

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-102

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) 743-1283 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

Revised August 1, 2011
Submit one copy to appropriate
District Office

RECEIVED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number: 30-015-42702	² Pool Code: 96144	³ Pool Name: Carlsbad; Bone Spring, East
⁴ Property Code: 38927	⁵ Property Name: LONE TREE DRAW 13 STATE COM	⁶ Well-Number: 13H
⁷ OGRID No.: 6137	⁸ Operator Name: DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation: 3152.0

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
A	13	21 S	27 E		346	NORTH	365	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
P	13	21 S	27 E		330	SOUTH	900	EAST	EDDY

¹² Dedicated Acres: 160	¹³ Joint-or Infill:	¹⁴ Consolidation Code:	¹⁵ Order No.:
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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°39'54"E 2683.58 FT NW CORNER SEC. 13 LAT. = 32.4875567°N LONG. = 104.1518461°W NMSP EAST (FT) N = 541151.55 E = 597296.67		N89°38'05"E 2685.30 FT N/4 CORNER SEC. 13 LAT. = 32.4875870°N LONG. = 104.1431449°W NMSP EAST (FT) N = 541167.23 E = 599979.56		SURFACE LOCATION NE CORNER SEC. 13 LAT. = 32.4876206°N LONG. = 104.1344381°W NMSP EAST (FT) N = 541184.34 E = 602664.16	
W/4 CORNER SEC. 13 LAT. = 32.4802575°N LONG. = 104.1518272°W NMSP EAST (FT) N = 538496.13 E = 597307.02		LONE TREE DRAW 13 STATE COM 13H ELEV. = 3152.0' LAT. = 32.4866651°N (NAD83) LONG. = 104.1356201°W NMSP EAST (FT) N = 540836.07 E = 602300.36		E/4 CORNER SEC. 13 LAT. = 32.4803887°N LONG. = 104.1344261°W NMSP EAST (FT) N = 538553.42 E = 602672.77	
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.		BOTTOM OF HOLE LAT. = 32.4740382°N LONG. = 104.1373352°W NMSP EAST (FT) N = 536241.47 E = 601779.96		SE CORNER SEC. 13 LAT. = 32.4731637°N LONG. = 104.1344163°W NMSP EAST (FT) N = 535924.99 E = 602680.71	
SW CORNER SEC. 13 LAT. = 32.4729692°N LONG. = 104.1517858°W NMSP EAST (FT) N = 535844.67 E = 597324.30		S/4 CORNER SEC. 13 LAT. = 32.4730669°N LONG. = 104.1431032°W NMSP EAST (FT) N = 535884.89 E = 600001.85		BOTTOM OF HOLE LAT. = 32.4740382°N LONG. = 104.1373352°W NMSP EAST (FT) N = 536241.47 E = 601779.96	
S89°08'22"W 2678.50 FT		S89°08'32"W 2679.80 FT		SURVEY NO. 2502	

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 division.

Signature: *Linda Good* Date: *10/11/2014*

Printed Name: **Linda Good**

E-mail Address: **linda.good@dvn.com**

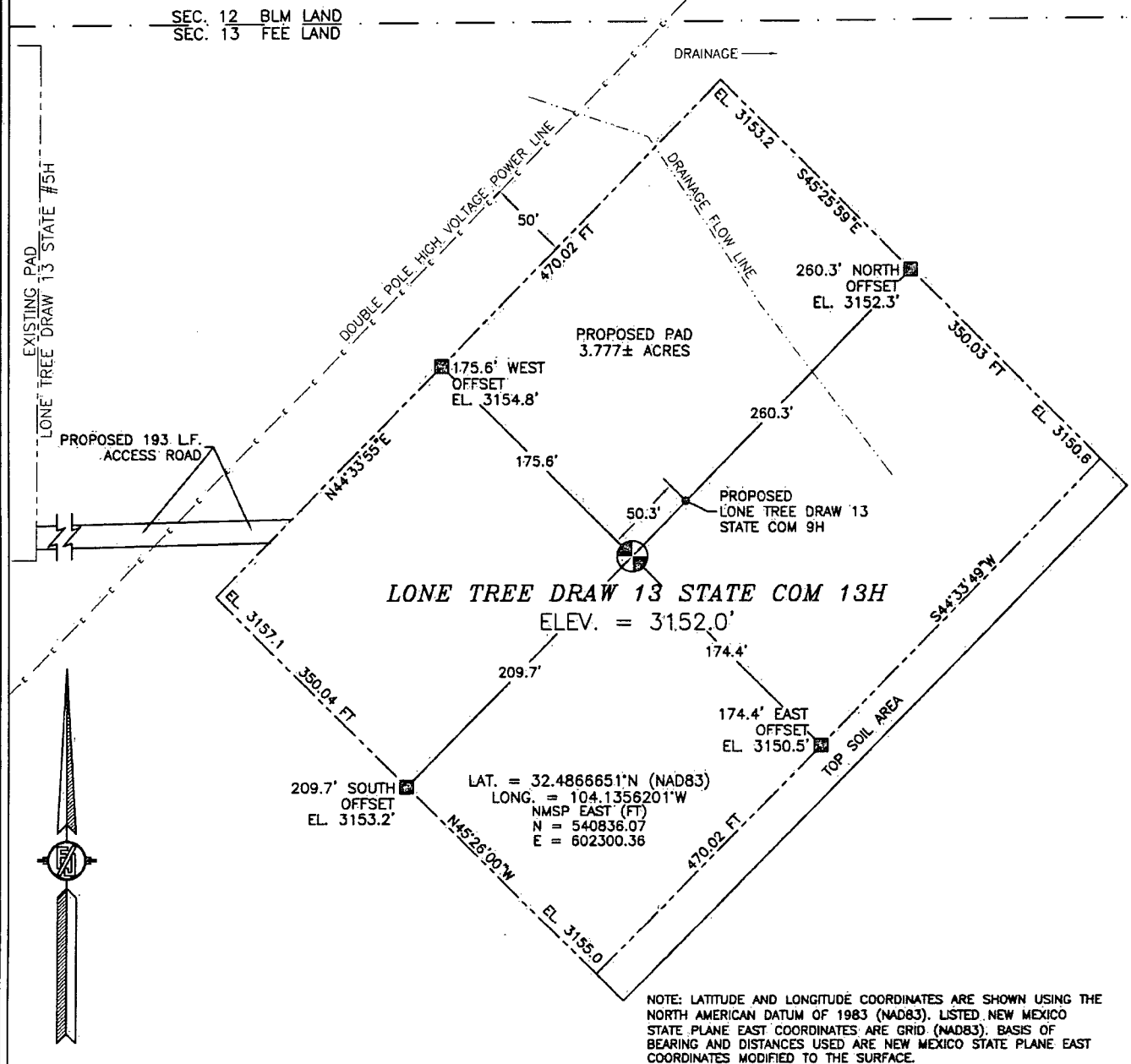
¹⁸ SURVEYOR CERTIFICATION

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.

Signature and Seal of Professional Surveyor: *[Signature]*

Certificate Number: **FILMON F. JARAMILLO, PLS 12797**

SECTION 13, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SITE MAP



010 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CR 206 (ILLINOIS CAMP RD.) AND SR 200 (GEORGE SHOUP RELIEF ROUTE) GO NORTH ON CR 206 1.3 MILES TO CR 800 (RAINS ROAD) ON RIGHT GO EAST ON CR 800 2.1 MILES (RAMBO BOOSTER) PAVEMENT ENDS CONTINUE EAST 0.15 MILES TO CALICHE LEASE ROAD. ON RIGHT, ACROSS FROM GRAVEL PIT GO EAST 2.75 MILES TO BEND IN ROAD TO THE LEFT PAST CATTLE GUARD GO NORTH 880 LF ROAD BENDS RIGHT GO EAST 0.9 MILES TO EXIST PAD FOR LONE TREE DRAW 13 STATE #5H FROM THE SE COR OF PAD GO EAST 193 LF. TO SW CORNER OF PAD

