

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***Carlsbad Field Office**
Old Artesia5. Lease Serial No.
NM012121

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
COTTON DRAW UNIT 294H9. API Well No.
30-015-44105-00-S110. Field and Pool or Exploratory Area
PADUCA11. County or Parish, State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
DEVON ENERGY PRODUCTION COMPANY
Contact: LINDA GOOD
Email: linda.good@devn.com3a. Address
333 WEST SHERIDAN AVENUE
OKLAHOMA CITY, OK 731023b. Phone No. (include area code)
Ph: 405.552.6558

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 25 T24S R31E SWSE 230FSL 1905FEL
32.181721 N Lat, 103.729126 W Lon

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Devon Energy Production Co., LP respectfully requests permission to change the Bottom Hole Location from 290 FNL & 2625 FEL to 290 FNL & 2280 FEL. Please find the attached revised plats.

FTP: 330' FSL 370' FWL

OC 8-8-17
Accepted for record - NMOCNM OIL CONSERVATION
ARTESIA DISTRICT

AUG 07 2017

RECEIVED

- All previous COAs still apply. Additional COA is not required.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #379715 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION COMPANY, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 06/30/2017 (17PP0557SE)

Name (Printed/Typed) LINDA GOOD

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 06/26/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By Mustafa HagueTitle PETROLEUM ENGINEERDate 8-4-2017

Conditions of approval, if any, are attached. Approval of this notice 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.

Office CFD BUREAU OF LAND MANAGEMENT

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.

(Instructions on page 2)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-44105	² Pool Code 96641	³ Pool Name Paduca; Bone Spring (O)
⁴ Property Code 300635	⁵ Property Name COTTON DRAW UNIT	
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁶ Well Number 294H ⁹ Elevation 3512.1

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	25	24 S	31 E		230	SOUTH	1905	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	25	24 S	31 E		290	NORTH	2280	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
160			

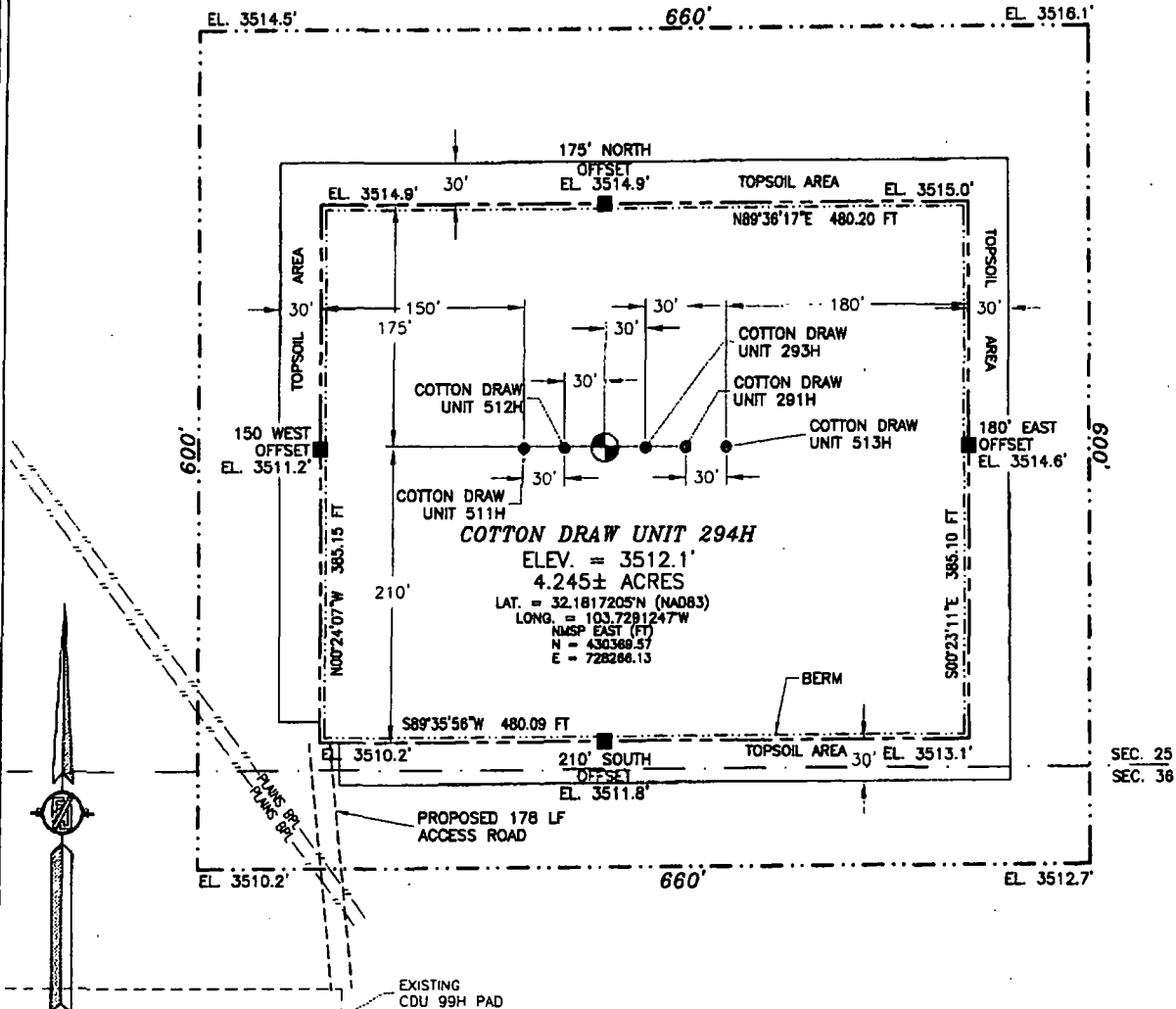
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

N89°39'11"E 2639.95 FT NW CORNER SEC. 25 LAT. = 32.1956002°N LONG. = 103.7400460°W NMSP EAST (FT) N = 435400.01 E = 724859.42 W Q CORNER SEC. 25 LAT. = 32.1883435°N LONG. = 103.7400437°W NMSP EAST (FT) N = 432760.11 E = 724874.69 SW CORNER SEC. 25 LAT. = 32.1810840°N LONG. = 103.7400384°W NMSP EAST (FT) N = 430119.23 E = 724890.89		N Q CORNER SEC. 25 LAT. = 32.1956038°N LONG. = 103.7315137°W NMSP EAST (FT) N = 435415.99 E = 727498.75 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE.	N89°41'48"E 2642.65 FT NE CORNER SEC. 25 LAT. = 32.1956013°N LONG. = 103.7229727°W NMSP EAST (FT) N = 435429.98 E = 730140.78 E Q CORNER SEC. 25 LAT. = 32.1883462°N LONG. = 103.7229693°W NMSP EAST (FT) N = 432790.66 E = 730156.82 SE CORNER SEC. 25 LAT. = 32.1810900°N LONG. = 103.7229683°W NMSP EAST (FT) N = 430150.94 E = 730172.13	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the district. <i>Linda Good</i> 6/26/2017 Signature Date Linda Good Printed Name linda.good@dmv.com E-mail Address
N00°19'53"W 2640.52 FT N00°19'53"W 2641.51 FT N00°21'06"W 2641.51 FT		2280' 290' BOTTOM OF HOLE BOTTOM OF HOLE LAT. = 32.1948064°N LONG. = 103.7303410°W NMSP EAST (FT) N = 435127.92 E = 727863.13 COTTON DRAW UNIT 294H ELEV. = 3512.1' LAT. = 32.1817205°N (NAD83) LONG. = 103.7291247°W NMSP EAST (FT) N = 4301369.57 E = 728266.13 230' 1905' SURFACE LOCATION	S00°20'53"E 2639.94 FT S00°19'56"E 2640.33 FT S00°19'56"E 2641.51 FT S89°39'15"W 2641.23 FT S89°39'28"W 2641.25 FT	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. JUNE 22, 2017 Date of Survey <i>Simon F. Jaramillo</i> Signature and Seal of Professional Surveyor Certificate Number: 12797 FILIPIO F. JARAMILLO, PLS 12797 SURVEY NO.4654C

SECTION 25, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE



012 60 120 240

SCALE 1" = 120'

DIRECTIONS TO LOCATION

FROM STATE HIGHWAY 128 AND CR 1 (ORLA ROAD) GO SOUTH ON CR 1 8.1 MILES, TURN RIGHT ON CALICHE ROAD (MONSANTO ROAD) AND GO WEST 2.1 MILES, TURN RIGHT AND GO NORTH 0.75 OF A MILE, TURN LEFT AND GO WEST 2.0 MILES, TURN RIGHT AND GO NORTH 1.8 MILES, TURN LEFT AND GO WEST 0.3 OF A MILE, TURN RIGHT AND GO NORTH 0.5 OF A MILE, TURN RIGHT AND GO EAST 0.7 OF A MILE, TURN LEFT AND GO NORTH 0.83 OF A MILE, TURN RIGHT AND GO NORTHEAST 0.15 OF A MILE TO EXISTING CDU 99H PAD. FROM NORTHEAST PAD CORNER FOLLOW ROAD SURVEY FLAGS NORTH 178' TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

DEVON ENERGY PRODUCTION COMPANY, L.P.
COTTON DRAW UNIT 294H
LOCATED 230 FT. FROM THE SOUTH LINE
AND 1905 FT. FROM THE EAST LINE OF
SECTION 25, TOWNSHIP 24 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JUNE 22, 2017

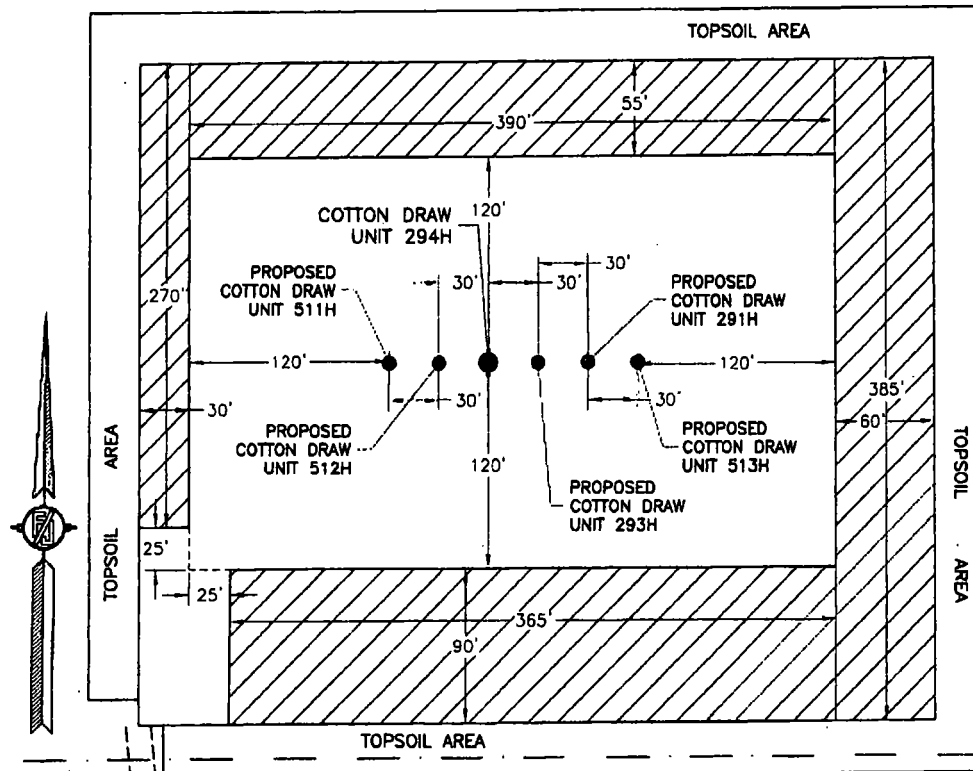
SURVEY NO. 4654C

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

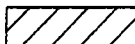
CARLSBAD, NEW MEXICO

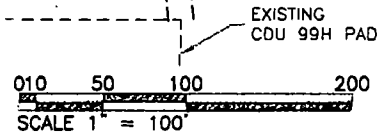
**PROPOSED INTERIM SITE RECLAMATION
FOR COTTON DRAW UNIT 294H
SECTION 25, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO**



SEC. 25
SEC. 36

PROPOSED 178 LF
ACCESS ROAD

 DENOTES
RECLAMATION AREA
1.967± ACRES RECLAMATION AREA



EXISTING
CDU 99H PAD

DEVON ENERGY PRODUCTION COMPANY, L.P.
COTTON DRAW UNIT 294H
LOCATED 230 FT. FROM THE SOUTH LINE
AND 1905 FT. FROM THE EAST LINE OF
SECTION 25, TOWNSHIP 24 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JUNE 22, 2017

SURVEY NO. 4654C

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

SECTION 25, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOVEMBER 2015

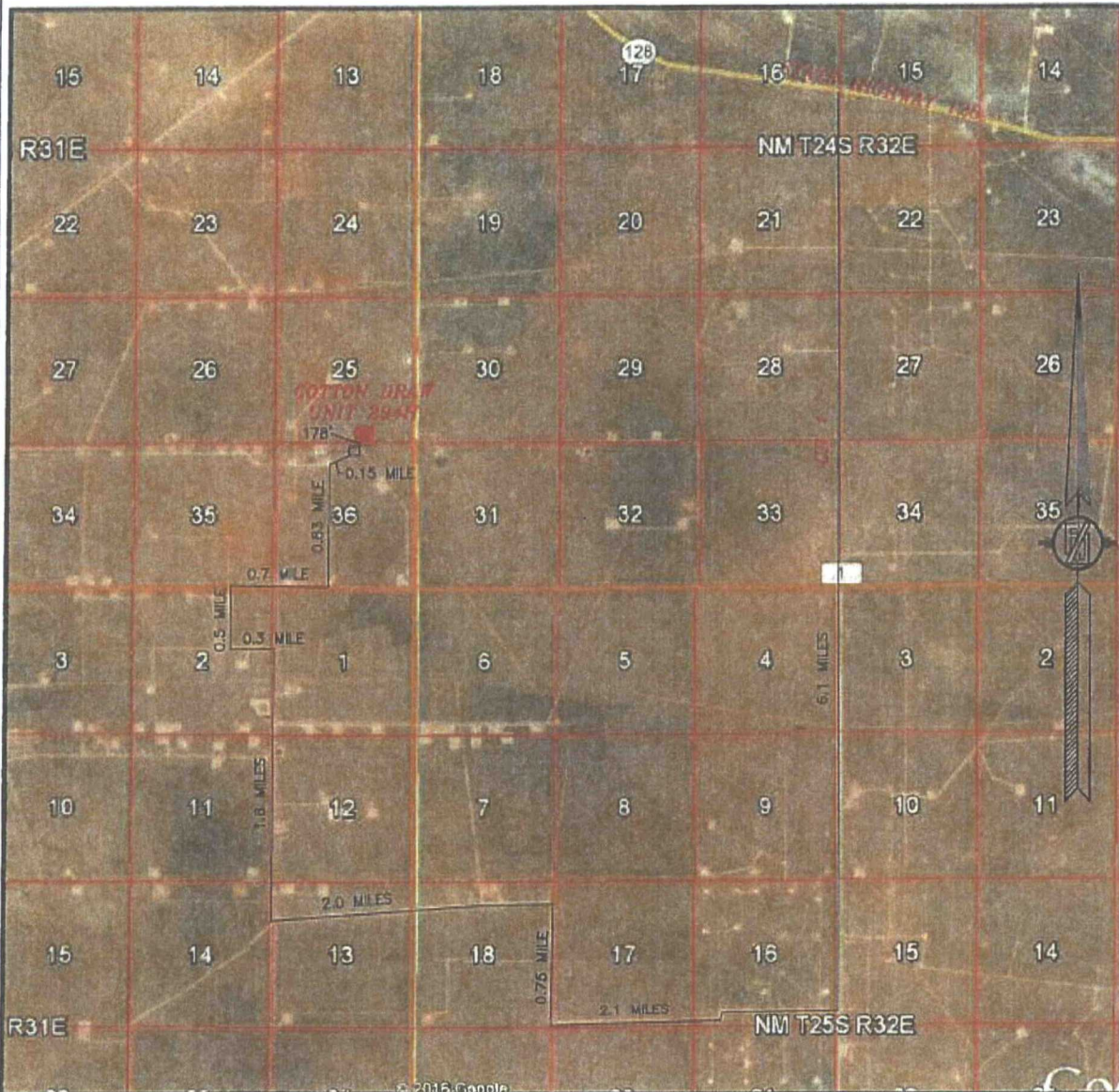
DEVON ENERGY PRODUCTION COMPANY, L.P.
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RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JUNE 22, 2017

SURVEY NO. 4654C

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 25, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 ACCESS AERIAL ROUTE MAP



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 NOVEMBER 2015

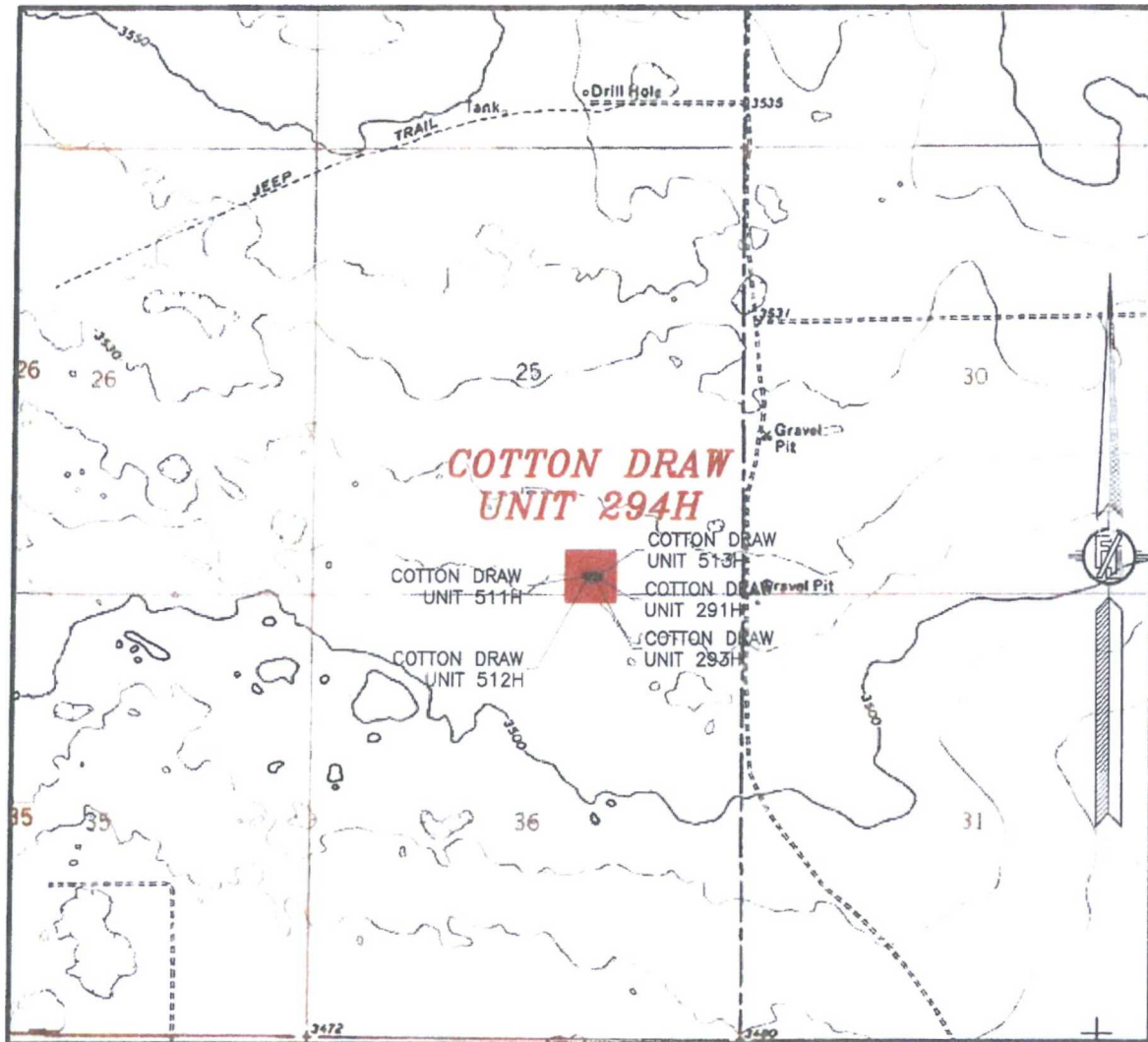
DEVON ENERGY PRODUCTION COMPANY, L.P.
 COTTON DRAW UNIT 294H
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 SECTION 25, TOWNSHIP 24 SOUTH,
 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

JUNE 22, 2017

SURVEY NO. 4654C

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 25, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
PADUCA BREAKS NW

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
COTTON DRAW UNIT 294H

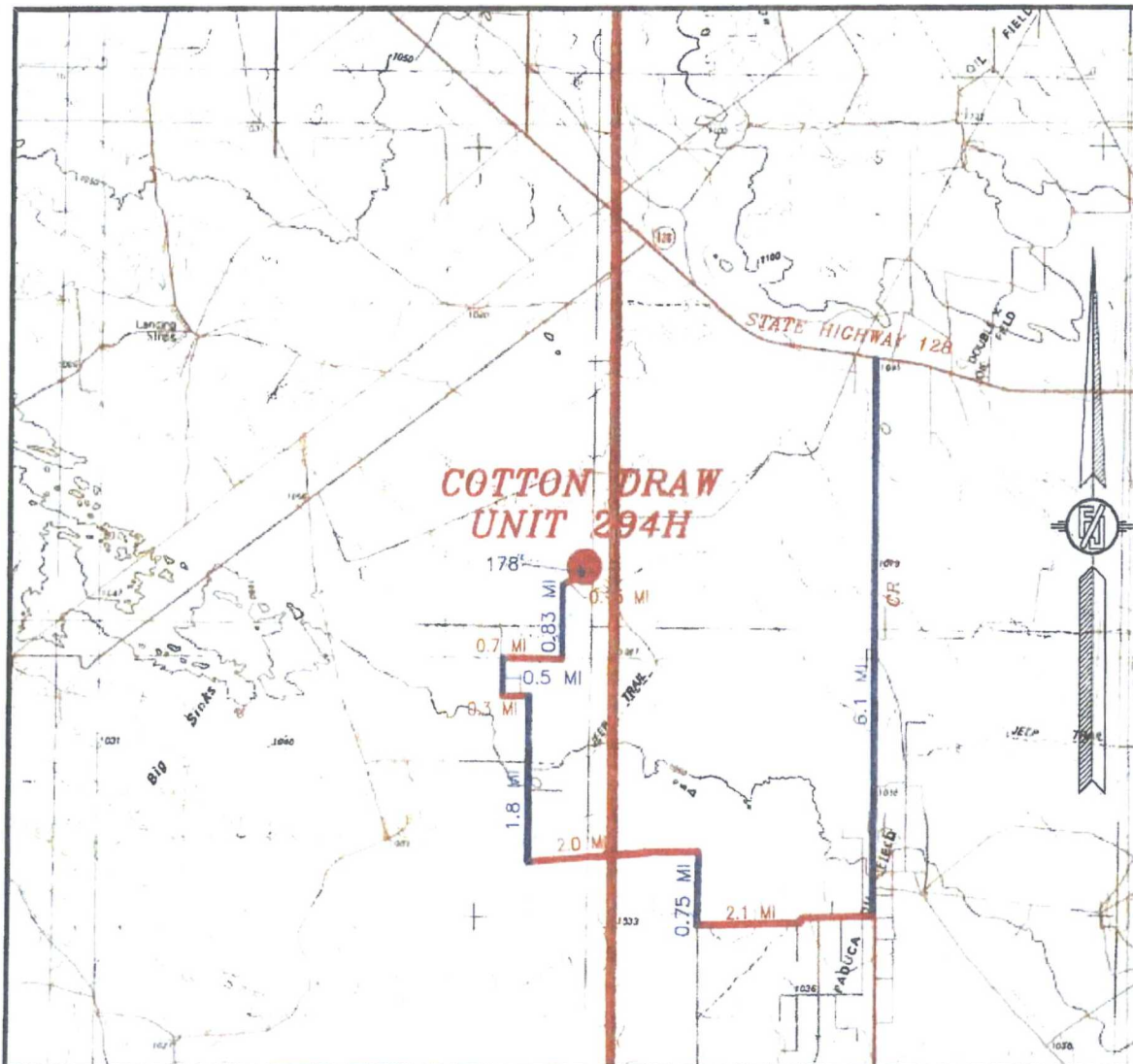
LOCATED 230 FT. FROM THE SOUTH LINE
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SECTION 25, TOWNSHIP 24 SOUTH,
RANGE 31 EAST, N.M.P.M
EDDY COUNTY, STATE OF NEW MEXICO

JUNE 22, 2017

SURVEY NO. 4654C

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 25, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
COTTON DRAW UNIT 294H

LOCATED 230 FT. FROM THE SOUTH LINE
AND 1905 FT. FROM THE EAST LINE OF
SECTION 25, TOWNSHIP 24 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JUNE 22, 2017

DIRECTIONS TO LOCATION

FROM STATE HIGHWAY 128 AND CR 1 (ORLA ROAD) GO SOUTH ON
CR 1 6.1 MILES, TURN RIGHT ON CALICHE ROAD (MONSANTO ROAD)
AND GO WEST 2.1 MILES, TURN RIGHT AND GO NORTH 0.75 OF A
MILE, TURN LEFT AND GO WEST 2.0 MILES, TURN RIGHT AND GO
NORTH 1.8 MILES, TURN LEFT AND GO WEST 0.3 OF A MILE, TURN
RIGHT AND GO NORTH 0.5 OF A MILE, TURN RIGHT AND GO EAST 0.7
OF A MILE, TURN LEFT AND GO NORTH 0.83 OF A MILE, TURN RIGHT
AND GO NORTHEAST 0.15 OF A MILE TO EXISTING CDU 99H PAD.
FROM NORTHEAST PAD CORNER FOLLOW ROAD SURVEY FLAGS NORTH
178' TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

SURVEY NO. 4654C

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341



Company: Devon Energy
Field: Eddy County, New Mexico (NAD 83)
Location: Cotton Draw Unit
Well: 294H
Wellbore #1
Plan: Design 3
Well @ 3538.10usft (ICD 217)



Azimuths to Grid North
True North: -0.32°
Magnetic North: 6.70°

Magnetic Field
Strength: 47891.7nT
Dip Angle: 60.00°
Date: 7/1/2017
Model: IGRF2015



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	728.00	1.20	152.73	727.94	-5.39	4.59	0.00	0.00	-5.39	Tie into Survey at 728.00 MD
2	828.00	1.20	152.73	827.92	-7.25	5.55	0.00	0.00	-7.25	Start Drop -0.75
3	988.00	0.00	0.00	987.91	-8.74	6.32	0.75	180.00	-8.74	Vertical at 988.00 MD
4	2500.00	0.00	0.00	2499.91	-8.74	6.32	0.00	0.00	-8.74	Start Build 0.75
5	3300.00	6.00	230.00	3298.45	-35.64	-25.74	0.75	230.00	-35.64	EOB 6° at 3300.00 MD
6	6308.03	6.00	230.00	6290.00	-237.75	-266.60	0.00	0.00	-237.75	Start Drop -0.75
7	7108.03	0.00	0.00	7088.54	-264.65	-298.66	0.75	180.00	-264.65	Vertical at 7108.03 MD
8	10072.49	0.00	0.00	10053.00	-264.65	-298.66	0.00	0.00	-264.65	Start Build 12.00
9	10817.99	89.46	351.28	10530.44	202.85	-370.38	12.00	351.28	202.85	LP 89.46° Start DLS 2.00 TFO 90.01
10	11254.04	89.46	360.00	10534.55	637.19	-403.51	2.00	90.01	637.19	End of Turn at 11254.04 MD
11	15335.37	89.46	360.00	10572.72	4718.34	-403.56	0.00	0.00	4718.34	TD at 15335.37

To convert a Magnetic Direction to a Grid Direction, Add 6.70°

PROJECT DETAILS: Eddy County, New Mexico (NAD 83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

