

HOBBS OGD
DEC 17 2013

Split Estate

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

ATS-13-1071
FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. BW NMNM098247, NMNM092781
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Devon Energy Production Company, L.P.		7. If Unit or CA Agreement, Name and No. NM 94480X
3a. Address 333 W. Sheridan Ave. Oklahoma City, OK 73102	3b. Phone No. (include area code) 405-552-7848	8. Lease Name and Well No. <30863> GAUCHO UNIT 12H
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 150 FNL & 575 FEL Unit A PP: 150 FNL & 575 FEL At proposed prod. zone 330 FSL & 660 FEL Unit P		9. API Well No. 30-025-41564
14. Distance in miles and direction from nearest town or post office* Approximately 20 miles southwest of Eunice, NM		10. Field and Pool or Exploratory W-E-025-6-06 S223420 L1 Ojo Chiso West; Bone Spring <97922>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 150'	16. No. of acres in lease 1280 acres	11. Sec., T. R. M. or Blk. and Survey or Area 20-22S-34E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See attached map	19. Proposed Depth TVD: 10,457' MD: 14,984'	12. County or Parish Lea County
20. BLM/BIA Bond No. on file CO-1104 & NMB-000801	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3,465.8' GL	13. State NM
22. Approximate date work will start* 09/01/2013	23. Estimated duration 25 days	

24. Attachments To be pad drilled with Gaucho Unit 13H

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

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

25. Signature	Name (Printed/Typed) David H. Cook	Date 08/01/2013
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Title
Regulatory Specialist

Approved by (Signature) /s/ STEPHEN J. CAFFEY	Name (Printed/Typed)	Date DEC 13 2013
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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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.

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)

Capitan Controlled Water Basin

Ka
12/19/13

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

DEC 30 2013

DRILLING PROGRAM
Devon Energy Production Company, LP
Gaucha Unit 12H

Surface Location: 150 FNL & 575 FEL, Unit A, Sec 20 T22S R34E, Lea, NM
Bottom Hole Location: 330 FSL & 660 FEL, Unit P, Sec 20 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 14,984' MD 10,457' TVD

3. Casing Program: (All casing is new and API approved.)

Kurtis Schmitz

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17-1/2"	0 – 1,750	13-3/8"	0 – 1,750	54.5#	STC	J-55
12-1/4"	1,750 – 5,150	9-5/8"	0 – 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 – 14,984	5-1/2"	9,750 – 14,984	17#	BTC	HCP-110

MAXIMUM LATERAL TVD **10,457'**

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
13-3/8" 54.5# J-55 STC	1.38	3.33	9.53
9-5/8" 40# HCK-55 BTC	1.58	1.47	4.50
5-1/2" 17# HCP-110 LTC	1.84	2.28	2.68
5-1/2" 17# HCP-110 BTC	1.75	2.17	2.23

4. Cement Program:

String	Slurry	Amount and Type of Cement
13-3/8" Surface	Lead	1000 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack 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, 1.34cf/sk
9-5/8" Intermediate	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
5-1/2" Production See COA	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	1340 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	1340 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)

50' above Capitan Reef

5. Pressure Control Equipment

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 2. A **3M system** will be installed and tested prior to drilling out the casing shoes.

The pipe rams will be operated and checked as per Onshore Order 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**.

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.

See
COA

6. Proposed Mud Circulation System:

Depth Range	Mud Weight	Viscosity	Fluid Loss	Type System
0 – 1,750'	8.5 – 8.9	35 – 45	NC	Fresh Water
1,750' – 5,150'	9.8 – 10	29 – 36	NC	Brine
5,150' – 9,857'	8.4 – 8.8	29 – 36	<100	Cut Brine
9,857' – 14,984'	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.

7. Auxiliary Well Control and Monitoring Equipment:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor 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.

See
COA

8. Logging, Coring, and Testing Program:

- Drill stem tests will be based on geological sample shows.
- 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.
- 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.

9. 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 4950 psi and Estimated BHT 160°. No H₂S is anticipated to be encountered.

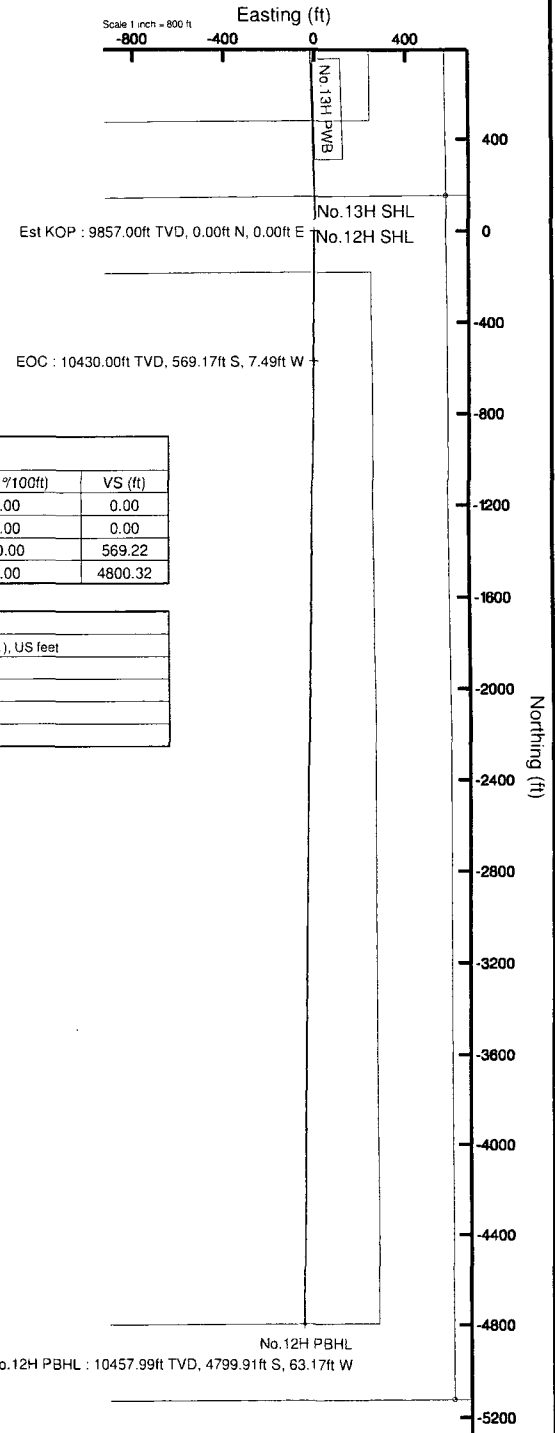
10. Anticipated Starting Date and Duration of Operations:

- 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.



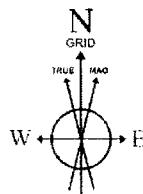
Devon Energy

Location: Lea County, NM Slot: No.12H SHL
 Field: (Gaucho) Sec 17, T22S, R34E Well: No.12H
 Facility: Gaucho Unit No.12H & No.13H Wellbore: No.12H PWB

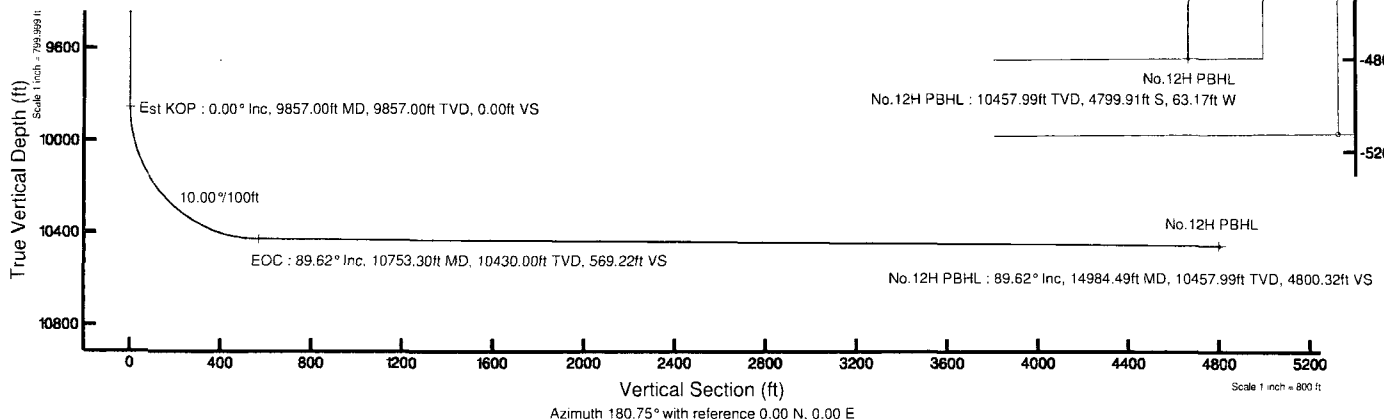


Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (%100ft)	VS (ft)
Tie On	25.00	0.000	180.754	25.00	0.00	0.00	0.00	0.00
Est KOP	9857.00	0.000	180.754	9857.00	0.00	0.00	0.00	0.00
EOC	10753.30	89.621	180.754	10430.00	-569.17	-7.49	10.00	569.22
No.12H PBHL	14984.49	89.621	180.754	10457.99	-4799.91	-63.17	0.00	4800.32

Plot reference wellpath is Rev-A.0	
True vertical depths are referenced to Rig on No.12H SHL (KB)	Grid System: NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.12H SHL (KB)	North Reference: Grid north
Rig on No.12H SHL (KB) to Mean Sea Level: 3490.8 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.12H 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: 48503 nT
 Magnetic North is 7.40 degrees East of True North (at 07/26/2013)
 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 6.95 degrees
 For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 6.95 = 96.95





Planned Wellpath Report

Rev-A.0
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

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	0.999988	Report Generated	07/30/2013 at 10:26:57 AM
Convergence at slot	0.45° East	Database/Source file	WA Midland/No.12H_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W
Facility Reference Pt			803087.17	504479.68	32°23'02.515"N	103°29'07.465"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.12H SHL (KB) to Facility Vertical Datum	3490.80ft
Horizontal Reference Pt	Slot	Rig on No.12H SHL (KB) to Mean Sea Level	3490.80ft
Vertical Reference Pt	Rig on No.12H SHL (KB)	Rig on No.12H SHL (KB) to Mud Line at Slot (No.12H SHL)	3490.80ft
MD Reference Pt	Rig on No.12H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.75°



Planned Wellpath Report

Rev-A.0
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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

WELLPATH DATA (163 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	180.754	0.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
25.00	0.000	180.754	25.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	Tie On
125.00†	0.000	180.754	125.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
225.00†	0.000	180.754	225.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
325.00†	0.000	180.754	325.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
425.00†	0.000	180.754	425.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
525.00†	0.000	180.754	525.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
625.00†	0.000	180.754	625.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
725.00†	0.000	180.754	725.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
825.00†	0.000	180.754	825.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
925.00†	0.000	180.754	925.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
1025.00†	0.000	180.754	1025.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
1125.00†	0.000	180.754	1125.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
1225.00†	0.000	180.754	1225.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
1325.00†	0.000	180.754	1325.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
1425.00†	0.000	180.754	1425.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
1525.00†	0.000	180.754	1525.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
1625.00†	0.000	180.754	1625.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
1640.00†	0.000	180.754	1640.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	Rustler
1725.00†	0.000	180.754	1725.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
1825.00†	0.000	180.754	1825.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
1925.00†	0.000	180.754	1925.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	Top Salt
2025.00†	0.000	180.754	2025.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
2125.00†	0.000	180.754	2125.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
2225.00†	0.000	180.754	2225.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
2325.00†	0.000	180.754	2325.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
2425.00†	0.000	180.754	2425.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
2525.00†	0.000	180.754	2525.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
2625.00†	0.000	180.754	2625.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
2725.00†	0.000	180.754	2725.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
2825.00†	0.000	180.754	2825.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
2925.00†	0.000	180.754	2925.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3025.00†	0.000	180.754	3025.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3125.00†	0.000	180.754	3125.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3225.00†	0.000	180.754	3225.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3325.00†	0.000	180.754	3325.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3425.00†	0.000	180.754	3425.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3525.00†	0.000	180.754	3525.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3625.00†	0.000	180.754	3625.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3700.00†	0.000	180.754	3700.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	Base Salt
3725.00†	0.000	180.754	3725.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3825.00†	0.000	180.754	3825.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3925.00†	0.000	180.754	3925.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
3930.00†	0.000	180.754	3930.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	Yates
4025.00†	0.000	180.754	4025.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