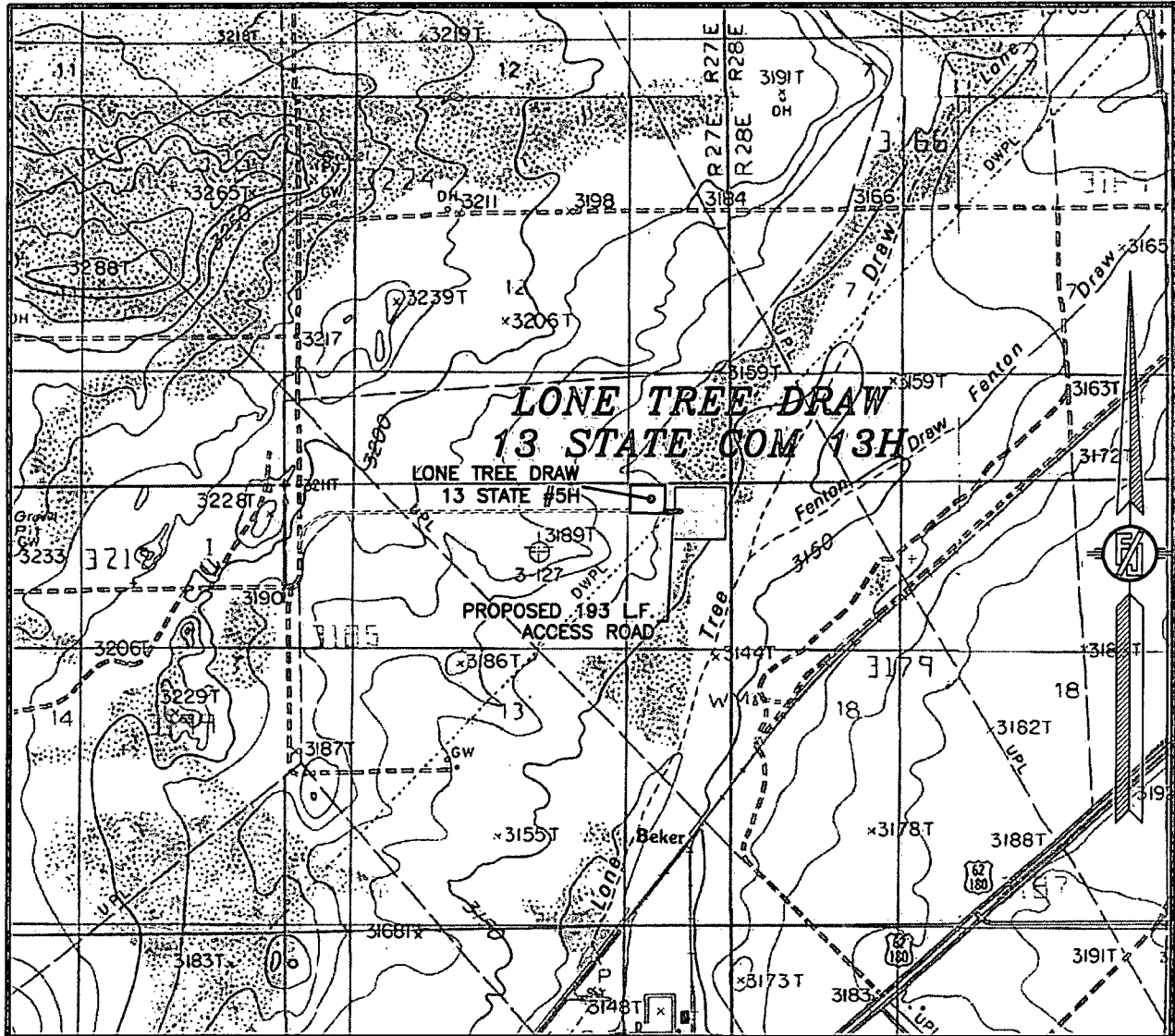
DEVON ENERGY PRODUCTION COMPANY, L.P.
LONE TREE DRAW 13 STATE COM 13H
LOCATED 346 FT. FROM THE NORTH LINE
AND 365 FT. FROM THE EAST LINE OF
SECTION 13, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JANUARY 10, 2014

SURVEY NO. 2502

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

SECTION 13, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
CARLSBAD EAST

NOT TO SCALE

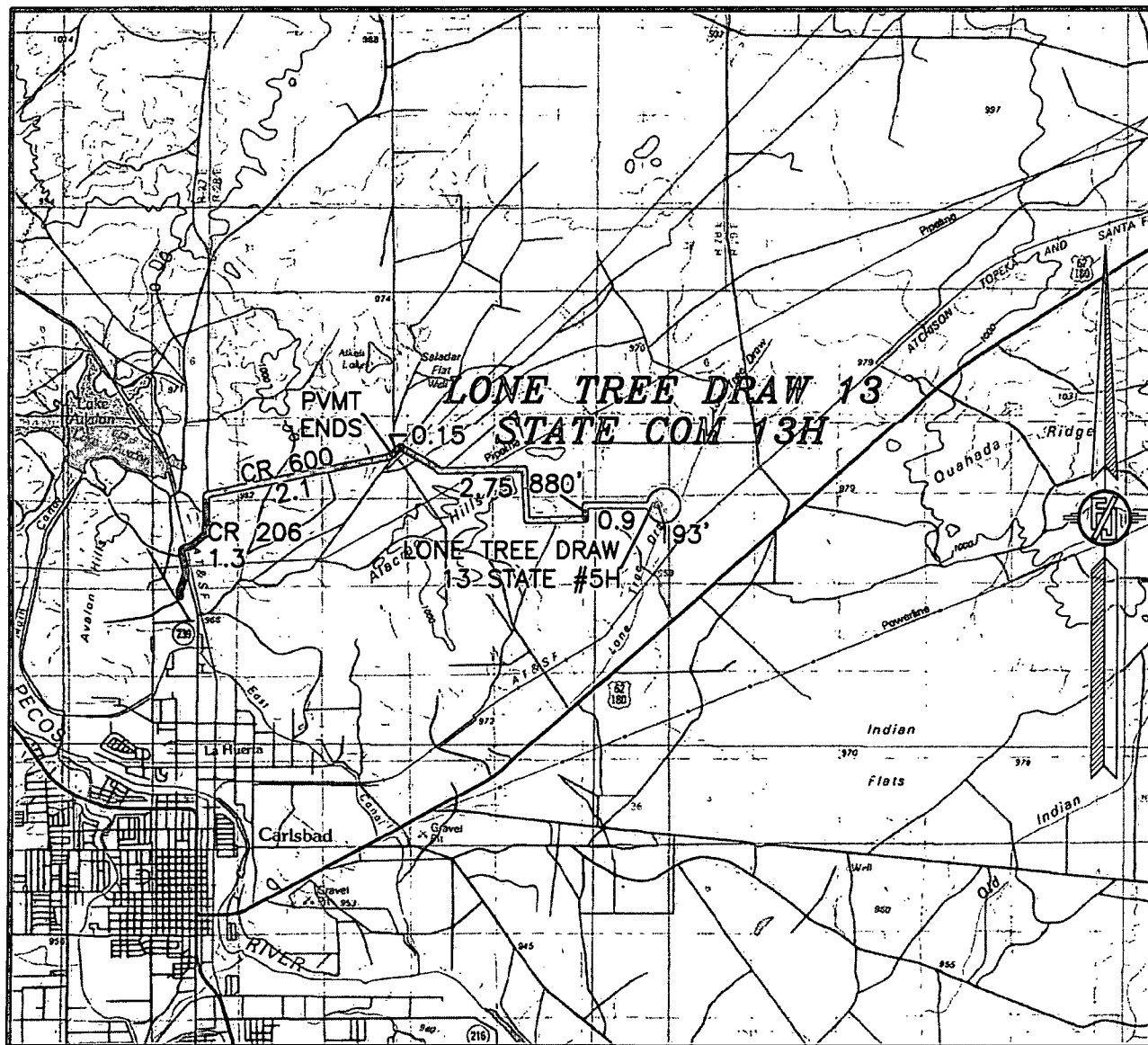
DEVON ENERGY PRODUCTION COMPANY, L.P.
LONE TREE DRAW 13 STATE COM 13H
LOCATED 346 FT. FROM THE NORTH LINE
AND 365 FT. FROM THE EAST LINE OF
SECTION 13, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JANUARY 10, 2014

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

SURVEY NO. 2502

SECTION 13, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CR 206 (ILLINOIS CAMP RD.) AND SR 200 (GEORGE SHOUP RELIEF ROUTE) GO NORTH ON CR 206 1.3 MILES TO CR 600 (RAINS ROAD) ON RIGHT GO EAST ON CR 600 2.1 MILES (RAMBO BOOSTER) PAVEMENT ENDS CONTINUE EAST 0.15 MILES TO CALICHE LEASE ROAD ON RIGHT ACROSS FROM GRAVEL PIT GO EAST 2.75 MILES TO BEND IN ROAD TO THE LEFT PAST CATTLE GUARD GO NORTH 880 LF ROAD BENDS RIGHT GO EAST 0.9 MILES TO EXIST PAD FOR LONE TREE DRAW 13 STATE #5H FROM THE SE COR OF PAD GO EAST 193 LF. TO SW CORNER OF PAD