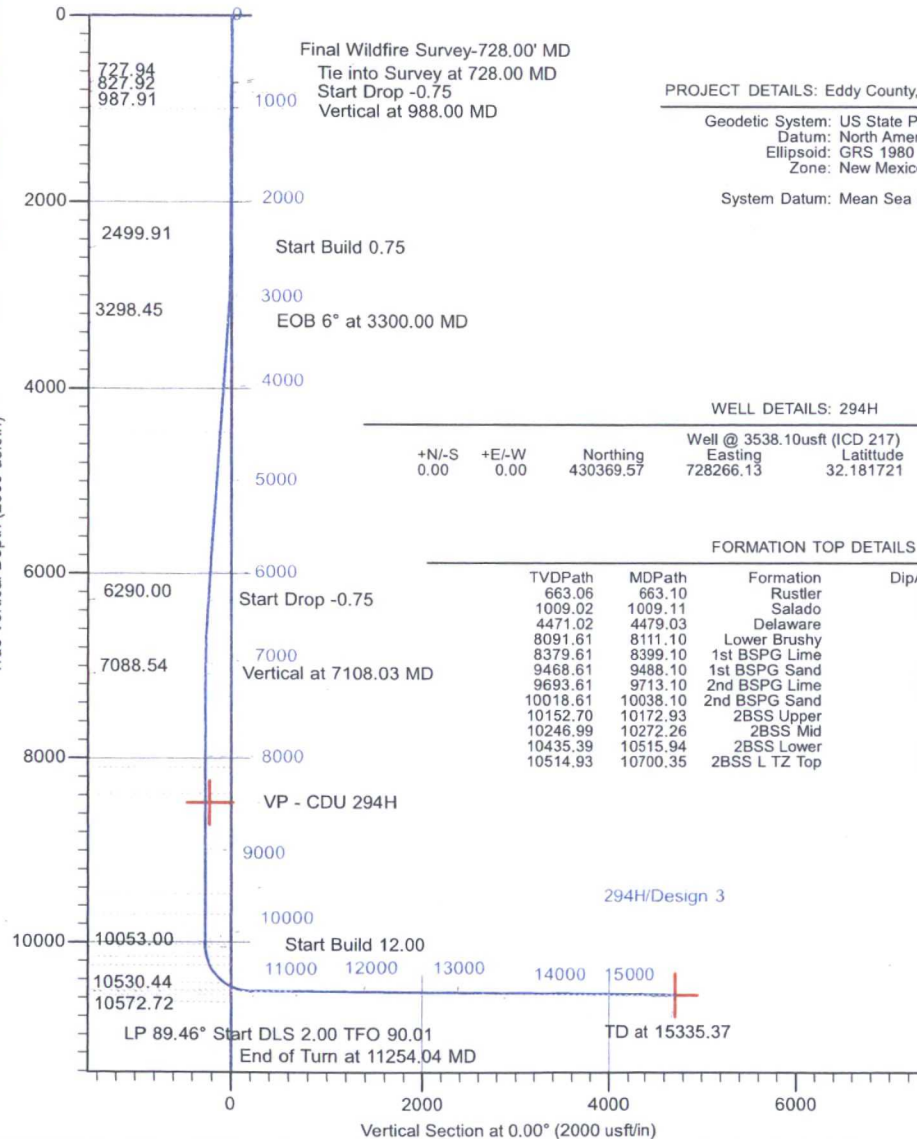
WELL DETAILS: 294H

Well @ 3538.10usft (ICD 217)
Northing: 430369.57
Easting: 728266.13
Latitude: 32.181721
Longitude: -103.729125

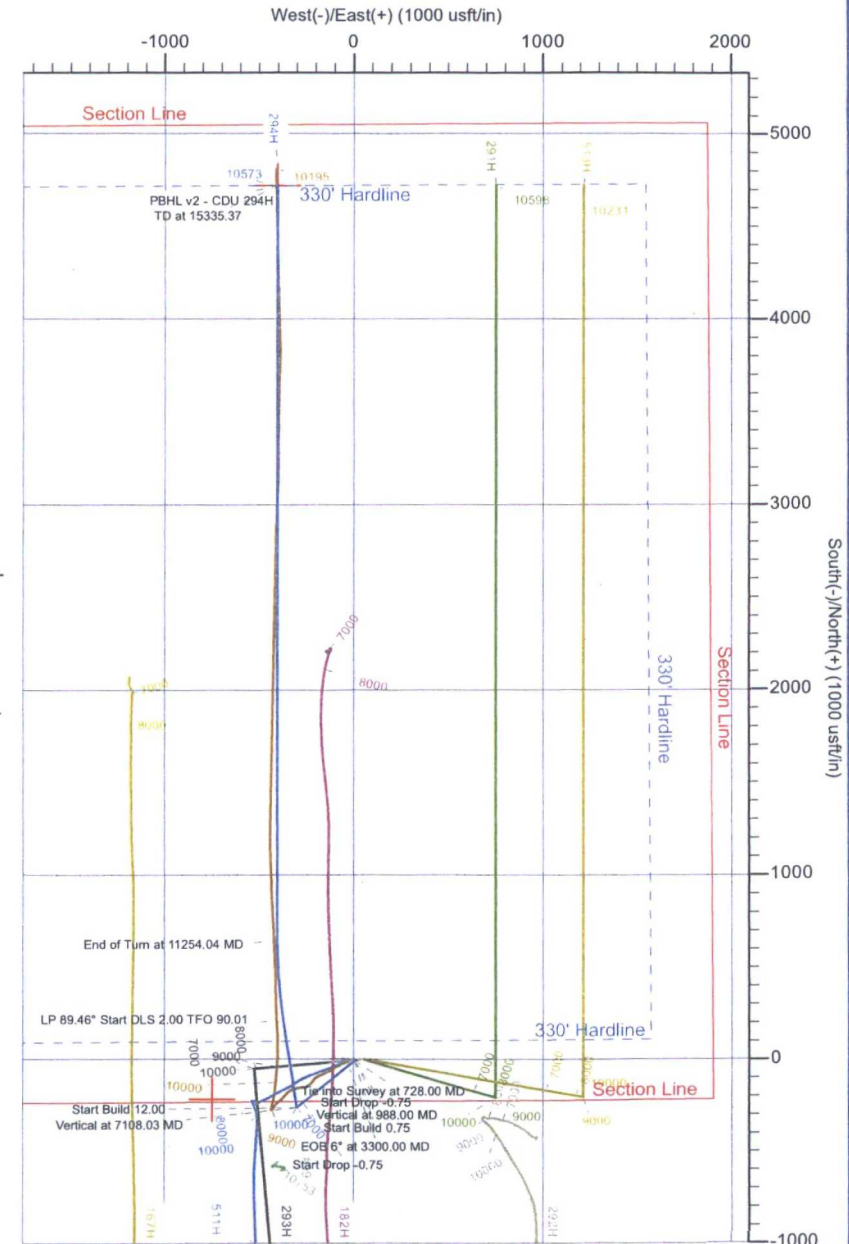
FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
663.06	663.10	Rustler	0.54	0.00
1009.02	1009.11	Salado	0.54	0.00
4471.02	4479.03	Delaware	0.54	0.00
8091.61	8111.10	Lower Brushy	0.54	0.00
8379.61	8399.10	1st BSPG Lime	0.54	0.00
9468.61	9488.10	1st BSPG Sand	0.54	0.00
9693.61	9713.10	2nd BSPG Lime	0.54	0.00
10018.61	10038.10	2nd BSPG Sand	0.54	0.00
10152.70	10172.93	2BSS Upper	0.54	0.00
10246.99	10272.26	2BSS Mid	0.54	0.00
10435.39	10515.94	2BSS Lower	0.54	0.00
10514.93	10700.35	2BSS L TZ Top	0.54	0.00

294H/Design 3



Vertical Section at 0.00° (2000 usft/in)



Created By: Jenise Kirkpatrick

Date: 11:44, July 28, 2017



Company: Devon Energy
Field: Eddy County, New Mexico (NAD 83)
Location: Cotton Draw Unit
Well: 294H
Wellbore #1
Plan: Design 3
Well @ 3538.10usft (ICD 217)



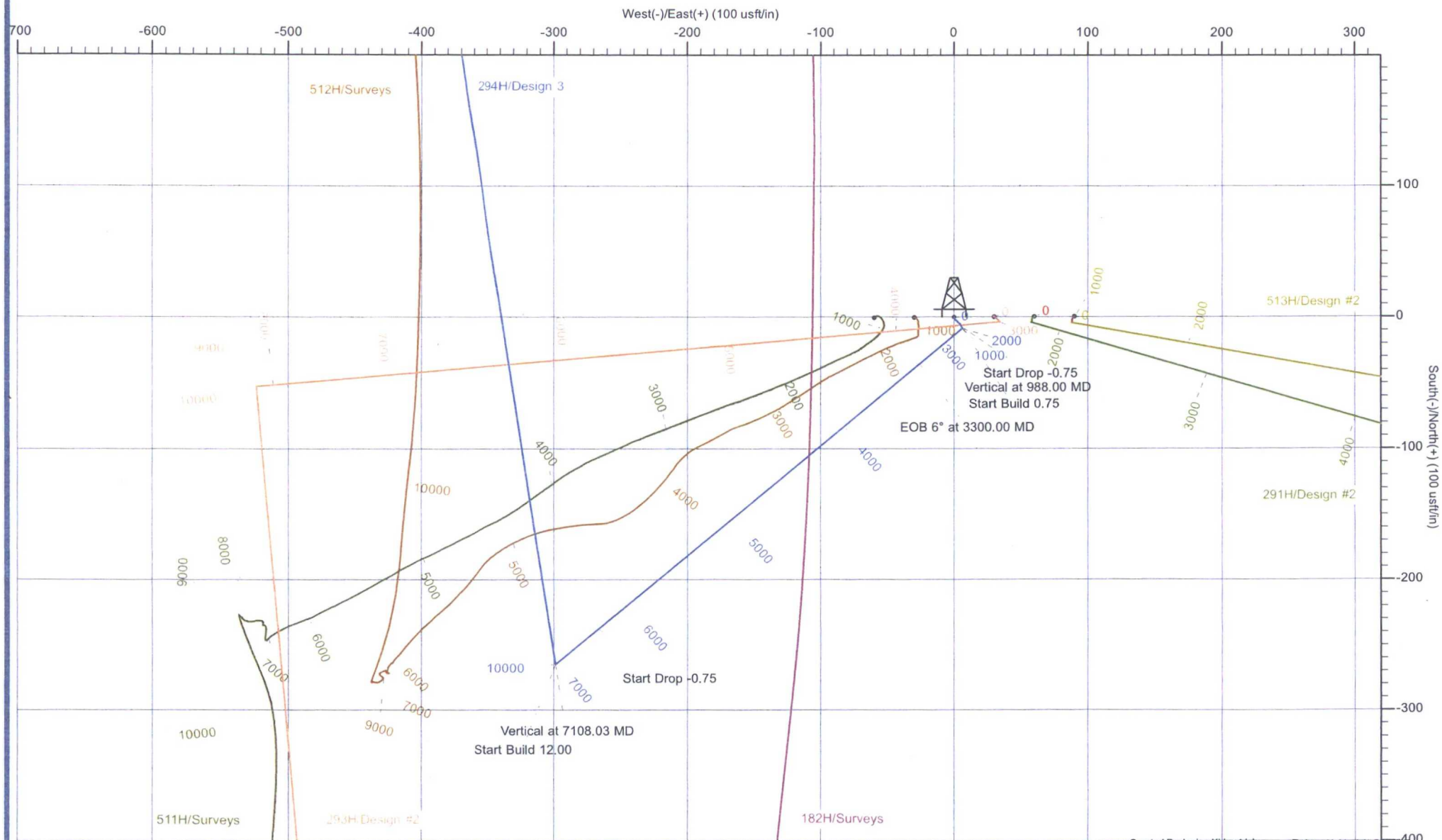
Azimuths to Grid North
True North: -0.32°
Magnetic North: 6.70°

Magnetic Field
Strength: 47891.7snT
Dip Angle: 60.00°
Date: 7/1/2017
Model: IGRF2015



WELL DETAILS: 294H

+N/-S	+E/-W	Northing	Well @ 3538.10usft (ICD 217)	Latitude	Longitude	Slot
0.00	0.00	430369.57	Easting	728266.13	32.181721	-103.729125



Devon Energy

Eddy County, New Mexico (NAD 83)

Cotton Draw Unit

294H

Wellbore #1

Plan: Design 3

Standard Planning Report

28 July, 2017

Planning Report

Database: EDMDB
 Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Site: Cotton Draw Unit
 Well: 294H
 Wellbore: Wellbore #1
 Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project	Eddy County, New Mexico (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Cotton Draw Unit		
Site Position:		Northing:	0.00 usft
From:	Map	Easting:	0.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	30.988446
		Longitude:	-106.060830
		Grid Convergence:	-0.89 °

Well	294H		
Well Position	+N/-S	430,369.57 usft	Northing:
	+E/-W	728,266.13 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32.181721
		Longitude:	-103.729125
		Ground Level:	3,512.10 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/1/2017	7.02	60.00	47,892

Design	Design 3				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	728.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	0.00	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
728.00	1.20	152.73	727.94	-5.39	4.59	0.00	0.00	0.00	0.00	
828.00	1.20	152.73	827.92	-7.25	5.55	0.00	0.00	0.00	0.00	
988.00	0.00	0.00	987.91	-8.74	6.32	0.75	-0.75	0.00	180.00	
2,500.00	0.00	0.00	2,499.91	-8.74	6.32	0.00	0.00	0.00	0.00	
3,300.00	6.00	230.00	3,298.45	-35.64	-25.74	0.75	0.75	0.00	230.00	
6,308.03	6.00	230.00	6,290.00	-237.75	-266.60	0.00	0.00	0.00	0.00	
7,108.03	0.00	0.00	7,088.54	-264.65	-298.66	0.75	-0.75	0.00	180.00	
10,072.49	0.00	0.00	10,053.00	-264.65	-298.66	0.00	0.00	0.00	0.00	
10,817.99	89.46	351.28	10,530.44	202.85	-370.38	12.00	12.00	0.00	351.28	
11,254.04	89.46	360.00	10,534.55	637.19	-403.51	2.00	0.00	2.00	90.01	
15,335.37	89.46	360.00	10,572.72	4,718.34	-403.56	0.00	0.00	0.00	0.00	PBHL v2 - CDU 294H

Planning Report

Database: EDMDB
 Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Site: Cotton Draw Unit
 Well: 294H
 Wellbore: Wellbore #1
 Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.28	175.83	100.00	-0.21	0.05	-0.21	0.28	0.28	0.00
200.00	0.20	226.14	200.00	-0.39	-0.02	-0.39	0.22	-0.08	50.31
300.00	0.43	141.55	300.00	-1.08	0.34	-1.08	0.46	0.24	-84.59
400.00	0.57	147.71	399.99	-1.80	0.54	-1.80	0.15	0.14	6.16
500.00	0.86	123.66	499.98	-2.59	1.53	-2.59	0.41	0.29	-24.05
600.00	1.07	126.87	599.97	-3.83	2.70	-3.83	0.22	0.21	3.21
700.00	1.01	126.14	699.95	-4.98	4.26	-4.98	0.07	-0.06	-0.73
728.00	1.20	152.73	727.94	-5.39	4.59	-5.39	1.93	0.69	94.97
Tie into Survey at 728.00 MD									
800.00	1.20	152.73	799.93	-6.73	5.28	-6.73	0.00	0.00	0.00
828.00	1.20	152.73	827.92	-7.25	5.55	-7.25	0.00	0.00	0.00
Start Drop -0.75									
900.00	0.66	152.73	899.91	-8.29	6.09	-8.29	0.75	-0.75	0.00
988.00	0.00	0.00	987.91	-8.74	6.32	-8.74	0.75	-0.75	0.00
Vertical at 988.00 MD									
1,000.00	0.00	0.00	999.91	-8.74	6.32	-8.74	0.00	0.00	0.00
1,100.00	0.00	0.00	1,099.91	-8.74	6.32	-8.74	0.00	0.00	0.00
1,200.00	0.00	0.00	1,199.91	-8.74	6.32	-8.74	0.00	0.00	0.00
1,300.00	0.00	0.00	1,299.91	-8.74	6.32	-8.74	0.00	0.00	0.00
1,400.00	0.00	0.00	1,399.91	-8.74	6.32	-8.74	0.00	0.00	0.00
1,500.00	0.00	0.00	1,499.91	-8.74	6.32	-8.74	0.00	0.00	0.00
1,600.00	0.00	0.00	1,599.91	-8.74	6.32	-8.74	0.00	0.00	0.00
1,700.00	0.00	0.00	1,699.91	-8.74	6.32	-8.74	0.00	0.00	0.00
1,800.00	0.00	0.00	1,799.91	-8.74	6.32	-8.74	0.00	0.00	0.00
1,900.00	0.00	0.00	1,899.91	-8.74	6.32	-8.74	0.00	0.00	0.00
2,000.00	0.00	0.00	1,999.91	-8.74	6.32	-8.74	0.00	0.00	0.00
2,100.00	0.00	0.00	2,099.91	-8.74	6.32	-8.74	0.00	0.00	0.00
2,200.00	0.00	0.00	2,199.91	-8.74	6.32	-8.74	0.00	0.00	0.00
2,300.00	0.00	0.00	2,299.91	-8.74	6.32	-8.74	0.00	0.00	0.00
2,400.00	0.00	0.00	2,399.91	-8.74	6.32	-8.74	0.00	0.00	0.00
2,500.00	0.00	0.00	2,499.91	-8.74	6.32	-8.74	0.00	0.00	0.00
Start Build 0.75									
2,600.00	0.75	230.00	2,599.91	-9.16	5.82	-9.16	0.75	0.75	0.00
2,700.00	1.50	230.00	2,699.89	-10.42	4.31	-10.42	0.75	0.75	0.00
2,800.00	2.25	230.00	2,799.83	-12.53	1.81	-12.53	0.75	0.75	0.00
2,900.00	3.00	230.00	2,899.73	-15.47	-1.70	-15.47	0.75	0.75	0.00
3,000.00	3.75	230.00	2,999.55	-19.25	-6.21	-19.25	0.75	0.75	0.00
3,100.00	4.50	230.00	3,099.29	-23.88	-11.72	-23.88	0.75	0.75	0.00
3,200.00	5.25	230.00	3,198.93	-29.34	-18.23	-29.34	0.75	0.75	0.00
3,300.00	6.00	230.00	3,298.45	-35.64	-25.74	-35.64	0.75	0.75	0.00
EOB 6° at 3300.00 MD									
3,400.00	6.00	230.00	3,397.90	-42.36	-33.75	-42.36	0.00	0.00	0.00
3,500.00	6.00	230.00	3,497.35	-49.08	-41.75	-49.08	0.00	0.00	0.00
3,600.00	6.00	230.00	3,596.81	-55.80	-49.76	-55.80	0.00	0.00	0.00
3,700.00	6.00	230.00	3,696.26	-62.52	-57.77	-62.52	0.00	0.00	0.00
3,800.00	6.00	230.00	3,795.71	-69.24	-65.78	-69.24	0.00	0.00	0.00
3,900.00	6.00	230.00	3,895.16	-75.96	-73.78	-75.96	0.00	0.00	0.00
4,000.00	6.00	230.00	3,994.61	-82.67	-81.79	-82.67	0.00	0.00	0.00
4,100.00	6.00	230.00	4,094.07	-89.39	-89.80	-89.39	0.00	0.00	0.00
4,200.00	6.00	230.00	4,193.52	-96.11	-97.81	-96.11	0.00	0.00	0.00
4,300.00	6.00	230.00	4,292.97	-102.83	-105.81	-102.83	0.00	0.00	0.00
4,400.00	6.00	230.00	4,392.42	-109.55	-113.82	-109.55	0.00	0.00	0.00
4,500.00	6.00	230.00	4,491.88	-116.27	-121.83	-116.27	0.00	0.00	0.00

Planning Report

Database: EDMDB
Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Cotton Draw Unit
Well: 294H
Wellbore: Wellbore #1
Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.00	6.00	230.00	4,591.33	-122.99	-129.83	-122.99	0.00	0.00	0.00
4,700.00	6.00	230.00	4,690.78	-129.71	-137.84	-129.71	0.00	0.00	0.00
4,800.00	6.00	230.00	4,790.23	-136.43	-145.85	-136.43	0.00	0.00	0.00
4,900.00	6.00	230.00	4,889.68	-143.14	-153.86	-143.14	0.00	0.00	0.00
5,000.00	6.00	230.00	4,989.14	-149.86	-161.86	-149.86	0.00	0.00	0.00
5,100.00	6.00	230.00	5,088.59	-156.58	-169.87	-156.58	0.00	0.00	0.00
5,200.00	6.00	230.00	5,188.04	-163.30	-177.88	-163.30	0.00	0.00	0.00
5,300.00	6.00	230.00	5,287.49	-170.02	-185.89	-170.02	0.00	0.00	0.00
5,400.00	6.00	230.00	5,386.94	-176.74	-193.89	-176.74	0.00	0.00	0.00
5,500.00	6.00	230.00	5,486.40	-183.46	-201.90	-183.46	0.00	0.00	0.00
5,600.00	6.00	230.00	5,585.85	-190.18	-209.91	-190.18	0.00	0.00	0.00
5,700.00	6.00	230.00	5,685.30	-196.90	-217.92	-196.90	0.00	0.00	0.00
5,800.00	6.00	230.00	5,784.75	-203.62	-225.92	-203.62	0.00	0.00	0.00
5,900.00	6.00	230.00	5,884.21	-210.33	-233.93	-210.33	0.00	0.00	0.00
6,000.00	6.00	230.00	5,983.66	-217.05	-241.94	-217.05	0.00	0.00	0.00
6,100.00	6.00	230.00	6,083.11	-223.77	-249.95	-223.77	0.00	0.00	0.00
6,200.00	6.00	230.00	6,182.56	-230.49	-257.95	-230.49	0.00	0.00	0.00
6,300.00	6.00	230.00	6,282.01	-237.21	-265.96	-237.21	0.00	0.00	0.00
6,308.03	6.00	230.00	6,290.00	-237.75	-266.60	-237.75	0.00	0.00	0.00
Start Drop -0.75									
6,400.00	5.31	230.00	6,381.52	-243.58	-273.55	-243.58	0.75	-0.75	0.00
6,500.00	4.56	230.00	6,481.15	-249.11	-280.14	-249.11	0.75	-0.75	0.00
6,600.00	3.81	230.00	6,580.88	-253.80	-285.73	-253.80	0.75	-0.75	0.00
6,700.00	3.06	230.00	6,680.70	-257.65	-290.32	-257.65	0.75	-0.75	0.00
6,800.00	2.31	230.00	6,780.59	-260.66	-293.90	-260.66	0.75	-0.75	0.00
6,900.00	1.56	230.00	6,880.53	-262.83	-296.49	-262.83	0.75	-0.75	0.00
7,000.00	0.81	230.00	6,980.51	-264.16	-298.08	-264.16	0.75	-0.75	0.00
7,100.00	0.06	230.00	7,080.51	-264.65	-298.66	-264.65	0.75	-0.75	0.00
7,108.03	0.00	0.00	7,088.54	-264.65	-298.66	-264.65	0.75	-0.75	0.00
Vertical at 7108.03 MD									
7,200.00	0.00	0.00	7,180.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
7,300.00	0.00	0.00	7,280.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
7,400.00	0.00	0.00	7,380.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
7,500.00	0.00	0.00	7,480.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
7,600.00	0.00	0.00	7,580.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
7,700.00	0.00	0.00	7,680.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
7,800.00	0.00	0.00	7,780.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
7,900.00	0.00	0.00	7,880.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
8,000.00	0.00	0.00	7,980.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
8,100.00	0.00	0.00	8,080.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
8,200.00	0.00	0.00	8,180.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
8,300.00	0.00	0.00	8,280.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
8,400.00	0.00	0.00	8,380.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
8,499.49	0.00	0.00	8,480.00	-264.65	-298.66	-264.65	0.00	0.00	0.00
VP - CDU 294H									
8,500.00	0.00	0.00	8,480.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
8,600.00	0.00	0.00	8,580.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
8,700.00	0.00	0.00	8,680.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
8,800.00	0.00	0.00	8,780.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
8,900.00	0.00	0.00	8,880.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
9,000.00	0.00	0.00	8,980.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
9,100.00	0.00	0.00	9,080.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
9,200.00	0.00	0.00	9,180.51	-264.65	-298.66	-264.65	0.00	0.00	0.00

Planning Report

Database: EDMDB
Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Cotton Draw Unit
Well: 294H
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Local Co-ordinate Reference: Well 294H
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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,300.00	0.00	0.00	9,280.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
9,400.00	0.00	0.00	9,380.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
9,500.00	0.00	0.00	9,480.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
9,600.00	0.00	0.00	9,580.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
9,700.00	0.00	0.00	9,680.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
9,800.00	0.00	0.00	9,780.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
9,900.00	0.00	0.00	9,880.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
10,000.00	0.00	0.00	9,980.51	-264.65	-298.66	-264.65	0.00	0.00	0.00
10,072.49	0.00	0.00	10,053.00	-264.65	-298.66	-264.65	0.00	0.00	0.00
Start Build 12.00									
10,100.00	3.30	351.28	10,080.49	-263.87	-298.78	-263.87	12.00	12.00	0.00
10,200.00	15.30	351.28	10,179.00	-247.92	-301.23	-247.92	12.00	12.00	0.00
10,300.00	27.30	351.28	10,272.00	-212.08	-306.73	-212.08	12.00	12.00	0.00
10,400.00	39.30	351.28	10,355.42	-157.91	-315.04	-157.91	12.00	12.00	0.00
10,500.00	51.30	351.28	10,425.63	-87.78	-325.80	-87.78	12.00	12.00	0.00
10,600.00	63.30	351.28	10,479.56	-4.75	-338.53	-4.75	12.00	12.00	0.00
10,700.00	75.30	351.28	10,514.84	87.54	-352.69	87.54	12.00	12.00	0.00
10,800.00	87.30	351.28	10,529.94	185.07	-367.66	185.07	12.00	12.00	0.00
10,817.99	89.46	351.28	10,530.44	202.85	-370.38	202.85	12.00	12.00	0.00
LP 89.46° Start DLS 2.00 TFO 90.01									
10,900.00	89.46	352.92	10,531.22	284.07	-381.66	284.07	2.00	0.00	2.00
11,000.00	89.46	354.92	10,532.16	383.50	-392.25	383.50	2.00	0.00	2.00
11,100.00	89.46	356.92	10,533.10	483.23	-399.37	483.23	2.00	0.00	2.00
11,200.00	89.46	358.92	10,534.04	583.16	-403.00	583.16	2.00	0.00	2.00
11,254.04	89.46	360.00	10,534.55	637.19	-403.51	637.19	2.00	0.00	2.00
End of Turn at 11254.04 MD									
11,300.00	89.46	360.00	10,534.98	683.15	-403.51	683.15	0.00	0.00	0.00
11,400.00	89.46	360.00	10,535.91	783.15	-403.51	783.15	0.00	0.00	0.00
11,500.00	89.46	360.00	10,536.85	883.14	-403.51	883.14	0.00	0.00	0.00
11,600.00	89.46	360.00	10,537.78	983.14	-403.51	983.14	0.00	0.00	0.00
11,700.00	89.46	360.00	10,538.72	1,083.13	-403.51	1,083.13	0.00	0.00	0.00
11,800.00	89.46	360.00	10,539.65	1,183.13	-403.51	1,183.13	0.00	0.00	0.00
11,900.00	89.46	360.00	10,540.59	1,283.12	-403.52	1,283.12	0.00	0.00	0.00
12,000.00	89.46	360.00	10,541.52	1,383.12	-403.52	1,383.12	0.00	0.00	0.00
12,100.00	89.46	360.00	10,542.46	1,483.12	-403.52	1,483.12	0.00	0.00	0.00
12,200.00	89.46	360.00	10,543.39	1,583.11	-403.52	1,583.11	0.00	0.00	0.00
12,300.00	89.46	360.00	10,544.33	1,683.11	-403.52	1,683.11	0.00	0.00	0.00
12,400.00	89.46	360.00	10,545.26	1,783.10	-403.52	1,783.10	0.00	0.00	0.00
12,500.00	89.46	360.00	10,546.20	1,883.10	-403.52	1,883.10	0.00	0.00	0.00
12,600.00	89.46	360.00	10,547.14	1,983.09	-403.52	1,983.09	0.00	0.00	0.00
12,700.00	89.46	360.00	10,548.07	2,083.09	-403.53	2,083.09	0.00	0.00	0.00
12,800.00	89.46	360.00	10,549.01	2,183.09	-403.53	2,183.09	0.00	0.00	0.00
12,900.00	89.46	360.00	10,549.94	2,283.08	-403.53	2,283.08	0.00	0.00	0.00
13,000.00	89.46	360.00	10,550.88	2,383.08	-403.53	2,383.08	0.00	0.00	0.00
13,100.00	89.46	360.00	10,551.81	2,483.07	-403.53	2,483.07	0.00	0.00	0.00
13,200.00	89.46	360.00	10,552.75	2,583.07	-403.53	2,583.07	0.00	0.00	0.00
13,300.00	89.46	360.00	10,553.68	2,683.06	-403.53	2,683.06	0.00	0.00	0.00
13,400.00	89.46	360.00	10,554.62	2,783.06	-403.53	2,783.06	0.00	0.00	0.00
13,500.00	89.46	360.00	10,555.55	2,883.05	-403.53	2,883.05	0.00	0.00	0.00
13,600.00	89.46	360.00	10,556.49	2,983.05	-403.54	2,983.05	0.00	0.00	0.00
13,700.00	89.46	360.00	10,557.42	3,083.05	-403.54	3,083.05	0.00	0.00	0.00
13,800.00	89.46	360.00	10,558.36	3,183.04	-403.54	3,183.04	0.00	0.00	0.00
13,900.00	89.46	360.00	10,559.29	3,283.04	-403.54	3,283.04	0.00	0.00	0.00

