.638	10398.30	324.47	324.46	-2.05	799047.40	504824.85	32°23'06.244"N	103°29'54.542"W	10.00	
10625.00†	74.294	359.638	10433.61	417.89	417.88	-2.64	799046.81	504918.26	32°23'07.169"N	103°29'54.540"W	10.00	
10725.00†	84.293	359.638	10452.17	516.02	516.01	-3.26	799046.19	505016.39	32°23'08.140"N	103°29'54.538"W	10.00	
10779.14	89.706	359.638	10455.00	570.07	570.06	-3.60	799045.85	505070.44	32°23'08.674"N	103°29'54.537"W	10.00	EOC
10825.00†	89.706	359.638	10455.24	615.93	615.92	-3.89	799045.56	505116.30	32°23'09.128"N	103°29'54.537"W	0.00	
10925.00†	89.706	359.638	10455.75	715.93	715.91	-4.52	799044.93	505216.29	32°23'10.118"N	103°29'54.535"W	0.00	
11025.00†	89.706	359.638	10456.26	815.93	815.91	-5.16	799044.30	505316.29	32°23'11.107"N	103°29'54.533"W	0.00	
11125.00†	89.706	359.638	10456.77	915.92	915.91	-5.79	799043.66	505416.28	32°23'12.097"N	103°29'54.531"W	0.00	
11225.00†	89.706	359.638	10457.29	1015.92	1015.90	-6.42	799043.03	505516.28	32°23'13.086"N	103°29'54.530"W	0.00	
11325.00†	89.706	359.638	10457.80	1115.92	1115.90	-7.05	799042.40	505616.27	32°23'14.076"N	103°29'54.528"W	0.00	
11425.00†	89.706	359.638	10458.31	1215.92	1215.90	-7.68	799041.77	505716.27	32°23'15.065"N	103°29'54.526"W	0.00	
11525.00†	89.706	359.638	10458.83	1315.92	1315.89	-8.31	799041.14	505816.26	32°23'16.055"N	103°29'54.524"W	0.00	
11625.00†	89.706	359.638	10459.34	1415.92	1415.89	-8.95	799040.50	505916.26	32°23'17.044"N	103°29'54.523"W	0.00	
11725.00†	89.706	359.638	10459.85	1515.92	1515.89	-9.58	799039.87	506016.25	32°23'18.034"N	103°29'54.521"W	0.00	
11825.00†	89.706	359.638	10460.37	1615.92	1615.88	-10.21	799039.24	506116.25	32°23'19.023"N	103°29'54.519"W	0.00	
11925.00†	89.706	359.638	10460.88	1715.91	1715.88	-10.84	799038.61	506216.24	32°23'20.012"N	103°29'54.517"W	0.00	
12025.00†	89.706	359.638	10461.39	1815.91	1815.88	-11.47	799037.98	506316.24	32°23'21.002"N	103°29'54.516"W	0.00	
12125.00†	89.706	359.638	10461.91	1915.91	1915.87	-12.10	799037.35	506416.23	32°23'21.991"N	103°29'54.514"W	0.00	
12225.00†	89.706	359.638	10462.42	2015.91	2015.87	-12.74	799036.71	506516.23	32°23'22.981"N	103°29'54.512"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

WELLPATH DATA (166 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12325.00†	89.706	359.638	10462.93	2115.91	2115.87	-13.37	799036.08	506616.22	32°23'23.970"N	103°29'54.511"W	0.00	
12425.00†	89.706	359.638	10463.44	2215.91	2215.86	-14.00	799035.45	506716.22	32°23'24.960"N	103°29'54.509"W	0.00	
12525.00†	89.706	359.638	10463.96	2315.91	2315.86	-14.63	799034.82	506816.21	32°23'25.949"N	103°29'54.507"W	0.00	
12625.00†	89.706	359.638	10464.47	2415.91	2415.86	-15.26	799034.19	506916.21	32°23'26.939"N	103°29'54.505"W	0.00	
12725.00†	89.706	359.638	10464.98	2515.90	2515.85	-15.89	799033.56	507016.20	32°23'27.928"N	103°29'54.504"W	0.00	
12825.00†	89.706	359.638	10465.50	2615.90	2615.85	-16.53	799032.93	507116.20	32°23'28.918"N	103°29'54.502"W	0.00	
12925.00†	89.706	359.638	10466.01	2715.90	2715.85	-17.16	799032.29	507216.19	32°23'29.907"N	103°29'54.500"W	0.00	
13025.00†	89.706	359.638	10466.52	2815.90	2815.84	-17.79	799031.66	507316.19	32°23'30.897"N	103°29'54.498"W	0.00	
13125.00†	89.706	359.638	10467.04	2915.90	2915.84	-18.42	799031.03	507416.18	32°23'31.886"N	103°29'54.497"W	0.00	
13225.00†	89.706	359.638	10467.55	3015.90	3015.84	-19.05	799030.40	507516.18	32°23'32.876"N	103°29'54.495"W	0.00	
13325.00†	89.706	359.638	10468.06	3115.90	3115.83	-19.68	799029.77	507616.17	32°23'33.865"N	103°29'54.493"W	0.00	
13425.00†	89.706	359.638	10468.58	3215.89	3215.83	-20.31	799029.14	507716.17	32°23'34.855"N	103°29'54.491"W	0.00	
13525.00†	89.706	359.638	10469.09	3315.89	3315.83	-20.95	799028.50	507816.16	32°23'35.844"N	103°29'54.490"W	0.00	
13625.00†	89.706	359.638	10469.60	3415.89	3415.82	-21.58	799027.87	507916.16	32°23'36.834"N	103°29'54.488"W	0.00	
13725.00†	89.706	359.638	10470.11	3515.89	3515.82	-22.21	799027.24	508016.15	32°23'37.823"N	103°29'54.486"W	0.00	
13825.00†	89.706	359.638	10470.63	3615.89	3615.82	-22.84	799026.61	508116.15	32°23'38.812"N	103°29'54.484"W	0.00	
13925.00†	89.706	359.638	10471.14	3715.89	3715.81	-23.47	799025.98	508216.14	32°23'39.802"N	103°29'54.483"W	0.00	
14025.00†	89.706	359.638	10471.65	3815.89	3815.81	-24.10	799025.35	508316.14	32°23'40.791"N	103°29'54.481"W	0.00	
14125.00†	89.706	359.638	10472.17	3915.89	3915.81	-24.73	799024.72	508416.13	32°23'41.781"N	103°29'54.479"W	0.00	
14225.00†	89.706	359.638	10472.68	4015.88	4015.80	-25.37	799024.08	508516.13	32°23'42.770"N	103°29'54.477"W	0.00	
14325.00†	89.706	359.638	10473.19	4115.88	4115.80	-26.00	799023.45	508616.12	32°23'43.760"N	103°29'54.476"W	0.00	
14425.00†	89.706	359.638	10473.70	4215.88	4215.80	-26.63	799022.82	508716.12	32°23'44.749"N	103°29'54.474"W	0.00	
14525.00†	89.706	359.638	10474.22	4315.88	4315.79	-27.26	799022.19	508816.11	32°23'45.739"N	103°29'54.472"W	0.00	
14625.00†	89.706	359.638	10474.73	4415.88	4415.79	-27.89	799021.56	508916.11	32°23'46.728"N	103°29'54.471"W	0.00	
14725.00†	89.706	359.638	10475.24	4515.88	4515.79	-28.52	799020.93	509016.10	32°23'47.718"N	103°29'54.469"W	0.00	
14825.00†	89.706	359.638	10475.76	4615.88	4615.78	-29.15	799020.30	509116.10	32°23'48.707"N	103°29'54.467"W	0.00	
14925.00†	89.706	359.638	10476.27	4715.87	4715.78	-29.79	799019.66	509216.09	32°23'49.697"N	103°29'54.465"W	0.00	
15025.00†	89.706	359.638	10476.78	4815.87	4815.78	-30.42	799019.03	509316.09	32°23'50.686"N	103°29'54.464"W	0.00	
15125.00†	89.706	359.638	10477.30	4915.87	4915.77	-31.05	799018.40	509416.08	32°23'51.676"N	103°29'54.462"W	0.00	
15225.00†	89.706	359.638	10477.81	5015.87	5015.77	-31.68	799017.77	509516.08	32°23'52.665"N	103°29'54.460"W	0.00	
15263.20	89.706	359.638	10478.00	5054.07	5053.96	-31.92	799017.53	509554.27	32°23'53.043"N	103°29'54.459"W	0.00	No.15H PBHL