WELLPATH DATA (163 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	180.754	4125.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
4225.00†	0.000	180.754	4225.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
4325.00†	0.000	180.754	4325.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
4425.00†	0.000	180.754	4425.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
4525.00†	0.000	180.754	4525.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
4625.00†	0.000	180.754	4625.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
4725.00†	0.000	180.754	4725.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
4825.00†	0.000	180.754	4825.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
4925.00†	0.000	180.754	4925.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
5025.00†	0.000	180.754	5025.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
5125.00†	0.000	180.754	5125.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
5225.00†	0.000	180.754	5225.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
5256.00†	0.000	180.754	5256.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	Delaware
5325.00†	0.000	180.754	5325.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
5425.00†	0.000	180.754	5425.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
5525.00†	0.000	180.754	5525.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
5625.00†	0.000	180.754	5625.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
5725.00†	0.000	180.754	5725.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
5825.00†	0.000	180.754	5825.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
5925.00†	0.000	180.754	5925.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
6016.00†	0.000	180.754	6016.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	Cherry Canyon
6025.00†	0.000	180.754	6025.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
6125.00†	0.000	180.754	6125.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
6225.00†	0.000	180.754	6225.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
6325.00†	0.000	180.754	6325.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
6425.00†	0.000	180.754	6425.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
6525.00†	0.000	180.754	6525.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
6625.00†	0.000	180.754	6625.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
6725.00†	0.000	180.754	6725.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
6825.00†	0.000	180.754	6825.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
6925.00†	0.000	180.754	6925.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
7025.00†	0.000	180.754	7025.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
7125.00†	0.000	180.754	7125.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
7225.00†	0.000	180.754	7225.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
7325.00†	0.000	180.754	7325.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
7425.00†	0.000	180.754	7425.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
7525.00†	0.000	180.754	7525.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
7625.00†	0.000	180.754	7625.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
7725.00†	0.000	180.754	7725.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
7825.00†	0.000	180.754	7825.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
7925.00†	0.000	180.754	7925.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
8025.00†	0.000	180.754	8025.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
8125.00†	0.000	180.754	8125.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
8225.00†	0.000	180.754	8225.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
8264.00†	0.000	180.754	8264.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	Lwr Brushy Canyon



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

WELLPATH DATA (163 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	180.754	8325.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
8425.00†	0.000	180.754	8425.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
8443.00†	0.000	180.754	8443.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	Bone Spring Lime
8525.00†	0.000	180.754	8525.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
8625.00†	0.000	180.754	8625.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
8725.00†	0.000	180.754	8725.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
8825.00†	0.000	180.754	8825.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
8925.00†	0.000	180.754	8925.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
9025.00†	0.000	180.754	9025.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
9125.00†	0.000	180.754	9125.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
9225.00†	0.000	180.754	9225.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
9325.00†	0.000	180.754	9325.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
9425.00†	0.000	180.754	9425.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
9497.00†	0.000	180.754	9497.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	1st Bone Spring Sand
9525.00†	0.000	180.754	9525.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
9625.00†	0.000	180.754	9625.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
9725.00†	0.000	180.754	9725.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
9825.00†	0.000	180.754	9825.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	
9857.00	0.000	180.754	9857.00	0.00	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W	0.00	Est KOP
9925.00†	6.799	180.754	9924.84	-4.03	-4.03	-0.05	803087.12	504475.65	32°23'02.475"N	103°29'07.466"W	10.00	
10025.00†	16.798	180.754	10022.60	24.45	-24.45	-0.32	803086.85	504455.23	32°23'02.273"N	103°29'07.471"W	10.00	
10049.61†	19.259	180.754	10046.00	32.07	-32.06	-0.42	803086.75	504447.62	32°23'02.197"N	103°29'07.473"W	10.00	2nd Bone Spring Sand
10125.00†	26.797	180.754	10115.34	61.54	-61.53	-0.81	803086.36	504418.15	32°23'01.906"N	103°29'07.481"W	10.00	
10225.00†	36.796	180.754	10200.22	114.16	-114.15	-1.50	803085.67	504365.53	32°23'01.385"N	103°29'07.493"W	10.00	
10325.00†	46.796	180.754	10274.68	180.73	-180.71	-2.38	803084.79	504298.97	32°23'00.727"N	103°29'07.510"W	10.00	
10425.00†	56.795	180.754	10336.45	259.21	-259.18	-3.41	803083.76	504220.50	32°22'59.950"N	103°29'07.529"W	10.00	
10525.00†	66.794	180.754	10383.65	347.22	-347.19	-4.57	803082.60	504132.49	32°22'59.080"N	103°29'07.551"W	10.00	
10625.00†	76.793	180.754	10414.86	442.09	-442.05	-5.82	803081.35	504037.63	32°22'58.141"N	103°29'07.574"W	10.00	
10725.00†	86.792	180.754	10429.11	540.94	-540.90	-7.12	803080.05	503938.79	32°22'57.163"N	103°29'07.598"W	10.00	
10753.30	89.621	180.754	10430.00	569.22	-569.17	-7.49	803079.68	503910.52	32°22'56.883"N	103°29'07.605"W	10.00	EOC
10825.00†	89.621	180.754	10430.47	640.93	-640.87	-8.43	803078.74	503838.82	32°22'56.174"N	103°29'07.623"W	0.00	
10925.00†	89.621	180.754	10431.14	740.92	-740.86	-9.75	803077.42	503738.83	32°22'55.185"N	103°29'07.648"W	0.00	
11025.00†	89.621	180.754	10431.80	840.92	-840.85	-11.07	803076.10	503638.84	32°22'54.196"N	103°29'07.672"W	0.00	
11125.00†	89.621	180.754	10432.46	940.92	-940.84	-12.38	803074.79	503538.86	32°22'53.206"N	103°29'07.697"W	0.00	
11225.00†	89.621	180.754	10433.12	1040.92	-1040.83	-13.70	803073.47	503438.87	32°22'52.217"N	103°29'07.721"W	0.00	
11325.00†	89.621	180.754	10433.78	1140.91	-1140.82	-15.01	803072.16	503338.88	32°22'51.228"N	103°29'07.746"W	0.00	
11425.00†	89.621	180.754	10434.44	1240.91	-1240.80	-16.33	803070.84	503238.89	32°22'50.239"N	103°29'07.770"W	0.00	
11525.00†	89.621	180.754	10435.10	1340.91	-1340.79	-17.65	803069.52	503138.91	32°22'49.249"N	103°29'07.795"W	0.00	
11625.00†	89.621	180.754	10435.77	1440.91	-1440.78	-18.96	803068.21	503038.92	32°22'48.260"N	103°29'07.820"W	0.00	
11725.00†	89.621	180.754	10436.43	1540.91	-1540.77	-20.28	803066.89	502938.93	32°22'47.271"N	103°29'07.844"W	0.00	
11825.00†	89.621	180.754	10437.09	1640.90	-1640.76	-21.59	803065.58	502838.94	32°22'46.282"N	103°29'07.869"W	0.00	
11925.00†	89.621	180.754	10437.75	1740.90	-1740.75	-22.91	803064.26	502738.95	32°22'45.292"N	103°29'07.893"W	0.00	
12025.00†	89.621	180.754	10438.41	1840.90	-1840.74	-24.23	803062.95	502638.97	32°22'44.303"N	103°29'07.918"W	0.00	
12125.00†	89.621	180.754	10439.07	1940.90	-1940.73	-25.54	803061.63	502538.98	32°22'43.314"N	103°29'07.943"W	0.00	
12225.00†	89.621	180.754	10439.74	2040.89	-2040.72	-26.86	803060.31	502438.99	32°22'42.325"N	103°29'07.967"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

WELLPATH DATA (163 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†	89.621	180.754	10440.40	2140.89	-2140.71	-28.17	803059.00	502339.00	32°22'41.335"N	103°29'07.992"W	0.00	
12425.00†	89.621	180.754	10441.06	2240.89	-2240.70	-29.49	803057.68	502239.02	32°22'40.346"N	103°29'08.016"W	0.00	
12525.00†	89.621	180.754	10441.72	2340.89	-2340.69	-30.80	803056.37	502139.03	32°22'39.357"N	103°29'08.041"W	0.00	
12625.00†	89.621	180.754	10442.38	2440.89	-2440.67	-32.12	803055.05	502039.04	32°22'38.368"N	103°29'08.065"W	0.00	
12725.00†	89.621	180.754	10443.04	2540.88	-2540.66	-33.44	803053.73	501939.05	32°22'37.378"N	103°29'08.090"W	0.00	
12825.00†	89.621	180.754	10443.71	2640.88	-2640.65	-34.75	803052.42	501839.07	32°22'36.389"N	103°29'08.115"W	0.00	
12925.00†	89.621	180.754	10444.37	2740.88	-2740.64	-36.07	803051.10	501739.08	32°22'35.400"N	103°29'08.139"W	0.00	
13025.00†	89.621	180.754	10445.03	2840.88	-2840.63	-37.38	803049.79	501639.09	32°22'34.411"N	103°29'08.164"W	0.00	
13125.00†	89.621	180.754	10445.69	2940.87	-2940.62	-38.70	803048.47	501539.10	32°22'33.421"N	103°29'08.188"W	0.00	
13225.00†	89.621	180.754	10446.35	3040.87	-3040.61	-40.02	803047.15	501439.11	32°22'32.432"N	103°29'08.213"W	0.00	
13325.00†	89.621	180.754	10447.01	3140.87	-3140.60	-41.33	803045.84	501339.13	32°22'31.443"N	103°29'08.238"W	0.00	
13425.00†	89.621	180.754	10447.67	3240.87	-3240.59	-42.65	803044.52	501239.14	32°22'30.454"N	103°29'08.262"W	0.00	
13525.00†	89.621	180.754	10448.34	3340.87	-3340.58	-43.96	803043.21	501139.15	32°22'29.464"N	103°29'08.287"W	0.00	
13625.00†	89.621	180.754	10449.00	3440.86	-3440.57	-45.28	803041.89	501039.16	32°22'28.475"N	103°29'08.311"W	0.00	
13725.00†	89.621	180.754	10449.66	3540.86	-3540.55	-46.60	803040.57	500939.18	32°22'27.486"N	103°29'08.336"W	0.00	
13825.00†	89.621	180.754	10450.32	3640.86	-3640.54	-47.91	803039.26	500839.19	32°22'26.497"N	103°29'08.360"W	0.00	
13925.00†	89.621	180.754	10450.98	3740.86	-3740.53	-49.23	803037.94	500739.20	32°22'25.507"N	103°29'08.385"W	0.00	
14025.00†	89.621	180.754	10451.65	3840.85	-3840.52	-50.54	803036.63	500639.21	32°22'24.518"N	103°29'08.410"W	0.00	
14125.00†	89.621	180.754	10452.31	3940.85	-3940.51	-51.86	803035.31	500539.23	32°22'23.529"N	103°29'08.434"W	0.00	
14225.00†	89.621	180.754	10452.97	4040.85	-4040.50	-53.18	803034.00	500439.24	32°22'22.540"N	103°29'08.459"W	0.00	
14325.00†	89.621	180.754	10453.63	4140.85	-4140.49	-54.49	803032.68	500339.25	32°22'21.550"N	103°29'08.483"W	0.00	
14425.00†	89.621	180.754	10454.29	4240.85	-4240.48	-55.81	803031.36	500239.26	32°22'20.561"N	103°29'08.508"W	0.00	
14525.00†	89.621	180.754	10454.95	4340.84	-4340.47	-57.12	803030.05	500139.27	32°22'19.572"N	103°29'08.532"W	0.00	
14625.00†	89.621	180.754	10455.62	4440.84	-4440.46	-58.44	803028.73	500039.29	32°22'18.583"N	103°29'08.557"W	0.00	
14725.00†	89.621	180.754	10456.28	4540.84	-4540.45	-59.76	803027.42	499939.30	32°22'17.593"N	103°29'08.582"W	0.00	
14825.00†	89.621	180.754	10456.94	4640.84	-4640.44	-61.07	803026.10	499839.31	32°22'16.604"N	103°29'08.606"W	0.00	
14925.00†	89.621	180.754	10457.60	4740.84	-4740.42	-62.39	803024.78	499739.32	32°22'15.615"N	103°29'08.631"W	0.00	
14984.49	89.621	180.754	10457.99	4800.32	-4799.91	-63.17	803024.00	499679.84	32°22'15.026"N	103°29'08.645"W	0.00	No.12H PBHL



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No.12H PBHL	14984.49	10458.00	-4799.91	-63.17	803024.00	499679.84	32°22'15.026"N	103°29'08.645"W	point

SURVEY PROGRAM - Ref Wellbore: No.12H PWB Ref Wellpath: Rev-A.0				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3490.80	14984.49	NaviTrak (Standard)		No.12H PWB



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

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	0.999988	Report Generated	07/30/2013 at 10:32:13 AM
Convergence at slot	0.45° East	Database/Source file	WA Midland/No.12H_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	0.00	0.00	803087.17	504479.68	32°23'02.515"N	103°29'07.465"W
Facility Reference Pt			803087.17	504479.68	32°23'02.515"N	103°29'07.465"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.12H SHL (KB) to Facility Vertical Datum	3490.80ft
Horizontal Reference Pt	Slot	Rig on No.12H SHL (KB) to Mean Sea Level	3490.80ft
Vertical Reference Pt	Rig on No.12H SHL (KB)	Rig on No.12H SHL (KB) to Mud Line at Slot (No.12H SHL)	3490.80ft
MD Reference Pt	Rig on No.12H SHL (KB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS

Ellipse Confidence Limit	3.00 Std Dev	Ellipse Start MD	3490.80ft	Surface Position Uncertainty	included
Declination	7.40° East of TN	Dip Angle	60.29°	Mag Field Strength	48503 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.12H PWB Ref Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3490.80	14984.49	NaviTrak (Standard)		No.12H PWB



devon

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**BAKER
HUGHES**

REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CALCULATION RANGE & CUTOFF

From: 25.00ft MD	To: 14984.49ft MD	C-C Cutoff: (none)
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OFFSET WELL CLEARANCE SUMMARY (3 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.12H & No.13H	No.13H SHL	No.13H	No.13H PWB	Rev-A.0	25.00	50.03	9825.00	9857.00	1.09	12425.00	PASS
Gaucho Unit Pad (No.10 & No.11)	No.10H SHL	No.10H	No.10H PWB	Rev-B.0	3225.00	1231.42	14984.49	14984.49	5.50	14984.49	PASS
Gaucho Unit Pad (No.10 & No.11)	No.11H SHL	No.11H	No.11H PWB	Rev-A.0	25.00	1206.38	9857.00	10080.54	17.79	10080.54	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.13H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.12H & No.13H Slot: No.13H SHL Well: No.13H 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	25.20	25.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
125.00†	125.00	0.00	0.00	125.20	125.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
225.00†	225.00	0.00	0.00	225.20	225.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
325.00†	325.00	0.00	0.00	325.20	325.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
425.00†	425.00	0.00	0.00	425.20	425.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
525.00†	525.00	0.00	0.00	525.20	525.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
625.00†	625.00	0.00	0.00	625.20	625.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
725.00†	725.00	0.00	0.00	725.20	725.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
825.00†	825.00	0.00	0.00	825.20	825.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
925.00†	925.00	0.00	0.00	925.20	925.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
1025.00†	1025.00	0.00	0.00	1025.20	1025.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
1125.00†	1125.00	0.00	0.00	1125.20	1125.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
1225.00†	1225.00	0.00	0.00	1225.20	1225.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
1325.00†	1325.00	0.00	0.00	1325.20	1325.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
1425.00†	1425.00	0.00	0.00	1425.20	1425.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
1525.00†	1525.00	0.00	0.00	1525.20	1525.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
1625.00†	1625.00	0.00	0.00	1625.20	1625.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
1725.00†	1725.00	0.00	0.00	1725.20	1725.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
1825.00†	1825.00	0.00	0.00	1825.20	1825.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
1925.00†	1925.00	0.00	0.00	1925.20	1925.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
2025.00†	2025.00	0.00	0.00	2025.20	2025.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
2125.00†	2125.00	0.00	0.00	2125.20	2125.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
2225.00†	2225.00	0.00	0.00	2225.20	2225.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
2325.00†	2325.00	0.00	0.00	2325.20	2325.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
2425.00†	2425.00	0.00	0.00	2425.20	2425.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
2525.00†	2525.00	0.00	0.00	2525.20	2525.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
2625.00†	2625.00	0.00	0.00	2625.20	2625.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
2725.00†	2725.00	0.00	0.00	2725.20	2725.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
2825.00†	2825.00	0.00	0.00	2825.20	2825.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
2925.00†	2925.00	0.00	0.00	2925.20	2925.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
3025.00†	3025.00	0.00	0.00	3025.20	3025.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
3125.00†	3125.00	0.00	0.00	3125.20	3125.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
3225.00†	3225.00	0.00	0.00	3225.20	3225.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
3325.00†	3325.00	0.00	0.00	3325.20	3325.00	50.03	-0.35	359.60	50.03	NA	0.00	NA
3425.00†	3425.00	0.00	0.00	3425.20	3425.01	50.03	-0.35	359.60	50.03	71371.52	0.00	PASS
3525.00†	3525.00	0.00	0.00	3525.20	3525.01	50.03	-0.35	359.60	50.03	71.49	0.70	PASS
3625.00†	3625.00	0.00	0.00	3625.20	3625.01	50.03	-0.35	359.60	50.03	40.53	1.23	PASS
3725.00†	3725.00	0.00	0.00	3725.20	3725.01	50.03	-0.35	359.60	50.03	26.41	1.89	PASS
3825.00†	3825.00	0.00	0.00	3825.20	3825.01	50.03	-0.35	359.60	50.03	19.34	2.59	PASS
3925.00†	3925.00	0.00	0.00	3925.20	3925.01	50.03	-0.35	359.60	50.03	15.21	3.29	PASS
4025.00†	4025.00	0.00	0.00	4025.20	4025.01	50.03	-0.35	359.60	50.03	12.51	4.00	PASS
4125.00†	4125.00	0.00	0.00	4125.20	4125.01	50.03	-0.35	359.60	50.03	10.62	4.71	PASS
4225.00†	4225.00	0.00	0.00	4225.20	4225.01	50.03	-0.35	359.60	50.03	9.22	5.42	PASS
4325.00†	4325.00	0.00	0.00	4325.20	4325.01	50.03	-0.35	359.60	50.03	8.15	6.14	PASS
4425.00†	4425.00	0.00	0.00	4425.20	4425.01	50.03	-0.35	359.60	50.03	7.30	6.85	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.13H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.12H & No.13H Slot: No.13H SHL Well: No.13H 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	4525.20	4525.01	50.03	-0.35	359.60	50.03	6.61	7.57	PASS
4625.00†	4625.00	0.00	0.00	4625.20	4625.01	50.03	-0.35	359.60	50.03	6.04	8.29	PASS
4725.00†	4725.00	0.00	0.00	4725.20	4725.01	50.03	-0.35	359.60	50.03	5.56	9.00	PASS
4825.00†	4825.00	0.00	0.00	4825.20	4825.01	50.03	-0.35	359.60	50.03	5.15	9.72	PASS
4925.00†	4925.00	0.00	0.00	4925.20	4925.01	50.03	-0.35	359.60	50.03	4.79	10.44	PASS
5025.00†	5025.00	0.00	0.00	5025.20	5025.01	50.03	-0.35	359.60	50.03	4.49	11.16	PASS
5125.00†	5125.00	0.00	0.00	5125.20	5125.01	50.03	-0.35	359.60	50.03	4.21	11.87	PASS
5225.00†	5225.00	0.00	0.00	5225.20	5225.01	50.03	-0.35	359.60	50.03	3.97	12.59	PASS
5325.00†	5325.00	0.00	0.00	5325.20	5325.01	50.03	-0.35	359.60	50.03	3.76	13.31	PASS
5425.00†	5425.00	0.00	0.00	5425.20	5425.01	50.03	-0.35	359.60	50.03	3.57	14.03	PASS
5525.00†	5525.00	0.00	0.00	5525.20	5525.01	50.03	-0.35	359.60	50.03	3.39	14.74	PASS
5625.00†	5625.00	0.00	0.00	5625.20	5625.01	50.03	-0.35	359.60	50.03	3.24	15.46	PASS
5725.00†	5725.00	0.00	0.00	5725.20	5725.01	50.03	-0.35	359.60	50.03	3.09	16.18	PASS
5825.00†	5825.00	0.00	0.00	5825.20	5825.01	50.03	-0.35	359.60	50.03	2.96	16.90	PASS
5925.00†	5925.00	0.00	0.00	5925.20	5925.01	50.03	-0.35	359.60	50.03	2.84	17.62	PASS
6025.00†	6025.00	0.00	0.00	6025.20	6025.01	50.03	-0.35	359.60	50.03	2.73	18.34	PASS
6125.00†	6125.00	0.00	0.00	6125.20	6125.01	50.03	-0.35	359.60	50.03	2.63	19.05	PASS
6225.00†	6225.00	0.00	0.00	6225.20	6225.01	50.03	-0.35	359.60	50.03	2.53	19.77	PASS
6325.00†	6325.00	0.00	0.00	6325.20	6325.01	50.03	-0.35	359.60	50.03	2.44	20.49	PASS
6425.00†	6425.00	0.00	0.00	6425.20	6425.01	50.03	-0.35	359.60	50.03	2.36	21.21	PASS
6525.00†	6525.00	0.00	0.00	6525.20	6525.01	50.03	-0.35	359.60	50.03	2.28	21.93	PASS
6625.00†	6625.00	0.00	0.00	6625.20	6625.01	50.03	-0.35	359.60	50.03	2.21	22.65	PASS
6725.00†	6725.00	0.00	0.00	6725.20	6725.01	50.03	-0.35	359.60	50.03	2.14	23.36	PASS
6825.00†	6825.00	0.00	0.00	6825.20	6825.01	50.03	-0.35	359.60	50.03	2.08	24.08	PASS
6925.00†	6925.00	0.00	0.00	6925.20	6925.01	50.03	-0.35	359.60	50.03	2.02	24.80	PASS
7025.00†	7025.00	0.00	0.00	7025.20	7025.01	50.03	-0.35	359.60	50.03	1.96	25.52	PASS
7125.00†	7125.00	0.00	0.00	7125.20	7125.01	50.03	-0.35	359.60	50.03	1.91	26.24	PASS
7225.00†	7225.00	0.00	0.00	7225.20	7225.01	50.03	-0.35	359.60	50.03	1.86	26.96	PASS
7325.00†	7325.00	0.00	0.00	7325.20	7325.01	50.03	-0.35	359.60	50.03	1.81	27.67	PASS
7425.00†	7425.00	0.00	0.00	7425.20	7425.01	50.03	-0.35	359.60	50.03	1.76	28.39	PASS
7525.00†	7525.00	0.00	0.00	7525.20	7525.01	50.03	-0.35	359.60	50.03	1.72	29.11	PASS
7625.00†	7625.00	0.00	0.00	7625.20	7625.01	50.03	-0.35	359.60	50.03	1.68	29.83	PASS
7725.00†	7725.00	0.00	0.00	7725.20	7725.01	50.03	-0.35	359.60	50.03	1.64	30.55	PASS
7825.00†	7825.00	0.00	0.00	7825.20	7825.01	50.03	-0.35	359.60	50.03	1.60	31.27	PASS
7925.00†	7925.00	0.00	0.00	7925.20	7925.01	50.03	-0.35	359.60	50.03	1.56	31.98	PASS
8025.00†	8025.00	0.00	0.00	8025.20	8025.01	50.03	-0.35	359.60	50.03	1.53	32.70	PASS
8125.00†	8125.00	0.00	0.00	8125.20	8125.01	50.03	-0.35	359.60	50.03	1.50	33.42	PASS
8225.00†	8225.00	0.00	0.00	8225.20	8225.01	50.03	-0.35	359.60	50.03	1.47	34.14	PASS
8325.00†	8325.00	0.00	0.00	8325.20	8325.01	50.03	-0.35	359.60	50.03	1.44	34.86	PASS
8425.00†	8425.00	0.00	0.00	8425.20	8425.01	50.03	-0.35	359.60	50.03	1.41	35.58	PASS
8525.00†	8525.00	0.00	0.00	8525.20	8525.01	50.03	-0.35	359.60	50.03	1.38	36.30	PASS
8625.00†	8625.00	0.00	0.00	8625.20	8625.01	50.03	-0.35	359.60	50.03	1.35	37.01	PASS
8725.00†	8725.00	0.00	0.00	8725.20	8725.02	50.03	-0.35	359.60	50.03	1.33	37.73	PASS
8825.00†	8825.00	0.00	0.00	8825.20	8825.02	50.03	-0.35	359.60	50.03	1.30	38.45	PASS
8925.00†	8925.00	0.00	0.00	8925.20	8925.02	50.03	-0.35	359.60	50.03	1.28	39.17	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.13H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.12H & No.13H Slot: No.13H SHL Well: No.13H 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	9025.20	9025.02	50.03	-0.35	359.60	50.03	1.25	39.89	PASS
9125.00†	9125.00	0.00	0.00	9125.20	9125.02	50.03	-0.35	359.60	50.03	1.23	40.61	PASS
9225.00†	9225.00	0.00	0.00	9225.20	9225.02	50.03	-0.35	359.60	50.03	1.21	41.33	PASS
9325.00†	9325.00	0.00	0.00	9325.20	9325.02	50.03	-0.35	359.60	50.03	1.19	42.04	PASS
9425.00†	9425.00	0.00	0.00	9425.20	9425.02	50.03	-0.35	359.60	50.03	1.17	42.76	PASS
9525.00†	9525.00	0.00	0.00	9525.20	9525.02	50.03	-0.35	359.60	50.03	1.15	43.48	PASS
9625.00†	9625.00	0.00	0.00	9625.20	9625.02	50.03	-0.35	359.60	50.03	1.13	44.20	PASS
9725.00†	9725.00	0.00	0.00	9725.20	9725.02	50.03	-0.35	359.60	50.03	1.11	44.92	PASS
9825.00†	9825.00	0.00	0.00	9825.20	9825.01	50.03	-0.35	359.60	50.03	1.10	45.64	PASS
9857.00	9857.00	0.00	0.00	9857.02	9857.04	50.04	-0.35	359.60	50.04	1.09	45.87	PASS
9925.00†	9924.84	-4.03	-0.05	9918.74	9918.43	53.57	-0.43	359.62	57.96	1.25	46.34	PASS
10025.00†	10022.60	-24.45	-0.32	10000.31	9998.55	68.35	-0.78	359.72	95.87	2.01	47.69	PASS
10125.00†	10115.34	-61.53	-0.81	10063.39	10058.62	87.50	-1.23	359.84	159.46	3.26	48.89	PASS
10225.00†	10200.22	-114.15	-1.50	10106.10	10097.94	104.16	-1.61	359.97	241.08	4.87	49.55	PASS
10325.00†	10274.68	-180.71	-2.38	10130.88	10120.15	115.15	-1.87	0.10	333.79	6.70	49.79	PASS
10425.00†	10336.45	-259.18	-3.41	10141.39	10129.40	120.10	-1.99	0.22	432.11	8.66	49.88	PASS
10525.00†	10383.65	-347.19	-4.57	10141.01	10129.09	119.93	-1.98	0.32	531.98	10.64	50.00	PASS
10625.00†	10414.86	-442.05	-5.82	10132.45	10121.55	115.89	-1.89	0.40	630.35	12.55	50.22	PASS
10725.00†	10429.11	-540.90	-7.12	10117.71	10108.39	109.19	-1.73	0.48	724.91	14.34	50.55	PASS
10753.30	10430.00	-569.17	-7.49	10112.64	10103.85	106.97	-1.68	0.49	750.72	14.83	50.64	PASS
10825.00†	10430.47	-640.87	-8.43	10099.97	10092.36	101.58	-1.55	0.53	815.84	16.06	50.80	PASS
10925.00†	10431.14	-740.86	-9.75	10084.16	10077.90	95.23	-1.41	0.57	907.69	17.80	50.99	PASS
11025.00†	10431.80	-840.85	-11.07	10070.20	10064.99	89.96	-1.28	0.60	1000.53	19.56	51.16	PASS
11125.00†	10432.46	-940.84	-12.38	10057.81	10053.41	85.54	-1.18	0.63	1094.19	21.33	51.31	PASS
11225.00†	10433.12	-1040.83	-13.70	10046.74	10042.99	81.81	-1.09	0.64	1188.56	23.11	51.44	PASS
11325.00†	10433.78	-1140.82	-15.01	10036.80	10033.57	78.62	-1.02	0.66	1283.51	24.89	51.56	PASS
11425.00†	10434.44	-1240.80	-16.33	10027.83	10025.03	75.89	-0.95	0.67	1378.97	26.69	51.67	PASS
11525.00†	10435.10	-1340.79	-17.65	10019.70	10017.24	73.53	-0.90	0.68	1474.86	28.47	51.81	PASS
11625.00†	10435.77	-1440.78	-18.96	10012.29	10010.13	71.48	-0.85	0.69	1571.12	30.23	51.97	PASS
11725.00†	10436.43	-1540.77	-20.28	10005.52	10003.60	69.68	-0.81	0.69	1667.72	32.00	52.12	PASS
11825.00†	10437.09	-1640.76	-21.59	9999.32	9997.59	68.10	-0.77	0.70	1764.60	33.76	52.26	PASS
11925.00†	10437.75	-1740.75	-22.91	9993.61	9992.06	66.71	-0.74	0.70	1861.73	35.52	52.41	PASS
12025.00†	10438.41	-1840.74	-24.23	9988.33	9986.92	65.47	-0.71	0.71	1959.09	37.27	52.56	PASS
12125.00†	10439.07	-1940.73	-25.54	9983.45	9982.17	64.36	-0.68	0.71	2056.64	39.00	52.74	PASS
12225.00†	10439.74	-2040.72	-26.86	9978.91	9977.75	63.37	-0.66	0.71	2154.37	40.64	53.01	PASS
12325.00†	10440.40	-2140.71	-28.17	9974.70	9973.62	62.48	-0.64	0.72	2252.26	58.99	38.18	PASS
12425.00†	10441.06	-2240.70	-29.49	9970.76	9969.77	61.68	-0.62	0.72	2350.29	45.10	52.12	PASS
12525.00†	10441.72	-2340.69	-30.80	9967.08	9966.17	60.96	-0.61	0.72	2448.46	46.58	52.56	PASS
12625.00†	10442.38	-2440.67	-32.12	9963.63	9962.77	60.29	-0.59	0.72	2546.73	48.27	52.76	PASS
12725.00†	10443.04	-2540.66	-33.44	9960.39	9959.61	59.70	-0.58	0.72	2645.12	50.00	52.90	PASS
12825.00†	10443.71	-2640.65	-34.75	9957.34	9956.60	59.14	-0.56	0.73	2743.60	51.75	53.01	PASS
12925.00†	10444.37	-2740.64	-36.07	9954.47	9953.77	58.64	-0.55	0.73	2842.17	53.51	53.12	PASS
13025.00†	10445.03	-2840.63	-37.38	9951.76	9951.08	58.18	-0.54	0.73	2940.82	55.26	53.22	PASS
13125.00†	10445.69	-2940.62	-38.70	9949.20	9948.58	57.76	-0.53	0.73	3039.54	57.02	53.31	PASS
13225.00†	10446.35	-3040.61	-40.02	9946.77	9946.18	57.36	-0.52	0.73	3138.34	58.77	53.40	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.13H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.12H & No.13H Slot: No.13H SHL Well: No.13H 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
13325.00†	10447.01	-3140.60	-41.33	9944.48	9943.91	57.00	-0.51	0.73	3237.19	60.52	53.49	PASS
13425.00†	10447.67	-3240.59	-42.65	9942.29	9941.75	56.66	-0.50	0.73	3336.11	62.27	53.58	PASS
13525.00†	10448.34	-3340.58	-43.96	9940.21	9939.71	56.35	-0.50	0.73	3435.07	64.01	53.66	PASS
13625.00†	10449.00	-3440.57	-45.28	9938.24	9937.75	56.07	-0.49	0.73	3534.09	65.75	53.75	PASS
13725.00†	10449.66	-3540.55	-46.60	9936.35	9935.88	55.79	-0.48	0.74	3633.16	67.49	53.83	PASS
13825.00†	10450.32	-3640.54	-47.91	9934.56	9934.12	55.55	-0.48	0.74	3732.26	69.22	53.92	PASS
13925.00†	10450.98	-3740.53	-49.23	9932.85	9932.42	55.31	-0.47	0.74	3831.41	70.94	54.01	PASS
14025.00†	10451.65	-3840.52	-50.54	9931.20	9930.78	55.09	-0.47	0.74	3930.60	72.66	54.09	PASS
14125.00†	10452.31	-3940.51	-51.86	9929.64	9929.23	54.88	-0.46	0.74	4029.82	74.38	54.18	PASS
14225.00†	10452.97	-4040.50	-53.18	9928.13	9927.74	54.69	-0.46	0.74	4129.07	76.09	54.27	PASS
14325.00†	10453.63	-4140.49	-54.49	9926.69	9926.29	54.51	-0.45	0.74	4228.36	77.79	54.35	PASS
14425.00†	10454.29	-4240.48	-55.81	9925.31	9925.74	54.44	-0.45	0.74	4327.67	79.49	54.44	PASS
14525.00†	10454.95	-4340.47	-57.12	9923.98	9923.40	54.15	-0.45	0.74	4427.01	81.17	54.54	PASS
14625.00†	10455.62	-4440.46	-58.44	9922.71	9922.14	54.00	-0.44	0.74	4526.38	82.85	54.64	PASS
14725.00†	10456.28	-4540.45	-59.76	9921.48	9921.13	53.88	-0.44	0.74	4625.77	84.51	54.73	PASS
14825.00†	10456.94	-4640.44	-61.07	9920.30	9919.97	53.75	-0.44	0.74	4725.18	86.18	54.83	PASS
14925.00†	10457.60	-4740.42	-62.39	9919.16	9918.85	53.62	-0.43	0.74	4824.62	87.83	54.93	PASS
14984.49	10457.99	-4799.91	-63.17	9918.51	9918.17	53.54	-0.43	0.74	4883.79	88.81	54.99	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.13H 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.13H PWB Offset Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3491.00	15235.35	NaviTrak (Standard)		No.13H PWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.13H PWB Offset Wellpath: Rev-A.0