DEVON ENERGY PRODUCTION COMPANY, L.P.
LONE TREE DRAW 13 STATE COM 13H

LOCATED 346 FT. FROM THE NORTH LINE
AND 365 FT. FROM THE EAST LINE OF
SECTION 13, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JANUARY 10, 2014

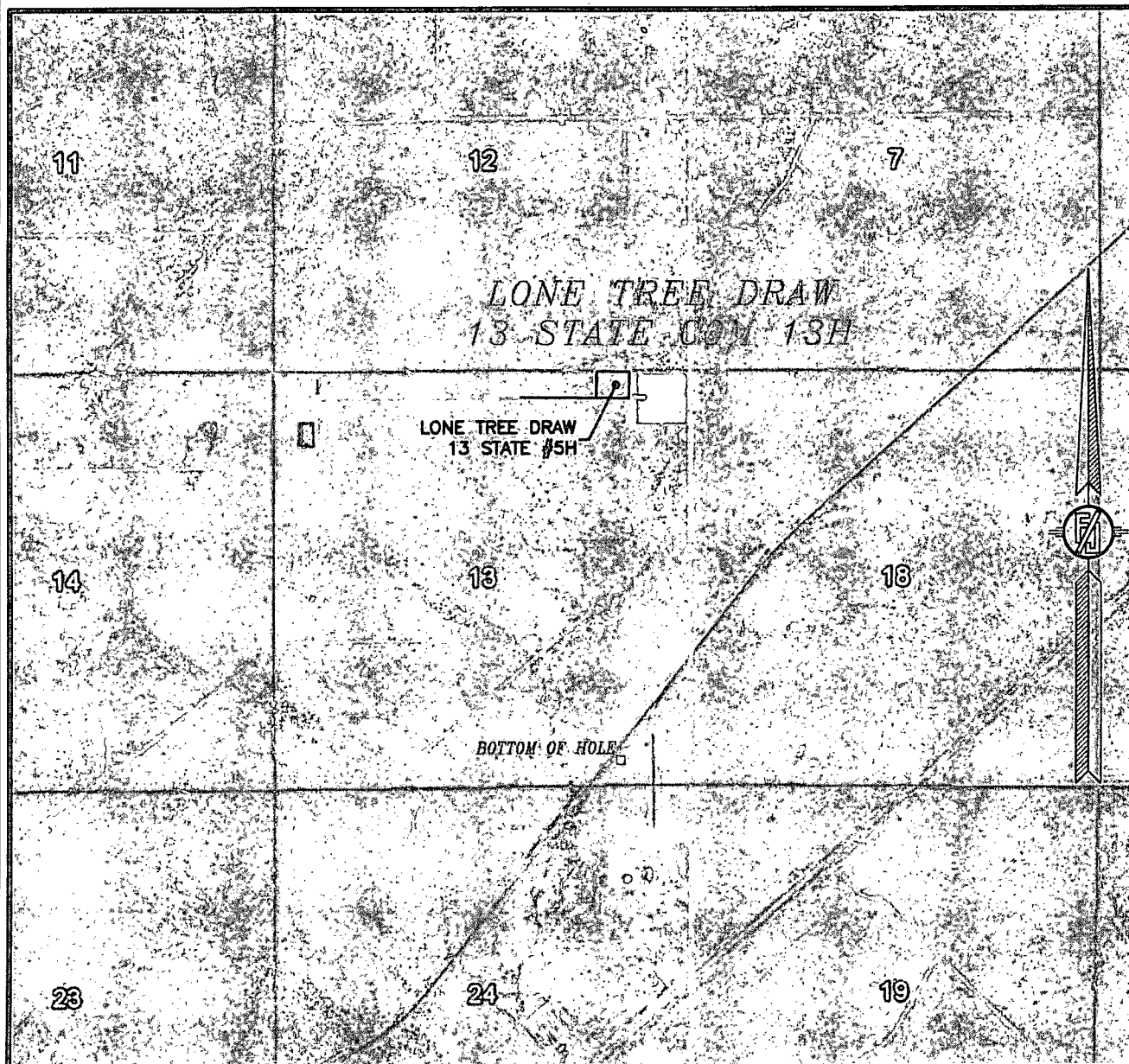
MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SURVEY NO. 2502

SECTION 13, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
APRIL 2013

DEVON ENERGY PRODUCTION COMPANY, L.P.
LONE TREE DRAW 13 STATE COM 13H
LOCATED 346 FT. FROM THE NORTH LINE
AND 365 FT. FROM THE EAST LINE OF
SECTION 13, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JANUARY 10, 2014

SURVEY NO. 2502

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

DRILLING PROGRAM

Devon Energy Production Company, L.P./Lone Tree Draw 13 State Com/13H

1. Pressure Control Equipment:

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the surface casing shoe. The BOP system used to drill the intermediate hole will be tested per BLM Onshore Oil and Gas Order 2.

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the intermediate casing shoe. The BOP system used to drill the production hole will be tested per BLM Onshore Oil and Gas Order 2.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

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

Auxiliary Well Control and Monitoring Equipment:

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

2. Casing Program:

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight (lb/ft)	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17-1/2"	0 - 300'	13-3/8"	0 - 300'	48	STC	H-40	5.74	12.90	37.57
12-1/4"	300-2800'	9-5/8"	0-2800'	36	LTC	J-55	1.39	2.42	4.49
8-3/4"	2800-11246'	5-1/2"	0-11246'	17	BTC	P-110	2.63	3.26	4.89

Casing Notes:

- All casing is new and API approved

Maximum Lateral TVD: 6832'

3. Proposed mud Circulations System:

Depth	Mud Weight	Viscosity	Fluid Loss	Type System
0-300'	8.4-9.0	30-34	N/C	FW
300-2800'	10.0	28-32	N/C	Brine
2800-11246'	8.6-9.0	28-32	N/C	FW

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

4. Cementing Table:

String	Number of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
13-3/8" Surface	370	13.5	9.07	1.72	Lead	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 2% bwoc CaCl ₂ + 70.8% Fresh Water
	180	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water
9-5/8" Intermediate	810	12.9	9.81	1.85	Lead	(50:50) Class C Cement: Poz (Fly Ash): 10% BWOC Bentonite + 8 lb/sk Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water
	540	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water
5-1/2" Production Casing	630	11.9	12.99	2.26	Lead	(50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol-Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000 + 76.4% Fresh Water
	260	12.9	10.1	1.96	Lead	(65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.3% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water
	760	14.5	5.48	1.22	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.25% bwoc CFR-3 + 0.1% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water

TOC for all Strings:

Surface @ 0'
 Intermediate @ 0'
 Production @ 2300'

Notes:

- Cement volumes Surface 100%, Intermediate 50%, Production based on at least 25% excess
- Actual cement volumes will be adjusted based on fluid caliper and caliper log data

DEVON ENERGY

Project: Eddy County, NM (NAD-83)
Site: Lone Tree Draw "13" State
Well: 13H
Wellbore: OH
Design: Plan #1 Draft 1



Azimuths to Grid North
True North: -0.11°
Magnetic North: 7.55°

Magnetic Field
Strength: 48423.4nT
Dip Angle: 60.25°
Date: 02/10/2014
Model: BGGM2013