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No.15H PBHL	15263.20	10478.00	5053.97	-31.91	799017.54	509554.27	32°23'53.043"N	103°29'54.459"W	point

SURVEY PROGRAM - Ref Wellbore: No.15H PWB Ref Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3496.50	15263.20	NaviTrak (Standard)		No.15H PWB



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999985	Report Generated	07/30/2013 at 2:24:50 PM
Convergence at slot	0.45° East	Database/Source file	WA Midland/No.15H_PWB_CR.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	49.99	-0.32	799049.45	504500.39	32°23'03.034"N	103°29'54.547"W
Facility Reference Pt			799049.77	504450.40	32°23'02.539"N	103°29'54.548"W
Field Reference Pt			800357.93	506259.73	32°23'20.341"N	103°29'39.128"W

WELLPATH DATUM

Calculation method	Minimum Curvature	Rig on No.15H SHL (KB) to Facility Vertical Datum	3496.50ft
Horizontal Reference Pt	Slot	Rig on No.15H SHL (KB) to Mean Sea Level	3496.50ft
Vertical Reference Pt	Rig on No.15H SHL (KB)	Rig on No.15H SHL (KB) to Mud Line at Slot (No.15H SHL)	3496.50ft
MD Reference Pt	Rig on No.15H SHL (KB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS

Ellipse Confidence Limit	3.00 Std Dev	Ellipse Start MD	3496.50ft	Surface Position Uncertainty	included
Declination	7.41° East of TN	Dip Angle	60.29°	Mag Field Strength	48500 nT
Slot Surface Uncertainty @ 1SD		Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @ 1SD		Horizontal	8.200ft	Vertical	1.000ft

ANTI-COLLISION RULE

Rule Name	R-type Stop Drilling, Closest Approach w/Hole&Csg Limit:1.0, StdDev:3.00 w/Surface Uncert R=(D-HnC)/PU	Rule Based On	Ratio
Plane of Rule	Closest Approach	Threshold Value	1.00
Subtract Casing & Hole Size	yes	Apply Cone of Safety	no

SURVEY PROGRAM - Ref Wellbore: No.15H PWB Ref Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3496.50	15263.20	NaviTrak (Standard)		No.15H PWB



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

CALCULATION RANGE & CUTOFF

From: 25.00ft MD	To: 15263.20ft MD	C-C Cutoff: (none)
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OFFSET WELL CLEARANCE SUMMARY (2 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
Gaucho Unit No.14H & No.15H	No.14H SHL	No.14H	No.14H PWB	Rev-A.0	25.00	49.99	9825.00	9877.80	1.09	9877.80	PASS
Gaucho Unit No.7H	No.7H SHL	No.7H	No.7H PWB	Rev-A.0	8467.50	1319.20	8467.50	8486.44	14.02	12725.00	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

CLEARANCE DATA - Offset Wellbore: No.14H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.14H & No.15H Slot: No.14H SHL Well: No.14H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	Sep Ratio	ACR MASD [ft]	ACR Status
25.00	25.00	0.00	0.00	24.70	25.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
125.00†	125.00	0.00	0.00	124.70	125.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
225.00†	225.00	0.00	0.00	224.70	225.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
325.00†	325.00	0.00	0.00	324.70	325.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
425.00†	425.00	0.00	0.00	424.70	425.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
525.00†	525.00	0.00	0.00	524.70	525.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
625.00†	625.00	0.00	0.00	624.70	625.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
725.00†	725.00	0.00	0.00	724.70	725.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
825.00†	825.00	0.00	0.00	824.70	825.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
925.00†	925.00	0.00	0.00	924.70	925.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
1025.00†	1025.00	0.00	0.00	1024.70	1025.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
1125.00†	1125.00	0.00	0.00	1124.70	1125.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
1225.00†	1225.00	0.00	0.00	1224.70	1225.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
1325.00†	1325.00	0.00	0.00	1324.70	1325.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
1425.00†	1425.00	0.00	0.00	1424.70	1425.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
1525.00†	1525.00	0.00	0.00	1524.70	1525.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
1625.00†	1625.00	0.00	0.00	1624.70	1625.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
1725.00†	1725.00	0.00	0.00	1724.70	1725.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
1825.00†	1825.00	0.00	0.00	1824.70	1825.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
1925.00†	1925.00	0.00	0.00	1924.70	1925.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
2025.00†	2025.00	0.00	0.00	2024.70	2025.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
2125.00†	2125.00	0.00	0.00	2124.70	2125.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
2225.00†	2225.00	0.00	0.00	2224.70	2225.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
2325.00†	2325.00	0.00	0.00	2324.70	2325.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
2425.00†	2425.00	0.00	0.00	2424.70	2425.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
2525.00†	2525.00	0.00	0.00	2524.70	2525.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
2625.00†	2625.00	0.00	0.00	2624.70	2625.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
2725.00†	2725.00	0.00	0.00	2724.70	2725.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
2825.00†	2825.00	0.00	0.00	2824.70	2825.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
2925.00†	2925.00	0.00	0.00	2924.70	2925.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
3025.00†	3025.00	0.00	0.00	3024.70	3025.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
3125.00†	3125.00	0.00	0.00	3124.70	3125.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
3225.00†	3225.00	0.00	0.00	3224.70	3225.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
3325.00†	3325.00	0.00	0.00	3324.70	3325.00	-49.99	0.32	179.63	49.99	NA	0.00	NA
3425.00†	3425.00	0.00	0.00	3424.70	3424.99	-49.99	0.32	179.63	49.99	NA	0.00	NA
3525.00†	3525.00	0.00	0.00	3524.70	3524.99	-49.99	0.32	179.63	49.99	71.59	0.70	PASS
3625.00†	3625.00	0.00	0.00	3624.70	3624.99	-49.99	0.32	179.63	49.99	40.55	1.23	PASS
3725.00†	3725.00	0.00	0.00	3724.70	3724.99	-49.99	0.32	179.63	49.99	26.41	1.89	PASS
3825.00†	3825.00	0.00	0.00	3824.70	3824.99	-49.99	0.32	179.63	49.99	19.34	2.58	PASS
3925.00†	3925.00	0.00	0.00	3924.70	3924.99	-49.99	0.32	179.63	49.99	15.20	3.29	PASS
4025.00†	4025.00	0.00	0.00	4024.70	4024.99	-49.99	0.32	179.63	49.99	12.51	4.00	PASS
4125.00†	4125.00	0.00	0.00	4124.70	4124.99	-49.99	0.32	179.63	49.99	10.62	4.71	PASS
4225.00†	4225.00	0.00	0.00	4224.70	4224.99	-49.99	0.32	179.63	49.99	9.22	5.42	PASS
4325.00†	4325.00	0.00	0.00	4324.70	4324.99	-49.99	0.32	179.63	49.99	8.15	6.14	PASS
4425.00†	4425.00	0.00	0.00	4424.70	4424.99	-49.99	0.32	179.63	49.99	7.30	6.85	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