Planning Report

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MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,000.00	89.46	360.00	10,560.23	3,383.03	-403.54	3,383.03	0.00	0.00	0.00
14,100.00	89.46	360.00	10,561.17	3,483.03	-403.54	3,483.03	0.00	0.00	0.00
14,200.00	89.46	360.00	10,562.10	3,583.02	-403.54	3,583.02	0.00	0.00	0.00
14,300.00	89.46	360.00	10,563.04	3,683.02	-403.54	3,683.02	0.00	0.00	0.00
14,400.00	89.46	360.00	10,563.97	3,783.02	-403.55	3,783.02	0.00	0.00	0.00
14,500.00	89.46	360.00	10,564.91	3,883.01	-403.55	3,883.01	0.00	0.00	0.00
14,600.00	89.46	360.00	10,565.84	3,983.01	-403.55	3,983.01	0.00	0.00	0.00
14,700.00	89.46	360.00	10,566.78	4,083.00	-403.55	4,083.00	0.00	0.00	0.00
14,800.00	89.46	360.00	10,567.71	4,183.00	-403.55	4,183.00	0.00	0.00	0.00
14,900.00	89.46	360.00	10,568.65	4,282.99	-403.55	4,282.99	0.00	0.00	0.00
15,000.00	89.46	360.00	10,569.58	4,382.99	-403.55	4,382.99	0.00	0.00	0.00
15,100.00	89.46	360.00	10,570.52	4,482.98	-403.55	4,482.98	0.00	0.00	0.00
15,200.00	89.46	360.00	10,571.45	4,582.98	-403.55	4,582.98	0.00	0.00	0.00
15,300.00	89.46	360.00	10,572.39	4,682.98	-403.56	4,682.98	0.00	0.00	0.00
15,335.37	89.46	360.00	10,572.72	4,718.34	-403.56	4,718.34	0.00	0.00	0.00

TD at 15335.37 - PBHL - CDU 294H - PBHL v2 - CDU 294H - Prog BHL v2 - CDU 294H

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VP - CDU 294H	0.00	0.00	8,480.00	-218.63	-747.98	430,150.94	727,518.15	32.181131	-103.731546
- hit/miss target									
- Shape									
- plan misses target center by 451.67usft at 8499.49usft MD (8480.00 TVD, -264.65 N, -298.66 E)									
- Point									
PBHL - CDU 294H	0.00	0.00	10,538.10	4,756.58	-747.98	435,126.15	727,518.15	32.194807	-103.731457
- plan misses target center by 348.26usft at 15335.37usft MD (10572.72 TVD, 4718.34 N, -403.56 E)									
- Point									
PBHL v2 - CDU 294H	0.00	0.00	10,572.72	4,718.34	-403.56	435,087.91	727,862.57	32.194696	-103.730344
- plan hits target center									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
663.10	663.06	Rustler		0.54	0.00
1,009.11	1,009.02	Salado		0.54	0.00
4,479.03	4,471.02	Delaware		0.54	0.00
8,111.10	8,091.61	Lower Brushy		0.54	0.00
8,399.10	8,379.61	1st BSPG Lime		0.54	0.00
9,488.10	9,468.61	1st BSPG Sand		0.54	0.00
9,713.10	9,693.61	2nd BSPG Lime		0.54	0.00
10,038.10	10,018.61	2nd BSPG Sand		0.54	0.00
10,172.93	10,152.70	2BSS Upper		0.54	0.00
10,272.26	10,246.99	2BSS Mid		0.54	0.00
10,515.94	10,435.39	2BSS Lower		0.54	0.00
10,700.35	10,514.93	2BSS L TZ Top		0.54	0.00

Planning Report

Database: EDMDB
Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Cotton.Draw Unit
Well: 294H
Wellbore: Wellbore #1
Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
728.00	727.94	-5.39	4.59	Tie into Survey at 728.00 MD
828.00	827.92	-7.25	5.55	Start Drop -0.75
988.00	987.91	-8.74	6.32	Vertical at 988.00 MD
2,500.00	2,499.91	-8.74	6.32	Start Build 0.75
3,300.00	3,298.45	-35.64	-25.74	EOB 6° at 3300.00 MD
6,308.03	6,290.00	-237.75	-266.60	Start Drop -0.75
7,108.03	7,088.54	-264.65	-298.66	Vertical at 7108.03 MD
10,072.49	10,053.00	-264.65	-298.66	Start Build 12.00
10,817.99	10,530.44	202.85	-370.38	LP 89.46° Start DLS 2.00 TFO 90.01
11,254.04	10,534.55	637.19	-403.51	End of Turn at 11254.04 MD
15,335.37	10,572.72	4,718.34	-403.56	TD at 15335.37

Devon Energy

Eddy County, New Mexico (NAD 83)
Cotton Draw Unit
294H

Wellbore #1
Design 3

Anticollision Report

28 July, 2017

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well 294H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	Well @ 3538.10usft (ICD 217)
Reference Site:	Cotton Draw Unit	MD Reference:	Well @ 3538.10usft (ICD 217)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	294H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMDB
Reference Design:	Design 3	Offset TVD Reference:	Offset Datum

Reference	Design 3
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 1,355.54 usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program	Date	7/28/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
26.00	728.00	Wildfire Surveys (Wellbore #1)	MWD	OWSG MWD - Standard
728.00	15,335.37	Design 3 (Wellbore #1)	MWD	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Cotton Draw						
#99 - Wellbore #1 - Surveys	7,080.23	7,056.77	334.55	293.90	8.231	CC
#99 - Wellbore #1 - Surveys	10,100.00	10,077.72	351.61	293.36	6.037	ES, SF
Cotton Draw Unit						
167H - Wellbore #1 - Surveys	8,236.12	10,211.27	871.62	804.98	13.079	CC, ES, SF
182H - Wellbore #1 - Surveys	8,266.99	10,521.57	179.24	102.09	2.323	CC, ES, SF
291H - Wellbore #1 - Design #2	1,416.11	1,417.75	51.67	43.32	6.192	CC
291H - Wellbore #1 - Design #2	1,500.00	1,501.62	51.67	42.83	5.844	ES
291H - Wellbore #1 - Design #2	15,335.37	15,316.38	1,155.49	916.20	4.829	SF
291H - Wellbore #1 - Surveys	700.00	700.00	54.11	49.35	11.376	CC, ES, SF
292H - Wellbore #1 - Surveys	8,865.12	8,860.00	982.29	922.64	16.465	CC
292H - Wellbore #1 - Surveys	9,717.03	9,712.00	984.14	918.64	15.025	ES
292H - Wellbore #1 - Surveys	9,800.00	9,759.00	986.03	920.17	14.972	SF
293H - Wellbore #1 - Design #2	531.44	531.58	28.57	25.02	8.048	CC
293H - Wellbore #1 - Design #2	2,600.00	2,600.47	29.30	13.20	1.820	ES, SF
293H - Wellbore #1 - Surveys	531.44	531.58	28.57	25.02	8.049	CC
293H - Wellbore #1 - Surveys	700.00	698.00	28.73	23.99	6.052	ES, SF
294H - Wellbore #1 - Surveys	1,100.00	728.00	371.99	369.52	150.790	CC, ES, SF
511H - Wellbore #1 - Surveys	497.44	497.87	56.33	53.93	23.501	CC
511H - Wellbore #1 - Surveys	600.00	600.21	56.57	53.63	19.222	ES
511H - Wellbore #1 - Surveys	10,000.00	10,016.65	215.82	165.83	4.317	SF
512H - Wellbore #1 - Surveys	418.68	418.68	27.91	25.14	10.067	CC
512H - Wellbore #1 - Surveys	500.00	499.87	28.35	25.00	8.464	ES
512H - Wellbore #1 - Surveys	9,861.66	9,878.00	128.82	63.72	1.979	SF
513H - Wellbore #1 - Design #2	998.12	999.86	81.69	75.54	13.274	CC, ES
513H - Wellbore #1 - Design #2	1,400.00	1,395.61	95.29	87.06	11.588	SF
513H - Wellbore #1 - Surveys	700.00	700.00	84.19	79.44	17.705	CC, ES, SF