devon

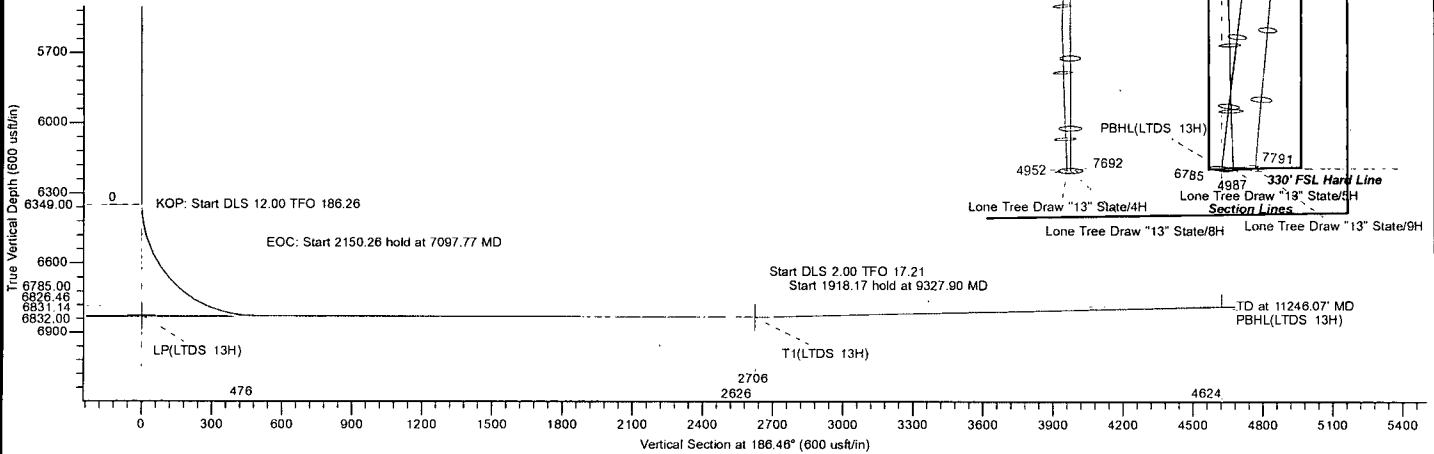
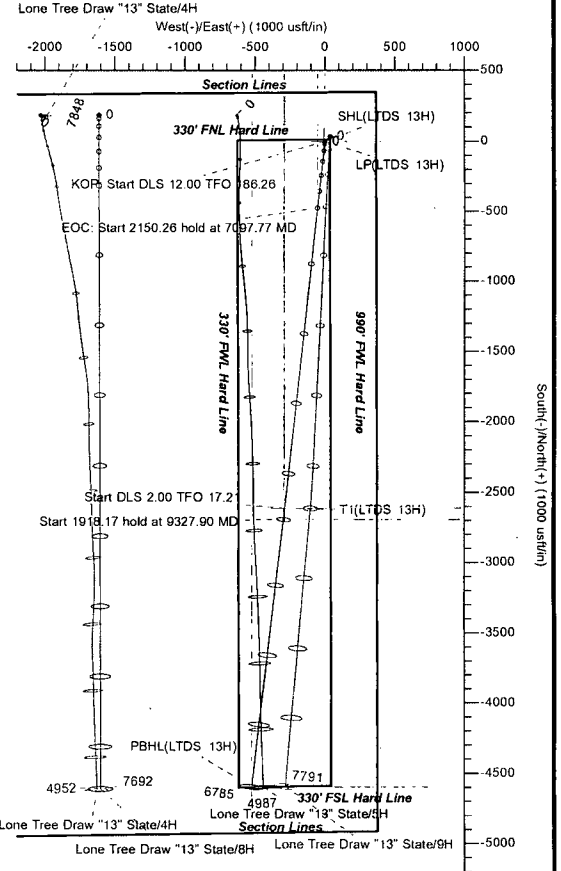
PROJECT DETAILS: Eddy County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL(LTDS 13H)	0.00	0.00	0.00	540836.07	602300.36	32° 29' 11.994 N	104° 8' 8.232 W
PBHL(LTDS 13H)	6785.00	-4594.53	-520.61	536241.54	601779.75	32° 28' 26.538 N	104° 8' 14.409 W
LP(LTDS 13H)	6825.00	-0.00	-5.06	540835.98	602295.30	32° 29' 11.994 N	104° 8' 8.291 W
T1(LTDS 13H)	6832.00	-2610.80	-286.60	538225.27	602013.76	32° 28' 46.164 N	104° 8' 11.635 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6349.00	0.00	0.00	6349.00	0.00	0.00	0.00	0.00	0.00	KOP: Start DLS 12.00 TFO 186.26
3	7097.77	89.85	186.26	6826.46	-473.39	-51.97	12.00	186.26	476.23	EOC: Start 2150.26 hold at 7097.77 MD
4	9248.03	89.85	186.26	6832.00	-2610.80	-286.60	0.00	0.00	2626.47	Start DLS 2.00 TFO 17.21
5	9327.90	91.38	186.74	6831.14	-2690.16	-295.64	2.00	17.21	2706.34	Start 1918.17 hold at 9327.90 MD
6	11246.07	91.38	186.74	6785.00	-4594.53	-520.61	0.00	0.00	4623.93	TD at 11246.07 MD



LEAM DRILLING SYSTEMS LLC
2010 East Davis, Conroe, Texas 77301
Phone: 936/756-7577, Fax 936/756-7595

Plan: Plan #1 Draft 1 (13H)OH
Lone Tree Draw "13" State
Created By: Heber Claros Date: 13:13, February 10 2014
Date: _____
Approved: _____ Date: _____

DEVON ENERGY

Eddy County, NM (NAD-83)

Lone Tree Draw "13" State

13H

OH

Plan: Plan #1 Draft 1

Standard Planning Report

10 February, 2014

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 13H
Company:	DEVON ENERGY	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site:	Lone Tree Draw "13" State	North Reference:	Grid
Well:	13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1		

Project	Eddy County, NM (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	Lone Tree Draw "13" State		
Site Position:		Northing:	541,005.87 usft
From:	Map	Easting:	598,047.12 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 29' 13.750 N
		Longitude:	104° 8' 57.887 W
		Grid Convergence:	0.10 °

Well	13H		
Well Position	+N/-S	-169.80 usft	Northing:
	+E/-W	4,253.24 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 29' 11.994 N
		Longitude:	104° 8' 8.232 W
		Ground Level:	3,152.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	BGGM2013	02/10/14	7.66
			Dip Angle
			(°)
			Field Strength
			(nT)
			48,423

Design	Plan #1 Draft 1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			186.46

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,349.00	0.00	0.00	6,349.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,097.77	89.85	186.26	6,826.46	-473.39	-51.97	12.00	12.00	-23.20	186.26	
9,248.03	89.85	186.26	6,832.00	-2,610.80	-286.60	0.00	0.00	0.00	0.00	T1(LTDS 13H)
9,327.90	91.38	186.74	6,831.14	-2,690.16	-295.64	2.00	1.91	0.59	17.21	
11,246.07	91.38	186.74	6,785.00	-4,594.53	-520.61	0.00	0.00	0.00	0.00	PBHL(LTDS 13H)

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 13H
Company:	DEVON ENERGY	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site:	Lone Tree Draw "13" State	North Reference:	Grid
Well:	13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1		