CLEARANCE DATA - Offset Wellbore: No.14H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.14H & No.15H Slot: No.14H SHL Well: No.14H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	Sep Ratio	ACR MASD [ft]	ACR Status
4525.00†	4525.00	0.00	0.00	4524.70	4524.99	-49.99	0.32	179.63	49.99	6.61	7.57	PASS
4625.00†	4625.00	0.00	0.00	4624.70	4624.99	-49.99	0.32	179.63	49.99	6.03	8.28	PASS
4725.00†	4725.00	0.00	0.00	4724.70	4724.99	-49.99	0.32	179.63	49.99	5.55	9.00	PASS
4825.00†	4825.00	0.00	0.00	4824.70	4824.99	-49.99	0.32	179.63	49.99	5.14	9.72	PASS
4925.00†	4925.00	0.00	0.00	4924.70	4924.99	-49.99	0.32	179.63	49.99	4.79	10.44	PASS
5025.00†	5025.00	0.00	0.00	5024.70	5024.99	-49.99	0.32	179.63	49.99	4.48	11.15	PASS
5125.00†	5125.00	0.00	0.00	5124.70	5124.99	-49.99	0.32	179.63	49.99	4.21	11.87	PASS
5225.00†	5225.00	0.00	0.00	5224.70	5224.99	-49.99	0.32	179.63	49.99	3.97	12.59	PASS
5325.00†	5325.00	0.00	0.00	5324.70	5324.99	-49.99	0.32	179.63	49.99	3.76	13.31	PASS
5425.00†	5425.00	0.00	0.00	5424.70	5424.99	-49.99	0.32	179.63	49.99	3.56	14.02	PASS
5525.00†	5525.00	0.00	0.00	5524.70	5524.99	-49.99	0.32	179.63	49.99	3.39	14.74	PASS
5625.00†	5625.00	0.00	0.00	5624.70	5624.99	-49.99	0.32	179.63	49.99	3.23	15.46	PASS
5725.00†	5725.00	0.00	0.00	5724.70	5724.99	-49.99	0.32	179.63	49.99	3.09	16.18	PASS
5825.00†	5825.00	0.00	0.00	5824.70	5824.99	-49.99	0.32	179.63	49.99	2.96	16.90	PASS
5925.00†	5925.00	0.00	0.00	5924.70	5924.99	-49.99	0.32	179.63	49.99	2.84	17.62	PASS
6025.00†	6025.00	0.00	0.00	6024.70	6024.99	-49.99	0.32	179.63	49.99	2.73	18.33	PASS
6125.00†	6125.00	0.00	0.00	6124.70	6124.99	-49.99	0.32	179.63	49.99	2.62	19.05	PASS
6225.00†	6225.00	0.00	0.00	6224.70	6224.99	-49.99	0.32	179.63	49.99	2.53	19.77	PASS
6325.00†	6325.00	0.00	0.00	6324.70	6324.99	-49.99	0.32	179.63	49.99	2.44	20.49	PASS
6425.00†	6425.00	0.00	0.00	6424.70	6424.99	-49.99	0.32	179.63	49.99	2.36	21.21	PASS
6525.00†	6525.00	0.00	0.00	6524.70	6524.99	-49.99	0.32	179.63	49.99	2.28	21.92	PASS
6625.00†	6625.00	0.00	0.00	6624.70	6624.99	-49.99	0.32	179.63	49.99	2.21	22.64	PASS
6725.00†	6725.00	0.00	0.00	6724.70	6724.99	-49.99	0.32	179.63	49.99	2.14	23.36	PASS
6825.00†	6825.00	0.00	0.00	6824.70	6824.99	-49.99	0.32	179.63	49.99	2.08	24.08	PASS
6925.00†	6925.00	0.00	0.00	6924.70	6924.99	-49.99	0.32	179.63	49.99	2.02	24.80	PASS
7025.00†	7025.00	0.00	0.00	7024.70	7024.99	-49.99	0.32	179.63	49.99	1.96	25.52	PASS
7125.00†	7125.00	0.00	0.00	7124.70	7124.99	-49.99	0.32	179.63	49.99	1.91	26.24	PASS
7225.00†	7225.00	0.00	0.00	7224.70	7224.99	-49.99	0.32	179.63	49.99	1.85	26.95	PASS
7325.00†	7325.00	0.00	0.00	7324.70	7324.99	-49.99	0.32	179.63	49.99	1.81	27.67	PASS
7425.00†	7425.00	0.00	0.00	7424.70	7424.99	-49.99	0.32	179.63	49.99	1.76	28.39	PASS
7525.00†	7525.00	0.00	0.00	7524.70	7524.99	-49.99	0.32	179.63	49.99	1.72	29.11	PASS
7625.00†	7625.00	0.00	0.00	7624.70	7624.99	-49.99	0.32	179.63	49.99	1.68	29.83	PASS
7725.00†	7725.00	0.00	0.00	7724.70	7724.99	-49.99	0.32	179.63	49.99	1.64	30.55	PASS
7825.00†	7825.00	0.00	0.00	7824.70	7824.99	-49.99	0.32	179.63	49.99	1.60	31.26	PASS
7925.00†	7925.00	0.00	0.00	7924.70	7924.99	-49.99	0.32	179.63	49.99	1.56	31.98	PASS
8025.00†	8025.00	0.00	0.00	8024.70	8024.99	-49.99	0.32	179.63	49.99	1.53	32.70	PASS
8125.00†	8125.00	0.00	0.00	8124.70	8124.99	-49.99	0.32	179.63	49.99	1.50	33.42	PASS
8225.00†	8225.00	0.00	0.00	8224.70	8224.99	-49.99	0.32	179.63	49.99	1.46	34.14	PASS
8325.00†	8325.00	0.00	0.00	8324.70	8324.99	-49.99	0.32	179.63	49.99	1.43	34.86	PASS
8425.00†	8425.00	0.00	0.00	8424.70	8424.99	-49.99	0.32	179.63	49.99	1.41	35.58	PASS
8525.00†	8525.00	0.00	0.00	8524.70	8524.99	-49.99	0.32	179.63	49.99	1.38	36.29	PASS
8625.00†	8625.00	0.00	0.00	8624.70	8624.99	-49.99	0.32	179.63	49.99	1.35	37.01	PASS
8725.00†	8725.00	0.00	0.00	8724.70	8724.98	-49.99	0.32	179.63	49.99	1.32	37.73	PASS
8825.00†	8825.00	0.00	0.00	8824.70	8824.98	-49.99	0.32	179.63	49.99	1.30	38.45	PASS
8925.00†	8925.00	0.00	0.00	8924.70	8924.98	-49.99	0.32	179.63	49.99	1.28	39.17	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