MD Reference: Rig on No.13H 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.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

Facility: Gaucho Unit Pad (No.10 & No.11) Slot: No.10H SHL Well: No.10H 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	26.80	25.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
125.00†	125.00	0.00	0.00	126.80	125.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
225.00†	225.00	0.00	0.00	226.80	225.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
325.00†	325.00	0.00	0.00	326.80	325.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
425.00†	425.00	0.00	0.00	426.80	425.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
525.00†	525.00	0.00	0.00	526.80	525.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
625.00†	625.00	0.00	0.00	626.80	625.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
725.00†	725.00	0.00	0.00	726.80	725.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
825.00†	825.00	0.00	0.00	826.80	825.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
925.00†	925.00	0.00	0.00	926.80	925.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
1025.00†	1025.00	0.00	0.00	1026.80	1025.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
1125.00†	1125.00	0.00	0.00	1126.80	1125.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
1225.00†	1225.00	0.00	0.00	1226.80	1225.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
1325.00†	1325.00	0.00	0.00	1326.80	1325.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
1425.00†	1425.00	0.00	0.00	1426.80	1425.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
1525.00†	1525.00	0.00	0.00	1526.80	1525.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
1625.00†	1625.00	0.00	0.00	1626.80	1625.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
1725.00†	1725.00	0.00	0.00	1726.80	1725.00	341.02	-1207.05	285.78	1254.30	NA	0.00	NA
1825.00†	1825.00	0.00	0.00	1830.49	1828.71	340.86	-1207.05	285.77	1254.26	NA	0.00	NA
1925.00†	1925.00	0.00	0.00	1944.14	1942.28	337.40	-1207.03	285.62	1253.42	NA	0.00	NA
2025.00†	2025.00	0.00	0.00	2056.48	2054.34	329.56	-1206.99	285.27	1251.52	NA	0.00	NA
2125.00†	2125.00	0.00	0.00	2156.09	2153.58	320.88	-1206.95	284.89	1249.20	NA	0.00	NA
2225.00†	2225.00	0.00	0.00	2255.71	2252.82	312.19	-1206.91	284.50	1246.95	NA	0.00	NA
2325.00†	2325.00	0.00	0.00	2355.33	2352.06	303.51	-1206.87	284.12	1244.74	NA	0.00	NA
2425.00†	2425.00	0.00	0.00	2454.95	2451.30	294.83	-1206.83	283.73	1242.60	NA	0.00	NA
2525.00†	2525.00	0.00	0.00	2554.57	2550.54	286.15	-1206.79	283.34	1240.51	NA	0.00	NA
2625.00†	2625.00	0.00	0.00	2654.19	2649.78	277.47	-1206.75	282.95	1238.48	NA	0.00	NA
2725.00†	2725.00	0.00	0.00	2753.81	2749.02	268.78	-1206.70	282.56	1236.51	NA	0.00	NA
2825.00†	2825.00	0.00	0.00	2853.43	2848.25	260.10	-1206.66	282.16	1234.60	NA	0.00	NA
2925.00†	2925.00	0.00	0.00	2947.83	2942.35	252.45	-1206.63	281.82	1232.88	NA	0.00	NA
3025.00†	3025.00	0.00	0.00	3039.51	3033.90	247.77	-1206.60	281.60	1231.81	NA	0.00	NA
3125.00†	3125.00	0.00	0.00	3131.39	3125.76	246.03	-1206.60	281.53	1231.42	NA	0.00	NA
3225.00†	3225.00	0.00	0.00	3230.63	3225.00	246.01	-1206.60	281.52	1231.42	NA	0.00	NA
3325.00†	3325.00	0.00	0.00	3330.63	3325.00	246.01	-1206.60	281.52	1231.42	NA	0.00	NA
3425.00†	3425.00	0.00	0.00	3430.63	3425.00	246.01	-1206.60	281.52	1231.42	888.90	1.39	PASS
3525.00†	3525.00	0.00	0.00	3530.63	3525.00	246.01	-1206.60	281.52	1231.42	25.03	49.21	PASS
3625.00†	3625.00	0.00	0.00	3630.63	3625.00	246.01	-1206.60	281.52	1231.42	25.02	49.22	PASS
3725.00†	3725.00	0.00	0.00	3730.63	3725.01	246.01	-1206.60	281.52	1231.42	25.01	49.24	PASS
3825.00†	3825.00	0.00	0.00	3830.63	3825.01	246.01	-1206.60	281.52	1231.42	24.99	49.27	PASS
3925.00†	3925.00	0.00	0.00	3930.63	3925.01	246.01	-1206.60	281.52	1231.42	24.97	49.31	PASS
4025.00†	4025.00	0.00	0.00	4030.63	4025.01	246.01	-1206.60	281.52	1231.42	24.95	49.36	PASS
4125.00†	4125.00	0.00	0.00	4130.63	4125.01	246.01	-1206.60	281.52	1231.42	24.91	49.43	PASS
4225.00†	4225.00	0.00	0.00	4230.63	4225.01	246.01	-1206.60	281.52	1231.42	24.88	49.50	PASS
4325.00†	4325.00	0.00	0.00	4330.63	4325.01	246.01	-1206.60	281.52	1231.42	24.84	49.58	PASS
4425.00†	4425.00	0.00	0.00	4430.63	4425.01	246.01	-1206.60	281.52	1231.42	24.79	49.68	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