Offset Design	Cotton Draw - #99 - Wellbore #1 - Surveys	Offset Site Error:	0.00 usft								
Survey Program:	52-GYRO-NS, 4310-MWD	Offset Well Error:	0.00 usft								
Reference	Offset	Semi Major Axis	Distance	Minimum Separation	Separation Factor	Warning					
Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw - #99 - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft
Survey Program: 52-GYRO-NS, 4310-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (")	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	-144.51	-562.45	-401.05	690.81				
100.00	100.00	90.93	90.93	0.26	0.19	39.65	-562.90	-400.95	690.97	690.53	0.45	1,552.032	
200.00	200.00	189.38	189.38	0.61	0.53	-10.67	-563.67	-401.24	691.60	690.46	1.14	607.040	
300.00	300.00	289.69	289.68	0.96	0.88	74.02	-563.95	-402.22	692.03	690.19	1.84	375.530	
400.00	399.99	386.20	386.17	1.32	1.22	68.01	-563.98	-403.75	692.52	689.98	2.54	272.951	
500.00	499.98	481.88	481.84	1.67	1.56	92.18	-565.03	-405.02	694.13	690.90	3.23	214.980	
600.00	599.97	581.78	581.72	2.03	1.91	89.07	-566.93	-405.83	695.82	691.88	3.93	176.842	
700.00	699.95	680.12	680.04	2.39	2.25	89.96	-568.47	-406.98	697.76	693.12	4.64	150.478	
800.00	799.93	779.06	778.95	2.62	2.60	63.49	-570.61	-407.92	699.25	694.04	5.22	134.060	
900.00	899.91	883.83	883.70	2.66	2.97	63.62	-572.42	-409.10	700.53	694.91	5.63	124.509	
1,000.00	999.91	984.63	984.49	2.75	3.32	-143.58	-573.45	-410.25	701.81	695.75	6.06	115.736	
1,100.00	1,099.91	1,085.85	1,085.70	2.87	3.67	-143.57	-574.53	-411.24	703.25	696.71	6.54	107.509	
1,200.00	1,199.91	1,186.40	1,186.24	3.03	4.02	-143.56	-575.47	-412.17	704.55	697.49	7.05	99.878	
1,300.00	1,299.91	1,287.90	1,287.73	3.22	4.38	-143.60	-576.72	-412.44	705.70	698.10	7.60	92.828	
1,400.00	1,399.91	1,389.27	1,389.09	3.44	4.73	-143.65	-577.83	-412.52	706.63	698.46	8.18	86.423	
1,500.00	1,499.91	1,489.11	1,488.93	3.68	5.08	-143.62	-578.32	-413.30	707.48	698.72	8.77	80.699	
1,600.00	1,599.91	1,588.61	1,588.42	3.94	5.43	-143.56	-578.66	-414.40	708.42	699.05	9.37	75.570	
1,700.00	1,699.91	1,690.07	1,689.88	4.22	5.79	-143.50	-578.92	-415.53	709.29	699.28	10.00	70.907	
1,800.00	1,799.91	1,791.20	1,791.00	4.50	6.14	-143.44	-578.92	-416.54	709.88	699.24	10.64	66.704	
1,900.00	1,899.91	1,890.74	1,890.54	4.80	6.49	-143.42	-579.32	-417.06	710.52	699.23	11.29	62.954	
2,000.00	1,999.91	1,990.48	1,990.28	5.10	6.84	-143.41	-579.73	-417.58	711.16	699.22	11.94	59.565	
2,100.00	2,099.91	2,090.48	2,090.28	5.41	7.19	-143.39	-580.14	-418.22	711.86	699.26	12.60	56.498	
2,200.00	2,199.91	2,189.78	2,189.57	5.73	7.54	-143.35	-580.44	-418.96	712.56	699.29	13.26	53.724	
2,300.00	2,299.91	2,288.62	2,288.40	6.05	7.88	-143.26	-580.43	-420.42	713.42	699.49	13.93	51.216	
2,400.00	2,399.91	2,388.54	2,388.31	6.37	8.23	-143.16	-580.41	-422.05	714.39	699.79	14.60	48.917	
2,500.00	2,499.91	2,489.25	2,489.01	6.70	8.59	-143.09	-580.66	-423.25	715.30	700.01	15.28	46.798	
2,600.00	2,599.91	2,589.03	2,588.79	7.02	8.94	-13.10	-581.36	-423.73	715.52	699.56	15.95	44.849	
2,700.00	2,699.89	2,689.04	2,688.78	7.33	9.29	-13.12	-581.88	-424.52	714.49	697.87	16.62	43.000	
2,800.00	2,799.83	2,787.77	2,787.51	7.65	9.63	-13.18	-582.63	-425.10	712.27	694.99	17.28	41.225	
2,900.00	2,899.73	2,888.19	2,887.93	7.97	9.98	-13.35	-584.07	-424.87	708.82	690.87	17.95	39.491	
3,000.00	2,999.55	2,985.86	2,985.58	8.29	10.33	-13.57	-585.72	-424.53	704.24	685.63	18.61	37.835	
3,100.00	3,099.29	3,084.26	3,083.97	8.62	10.67	-13.77	-587.21	-424.90	698.69	679.41	19.28	36.232	
3,200.00	3,198.93	3,186.03	3,185.73	8.96	11.03	-13.95	-588.30	-425.68	691.75	671.78	19.97	34.641	
3,300.00	3,298.45	3,285.92	3,285.61	9.30	11.38	-14.20	-589.56	-426.09	683.50	662.85	20.65	33.100	
3,400.00	3,397.90	3,390.95	3,390.63	9.64	11.74	-14.39	-589.97	-427.00	674.19	652.84	21.35	31.579	
3,500.00	3,497.35	3,493.61	3,493.29	9.99	12.10	-14.53	-589.32	-427.82	664.01	641.97	22.04	30.127	
3,600.00	3,596.81	3,592.21	3,591.89	10.34	12.45	-14.70	-588.96	-428.35	653.90	631.18	22.72	28.780	
3,700.00	3,696.26	3,691.61	3,691.27	10.70	12.79	-14.79	-588.00	-429.70	643.79	620.38	23.41	27.506	
3,800.00	3,795.71	3,790.47	3,790.11	11.05	13.14	-14.84	-586.91	-431.38	633.76	609.67	24.09	26.307	
3,900.00	3,895.16	3,893.78	3,893.41	11.42	13.50	-15.00	-586.25	-432.22	623.61	598.82	24.79	25.156	
4,000.00	3,994.61	4,005.90	4,005.49	11.78	13.89	-15.49	-586.18	-429.57	612.14	586.63	25.51	23.999	
4,100.00	4,094.07	4,115.16	4,114.63	12.14	14.26	-16.14	-585.16	-424.33	598.62	572.41	26.21	22.840	
4,200.00	4,193.52	4,208.88	4,208.18	12.51	14.59	-16.83	-584.60	-418.80	584.84	557.95	26.89	21.746	
4,300.00	4,292.97	4,302.81	4,301.91	12.88	14.81	-17.67	-585.15	-412.72	571.85	544.38	27.47	20.816	
4,400.00	4,392.42	4,394.48	4,393.44	13.25	14.83	-18.45	-586.33	-407.87	560.20	532.34	27.86	20.111	
4,500.00	4,491.88	4,493.99	4,492.84	13.62	14.84	-19.28	-588.09	-403.48	549.52	521.30	28.22	19.472	
4,600.00	4,591.33	4,605.83	4,604.50	14.00	14.87	-20.34	-589.18	-397.18	537.71	509.14	28.57	18.818	
4,700.00	4,690.78	4,701.99	4,700.45	14.37	14.91	-21.32	-589.14	-390.88	524.70	495.73	28.97	18.112	
4,800.00	4,790.23	4,792.67	4,791.00	14.75	14.94	-22.19	-589.63	-386.23	513.04	483.66	29.39	17.459	
4,900.00	4,889.68	4,889.57	4,887.86	15.12	14.99	-22.95	-590.28	-383.47	502.65	472.86	29.80	16.870	
5,000.00	4,989.14	4,987.82	4,986.10	15.50	15.05	-23.59	-590.54	-381.93	492.57	462.36	30.21	16.304	
5,100.00	5,088.59	5,088.17	5,086.44	15.88	15.11	-24.19	-590.54	-380.93	482.57	451.94	30.63	15.753	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw - #99 - Wellbore #1 - Surveys														Offset Site Error:	0.00 usft
Survey Program: 52-GYRO-NS, 4310-MWD														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
5,200.00	5,188.04	5,187.06	5,185.33	16.26	15.19	-24.81	-590.44	-380.01	472.55	441.49	31.07	15.211			
5,300.00	5,287.49	5,287.67	5,285.93	16.64	15.27	-25.46	-590.25	-379.00	462.49	430.98	31.51	14.679			
5,400.00	5,386.94	5,385.10	5,383.35	17.02	15.36	-26.13	-590.22	-377.98	452.61	420.65	31.96	14.161			
5,500.00	5,486.40	5,484.67	5,482.92	17.41	15.45	-26.85	-590.33	-376.96	442.94	410.52	32.42	13.662			
5,600.00	5,585.85	5,583.28	5,581.53	17.79	15.56	-27.56	-590.44	-376.26	433.45	400.56	32.89	13.178			
5,700.00	5,685.30	5,683.06	5,681.30	18.17	15.67	-28.32	-590.59	-375.51	424.07	390.70	33.37	12.708			
5,800.00	5,784.75	5,782.87	5,781.11	18.56	15.79	-29.09	-590.58	-374.84	414.63	380.77	33.85	12.247			
5,900.00	5,884.21	5,882.22	5,880.46	18.94	15.91	-29.87	-590.50	-374.35	405.27	370.92	34.35	11.799			
6,000.00	5,983.66	5,981.99	5,980.23	19.32	16.05	-30.72	-590.43	-373.62	395.92	361.07	34.85	11.360			
6,100.00	6,083.11	6,081.43	6,079.66	19.71	16.19	-31.63	-590.35	-372.75	386.61	351.24	35.36	10.932			
6,200.00	6,182.56	6,181.13	6,179.36	20.10	16.33	-32.54	-590.17	-372.15	377.38	341.50	35.88	10.517			
6,300.00	6,282.01	6,279.85	6,278.08	20.48	16.48	-33.51	-589.97	-371.42	368.19	331.78	36.41	10.112			
6,400.00	6,381.52	6,378.84	6,377.07	20.87	16.64	-34.42	-590.03	-370.90	359.87	322.92	36.95	9.740			
6,500.00	6,481.15	6,477.72	6,475.95	21.25	16.80	-35.27	-590.13	-370.34	352.75	315.26	37.49	9.410			
6,600.00	6,580.88	6,577.46	6,575.68	21.62	16.97	-36.07	-590.50	-369.62	347.00	308.97	38.03	9.125			
6,700.00	6,680.70	6,678.17	6,676.39	21.99	17.15	-36.76	-590.67	-368.91	342.17	303.60	38.57	8.871			
6,800.00	6,780.59	6,777.21	6,775.43	22.35	17.33	-37.30	-590.71	-368.40	338.36	299.24	39.12	8.650			
6,900.00	6,880.53	6,875.73	6,873.95	22.70	17.52	-37.72	-591.13	-367.96	335.99	296.33	39.67	8.471			
7,000.00	6,980.51	6,976.26	6,974.47	23.05	17.71	-38.08	-591.78	-367.25	334.85	294.64	40.21	8.327			
7,080.23	7,060.74	7,056.77	7,054.98	23.32	17.87	-38.26	-592.16	-366.70	334.55	293.90	40.65	8.231 CC			
7,100.00	7,080.51	7,076.61	7,074.82	23.39	17.91	-38.29	-592.25	-366.56	334.57	293.81	40.75	8.210			
7,200.00	7,180.51	7,175.83	7,174.04	23.71	18.11	-168.41	-592.76	-365.93	334.94	293.65	41.29	8.112			
7,300.00	7,280.51	7,274.89	7,273.09	24.04	18.31	-168.49	-593.49	-365.62	335.60	293.77	41.83	8.023			
7,400.00	7,380.51	7,375.08	7,373.28	24.37	18.51	-168.54	-594.27	-365.48	336.34	293.97	42.37	7.938			
7,500.00	7,480.51	7,474.72	7,472.91	24.70	18.72	-168.59	-595.09	-365.33	337.11	294.19	42.92	7.855			
7,600.00	7,580.51	7,573.95	7,572.14	25.03	18.94	-168.65	-596.04	-365.16	338.02	294.55	43.47	7.776			
7,700.00	7,680.51	7,672.81	7,670.99	25.36	19.15	-168.72	-597.37	-365.02	339.30	295.28	44.03	7.707			
7,800.00	7,780.51	7,773.07	7,771.24	25.69	19.38	-168.85	-598.84	-364.52	340.65	296.06	44.59	7.640			
7,900.00	7,880.51	7,873.36	7,871.51	26.02	19.61	-168.99	-600.26	-363.95	341.93	296.77	45.16	7.572			
8,000.00	7,980.51	7,972.61	7,970.76	26.35	19.84	-169.08	-601.57	-363.66	343.17	297.44	45.73	7.505			
8,100.00	8,080.51	8,074.09	8,072.23	26.68	20.07	-169.14	-603.12	-363.60	344.66	298.36	46.30	7.444			
8,200.00	8,180.51	8,176.26	8,174.39	27.02	20.31	-169.07	-603.56	-364.13	345.18	298.31	46.87	7.365			
8,300.00	8,280.51	8,276.47	8,274.60	27.35	20.54	-168.99	-603.83	-364.62	345.53	298.10	47.43	7.284			
8,400.00	8,380.51	8,375.48	8,373.61	27.69	20.77	-168.96	-604.19	-364.89	345.94	297.93	48.01	7.205			
8,500.00	8,480.51	8,474.48	8,472.61	28.02	21.01	-168.94	-604.91	-365.16	346.71	298.12	48.59	7.135			
8,600.00	8,580.51	8,576.29	8,574.42	28.36	21.26	-168.88	-605.54	-365.68	347.42	298.24	49.18	7.064			
8,700.00	8,680.51	8,677.29	8,675.41	28.69	21.50	-168.78	-605.63	-366.30	347.62	297.86	49.76	6.986			
8,800.00	8,780.51	8,775.96	8,774.08	29.03	21.74	-168.65	-605.72	-367.13	347.88	297.53	50.35	6.910			
8,900.00	8,880.51	8,874.69	8,872.80	29.37	21.99	-168.51	-606.19	-368.10	348.54	297.60	50.94	6.843			
9,000.00	8,980.51	8,975.68	8,973.78	29.70	22.24	-168.30	-606.63	-369.49	349.24	297.71	51.53	6.778			
9,100.00	9,080.51	9,077.56	9,075.65	30.04	22.50	-168.11	-606.67	-370.68	349.52	297.40	52.12	6.706			
9,200.00	9,180.51	9,179.30	9,177.38	30.38	22.76	-167.89	-606.16	-371.95	349.29	296.58	52.71	6.626			
9,300.00	9,280.51	9,280.53	9,278.61	30.72	23.02	-167.75	-605.28	-372.64	348.58	295.27	53.31	6.538			
9,400.00	9,380.51	9,378.58	9,376.65	31.06	23.27	-167.49	-604.25	-373.99	347.86	293.94	53.92	6.452			
9,417.59	9,398.10	9,395.24	9,393.30	31.12	23.31	-167.46	-604.18	-374.21	347.84	293.81	54.02	6.439			
9,500.00	9,480.51	9,475.07	9,473.13	31.40	23.53	-167.37	-604.47	-374.83	348.27	293.74	54.53	6.387			
9,600.00	9,580.51	9,575.97	9,574.03	31.74	23.80	-167.32	-605.09	-375.26	348.95	293.81	55.14	6.329			
9,700.00	9,680.51	9,676.17	9,674.23	32.08	24.07	-167.25	-605.29	-375.72	349.25	293.50	55.76	6.264			
9,800.00	9,780.51	9,775.80	9,773.85	32.42	24.34	-167.16	-605.75	-376.41	349.85	293.48	56.37	6.206			
9,900.00	9,880.51	9,874.56	9,872.61	32.77	24.61	-167.12	-606.23	-376.75	350.40	293.41	56.99	6.148			
10,000.00	9,980.51	9,977.46	9,975.51	33.11	24.90	-167.10	-607.00	-377.09	351.22	293.60	57.62	6.095			
10,005.67	9,986.18	9,983.52	9,981.57	33.13	24.92	-158.37	-606.99	-377.11	351.23	293.57	57.65	6.092			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Offset Design Cotton Draw - #99 - Wellbore #1 - Surveys													Offset Site Error:	0.00 usft
Survey Program: 52-GYRO-NS, 4310-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,100.00	10,080.49	10,077.72	10,075.76	33.45	25.18	-158.29	-606.53	-377.59	351.61	293.36	58.24	6.037	ES, SF	
10,200.00	10,179.00	10,174.97	10,173.01	33.77	25.45	-158.51	-606.65	-377.83	366.82	307.95	58.87	6.231		
10,300.00	10,272.00	10,267.37	10,265.41	34.04	25.71	-158.80	-606.95	-378.16	401.28	341.82	59.46	6.749		
10,400.00	10,355.42	10,349.70	10,347.74	34.26	25.95	-158.61	-607.32	-378.61	453.89	393.91	59.98	7.567		
10,500.00	10,425.63	10,418.59	10,416.63	34.40	26.14	-157.20	-607.75	-379.13	522.72	462.31	60.41	8.653		
10,600.00	10,479.56	10,471.16	10,469.19	34.49	26.29	-153.08	-608.17	-379.62	604.84	544.12	60.72	9.961		
10,700.00	10,514.84	10,506.05	10,504.08	34.55	26.40	-141.70	-608.46	-379.97	696.57	635.65	60.92	11.435		
10,800.00	10,529.94	10,520.69	10,518.72	34.83	26.44	-102.92	-608.58	-380.10	793.78	732.76	61.01	13.010		
10,900.00	10,531.22	10,521.32	10,519.35	35.14	26.44	-90.68	-608.59	-380.11	892.69	831.64	61.05	14.623		
11,000.00	10,532.16	10,521.57	10,519.60	35.51	26.44	-91.18	-608.59	-380.11	992.19	931.12	61.07	16.247		
11,100.00	10,533.10	10,521.79	10,519.82	35.95	26.44	-92.58	-608.59	-380.11	1,092.03	1,030.94	61.09	17.876		
11,200.00	10,534.04	10,521.98	10,520.00	36.45	26.44	168.68	-608.59	-380.11	1,192.01	1,130.91	61.10	19.509		
11,300.00	10,534.98	10,522.13	10,520.15	36.99	26.44	95.04	-608.59	-380.11	1,291.99	1,230.89	61.11	21.143		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 167H - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft
Survey Program: 40-VESSEI_GYROFLEX, 7581-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,200.00	7,180.51	10,230.44	8,228.85	23.71	40.24	-92.68	-305.39	-1,169.50	1,353.88	1,308.11	45.77	29.580	
7,300.00	7,280.51	10,228.56	8,228.88	24.04	40.21	-92.56	-303.52	-1,169.55	1,278.99	1,231.26	47.72	26.799	
7,400.00	7,380.51	10,226.69	8,228.91	24.37	40.18	-92.43	-301.64	-1,169.60	1,207.74	1,157.89	49.85	24.228	
7,500.00	7,480.51	10,224.82	8,228.93	24.70	40.15	-92.31	-299.78	-1,169.66	1,140.81	1,088.68	52.13	21.883	
7,600.00	7,580.51	10,222.96	8,228.96	25.03	40.12	-92.19	-297.92	-1,169.71	1,079.01	1,024.47	54.54	19.782	
7,700.00	7,680.51	10,221.11	8,228.99	25.36	40.09	-92.07	-296.07	-1,169.76	1,023.27	966.24	57.03	17.943	
7,800.00	7,780.51	10,219.26	8,229.01	25.69	40.06	-91.94	-294.22	-1,169.81	974.62	915.12	59.50	16.381	
7,900.00	7,880.51	10,217.42	8,229.04	26.02	40.03	-91.82	-292.38	-1,169.86	934.17	872.34	61.83	15.109	
8,000.00	7,980.51	10,215.58	8,229.07	26.35	40.00	-91.70	-290.55	-1,169.91	903.03	839.16	63.87	14.140	
8,100.00	8,080.51	10,213.75	8,229.09	26.68	39.98	-91.58	-288.72	-1,169.95	882.18	816.73	65.45	13.478	
8,200.00	8,180.51	10,211.93	8,229.12	27.02	39.95	-91.46	-286.89	-1,170.00	872.37	805.92	66.45	13.129	
8,236.12	8,216.63	10,211.27	8,229.13	27.14	39.94	-91.42	-286.24	-1,170.02	871.62	804.98	66.64	13.079	CC, ES, SF
8,300.00	8,280.51	10,210.11	8,229.14	27.35	39.92	-91.34	-285.08	-1,170.04	873.96	807.19	66.77	13.089	
8,400.00	8,380.51	10,208.30	8,229.17	27.69	39.89	-91.22	-283.27	-1,170.09	886.89	820.47	66.42	13.352	
8,500.00	8,480.51	10,206.49	8,229.20	28.02	39.86	-91.11	-281.46	-1,170.13	910.68	845.20	65.48	13.908	
8,600.00	8,580.51	10,204.69	8,229.22	28.36	39.83	-90.99	-279.66	-1,170.17	944.51	880.44	64.07	14.741	
8,700.00	8,680.51	10,202.90	8,229.25	28.69	39.81	-90.87	-277.87	-1,170.21	987.35	924.99	62.36	15.833	
8,800.00	8,780.51	10,201.11	8,229.27	29.03	39.78	-90.75	-276.08	-1,170.25	1,038.08	977.60	60.48	17.164	
8,900.00	8,880.51	10,199.33	8,229.30	29.37	39.75	-90.63	-274.30	-1,170.29	1,095.61	1,037.05	58.56	18.710	
9,000.00	8,980.51	10,197.55	8,229.32	29.70	39.72	-90.52	-272.52	-1,170.33	1,158.92	1,102.24	56.68	20.448	
9,100.00	9,080.51	10,195.78	8,229.35	30.04	39.69	-90.40	-270.75	-1,170.37	1,227.12	1,172.23	54.89	22.356	
9,200.00	9,180.51	10,194.02	8,229.37	30.38	39.67	-90.29	-268.99	-1,170.41	1,299.44	1,246.21	53.24	24.409	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 182H - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft
Survey Program: 172-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,000.00	6,980.51	10,535.22	8,263.29	23.05	50.59	-134.13	-295.23	-121.55	1,279.49	1,248.19	31.30	40.875	
7,100.00	7,080.51	10,534.21	8,263.30	23.39	50.58	-130.82	-294.21	-121.45	1,180.64	1,148.88	31.77	37.167	
7,200.00	7,180.51	10,532.35	8,263.32	23.71	50.55	98.88	-292.36	-121.27	1,081.91	1,049.62	32.29	33.508	
7,300.00	7,280.51	10,530.72	8,263.33	24.04	50.53	98.36	-290.74	-121.11	983.44	950.52	32.92	29.878	
7,400.00	7,380.51	10,529.28	8,263.35	24.37	50.51	97.90	-289.31	-120.97	885.30	851.62	33.69	26.279	
7,500.00	7,480.51	10,528.01	8,263.36	24.70	50.50	97.49	-288.04	-120.84	787.64	752.97	34.67	22.716	
7,600.00	7,580.51	10,526.87	8,263.37	25.03	50.48	97.13	-286.91	-120.73	690.64	654.67	35.97	19.200	
7,700.00	7,680.51	10,525.85	8,263.37	25.36	50.47	96.80	-285.89	-120.64	594.64	556.88	37.76	15.747	
7,800.00	7,780.51	10,524.92	8,263.38	25.69	50.45	96.51	-284.97	-120.55	500.20	459.85	40.35	12.396	
7,900.00	7,880.51	10,524.08	8,263.39	26.02	50.44	96.24	-284.14	-120.47	408.42	364.11	44.31	9.218	
8,000.00	7,980.51	10,523.32	8,263.39	26.35	50.43	96.00	-283.38	-120.39	321.57	270.94	50.63	6.352	
8,100.00	8,080.51	10,522.62	8,263.39	26.68	50.42	95.77	-282.68	-120.33	244.97	184.28	60.70	4.036	
8,200.00	8,180.51	10,521.97	8,263.40	27.02	50.41	95.57	-282.04	-120.27	191.35	118.10	73.25	2.612	
8,266.99	8,247.50	10,521.57	8,263.40	27.24	50.41	95.44	-281.64	-120.23	179.24	102.09	77.15	2.323	CC, ES, SF
8,300.00	8,280.51	10,521.38	8,263.40	27.35	50.41	95.38	-281.44	-120.21	182.25	106.22	76.03	2.397	
8,400.00	8,380.51	10,520.83	8,263.40	27.69	50.40	95.20	-280.90	-120.16	223.20	158.52	64.68	3.451	
8,500.00	8,480.51	10,520.32	8,263.41	28.02	50.39	95.04	-280.39	-120.11	293.97	240.61	53.36	5.510	
8,600.00	8,580.51	10,519.84	8,263.41	28.36	50.39	94.89	-279.92	-120.06	378.18	331.96	46.21	8.183	
8,700.00	8,680.51	10,519.40	8,263.41	28.69	50.38	94.74	-279.48	-120.02	468.63	426.63	42.00	11.157	
8,800.00	8,780.51	10,518.98	8,263.41	29.03	50.37	94.61	-279.06	-119.98	562.33	522.84	39.49	14.241	
8,900.00	8,880.51	10,518.60	8,263.42	29.37	50.37	94.49	-278.68	-119.95	657.89	619.94	37.95	17.337	
9,000.00	8,980.51	10,518.23	8,263.42	29.70	50.36	94.37	-278.31	-119.91	754.60	717.61	36.99	20.400	
9,100.00	9,080.51	10,517.89	8,263.42	30.04	50.36	94.26	-277.97	-119.88	852.06	815.67	36.40	23.411	
9,200.00	9,180.51	10,517.57	8,263.42	30.38	50.36	94.16	-277.65	-119.85	950.06	914.02	36.04	26.363	
9,300.00	9,280.51	10,517.26	8,263.42	30.72	50.35	94.06	-277.35	-119.82	1,048.43	1,012.60	35.84	29.256	
9,400.00	9,380.51	10,516.97	8,263.42	31.06	50.35	93.97	-277.06	-119.79	1,147.09	1,111.34	35.75	32.090	
9,500.00	9,480.51	10,516.70	8,263.42	31.40	50.34	93.88	-276.79	-119.77	1,245.96	1,210.22	35.73	34.867	
9,600.00	9,580.51	10,516.44	8,263.42	31.74	50.34	93.80	-276.53	-119.75	1,344.99	1,309.21	35.78	37.590	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 291H - Wellbore #1 - Design #2													Offset Site Error:	0.00 usft
Survey Program: 26-MWD, 700-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	1.70	1.70	0.00	0.00	89.61	0.41	60.00	60.00					
100.00	100.00	101.61	101.61	0.26	0.27	-86.53	0.53	60.06	60.01	59.48	0.53	113.363		
200.00	200.00	201.99	201.99	0.61	0.62	-137.25	0.78	60.03	60.06	58.83	1.23	48.785		
300.00	300.00	301.91	301.90	0.96	0.97	-52.92	0.33	59.46	59.14	57.21	1.93	30.681		
400.00	399.99	402.19	402.18	1.32	1.32	-59.03	-0.46	58.99	58.47	55.84	2.63	22.205		
500.00	499.98	501.80	501.79	1.67	1.67	-34.77	-1.49	58.40	56.88	53.54	3.34	17.029		
600.00	599.97	601.77	601.75	2.03	2.02	-38.26	-2.49	58.31	55.62	51.57	4.05	13.727		
700.00	699.95	701.91	701.89	2.39	2.38	-37.93	-3.30	58.31	54.07	49.31	4.77	11.348		
800.00	799.93	801.89	801.86	2.62	2.74	-65.64	-4.06	57.89	52.67	47.32	5.36	9.835		
900.00	899.91	901.64	901.61	2.66	3.08	-67.21	-4.24	57.79	51.86	46.12	5.74	9.035		
1,000.00	999.91	1,001.64	1,001.61	2.75	3.42	85.00	-4.24	57.79	51.67	45.50	6.17	8.381		
1,100.00	1,099.91	1,101.64	1,101.61	2.87	3.76	85.00	-4.24	57.79	51.67	45.04	6.63	7.791		
1,200.00	1,199.91	1,201.64	1,201.61	3.03	4.11	85.00	-4.24	57.79	51.67	44.53	7.14	7.237		
1,300.00	1,299.91	1,301.64	1,301.61	3.22	4.46	85.00	-4.24	57.79	51.67	43.99	7.68	6.727		
1,400.00	1,399.91	1,401.64	1,401.61	3.44	4.81	85.00	-4.24	57.79	51.67	43.42	8.25	6.263		
1,416.11	1,416.02	1,417.75	1,417.72	3.48	4.87	85.00	-4.24	57.79	51.67	43.32	8.34	6.192 CC		
1,500.00	1,499.91	1,501.62	1,501.60	3.68	5.16	85.00	-4.24	57.79	51.67	42.83	8.84	5.844 ES		
1,600.00	1,599.91	1,600.78	1,600.75	3.94	5.51	85.35	-4.49	58.64	52.50	43.06	9.45	5.558		
1,700.00	1,699.91	1,700.00	1,699.93	4.22	5.85	86.33	-5.23	61.14	54.96	44.90	10.06	5.462		
1,800.00	1,799.91	1,798.86	1,798.69	4.50	6.20	87.77	-6.45	65.26	59.06	48.37	10.69	5.527		
1,900.00	1,899.91	1,897.66	1,897.31	4.80	6.55	89.48	-8.15	71.02	64.84	53.53	11.32	5.729		
2,000.00	1,999.91	1,996.22	1,995.57	5.10	6.91	91.27	-10.33	78.38	72.33	60.38	11.96	6.050		
2,100.00	2,099.91	2,094.49	2,093.40	5.41	7.29	93.00	-12.99	87.34	81.54	68.95	12.60	6.474		
2,200.00	2,199.91	2,192.83	2,191.12	5.73	7.68	94.60	-16.10	97.85	92.42	79.18	13.24	6.978		
2,300.00	2,299.91	2,292.15	2,289.78	6.05	8.08	95.91	-19.37	108.89	103.80	89.88	13.91	7.460		
2,400.00	2,399.91	2,391.48	2,388.43	6.37	8.50	96.97	-22.64	119.93	115.22	100.63	14.59	7.898		
2,500.00	2,499.91	2,490.80	2,487.09	6.70	8.92	97.84	-25.91	130.98	126.67	111.40	15.27	8.296		
2,600.00	2,599.91	2,590.09	2,585.70	7.02	9.36	-131.57	-29.18	142.02	138.58	122.64	15.94	8.693		
2,700.00	2,699.89	2,689.26	2,684.21	7.33	9.79	-131.44	-32.44	153.05	151.35	134.75	16.61	9.113		
2,800.00	2,799.83	2,788.33	2,782.60	7.65	10.23	-131.66	-35.70	164.06	164.99	147.71	17.28	9.547		
2,900.00	2,899.73	2,887.25	2,880.86	7.97	10.68	-132.14	-38.96	175.06	179.50	161.54	17.96	9.994		
3,000.00	2,999.55	2,986.03	2,978.97	8.29	11.13	-132.81	-42.21	186.04	194.90	176.25	18.65	10.453		
3,100.00	3,099.29	3,084.64	3,076.91	8.62	11.58	-133.64	-45.46	197.01	211.22	191.88	19.34	10.924		
3,200.00	3,198.93	3,183.06	3,174.67	8.96	12.04	-134.56	-48.70	207.95	228.49	208.46	20.03	11.406		
3,300.00	3,298.45	3,281.28	3,272.23	9.30	12.49	-135.55	-51.93	218.87	246.74	226.00	20.73	11.900		
3,400.00	3,397.90	3,379.39	3,369.68	9.64	12.95	-136.59	-55.16	229.78	265.53	244.09	21.44	12.384		
3,500.00	3,497.35	3,477.50	3,467.13	9.99	13.41	-137.50	-58.39	240.69	284.40	262.24	22.15	12.839		
3,600.00	3,596.81	3,575.61	3,564.58	10.34	13.88	-138.29	-61.62	251.60	303.32	280.45	22.87	13.265		
3,700.00	3,696.26	3,673.73	3,662.03	10.70	14.34	-138.99	-64.85	262.51	322.29	298.71	23.58	13.666		
3,800.00	3,795.71	3,771.84	3,759.48	11.05	14.81	-139.61	-68.08	273.42	341.31	317.01	24.30	14.043		
3,900.00	3,895.16	3,869.95	3,856.93	11.42	15.28	-140.16	-71.31	284.33	360.36	335.33	25.03	14.399		
4,000.00	3,994.61	3,968.06	3,954.38	11.78	15.74	-140.66	-74.54	295.24	379.44	353.69	25.75	14.734		
4,100.00	4,094.07	4,066.17	4,051.83	12.14	16.22	-141.11	-77.77	306.14	398.54	372.06	26.48	15.050		
4,200.00	4,193.52	4,164.29	4,149.28	12.51	16.69	-141.52	-81.00	317.05	417.67	390.46	27.21	15.349		
4,300.00	4,292.97	4,262.40	4,246.73	12.88	17.16	-141.89	-84.23	327.96	436.81	408.87	27.94	15.632		
4,400.00	4,392.42	4,360.51	4,344.18	13.25	17.63	-142.24	-87.46	338.87	455.97	427.30	28.68	15.900		
4,500.00	4,491.88	4,458.62	4,441.63	13.62	18.11	-142.55	-90.69	349.78	475.15	445.74	29.41	16.154		
4,600.00	4,591.33	4,556.73	4,539.08	14.00	18.58	-142.84	-93.92	360.69	494.34	464.19	30.15	16.396		
4,700.00	4,690.78	4,654.85	4,636.53	14.37	19.06	-143.11	-97.15	371.60	513.54	482.65	30.89	16.626		
4,800.00	4,790.23	4,752.96	4,733.98	14.75	19.54	-143.36	-100.38	382.51	532.75	501.12	31.63	16.844		
4,900.00	4,889.68	4,851.07	4,831.43	15.12	20.02	-143.59	-103.61	393.42	551.97	519.60	32.37	17.053		
5,000.00	4,989.14	4,949.18	4,928.88	15.50	20.49	-143.81	-106.84	404.33	571.19	538.08	33.11	17.251		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 291H - Wellbore #1 - Design #2													Offset Site Error: 0.00 usft
Survey Program: 26-MWD, 700-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.00	5,088.59	5,047.29	5,026.33	15.88	20.97	-144.01	-110.07	415.24	590.43	556.57	33.85	17.441	
5,200.00	5,188.04	5,145.41	5,123.78	16.26	21.45	-144.20	-113.30	426.14	609.67	575.07	34.60	17.622	
5,300.00	5,287.49	5,243.52	5,221.23	16.64	21.93	-144.38	-116.53	437.05	628.92	593.57	35.34	17.795	
5,400.00	5,386.94	5,341.63	5,318.68	17.02	22.41	-144.55	-119.76	447.96	648.17	612.08	36.09	17.961	
5,500.00	5,486.40	5,439.74	5,416.13	17.41	22.89	-144.70	-122.99	458.87	667.43	630.59	36.83	18.120	
5,600.00	5,585.85	5,537.86	5,513.58	17.79	23.37	-144.85	-126.22	469.78	686.69	649.11	37.58	18.272	
5,700.00	5,685.30	5,635.97	5,611.03	18.17	23.86	-144.99	-129.45	480.69	705.95	667.63	38.33	18.419	
5,800.00	5,784.75	5,734.08	5,708.48	18.56	24.34	-145.13	-132.68	491.60	725.22	686.15	39.08	18.559	
5,900.00	5,884.21	5,832.19	5,805.93	18.94	24.82	-145.25	-135.91	502.51	744.50	704.67	39.83	18.694	
6,000.00	5,983.66	5,930.30	5,903.38	19.32	25.30	-145.37	-139.14	513.42	763.78	723.20	40.58	18.823	
6,100.00	6,083.11	6,028.42	6,000.83	19.71	25.79	-145.49	-142.37	524.33	783.06	741.73	41.33	18.948	
6,200.00	6,182.56	6,126.53	6,098.28	20.10	26.27	-145.60	-145.60	535.24	802.34	760.26	42.08	19.068	
6,300.00	6,282.01	6,224.64	6,195.73	20.48	26.75	-145.70	-148.83	546.15	821.62	778.80	42.83	19.184	
6,400.00	6,381.52	6,322.84	6,293.27	20.87	27.24	-145.85	-152.06	557.06	840.46	796.89	43.58	19.286	
6,500.00	6,481.15	6,421.25	6,391.01	21.25	27.72	-145.95	-155.30	568.01	858.24	813.92	44.32	19.363	
6,600.00	6,580.88	6,519.84	6,488.94	21.62	28.21	-146.00	-158.55	578.97	874.95	829.88	45.07	19.415	
6,700.00	6,680.70	6,618.60	6,587.04	21.99	28.70	-145.99	-161.80	589.95	890.59	844.79	45.80	19.443	
6,800.00	6,780.59	6,717.52	6,685.29	22.35	29.19	-145.94	-165.05	600.95	905.16	858.62	46.54	19.450	
6,900.00	6,880.53	6,816.57	6,783.67	22.70	29.68	-145.84	-168.31	611.96	918.66	871.39	47.27	19.435	
7,000.00	6,980.51	6,915.74	6,882.17	23.05	30.17	-145.69	-171.58	622.99	931.10	883.11	47.99	19.401	
7,100.00	7,080.51	7,015.02	6,980.78	23.39	30.66	-145.50	-174.85	634.03	942.47	893.77	48.70	19.352	
7,200.00	7,180.51	7,114.34	7,079.43	23.71	31.15	84.76	-178.12	645.07	953.25	903.85	49.40	19.295	
7,300.00	7,280.51	7,213.67	7,178.09	24.04	31.64	85.02	-181.39	656.12	964.04	913.94	50.10	19.241	
7,400.00	7,380.51	7,312.99	7,276.74	24.37	32.13	85.27	-184.66	667.16	974.85	924.04	50.80	19.188	
7,500.00	7,480.51	7,412.32	7,375.40	24.70	32.62	85.51	-187.93	678.20	985.68	934.17	51.51	19.137	
7,600.00	7,580.51	7,511.64	7,474.05	25.03	33.12	85.75	-191.20	689.25	996.52	944.31	52.21	19.088	
7,700.00	7,680.51	7,610.97	7,572.71	25.36	33.61	85.98	-194.47	700.29	1,007.38	954.47	52.91	19.039	
7,800.00	7,780.51	7,710.29	7,671.36	25.69	34.10	86.21	-197.74	711.34	1,018.26	964.65	53.61	18.993	
7,900.00	7,880.51	7,823.81	7,784.19	26.02	34.65	86.45	-201.30	723.37	1,028.67	974.25	54.42	18.902	
8,000.00	7,980.51	7,943.73	7,903.61	26.35	35.19	86.66	-204.40	733.83	1,037.23	981.97	55.26	18.770	
8,100.00	8,080.51	8,064.06	8,023.64	26.68	35.68	86.82	-206.79	741.91	1,043.82	987.75	56.07	18.615	
8,200.00	8,180.51	8,164.69	8,144.12	27.02	36.13	86.93	-208.47	747.59	1,048.45	991.58	56.86	18.438	
8,300.00	8,280.51	8,305.52	8,264.90	27.35	36.54	86.99	-209.43	750.83	1,051.09	993.46	57.63	18.240	
8,400.00	8,380.51	8,422.84	8,382.21	27.69	36.89	87.00	-209.68	751.67	1,051.77	993.43	58.34	18.027	
8,500.00	8,480.51	8,522.84	8,482.21	28.02	37.17	87.00	-209.68	751.67	1,051.77	992.76	59.01	17.825	
8,600.00	8,580.51	8,622.84	8,582.21	28.36	37.45	87.00	-209.68	751.67	1,051.77	992.10	59.67	17.627	
8,700.00	8,680.51	8,722.84	8,682.21	28.69	37.73	87.00	-209.68	751.67	1,051.77	991.44	60.33	17.433	
8,800.00	8,780.51	8,822.84	8,782.21	29.03	38.02	87.00	-209.68	751.67	1,051.77	990.77	61.00	17.243	
8,900.00	8,880.51	8,922.84	8,882.21	29.37	38.30	87.00	-209.68	751.67	1,051.77	990.10	61.66	17.056	
9,000.00	8,980.51	9,022.84	8,982.21	29.70	38.59	87.00	-209.68	751.67	1,051.77	989.44	62.33	16.874	
9,100.00	9,080.51	9,122.84	9,082.21	30.04	38.88	87.00	-209.68	751.67	1,051.77	988.77	63.00	16.695	
9,200.00	9,180.51	9,222.84	9,182.21	30.38	39.17	87.00	-209.68	751.67	1,051.77	988.10	63.67	16.519	
9,300.00	9,280.51	9,322.84	9,282.21	30.72	39.46	87.00	-209.68	751.67	1,051.77	987.43	64.34	16.347	
9,400.00	9,380.51	9,422.84	9,382.21	31.06	39.75	87.00	-209.68	751.67	1,051.77	986.76	65.01	16.178	
9,500.00	9,480.51	9,522.84	9,482.21	31.40	40.04	87.00	-209.68	751.67	1,051.77	986.08	65.69	16.012	
9,600.00	9,580.51	9,622.84	9,582.21	31.74	40.33	87.00	-209.68	751.67	1,051.77	985.41	66.36	15.850	
9,700.00	9,680.51	9,722.84	9,682.21	32.08	40.63	87.00	-209.68	751.67	1,051.77	984.74	67.03	15.690	
9,800.00	9,780.51	9,822.84	9,782.21	32.42	40.92	87.00	-209.68	751.67	1,051.77	984.06	67.71	15.534	
9,900.00	9,880.51	9,922.84	9,882.21	32.77	41.22	87.00	-209.68	751.67	1,051.77	983.38	68.38	15.380	
10,000.00	9,980.51	10,022.84	9,982.21	33.11	41.52	87.00	-209.68	751.67	1,051.77	982.71	69.06	15.229	
10,000.03	9,980.54	10,022.86	9,982.24	33.11	41.52	87.00	-209.68	751.67	1,051.77	982.71	69.06	15.229	
10,100.00	10,080.49	10,122.11	10,081.48	33.45	41.81	95.75	-209.64	751.67	1,051.85	982.12	69.73	15.084	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
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Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 291H - Wellbore #1 - Design #2													Offset Site Error:	0.00 usft
Survey Program: 26-MWD, 700-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,200.00	10,179.00	10,212.18	10,170.90	33.77	42.06	95.76	-199.99	751.67	1,054.03	983.73	70.30	14.993		
10,300.00	10,272.00	10,303.10	10,257.71	34.04	42.25	95.50	-173.43	751.67	1,059.22	988.45	70.77	14.966		
10,400.00	10,355.42	10,395.12	10,338.84	34.26	42.39	94.99	-130.30	751.67	1,067.22	996.04	71.18	14.994		
10,500.00	10,425.63	10,488.52	10,411.19	34.40	42.47	94.26	-71.47	751.67	1,077.71	1,006.13	71.58	15.056		
10,600.00	10,479.56	10,583.59	10,471.66	34.49	42.49	93.33	1.69	751.67	1,090.27	1,018.22	72.05	15.133		
10,700.00	10,514.84	10,680.71	10,517.24	34.55	42.47	92.27	87.26	751.67	1,104.36	1,031.71	72.66	15.200		
10,800.00	10,529.94	10,780.24	10,545.03	34.83	42.43	91.11	182.64	751.67	1,119.41	1,045.95	73.46	15.238		
10,900.00	10,531.22	10,881.92	10,552.88	35.14	42.41	91.08	283.86	751.67	1,133.50	1,058.99	74.51	15.213		
11,000.00	10,532.16	10,981.35	10,553.92	35.51	42.52	91.06	383.29	751.67	1,144.10	1,068.24	75.85	15.083		
11,100.00	10,533.10	11,081.09	10,554.96	35.95	42.98	91.03	483.02	751.67	1,151.21	1,073.75	77.46	14.862		
11,200.00	10,534.04	11,181.02	10,556.01	36.45	44.02	91.02	582.95	751.67	1,154.85	1,075.52	79.33	14.558		
11,300.00	10,534.98	11,281.02	10,557.06	36.99	45.46	91.01	682.94	751.67	1,155.36	1,073.94	81.42	14.190		
11,400.00	10,535.91	11,381.02	10,558.10	37.60	47.13	91.02	782.93	751.67	1,155.36	1,071.62	83.74	13.797		
11,500.00	10,536.85	11,481.02	10,559.15	38.27	48.96	91.02	882.93	751.67	1,155.37	1,069.11	86.25	13.395		
11,600.00	10,537.78	11,581.02	10,560.20	38.99	50.91	91.03	982.92	751.67	1,155.37	1,066.42	88.94	12.990		
11,700.00	10,538.72	11,681.02	10,561.24	39.77	52.97	91.03	1,082.92	751.67	1,155.37	1,063.57	91.80	12.586		
11,800.00	10,539.65	11,781.02	10,562.29	40.61	55.13	91.04	1,182.91	751.67	1,155.37	1,060.57	94.80	12.187		
11,900.00	10,540.59	11,881.02	10,563.34	41.49	57.38	91.04	1,282.90	751.67	1,155.38	1,057.44	97.94	11.797		
12,000.00	10,541.52	11,981.02	10,564.39	42.41	59.69	91.05	1,382.90	751.67	1,155.38	1,054.18	101.20	11.417		
12,100.00	10,542.46	12,081.02	10,565.43	43.38	62.07	91.06	1,482.89	751.67	1,155.38	1,050.82	104.57	11.049		
12,200.00	10,543.39	12,181.02	10,566.48	44.39	64.51	91.06	1,582.89	751.67	1,155.39	1,047.36	108.03	10.695		
12,300.00	10,544.33	12,281.02	10,567.53	45.44	67.01	91.07	1,682.88	751.67	1,155.39	1,043.80	111.59	10.354		
12,400.00	10,545.26	12,381.02	10,568.57	46.52	69.54	91.07	1,782.88	751.67	1,155.39	1,040.17	115.22	10.027		
12,500.00	10,546.20	12,481.02	10,569.62	47.64	72.12	91.08	1,882.87	751.67	1,155.40	1,036.46	118.94	9.714		
12,600.00	10,547.14	12,581.02	10,570.67	48.78	74.74	91.08	1,982.87	751.67	1,155.40	1,032.68	122.72	9.415		
12,700.00	10,548.07	12,681.02	10,571.72	49.96	77.39	91.09	2,082.86	751.67	1,155.40	1,028.85	126.56	9.130		
12,800.00	10,549.01	12,781.02	10,572.76	51.16	80.07	91.09	2,182.85	751.67	1,155.41	1,024.95	130.45	8.857		
12,900.00	10,549.94	12,881.02	10,573.81	52.39	82.78	91.10	2,282.85	751.67	1,155.41	1,021.01	134.40	8.597		
13,000.00	10,550.88	12,981.02	10,574.86	53.63	85.51	91.11	2,382.84	751.67	1,155.41	1,017.01	138.40	8.348		
13,100.00	10,551.81	13,081.02	10,575.91	54.90	88.26	91.11	2,482.84	751.67	1,155.42	1,012.98	142.44	8.112		
13,200.00	10,552.75	13,181.02	10,576.95	56.19	91.04	91.12	2,582.83	751.67	1,155.42	1,008.90	146.52	7.886		
13,300.00	10,553.68	13,281.02	10,578.00	57.50	93.83	91.12	2,682.83	751.67	1,155.42	1,004.79	150.63	7.670		
13,400.00	10,554.62	13,381.02	10,579.05	58.83	96.64	91.13	2,782.82	751.67	1,155.43	1,000.64	154.79	7.465		
13,500.00	10,555.55	13,481.02	10,580.09	60.17	99.47	91.13	2,882.82	751.67	1,155.43	996.46	158.97	7.268		
13,600.00	10,556.49	13,581.02	10,581.14	61.53	102.31	91.14	2,982.81	751.67	1,155.43	992.26	163.18	7.081		
13,700.00	10,557.42	13,681.02	10,582.19	62.90	105.16	91.14	3,082.80	751.67	1,155.44	988.02	167.42	6.902		
13,800.00	10,558.36	13,781.02	10,583.24	64.29	108.03	91.15	3,182.80	751.67	1,155.44	983.76	171.68	6.730		
13,900.00	10,559.29	13,881.02	10,584.28	65.69	110.90	91.15	3,282.79	751.67	1,155.44	979.48	175.96	6.566		
14,000.00	10,560.23	13,981.02	10,585.33	67.10	113.79	91.16	3,382.79	751.67	1,155.45	975.18	180.27	6.409		
14,100.00	10,561.17	14,081.02	10,586.38	68.52	116.69	91.17	3,482.78	751.67	1,155.45	970.85	184.60	6.259		
14,200.00	10,562.10	14,181.02	10,587.42	69.95	119.59	91.17	3,582.78	751.67	1,155.45	966.51	188.95	6.115		
14,300.00	10,563.04	14,281.02	10,588.47	71.39	122.51	91.18	3,682.77	751.67	1,155.46	962.15	193.31	5.977		
14,400.00	10,563.97	14,381.02	10,589.52	72.84	125.43	91.18	3,782.77	751.67	1,155.46	957.77	197.69	5.845		
14,500.00	10,564.91	14,481.02	10,590.57	74.30	128.36	91.19	3,882.76	751.67	1,155.46	953.38	202.09	5.718		
14,600.00	10,565.84	14,581.02	10,591.61	75.77	131.29	91.19	3,982.75	751.67	1,155.47	948.97	206.50	5.596		
14,700.00	10,566.78	14,681.02	10,592.66	77.24	134.23	91.20	4,082.75	751.67	1,155.47	944.55	210.92	5.478		
14,800.00	10,567.71	14,781.02	10,593.71	78.72	137.18	91.20	4,182.74	751.67	1,155.48	940.12	215.36	5.365		
14,900.00	10,568.65	14,881.02	10,594.75	80.21	140.13	91.21	4,282.74	751.67	1,155.48	935.67	219.81	5.257		
15,000.00	10,569.58	14,981.02	10,595.80	81.70	143.09	91.22	4,382.73	751.67	1,155.48	931.22	224.27	5.152		
15,100.00	10,570.52	15,081.02	10,596.85	83.21	146.05	91.22	4,482.73	751.67	1,155.49	926.75	228.74	5.052		
15,200.00	10,571.45	15,181.02	10,597.90	84.71	149.02	91.23	4,582.72	751.67	1,155.49	922.27	233.22	4.955		
15,300.00	10,572.39	15,281.02	10,598.94	86.22	151.99	91.23	4,682.72	751.67	1,155.49	917.79	237.71	4.861		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 291H - Wellbore #1 - Design #2												Offset Site Error:	0.00 usft
Survey Program: 26-MWD, 700-MWD												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,335.37	10,572.72	15,316.38	10,599.31	86.76	153.04	91.23	4,718.08	751.67	1,155.49	916.20	239.30	4.829 SF	