CLEARANCE DATA - Offset Wellbore: No.14H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.14H & No.15H Slot: No.14H SHL Well: No.14H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	Sep Ratio	ACR MASD [ft]	ACR Status
9025.00†	9025.00	0.00	0.00	9024.70	9024.98	-49.99	0.32	179.63	49.99	1.25	39.89	PASS
9125.00†	9125.00	0.00	0.00	9124.70	9124.98	-49.99	0.32	179.63	49.99	1.23	40.61	PASS
9225.00†	9225.00	0.00	0.00	9224.70	9224.98	-49.99	0.32	179.63	49.99	1.21	41.32	PASS
9325.00†	9325.00	0.00	0.00	9324.70	9324.98	-49.99	0.32	179.63	49.99	1.19	42.04	PASS
9425.00†	9425.00	0.00	0.00	9424.70	9424.98	-49.99	0.32	179.63	49.99	1.17	42.76	PASS
9525.00†	9525.00	0.00	0.00	9524.70	9524.98	-49.99	0.32	179.63	49.99	1.15	43.48	PASS
9625.00†	9625.00	0.00	0.00	9624.70	9624.98	-49.99	0.32	179.63	49.99	1.13	44.20	PASS
9725.00†	9725.00	0.00	0.00	9724.70	9724.98	-49.99	0.32	179.63	49.99	1.11	44.92	PASS
9825.00†	9825.00	0.00	0.00	9824.70	9824.98	-49.99	0.32	179.63	49.99	1.10	45.63	PASS
9877.80†	9877.80	0.00	0.00	9877.13	9877.43	-50.01	0.32	179.63	50.01	1.09	46.01	PASS
9882.00	9882.00	0.00	0.00	9881.00	9881.30	-50.05	0.32	179.63	50.05	1.09	46.04	PASS
9925.00†	9924.96	1.61	-0.01	9920.28	9920.47	-51.94	0.33	179.63	53.74	1.16	46.29	PASS
10025.00†	10023.52	17.75	-0.11	10004.95	10004.10	-65.12	0.41	179.64	85.12	1.80	47.30	PASS
10125.00†	10117.78	50.76	-0.32	10072.46	10068.75	-84.36	0.52	179.64	143.74	2.95	48.74	PASS
10225.00†	10204.88	99.63	-0.63	10119.50	10112.27	-102.20	0.63	179.64	222.06	4.48	49.53	PASS
10325.00†	10282.17	162.88	-1.03	10147.89	10137.76	-114.67	0.70	179.64	312.87	6.28	49.82	PASS
10425.00†	10347.30	238.59	-1.51	10161.19	10149.51	-120.96	0.74	179.64	410.37	8.22	49.92	PASS
10525.00†	10398.30	324.46	-2.05	10162.94	10151.02	-121.79	0.74	179.64	510.19	10.20	50.03	PASS
10625.00†	10433.61	417.88	-2.64	10155.96	10144.90	-118.45	0.73	179.64	609.11	12.13	50.22	PASS
10725.00†	10452.17	516.01	-3.26	10142.43	10132.91	-112.18	0.69	179.64	704.67	13.94	50.53	PASS
10779.14	10455.00	570.06	-3.60	10132.94	10124.43	-107.95	0.66	179.64	754.31	14.87	50.72	PASS
10825.00†	10455.24	615.92	-3.89	10124.62	10116.17	-104.01	0.64	179.64	795.79	15.65	50.85	PASS
10925.00†	10455.75	715.91	-4.52	10108.11	10101.89	-97.56	0.60	179.64	887.12	17.38	51.05	PASS
11025.00†	10456.26	815.91	-5.16	10093.56	10088.46	-91.92	0.57	179.64	979.52	19.12	51.23	PASS
11125.00†	10456.77	915.91	-5.79	10080.65	10076.46	-87.21	0.54	179.64	1072.82	20.88	51.38	PASS
11225.00†	10457.29	1015.90	-6.42	10069.14	10065.61	-83.23	0.52	179.64	1166.85	22.65	51.52	PASS
11325.00†	10457.80	1115.90	-7.05	10058.81	10055.85	-79.85	0.50	179.64	1261.52	24.43	51.64	PASS
11425.00†	10458.31	1215.90	-7.68	10049.49	10047.02	-76.96	0.48	179.64	1356.73	26.22	51.75	PASS
11525.00†	10458.83	1315.89	-8.31	10041.05	10038.95	-74.46	0.46	179.64	1452.39	28.01	51.85	PASS
11625.00†	10459.34	1415.89	-8.95	10033.37	10031.60	-72.29	0.45	179.64	1548.46	29.81	51.94	PASS
11725.00†	10459.85	1515.89	-9.58	10026.36	10024.84	-70.39	0.44	179.64	1644.88	31.62	52.03	PASS
11825.00†	10460.37	1615.88	-10.21	10019.94	10018.63	-68.73	0.43	179.64	1741.60	33.39	52.16	PASS
11925.00†	10460.88	1715.88	-10.84	10014.03	10012.91	-67.26	0.42	179.64	1838.58	35.16	52.30	PASS
12025.00†	10461.39	1815.88	-11.47	10008.58	10007.63	-65.96	0.41	179.64	1935.81	36.92	52.43	PASS
12125.00†	10461.91	1915.87	-12.10	10003.53	10002.71	-64.79	0.41	179.64	2033.24	38.69	52.56	PASS
12225.00†	10462.42	2015.87	-12.74	9998.86	9998.14	-63.76	0.40	179.64	2130.86	40.45	52.68	PASS
12325.00†	10462.93	2115.87	-13.37	9994.50	9993.89	-62.82	0.40	179.64	2228.65	42.21	52.80	PASS
12425.00†	10463.44	2215.86	-14.00	9990.44	9989.94	-61.99	0.39	179.64	2326.59	43.96	52.92	PASS
12525.00†	10463.96	2315.86	-14.63	9986.65	9986.21	-61.23	0.39	179.64	2424.67	45.71	53.05	PASS
12625.00†	10464.47	2415.86	-15.26	9983.09	9982.71	-60.53	0.38	179.64	2522.86	47.43	53.19	PASS
12725.00†	10464.98	2515.85	-15.89	9979.76	9979.44	-59.91	0.38	179.64	2621.18	49.12	53.36	PASS
12825.00†	10465.50	2615.85	-16.53	9976.62	9976.36	-59.34	0.38	179.64	2719.59	50.79	53.55	PASS
12925.00†	10466.01	2715.85	-17.16	9973.67	9973.45	-58.81	0.37	179.64	2818.09	54.67	51.55	PASS
13025.00†	10466.52	2815.84	-17.79	9970.88	9970.70	-58.33	0.37	179.64	2916.68	55.05	52.98	PASS
13125.00†	10467.04	2915.84	-18.42	9968.25	9968.11	-57.89	0.37	179.64	3015.35	56.62	53.26	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

CLEARANCE DATA - Offset Wellbore: No.14H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.14H & No.15H Slot: No.14H SHL Well: No.14H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	Sep Ratio	ACR MASD [ft]	ACR Status
13225.00†	10467.55	3015.84	-19.05	9965.75	9965.65	-57.48	0.36	179.64	3114.09	58.30	53.42	PASS
13325.00†	10468.06	3115.83	-19.68	9963.39	9963.31	-57.10	0.36	179.64	3212.90	60.01	53.54	PASS
13425.00†	10468.58	3215.83	-20.31	9961.15	9961.12	-56.76	0.36	179.64	3311.77	61.73	53.65	PASS
13525.00†	10469.09	3315.83	-20.95	9959.02	9958.98	-56.43	0.36	179.64	3410.69	63.45	53.76	PASS
13625.00†	10469.60	3415.82	-21.58	9956.99	9956.99	-56.14	0.36	179.64	3509.67	65.17	53.85	PASS
13725.00†	10470.11	3515.82	-22.21	9955.06	9955.07	-55.86	0.35	179.64	3608.69	66.89	53.95	PASS
13825.00†	10470.63	3615.82	-22.84	9953.22	9953.26	-55.60	0.35	179.64	3707.76	68.61	54.04	PASS
13925.00†	10471.14	3715.81	-23.47	9951.46	9951.50	-55.35	0.35	179.64	3806.87	70.32	54.14	PASS
14025.00†	10471.65	3815.81	-24.10	9949.78	9949.85	-55.13	0.35	179.64	3906.03	72.03	54.23	PASS
14125.00†	10472.17	3915.81	-24.73	9948.17	9948.25	-54.91	0.35	179.64	4005.21	73.73	54.32	PASS
14225.00†	10472.68	4015.80	-25.37	9946.63	9946.73	-54.71	0.35	179.64	4104.44	75.43	54.41	PASS
14325.00†	10473.19	4115.80	-26.00	9945.15	9945.26	-54.53	0.35	179.64	4203.69	77.12	54.51	PASS
14425.00†	10473.70	4215.80	-26.63	9943.73	9943.86	-54.35	0.35	179.64	4302.98	78.81	54.60	PASS
14525.00†	10474.22	4315.79	-27.26	9942.38	9942.51	-54.19	0.34	179.64	4402.29	80.49	54.69	PASS
14625.00†	10474.73	4415.79	-27.89	9941.07	9941.21	-54.03	0.34	179.64	4501.64	82.17	54.78	PASS
14725.00†	10475.24	4515.79	-28.52	9939.81	9939.97	-53.88	0.34	179.64	4601.00	83.84	54.88	PASS
14825.00†	10475.76	4615.78	-29.15	9938.61	9938.77	-53.74	0.34	179.64	4700.39	85.51	54.97	PASS
14925.00†	10476.27	4715.78	-29.79	9937.44	9937.60	-53.61	0.34	179.64	4799.81	87.16	55.07	PASS
15025.00†	10476.78	4815.78	-30.42	9936.32	9936.49	-53.49	0.34	179.64	4899.24	88.81	55.16	PASS
15125.00†	10477.30	4915.77	-31.05	9935.24	9935.43	-53.37	0.34	179.64	4998.70	90.46	55.26	PASS
15225.00†	10477.81	5015.77	-31.68	9934.19	9934.39	-53.26	0.34	179.64	5098.17	92.10	55.36	PASS
15263.20	10478.00	5053.96	-31.92	9933.80	9934.01	-53.22	0.34	179.64	5136.17	92.72	55.39	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.14H PWB Offset Wellpath: Rev-A.0