Facility: Gaucho Unit Pad (No.10 & No.11) Slot: No.10H SHL Well: No.10H 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	4530.63	4525.01	246.01	-1206.60	281.52	1231.42	24.74	49.78	PASS
4625.00†	4625.00	0.00	0.00	4630.63	4625.01	246.01	-1206.60	281.52	1231.42	24.68	49.90	PASS
4725.00†	4725.00	0.00	0.00	4730.63	4725.01	246.01	-1206.60	281.52	1231.42	24.62	50.02	PASS
4825.00†	4825.00	0.00	0.00	4830.63	4825.01	246.01	-1206.60	281.52	1231.42	24.55	50.15	PASS
4925.00†	4925.00	0.00	0.00	4930.63	4925.01	246.01	-1206.60	281.52	1231.42	24.48	50.30	PASS
5025.00†	5025.00	0.00	0.00	5030.63	5025.01	246.01	-1206.60	281.52	1231.42	24.41	50.45	PASS
5125.00†	5125.00	0.00	0.00	5130.63	5125.01	246.01	-1206.60	281.52	1231.42	24.33	50.62	PASS
5225.00†	5225.00	0.00	0.00	5230.63	5225.01	246.01	-1206.60	281.52	1231.42	24.25	50.79	PASS
5325.00†	5325.00	0.00	0.00	5330.63	5325.01	246.01	-1206.60	281.52	1231.42	24.16	50.97	PASS
5425.00†	5425.00	0.00	0.00	5430.63	5425.01	246.01	-1206.60	281.52	1231.42	24.07	51.17	PASS
5525.00†	5525.00	0.00	0.00	5530.63	5525.01	246.01	-1206.60	281.52	1231.42	23.97	51.37	PASS
5625.00†	5625.00	0.00	0.00	5630.63	5625.01	246.01	-1206.60	281.52	1231.42	23.87	51.58	PASS
5725.00†	5725.00	0.00	0.00	5730.63	5725.01	246.01	-1206.60	281.52	1231.42	23.77	51.80	PASS
5825.00†	5825.00	0.00	0.00	5830.63	5825.01	246.01	-1206.60	281.52	1231.42	23.67	52.03	PASS
5925.00†	5925.00	0.00	0.00	5930.63	5925.01	246.01	-1206.60	281.52	1231.42	23.56	52.27	PASS
6025.00†	6025.00	0.00	0.00	6030.63	6025.01	246.01	-1206.60	281.52	1231.42	23.45	52.51	PASS
6125.00†	6125.00	0.00	0.00	6130.63	6125.01	246.01	-1206.60	281.52	1231.42	23.34	52.77	PASS
6225.00†	6225.00	0.00	0.00	6230.63	6225.01	246.01	-1206.60	281.52	1231.42	23.22	53.03	PASS
6325.00†	6325.00	0.00	0.00	6330.63	6325.01	246.01	-1206.60	281.52	1231.42	23.10	53.30	PASS
6425.00†	6425.00	0.00	0.00	6430.63	6425.01	246.01	-1206.60	281.52	1231.42	22.98	53.58	PASS
6525.00†	6525.00	0.00	0.00	6530.63	6525.01	246.01	-1206.60	281.52	1231.42	22.86	53.87	PASS
6625.00†	6625.00	0.00	0.00	6630.63	6625.01	246.01	-1206.60	281.52	1231.42	22.73	54.17	PASS
6725.00†	6725.00	0.00	0.00	6730.63	6725.01	246.01	-1206.60	281.52	1231.42	22.61	54.47	PASS
6825.00†	6825.00	0.00	0.00	6830.63	6825.01	246.01	-1206.60	281.52	1231.42	22.48	54.79	PASS
6925.00†	6925.00	0.00	0.00	6930.63	6925.01	246.01	-1206.60	281.52	1231.42	22.35	55.11	PASS
7025.00†	7025.00	0.00	0.00	7030.63	7025.01	246.01	-1206.60	281.52	1231.42	22.21	55.43	PASS
7125.00†	7125.00	0.00	0.00	7130.63	7125.01	246.01	-1206.60	281.52	1231.42	22.08	55.77	PASS
7225.00†	7225.00	0.00	0.00	7230.63	7225.01	246.01	-1206.60	281.52	1231.42	21.95	56.11	PASS
7325.00†	7325.00	0.00	0.00	7330.63	7325.01	246.01	-1206.60	281.52	1231.42	21.81	56.46	PASS
7425.00†	7425.00	0.00	0.00	7430.63	7425.01	246.01	-1206.60	281.52	1231.42	21.67	56.81	PASS
7525.00†	7525.00	0.00	0.00	7530.63	7525.01	246.01	-1206.60	281.52	1231.42	21.54	57.18	PASS
7625.00†	7625.00	0.00	0.00	7630.63	7625.01	246.01	-1206.60	281.52	1231.42	21.40	57.55	PASS
7725.00†	7725.00	0.00	0.00	7730.63	7725.01	246.01	-1206.60	281.52	1231.42	21.26	57.92	PASS
7825.00†	7825.00	0.00	0.00	7830.63	7825.01	246.01	-1206.60	281.52	1231.42	21.12	58.30	PASS
7925.00†	7925.00	0.00	0.00	7930.63	7925.01	246.01	-1206.60	281.52	1231.42	20.98	58.69	PASS
8025.00†	8025.00	0.00	0.00	8030.63	8025.01	246.01	-1206.60	281.52	1231.42	20.84	59.09	PASS
8125.00†	8125.00	0.00	0.00	8130.63	8125.01	246.01	-1206.60	281.52	1231.42	20.70	59.49	PASS
8225.00†	8225.00	0.00	0.00	8230.63	8225.01	246.01	-1206.60	281.52	1231.42	20.56	59.90	PASS
8325.00†	8325.00	0.00	0.00	8330.63	8325.01	246.01	-1206.60	281.52	1231.42	20.42	60.31	PASS
8425.00†	8425.00	0.00	0.00	8430.63	8425.01	246.01	-1206.60	281.52	1231.42	20.28	60.73	PASS
8525.00†	8525.00	0.00	0.00	8530.63	8525.01	246.01	-1206.60	281.52	1231.42	20.14	61.15	PASS
8625.00†	8625.00	0.00	0.00	8630.63	8625.01	246.01	-1206.60	281.52	1231.42	20.00	61.58	PASS
8725.00†	8725.00	0.00	0.00	8730.63	8725.00	246.01	-1206.60	281.52	1231.42	19.86	62.02	PASS
8825.00†	8825.00	0.00	0.00	8830.63	8825.00	246.01	-1206.60	281.52	1231.42	19.72	62.46	PASS
8925.00†	8925.00	0.00	0.00	8930.63	8925.00	246.01	-1206.60	281.52	1231.42	19.58	62.90	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

Facility: Gaucho Unit Pad (No.10 & No.11) Slot: No.10H SHL Well: No.10H 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	9030.63	9025.00	246.01	-1206.60	281.52	1231.42	19.44	63.35	PASS
9125.00†	9125.00	0.00	0.00	9130.63	9125.00	246.01	-1206.60	281.52	1231.42	19.30	63.81	PASS
9225.00†	9225.00	0.00	0.00	9230.63	9225.00	246.01	-1206.60	281.52	1231.42	19.16	64.27	PASS
9325.00†	9325.00	0.00	0.00	9330.63	9325.00	246.01	-1206.60	281.52	1231.42	19.02	64.73	PASS
9425.00†	9425.00	0.00	0.00	9430.63	9425.00	246.01	-1206.60	281.52	1231.42	18.89	65.20	PASS
9525.00†	9525.00	0.00	0.00	9530.63	9525.02	246.01	-1206.60	281.52	1231.42	18.75	65.67	PASS
9625.00†	9625.00	0.00	0.00	9630.63	9625.02	246.01	-1206.60	281.52	1231.42	18.62	66.15	PASS
9725.00†	9725.00	0.00	0.00	9730.63	9725.02	246.01	-1206.60	281.52	1231.42	18.48	66.63	PASS
9825.00†	9825.00	0.00	0.00	9830.63	9825.02	246.01	-1206.60	281.52	1231.42	18.35	67.12	PASS
9857.00	9857.00	0.00	0.00	9862.63	9856.99	246.01	-1206.60	281.52	1231.42	18.30	67.28	PASS
9925.00†	9924.84	-4.03	-0.05	9930.47	9924.86	246.01	-1206.60	281.71	1232.18	18.22	67.62	PASS
10025.00†	10022.60	-24.45	-0.32	10028.23	10022.62	246.01	-1206.60	282.64	1236.22	18.14	68.15	PASS
10125.00†	10115.34	-61.53	-0.81	10120.97	10115.32	246.01	-1206.60	284.31	1244.39	18.10	68.76	PASS
10225.00†	10200.22	-114.15	-1.50	10205.85	10200.22	246.01	-1206.60	286.64	1257.76	18.11	69.45	PASS
10325.00†	10274.68	-180.71	-2.38	10280.31	10274.69	246.01	-1206.60	289.51	1277.59	18.18	70.26	PASS
10425.00†	10336.45	-259.18	-3.41	10342.08	10336.44	246.01	-1206.60	292.78	1304.94	18.33	71.19	PASS
10525.00†	10383.65	-347.19	-4.57	10389.28	10383.66	246.01	-1206.60	296.27	1340.43	18.56	72.23	PASS
10625.00†	10414.86	-442.05	-5.82	10420.49	10414.84	246.01	-1206.60	299.81	1383.95	18.88	73.32	PASS
10725.00†	10429.11	-540.90	-7.12	10434.75	10429.13	246.01	-1206.60	303.27	1434.56	19.29	74.39	PASS
10753.30	10430.00	-569.17	-7.49	10435.63	10430.02	246.01	-1206.60	304.21	1449.96	19.42	74.67	PASS
10825.00†	10430.47	-640.87	-8.43	10436.11	10430.49	246.01	-1206.60	306.51	1490.69	19.77	75.39	PASS
10925.00†	10431.14	-740.86	-9.75	12109.26	11325.78	-740.24	-1201.92	270.03	1490.52	18.52	80.46	PASS
11025.00†	10431.80	-840.85	-11.07	12209.24	11326.48	-840.22	-1201.45	270.03	1489.11	17.83	83.53	PASS
11125.00†	10432.46	-940.84	-12.38	12309.23	11327.18	-940.20	-1200.97	270.03	1487.70	17.14	86.80	PASS
11225.00†	10433.12	-1040.83	-13.70	12409.21	11327.87	-1040.18	-1200.50	270.03	1486.30	16.47	90.24	PASS
11325.00†	10433.78	-1140.82	-15.01	12509.19	11328.57	-1140.16	-1200.02	270.03	1484.89	15.82	93.84	PASS
11425.00†	10434.44	-1240.80	-16.33	12609.18	11329.27	-1240.14	-1199.55	270.03	1483.49	15.20	97.57	PASS
11525.00†	10435.10	-1340.79	-17.65	12709.16	11329.97	-1340.12	-1199.08	270.03	1482.08	14.61	101.43	PASS
11625.00†	10435.77	-1440.78	-18.96	12809.15	11330.67	-1440.10	-1198.60	270.03	1480.68	14.05	105.40	PASS
11725.00†	10436.43	-1540.77	-20.28	12909.13	11331.37	-1540.08	-1198.13	270.03	1479.27	13.51	109.46	PASS
11825.00†	10437.09	-1640.76	-21.59	13009.11	11332.07	-1640.07	-1197.66	270.03	1477.87	13.01	113.60	PASS
11925.00†	10437.75	-1740.75	-22.91	13109.10	11332.76	-1740.05	-1197.18	270.03	1476.47	12.53	117.82	PASS
12025.00†	10438.41	-1840.74	-24.23	13209.08	11333.46	-1840.03	-1196.71	270.04	1475.07	12.08	122.10	PASS
12125.00†	10439.07	-1940.73	-25.54	13309.07	11334.16	-1940.01	-1196.24	270.04	1473.67	11.65	126.45	PASS
12225.00†	10439.74	-2040.72	-26.86	13409.05	11334.86	-2039.99	-1195.76	270.04	1472.27	11.25	130.84	PASS
12325.00†	10440.40	-2140.71	-28.17	13509.03	11335.56	-2139.97	-1195.29	270.04	1470.87	10.87	135.28	PASS
12425.00†	10441.06	-2240.70	-29.49	13609.02	11336.26	-2239.95	-1194.81	270.04	1469.48	10.51	139.76	PASS
12525.00†	10441.72	-2340.69	-30.80	13709.00	11336.96	-2339.93	-1194.34	270.04	1468.08	10.17	144.28	PASS
12625.00†	10442.38	-2440.67	-32.12	13808.99	11337.65	-2439.91	-1193.87	270.04	1466.69	9.85	148.84	PASS
12725.00†	10443.04	-2540.66	-33.44	13908.97	11338.35	-2539.89	-1193.39	270.04	1465.29	9.55	153.42	PASS
12825.00†	10443.71	-2640.65	-34.75	14008.96	11339.05	-2639.87	-1192.92	270.04	1463.90	9.26	158.03	PASS
12925.00†	10444.37	-2740.64	-36.07	14108.94	11339.75	-2739.85	-1192.45	270.04	1462.50	8.99	162.66	PASS
13025.00†	10445.03	-2840.63	-37.38	14208.92	11340.45	-2839.83	-1191.97	270.04	1461.11	8.73	167.31	PASS
13125.00†	10445.69	-2940.62	-38.70	14308.91	11341.15	-2939.81	-1191.50	270.04	1459.72	8.49	171.98	PASS
13225.00†	10446.35	-3040.61	-40.02	14408.89	11341.84	-3039.79	-1191.02	270.04	1458.33	8.25	176.67	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