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)
6,349.00	0.00	0.00	6,349.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP: Start DLS 12.00 TFO 186.26									
6,350.00	0.12	186.26	6,350.00	0.00	0.00	0.00	12.00	12.00	0.00
6,375.00	3.12	186.26	6,374.99	-0.70	-0.08	0.71	12.00	12.00	0.00
6,400.00	6.12	186.26	6,399.90	-2.70	-0.30	2.72	12.00	12.00	0.00
6,425.00	9.12	186.26	6,424.68	-6.00	-0.66	6.04	12.00	12.00	0.00
6,450.00	12.12	186.26	6,449.25	-10.58	-1.16	10.64	12.00	12.00	0.00
6,475.00	15.12	186.26	6,473.54	-16.43	-1.80	16.53	12.00	12.00	0.00
6,500.00	18.12	186.26	6,497.50	-23.54	-2.58	23.68	12.00	12.00	0.00
6,525.00	21.12	186.26	6,521.04	-31.88	-3.50	32.07	12.00	12.00	0.00
6,550.00	24.12	186.26	6,544.12	-41.44	-4.55	41.69	12.00	12.00	0.00
6,575.00	27.12	186.26	6,566.66	-52.18	-5.73	52.50	12.00	12.00	0.00
6,600.00	30.12	186.26	6,588.60	-64.08	-7.03	64.47	12.00	12.00	0.00
6,625.00	33.12	186.26	6,609.88	-77.11	-8.46	77.57	12.00	12.00	0.00
6,650.00	36.12	186.26	6,630.46	-91.23	-10.01	91.78	12.00	12.00	0.00
6,675.00	39.12	186.26	6,650.25	-106.40	-11.68	107.03	12.00	12.00	0.00
6,700.00	42.12	186.26	6,669.23	-122.57	-13.46	123.31	12.00	12.00	0.00
6,725.00	45.12	186.26	6,687.33	-139.71	-15.34	140.55	12.00	12.00	0.00
LP(LTDS 13H)									
6,750.00	48.12	186.26	6,704.49	-157.77	-17.32	158.72	12.00	12.00	0.00
6,775.00	51.12	186.26	6,720.69	-176.70	-19.40	177.76	12.00	12.00	0.00
6,800.00	54.12	186.26	6,735.86	-196.45	-21.57	197.63	12.00	12.00	0.00
6,825.00	57.12	186.26	6,749.98	-216.95	-23.82	218.26	12.00	12.00	0.00
6,850.00	60.12	186.26	6,763.00	-238.17	-26.14	239.60	12.00	12.00	0.00
6,875.00	63.12	186.26	6,774.88	-260.03	-28.54	261.59	12.00	12.00	0.00
6,900.00	66.12	186.26	6,785.59	-282.48	-31.01	284.17	12.00	12.00	0.00
6,925.00	69.12	186.26	6,795.11	-305.46	-33.53	307.29	12.00	12.00	0.00
6,950.00	72.12	186.26	6,803.40	-328.90	-36.10	330.87	12.00	12.00	0.00
6,975.00	75.12	186.26	6,810.45	-352.74	-38.72	354.85	12.00	12.00	0.00
7,000.00	78.12	186.26	6,816.24	-376.91	-41.38	379.17	12.00	12.00	0.00
7,025.00	81.12	186.26	6,820.74	-401.35	-44.06	403.76	12.00	12.00	0.00
7,050.00	84.12	186.26	6,823.95	-425.99	-46.76	428.55	12.00	12.00	0.00
7,075.00	87.12	186.26	6,825.86	-450.77	-49.48	453.47	12.00	12.00	0.00
7,097.77	89.85	186.26	6,826.46	-473.39	-51.97	476.23	12.00	12.00	0.00
EOC: Start 2150.26 hold at 7097.77 MD									
7,100.00	89.85	186.26	6,826.47	-475.61	-52.21	478.46	0.00	0.00	0.00
7,200.00	89.85	186.26	6,826.73	-575.01	-63.12	578.46	0.00	0.00	0.00
7,300.00	89.85	186.26	6,826.98	-674.41	-74.03	678.46	0.00	0.00	0.00
7,400.00	89.85	186.26	6,827.24	-773.82	-84.95	778.46	0.00	0.00	0.00
7,500.00	89.85	186.26	6,827.50	-873.22	-95.86	878.46	0.00	0.00	0.00
7,600.00	89.85	186.26	6,827.76	-972.62	-106.77	978.46	0.00	0.00	0.00
7,700.00	89.85	186.26	6,828.01	-1,072.02	-117.68	1,078.46	0.00	0.00	0.00
7,800.00	89.85	186.26	6,828.27	-1,171.43	-128.59	1,178.46	0.00	0.00	0.00
7,900.00	89.85	186.26	6,828.53	-1,270.83	-139.51	1,278.45	0.00	0.00	0.00
8,000.00	89.85	186.26	6,828.79	-1,370.23	-150.42	1,378.45	0.00	0.00	0.00
8,100.00	89.85	186.26	6,829.04	-1,469.63	-161.33	1,478.45	0.00	0.00	0.00
8,200.00	89.85	186.26	6,829.30	-1,569.04	-172.24	1,578.45	0.00	0.00	0.00
8,300.00	89.85	186.26	6,829.56	-1,668.44	-183.15	1,678.45	0.00	0.00	0.00
8,400.00	89.85	186.26	6,829.82	-1,767.84	-194.07	1,778.45	0.00	0.00	0.00
8,500.00	89.85	186.26	6,830.07	-1,867.24	-204.98	1,878.45	0.00	0.00	0.00
8,600.00	89.85	186.26	6,830.33	-1,966.65	-215.89	1,978.45	0.00	0.00	0.00

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 13H
Company:	DEVON ENERGY	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site:	Lone Tree Draw "13" State	North Reference:	Grid
Well:	13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1		

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)
8,700.00	89.85	186.26	6,830.59	-2,066.05	-226.80	2,078.45	0.00	0.00	0.00
8,800.00	89.85	186.26	6,830.85	-2,165.45	-237.71	2,178.45	0.00	0.00	0.00
8,900.00	89.85	186.26	6,831.10	-2,264.85	-248.62	2,278.45	0.00	0.00	0.00
9,000.00	89.85	186.26	6,831.36	-2,364.26	-259.54	2,378.44	0.00	0.00	0.00
9,100.00	89.85	186.26	6,831.62	-2,463.66	-270.45	2,478.44	0.00	0.00	0.00
9,200.00	89.85	186.26	6,831.88	-2,563.06	-281.36	2,578.44	0.00	0.00	0.00
9,248.03	89.85	186.26	6,832.00	-2,610.80	-286.60	2,626.47	0.00	0.00	0.00
Start DLS 2:00 TFO 17.21 - T1(LTDS 13H)									
9,300.00	90.85	186.57	6,831.68	-2,662.45	-292.41	2,678.44	2.00	1.91	0.59
9,327.90	91.38	186.74	6,831.14	-2,690.16	-295.64	2,706.34	2.00	1.91	0.59
Start 1918.17 hold at 9327.90 MD									
9,400.00	91.38	186.74	6,829.41	-2,761.73	-304.10	2,778.41	0.00	0.00	0.00
9,500.00	91.38	186.74	6,827.00	-2,861.02	-315.83	2,878.38	0.00	0.00	0.00
9,600.00	91.38	186.74	6,824.60	-2,960.30	-327.56	2,978.35	0.00	0.00	0.00
9,700.00	91.38	186.74	6,822.19	-3,059.58	-339.28	3,078.32	0.00	0.00	0.00
9,800.00	91.38	186.74	6,819.79	-3,158.86	-351.01	3,178.29	0.00	0.00	0.00
9,900.00	91.38	186.74	6,817.38	-3,258.14	-362.74	3,278.26	0.00	0.00	0.00
10,000.00	91.38	186.74	6,814.97	-3,357.42	-374.47	3,378.23	0.00	0.00	0.00
10,100.00	91.38	186.74	6,812.57	-3,456.70	-386.20	3,478.20	0.00	0.00	0.00
10,200.00	91.38	186.74	6,810.16	-3,555.98	-397.92	3,578.17	0.00	0.00	0.00
10,300.00	91.38	186.74	6,807.76	-3,655.26	-409.65	3,678.14	0.00	0.00	0.00
10,400.00	91.38	186.74	6,805.35	-3,754.54	-421.38	3,778.11	0.00	0.00	0.00
10,500.00	91.38	186.74	6,802.95	-3,853.82	-433.11	3,878.08	0.00	0.00	0.00
10,600.00	91.38	186.74	6,800.54	-3,953.10	-444.84	3,978.05	0.00	0.00	0.00
10,700.00	91.38	186.74	6,798.14	-4,052.38	-456.57	4,078.02	0.00	0.00	0.00
10,800.00	91.38	186.74	6,795.73	-4,151.66	-468.29	4,177.99	0.00	0.00	0.00
10,900.00	91.38	186.74	6,793.33	-4,250.95	-480.02	4,277.96	0.00	0.00	0.00
11,000.00	91.38	186.74	6,790.92	-4,350.23	-491.75	4,377.93	0.00	0.00	0.00
11,100.00	91.38	186.74	6,788.51	-4,449.51	-503.48	4,477.90	0.00	0.00	0.00
11,200.00	91.38	186.74	6,786.11	-4,548.79	-515.21	4,577.87	0.00	0.00	0.00
11,246.07	91.38	186.74	6,785.00	-4,594.53	-520.61	4,623.93	0.00	0.00	0.00
TD at 11246.07 MD - PBHL(LTDS 13H)									

Leam Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 13H
Company:	DEVON ENERGY	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site:	Lone Tree Draw "13" State	North Reference:	Grid
Well:	13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 Draft 1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
SHL(LTDS 13H)	0.00	0.00	0.00	0.00	0.00	540,836.07	602,300.36	32° 29' 11.994 N	104° 8' 8.232 W
- plan misses target center by 6349.00usft at 6349.00usft MD (6349.00 TVD, 0.00 N, 0.00 E)									
- Point									
PBHL(LTDS 13H)	0.00	0.00	6,785.00	-4,594.53	-520.61	536,241.54	601,779.75	32° 28' 26.538 N	104° 8' 14.409 W
- plan hits target center									
- Point									
LP(LTDS 13H)	0.00	0.00	6,825.00	-0.09	-5.06	540,835.98	602,295.30	32° 29' 11.994 N	104° 8' 8.291 W
- plan misses target center by 196.36usft at 6725.00usft MD (6687.32 TVD, -139.71 N, -15.34 E)									
- Point									
T1(LTDS 13H)	0.00	0.00	6,832.00	-2,610.80	-286.60	538,225.27	602,013.76	32° 28' 46.164 N	104° 8' 11.635 W
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
6,349.00	6,349.00	0.00	0.00	KOP: Start DLS 12.00 TFO 186.26
7,097.77	6,826.46	-473.39	-51.97	EOC: Start 2150.26 hold at 7097.77 MD
9,248.03	6,832.00	-2,610.80	-286.60	Start DLS 2.00 TFO 17.21
9,327.90	6,831.14	-2,690.16	-295.64	Start 1918.17 hold at 9327.90 MD
11,246.07	6,785.00	-4,594.53	-520.61	TD at 11246.07' MD