Slot Surface Uncertainty @ 1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @ 1SD	Horizontal	8.200ft	Vertical	1.000ft

SURVEY PROGRAM - Offset Wellbore: No.14H PWB Offset Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3496.20	15001.42	NaviTrak (Standard)		No.14H PWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.14H PWB Offset Wellpath: Rev-A.0

MD Reference: Rig on No.14H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

CLEARANCE DATA - Offset Wellbore: No.7H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.7H Slot: No.7H SHL Well: No.7H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	Sep Ratio	ACR MASD [ft]	ACR Status
25.00	25.00	0.00	0.00	41.60	25.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
125.00†	125.00	0.00	0.00	141.60	125.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
225.00†	225.00	0.00	0.00	241.60	225.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
325.00†	325.00	0.00	0.00	341.60	325.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
425.00†	425.00	0.00	0.00	441.60	425.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
525.00†	525.00	0.00	0.00	541.60	525.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
625.00†	625.00	0.00	0.00	641.60	625.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
725.00†	725.00	0.00	0.00	741.60	725.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
825.00†	825.00	0.00	0.00	841.60	825.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
925.00†	925.00	0.00	0.00	941.60	925.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
1025.00†	1025.00	0.00	0.00	1041.60	1025.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
1125.00†	1125.00	0.00	0.00	1141.60	1125.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
1225.00†	1225.00	0.00	0.00	1241.60	1225.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
1325.00†	1325.00	0.00	0.00	1341.60	1325.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
1425.00†	1425.00	0.00	0.00	1441.60	1425.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
1525.00†	1525.00	0.00	0.00	1541.60	1525.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
1625.00†	1625.00	0.00	0.00	1641.60	1625.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
1725.00†	1725.00	0.00	0.00	1741.60	1725.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
1825.00†	1825.00	0.00	0.00	1841.60	1825.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
1925.00†	1925.00	0.00	0.00	1941.60	1925.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
2025.00†	2025.00	0.00	0.00	2041.60	2025.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
2125.00†	2125.00	0.00	0.00	2141.60	2125.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
2225.00†	2225.00	0.00	0.00	2241.60	2225.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
2325.00†	2325.00	0.00	0.00	2341.60	2325.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
2425.00†	2425.00	0.00	0.00	2441.60	2425.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
2525.00†	2525.00	0.00	0.00	2541.60	2525.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
2625.00†	2625.00	0.00	0.00	2641.60	2625.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
2725.00†	2725.00	0.00	0.00	2741.60	2725.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
2825.00†	2825.00	0.00	0.00	2841.60	2825.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
2925.00†	2925.00	0.00	0.00	2941.60	2925.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
3025.00†	3025.00	0.00	0.00	3041.60	3025.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
3125.00†	3125.00	0.00	0.00	3141.60	3125.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
3225.00†	3225.00	0.00	0.00	3241.60	3225.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
3325.00†	3325.00	0.00	0.00	3341.60	3325.00	1759.37	1308.50	36.64	2192.61	NA	0.00	NA
3425.00†	3425.00	0.00	0.00	3441.60	3425.00	1759.37	1308.50	36.64	2192.61	536.88	4.08	PASS
3525.00†	3525.00	0.00	0.00	3541.60	3525.00	1759.37	1308.50	36.64	2192.61	44.56	49.21	PASS
3625.00†	3625.00	0.00	0.00	3641.60	3625.00	1759.37	1308.50	36.64	2192.61	44.55	49.22	PASS
3725.00†	3725.00	0.00	0.00	3741.60	3725.00	1759.37	1308.50	36.64	2192.61	44.53	49.24	PASS
3825.00†	3825.00	0.00	0.00	3841.60	3825.00	1759.37	1308.50	36.64	2192.61	44.50	49.27	PASS
3925.00†	3925.00	0.00	0.00	3941.60	3925.00	1759.37	1308.50	36.64	2192.61	44.46	49.31	PASS
4025.00†	4025.00	0.00	0.00	4041.60	4025.00	1759.37	1308.50	36.64	2192.61	44.41	49.37	PASS
4125.00†	4125.00	0.00	0.00	4141.60	4125.00	1759.37	1308.50	36.64	2192.61	44.36	49.43	PASS
4225.00†	4225.00	0.00	0.00	4241.60	4225.01	1759.37	1308.50	36.64	2192.61	44.29	49.50	PASS
4325.00†	4325.00	0.00	0.00	4341.60	4325.01	1759.37	1308.50	36.64	2192.61	44.22	49.59	PASS
4425.00†	4425.00	0.00	0.00	4441.60	4425.01	1759.37	1308.50	36.64	2192.61	44.13	49.68	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

CLEARANCE DATA - Offset Wellbore: No.7H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.7H Slot: No.7H SHL Well: No.7H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	Sep Ratio	ACR MASD [ft]	ACR Status
4525.00†	4525.00	0.00	0.00	4541.60	4525.01	1759.37	1308.50	36.64	2192.61	44.04	49.79	PASS
4625.00†	4625.00	0.00	0.00	4641.60	4625.01	1759.37	1308.50	36.64	2192.61	43.94	49.90	PASS
4725.00†	4725.00	0.00	0.00	4741.60	4725.01	1759.37	1308.50	36.64	2192.61	43.83	50.03	PASS
4825.00†	4825.00	0.00	0.00	4841.60	4825.01	1759.37	1308.50	36.64	2192.61	43.71	50.16	PASS
4925.00†	4925.00	0.00	0.00	4941.60	4925.01	1759.37	1308.50	36.64	2192.61	43.58	50.31	PASS
5025.00†	5025.00	0.00	0.00	5041.60	5025.01	1759.37	1308.50	36.64	2192.61	43.45	50.46	PASS
5125.00†	5125.00	0.00	0.00	5141.60	5125.01	1759.37	1308.50	36.64	2192.61	43.31	50.63	PASS
5225.00†	5225.00	0.00	0.00	5241.60	5225.01	1759.37	1308.50	36.64	2192.61	43.16	50.80	PASS
5325.00†	5325.00	0.00	0.00	5341.60	5325.01	1759.37	1308.50	36.64	2192.61	43.01	50.98	PASS
5425.00†	5425.00	0.00	0.00	5441.60	5425.01	1759.37	1308.50	36.64	2192.61	42.84	51.18	PASS
5525.00†	5525.00	0.00	0.00	5541.60	5525.01	1759.37	1308.50	36.64	2192.61	42.68	51.38	PASS
5625.00†	5625.00	0.00	0.00	5641.60	5625.01	1759.37	1308.50	36.64	2192.61	42.50	51.59	PASS
5725.00†	5725.00	0.00	0.00	5741.60	5725.01	1759.37	1308.50	36.64	2192.61	42.32	51.81	PASS
5825.00†	5825.00	0.00	0.00	5841.60	5825.01	1759.37	1308.50	36.64	2192.61	42.13	52.04	PASS
5925.00†	5925.00	0.00	0.00	5941.60	5925.01	1759.37	1308.50	36.64	2192.61	41.94	52.28	PASS
6025.00†	6025.00	0.00	0.00	6041.60	6025.01	1759.37	1308.50	36.64	2192.61	41.74	52.53	PASS
6125.00†	6125.00	0.00	0.00	6141.60	6125.01	1759.37	1308.50	36.64	2192.61	41.54	52.78	PASS
6225.00†	6225.00	0.00	0.00	6241.60	6225.01	1759.37	1308.50	36.64	2192.61	41.33	53.05	PASS
6325.00†	6325.00	0.00	0.00	6341.60	6325.01	1759.37	1308.50	36.64	2192.61	41.12	53.32	PASS
6425.00†	6425.00	0.00	0.00	6441.60	6425.01	1759.37	1308.50	36.64	2192.61	40.91	53.60	PASS
6525.00†	6525.00	0.00	0.00	6541.60	6525.01	1759.37	1308.50	36.64	2192.61	40.69	53.89	PASS
6625.00†	6625.00	0.00	0.00	6641.60	6625.01	1759.37	1308.50	36.64	2192.61	40.46	54.19	PASS
6725.00†	6725.00	0.00	0.00	9996.93	8465.68	2.54	1319.20	89.89	2184.10	35.33	61.83	PASS
6825.00†	6825.00	0.00	0.00	9996.61	8465.68	2.86	1319.20	89.88	2105.26	33.14	63.52	PASS
6925.00†	6925.00	0.00	0.00	9996.30	8465.68	3.17	1319.20	89.86	2028.30	31.05	65.32	PASS
7025.00†	7025.00	0.00	0.00	9995.98	8465.68	3.49	1319.20	89.85	1953.42	29.06	67.22	PASS
7125.00†	7125.00	0.00	0.00	9995.67	8465.68	3.80	1319.20	89.84	1880.88	27.17	69.23	PASS
7225.00†	7225.00	0.00	0.00	9995.35	8465.68	4.12	1319.20	89.82	1810.96	25.39	71.33	PASS
7325.00†	7325.00	0.00	0.00	9995.03	8465.69	4.43	1319.19	89.81	1743.98	23.72	73.53	PASS
7425.00†	7425.00	0.00	0.00	9994.72	8465.69	4.75	1319.19	89.79	1680.27	22.17	75.80	PASS
7525.00†	7525.00	0.00	0.00	9994.40	8465.69	5.06	1319.19	89.78	1620.24	20.74	78.13	PASS
7625.00†	7625.00	0.00	0.00	9994.09	8465.69	5.38	1319.19	89.77	1564.30	19.44	80.48	PASS
7725.00†	7725.00	0.00	0.00	9993.77	8465.69	5.69	1319.19	89.75	1512.91	18.27	82.81	PASS
7825.00†	7825.00	0.00	0.00	9993.46	8465.69	6.01	1319.18	89.74	1466.55	17.24	85.09	PASS
7925.00†	7925.00	0.00	0.00	9993.14	8465.69	6.33	1319.18	89.73	1425.70	16.34	87.25	PASS
8025.00†	8025.00	0.00	0.00	9992.83	8465.69	6.64	1319.18	89.71	1390.86	15.59	89.22	PASS
8125.00†	8125.00	0.00	0.00	9992.51	8465.69	6.96	1319.18	89.70	1362.48	14.98	90.94	PASS
8225.00†	8225.00	0.00	0.00	9992.20	8465.69	7.27	1319.18	89.68	1340.97	14.52	92.34	PASS
8325.00†	8325.00	0.00	0.00	9991.88	8465.70	7.59	1319.17	89.67	1326.68	14.21	93.36	PASS
8425.00†	8425.00	0.00	0.00	9991.56	8465.70	7.90	1319.17	89.66	1319.82	14.05	93.97	PASS
8467.50†	8467.50	0.00	0.00	9990.00	8465.70	9.47	1319.16	89.59	1319.20	14.03	94.05	PASS
8486.44†	8486.44	0.00	0.00	9991.37	8465.70	8.10	1319.17	89.65	1319.36	14.02	94.12	PASS
8525.00†	8525.00	0.00	0.00	9991.25	8465.70	8.22	1319.17	89.64	1320.53	14.03	94.13	PASS
8625.00†	8625.00	0.00	0.00	9990.93	8465.70	8.53	1319.17	89.63	1328.78	14.16	93.86	PASS
8725.00†	8725.00	0.00	0.00	9990.62	8465.70	8.85	1319.17	89.62	1344.44	14.43	93.16	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