Facility: Gaucho Unit Pad (No.10 & No.11) Slot: No.10H SHL Well: No.10H 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
13325.00†	10447.01	-3140.60	-41.33	14508.88	11342.54	-3139.77	-1190.55	270.04	1456.94	8.03	181.38	PASS
13425.00†	10447.67	-3240.59	-42.65	14608.86	11343.24	-3239.75	-1190.08	270.04	1455.55	7.82	186.10	PASS
13525.00†	10448.34	-3340.58	-43.96	14708.84	11343.94	-3339.73	-1189.60	270.04	1454.17	7.62	190.83	PASS
13625.00†	10449.00	-3440.57	-45.28	14808.83	11344.64	-3439.71	-1189.13	270.04	1452.78	7.43	195.57	PASS
13725.00†	10449.66	-3540.55	-46.60	14908.81	11345.34	-3539.69	-1188.66	270.04	1451.39	7.25	200.32	PASS
13825.00†	10450.32	-3640.54	-47.91	15008.80	11346.04	-3639.67	-1188.18	270.04	1450.01	7.07	205.08	PASS
13925.00†	10450.98	-3740.53	-49.23	15108.78	11346.73	-3739.65	-1187.71	270.04	1448.62	6.90	209.84	PASS
14025.00†	10451.65	-3840.52	-50.54	15208.76	11347.43	-3839.63	-1187.24	270.05	1447.24	6.74	214.62	PASS
14125.00†	10452.31	-3940.51	-51.86	15308.75	11348.13	-3939.61	-1186.76	270.05	1445.86	6.59	219.40	PASS
14225.00†	10452.97	-4040.50	-53.18	15408.73	11348.83	-4039.60	-1186.29	270.05	1444.48	6.44	224.18	PASS
14325.00†	10453.63	-4140.49	-54.49	15508.72	11349.53	-4139.58	-1185.81	270.05	1443.10	6.30	228.97	PASS
14425.00†	10454.29	-4240.48	-55.81	15608.70	11350.23	-4239.56	-1185.34	270.05	1441.72	6.17	233.76	PASS
14525.00†	10454.95	-4340.47	-57.12	15708.68	11350.93	-4339.54	-1184.87	270.05	1440.34	6.04	238.56	PASS
14625.00†	10455.62	-4440.46	-58.44	15808.67	11351.62	-4439.52	-1184.39	270.05	1438.96	5.91	243.36	PASS
14725.00†	10456.28	-4540.45	-59.76	15908.65	11352.32	-4539.50	-1183.92	270.05	1437.58	5.79	248.16	PASS
14825.00†	10456.94	-4640.44	-61.07	16008.64	11353.02	-4639.48	-1183.45	270.05	1436.21	5.68	252.96	PASS
14925.00†	10457.60	-4740.42	-62.39	16108.62	11353.72	-4739.46	-1182.97	270.05	1434.83	5.57	257.76	PASS
14984.49	10457.99	-4799.91	-63.17	16168.10	11354.14	-4798.93	-1182.69	270.05	1434.01	5.50	260.62	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.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.10H PWB Offset Wellpath: Rev-B.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	16177.33	NaviTrak (Standard)		No.10H PWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