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 291H - Wellbore #1 - Surveys													Offset Site Error:	0.00 usft
Survey Program: 26-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	1.70	1.70	0.00	0.00	89.61	0.41	60.00	60.00					
100.00	100.00	101.61	101.61	0.26	0.27	-86.53	0.53	60.06	60.01	59.48	0.53	113.360		
200.00	200.00	201.99	201.99	0.61	0.62	-137.25	0.78	60.03	60.06	58.83	1.23	48.790		
300.00	300.00	301.91	301.90	0.96	0.97	-52.92	0.33	59.46	59.14	57.21	1.93	30.684		
400.00	399.99	402.19	402.18	1.32	1.32	-59.03	-0.46	58.99	58.47	55.84	2.63	22.214		
500.00	499.98	501.80	501.79	1.67	1.67	-34.77	-1.49	58.40	56.88	53.54	3.34	17.037		
600.00	599.97	601.77	601.75	2.03	2.02	-38.26	-2.49	58.31	55.62	51.57	4.05	13.737		
684.82	684.78	686.64	686.62	2.33	2.32	-37.91	-3.18	58.36	54.44	49.78	4.65	11.700		
700.00	699.95	700.00	699.98	2.39	2.37	-37.93	-3.28	58.31	54.11	49.35	4.76	11.376 CC, ES, SF		
800.00	799.93	700.00	699.98	2.62	2.37	-64.38	-3.28	58.31	114.71	108.68	6.02	19.047		
900.00	899.91	700.00	699.98	2.66	2.37	-65.89	-3.28	58.31	208.35	202.23	6.12	34.053		
1,000.00	999.91	700.00	699.98	2.75	2.37	84.01	-3.28	58.31	306.13	300.06	6.07	50.393		
1,100.00	1,099.91	700.00	699.98	2.87	2.37	84.01	-3.28	58.31	405.02	399.02	6.01	67.444		
1,200.00	1,199.91	700.00	699.98	3.03	2.37	84.01	-3.28	58.31	504.35	498.42	5.93	85.055		
1,300.00	1,299.91	700.00	699.98	3.22	2.37	84.01	-3.28	58.31	603.90	598.05	5.85	103.185		
1,400.00	1,399.91	700.00	699.98	3.44	2.37	84.01	-3.28	58.31	703.58	697.80	5.78	121.820		
1,500.00	1,499.91	700.00	699.98	3.68	2.37	84.01	-3.28	58.31	803.34	797.64	5.70	140.954		
1,600.00	1,599.91	700.00	699.98	3.94	2.37	84.01	-3.28	58.31	903.15	897.52	5.62	160.581		
1,700.00	1,699.91	700.00	699.98	4.22	2.37	84.01	-3.28	58.31	1,003.00	997.45	5.55	180.700		
1,800.00	1,799.91	700.00	699.98	4.50	2.37	84.01	-3.28	58.31	1,102.87	1,097.40	5.48	201.303		
1,900.00	1,899.91	700.00	699.98	4.80	2.37	84.01	-3.28	58.31	1,202.77	1,197.36	5.41	222.382		
2,000.00	1,999.91	700.00	699.98	5.10	2.37	84.01	-3.28	58.31	1,302.68	1,297.34	5.34	243.925		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 292H - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft
Survey Program: 205-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	1.91	1.91	0.00	0.00	113.68	-424.42	967.79	1,056.76				
100.00	100.00	102.59	102.59	0.26	0.16	-62.16	-424.43	967.75	1,056.60	1,056.18	0.42	2,525.481	
200.00	200.00	203.27	203.27	0.61	0.32	-112.47	-424.45	967.63	1,056.49	1,055.57	0.82	1,142.491	
238.02	238.02	240.21	240.21	0.74	0.44	-62.57	-424.44	967.60	1,056.45	1,055.27	1.18	893.126	
300.00	300.00	300.71	300.71	0.96	0.65	-27.91	-424.40	967.66	1,055.89	1,054.28	1.61	656.260	
400.00	399.99	402.40	402.40	1.32	1.00	-34.11	-424.42	967.74	1,055.51	1,053.19	2.32	455.709	
500.00	499.98	505.84	505.84	1.67	1.36	-10.08	-424.29	967.46	1,053.98	1,050.94	3.04	347.118	
600.00	599.97	603.47	603.47	2.03	1.71	-13.33	-424.15	967.26	1,052.16	1,048.42	3.74	281.386	
700.00	699.95	703.23	703.23	2.39	2.07	-12.62	-424.08	967.14	1,050.13	1,045.68	4.45	235.980	
800.00	799.93	799.75	799.75	2.62	2.40	-39.28	-424.09	967.13	1,048.50	1,043.48	5.02	208.876	
900.00	899.91	895.70	895.70	2.66	2.73	-39.35	-424.02	967.59	1,047.54	1,042.15	5.39	194.189	
938.68	938.59	934.77	934.77	2.70	2.87	-39.37	-423.97	967.85	1,047.48	1,041.92	5.56	188.332	
1,000.00	999.91	996.72	996.71	2.75	3.08	113.34	-423.90	968.23	1,047.69	1,041.86	5.83	179.789	
1,100.00	1,099.91	1,097.85	1,097.84	2.87	3.43	113.33	-423.76	968.77	1,048.12	1,041.82	6.30	166.355	
1,200.00	1,199.91	1,199.41	1,199.40	3.03	3.79	113.30	-423.51	969.21	1,048.43	1,041.61	6.82	153.785	
1,300.00	1,299.91	1,301.42	1,301.41	3.22	4.15	113.28	-423.12	969.54	1,048.57	1,041.21	7.37	142.295	
1,400.00	1,399.91	1,404.29	1,404.28	3.44	4.51	113.25	-422.66	969.63	1,048.48	1,040.52	7.95	131.852	
1,500.00	1,499.91	1,505.68	1,505.67	3.68	4.87	113.23	-422.20	969.46	1,048.14	1,039.59	8.55	122.574	
1,600.00	1,599.91	1,605.51	1,605.50	3.94	5.22	113.22	-421.87	969.20	1,047.78	1,038.61	9.16	114.359	
1,700.00	1,699.91	1,704.35	1,704.34	4.22	5.57	113.22	-421.69	968.94	1,047.46	1,037.68	9.78	107.093	
1,800.00	1,799.91	1,802.48	1,802.47	4.50	5.91	113.22	-421.62	968.81	1,047.31	1,036.90	10.41	100.640	
1,900.00	1,899.91	1,901.83	1,901.82	4.80	6.25	113.22	-421.65	968.78	1,047.30	1,036.25	11.04	94.827	
1,902.08	1,901.99	1,903.91	1,903.90	4.80	6.26	113.22	-421.65	968.78	1,047.30	1,036.24	11.06	94.711	
2,000.00	1,999.91	2,001.84	2,001.82	5.10	6.59	113.23	-421.84	968.70	1,047.30	1,035.60	11.69	89.577	
2,026.92	2,026.83	2,028.75	2,028.73	5.18	6.69	113.24	-421.92	968.67	1,047.30	1,035.43	11.87	88.248	
2,100.00	2,099.91	2,101.12	2,101.11	5.41	6.94	113.25	-422.12	968.61	1,047.32	1,034.97	12.34	84.838	
2,200.00	2,199.91	2,200.17	2,200.16	5.73	7.28	113.25	-422.28	968.66	1,047.43	1,034.43	13.00	80.549	
2,300.00	2,299.91	2,300.50	2,300.49	6.05	7.63	113.26	-422.42	968.76	1,047.58	1,033.91	13.67	76.619	
2,400.00	2,399.91	2,401.09	2,401.08	6.37	7.98	113.27	-422.69	968.76	1,047.68	1,033.34	14.35	73.026	
2,500.00	2,499.91	2,500.61	2,500.60	6.70	8.32	113.30	-423.11	968.67	1,047.77	1,032.75	15.02	69.749	
2,600.00	2,599.91	2,600.11	2,600.09	7.02	8.67	-116.70	-423.71	968.57	1,048.21	1,032.52	15.69	66.813	
2,700.00	2,699.89	2,701.12	2,701.10	7.33	9.03	-116.76	-424.30	968.44	1,049.21	1,032.85	16.35	64.152	
2,800.00	2,799.83	2,801.91	2,801.89	7.65	9.38	-116.89	-424.69	968.29	1,050.70	1,033.68	17.03	61.715	
2,900.00	2,899.73	2,901.66	2,901.64	7.97	9.73	-117.07	-425.11	968.10	1,052.77	1,035.08	17.70	59.490	
3,000.00	2,999.55	3,001.09	3,001.07	8.29	10.08	-117.30	-425.70	967.87	1,055.47	1,037.10	18.37	57.452	
3,100.00	3,099.29	3,099.58	3,099.55	8.62	10.43	-117.59	-426.22	967.75	1,058.89	1,039.84	19.05	55.593	
3,200.00	3,198.93	3,198.66	3,198.64	8.96	10.77	-117.95	-426.57	967.83	1,063.07	1,043.34	19.73	53.886	
3,300.00	3,298.45	3,299.20	3,299.18	9.30	11.12	-118.38	-426.69	967.95	1,067.87	1,047.45	20.42	52.304	
3,400.00	3,397.90	3,399.08	3,399.05	9.64	11.47	-118.88	-426.62	968.06	1,072.97	1,051.87	21.11	50.836	
3,500.00	3,497.35	3,498.20	3,498.18	9.99	11.82	-119.36	-426.63	968.15	1,078.17	1,056.37	21.80	49.462	
3,600.00	3,596.81	3,598.99	3,598.97	10.34	12.17	-119.84	-426.77	968.17	1,083.43	1,060.93	22.50	48.154	
3,700.00	3,696.26	3,701.42	3,701.40	10.70	12.53	-120.32	-426.96	967.93	1,088.53	1,065.31	23.21	46.898	
3,800.00	3,795.71	3,801.82	3,801.79	11.05	12.88	-120.77	-427.18	967.46	1,093.49	1,069.57	23.92	45.721	
3,900.00	3,895.16	3,901.14	3,901.11	11.42	13.23	-121.21	-427.53	966.94	1,098.51	1,073.89	24.62	44.616	
4,000.00	3,994.61	3,998.58	3,998.55	11.78	13.58	-121.64	-427.99	966.48	1,103.69	1,078.36	25.32	43.585	
4,100.00	4,094.07	4,095.30	4,095.26	12.14	13.92	-122.05	-428.57	966.23	1,109.16	1,083.14	26.02	42.623	
4,200.00	4,193.52	4,193.32	4,193.28	12.51	14.26	-122.46	-429.28	966.15	1,114.90	1,088.17	26.73	41.711	
4,300.00	4,292.97	4,291.82	4,291.78	12.88	14.61	-122.87	-430.09	966.15	1,120.80	1,093.37	27.44	40.847	
4,400.00	4,392.42	4,392.91	4,392.86	13.25	14.97	-123.27	-431.05	966.07	1,126.73	1,098.57	28.16	40.011	
4,500.00	4,491.88	4,496.49	4,496.44	13.62	15.34	-123.67	-432.19	965.78	1,132.57	1,103.68	28.89	39.200	
4,600.00	4,591.33	4,638.60	4,638.51	14.00	15.83	-124.28	-431.56	962.84	1,136.31	1,106.57	29.75	38.201	
4,700.00	4,690.78	4,764.36	4,764.07	14.37	16.27	-124.93	-427.81	956.97	1,136.92	1,106.39	30.52	37.247	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 292H - Wellbore #1 - Surveys												Offset Site Error:	0.00 usft
Survey Program: 205-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,800.00	4,790.23	4,880.76	4,880.12	14.75	16.67	-125.61	-422.29	949.89	1,135.83	1,104.56	31.27	36.323	
4,900.00	4,889.68	4,978.18	4,977.20	15.12	17.01	-126.20	-417.09	943.54	1,134.30	1,102.32	31.98	35.471	
5,000.00	4,889.14	5,077.49	5,076.17	15.50	17.36	-126.80	-411.88	937.18	1,133.05	1,100.36	32.69	34.660	
5,100.00	5,088.59	5,185.81	5,184.06	15.88	17.74	-127.48	-405.70	929.85	1,131.46	1,098.04	33.42	33.854	
5,200.00	5,188.04	5,288.30	5,286.07	16.26	18.10	-128.15	-399.17	922.34	1,129.32	1,095.18	34.14	33.077	
5,300.00	5,287.49	5,382.95	5,380.30	16.64	18.43	-128.76	-393.50	915.52	1,127.52	1,092.67	34.85	32.354	
5,400.00	5,386.94	5,480.99	5,477.95	17.02	18.78	-129.36	-388.20	908.68	1,126.20	1,090.63	35.56	31.667	
5,500.00	5,486.40	5,583.60	5,580.16	17.41	19.15	-129.98	-382.87	901.29	1,124.82	1,088.53	36.29	30.997	
5,600.00	5,585.85	5,686.34	5,682.48	17.79	19.52	-130.59	-377.67	893.55	1,123.27	1,086.26	37.01	30.349	
5,700.00	5,685.30	5,789.21	5,784.90	18.17	19.88	-131.19	-372.67	885.44	1,121.53	1,083.80	37.74	29.719	
5,800.00	5,784.75	5,890.69	5,885.93	18.56	20.25	-131.77	-367.93	877.13	1,119.64	1,081.18	38.46	29.111	
5,900.00	5,884.21	5,991.64	5,986.43	18.94	20.62	-132.34	-363.31	868.71	1,117.71	1,078.52	39.18	28.524	
6,000.00	5,983.66	6,087.49	6,081.85	19.32	20.96	-132.88	-359.13	860.72	1,115.93	1,076.03	39.90	27.968	
6,100.00	6,083.11	6,182.36	6,176.34	19.71	21.31	-133.40	-355.42	853.14	1,114.66	1,074.05	40.61	27.445	
6,200.00	6,182.56	6,280.54	6,274.16	20.10	21.66	-133.91	-351.93	845.54	1,113.78	1,072.44	41.33	26.946	
6,300.00	6,282.01	6,379.43	6,372.71	20.48	22.02	-134.43	-348.55	837.93	1,113.04	1,070.98	42.06	26.466	
6,400.00	6,381.52	6,479.50	6,472.42	20.87	22.39	-134.92	-345.17	830.23	1,112.01	1,069.23	42.78	25.995	
6,500.00	6,481.15	6,579.74	6,572.30	21.25	22.75	-135.37	-341.66	822.47	1,110.08	1,066.58	43.50	25.520	
6,600.00	6,580.88	6,681.22	6,673.41	21.62	23.12	-135.76	-338.33	814.48	1,107.17	1,062.95	44.22	25.039	
6,700.00	6,680.70	6,782.06	6,773.88	21.99	23.49	-136.07	-335.57	806.34	1,103.20	1,058.27	44.93	24.552	
6,800.00	6,780.59	6,877.82	6,869.31	22.35	23.84	-136.29	-333.43	798.73	1,098.49	1,052.85	45.64	24.070	
6,900.00	6,880.53	6,974.72	6,965.91	22.70	24.20	-136.45	-331.70	791.34	1,093.20	1,046.86	46.34	23.591	
7,000.00	6,980.51	7,078.12	7,068.99	23.05	24.57	-136.57	-329.84	783.37	1,086.89	1,039.84	47.05	23.100	
7,100.00	7,080.51	7,180.19	7,170.71	23.39	24.95	-136.64	-327.70	775.20	1,079.33	1,031.58	47.75	22.605	
7,200.00	7,180.51	7,279.40	7,269.58	23.71	25.31	93.28	-325.77	767.21	1,071.17	1,022.74	48.43	22.117	
7,300.00	7,280.51	7,376.48	7,366.33	24.04	25.67	93.22	-324.19	759.44	1,063.10	1,013.98	49.11	21.646	
7,400.00	7,380.51	7,470.26	7,459.85	24.37	26.01	93.19	-323.17	752.35	1,055.48	1,005.69	49.79	21.200	
7,500.00	7,480.51	7,565.53	7,554.87	24.70	26.36	93.18	-322.68	745.62	1,048.40	997.94	50.46	20.775	
7,600.00	7,580.51	7,663.40	7,652.52	25.03	26.72	93.18	-322.39	738.95	1,041.58	990.43	51.15	20.364	
7,700.00	7,680.51	7,760.84	7,749.74	25.36	27.08	93.20	-322.23	732.49	1,034.95	983.12	51.83	19.968	
7,800.00	7,780.51	7,857.65	7,846.36	25.69	27.43	93.22	-322.33	726.31	1,028.59	976.07	52.51	19.587	
7,900.00	7,880.51	7,954.91	7,943.43	26.02	27.78	93.26	-322.61	720.37	1,022.51	969.31	53.20	19.221	
8,000.00	7,980.51	8,052.69	8,041.04	26.35	28.14	93.25	-322.18	714.65	1,016.64	962.75	53.88	18.867	
8,100.00	8,080.51	8,149.85	8,138.04	26.68	28.49	93.20	-320.94	709.22	1,010.99	956.42	54.57	18.527	
8,200.00	8,180.51	8,246.40	8,234.44	27.02	28.84	93.11	-319.19	704.16	1,005.65	950.40	55.25	18.201	
8,300.00	8,280.51	8,344.08	8,331.98	27.35	29.20	93.01	-317.10	699.34	1,000.61	944.67	55.94	17.888	
8,400.00	8,380.51	8,442.76	8,430.53	27.69	29.56	92.93	-315.42	694.60	995.72	939.09	56.63	17.584	
8,500.00	8,480.51	8,537.28	8,524.95	28.02	29.90	92.88	-314.34	690.25	991.08	933.77	57.30	17.295	
8,600.00	8,580.51	8,629.34	8,616.93	28.36	30.23	92.86	-313.82	686.69	987.18	929.21	57.97	17.028	
8,700.00	8,680.51	8,717.91	8,705.46	28.69	30.54	92.87	-313.89	684.02	984.18	925.56	58.62	16.788	
8,800.00	8,780.51	8,803.60	8,791.14	29.03	30.84	92.93	-314.81	682.58	982.56	923.31	59.25	16.583	
8,865.12	8,845.62	8,860.00	8,847.52	29.25	31.04	92.99	-315.90	682.29	982.29	922.64	59.66	16.465 CC	
8,900.00	8,880.51	8,893.07	8,880.59	29.37	31.15	93.03	-316.61	682.30	982.34	922.45	59.89	16.403	
9,000.00	8,980.51	8,989.82	8,977.32	29.70	31.48	93.12	-318.19	682.56	982.69	922.14	60.55	16.228	
9,100.00	9,080.51	9,088.55	9,076.05	30.04	31.81	93.17	-319.09	683.15	983.34	922.11	61.23	16.060	
9,200.00	9,180.51	9,190.53	9,178.02	30.38	32.15	93.20	-319.54	683.68	983.88	921.96	61.92	15.889	
9,300.00	9,280.51	9,292.12	9,279.61	30.72	32.50	93.21	-319.76	684.03	984.24	921.62	62.61	15.720	
9,400.00	9,380.51	9,393.32	9,380.81	31.06	32.84	93.27	-320.74	684.20	984.46	921.16	63.30	15.551	
9,500.00	9,480.51	9,495.11	9,482.58	31.40	33.19	93.37	-322.53	684.18	984.54	920.54	64.00	15.383	
9,600.00	9,580.51	9,597.21	9,584.66	31.74	33.54	93.50	-324.72	683.92	984.42	919.72	64.70	15.214	
9,700.00	9,680.51	9,697.05	9,684.47	32.08	33.88	93.64	-327.06	683.53	984.17	918.78	65.39	15.050	
9,717.03	9,697.54	9,712.00	9,699.42	32.14	33.93	93.66	-327.43	683.47	984.14	918.64	65.50	15.025 ES	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 292H - Wellbore #1 - Surveys													Offset Site Error:	0.00 usft
Survey Program: 205-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,800.00	9,780.51	9,759.00	9,746.34	32.42	34.09	93.79	-329.73	684.56	986.03	920.17	65.86	14.972 SF		
9,900.00	9,880.51	9,787.33	9,774.46	32.77	34.18	93.93	-332.35	686.68	993.55	927.64	65.91	15.074		
10,000.00	9,980.51	9,807.00	9,793.83	33.11	34.24	94.07	-334.85	689.01	1,007.96	942.37	65.59	15.368		
10,100.00	10,080.49	9,854.00	9,839.26	33.45	34.38	102.47	-343.19	697.57	1,028.65	963.20	65.45	15.716		
10,200.00	10,179.00	9,880.72	9,864.38	33.77	34.45	99.30	-349.40	704.20	1,058.94	994.09	64.85	16.328		
10,300.00	10,272.00	9,902.00	9,883.99	34.04	34.51	94.87	-355.07	710.21	1,098.47	1,034.37	64.11	17.135		
10,400.00	10,355.42	9,935.40	9,914.10	34.26	34.59	89.96	-365.24	720.46	1,145.29	1,081.57	63.73	17.972		
10,500.00	10,425.63	9,949.00	9,926.15	34.40	34.63	83.28	-369.80	724.81	1,197.79	1,134.60	63.19	18.956		
10,600.00	10,479.56	9,949.00	9,926.15	34.49	34.63	75.28	-369.80	724.81	1,253.92	1,191.22	62.70	19.998		
10,700.00	10,514.84	9,949.00	9,926.15	34.55	34.63	67.37	-369.80	724.81	1,311.09	1,248.48	62.61	20.941		