CLEARANCE DATA - Offset Wellbore: No.7H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.7H Slot: No.7H SHL Well: No.7H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	Sep Ratio	ACR MASD [ft]	ACR Status
8825.00†	8825.00	0.00	0.00	9990.30	8465.70	9.16	1319.16	89.60	1367.25	14.85	92.10	PASS
8925.00†	8925.00	0.00	0.00	9989.99	8465.70	9.48	1319.16	89.59	1396.87	15.40	90.72	PASS
9025.00†	9025.00	0.00	0.00	9989.67	8465.70	9.80	1319.16	89.58	1432.86	16.08	89.10	PASS
9125.00†	9125.00	0.00	0.00	9989.36	8465.70	10.11	1319.16	89.56	1474.77	16.89	87.30	PASS
9225.00†	9225.00	0.00	0.00	9989.04	8465.70	10.43	1319.16	89.55	1522.11	17.83	85.39	PASS
9325.00†	9325.00	0.00	0.00	9988.73	8465.71	10.74	1319.15	89.53	1574.38	18.87	83.42	PASS
9425.00†	9425.00	0.00	0.00	9988.41	8465.71	11.06	1319.15	89.52	1631.11	20.03	81.45	PASS
9525.00†	9525.00	0.00	0.00	9988.09	8465.71	11.37	1319.15	89.51	1691.86	21.28	79.51	PASS
9625.00†	9625.00	0.00	0.00	9987.78	8465.71	11.69	1319.15	89.49	1756.20	22.62	77.62	PASS
9725.00†	9725.00	0.00	0.00	9987.46	8465.71	12.00	1319.15	89.48	1823.76	24.05	75.82	PASS
9825.00†	9825.00	0.00	0.00	9987.15	8465.71	12.32	1319.15	89.47	1894.19	25.56	74.11	PASS
9882.00	9882.00	0.00	0.00	9986.97	8465.71	12.50	1319.14	89.46	1935.50	26.45	73.18	PASS
9925.00†	9924.96	1.61	-0.01	9985.22	8465.72	14.25	1319.13	89.45	1967.15	27.14	72.48	PASS
10025.00†	10023.52	17.75	-0.11	9968.77	8465.77	30.71	1319.03	89.44	2041.30	28.87	70.71	PASS
10125.00†	10117.78	50.76	-0.32	9935.47	8465.87	64.01	1318.83	89.43	2114.03	30.68	68.90	PASS
10225.00†	10204.88	99.63	-0.63	9886.32	8466.03	113.14	1318.53	89.41	2182.65	32.49	67.18	PASS
10325.00†	10282.17	162.88	-1.03	9822.82	8466.23	176.66	1318.14	89.40	2244.56	34.17	65.68	PASS
10425.00†	10347.30	238.59	-1.51	9746.91	8466.47	252.57	1317.68	89.39	2297.39	35.61	64.51	PASS
10525.00†	10398.30	324.46	-2.05	9660.87	8466.74	338.60	1317.16	89.39	2339.11	36.72	63.70	PASS
10625.00†	10433.61	417.88	-2.64	9567.34	8467.03	432.13	1316.59	89.38	2368.12	37.44	63.25	PASS
10725.00†	10452.17	516.01	-3.26	9469.15	8467.34	530.32	1315.99	89.38	2383.31	37.75	63.14	PASS
10779.14	10455.00	570.06	-3.60	9415.10	8467.52	584.36	1315.66	89.38	2385.53	37.84	63.05	PASS
10825.00†	10455.24	615.92	-3.89	9369.23	8467.66	630.23	1315.38	89.38	2385.61	37.99	62.80	PASS
10925.00†	10455.75	715.91	-4.52	9269.23	8467.98	730.23	1314.77	89.38	2385.79	38.31	62.28	PASS
11025.00†	10456.26	815.91	-5.16	9169.23	8468.29	830.23	1314.16	89.38	2385.97	38.52	61.94	PASS
11125.00†	10456.77	915.91	-5.79	9069.24	8468.61	930.22	1313.55	89.38	2386.14	38.63	61.77	PASS
11225.00†	10457.29	1015.90	-6.42	8969.24	8468.92	1030.22	1312.94	89.38	2386.32	38.62	61.79	PASS
11325.00†	10457.80	1115.90	-7.05	8869.24	8469.24	1130.22	1312.33	89.38	2386.50	38.52	61.96	PASS
11425.00†	10458.31	1215.90	-7.68	8804.67	8469.34	1194.78	1311.94	90.92	2387.02	38.16	62.56	PASS
11525.00†	10458.83	1315.89	-8.31	8782.34	8468.58	1217.09	1311.81	94.28	2390.31	37.61	63.55	PASS
11625.00†	10459.34	1415.89	-8.95	8760.11	8466.96	1239.26	1311.67	97.62	2396.84	37.09	64.62	PASS
11725.00†	10459.85	1515.89	-9.58	8738.05	8464.50	1261.17	1311.54	100.91	2406.59	36.60	65.75	PASS
11825.00†	10460.37	1615.88	-10.21	8716.22	8461.23	1282.79	1311.41	104.15	2419.54	36.15	66.93	PASS
11925.00†	10460.88	1715.88	-10.84	8694.67	8457.21	1303.93	1311.28	107.31	2435.65	35.74	68.15	PASS
12025.00†	10461.39	1815.88	-11.47	8673.47	8452.48	1324.59	1311.15	110.38	2454.88	35.38	69.38	PASS
12125.00†	10461.91	1915.87	-12.10	8652.66	8447.10	1344.69	1311.03	113.35	2477.17	35.07	70.63	PASS
12225.00†	10462.42	2015.87	-12.74	8632.29	8441.12	1364.16	1310.91	116.21	2502.48	34.81	71.89	PASS
12325.00†	10462.93	2115.87	-13.37	8612.38	8434.61	1382.98	1310.79	118.96	2530.73	34.60	73.15	PASS
12425.00†	10463.44	2215.86	-14.00	8592.97	8427.65	1401.10	1310.68	121.59	2561.85	34.43	74.40	PASS
12525.00†	10463.96	2315.86	-14.63	8574.09	8420.29	1418.48	1310.58	124.10	2595.78	34.32	75.62	PASS
12625.00†	10464.47	2415.86	-15.26	8555.76	8412.59	1435.12	1310.48	126.49	2632.42	34.27	76.82	PASS
12725.00†	10464.98	2515.85	-15.89	8537.97	8404.62	1451.02	1310.38	128.76	2671.69	34.26	77.99	PASS
12825.00†	10465.50	2615.85	-16.53	8520.75	8396.44	1466.17	1310.29	130.91	2713.52	34.30	79.12	PASS
12925.00†	10466.01	2715.85	-17.16	8504.10	8388.10	1480.58	1310.20	132.94	2757.80	34.38	80.22	PASS
13025.00†	10466.52	2815.84	-17.79	8488.02	8379.64	1494.28	1310.12	134.86	2804.45	34.51	81.27	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.15H SHL
Area	Lea County, NM	Well	No.15H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.15H PWB
Facility	Gaucho Unit No.14H & No.15H		