MD Reference: Rig on No.10H 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.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit Pad (No.10 & No.11) Slot: No.11H SHL Well: No.11H 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	27.10	25.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
125.00†	125.00	0.00	0.00	127.10	125.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
225.00†	225.00	0.00	0.00	227.10	225.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
325.00†	325.00	0.00	0.00	327.10	325.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
425.00†	425.00	0.00	0.00	427.10	425.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
525.00†	525.00	0.00	0.00	527.10	525.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
625.00†	625.00	0.00	0.00	627.10	625.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
725.00†	725.00	0.00	0.00	727.10	725.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
825.00†	825.00	0.00	0.00	827.10	825.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
925.00†	925.00	0.00	0.00	927.10	925.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
1025.00†	1025.00	0.00	0.00	1027.10	1025.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
1125.00†	1125.00	0.00	0.00	1127.10	1125.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
1225.00†	1225.00	0.00	0.00	1227.10	1225.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
1325.00†	1325.00	0.00	0.00	1327.10	1325.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
1425.00†	1425.00	0.00	0.00	1427.10	1425.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
1525.00†	1525.00	0.00	0.00	1527.10	1525.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
1625.00†	1625.00	0.00	0.00	1627.10	1625.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
1725.00†	1725.00	0.00	0.00	1727.10	1725.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
1825.00†	1825.00	0.00	0.00	1827.10	1825.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
1925.00†	1925.00	0.00	0.00	1927.10	1925.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
2025.00†	2025.00	0.00	0.00	2027.10	2025.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
2125.00†	2125.00	0.00	0.00	2127.10	2125.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
2225.00†	2225.00	0.00	0.00	2227.10	2225.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
2325.00†	2325.00	0.00	0.00	2327.10	2325.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
2425.00†	2425.00	0.00	0.00	2427.10	2425.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
2525.00†	2525.00	0.00	0.00	2527.10	2525.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
2625.00†	2625.00	0.00	0.00	2627.10	2625.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
2725.00†	2725.00	0.00	0.00	2727.10	2725.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
2825.00†	2825.00	0.00	0.00	2827.10	2825.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
2925.00†	2925.00	0.00	0.00	2927.10	2925.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
3025.00†	3025.00	0.00	0.00	3027.10	3025.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
3125.00†	3125.00	0.00	0.00	3127.10	3125.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
3225.00†	3225.00	0.00	0.00	3227.10	3225.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
3325.00†	3325.00	0.00	0.00	3327.10	3325.00	341.42	-1157.06	286.44	1206.38	NA	0.00	NA
3425.00†	3425.00	0.00	0.00	3427.10	3425.00	341.42	-1157.06	286.44	1206.38	2334.99	0.52	PASS
3525.00†	3525.00	0.00	0.00	3527.10	3525.01	341.42	-1157.06	286.44	1206.38	24.52	49.21	PASS
3625.00†	3625.00	0.00	0.00	3627.10	3625.01	341.42	-1157.06	286.44	1206.38	24.51	49.22	PASS
3725.00†	3725.00	0.00	0.00	3727.10	3725.01	341.42	-1157.06	286.44	1206.38	24.50	49.24	PASS
3825.00†	3825.00	0.00	0.00	3827.10	3825.01	341.42	-1157.06	286.44	1206.38	24.49	49.27	PASS
3925.00†	3925.00	0.00	0.00	3927.10	3925.01	341.42	-1157.06	286.44	1206.38	24.47	49.31	PASS
4025.00†	4025.00	0.00	0.00	4027.10	4025.01	341.42	-1157.06	286.44	1206.38	24.44	49.36	PASS
4125.00†	4125.00	0.00	0.00	4127.10	4125.01	341.42	-1157.06	286.44	1206.38	24.41	49.43	PASS
4225.00†	4225.00	0.00	0.00	4227.10	4225.01	341.42	-1157.06	286.44	1206.38	24.37	49.50	PASS
4325.00†	4325.00	0.00	0.00	4327.10	4325.01	341.42	-1157.06	286.44	1206.38	24.33	49.58	PASS
4425.00†	4425.00	0.00	0.00	4427.10	4425.01	341.42	-1157.06	286.44	1206.38	24.28	49.68	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit Pad (No.10 & No.11) Slot: No.11H SHL Well: No.11H 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	4527.10	4525.01	341.42	-1157.06	286.44	1206.38	24.23	49.78	PASS
4625.00†	4625.00	0.00	0.00	4627.10	4625.01	341.42	-1157.06	286.44	1206.38	24.18	49.89	PASS
4725.00†	4725.00	0.00	0.00	4727.10	4725.01	341.42	-1157.06	286.44	1206.38	24.12	50.02	PASS
4825.00†	4825.00	0.00	0.00	4827.10	4825.01	341.42	-1157.06	286.44	1206.38	24.05	50.15	PASS
4925.00†	4925.00	0.00	0.00	4927.10	4925.01	341.42	-1157.06	286.44	1206.38	23.99	50.30	PASS
5025.00†	5025.00	0.00	0.00	5027.10	5025.01	341.42	-1157.06	286.44	1206.38	23.91	50.45	PASS
5125.00†	5125.00	0.00	0.00	5127.10	5125.01	341.42	-1157.06	286.44	1206.38	23.83	50.61	PASS
5225.00†	5225.00	0.00	0.00	5227.10	5225.01	341.42	-1157.06	286.44	1206.38	23.75	50.79	PASS
5325.00†	5325.00	0.00	0.00	5327.10	5325.01	341.42	-1157.06	286.44	1206.38	23.67	50.97	PASS
5425.00†	5425.00	0.00	0.00	5427.10	5425.01	341.42	-1157.06	286.44	1206.38	23.58	51.16	PASS
5525.00†	5525.00	0.00	0.00	5527.10	5525.01	341.42	-1157.06	286.44	1206.38	23.49	51.36	PASS
5625.00†	5625.00	0.00	0.00	5627.10	5625.01	341.42	-1157.06	286.44	1206.38	23.39	51.57	PASS
5725.00†	5725.00	0.00	0.00	5727.10	5725.01	341.42	-1157.06	286.44	1206.38	23.29	51.79	PASS
5825.00†	5825.00	0.00	0.00	5827.10	5825.01	341.42	-1157.06	286.44	1206.38	23.19	52.02	PASS
5925.00†	5925.00	0.00	0.00	5927.10	5925.01	341.42	-1157.06	286.44	1206.38	23.08	52.26	PASS
6025.00†	6025.00	0.00	0.00	6027.10	6025.01	341.42	-1157.06	286.44	1206.38	22.98	52.51	PASS
6125.00†	6125.00	0.00	0.00	6127.10	6125.01	341.42	-1157.06	286.44	1206.38	22.86	52.76	PASS
6225.00†	6225.00	0.00	0.00	6227.10	6225.01	341.42	-1157.06	286.44	1206.38	22.75	53.03	PASS
6325.00†	6325.00	0.00	0.00	6327.10	6325.01	341.42	-1157.06	286.44	1206.38	22.63	53.30	PASS
6425.00†	6425.00	0.00	0.00	6427.10	6425.01	341.42	-1157.06	286.44	1206.38	22.52	53.58	PASS
6525.00†	6525.00	0.00	0.00	6527.10	6525.01	341.42	-1157.06	286.44	1206.38	22.40	53.87	PASS
6625.00†	6625.00	0.00	0.00	6627.10	6625.01	341.42	-1157.06	286.44	1206.38	22.27	54.16	PASS
6725.00†	6725.00	0.00	0.00	6727.10	6725.01	341.42	-1157.06	286.44	1206.38	22.15	54.47	PASS
6825.00†	6825.00	0.00	0.00	6827.10	6825.01	341.42	-1157.06	286.44	1206.38	22.02	54.78	PASS
6925.00†	6925.00	0.00	0.00	6927.10	6925.01	341.42	-1157.06	286.44	1206.38	21.89	55.10	PASS
7025.00†	7025.00	0.00	0.00	7027.10	7025.01	341.42	-1157.06	286.44	1206.38	21.77	55.43	PASS
7125.00†	7125.00	0.00	0.00	7127.10	7125.01	341.42	-1157.06	286.44	1206.38	21.63	55.76	PASS
7225.00†	7225.00	0.00	0.00	7227.10	7225.01	341.42	-1157.06	286.44	1206.38	21.50	56.10	PASS
7325.00†	7325.00	0.00	0.00	7327.10	7325.01	341.42	-1157.06	286.44	1206.38	21.37	56.45	PASS
7425.00†	7425.00	0.00	0.00	7427.10	7425.01	341.42	-1157.06	286.44	1206.38	21.24	56.81	PASS
7525.00†	7525.00	0.00	0.00	7527.10	7525.01	341.42	-1157.06	286.44	1206.38	21.10	57.17	PASS
7625.00†	7625.00	0.00	0.00	7627.10	7625.01	341.42	-1157.06	286.44	1206.38	20.97	57.54	PASS
7725.00†	7725.00	0.00	0.00	7727.10	7725.01	341.42	-1157.06	286.44	1206.38	20.83	57.92	PASS
7825.00†	7825.00	0.00	0.00	7827.10	7825.01	341.42	-1157.06	286.44	1206.38	20.69	58.30	PASS
7925.00†	7925.00	0.00	0.00	7927.10	7925.01	341.42	-1157.06	286.44	1206.38	20.56	58.69	PASS
8025.00†	8025.00	0.00	0.00	8027.10	8025.01	341.42	-1157.06	286.44	1206.38	20.42	59.08	PASS
8125.00†	8125.00	0.00	0.00	8127.10	8125.01	341.42	-1157.06	286.44	1206.38	20.28	59.48	PASS
8225.00†	8225.00	0.00	0.00	8227.10	8225.01	341.42	-1157.06	286.44	1206.38	20.14	59.89	PASS
8325.00†	8325.00	0.00	0.00	8327.10	8325.01	341.42	-1157.06	286.44	1206.38	20.01	60.30	PASS
8425.00†	8425.00	0.00	0.00	8427.10	8425.01	341.42	-1157.06	286.44	1206.38	19.87	60.72	PASS
8525.00†	8525.00	0.00	0.00	8527.10	8525.01	341.42	-1157.06	286.44	1206.38	19.73	61.14	PASS
8625.00†	8625.00	0.00	0.00	8627.10	8625.01	341.42	-1157.06	286.44	1206.38	19.59	61.57	PASS
8725.00†	8725.00	0.00	0.00	8727.10	8725.00	341.42	-1157.06	286.44	1206.38	19.46	62.01	PASS
8825.00†	8825.00	0.00	0.00	8827.10	8825.00	341.42	-1157.06	286.44	1206.38	19.32	62.45	PASS
8925.00†	8925.00	0.00	0.00	8927.10	8925.00	341.42	-1157.06	286.44	1206.38	19.18	62.89	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit Pad (No.10 & No.11) Slot: No.11H SHL Well: No.11H 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	9027.10	9025.02	341.42	-1157.06	286.44	1206.38	19.05	63.34	PASS
9125.00†	9125.00	0.00	0.00	9127.10	9125.02	341.42	-1157.06	286.44	1206.38	18.91	63.80	PASS
9225.00†	9225.00	0.00	0.00	9227.10	9225.02	341.42	-1157.06	286.44	1206.38	18.77	64.26	PASS
9325.00†	9325.00	0.00	0.00	9327.10	9325.02	341.42	-1157.06	286.44	1206.38	18.64	64.72	PASS
9425.00†	9425.00	0.00	0.00	9427.10	9425.02	341.42	-1157.06	286.44	1206.38	18.51	65.19	PASS
9525.00†	9525.00	0.00	0.00	9527.10	9525.02	341.42	-1157.06	286.44	1206.38	18.37	65.66	PASS
9625.00†	9625.00	0.00	0.00	9627.10	9625.02	341.42	-1157.06	286.44	1206.38	18.24	66.14	PASS
9725.00†	9725.00	0.00	0.00	9727.10	9725.02	341.42	-1157.06	286.44	1206.38	18.11	66.63	PASS
9825.00†	9825.00	0.00	0.00	9827.10	9825.02	341.42	-1157.06	286.44	1206.38	17.98	67.11	PASS
9857.00	9857.00	0.00	0.00	9859.10	9856.99	341.42	-1157.06	286.44	1206.38	17.93	67.27	PASS
9925.00†	9924.84	-4.03	-0.05	9926.94	9924.86	341.42	-1157.06	286.62	1207.48	17.86	67.61	PASS
10025.00†	10022.60	-24.45	-0.32	10024.70	10022.59	341.42	-1157.06	287.55	1213.22	17.80	68.17	PASS
10080.54†	10074.91	-43.05	-0.57	10077.02	10074.92	341.42	-1157.06	288.39	1218.72	17.79	68.52	PASS
10125.00†	10115.34	-61.53	-0.81	10117.44	10115.32	341.42	-1157.06	289.21	1224.45	17.79	68.82	PASS
10225.00†	10200.22	-114.15	-1.50	10202.32	10200.22	341.42	-1157.06	291.52	1242.12	17.86	69.55	PASS
10325.00†	10274.68	-180.71	-2.38	10276.78	10274.69	341.42	-1157.06	294.33	1267.24	18.00	70.38	PASS
10425.00†	10336.45	-259.18	-3.41	10338.55	10336.44	341.42	-1157.06	297.50	1300.63	18.24	71.33	PASS
10525.00†	10383.65	-347.19	-4.57	10385.75	10383.66	341.42	-1157.06	300.86	1342.54	18.56	72.34	PASS
10625.00†	10414.86	-442.05	-5.82	10416.96	10414.84	341.42	-1157.06	304.24	1392.55	18.98	73.36	PASS
10725.00†	10429.11	-540.90	-7.12	10431.21	10429.13	341.42	-1157.06	307.50	1449.43	19.50	74.34	PASS
10753.30	10430.00	-569.17	-7.49	10432.10	10430.02	341.42	-1157.06	308.38	1466.52	19.66	74.60	PASS
10825.00†	10430.47	-640.87	-8.43	10432.57	10430.49	341.42	-1157.06	310.54	1511.37	20.09	75.24	PASS
10925.00†	10431.14	-740.86	-9.75	10433.24	10431.15	341.42	-1157.06	313.33	1577.23	20.72	76.11	PASS
11025.00†	10431.80	-840.85	-11.07	10433.90	10431.81	341.42	-1157.06	315.89	1646.53	21.40	76.93	PASS
11125.00†	10432.46	-940.84	-12.38	10434.56	10432.47	341.42	-1157.06	318.25	1718.86	22.12	77.70	PASS
11225.00†	10433.12	-1040.83	-13.70	10435.22	10433.14	341.42	-1157.06	320.40	1793.85	22.88	78.41	PASS
11325.00†	10433.78	-1140.82	-15.01	10435.88	10433.80	341.42	-1157.06	322.39	1871.18	23.66	79.07	PASS
11425.00†	10434.44	-1240.80	-16.33	10436.54	10434.46	341.42	-1157.06	324.21	1950.57	24.48	79.68	PASS
11525.00†	10435.10	-1340.79	-17.65	10437.20	10435.12	341.42	-1157.06	325.89	2031.78	25.32	80.24	PASS
11625.00†	10435.77	-1440.78	-18.96	10437.87	10435.76	341.42	-1157.06	327.44	2114.60	26.19	80.75	PASS
11725.00†	10436.43	-1540.77	-20.28	10438.53	10436.43	341.42	-1157.06	328.87	2198.85	27.07	81.23	PASS
11825.00†	10437.09	-1640.76	-21.59	10439.19	10437.09	341.42	-1157.06	330.19	2284.37	27.97	81.66	PASS
11925.00†	10437.75	-1740.75	-22.91	10439.85	10437.75	341.42	-1157.06	331.42	2371.02	28.89	82.06	PASS
12025.00†	10438.41	-1840.74	-24.23	10440.51	10438.41	341.42	-1157.06	332.57	2458.69	29.83	82.43	PASS
12125.00†	10439.07	-1940.73	-25.54	10441.17	10439.07	341.42	-1157.06	333.63	2547.26	30.77	82.78	PASS
12225.00†	10439.74	-2040.72	-26.86	10441.84	10439.73	341.42	-1157.06	334.62	2636.66	31.73	83.09	PASS
12325.00†	10440.40	-2140.71	-28.17	10442.50	10440.39	341.42	-1157.06	335.54	2726.78	32.70	83.39	PASS
12425.00†	10441.06	-2240.70	-29.49	10443.16	10441.06	341.42	-1157.06	336.41	2817.58	33.68	83.66	PASS
12525.00†	10441.72	-2340.69	-30.80	10443.82	10441.72	341.42	-1157.06	337.22	2908.98	34.66	83.92	PASS
12625.00†	10442.38	-2440.67	-32.12	10444.48	10442.38	341.42	-1157.06	337.98	3000.93	35.66	84.16	PASS
12725.00†	10443.04	-2540.66	-33.44	10445.14	10443.04	341.42	-1157.06	338.70	3093.37	36.66	84.39	PASS
12825.00†	10443.71	-2640.65	-34.75	10445.81	10443.70	341.42	-1157.06	339.38	3186.28	37.66	84.60	PASS
12925.00†	10444.37	-2740.64	-36.07	10446.47	10444.36	341.42	-1157.06	340.01	3279.60	38.67	84.81	PASS
13025.00†	10445.03	-2840.63	-37.38	10447.13	10445.02	341.42	-1157.06	340.62	3373.30	39.69	85.00	PASS
13125.00†	10445.69	-2940.62	-38.70	10447.79	10445.69	341.42	-1157.06	341.18	3467.35	40.71	85.18	PASS



Clearance Report

Rev-A.0
Closest Approach
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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.12H SHL
Area	Lea County, NM	Well	No.12H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.12H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit Pad (No.10 & No.11) Slot: No.11H SHL Well: No.11H 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†	10446.35	-3040.61	-40.02	10448.45	10446.35	341.42	-1157.06	341.72	3561.73	41.73	85.35	PASS
13325.00†	10447.01	-3140.60	-41.33	10449.11	10447.01	341.42	-1157.06	342.23	3656.41	42.76	85.52	PASS
13425.00†	10447.67	-3240.59	-42.65	10449.77	10447.67	341.42	-1157.06	342.72	3751.36	43.79	85.68	PASS
13525.00†	10448.34	-3340.58	-43.96	10450.44	10448.33	341.42	-1157.06	343.18	3846.57	44.82	85.83	PASS
13625.00†	10449.00	-3440.57	-45.28	10451.10	10448.99	341.42	-1157.06	343.62	3942.02	45.85	85.97	PASS
13725.00†	10449.66	-3540.55	-46.60	10451.76	10449.66	341.42	-1157.06	344.04	4037.68	46.89	86.11	PASS
13825.00†	10450.32	-3640.54	-47.91	10452.42	10450.32	341.42	-1157.06	344.44	4133.56	47.93	86.25	PASS
13925.00†	10450.98	-3740.53	-49.23	10453.08	10450.98	341.42	-1157.06	344.82	4229.62	48.97	86.38	PASS
14025.00†	10451.65	-3840.52	-50.54	10453.75	10451.64	341.42	-1157.06	345.18	4325.86	50.01	86.51	PASS
14125.00†	10452.31	-3940.51	-51.86	10454.41	10452.30	341.42	-1157.06	345.53	4422.27	51.05	86.63	PASS
14225.00†	10452.97	-4040.50	-53.18	10455.07	10452.96	341.42	-1157.06	345.86	4518.83	52.09	86.75	PASS
14325.00†	10453.63	-4140.49	-54.49	10455.73	10453.62	341.42	-1157.06	346.18	4615.54	53.13	86.87	PASS
14425.00†	10454.29	-4240.48	-55.81	10456.39	10454.29	341.42	-1157.06	346.49	4712.39	54.18	86.98	PASS
14525.00†	10454.95	-4340.47	-57.12	10457.05	10454.95	341.42	-1157.06	346.78	4809.36	55.22	87.10	PASS
14625.00†	10455.62	-4440.46	-58.44	10457.72	10455.61	341.42	-1157.06	347.06	4906.46	56.26	87.21	PASS
14725.00†	10456.28	-4540.45	-59.76	10458.38	10456.27	341.42	-1157.06	347.33	5003.67	57.31	87.31	PASS
14825.00†	10456.94	-4640.44	-61.07	10459.04	10456.93	341.42	-1157.06	347.59	5100.99	58.35	87.42	PASS
14925.00†	10457.60	-4740.42	-62.39	10459.70	10457.59	341.42	-1157.06	347.84	5198.41	59.39	87.53	PASS
14984.49	10457.99	-4799.91	-63.17	10460.09	10457.99	341.42	-1157.06	347.99	5256.42	60.01	87.59	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.11H 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