DEVON ENERGY

Eddy County, NM (NAD-83)
Lone Tree Draw "13" State
13H

OH
Plan #1 Draft 1

Anticollision Report

10 February, 2014

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Reference	Plan #1 Draft 1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 100.00usft
Depth Range:	0.00 to 11,246.07usft
Results Limited by:	Maximum center-center distance of 10,000.00 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	02/10/14
From (usft)	To (usft)	Survey (Wellbore)
0.00	11,246.07	Plan #1 Draft 1 (OH)
		Tool Name
		LEAM MWD-ADJ
		Description
		MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Lone Tree Draw "13" State						
10H - OH - Plan #1 Draft 1	11,246.07	10,987.41	4,032.28	3,867.16	24.420	CC, ES, SF
2H - OH - OH	4,538.95	4,584.69	4,199.46	4,178.90	204.248	CC
2H - OH - OH	4,600.00	4,624.04	4,199.63	4,178.89	202.530	ES
2H - OH - OH	11,246.07	9,289.72	4,501.85	4,349.81	29.608	SF
2H - Pilot - Pilot	6,020.01	6,060.90	4,193.02	4,166.33	157.101	CC
2H - Pilot - Pilot	6,950.00	6,784.21	4,195.46	4,165.75	141.185	ES
2H - Pilot - Pilot	11,246.07	6,829.69	6,005.07	5,906.63	61.003	SF
4H - OH - OH	4,949.72	5,227.00	1,941.53	1,917.88	82.106	CC, ES
4H - OH - OH	11,246.07	9,544.95	2,140.52	2,037.03	20.684	SF
4H - Pilot - Pilot	1,683.90	1,710.94	2,026.51	2,019.29	280.689	CC
4H - Pilot - Pilot	6,675.00	6,714.56	2,034.24	2,007.90	77.224	ES
4H - Pilot - Pilot	11,246.07	6,846.95	5,006.11	4,909.68	51.917	SF
5H - OH - OH	4,905.40	4,977.33	603.22	583.72	30.929	CC, ES
5H - OH - OH	11,246.07	9,585.00	1,800.42	1,731.84	26.253	SF
6H - OH - Plan #1 Draft 1	11,246.07	12,370.13	3,902.56	3,732.94	23.007	CC, ES, SF
7H - OH - OH	11,246.07	12,456.00	2,908.82	2,749.01	18.202	CC, ES, SF
8H - OH - Plan #1	11,246.07	12,287.75	1,410.35	1,270.85	10.110	CC, ES, SF
9H - OH - Plan #1 Draft 1	6,349.00	6,349.00	50.31	22.05	1.780	CC
9H - OH - Plan #1 Draft 1	6,350.00	6,350.00	50.31	22.05	1.780	ES, SF
Lone Tree Draw Offsets						
Lone Tree #1 - OH - OH	9,903.36	6,804.86	2,712.31	2,636.61	35.830	CC, ES
Lone Tree #1 - OH - OH	11,246.07	6,761.26	3,026.15	2,926.82	30.464	SF
Lone Tree Draw 13 State #3H - OH - OH	919.21	945.32	3,177.52	3,173.26	745.674	CC
Lone Tree Draw 13 State #3H - OH - OH	11,246.07	9,434.80	3,311.45	3,168.24	23.123	ES, SF

Offset Design	Lone Tree Draw "13" State - 10H - OH - Plan #1 Draft 1										Offset Site Error:	0.00 usft
Survey Program:	0-LEAM MWD-ADJ										Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Minimum Separation	Separation Factor	Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside (usft)	Offset Wellbore Centre (usft)	Distance (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	42.00	0.00	0.00	0.03	-87.62	170.84	-4,103.34	4,105.89			