CLEARANCE DATA - Offset Wellbore: No.7H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.7H Slot: No.7H SHL Well: No.7H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	Sep Ratio	ACR MASD [ft]	ACR Status
13125.00†	10467.04	2915.84	-18.42	8472.49	8371.13	1507.25	1310.04	136.68	2853.38	34.68	82.28	PASS
13225.00†	10467.55	3015.84	-19.05	8457.52	8362.59	1519.54	1309.96	138.39	2904.49	34.89	83.25	PASS
13325.00†	10468.06	3115.83	-19.68	8443.09	8354.05	1531.17	1309.89	140.00	2957.70	35.14	84.17	PASS
13425.00†	10468.58	3215.83	-20.31	8429.20	8345.55	1542.17	1309.83	141.52	3012.91	35.43	85.04	PASS
13525.00†	10469.09	3315.83	-20.95	8415.82	8337.13	1552.55	1309.76	142.96	3070.04	35.75	85.87	PASS
13625.00†	10469.60	3415.82	-21.58	8402.95	8328.79	1562.36	1309.70	144.31	3129.01	36.11	86.66	PASS
13725.00†	10470.11	3515.82	-22.21	8390.57	8320.58	1571.60	1309.65	145.59	3189.72	36.49	87.40	PASS
13825.00†	10470.63	3615.82	-22.84	8378.66	8312.47	1580.34	1309.59	146.79	3252.10	36.91	88.10	PASS
13925.00†	10471.14	3715.81	-23.47	8367.20	8304.51	1588.59	1309.54	147.93	3316.07	37.36	88.77	PASS
14025.00†	10471.65	3815.81	-24.10	8356.19	8296.70	1596.35	1309.49	149.00	3381.55	37.83	89.39	PASS
14125.00†	10472.17	3915.81	-24.73	8345.59	8289.05	1603.69	1309.45	150.01	3448.47	38.33	89.97	PASS
14225.00†	10472.68	4015.80	-25.37	8335.41	8281.57	1610.60	1309.41	150.97	3516.75	38.85	90.53	PASS
14325.00†	10473.19	4115.80	-26.00	8325.60	8274.87	1616.59	1309.37	151.88	3586.34	39.39	91.04	PASS
14425.00†	10473.70	4215.80	-26.63	8316.17	8267.12	1623.29	1309.33	152.74	3657.17	39.96	91.53	PASS
14525.00†	10474.22	4315.79	-27.26	8307.10	8260.15	1629.11	1309.30	153.55	3729.18	40.54	91.99	PASS
14625.00†	10474.73	4415.79	-27.89	8298.36	8253.36	1634.60	1309.26	154.32	3802.30	41.14	92.42	PASS
14725.00†	10475.24	4515.79	-28.52	8289.96	8246.76	1639.78	1309.23	155.06	3876.49	41.76	92.82	PASS
14825.00†	10475.76	4615.78	-29.15	8281.86	8240.30	1644.69	1309.20	155.75	3951.69	42.40	93.20	PASS
14925.00†	10476.27	4715.78	-29.79	8274.05	8234.03	1649.33	1309.17	156.41	4027.85	43.06	93.55	PASS
15025.00†	10476.78	4815.78	-30.42	8266.54	8227.94	1653.72	1309.15	157.04	4104.92	43.72	93.88	PASS
15125.00†	10477.30	4915.77	-31.05	8259.29	8221.98	1657.89	1309.12	157.64	4182.86	44.41	94.20	PASS
15225.00†	10477.81	5015.77	-31.68	8252.30	8216.22	1661.81	1309.10	158.21	4261.63	45.10	94.49	PASS
15263.20	10478.00	5053.96	-31.92	8249.70	8214.05	1663.26	1309.09	158.42	4291.93	45.37	94.60	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.7H PWB Offset Wellpath: Rev-A.0

Slot Surface Uncertainty @ 1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @ 1SD	Horizontal	8.200ft	Vertical	1.000ft