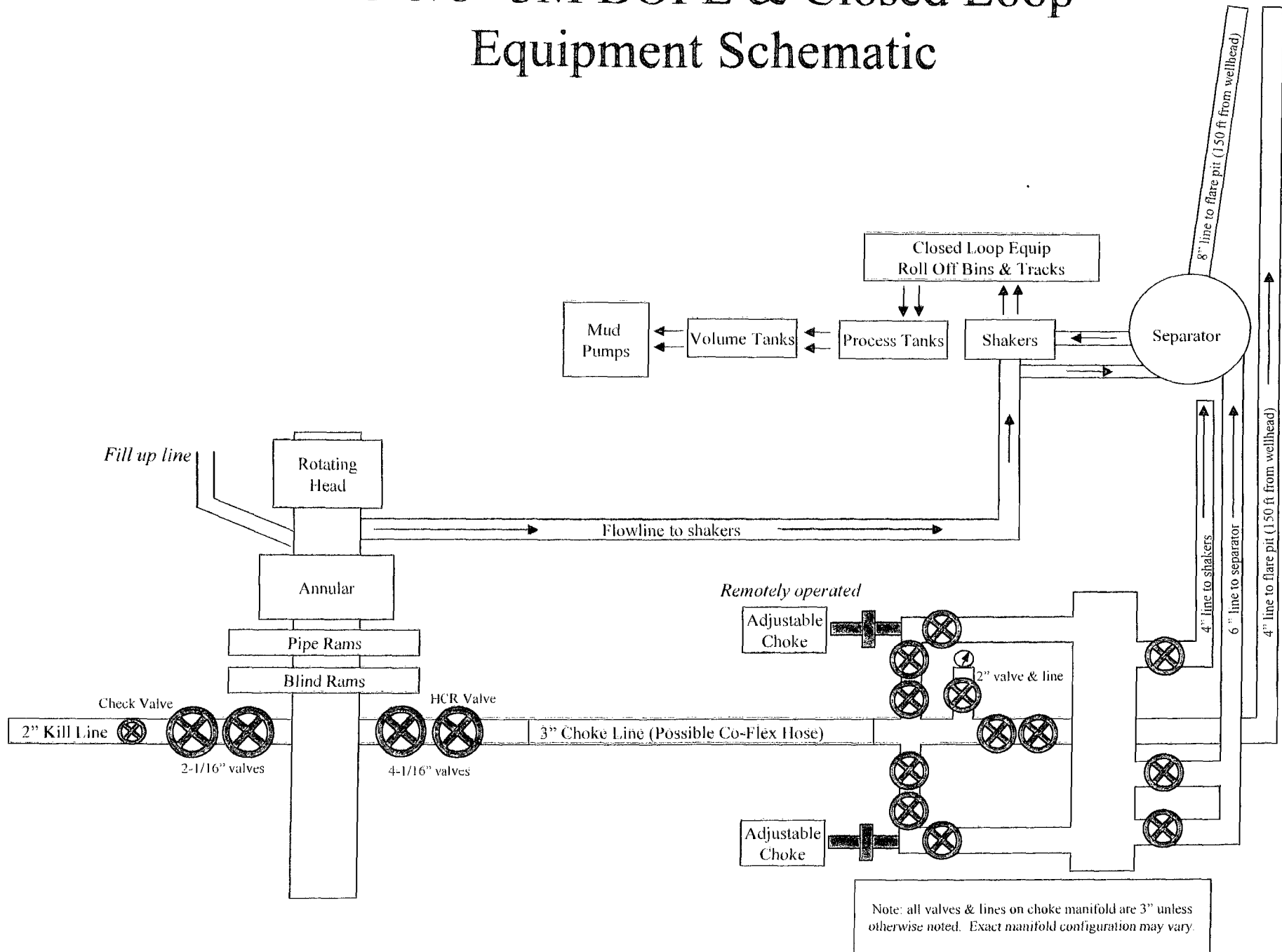
SURVEY PROGRAM - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	15822.39	NaviTrak (Standard)		No.11H PWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

MD Reference: Rig on No.11H 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
Gaucho Unit 12H

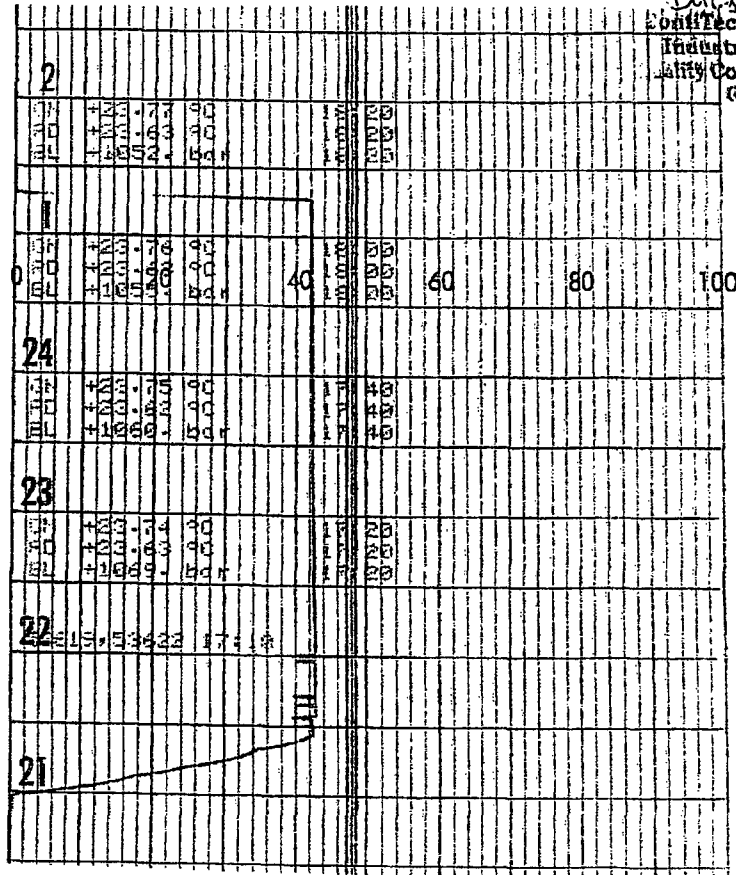
Surface Location: 150 FNL & 575 FEL, Unit A, Sec 20 T22S R34E, Lea, NM
Bottom Hole Location: 330 FSL & 660 FEL, Unit P, Sec 20 T22S R34E, Lea, NM

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.

Continental CONTITECH

H&P 416

HARTMANN &





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.

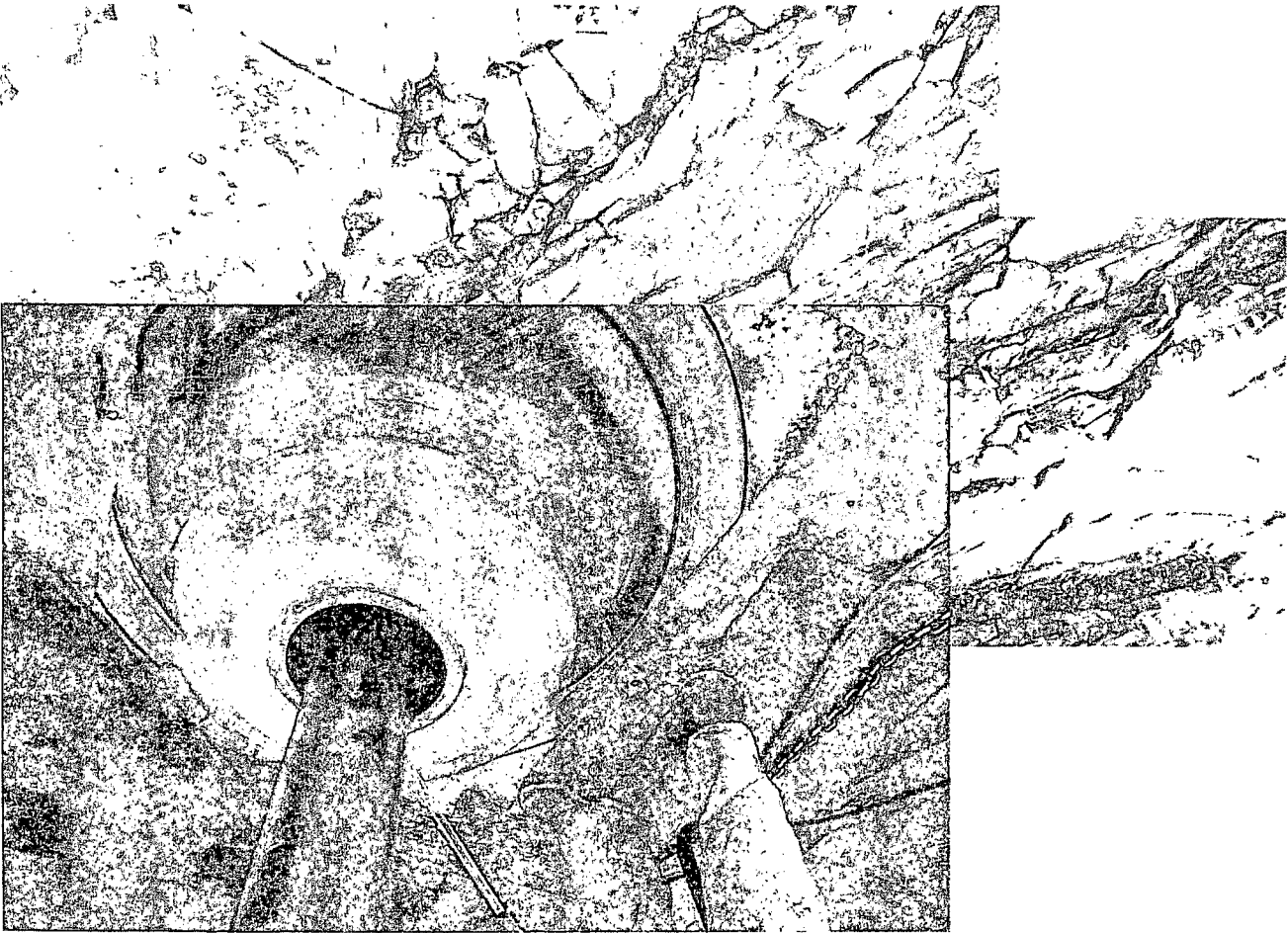
Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

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11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
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Design Plan
Operation and Maintenance Plan
Closure Plan



Commitment Runs Deep

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.

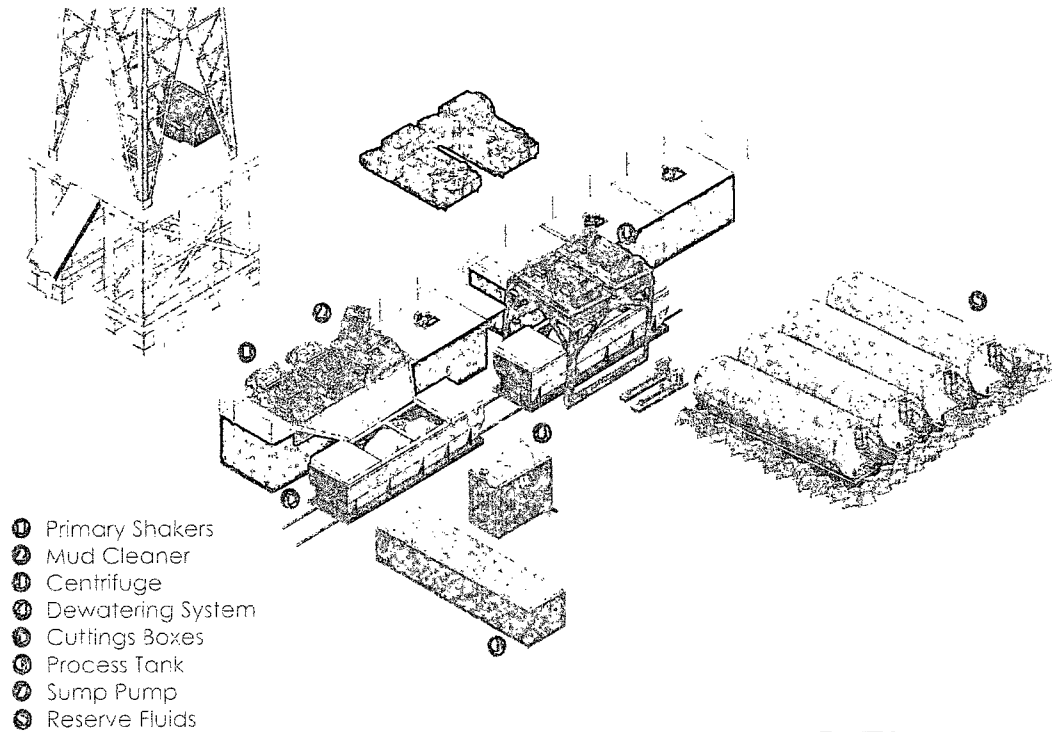
II. Operations and Maintenance Plan

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