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 10H - OH - Plan #1 Draft 1													Offset Site Error:
Survey Program: O-LEAM MWD-ADJ													Offset Well Error:
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (')	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
100.00	100.00	142.00	100.00	0.08	0.18	-87.62	170.64	-4,103.34	4,106.89	4,106.63	0.26	N/A	
200.00	200.00	242.00	200.00	0.31	0.40	-87.62	170.64	-4,103.34	4,106.89	4,106.18	0.71	5,782.223	
300.00	300.00	342.00	300.00	0.53	0.63	-87.62	170.64	-4,103.34	4,106.89	4,105.73	1.16	3,541.052	
400.00	400.00	442.00	400.00	0.76	0.85	-87.62	170.64	-4,103.34	4,106.89	4,105.28	1.61	2,551.931	
500.00	500.00	542.00	500.00	0.98	1.08	-87.62	170.64	-4,103.34	4,106.89	4,104.83	2.06	1,994.741	
600.00	600.00	642.00	600.00	1.21	1.30	-87.62	170.64	-4,103.34	4,106.89	4,104.38	2.51	1,637.261	
700.00	700.00	742.00	700.00	1.43	1.53	-87.62	170.64	-4,103.34	4,106.89	4,103.93	2.96	1,388.437	
800.00	800.00	842.00	800.00	1.66	1.75	-87.62	170.64	-4,103.34	4,106.89	4,103.48	3.41	1,205.266	
900.00	900.00	942.00	900.00	1.88	1.98	-87.62	170.64	-4,103.34	4,106.89	4,103.03	3.86	1,064.792	
1,000.00	1,000.00	1,042.00	1,000.00	2.11	2.20	-87.62	170.64	-4,103.34	4,106.89	4,102.58	4.31	953.644	
1,100.00	1,100.00	1,142.00	1,100.00	2.33	2.43	-87.62	170.64	-4,103.34	4,106.89	4,102.13	4.76	863.508	
1,200.00	1,200.00	1,242.00	1,200.00	2.56	2.65	-87.62	170.64	-4,103.34	4,106.89	4,101.68	5.21	788.939	
1,300.00	1,300.00	1,342.00	1,300.00	2.78	2.87	-87.62	170.64	-4,103.34	4,106.89	4,101.23	5.66	726.225	
1,400.00	1,400.00	1,442.00	1,400.00	3.01	3.10	-87.62	170.64	-4,103.34	4,106.89	4,100.78	6.10	672.748	
1,500.00	1,500.00	1,542.00	1,500.00	3.23	3.32	-87.62	170.64	-4,103.34	4,106.89	4,100.33	6.55	626.606	
1,600.00	1,600.00	1,642.00	1,600.00	3.45	3.55	-87.62	170.64	-4,103.34	4,106.89	4,099.88	7.00	586.387	
1,700.00	1,700.00	1,742.00	1,700.00	3.68	3.77	-87.62	170.64	-4,103.34	4,106.89	4,099.43	7.45	551.020	
1,800.00	1,800.00	1,842.00	1,800.00	3.90	4.00	-87.62	170.64	-4,103.34	4,106.89	4,098.98	7.90	519.677	
1,900.00	1,900.00	1,942.00	1,900.00	4.13	4.22	-87.62	170.64	-4,103.34	4,106.89	4,098.53	8.35	491.707	
2,000.00	2,000.00	2,042.00	2,000.00	4.35	4.45	-87.62	170.64	-4,103.34	4,106.89	4,098.08	8.80	466.594	
2,100.00	2,100.00	2,142.00	2,100.00	4.58	4.67	-87.62	170.64	-4,103.34	4,106.89	4,097.64	9.25	443.922	
2,200.00	2,200.00	2,242.00	2,200.00	4.80	4.90	-87.62	170.64	-4,103.34	4,106.89	4,097.19	9.70	423.351	
2,300.00	2,300.00	2,342.00	2,300.00	5.03	5.12	-87.62	170.64	-4,103.34	4,106.89	4,096.74	10.15	404.602	
2,400.00	2,400.00	2,442.00	2,400.00	5.25	5.35	-87.62	170.64	-4,103.34	4,106.89	4,096.29	10.60	387.443	
2,500.00	2,500.00	2,542.00	2,500.00	5.48	5.57	-87.62	170.64	-4,103.34	4,106.89	4,095.84	11.05	371.681	
2,600.00	2,600.00	2,642.00	2,600.00	5.70	5.80	-87.62	170.64	-4,103.34	4,106.89	4,095.39	11.50	357.151	
2,700.00	2,700.00	2,742.00	2,700.00	5.93	6.02	-87.62	170.64	-4,103.34	4,106.89	4,094.94	11.95	343.714	
2,800.00	2,800.00	2,842.00	2,800.00	6.15	6.25	-87.62	170.64	-4,103.34	4,106.89	4,094.49	12.40	331.251	
2,900.00	2,900.00	2,942.00	2,900.00	6.38	6.47	-87.62	170.64	-4,103.34	4,106.89	4,094.04	12.85	319.681	
3,000.00	3,000.00	3,042.00	3,000.00	6.60	6.70	-87.62	170.64	-4,103.34	4,106.89	4,093.59	13.30	308.854	
3,100.00	3,100.00	3,142.00	3,100.00	6.83	6.92	-87.62	170.64	-4,103.34	4,106.89	4,093.14	13.75	298.755	
3,200.00	3,200.00	3,242.00	3,200.00	7.05	7.15	-87.62	170.64	-4,103.34	4,106.89	4,092.69	14.20	289.294	
3,300.00	3,300.00	3,342.00	3,300.00	7.28	7.37	-87.62	170.64	-4,103.34	4,106.89	4,092.24	14.65	280.415	
3,400.00	3,400.00	3,442.00	3,400.00	7.50	7.59	-87.62	170.64	-4,103.34	4,106.89	4,091.79	15.10	272.064	
3,500.00	3,500.00	3,542.00	3,500.00	7.73	7.82	-87.62	170.64	-4,103.34	4,106.89	4,091.34	15.54	264.196	
3,600.00	3,600.00	3,642.00	3,600.00	7.95	8.04	-87.62	170.64	-4,103.34	4,106.89	4,090.89	15.99	256.771	
3,700.00	3,700.00	3,742.00	3,700.00	8.17	8.27	-87.62	170.64	-4,103.34	4,106.89	4,090.44	16.44	249.752	
3,800.00	3,800.00	3,842.00	3,800.00	8.40	8.49	-87.62	170.64	-4,103.34	4,106.89	4,089.99	16.89	243.106	
3,900.00	3,900.00	3,942.00	3,900.00	8.62	8.72	-87.62	170.64	-4,103.34	4,106.89	4,089.54	17.34	236.804	
4,000.00	4,000.00	4,042.00	4,000.00	8.85	8.94	-87.62	170.64	-4,103.34	4,106.89	4,089.09	17.79	230.821	
4,100.00	4,100.00	4,142.00	4,100.00	9.07	9.17	-87.62	170.64	-4,103.34	4,106.89	4,088.64	18.24	225.133	
4,200.00	4,200.00	4,242.00	4,200.00	9.30	9.39	-87.62	170.64	-4,103.34	4,106.89	4,088.20	18.69	219.719	
4,300.00	4,300.00	4,342.00	4,300.00	9.52	9.62	-87.62	170.64	-4,103.34	4,106.89	4,087.75	19.14	214.559	
4,400.00	4,400.00	4,442.00	4,400.00	9.75	9.84	-87.62	170.64	-4,103.34	4,106.89	4,087.30	19.59	209.635	
4,500.00	4,500.00	4,542.00	4,500.00	9.97	10.07	-87.62	170.64	-4,103.34	4,106.89	4,086.85	20.04	204.933	
4,600.00	4,600.00	4,642.00	4,600.00	10.20	10.29	-87.62	170.64	-4,103.34	4,106.89	4,086.40	20.49	200.437	
4,700.00	4,700.00	4,742.00	4,700.00	10.42	10.52	-87.62	170.64	-4,103.34	4,106.89	4,085.95	20.94	196.134	
4,800.00	4,800.00	4,842.00	4,800.00	10.65	10.74	-87.62	170.64	-4,103.34	4,106.89	4,085.50	21.39	192.012	
4,900.00	4,900.00	4,942.00	4,900.00	10.87	10.97	-87.62	170.64	-4,103.34	4,106.89	4,085.05	21.84	188.059	
5,000.00	5,000.00	5,042.00	5,000.00	11.10	11.19	-87.62	170.64	-4,103.34	4,106.89	4,084.60	22.29	184.266	
5,100.00	5,100.00	5,142.00	5,100.00	11.32	11.42	-87.62	170.64	-4,103.34	4,106.89	4,084.15	22.74	180.623	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 10H - OH - Plan #1 Draft 1													Offset Site Error:
Survey Program: 0-LEAM MWD-ADJ													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 Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.00	5,200.00	5,242.00	5,200.00	11.55	11.64	-87.62	170.64	-4,103.34	4,106.89	4,083.70	23.19	177.121	
5,300.00	5,300.00	5,342.00	5,300.00	11.77	11.87	-87.62	170.64	-4,103.34	4,106.89	4,083.25	23.64	173.753	
5,400.00	5,400.00	5,442.00	5,400.00	12.00	12.09	-87.62	170.64	-4,103.34	4,106.89	4,082.80	24.09	170.510	
5,500.00	5,500.00	5,542.00	5,500.00	12.22	12.31	-87.62	170.64	-4,103.34	4,106.89	4,082.35	24.54	167.386	
5,600.00	5,600.00	5,642.00	5,600.00	12.45	12.54	-87.62	170.64	-4,103.34	4,106.89	4,081.90	24.98	164.374	
5,700.00	5,700.00	5,742.00	5,700.00	12.67	12.76	-87.62	170.64	-4,103.34	4,106.89	4,081.45	25.43	161.469	
5,800.00	5,800.00	5,842.00	5,800.00	12.89	12.99	-87.62	170.64	-4,103.34	4,106.89	4,081.00	25.88	158.665	
5,900.00	5,900.00	5,942.00	5,900.00	13.12	13.21	-87.62	170.64	-4,103.34	4,106.89	4,080.55	26.33	155.956	
6,000.00	6,000.00	6,042.00	6,000.00	13.34	13.44	-87.62	170.64	-4,103.34	4,106.89	4,080.10	26.78	153.339	
6,100.00	6,100.00	6,142.00	6,100.00	13.57	13.66	-87.62	170.64	-4,103.34	4,106.89	4,079.65	27.23	150.807	