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 293H - Wellbore #1 - Design #2													Offset Site Error: 0.00 usft
Survey Program: 26-MWD, 698-MWD													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.50	0.50	0.00	0.00	89.79	0.11	30.07	30.07				
100.00	100.00	100.41	100.41	0.26	0.27	-87.01	0.42	30.19	30.15	29.62	0.53	57.335	
200.00	200.00	200.57	200.57	0.61	0.61	-137.73	0.45	29.84	29.87	28.85	1.22	24.443	
239.75	239.74	240.34	240.33	0.75	0.75	-86.48	0.56	29.77	29.85	28.34	1.50	19.881	
300.00	300.00	300.65	300.65	0.96	0.97	-54.72	0.53	29.47	29.18	27.25	1.93	15.147	
400.00	399.99	400.48	400.47	1.32	1.31	-62.26	0.48	29.20	28.75	26.12	2.63	10.936	
500.00	499.98	500.20	500.19	1.67	1.66	-39.27	0.21	30.00	28.61	25.28	3.33	8.592	
531.44	531.42	531.58	531.57	1.78	1.77	-40.20	-0.18	30.39	28.57	25.02	3.55	8.048 CC	
600.00	599.97	600.08	600.06	2.03	2.00	-42.48	-1.00	31.47	28.91	24.88	4.03	7.167	
700.00	699.95	700.17	700.12	2.39	2.36	-42.07	-2.02	32.76	28.65	23.91	4.74	6.042	
732.03	731.98	732.20	732.15	2.46	2.47	-51.56	-2.41	33.16	28.63	23.70	4.93	5.807	
800.00	799.93	800.17	800.11	2.62	2.71	-69.67	-3.23	34.02	28.95	23.62	5.33	5.433	
900.00	899.91	900.47	900.41	2.66	3.06	-71.66	-3.80	34.62	28.88	23.16	5.72	5.048	
1,000.00	999.91	1,000.47	1,000.41	2.75	3.41	80.10	-3.80	34.62	28.73	22.58	6.15	4.669	
1,100.00	1,099.91	1,100.47	1,100.41	2.87	3.76	80.10	-3.80	34.62	28.73	22.10	6.63	4.336	
1,200.00	1,199.91	1,200.47	1,200.41	3.03	4.11	80.10	-3.80	34.62	28.73	21.59	7.14	4.025	
1,300.00	1,299.91	1,300.47	1,300.41	3.22	4.46	80.10	-3.80	34.62	28.73	21.05	7.68	3.740	
1,400.00	1,399.91	1,400.47	1,400.41	3.44	4.81	80.10	-3.80	34.62	28.73	20.47	8.25	3.481	
1,500.00	1,499.91	1,500.47	1,500.41	3.68	5.17	80.10	-3.80	34.62	28.73	19.88	8.85	3.247	
1,600.00	1,599.91	1,600.47	1,600.41	3.94	5.52	80.10	-3.80	34.62	28.73	19.27	9.46	3.036	
1,700.00	1,699.91	1,700.47	1,700.41	4.22	5.88	80.10	-3.80	34.62	28.73	18.64	10.09	2.847	
1,800.00	1,799.91	1,800.47	1,800.41	4.50	6.23	80.10	-3.80	34.62	28.73	18.00	10.73	2.677	
1,900.00	1,899.91	1,900.47	1,900.41	4.80	6.59	80.10	-3.80	34.62	28.73	17.35	11.38	2.524	
2,000.00	1,999.91	2,000.47	2,000.41	5.10	6.94	80.10	-3.80	34.62	28.73	16.69	12.04	2.386	
2,100.00	2,099.91	2,100.47	2,100.41	5.41	7.30	80.10	-3.80	34.62	28.73	16.02	12.71	2.261	
2,200.00	2,199.91	2,200.47	2,200.41	5.73	7.66	80.10	-3.80	34.62	28.73	15.35	13.38	2.147	
2,300.00	2,299.91	2,300.47	2,300.41	6.05	8.01	80.10	-3.80	34.62	28.73	14.67	14.06	2.044	
2,400.00	2,399.91	2,400.47	2,400.41	6.37	8.37	80.10	-3.80	34.62	28.73	13.99	14.74	1.949	
2,500.00	2,499.91	2,500.47	2,500.41	6.70	8.73	80.10	-3.80	34.62	28.73	13.30	15.42	1.863	
2,600.00	2,599.91	2,600.47	2,600.41	7.02	9.08	-150.54	-3.80	34.62	29.30	13.20	16.10	1.820 ES, SF	
2,700.00	2,699.89	2,700.45	2,700.39	7.33	9.44	-152.31	-3.80	34.62	31.02	14.25	16.77	1.850	
2,800.00	2,799.83	2,800.39	2,800.33	7.65	9.80	-154.87	-3.80	34.62	33.95	16.51	17.44	1.946	
2,900.00	2,899.73	2,900.29	2,900.23	7.97	10.16	-157.78	-3.80	34.62	38.15	20.03	18.12	2.105	
3,000.00	2,999.55	3,000.12	3,000.05	8.29	10.51	-160.69	-3.80	34.62	43.66	24.86	18.80	2.322	
3,100.00	3,099.29	3,100.69	3,100.62	8.62	10.86	-163.72	-3.88	33.74	49.67	30.20	19.48	2.550	
3,200.00	3,198.93	3,201.34	3,201.24	8.96	11.21	-167.07	-4.11	31.10	55.44	35.29	20.14	2.752	
3,300.00	3,298.45	3,302.05	3,301.85	9.30	11.56	-170.70	-4.50	26.69	61.05	40.24	20.81	2.934	
3,400.00	3,397.90	3,402.83	3,402.44	9.64	11.91	-174.52	-5.04	20.52	65.99	44.51	21.48	3.072	
3,500.00	3,497.35	3,503.67	3,502.96	9.99	12.26	-178.58	-5.73	12.59	69.70	47.55	22.15	3.147	
3,600.00	3,596.81	3,604.50	3,603.31	10.34	12.61	176.94	-6.58	2.89	72.32	49.50	22.82	3.169	
3,700.00	3,696.26	3,705.02	3,703.18	10.70	12.97	171.93	-7.57	-8.47	74.09	50.58	23.51	3.152	
3,800.00	3,795.71	3,804.78	3,802.25	11.05	13.33	166.95	-8.60	-20.24	76.07	51.85	24.22	3.141	
3,900.00	3,895.16	3,904.55	3,901.31	11.42	13.69	162.25	-9.63	-32.01	78.58	53.65	24.93	3.152	
4,000.00	3,994.61	4,004.32	4,000.38	11.78	14.05	157.87	-10.66	-43.78	81.60	55.94	25.66	3.181	
4,100.00	4,094.07	4,104.08	4,099.44	12.14	14.41	153.82	-11.69	-55.54	85.06	58.67	26.38	3.224	
4,200.00	4,193.52	4,203.85	4,198.51	12.51	14.78	150.10	-12.72	-67.31	88.90	61.79	27.11	3.279	
4,300.00	4,292.97	4,303.62	4,297.57	12.88	15.15	146.71	-13.75	-79.08	93.09	65.24	27.85	3.343	
4,400.00	4,392.42	4,403.38	4,396.64	13.25	15.52	143.61	-14.78	-90.85	97.58	68.99	28.59	3.413	
4,500.00	4,491.88	4,503.15	4,495.70	13.62	15.89	140.80	-15.81	-102.62	102.33	73.00	29.34	3.488	
4,600.00	4,591.33	4,602.91	4,594.77	14.00	16.27	138.24	-16.84	-114.38	107.31	77.22	30.08	3.567	
4,700.00	4,690.78	4,702.68	4,693.83	14.37	16.64	135.91	-17.87	-126.15	112.48	81.64	30.83	3.648	
4,800.00	4,790.23	4,802.45	4,792.90	14.75	17.02	133.78	-18.90	-137.92	117.81	86.23	31.59	3.730	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 293H - Wellbore #1 - Design #2													Offset Site Error: 0.00 usft
Survey Program: 26-MWD, 698-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.00	4,889.68	4,902.21	4,891.96	15.12	17.39	131.85	-19.93	-149.69	123.30	90.96	32.34	3.812	
5,000.00	4,989.14	5,001.98	4,991.02	15.50	17.77	130.08	-20.96	-161.46	128.91	95.81	33.10	3.895	
5,100.00	5,088.59	5,101.75	5,090.09	15.88	18.15	128.46	-21.99	-173.22	134.64	100.78	33.86	3.977	
5,200.00	5,188.04	5,201.51	5,189.15	16.26	18.54	126.97	-23.02	-184.99	140.47	105.85	34.62	4.057	
5,300.00	5,287.49	5,301.28	5,288.22	16.64	18.92	125.60	-24.05	-196.76	146.38	111.00	35.38	4.137	
5,400.00	5,386.94	5,401.05	5,387.28	17.02	19.30	124.34	-25.08	-208.53	152.37	116.22	36.15	4.215	
5,500.00	5,486.40	5,500.81	5,486.35	17.41	19.68	123.17	-26.11	-220.29	158.42	121.51	36.91	4.292	
5,600.00	5,585.85	5,600.58	5,585.41	17.79	20.07	122.09	-27.14	-232.06	164.54	126.86	37.68	4.367	
5,700.00	5,685.30	5,700.35	5,684.48	18.17	20.46	121.09	-28.17	-243.83	170.71	132.27	38.45	4.440	
5,800.00	5,784.75	5,800.11	5,783.54	18.56	20.84	120.16	-29.19	-255.60	176.94	137.72	39.21	4.512	
5,900.00	5,884.21	5,899.88	5,882.61	18.94	21.23	119.29	-30.22	-267.37	183.20	143.21	39.98	4.582	
6,000.00	5,983.66	5,999.64	5,981.67	19.32	21.62	118.48	-31.25	-279.13	189.50	148.75	40.76	4.650	
6,100.00	6,083.11	6,099.41	6,080.74	19.71	22.00	117.72	-32.28	-290.90	195.84	154.31	41.53	4.716	
6,200.00	6,182.56	6,199.18	6,179.80	20.10	22.39	117.01	-33.31	-302.67	202.21	159.91	42.30	4.780	
6,300.00	6,282.01	6,298.94	6,278.86	20.48	22.78	116.34	-34.34	-314.44	208.61	165.54	43.07	4.843	
6,400.00	6,381.52	6,398.71	6,377.93	20.87	23.17	115.62	-35.37	-326.20	214.80	170.95	43.85	4.899	
6,500.00	6,481.15	6,498.47	6,476.99	21.25	23.56	114.63	-36.40	-337.97	220.48	175.86	44.62	4.942	
6,600.00	6,580.88	6,598.21	6,576.03	21.62	23.95	113.39	-37.43	-349.74	225.70	180.31	45.38	4.973	
6,700.00	6,680.70	6,697.91	6,675.03	21.99	24.35	111.90	-38.46	-361.50	230.54	184.39	46.15	4.996	
6,800.00	6,780.59	6,797.55	6,773.97	22.35	24.74	110.18	-39.49	-373.25	235.08	188.18	46.90	5.012	
6,900.00	6,880.53	6,897.12	6,872.83	22.70	25.13	108.24	-40.52	-384.99	239.42	191.77	47.65	5.025	
7,000.00	6,980.51	6,996.59	6,971.61	23.05	25.52	106.07	-41.54	-396.73	243.68	195.29	48.39	5.036	
7,100.00	7,080.51	7,095.96	7,070.28	23.39	25.91	103.69	-42.57	-408.45	247.97	198.86	49.11	5.050	
7,200.00	7,180.51	7,195.26	7,168.87	23.71	26.30	101.79	-43.59	-420.16	252.54	202.73	49.81	5.070	
7,300.00	7,280.51	7,294.55	7,267.47	24.04	26.70	99.79	-44.62	-431.87	257.57	207.07	50.51	5.100	
7,400.00	7,380.51	7,393.85	7,366.07	24.37	27.09	97.79	-45.64	-443.58	263.04	211.84	51.20	5.138	
7,500.00	7,480.51	7,493.15	7,464.67	24.70	27.48	95.79	-46.67	-455.30	268.92	217.04	51.88	5.183	
7,600.00	7,580.51	7,592.44	7,563.27	25.03	27.87	93.79	-47.69	-467.01	275.19	222.62	52.57	5.235	
7,700.00	7,680.51	7,691.74	7,661.86	25.36	28.27	91.79	-48.72	-478.72	281.81	228.56	53.25	5.292	
7,800.00	7,780.51	7,792.94	7,762.39	25.69	28.67	89.79	-49.73	-490.32	288.56	234.62	53.95	5.349	
7,900.00	7,880.51	7,895.64	7,864.59	26.02	29.06	87.79	-50.61	-500.41	294.59	239.93	54.66	5.390	
8,000.00	7,980.51	7,998.68	7,967.30	26.35	29.45	85.79	-51.34	-508.69	299.67	244.31	55.37	5.413	
8,100.00	8,080.51	8,101.99	8,070.40	26.68	29.84	83.79	-51.90	-515.15	303.71	247.65	56.07	5.417	
8,200.00	8,180.51	8,205.50	8,173.80	27.02	30.21	81.79	-52.31	-519.76	306.64	249.88	56.76	5.402	
8,300.00	8,280.51	8,309.14	8,277.40	27.35	30.58	79.79	-52.55	-522.52	308.40	250.95	57.45	5.368	
8,400.00	8,380.51	8,412.75	8,381.01	27.69	30.93	77.79	-52.62	-523.40	308.97	250.84	58.13	5.315	
8,500.00	8,480.51	8,512.75	8,481.01	28.02	31.27	75.79	-52.62	-523.40	308.97	250.17	58.81	5.254	
8,600.00	8,580.51	8,612.75	8,581.01	28.36	31.60	73.79	-52.62	-523.40	308.97	249.49	59.48	5.195	
8,700.00	8,680.51	8,712.75	8,681.01	28.69	31.94	71.79	-52.62	-523.40	308.97	248.82	60.15	5.136	
8,800.00	8,780.51	8,812.75	8,781.01	29.03	32.27	69.79	-52.62	-523.40	308.97	248.14	60.83	5.079	
8,900.00	8,880.51	8,912.75	8,881.01	29.37	32.61	67.79	-52.62	-523.40	308.97	247.46	61.51	5.023	
9,000.00	8,980.51	9,012.75	8,981.01	29.70	32.95	65.79	-52.62	-523.40	308.97	246.78	62.19	4.968	
9,100.00	9,080.51	9,112.75	9,081.01	30.04	33.29	63.79	-52.62	-523.40	308.97	246.11	62.87	4.915	
9,200.00	9,180.51	9,212.75	9,181.01	30.38	33.62	61.79	-52.62	-523.40	308.97	245.43	63.55	4.862	
9,300.00	9,280.51	9,312.75	9,281.01	30.72	33.96	59.79	-52.62	-523.40	308.97	244.75	64.23	4.811	
9,400.00	9,380.51	9,412.75	9,381.01	31.06	34.30	57.79	-52.62	-523.40	308.97	244.06	64.91	4.760	
9,500.00	9,480.51	9,512.75	9,481.01	31.40	34.64	55.79	-52.62	-523.40	308.97	243.38	65.59	4.711	
9,600.00	9,580.51	9,612.75	9,581.01	31.74	34.98	53.79	-52.62	-523.40	308.97	242.70	66.27	4.662	
9,700.00	9,680.51	9,712.75	9,681.01	32.08	35.32	51.79	-52.62	-523.40	308.97	242.01	66.96	4.614	
9,800.00	9,780.51	9,812.75	9,781.01	32.42	35.66	49.79	-52.62	-523.40	308.97	241.33	67.64	4.568	
9,900.00	9,880.51	9,912.75	9,881.01	32.77	36.00	47.79	-52.62	-523.40	308.97	240.65	68.33	4.522	
10,000.00	9,980.51	10,012.75	9,981.01	33.11	36.34	45.79	-52.62	-523.40	308.97	239.96	69.01	4.477	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 293H - Wellbore #1 - Design #2													Offset Site Error: 0.00 usft
Survey Program: 26-MWD, 698-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,100.00	10,080.49	10,176.40	10,142.61	33.45	36.87	-41.33	-73.90	-521.56	299.19	230.91	68.28	4.382	
10,200.00	10,179.00	10,308.53	10,263.24	33.77	37.26	-57.32	-126.73	-516.97	261.24	194.62	66.62	3.921	
10,300.00	10,272.00	10,380.84	10,322.45	34.04	37.45	-77.54	-167.99	-513.39	217.14	148.85	68.29	3.180	
10,391.71	10,348.97	10,409.15	10,343.97	34.24	37.52	-87.44	-186.30	-511.80	199.00	128.55	70.45	2.825	
10,400.00	10,355.42	10,410.43	10,344.92	34.26	37.53	-87.79	-187.16	-511.73	199.16	128.70	70.46	2.827	
10,500.00	10,425.63	10,414.06	10,347.60	34.40	37.54	-85.41	-189.60	-511.52	225.89	158.07	67.82	3.331	
10,600.00	10,479.56	10,400.00	10,337.12	34.49	37.50	-72.75	-180.26	-512.33	285.37	221.20	64.17	4.447	
10,700.00	10,514.84	10,380.03	10,321.81	34.55	37.45	-56.77	-167.48	-513.44	358.23	295.25	62.98	5.688	
10,800.00	10,529.94	10,350.00	10,297.90	34.83	37.38	-42.04	-149.39	-515.01	433.18	370.03	63.15	6.859	
10,900.00	10,531.22	10,321.76	10,274.49	35.14	37.30	-36.15	-133.66	-516.37	508.73	444.46	64.27	7.915	
11,000.00	10,532.16	10,300.00	10,255.89	35.51	37.24	-31.91	-122.41	-517.35	590.08	524.60	65.48	9.012	
11,100.00	10,533.10	10,274.83	10,233.81	35.95	37.17	-27.13	-110.38	-518.39	675.59	609.35	66.23	10.200	
11,200.00	10,534.04	10,250.00	10,211.48	36.45	37.10	-22.20	-99.57	-519.33	764.21	697.39	66.82	11.437	
11,300.00	10,534.98	10,250.00	10,211.48	36.99	37.10	-20.09	-99.57	-519.33	855.00	787.03	67.98	12.578	
11,400.00	10,535.91	10,226.32	10,189.73	37.60	37.03	-19.01	-90.25	-520.14	946.90	878.63	68.26	13.871	
11,500.00	10,536.85	10,200.00	10,165.08	38.27	36.95	-17.92	-81.07	-520.94	1,040.23	971.79	68.44	15.200	
11,600.00	10,537.78	10,200.00	10,165.08	38.99	36.95	-17.92	-81.07	-520.94	1,133.84	1,064.77	69.08	16.414	
11,700.00	10,538.72	10,200.00	10,165.08	39.77	36.95	-17.92	-81.07	-520.94	1,228.47	1,158.88	69.58	17.655	
11,800.00	10,539.65	10,200.00	10,165.08	40.61	36.95	-17.92	-81.07	-520.94	1,323.88	1,253.89	69.99	18.915	

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 293H - Wellbore #1 - Surveys													Offset Site Error:	0.00 usft
Survey Program: 26-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.50	0.50	0.00	0.00	89.79	0.11	30.07	30.07					
100.00	100.00	100.41	100.41	0.26	0.27	-87.01	0.42	30.19	30.15	29.62	0.53	57.366		
200.00	200.00	200.57	200.57	0.61	0.61	-137.73	0.45	29.84	29.87	28.65	1.22	24.444		
239.75	239.74	240.34	240.33	0.75	0.75	-86.48	0.56	29.77	29.85	28.34	1.50	19.882		
300.00	300.00	300.65	300.65	0.96	0.97	-54.72	0.53	29.47	29.18	27.25	1.93	15.149		
400.00	399.99	400.48	400.47	1.32	1.31	-62.26	0.48	29.20	28.75	26.12	2.63	10.936		
500.00	499.98	500.20	500.19	1.67	1.66	-39.27	0.21	30.00	28.61	25.28	3.33	8.593		
531.44	531.42	531.58	531.57	1.78	1.77	-40.20	-0.18	30.39	28.57	25.02	3.55	8.049 CC		
600.00	599.97	600.08	600.06	2.03	2.00	-42.48	-1.00	31.47	28.91	24.88	4.03	7.168		
668.29	668.25	668.49	668.45	2.27	2.24	-42.13	-1.69	32.38	28.82	24.30	4.52	6.381		
700.00	699.95	698.00	697.96	2.39	2.35	-42.08	-1.99	32.73	28.73	23.99	4.75	6.052 ES, SF		
800.00	799.93	698.00	697.96	2.62	2.35	-68.41	-1.99	32.73	106.19	100.00	6.19	17.164		
900.00	899.91	698.00	697.96	2.66	2.35	-71.39	-1.99	32.73	204.30	198.13	6.16	33.144		
1,000.00	999.91	698.00	697.96	2.75	2.35	75.67	-1.99	32.73	303.68	297.59	6.09	49.850		
1,100.00	1,099.91	698.00	697.96	2.87	2.35	75.67	-1.99	32.73	403.37	397.36	6.01	67.089		
1,200.00	1,199.91	698.00	697.96	3.03	2.35	75.67	-1.99	32.73	503.19	497.26	5.93	84.822		
1,300.00	1,299.91	698.00	697.96	3.22	2.35	75.67	-1.99	32.73	603.07	597.21	5.85	103.041		
1,400.00	1,399.91	698.00	697.96	3.44	2.35	75.67	-1.99	32.73	702.98	697.21	5.77	121.747		
1,500.00	1,499.91	698.00	697.96	3.68	2.35	75.67	-1.99	32.73	802.91	797.22	5.70	140.941		
1,600.00	1,599.91	698.00	697.96	3.94	2.35	75.67	-1.99	32.73	902.86	897.24	5.62	160.622		
1,700.00	1,699.91	698.00	697.96	4.22	2.35	75.67	-1.99	32.73	1,002.82	997.27	5.55	180.790		
1,800.00	1,799.91	698.00	697.96	4.50	2.35	75.67	-1.99	32.73	1,102.79	1,097.31	5.47	201.441		
1,900.00	1,899.91	698.00	697.96	4.80	2.35	75.67	-1.99	32.73	1,202.76	1,197.36	5.40	222.566		
2,000.00	1,999.91	698.00	697.96	5.10	2.35	75.67	-1.99	32.73	1,302.74	1,297.40	5.34	244.155		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 294H - Wellbore #1 - Surveys													Offset Site Error:	0.00 usft
Survey Program: 26-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
728.00	727.94	728.00	727.94	0.00	2.49	74.50	-5.39	4.59	0.10	-2.39	2.49	0.038	Level 1	
800.00	799.93	728.00	727.94	0.17	2.49	0.00	-5.39	4.59	72.00	69.48	2.52	28.624		
900.00	899.91	728.00	727.94	0.21	2.49	180.00	-5.39	4.59	172.00	169.50	2.50	68.706		
1,000.00	999.91	728.00	727.94	0.30	2.49	-27.27	-5.39	4.59	271.99	269.52	2.47	109.927		
1,100.00	1,099.91	728.00	727.94	0.42	2.49	-27.27	-5.39	4.59	371.99	369.52	2.47	150.790	CC, ES, SF	
1,200.00	1,199.91	728.00	727.94	0.58	2.49	-27.27	-5.39	4.59	471.98	469.52	2.46	191.734		
1,300.00	1,299.91	728.00	727.94	0.77	2.49	-27.27	-5.39	4.59	571.98	569.52	2.46	232.751		
1,400.00	1,399.91	728.00	727.94	0.99	2.49	-27.27	-5.39	4.59	671.98	669.52	2.45	273.849		
1,500.00	1,499.91	728.00	727.94	1.23	2.49	-27.27	-5.39	4.59	771.98	769.53	2.45	315.062		
1,600.00	1,599.91	728.00	727.94	1.49	2.49	-27.27	-5.39	4.59	871.97	869.53	2.45	356.576		
1,700.00	1,699.91	728.00	727.94	1.76	2.49	-27.27	-5.39	4.59	971.97	969.52	2.45	396.858		
1,800.00	1,799.91	728.00	727.94	2.05	2.49	-27.27	-5.39	4.59	1,071.97	1,069.52	2.45	437.204		
1,900.00	1,899.91	728.00	727.94	2.35	2.49	-27.27	-5.39	4.59	1,171.97	1,169.52	2.45	477.746		
2,000.00	1,999.91	728.00	727.94	2.65	2.49	-27.27	-5.39	4.59	1,271.97	1,269.52	2.45	518.310		

Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 511H - Wellbore #1 - Surveys														Offset Site Error:	0.00 usft
Survey Program: 143-VESSI_GYRO_DROP_9907-MWD														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	-90.41	-0.42	-59.87	59.87						
100.00	100.00	100.09	100.09	0.26	0.08	94.19	-0.19	-59.53	59.59	59.25	0.33	178.553			
200.00	200.00	200.33	200.33	0.61	0.21	44.61	0.37	-58.61	58.60	57.79	0.82	71.724			
300.00	300.00	300.41	300.39	0.96	0.39	130.15	0.63	-57.45	57.82	56.47	1.35	42.966			
400.00	399.99	400.49	400.47	1.32	0.56	124.53	0.42	-56.18	56.77	54.89	1.88	30.221			
497.44	497.43	497.87	497.84	1.66	0.74	148.17	-0.42	-54.88	56.33	53.93	2.40	23.501 CC			
500.00	499.98	500.43	500.39	1.67	0.74	148.51	-0.45	-54.85	56.43	54.02	2.41	23.411			
500.20	500.18	500.62	500.59	1.67	0.74	148.51	-0.45	-54.85	56.43	54.02	2.41	23.400			
600.00	599.97	600.21	600.16	2.03	0.92	145.21	-1.77	-53.83	56.57	53.63	2.94	19.222 ES			
700.00	699.95	700.12	700.06	2.39	1.09	145.62	-3.23	-53.11	57.40	53.92	3.48	16.513			
800.00	799.93	799.92	799.84	2.62	1.27	119.19	-4.79	-52.60	57.92	54.03	3.88	14.913			
900.00	899.91	899.71	899.61	2.66	1.44	118.91	-6.62	-52.47	58.58	54.48	4.10	14.286			
1,000.00	999.91	999.09	998.97	2.75	1.62	-90.01	-8.75	-53.02	59.34	54.98	4.36	13.617			
1,100.00	1,099.91	1,098.09	1,097.90	2.87	1.79	-92.80	-11.74	-54.86	61.28	56.62	4.65	13.166			
1,200.00	1,199.91	1,197.23	1,196.94	3.03	1.97	-95.70	-15.16	-58.02	64.71	59.73	4.99	12.974			
1,300.00	1,299.91	1,295.98	1,295.52	3.22	2.15	-98.26	-18.73	-62.51	69.67	64.32	5.35	13.014			
1,400.00	1,399.91	1,394.24	1,393.47	3.44	2.33	-100.99	-23.32	-68.73	76.69	70.95	5.75	13.350			
1,500.00	1,499.91	1,493.06	1,491.90	3.68	2.51	-102.92	-27.72	-76.44	85.26	79.10	6.16	13.849			
1,600.00	1,599.91	1,592.16	1,590.54	3.94	2.70	-104.12	-31.72	-85.05	94.65	88.06	6.58	14.374			
1,700.00	1,699.91	1,691.80	1,689.70	4.22	2.88	-105.14	-35.84	-93.83	104.23	97.20	7.03	14.826			
1,800.00	1,799.91	1,791.54	1,788.99	4.50	3.06	-106.03	-39.97	-102.40	113.61	106.12	7.49	15.171			
1,900.00	1,899.91	1,891.15	1,888.15	4.80	3.25	-106.66	-43.83	-110.97	122.96	115.01	7.96	15.454			
2,000.00	1,999.91	1,990.86	1,987.43	5.10	3.43	-107.16	-47.58	-119.49	132.23	123.79	8.43	15.677			
2,100.00	2,099.91	2,090.45	2,086.59	5.41	3.61	-107.53	-51.14	-127.95	141.41	132.49	8.92	15.855			
2,200.00	2,199.91	2,190.19	2,185.91	5.73	3.79	-107.81	-54.60	-136.48	150.60	141.19	9.41	16.005			
2,300.00	2,299.91	2,288.84	2,284.14	6.05	3.97	-108.03	-57.98	-144.95	159.83	149.93	9.90	16.143			
2,400.00	2,399.91	2,386.69	2,381.48	6.37	4.14	-108.23	-61.63	-154.25	170.03	159.64	10.39	16.363			
2,500.00	2,499.91	2,485.87	2,480.07	6.70	4.33	-108.26	-65.10	-164.45	180.88	169.99	10.89	16.607			
2,600.00	2,599.91	2,585.40	2,579.02	7.02	4.51	21.67	-68.82	-174.50	191.04	179.66	11.39	16.778			
2,700.00	2,699.89	2,684.16	2,677.18	7.33	4.69	21.70	-72.71	-184.59	200.17	188.30	11.87	16.865			
2,800.00	2,799.83	2,785.52	2,777.94	7.65	4.87	21.87	-76.67	-194.93	208.06	195.68	12.37	16.816			
2,900.00	2,899.73	2,885.98	2,877.87	7.97	5.05	22.15	-80.41	-204.47	214.00	201.13	12.87	16.624			
3,000.00	2,999.55	2,985.31	2,976.69	8.29	5.23	22.54	-84.17	-213.89	218.75	205.38	13.37	16.360			
3,100.00	3,099.29	3,084.70	3,075.53	8.62	5.41	23.06	-87.91	-223.59	222.57	208.70	13.87	16.043			
3,200.00	3,198.93	3,185.31	3,175.60	8.96	5.59	23.73	-91.62	-233.36	225.15	210.76	14.39	15.650			
3,300.00	3,298.45	3,284.87	3,274.61	9.30	5.77	24.37	-95.81	-242.87	226.54	211.64	14.90	15.207			
3,400.00	3,397.90	3,385.53	3,374.73	9.64	5.95	25.02	-100.31	-252.38	227.33	211.91	15.42	14.745			
3,500.00	3,497.35	3,487.15	3,475.86	9.99	6.13	25.72	-104.49	-261.39	227.51	211.56	15.95	14.268			
3,600.00	3,596.81	3,587.47	3,575.73	10.34	6.31	26.50	-108.18	-270.00	227.33	210.87	16.47	13.804			
3,700.00	3,696.26	3,688.26	3,676.09	10.70	6.49	27.13	-112.46	-278.35	227.04	210.04	17.00	13.357			
3,800.00	3,795.71	3,789.84	3,777.27	11.05	6.67	27.68	-116.96	-286.04	226.10	208.57	17.53	12.897			
3,900.00	3,895.16	3,890.44	3,877.53	11.42	6.84	28.24	-121.27	-293.15	224.67	206.61	18.06	12.438			
4,000.00	3,994.61	3,989.26	3,975.98	11.78	7.02	28.58	-126.35	-300.02	223.31	204.72	18.59	12.015			
4,092.68	4,086.79	4,079.77	4,066.08	12.12	7.18	28.82	-131.42	-307.01	222.84	203.78	19.07	11.687			
4,100.00	4,094.07	4,086.91	4,073.18	12.14	7.19	28.83	-131.85	-307.59	222.85	203.74	19.10	11.664			
4,200.00	4,193.52	4,185.16	4,170.87	12.51	7.36	28.96	-138.05	-316.08	223.38	203.76	19.63	11.381			
4,300.00	4,292.97	4,284.79	4,269.87	12.88	7.54	29.06	-144.57	-325.12	224.40	204.24	20.16	11.131			
4,400.00	4,392.42	4,383.70	4,368.16	13.25	7.72	29.26	-150.65	-334.34	225.59	204.91	20.69	10.904			
4,500.00	4,491.88	4,484.88	4,468.71	13.62	7.90	29.65	-156.22	-344.12	227.01	205.77	21.23	10.690			
4,600.00	4,591.33	4,583.12	4,566.39	14.00	8.08	30.16	-161.00	-353.52	228.23	206.46	21.76	10.487			
4,700.00	4,690.78	4,682.75	4,665.35	14.37	8.25	30.63	-166.19	-363.70	230.16	207.86	22.30	10.321			
4,800.00	4,790.23	4,782.29	4,764.23	14.75	8.43	31.05	-171.49	-373.92	232.18	209.34	22.84	10.165			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 511H - Wellbore #1 - Surveys														Offset Site Error:	0.00 usft
Survey Program: 143-VESSEI_GYRO_DROP_9907-MWD														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
4,900.00	4,889.68	4,882.87	4,864.14	15.12	8.61	31.50	-176.74	-384.25	234.20	210.81	23.39	10.014			
5,000.00	4,989.14	4,981.87	4,962.47	15.50	8.79	31.94	-181.91	-394.50	236.31	212.39	23.93	9.877			
5,100.00	5,088.59	5,084.19	5,064.15	15.88	8.97	32.46	-186.92	-404.78	238.08	213.59	24.49	9.722			
5,200.00	5,188.04	5,184.82	5,164.20	16.26	9.15	32.89	-192.02	-414.27	239.29	214.25	25.04	9.557			
5,300.00	5,287.49	5,285.19	5,264.01	16.64	9.33	33.25	-197.39	-423.39	240.20	214.61	25.59	9.387			
5,400.00	5,386.94	5,385.12	5,363.37	17.02	9.51	33.67	-202.48	-432.70	241.32	215.18	26.14	9.233			
5,500.00	5,486.40	5,487.36	5,465.12	17.41	9.69	34.12	-207.50	-441.45	241.67	214.97	26.70	9.052			
5,572.32	5,558.33	5,559.77	5,537.20	17.68	9.82	34.48	-210.87	-447.40	241.66	214.57	27.10	8.919			
5,600.00	5,585.85	5,587.23	5,564.54	17.79	9.87	34.62	-212.12	-449.67	241.67	214.43	27.25	8.870			
5,700.00	5,685.30	5,687.23	5,664.09	18.17	10.04	35.17	-216.53	-458.07	241.86	214.06	27.80	8.701			
5,791.43	5,776.23	5,778.94	5,755.41	18.52	10.20	35.74	-220.33	-465.59	241.85	213.54	28.30	8.544			
5,800.00	5,784.75	5,787.47	5,763.91	18.56	10.22	35.79	-220.67	-466.29	241.85	213.50	28.35	8.530			
5,900.00	5,884.21	5,888.82	5,864.84	18.94	10.40	36.47	-224.62	-474.51	241.76	212.84	28.91	8.361			
6,000.00	5,983.66	5,987.97	5,963.63	19.32	10.57	37.10	-228.60	-482.00	241.14	211.68	29.46	8.185			
6,100.00	6,083.11	6,088.73	6,064.00	19.71	10.75	37.92	-231.91	-490.17	241.10	211.08	30.02	8.030			
6,200.00	6,182.56	6,191.40	6,166.36	20.10	10.93	38.85	-234.88	-497.50	240.12	209.52	30.59	7.848			
6,300.00	6,282.01	6,294.12	6,268.86	20.48	11.11	39.77	-237.94	-503.65	238.03	206.87	31.16	7.639			
6,400.00	6,381.52	6,399.37	6,373.98	20.87	11.29	40.77	-240.48	-508.18	234.77	203.04	31.72	7.400			
6,500.00	6,481.15	6,503.13	6,477.70	21.25	11.47	41.82	-241.98	-510.48	230.47	198.20	32.27	7.141			
6,600.00	6,580.88	6,604.43	6,578.99	21.62	11.64	42.86	-242.70	-511.52	226.07	193.25	32.82	6.888			
6,700.00	6,680.70	6,704.51	6,679.07	21.99	11.82	43.76	-243.16	-512.18	222.34	188.97	33.37	6.663			
6,800.00	6,780.59	6,804.23	6,778.78	22.35	11.99	44.47	-243.60	-512.87	219.63	185.72	33.91	6.477			
6,900.00	6,880.53	6,904.25	6,878.80	22.70	12.16	44.94	-244.07	-513.57	217.90	183.45	34.45	6.326			
7,000.00	6,980.51	7,004.09	6,978.63	23.05	12.34	45.11	-244.81	-514.32	217.11	182.14	34.97	6.208			
7,024.57	7,005.08	7,028.56	7,003.11	23.13	12.38	45.10	-245.04	-514.52	217.08	181.98	35.10	6.184			
7,100.00	7,080.51	7,103.63	7,078.16	23.39	12.51	44.94	-245.91	-515.24	217.40	181.91	35.49	6.126			
7,200.00	7,180.51	7,203.67	7,178.19	23.71	12.69	-85.42	-247.21	-516.37	218.41	182.43	35.99	6.069			
7,300.00	7,280.51	7,304.99	7,279.49	24.04	12.86	-84.98	-245.48	-516.91	219.09	182.60	36.49	6.004			
7,400.00	7,380.51	7,405.89	7,380.36	24.37	13.02	-84.33	-243.01	-516.73	219.14	182.14	37.00	5.923			
7,476.50	7,457.01	7,482.27	7,456.71	24.62	13.15	-83.83	-241.10	-516.47	219.08	181.70	37.39	5.860			
7,500.00	7,480.51	7,505.63	7,480.07	24.70	13.19	-83.68	-240.53	-516.42	219.09	181.58	37.51	5.841			
7,600.00	7,580.51	7,605.01	7,579.42	25.03	13.35	-83.10	-238.31	-516.37	219.30	181.28	38.02	5.768			
7,700.00	7,680.51	7,705.12	7,679.52	25.36	13.52	-82.70	-236.73	-516.56	219.68	181.15	38.53	5.701			
7,800.00	7,780.51	7,804.82	7,779.22	25.69	13.69	-82.46	-235.77	-516.79	220.03	180.99	39.04	5.636			
7,900.00	7,880.51	7,903.95	7,878.34	26.02	13.85	-82.30	-235.09	-517.33	220.66	181.11	39.55	5.579			
8,000.00	7,980.51	8,004.06	7,978.45	26.35	14.02	-82.28	-234.88	-518.16	221.52	181.45	40.06	5.529			
8,100.00	8,080.51	8,104.58	8,078.96	26.68	14.20	-82.33	-235.00	-518.87	222.20	181.62	40.57	5.476			
8,200.00	8,180.51	8,207.68	8,182.06	27.02	14.38	-82.20	-234.54	-518.58	221.98	180.91	41.07	5.405			
8,249.36	8,229.87	8,255.19	8,229.57	27.18	14.45	-82.05	-233.97	-518.30	221.77	180.44	41.33	5.366			
8,300.00	8,280.51	8,304.23	8,278.60	27.35	14.54	-81.86	-233.23	-518.40	221.98	180.39	41.60	5.337			
8,400.00	8,380.51	8,404.04	8,378.40	27.69	14.71	-81.55	-231.91	-518.95	222.72	180.61	42.11	5.289			
8,500.00	8,480.51	8,502.67	8,477.02	28.02	14.88	-81.45	-231.38	-519.98	223.83	181.20	42.63	5.251			
8,600.00	8,580.51	8,601.58	8,575.92	28.36	15.05	-81.52	-231.40	-521.74	225.58	182.44	43.14	5.229			
8,700.00	8,680.51	8,702.84	8,677.16	28.69	15.23	-81.57	-231.33	-523.47	227.28	183.63	43.65	5.206			
8,800.00	8,780.51	8,804.03	8,778.35	29.03	15.41	-81.69	-231.67	-524.40	228.14	183.98	44.16	5.166			
8,900.00	8,880.51	8,902.00	8,876.30	29.37	15.58	-81.83	-232.07	-525.67	229.37	184.68	44.68	5.133			
9,000.00	8,980.51	9,000.12	8,974.40	29.70	15.76	-81.96	-232.29	-527.87	231.56	186.36	45.20	5.123			
9,100.00	9,080.51	9,098.64	9,072.89	30.04	15.93	-81.97	-231.93	-530.56	234.31	188.60	45.71	5.126			
9,200.00	9,180.51	9,201.51	9,175.70	30.38	16.11	-81.69	-230.35	-533.51	237.38	191.15	46.23	5.134			
9,300.00	9,280.51	9,306.43	9,280.61	30.72	16.29	-81.43	-229.18	-533.95	237.95	191.21	46.74	5.091			
9,361.75	9,342.26	9,367.76	9,341.94	30.93	16.40	-81.34	-228.84	-533.71	237.76	190.70	47.06	5.052			
9,400.00	9,380.51	9,404.41	9,378.59	31.06	16.46	-81.33	-228.80	-533.83	237.89	190.63	47.26	5.034			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 511H - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft
Survey Program: 143-VESSI_GYRO_DROP_9907-MWD													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,500.00	9,480.51	9,502.86	9,477.03	31.40	16.63	-81.35	-228.68	-534.99	239.07	191.29	47.78	5.004	
9,600.00	9,580.51	9,603.15	9,577.31	31.74	16.81	-81.09	-227.43	-536.12	240.38	192.08	48.30	4.977	
9,700.00	9,680.51	9,711.73	9,685.86	32.08	17.00	-81.37	-228.63	-536.06	240.19	191.41	48.78	4.924	
9,800.00	9,780.51	9,830.07	9,802.65	32.42	17.20	-85.38	-245.94	-530.32	233.49	184.47	49.02	4.763	
9,900.00	9,880.51	9,936.27	9,904.98	32.77	17.45	-91.95	-272.17	-519.90	222.75	173.47	49.28	4.520	
9,997.60	9,978.10	10,015.00	9,977.80	33.10	17.47	-99.60	-300.65	-511.46	215.82	165.84	49.98	4.318	
10,000.00	9,980.51	10,016.65	9,979.29	33.11	17.47	-99.79	-301.37	-511.34	215.82	165.83	50.00	4.317 SF	
10,100.00	10,080.49	10,083.22	10,037.18	33.45	17.50	-99.10	-334.03	-508.84	225.60	175.63	49.97	4.515	
10,200.00	10,179.00	10,133.69	10,078.00	33.77	17.53	-103.45	-363.67	-509.23	258.46	210.08	48.38	5.342	
10,300.00	10,272.00	10,164.58	10,101.45	34.04	17.56	-101.24	-383.72	-510.48	316.17	270.15	46.02	6.870	
10,400.00	10,355.42	10,185.00	10,116.18	34.26	17.58	-92.26	-397.83	-511.52	391.49	347.01	44.48	8.801	
10,500.00	10,425.63	10,185.00	10,116.18	34.40	17.58	-73.74	-397.83	-511.52	475.61	432.12	43.49	10.936	
10,600.00	10,479.56	10,171.13	10,106.25	34.49	17.56	-52.59	-388.17	-510.81	561.98	518.85	43.13	13.030	
10,700.00	10,514.84	10,154.00	10,093.57	34.55	17.55	-37.27	-376.69	-509.99	646.12	602.60	43.52	14.848	
10,800.00	10,529.94	10,128.00	10,073.55	34.83	17.53	-27.29	-360.13	-509.08	724.75	680.56	44.18	16.403	
10,900.00	10,531.22	10,112.26	10,061.03	35.14	17.52	-23.77	-350.59	-508.81	799.85	754.48	45.37	17.631	
11,000.00	10,532.16	10,096.00	10,047.80	35.51	17.51	-20.68	-341.15	-508.75	879.20	832.86	46.34	18.972	
11,100.00	10,533.10	10,065.00	10,021.73	35.95	17.49	-16.90	-324.39	-509.13	962.03	915.17	46.86	20.531	
11,200.00	10,534.04	10,065.00	10,021.73	36.45	17.49	-13.75	-324.39	-509.13	1,047.41	999.58	47.82	21.902	
11,300.00	10,534.98	10,033.00	9,993.85	36.99	17.48	-11.36	-308.73	-510.32	1,134.79	1,086.64	48.14	23.572	
11,400.00	10,535.91	10,033.00	9,993.85	37.60	17.48	-11.36	-308.73	-510.32	1,223.57	1,174.74	48.83	25.059	
11,500.00	10,536.85	10,014.13	9,977.03	38.27	17.47	-11.14	-300.27	-511.52	1,313.47	1,264.28	49.19	26.704	

Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 512H - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft
Survey Program: 26-MWD, 880-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
0.00	0.00	0.00	0.00	0.00	0.00	-90.46	-0.24	-29.88	29.88				
100.00	100.00	100.03	100.03	0.26	0.26	94.08	-0.26	-29.59	29.64	29.12	0.52	56.482	
200.00	200.00	200.01	200.01	0.61	0.62	44.00	-0.32	-28.63	28.61	27.39	1.23	23.337	
292.68	292.68	292.62	292.61	0.94	0.94	126.31	-0.81	-28.20	28.26	26.39	1.88	15.056	
300.00	300.00	299.95	299.94	0.96	0.97	128.87	-0.87	-28.17	28.51	26.58	1.93	14.779	
400.00	399.99	400.01	400.00	1.32	1.32	121.95	-1.96	-27.39	27.93	25.29	2.64	10.581	
418.68	418.67	418.68	418.66	1.38	1.39	127.99	-2.15	-27.25	27.91	25.14	2.77	10.067 CC	
500.00	499.98	499.87	499.85	1.67	1.68	145.42	-3.04	-26.82	28.35	25.00	3.35	8.464 ES	
600.00	599.97	599.76	599.72	2.03	2.03	141.62	-4.61	-26.76	29.48	25.42	4.06	7.259	
700.00	699.95	699.82	699.77	2.39	2.39	141.12	-6.46	-26.55	30.85	26.07	4.77	6.460	
800.00	799.93	799.77	799.71	2.62	2.64	115.18	-7.89	-26.45	31.76	26.50	5.26	6.037	
900.00	899.91	899.69	899.62	2.66	2.81	116.70	-8.62	-26.65	32.74	27.27	5.47	5.987	
1,000.00	999.91	999.77	999.69	2.75	2.88	-91.41	-9.56	-26.79	33.12	27.49	5.63	5.887	
1,083.65	1,083.56	1,083.44	1,083.36	2.85	2.95	-93.53	-10.78	-26.73	33.11	27.31	5.80	5.707	
1,100.00	1,099.91	1,099.78	1,099.69	2.87	2.97	-93.96	-11.03	-26.71	33.11	27.27	5.84	5.667	
1,200.00	1,199.91	1,199.73	1,199.64	3.03	3.12	-96.32	-12.40	-26.76	33.28	27.13	6.15	5.413	
1,300.00	1,299.91	1,299.73	1,299.63	3.22	3.30	-98.27	-13.56	-26.83	33.50	26.98	6.52	5.140	
1,400.00	1,399.91	1,399.72	1,399.62	3.44	3.50	-99.71	-14.44	-26.97	33.77	26.83	6.94	4.865	
1,500.00	1,499.91	1,499.52	1,499.42	3.68	3.73	-100.68	-15.08	-27.31	34.22	26.82	7.41	4.620	
1,600.00	1,599.91	1,598.99	1,598.87	3.94	3.97	-101.35	-15.78	-28.72	35.75	27.84	7.91	4.521	
1,700.00	1,699.91	1,698.43	1,698.26	4.22	4.23	-101.95	-16.78	-31.65	38.84	30.40	8.44	4.603	
1,800.00	1,799.91	1,797.73	1,797.46	4.50	4.50	-102.66	-18.22	-35.87	43.30	34.31	8.99	4.817	
1,900.00	1,899.91	1,896.88	1,896.43	4.80	4.78	-103.43	-20.15	-41.46	49.23	39.67	9.56	5.150	
2,000.00	1,999.91	1,995.84	1,995.11	5.10	5.08	-104.46	-22.83	-48.32	56.61	46.47	10.14	5.581	
2,100.00	2,099.91	2,094.53	2,093.40	5.41	5.39	-105.89	-26.59	-56.38	65.50	54.76	10.74	6.097	
2,200.00	2,199.91	2,193.85	2,192.23	5.73	5.71	-107.27	-30.98	-65.23	75.30	63.94	11.36	6.627	
2,300.00	2,299.91	2,293.60	2,291.48	6.05	6.04	-108.36	-35.42	-74.07	85.10	73.10	12.00	7.092	
2,400.00	2,399.91	2,393.38	2,390.80	6.37	6.38	-109.26	-39.82	-82.63	94.64	81.99	12.65	7.484	
2,500.00	2,499.91	2,493.08	2,490.06	6.70	6.72	-110.00	-44.14	-90.93	103.95	90.65	13.30	7.816	
2,600.00	2,599.91	2,592.56	2,589.09	7.02	7.07	19.22	-48.93	-99.13	112.73	98.79	13.94	8.085	
2,700.00	2,699.89	2,692.68	2,688.76	7.33	7.42	18.56	-54.09	-107.10	120.17	105.57	14.59	8.235	
2,800.00	2,799.83	2,792.59	2,788.25	7.65	7.78	18.10	-59.22	-114.66	125.99	110.75	15.24	8.265	
2,900.00	2,899.73	2,892.16	2,887.37	7.97	8.14	17.90	-64.39	-122.56	130.94	115.04	15.90	8.236	
3,000.00	2,999.55	2,991.90	2,986.68	8.29	8.50	18.00	-69.27	-130.47	134.55	117.99	16.56	8.124	
3,100.00	3,099.29	3,091.34	3,085.64	8.62	8.86	18.49	-73.84	-139.05	137.44	120.21	17.23	7.978	
3,200.00	3,198.93	3,191.64	3,185.47	8.96	9.23	19.38	-77.90	-147.91	139.11	121.21	17.91	7.769	
3,300.00	3,298.45	3,291.17	3,284.54	9.30	9.60	20.60	-81.50	-156.71	139.45	120.86	18.58	7.504	
3,400.00	3,397.90	3,389.87	3,382.72	9.64	9.96	22.03	-84.98	-166.22	139.96	120.71	19.26	7.269	
3,500.00	3,497.35	3,489.87	3,482.10	9.99	10.34	22.79	-90.29	-175.90	141.14	121.19	19.95	7.075	
3,600.00	3,596.81	3,590.28	3,581.94	10.34	10.72	23.60	-95.36	-185.36	142.01	121.36	20.65	6.877	
3,700.00	3,696.26	3,690.85	3,681.97	10.70	11.10	24.47	-100.19	-194.57	142.59	121.23	21.36	6.676	
3,800.00	3,795.71	3,792.52	3,783.14	11.05	11.49	24.87	-106.04	-202.81	142.43	120.34	22.08	6.450	
3,900.00	3,895.16	3,894.00	3,884.15	11.42	11.87	24.47	-113.36	-209.07	140.77	117.98	22.80	6.175	
4,000.00	3,994.61	3,991.51	3,981.12	11.78	12.24	23.54	-121.77	-215.06	139.52	116.05	23.47	5.944	
4,009.41	4,003.97	4,000.85	3,990.39	11.81	12.27	23.43	-122.64	-215.73	139.52	115.98	23.54	5.927	
4,100.00	4,094.07	4,090.79	4,079.70	12.14	12.62	22.58	-130.72	-222.53	139.73	115.57	24.17	5.782	
4,200.00	4,193.52	4,189.75	4,177.97	12.51	13.00	21.98	-139.03	-230.80	140.59	115.73	24.86	5.655	
4,300.00	4,292.97	4,289.07	4,276.55	12.88	13.39	21.74	-146.76	-240.09	142.21	116.64	25.56	5.563	
4,400.00	4,392.42	4,390.83	4,377.68	13.25	13.79	22.23	-152.75	-249.62	143.24	116.93	26.31	5.445	
4,500.00	4,491.88	4,492.83	4,479.22	13.62	14.18	23.59	-156.28	-258.54	142.99	115.94	27.05	5.286	
4,600.00	4,591.33	4,592.68	4,578.71	14.00	14.55	25.83	-157.38	-267.06	142.01	114.23	27.78	5.112	
4,640.29	4,631.39	4,632.10	4,617.96	14.15	14.69	26.84	-157.55	-270.68	141.88	113.81	28.07	5.055	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 512H - Wellbore #1 - Surveys													Offset Site Error:	0.00 usft
Survey Program: 26-MWD, 880-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,700.00	4,690.78	4,689.15	4,674.71	14.37	14.91	28.33	-157.87	-276.45	142.32	113.85	28.47	4.998		
4,800.00	4,790.23	4,783.21	4,767.92	14.75	15.27	30.52	-159.48	-288.92	146.60	117.49	29.11	5.036		
4,900.00	4,889.68	4,879.36	4,862.80	15.12	15.66	32.32	-162.31	-304.29	153.98	124.21	29.77	5.173		
5,000.00	4,989.14	4,974.75	4,956.48	15.50	16.07	33.08	-167.76	-321.33	163.72	133.32	30.39	5.387		
5,100.00	5,088.59	5,075.40	5,054.52	15.88	16.52	32.13	-178.79	-341.18	176.03	144.88	31.15	5.651		
5,200.00	5,188.04	5,187.65	5,164.82	16.26	17.01	30.19	-193.30	-355.97	182.06	149.95	32.11	5.669		
5,300.00	5,287.49	5,291.81	5,267.79	16.64	17.44	28.77	-205.22	-366.02	184.57	151.70	32.88	5.614		
5,400.00	5,386.94	5,391.91	5,367.10	17.02	17.84	28.01	-214.53	-374.50	185.56	151.96	33.60	5.523		
5,500.00	5,486.40	5,492.03	5,466.42	17.41	18.24	27.54	-223.09	-383.70	187.12	152.79	34.33	5.451		
5,600.00	5,585.85	5,593.22	5,566.90	17.79	18.64	27.15	-231.33	-392.49	188.09	153.03	35.07	5.364		
5,700.00	5,685.30	5,695.32	5,668.37	18.17	19.05	26.86	-239.17	-400.61	188.26	152.45	35.81	5.257		
5,800.00	5,784.75	5,797.36	5,769.91	18.56	19.44	26.65	-246.45	-407.64	187.27	150.72	36.55	5.123		
5,900.00	5,884.21	5,901.17	5,873.34	18.94	19.83	26.52	-253.24	-413.30	184.74	147.45	37.29	4.954		
6,000.00	5,983.66	6,003.96	5,975.92	19.32	20.21	26.82	-258.19	-417.38	180.36	142.33	38.02	4.743		
6,100.00	6,083.11	6,106.57	6,078.44	19.71	20.57	27.62	-261.34	-420.21	174.41	135.66	38.75	4.501		
6,200.00	6,182.56	6,208.67	6,180.51	20.10	20.92	28.73	-263.41	-421.63	166.96	127.48	39.48	4.229		
6,300.00	6,282.01	6,309.10	6,280.94	20.48	21.26	30.42	-263.93	-422.23	158.54	118.31	40.23	3.941		
6,400.00	6,381.52	6,408.26	6,380.10	20.87	21.59	32.23	-264.20	-422.92	150.79	109.79	41.00	3.678		
6,500.00	6,481.15	6,508.13	6,479.97	21.25	21.92	33.82	-264.81	-423.63	144.35	102.59	41.76	3.457		
6,600.00	6,580.88	6,608.04	6,579.87	21.62	22.26	35.20	-265.53	-424.13	138.91	96.40	42.51	3.268		
6,700.00	6,680.70	6,707.93	6,679.75	21.99	22.60	36.37	-266.24	-424.70	134.66	91.41	43.26	3.113		
6,800.00	6,780.59	6,808.30	6,780.12	22.35	22.93	37.21	-267.10	-425.07	131.32	87.34	43.98	2.986		
6,900.00	6,880.53	6,908.19	6,880.00	22.70	23.27	37.67	-268.09	-425.15	128.77	84.07	44.70	2.881		
7,000.00	6,980.51	7,007.79	6,979.60	23.05	23.60	37.71	-269.26	-425.53	127.55	82.15	45.40	2.809		
7,049.97	7,030.48	7,057.71	7,029.51	23.22	23.77	37.53	-270.00	-425.80	127.43	81.69	45.74	2.786		
7,100.00	7,080.51	7,107.85	7,079.65	23.39	23.94	37.24	-270.80	-426.04	127.54	81.46	46.07	2.768		
7,200.00	7,180.51	7,209.01	7,180.80	23.71	24.27	-93.25	-271.89	-426.15	127.69	80.98	46.71	2.734		
7,300.00	7,280.51	7,309.01	7,280.79	24.04	24.58	-93.19	-271.73	-425.67	127.21	79.85	47.36	2.686		
7,400.00	7,380.51	7,408.86	7,380.64	24.37	24.88	-93.21	-271.75	-425.36	126.89	78.88	48.01	2.643		
7,500.00	7,480.51	7,508.82	7,480.60	24.70	25.20	-93.26	-271.86	-425.10	126.65	77.98	48.67	2.602		
7,600.00	7,580.51	7,608.89	7,580.68	25.03	25.51	-93.31	-271.94	-424.84	126.39	77.06	49.32	2.562		
7,695.03	7,675.54	7,703.56	7,675.34	25.34	25.81	-93.36	-272.05	-424.69	126.24	76.29	49.96	2.527		
7,700.00	7,680.51	7,708.48	7,680.26	25.36	25.83	-93.36	-272.06	-424.69	126.25	76.25	49.99	2.525		
7,800.00	7,780.51	7,807.66	7,779.44	25.69	26.16	-93.16	-271.64	-425.11	126.64	75.96	50.68	2.499		
7,900.00	7,880.51	7,907.59	7,879.37	26.02	26.49	-92.88	-271.04	-425.83	127.33	75.97	51.36	2.479		
8,000.00	7,980.51	8,007.79	7,979.57	26.35	26.82	-92.75	-270.79	-426.67	128.16	76.12	52.04	2.463		
8,100.00	8,080.51	8,108.90	8,080.67	26.68	27.15	-92.48	-270.18	-426.61	128.07	75.37	52.70	2.430		
8,143.34	8,123.85	8,151.88	8,123.65	26.83	27.28	-92.36	-269.92	-426.56	128.00	75.01	52.99	2.416		
8,200.00	8,180.51	8,208.24	8,180.01	27.02	27.46	-92.25	-269.68	-426.65	128.09	74.71	53.38	2.400		
8,300.00	8,280.51	8,307.78	8,279.55	27.35	27.80	-92.21	-269.61	-427.04	128.48	74.41	54.06	2.376		
8,400.00	8,380.51	8,407.30	8,379.07	27.69	28.14	-92.34	-269.92	-427.83	129.29	74.53	54.75	2.361		
8,500.00	8,480.51	8,506.98	8,478.73	28.02	28.49	-92.51	-270.37	-428.89	130.36	74.92	55.44	2.351		
8,600.00	8,580.51	8,606.82	8,578.56	28.36	28.84	-92.77	-271.00	-430.16	131.67	75.54	56.13	2.346		
8,700.00	8,680.51	8,708.00	8,679.74	28.69	29.19	-93.09	-271.79	-431.19	132.72	75.93	56.80	2.337		
8,800.00	8,780.51	8,809.39	8,781.12	29.03	29.53	-93.68	-273.15	-430.95	132.56	75.11	57.45	2.308		
8,900.00	8,880.51	8,910.71	8,882.42	29.37	29.86	-94.23	-274.36	-429.76	131.47	73.39	58.09	2.263		
9,000.00	8,980.51	9,008.67	8,980.37	29.70	30.18	-94.73	-275.41	-428.59	130.38	71.58	58.79	2.218		
9,001.95	8,982.46	9,010.56	8,982.26	29.71	30.19	-94.74	-275.43	-428.59	130.37	71.57	58.80	2.217		
9,100.00	9,080.51	9,106.66	9,078.35	30.04	30.52	-95.24	-276.62	-429.27	131.17	71.67	59.49	2.205		
9,200.00	9,180.51	9,205.63	9,177.29	30.38	30.87	-95.83	-278.17	-431.03	133.09	72.91	60.18	2.211		
9,300.00	9,280.51	9,305.48	9,277.11	30.72	31.23	-96.15	-279.15	-433.28	135.44	74.57	60.87	2.225		
9,400.00	9,380.51	9,407.15	9,378.76	31.06	31.58	-95.93	-278.83	-435.14	137.22	75.67	61.56	2.229		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 512H - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft
Survey Program: 26-MWD, 880-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
9,500.00	9,480.51	9,507.23	9,478.83	31.40	31.92	-95.69	-278.37	-436.29	138.32	76.07	62.25	2.222	
9,600.00	9,580.51	9,607.28	9,578.88	31.74	32.27	-95.88	-278.93	-437.26	139.34	76.40	62.94	2.214	
9,700.00	9,680.51	9,712.13	9,683.70	32.08	32.62	-95.34	-277.63	-437.60	139.58	76.03	63.56	2.196	
9,800.00	9,780.51	9,824.18	9,793.06	32.42	32.92	-86.48	-256.56	-430.11	132.31	68.25	64.06	2.066	
9,861.66	9,842.17	9,878.00	9,841.97	32.64	33.03	-76.71	-235.03	-424.03	128.82	63.72	65.10	1.979 SF	
9,900.00	9,880.51	9,908.62	9,868.77	32.77	33.09	-70.16	-220.55	-420.91	130.47	65.10	65.37	1.996	
10,000.00	9,980.51	9,981.49	9,930.66	33.11	33.22	-54.97	-182.48	-415.87	151.51	88.12	63.38	2.390	
10,100.00	10,080.49	10,049.01	9,983.75	33.45	33.33	-33.03	-140.97	-412.37	193.20	133.80	59.40	3.253	
10,200.00	10,179.00	10,115.00	10,031.33	33.77	33.41	-22.29	-95.56	-407.44	237.15	182.10	55.05	4.308	
10,300.00	10,272.00	10,163.00	10,062.00	34.04	33.46	-16.72	-58.80	-404.41	277.58	229.16	48.42	5.733	
10,400.00	10,355.42	10,210.00	10,087.59	34.26	33.50	-12.94	-19.44	-402.71	313.83	271.84	41.99	7.474	
10,500.00	10,425.63	10,277.04	10,116.50	34.40	33.54	-9.54	40.97	-401.31	343.10	304.96	38.14	8.996	
10,600.00	10,479.56	10,344.56	10,139.77	34.49	33.59	-7.23	104.33	-400.98	362.10	327.43	34.67	10.444	
10,700.00	10,514.84	10,412.15	10,158.10	34.55	33.69	-5.81	169.33	-403.05	369.24	337.44	31.81	11.608	
10,800.00	10,529.94	10,471.00	10,168.88	34.83	33.83	-4.96	227.10	-405.93	365.30	335.98	29.32	12.458	
10,900.00	10,531.22	10,565.00	10,179.27	35.14	34.15	-3.72	320.45	-409.23	354.70	325.64	29.06	12.207	
11,000.00	10,532.16	10,648.40	10,185.14	35.51	34.48	-2.86	403.61	-411.45	347.93	319.17	28.76	12.097	
11,100.00	10,533.10	10,735.57	10,188.98	35.95	34.88	-2.36	490.65	-413.98	344.31	315.30	29.02	11.866	
11,132.79	10,533.41	10,763.56	10,189.41	36.11	35.02	-2.34	518.61	-415.09	344.10	314.90	29.20	11.784	
11,200.00	10,534.04	10,824.99	10,189.47	36.45	35.34	-2.46	579.99	-417.71	344.70	315.01	29.69	11.610	
11,300.00	10,534.98	10,922.13	10,188.15	36.99	35.93	-3.08	677.02	-422.15	347.18	316.58	30.60	11.345	
11,400.00	10,535.91	11,021.42	10,186.59	37.60	36.55	-3.88	776.17	-427.18	350.00	318.39	31.61	11.072	
11,500.00	10,536.85	11,130.99	10,185.99	38.27	37.32	-4.68	885.61	-432.24	351.84	319.22	32.62	10.786	
11,600.00	10,537.78	11,229.95	10,186.82	38.99	38.07	-5.16	984.52	-435.22	352.19	318.50	33.69	10.455	
11,700.00	10,538.72	11,338.99	10,189.20	39.77	38.97	-5.72	1,093.48	-438.51	351.22	316.41	34.81	10.089	
11,800.00	10,539.65	11,436.42	10,192.11	40.61	39.82	-6.17	1,190.84	-441.07	349.45	313.47	35.98	9.712	
11,862.89	10,540.24	11,494.86	10,193.11	41.16	40.35	-6.30	1,249.26	-441.81	349.05	312.35	36.70	9.510	
11,900.00	10,540.59	11,529.39	10,193.31	41.49	40.67	-6.31	1,283.79	-441.89	349.19	312.08	37.11	9.409	
12,000.00	10,541.52	11,623.22	10,192.44	42.41	41.56	-6.07	1,377.60	-440.60	350.89	312.73	38.16	9.196	
12,100.00	10,542.46	11,720.49	10,190.29	43.38	42.52	-5.60	1,474.81	-438.01	353.76	314.64	39.12	9.043	
12,200.00	10,543.39	11,819.69	10,187.17	44.39	43.54	-4.94	1,573.90	-434.28	357.47	317.44	40.02	8.932	
12,300.00	10,544.33	11,926.12	10,185.52	45.44	44.67	-4.56	1,680.29	-432.12	359.76	318.78	40.98	8.780	
12,400.00	10,545.26	12,026.20	10,184.62	46.52	45.77	-4.32	1,780.35	-430.72	361.48	319.40	42.09	8.589	
12,500.00	10,546.20	12,126.33	10,183.79	47.64	46.90	-4.07	1,880.47	-429.30	363.13	319.91	43.22	8.402	
12,600.00	10,547.14	12,224.49	10,182.78	48.78	48.03	-3.67	1,978.59	-426.88	364.94	320.58	44.35	8.228	
12,700.00	10,548.07	12,330.28	10,181.48	49.96	49.29	-3.09	2,084.31	-423.33	366.93	321.55	45.38	8.086	
12,756.75	10,548.60	12,389.24	10,182.09	50.64	50.00	-3.04	2,143.27	-423.00	366.84	320.77	46.07	7.962	
12,800.00	10,549.01	12,428.55	10,182.23	51.16	50.48	-2.99	2,182.57	-422.70	367.08	320.43	46.65	7.870	
12,900.00	10,549.94	12,521.26	10,181.02	52.39	51.63	-2.76	2,275.27	-421.32	369.23	321.28	47.95	7.700	
13,000.00	10,550.88	12,620.01	10,178.46	53.63	52.88	-2.54	2,373.97	-420.05	372.69	323.48	49.21	7.573	
13,100.00	10,551.81	12,722.25	10,176.16	54.90	54.18	-2.20	2,476.17	-417.94	375.79	325.37	50.42	7.453	
13,200.00	10,552.75	12,830.43	10,175.10	56.19	55.59	-1.88	2,584.32	-415.93	377.65	326.05	51.61	7.318	
13,300.00	10,553.68	12,936.27	10,176.26	57.50	56.98	-1.58	2,690.14	-413.95	377.43	324.58	52.85	7.142	
13,400.00	10,554.62	13,041.17	10,178.90	58.83	58.38	-1.14	2,794.96	-411.04	375.79	321.69	54.10	6.946	
13,500.00	10,555.55	13,142.01	10,182.11	60.17	59.74	-0.63	2,895.69	-407.61	373.48	318.10	55.38	6.744	
13,600.00	10,556.49	13,242.92	10,185.80	61.53	61.12	-0.18	2,996.48	-404.69	370.74	314.04	56.69	6.539	
13,700.00	10,557.42	13,336.26	10,188.53	62.90	62.40	0.15	3,089.76	-402.56	368.75	310.67	58.08	6.349	
13,725.40	10,557.66	13,358.40	10,188.84	63.26	62.71	0.22	3,111.89	-402.10	368.64	310.19	58.45	6.307	
13,800.00	10,558.36	13,426.57	10,188.63	64.29	63.66	0.41	3,180.05	-400.86	369.55	310.02	59.52	6.208	
13,900.00	10,559.29	13,533.42	10,188.85	65.69	65.16	0.52	3,286.90	-400.17	370.28	309.40	60.88	6.082	
14,000.00	10,560.23	13,635.43	10,190.41	67.10	66.61	0.65	3,388.89	-399.33	369.69	307.42	62.27	5.937	
14,087.23	10,561.05	13,720.27	10,191.52	68.34	67.81	0.85	3,473.71	-398.03	369.38	305.86	63.52	5.815	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 512H - Wellbore #1 - Surveys													Offset Site Error:	0.00 usft
Survey Program: 26-MWD, 880-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	10,561.17	13,732.57	10,191.63	68.52	67.99	0.89	3,486.01	-397.81	369.39	305.69	63.70	5.799		
14,200.00	10,562.10	13,830.12	10,192.03	69.95	69.39	1.22	3,583.54	-395.68	369.95	304.82	65.13	5.680		
14,300.00	10,563.04	13,930.34	10,192.22	71.39	70.83	1.75	3,683.70	-392.22	370.79	304.23	66.56	5.571		
14,400.00	10,563.97	14,033.74	10,192.82	72.84	72.32	2.11	3,787.06	-389.89	371.23	303.23	68.00	5.459		
14,500.00	10,564.91	14,136.07	10,194.41	74.30	73.82	2.05	3,889.38	-390.26	370.59	301.16	69.44	5.337		
14,600.00	10,565.84	14,239.54	10,196.44	75.77	75.36	1.65	3,992.80	-392.93	369.49	298.62	70.87	5.214		
14,684.67	10,566.63	14,317.92	10,198.11	77.01	76.53	1.25	4,071.11	-395.50	368.43	296.28	72.15	5.106		
14,700.00	10,566.78	14,331.39	10,198.19	77.24	76.73	1.18	4,084.58	-395.98	368.47	296.08	72.39	5.090		
14,800.00	10,567.71	14,425.22	10,197.49	78.72	78.13	0.64	4,178.33	-399.43	370.07	296.15	73.92	5.006		
14,900.00	10,568.65	14,526.83	10,196.20	80.21	79.66	0.12	4,279.88	-402.79	372.26	296.83	75.43	4.935		
15,000.00	10,569.58	14,625.78	10,195.37	81.70	81.15	-0.16	4,378.81	-404.58	374.04	297.10	76.94	4.861		
15,100.00	10,570.52	14,735.11	10,195.24	83.21	82.80	-0.41	4,488.13	-406.21	375.12	296.74	78.39	4.786		
15,187.17	10,571.33	14,820.66	10,196.28	84.52	84.10	-0.62	4,573.66	-407.61	374.89	295.17	79.72	4.702		
15,200.00	10,571.45	14,833.00	10,196.39	84.71	84.28	-0.64	4,586.00	-407.77	374.90	294.98	79.92	4.691		
15,300.00	10,572.39	14,928.00	10,196.62	86.22	85.73	-0.77	4,680.99	-408.63	375.61	294.14	81.47	4.610		
15,335.37	10,572.72	14,962.08	10,196.41	86.76	86.25	-0.81	4,715.07	-408.85	376.16	294.15	82.01	4.587		