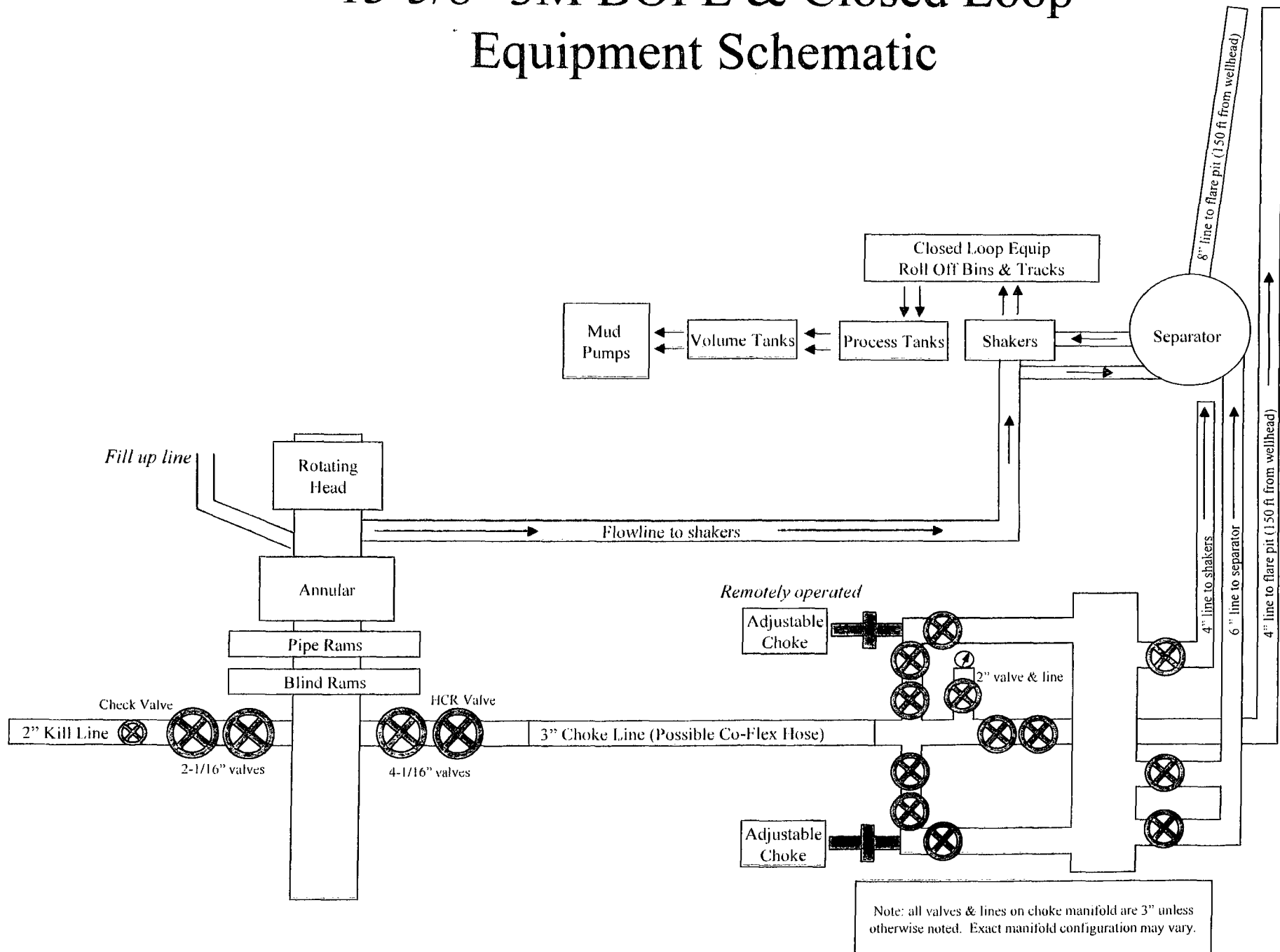
SURVEY PROGRAM - Offset Wellbore: No.7H PWB Offset Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	14840.43	NaviTrak (Standard)		No.7H PWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.7H PWB Offset Wellpath: Rev-A.0

MD Reference: Rig on No.7H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	

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

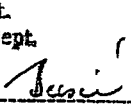


NOTES REGARDING BLOWOUT PREVENTERS

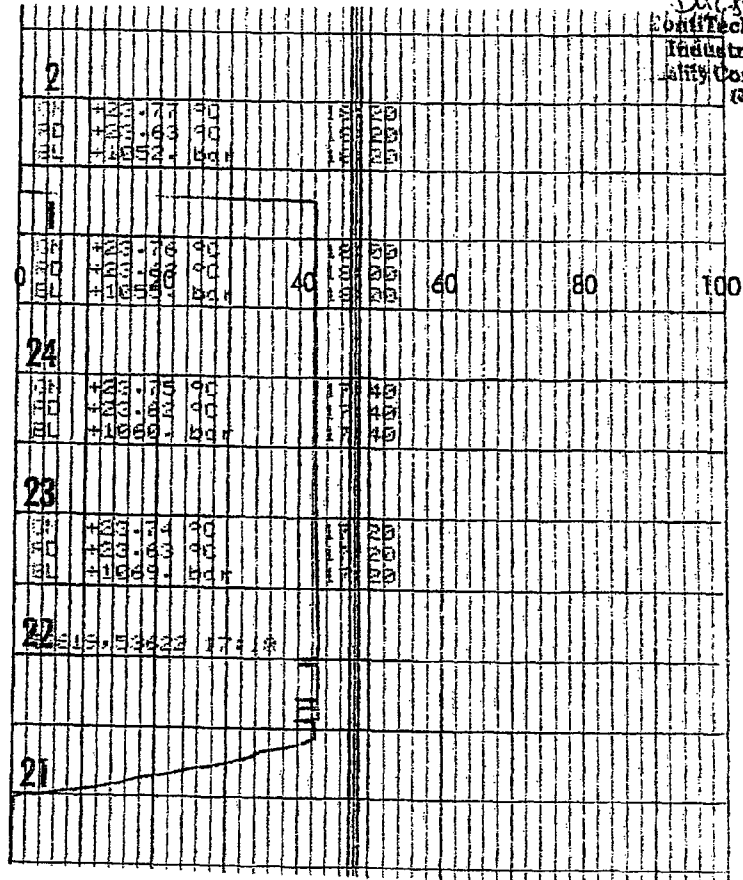
Devon Energy Production Company, LP
Gaucha Unit 15H

Surface Location: 100 FNL & 660 FWL, Unit D, Sec 20 T22S R34E, Lea, NM
Bottom Hole Location: 330 FNL & 660 FWL, Unit D, Sec 17 T22S R34E, Lea, NM

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 fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 psi 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.

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 1713	
PURCHASER: ContiTech Beattie Co.				P.O. N°: 002808	
CONTITECH ORDER N°: 426127		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 53622		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	
3" coupling with 4 1/16" Flange end		5503 2029		AISI 4130 AISI 4130	
				Heat N° N1590P 27566	
INFOCHIP INSTALLED				API Spec 16 C Temperature rate: "B"	
All metal parts are flawless				Hose conform to NACE MR 01-75	
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
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					
Date: 25. August. 2008		Inspector		Quality Control ContiTech Rubber Industrial Kft. Quality Control Dept.  	

HARTMANN &



ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(2)



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.

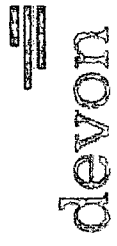
ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
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www.contitechbeattie.com





Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
August 2012

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

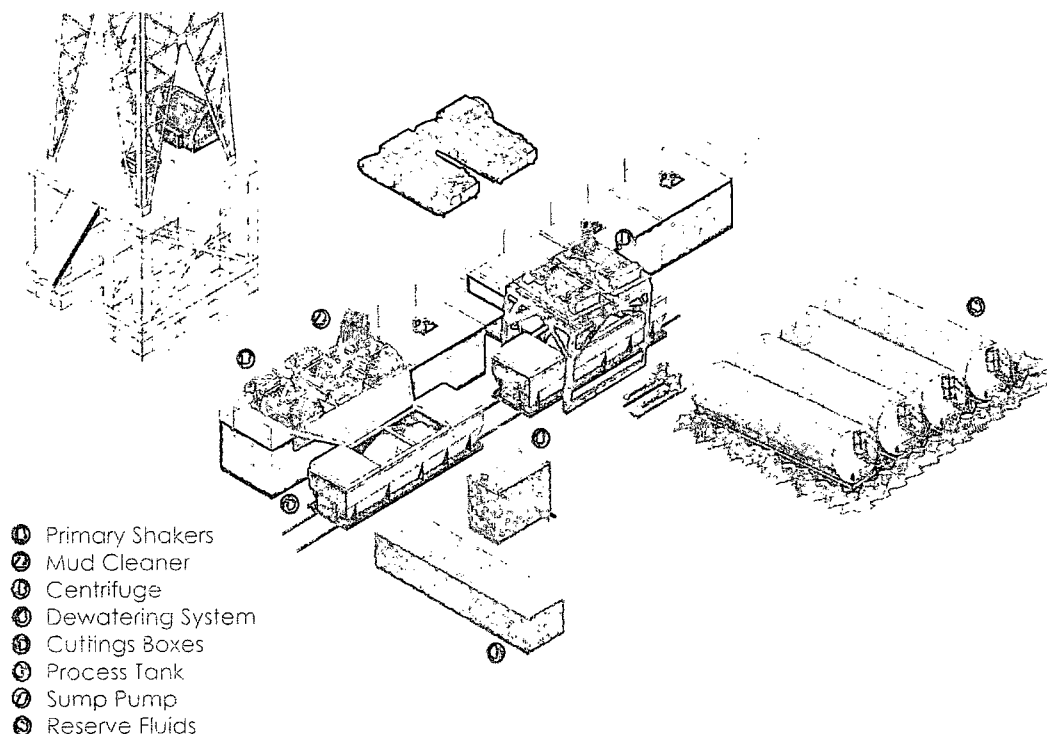
II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Closed Loop Schematic



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

H&P Flex Rig Location Layout

2 Well Pad