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 513H - Wellbore #1 - Design #2												Offset Site Error:	0.00 usft
Survey Program: 26-MWD, 700-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.00	0.00	1.80	1.80	0.00	0.00	89.69	0.48	90.09	90.09				
100.00	100.00	101.66	101.66	0.26	0.27	-86.34	0.60	90.15	90.10	89.57	0.53	170.116	
200.00	200.00	202.23	202.23	0.61	0.62	-136.92	0.85	90.12	90.15	88.92	1.23	73.166	
300.00	300.00	302.11	302.11	0.96	0.97	-52.50	0.40	89.55	89.23	87.30	1.93	46.275	
400.00	399.99	402.54	402.53	1.32	1.32	-58.63	-0.39	89.08	88.56	85.92	2.63	33.624	
500.00	499.98	501.95	501.93	1.67	1.67	-34.43	-1.42	88.50	86.97	83.63	3.34	26.046	
600.00	599.97	601.91	601.89	2.03	2.02	-37.82	-2.42	88.40	85.71	81.66	4.05	21.165	
700.00	699.95	702.10	702.08	2.39	2.38	-37.31	-3.27	88.41	84.17	79.40	4.76	17.673	
800.00	799.93	802.08	802.05	2.62	2.73	-64.46	-4.24	88.04	82.79	77.44	5.35	15.469	
900.00	899.91	901.74	901.71	2.66	3.08	-65.37	-4.52	87.93	81.93	76.20	5.74	14.281	
998.12	998.03	999.86	999.83	2.75	3.41	-65.73	-4.52	87.93	81.69	75.54	6.15	13.274 CC, ES	
1,000.00	999.91	1,001.72	1,001.69	2.75	3.42	87.04	-4.52	87.93	81.72	75.56	6.16	13.261	
1,100.00	1,099.91	1,100.00	1,099.96	2.87	3.76	87.18	-4.67	88.79	82.59	75.97	6.62	12.468	
1,200.00	1,199.91	1,198.90	1,198.83	3.03	4.10	87.57	-5.13	91.33	85.14	78.01	7.13	11.944	
1,300.00	1,299.91	1,297.34	1,297.18	3.22	4.44	88.16	-5.88	95.53	89.37	81.70	7.66	11.663	
1,400.00	1,399.91	1,395.61	1,395.26	3.44	4.79	88.91	-6.93	101.37	95.29	87.06	8.22	11.588 SF	
1,500.00	1,499.91	1,493.64	1,493.00	3.68	5.14	89.74	-8.27	108.85	102.90	94.10	8.80	11.689	
1,600.00	1,599.91	1,591.39	1,590.31	3.94	5.49	90.59	-9.90	117.95	112.21	102.82	9.40	11.940	
1,700.00	1,699.91	1,688.79	1,687.10	4.22	5.85	91.44	-11.82	128.64	123.22	113.22	10.01	12.316	
1,800.00	1,799.91	1,785.79	1,783.30	4.50	6.22	92.24	-14.01	140.89	135.92	125.30	10.62	12.800	
1,900.00	1,899.91	1,882.34	1,878.83	4.80	6.59	92.99	-16.49	154.67	150.31	139.07	11.24	13.374	
2,000.00	1,999.91	1,978.58	1,973.79	5.10	6.96	93.67	-19.23	169.98	166.36	154.50	11.86	14.023	
2,100.00	2,099.91	2,077.14	2,070.94	5.41	7.36	94.27	-22.17	186.37	183.15	170.63	12.52	14.624	
2,200.00	2,199.91	2,175.70	2,168.09	5.73	7.76	94.76	-25.11	202.75	199.96	186.77	13.19	15.159	
2,300.00	2,299.91	2,274.27	2,265.24	6.05	8.16	95.18	-28.04	219.13	216.77	202.91	13.86	15.635	
2,400.00	2,399.91	2,372.83	2,362.39	6.37	8.57	95.54	-30.98	235.51	233.60	219.06	14.54	16.062	
2,500.00	2,499.91	2,471.40	2,459.54	6.70	8.98	95.85	-33.92	251.89	250.44	235.21	15.23	16.447	
2,600.00	2,599.91	2,569.89	2,556.61	7.02	9.40	-133.88	-36.85	268.26	267.73	251.82	15.90	16.834	
2,700.00	2,699.89	2,668.22	2,653.53	7.33	9.81	-133.83	-39.79	284.61	285.91	269.34	16.57	17.251	
2,800.00	2,799.83	2,766.37	2,750.28	7.65	10.23	-133.94	-42.71	300.92	304.99	287.74	17.25	17.682	
2,900.00	2,899.73	2,864.34	2,846.84	7.97	10.65	-134.19	-45.63	317.20	324.96	307.04	17.93	18.127	
3,000.00	2,999.55	2,962.09	2,943.19	8.29	11.07	-134.55	-48.54	333.45	345.85	327.24	18.61	18.585	
3,100.00	3,099.29	3,059.62	3,039.32	8.62	11.49	-135.01	-51.45	349.66	367.66	348.36	19.29	19.056	
3,200.00	3,198.93	3,156.91	3,135.21	8.96	11.91	-135.53	-54.35	365.83	390.41	370.43	19.98	19.537	
3,300.00	3,298.45	3,253.94	3,230.85	9.30	12.33	-136.10	-57.24	381.96	414.13	393.45	20.68	20.030	
3,400.00	3,397.90	3,350.83	3,326.35	9.64	12.75	-136.79	-60.13	398.06	438.35	416.98	21.37	20.512	
3,500.00	3,497.35	3,447.73	3,421.85	9.99	13.18	-137.40	-63.02	414.17	462.64	440.57	22.07	20.964	
3,600.00	3,596.81	3,544.62	3,517.35	10.34	13.60	-137.96	-65.91	430.27	486.96	464.20	22.77	21.387	
3,700.00	3,696.26	3,641.52	3,612.86	10.70	14.02	-138.46	-68.79	446.37	511.33	487.86	23.47	21.784	
3,800.00	3,795.71	3,738.41	3,708.36	11.05	14.45	-138.91	-71.68	462.48	535.73	511.55	24.18	22.157	
3,900.00	3,895.16	3,835.30	3,803.86	11.42	14.87	-139.33	-74.57	478.58	560.16	535.27	24.89	22.508	
4,000.00	3,994.61	3,932.20	3,899.36	11.78	15.30	-139.71	-77.46	494.69	584.61	559.02	25.60	22.839	
4,100.00	4,094.07	4,029.09	3,994.86	12.14	15.73	-140.06	-80.34	510.79	609.09	582.78	26.31	23.151	
4,200.00	4,193.52	4,125.98	4,090.37	12.51	16.15	-140.38	-83.23	526.90	633.59	606.56	27.02	23.445	
4,300.00	4,292.97	4,222.88	4,185.87	12.88	16.58	-140.68	-86.12	543.00	658.10	630.36	27.74	23.724	
4,400.00	4,392.42	4,319.77	4,281.37	13.25	17.01	-140.96	-89.01	559.10	682.63	654.17	28.46	23.988	
4,500.00	4,491.88	4,416.66	4,376.87	13.62	17.44	-141.22	-91.90	575.21	707.18	678.00	29.18	24.239	
4,600.00	4,591.33	4,513.56	4,472.37	14.00	17.87	-141.46	-94.78	591.31	731.73	701.84	29.89	24.477	
4,700.00	4,690.78	4,610.45	4,567.88	14.37	18.30	-141.69	-97.67	607.42	756.30	725.68	30.62	24.703	
4,800.00	4,790.23	4,707.34	4,663.38	14.75	18.73	-141.90	-100.56	623.52	780.88	749.54	31.34	24.918	
4,900.00	4,889.68	4,804.24	4,758.88	15.12	19.16	-142.10	-103.45	639.63	805.47	773.40	32.06	25.123	
5,000.00	4,989.14	4,901.13	4,854.38	15.50	19.59	-142.28	-106.33	655.73	830.06	797.28	32.78	25.319	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 513H - Wellbore #1 - Design #2													Offset Site Error:	0.00 usft
Survey Program: 26-MWD, 700-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,088.59	4,998.02	4,949.89	15.88	20.02	-142.46	-109.22	671.83	854.67	821.16	33.51	25.506		
5,200.00	5,188.04	5,094.92	5,045.39	16.26	20.45	-142.63	-112.11	687.94	879.28	845.04	34.23	25.684		
5,300.00	5,287.49	5,191.81	5,140.89	16.64	20.88	-142.78	-115.00	704.04	903.89	868.93	34.96	25.855		
5,400.00	5,386.94	5,288.70	5,236.39	17.02	21.31	-142.93	-117.89	720.15	928.52	892.83	35.69	26.018		
5,500.00	5,486.40	5,385.60	5,331.89	17.41	21.74	-143.07	-120.77	736.25	953.15	916.73	36.41	26.175		
5,600.00	5,585.85	5,482.49	5,427.40	17.79	22.17	-143.21	-123.66	752.36	977.78	940.64	37.14	26.325		
5,700.00	5,685.30	5,579.39	5,522.90	18.17	22.61	-143.33	-126.55	768.46	1,002.42	964.55	37.87	26.469		
5,800.00	5,784.75	5,676.28	5,618.40	18.56	23.04	-143.46	-129.44	784.56	1,027.06	988.46	38.60	26.607		
5,900.00	5,884.21	5,773.17	5,713.90	18.94	23.47	-143.57	-132.32	800.67	1,051.71	1,012.38	39.33	26.740		
6,000.00	5,983.66	5,870.07	5,809.41	19.32	23.90	-143.68	-135.21	816.77	1,076.36	1,036.30	40.06	26.868		
6,100.00	6,083.11	5,966.96	5,904.91	19.71	24.33	-143.79	-138.10	832.88	1,101.02	1,060.23	40.79	26.991		
6,200.00	6,182.56	6,063.85	6,000.41	20.10	24.77	-143.89	-140.99	848.98	1,125.68	1,084.15	41.52	27.109		
6,300.00	6,282.01	6,160.75	6,095.91	20.48	25.20	-143.98	-143.88	865.09	1,150.34	1,108.08	42.26	27.223		
6,400.00	6,381.52	6,257.75	6,191.53	20.87	25.63	-144.16	-146.77	881.21	1,174.57	1,131.58	42.99	27.324		
6,500.00	6,481.15	6,355.02	6,287.40	21.25	26.07	-144.30	-149.67	897.38	1,197.77	1,154.06	43.72	27.399		
6,600.00	6,580.88	6,452.53	6,383.51	21.62	26.50	-144.40	-152.57	913.58	1,219.94	1,175.50	44.44	27.449		
6,700.00	6,680.70	6,550.27	6,479.84	21.99	26.94	-144.45	-155.48	929.83	1,241.07	1,195.90	45.17	27.475		
6,800.00	6,780.59	6,648.22	6,576.39	22.35	27.38	-144.47	-158.40	946.11	1,261.16	1,215.26	45.90	27.479		
6,900.00	6,880.53	6,746.36	6,673.12	22.70	27.82	-144.45	-161.33	962.42	1,280.21	1,233.59	46.62	27.461		
7,000.00	6,980.51	6,844.68	6,770.02	23.05	28.26	-144.39	-164.26	978.76	1,298.21	1,250.87	47.34	27.424		
7,100.00	7,080.51	6,943.16	6,867.09	23.39	28.70	-144.30	-167.19	995.13	1,315.18	1,267.13	48.05	27.372		
7,200.00	7,180.51	7,041.72	6,964.24	23.71	29.14	85.87	-170.13	1,011.51	1,331.55	1,282.80	48.75	27.314		
7,300.00	7,280.51	7,140.29	7,061.39	24.04	29.58	86.05	-173.07	1,027.89	1,347.94	1,298.48	49.45	27.257		

Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Offset Design Cotton Draw Unit - 513H - Wellbore #1 - Surveys													Offset Site Error: 0.00 usft
Survey Program: 26-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	1.80	1.80	0.00	0.00	89.69	0.48	90.09	90.09				
100.00	100.00	101.66	101.66	0.26	0.27	-86.34	0.60	90.15	90.10	89.57	0.53	170.138	
200.00	200.00	202.23	202.23	0.61	0.62	-136.92	0.85	90.12	90.15	88.92	1.23	73.182	
300.00	300.00	302.11	302.11	0.96	0.97	-52.50	0.40	89.55	89.23	87.30	1.93	46.277	
400.00	399.99	402.54	402.53	1.32	1.32	-58.63	-0.39	89.08	88.56	85.92	2.63	33.628	
500.00	499.98	501.95	501.93	1.67	1.67	-34.43	-1.42	88.50	86.97	83.63	3.34	26.046	
600.00	599.97	601.91	601.89	2.03	2.02	-37.82	-2.42	88.40	85.71	81.66	4.05	21.165	
691.28	691.23	693.31	693.29	2.36	2.35	-37.32	-3.18	88.44	84.42	79.72	4.70	17.962	
700.00	699.95	700.00	699.98	2.39	2.37	-37.31	-3.24	88.41	84.19	79.44	4.76	17.705 CC, ES, SF	
800.00	799.93	700.00	699.98	2.62	2.37	-63.82	-3.24	88.41	131.44	125.64	5.80	22.670	
900.00	899.91	700.00	699.98	2.66	2.37	-64.78	-3.24	88.41	217.95	211.91	6.03	36.117	
1,000.00	999.91	700.00	699.98	2.75	2.37	86.17	-3.24	88.41	312.75	306.71	6.04	51.791	
1,100.00	1,099.91	700.00	699.98	2.87	2.37	86.17	-3.24	88.41	410.07	404.09	5.99	68.484	
1,200.00	1,199.91	700.00	699.98	3.03	2.37	86.17	-3.24	88.41	508.44	502.51	5.92	85.863	
1,300.00	1,299.91	700.00	699.98	3.22	2.37	86.17	-3.24	88.41	607.33	601.48	5.85	103.827	
1,400.00	1,399.91	700.00	699.98	3.44	2.37	86.17	-3.24	88.41	706.54	700.77	5.78	122.332	
1,500.00	1,499.91	700.00	699.98	3.68	2.37	86.17	-3.24	88.41	805.95	800.24	5.70	141.357	
1,600.00	1,599.91	700.00	699.98	3.94	2.37	86.17	-3.24	88.41	905.48	899.85	5.63	160.890	
1,700.00	1,699.91	700.00	699.98	4.22	2.37	86.17	-3.24	88.41	1,005.11	999.55	5.56	180.922	
1,800.00	1,799.91	700.00	699.98	4.50	2.37	86.17	-3.24	88.41	1,104.80	1,099.32	5.48	201.444	
1,900.00	1,899.91	700.00	699.98	4.80	2.37	86.17	-3.24	88.41	1,204.55	1,199.13	5.42	222.445	
2,000.00	1,999.91	700.00	699.98	5.10	2.37	86.17	-3.24	88.41	1,304.33	1,298.98	5.35	243.911	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

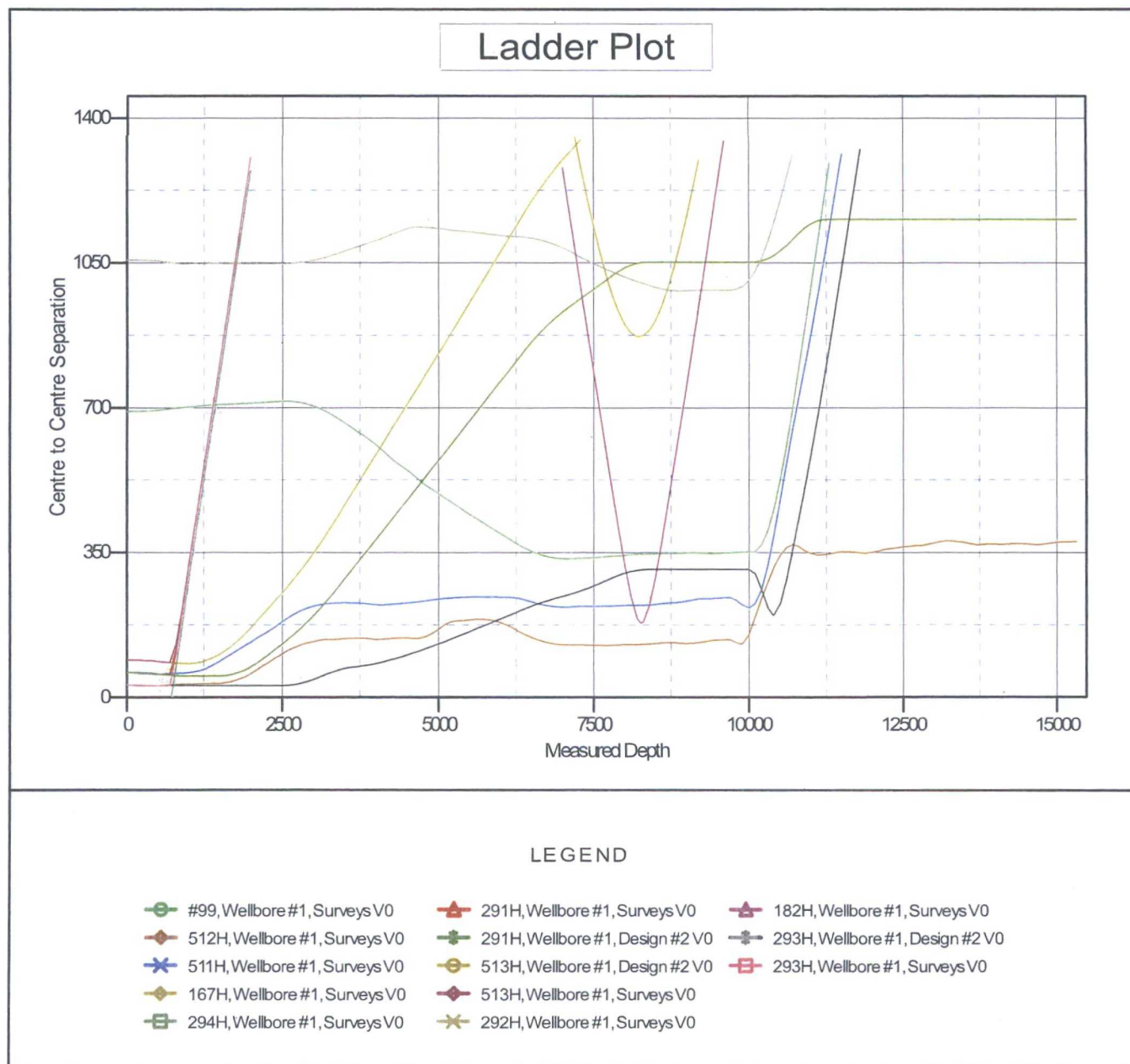
Anticollision Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Cotton Draw Unit
 Site Error: 0.00 usft
 Reference Well: 294H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
 TVD Reference: Well @ 3538.10usft (ICD 217)
 MD Reference: Well @ 3538.10usft (ICD 217)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDMDB
 Offset TVD Reference: Offset Datum

Reference Depths are relative to Well @ 3538.10usft (ICD 217)
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334

Coordinates are relative to: 294H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.32°



Anticollision Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Cotton Draw Unit
Site Error: 0.00 usft
Reference Well: 294H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Design 3

Local Co-ordinate Reference: Well 294H
TVD Reference: Well @ 3538.10usft (ICD 217)
MD Reference: Well @ 3538.10usft (ICD 217)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMDB
Offset TVD Reference: Offset Datum

Reference Depths are relative to Well @ 3538.10usft (ICD 217)
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334

Coordinates are relative to: 294H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.32°