6,200.00	6,200.00	6,242.00	6,200.00	13.79	13.88	-87.62	170.64	-4,103.34	4,106.89	4,079.20	27.68	148.358	
6,259.10	6,259.10	6,301.10	6,259.10	13.93	14.02	-87.62	170.64	-4,103.34	4,106.89	4,078.94	27.95	146.946	
6,300.00	6,300.00	6,335.95	6,293.95	14.02	14.09	-87.62	170.48	-4,103.36	4,106.90	4,078.79	28.11	146.096	
6,349.00	6,349.00	6,368.79	6,326.72	14.13	14.15	-87.65	168.50	-4,103.55	4,107.07	4,078.79	28.27	145.256	
6,350.00	6,350.00	6,369.46	6,327.39	14.13	14.15	86.09	168.44	-4,103.56	4,107.07	4,078.80	28.28	145.241	
6,375.00	6,374.99	6,386.12	6,343.94	14.17	14.18	86.05	166.56	-4,103.74	4,107.19	4,078.84	28.35	144.898	
6,400.00	6,399.90	6,400.00	6,357.67	14.22	14.20	86.03	164.55	-4,103.94	4,107.27	4,078.86	28.41	144.584	
6,425.00	6,424.68	6,419.37	6,376.73	14.26	14.24	86.01	161.09	-4,104.28	4,107.30	4,078.82	28.48	144.230	
6,450.00	6,449.25	6,435.98	6,392.94	14.30	14.27	86.00	157.52	-4,104.63	4,107.30	4,078.76	28.54	143.903	
6,475.00	6,473.54	6,450.00	6,406.53	14.35	14.29	86.01	154.06	-4,104.97	4,107.26	4,078.65	28.60	143.598	
6,500.00	6,497.50	6,469.18	6,424.93	14.39	14.32	86.02	148.69	-4,105.50	4,107.17	4,078.50	28.67	143.249	
6,525.00	6,521.04	6,485.78	6,440.68	14.44	14.35	86.04	143.46	-4,106.02	4,107.05	4,078.31	28.74	142.917	
6,550.00	6,544.12	6,500.00	6,454.01	14.48	14.38	86.06	138.54	-4,106.50	4,106.89	4,078.08	28.80	142.587	
6,575.00	6,566.66	6,519.02	6,471.60	14.52	14.41	86.10	131.35	-4,107.21	4,106.68	4,077.81	28.88	142.222	
6,600.00	6,588.60	6,535.66	6,486.75	14.57	14.44	86.15	124.50	-4,107.88	4,106.44	4,077.49	28.95	141.850	
6,625.00	6,609.88	6,550.00	6,499.60	14.61	14.47	86.20	118.17	-4,108.50	4,106.17	4,077.14	29.02	141.479	
6,650.00	6,630.46	6,569.02	6,516.34	14.65	14.50	86.26	109.19	-4,109.39	4,105.85	4,076.74	29.11	141.036	
6,675.00	6,650.25	6,585.75	6,530.76	14.71	14.53	86.33	100.75	-4,110.22	4,105.51	4,076.31	29.20	140.582	
6,700.00	6,669.23	6,600.00	6,542.80	14.78	14.55	86.41	93.17	-4,110.96	4,105.13	4,075.83	29.30	140.121	
6,725.00	6,687.33	6,619.33	6,558.77	14.85	14.59	86.50	82.31	-4,112.03	4,104.72	4,075.31	29.41	139.563	
6,750.00	6,704.49	6,636.20	6,572.32	14.93	14.62	86.59	72.33	-4,113.01	4,104.28	4,074.75	29.53	138.985	
6,775.00	6,720.69	6,650.00	6,583.14	15.02	14.66	86.68	63.81	-4,113.85	4,103.82	4,074.17	29.65	138.402	
6,800.00	6,735.86	6,670.11	6,598.46	15.12	14.71	86.80	50.84	-4,115.13	4,103.33	4,073.53	29.80	137.684	
6,825.00	6,749.98	6,687.18	6,611.02	15.23	14.76	86.81	39.34	-4,116.26	4,102.82	4,072.86	29.96	136.951	
6,850.00	6,763.00	6,704.32	6,623.21	15.34	14.81	87.04	27.35	-4,117.44	4,102.28	4,072.16	30.13	136.166	
6,875.00	6,774.88	6,725.00	6,637.33	15.47	14.88	87.18	12.31	-4,118.92	4,101.74	4,071.42	30.32	135.272	
6,900.00	6,785.59	6,738.86	6,646.42	15.61	14.93	87.30	1.90	-4,119.95	4,101.17	4,070.66	30.51	134.419	
6,925.00	6,795.11	6,756.29	6,657.41	15.76	14.99	87.43	-11.56	-4,121.27	4,100.60	4,069.88	30.72	133.463	
6,950.00	6,803.40	6,775.00	6,668.66	15.92	15.07	87.58	-26.44	-4,122.73	4,100.02	4,069.06	30.96	132.434	
6,975.00	6,810.45	6,791.49	6,678.07	16.08	15.14	87.73	-39.91	-4,124.06	4,099.43	4,068.23	31.20	131.387	
7,000.00	6,816.24	6,809.28	6,687.71	16.26	15.22	87.88	-54.80	-4,125.52	4,098.85	4,067.38	31.46	130.274	
7,025.00	6,820.74	6,825.00	6,695.74	16.45	15.29	88.03	-68.24	-4,126.85	4,098.26	4,066.53	31.73	129.165	
7,050.00	6,823.95	6,845.32	6,705.47	16.65	15.39	88.20	-85.99	-4,128.59	4,097.68	4,065.65	32.03	127.916	
7,075.00	6,825.86	6,863.58	6,713.56	16.86	15.49	88.36	-102.29	-4,130.20	4,097.11	4,064.76	32.34	126.676	
7,097.77	6,826.46	6,880.38	6,720.44	17.06	15.59	88.51	-117.53	-4,131.70	4,096.59	4,063.96	32.64	125.522	
7,100.00	6,826.47	6,882.03	6,721.09	17.08	15.60	88.52	-119.05	-4,131.85	4,096.54	4,063.88	32.67	125.407	
7,200.00	6,826.73	6,960.86	6,745.74	18.02	16.11	88.86	-193.47	-4,139.17	4,094.67	4,060.53	34.13	119.961	
7,300.00	6,826.98	7,046.33	6,758.19	19.10	16.79	89.04	-277.51	-4,147.44	4,093.28	4,057.40	35.88	114.089	
7,400.00	6,827.24	7,142.36	6,758.90	20.27	17.67	89.04	-373.06	-4,156.84	4,092.14	4,054.20	37.94	107.846	
7,500.00	6,827.50	7,242.36	6,758.81	21.54	18.71	89.04	-472.57	-4,166.64	4,091.02	4,050.78	40.24	101.654	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 10H - OH - Plan #1 Draft 1														Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD-ADJ														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis 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	Warning		
7,600.00	6,827.76	7,342.35	6,758.72	22.88	19.86	89.03	-572.09	-4,176.43	4,089.90	4,047.17	42.73	95.716			
7,700.00	6,828.10	7,442.34	6,758.63	24.28	21.10	89.03	-671.60	-4,186.22	4,088.78	4,043.42	45.37	90.122			
7,800.00	6,828.27	7,542.33	6,758.54	25.73	22.41	89.02	-771.11	-4,196.01	4,087.67	4,039.53	48.14	84.916			
7,900.00	6,828.53	7,642.33	6,758.45	27.22	23.80	89.02	-870.62	-4,205.80	4,086.55	4,035.53	51.01	80.106			
8,000.00	6,828.79	7,742.32	6,758.36	28.75	25.23	89.01	-970.14	-4,215.60	4,085.43	4,031.45	53.98	75.683			
8,100.00	6,829.04	7,842.31	6,758.27	30.31	26.72	89.01	-1,069.65	-4,225.39	4,084.31	4,027.29	57.02	71.625			
8,200.00	6,829.30	7,942.31	6,758.18	31.90	28.24	89.00	-1,169.16	-4,235.18	4,083.19	4,023.06	60.13	67.904			
8,300.00	6,829.56	8,042.30	6,758.09	33.51	29.79	89.00	-1,268.67	-4,244.97	4,082.07	4,018.78	63.29	64.494			
8,400.00	6,829.82	8,142.29	6,758.00	35.14	31.37	88.99	-1,368.19	-4,254.77	4,080.95	4,014.45	66.50	61.365			
8,500.00	6,830.07	8,242.29	6,757.91	36.79	32.98	88.98	-1,467.70	-4,264.56	4,079.84	4,010.08	69.75	58.489			
8,600.00	6,830.33	8,342.28	6,757.81	38.45	34.60	88.98	-1,567.21	-4,274.35	4,078.72	4,005.68	73.04	55.843			
8,700.00	6,830.59	8,442.27	6,757.72	40.12	36.24	88.97	-1,666.72	-4,284.14	4,077.60	4,001.24	76.35	53.404			
8,800.00	6,830.85	8,542.27	6,757.63	41.81	37.90	88.97	-1,766.23	-4,293.94	4,076.48	3,996.78	79.70	51.150			
8,900.00	6,831.10	8,642.26	6,757.54	43.50	39.57	88.96	-1,865.75	-4,303.73	4,075.36	3,992.30	83.06	49.064			
9,000.00	6,831.36	8,742.25	6,757.45	45.21	41.26	88.96	-1,965.26	-4,313.52	4,074.24	3,987.80	86.45	47.130			
9,100.00	6,831.62	8,842.24	6,757.36	46.92	42.95	88.95	-2,064.77	-4,323.31	4,073.12	3,983.27	89.85	45.331			
9,200.00	6,831.88	8,942.24	6,757.27	48.64	44.65	88.95	-2,164.28	-4,333.11	4,072.01	3,978.73	93.27	43.657			
9,248.03	6,832.00	8,990.27	6,757.23	49.46	45.47	88.95	-2,212.08	-4,337.81	4,071.47	3,976.55	94.92	42.894			
9,300.00	6,831.68	9,042.23	6,757.18	50.36	46.36	88.97	-2,263.79	-4,342.90	4,070.74	3,974.04	96.70	42.095			
9,327.90	6,831.14	9,070.12	6,757.15	50.84	46.84	88.99	-2,291.55	-4,345.63	4,070.23	3,972.57	97.66	41.678			
9,400.00	6,829.41	9,142.19	6,757.09	52.09	48.08	89.01	-2,363.27	-4,352.69	4,068.79	3,968.65	100.14	40.630			
9,500.00	6,827.00	9,242.14	6,757.00	53.82	49.80	89.04	-2,462.74	-4,362.48	4,066.80	3,963.20	103.60	39.253			
9,600.00	6,824.60	9,342.09	6,756.91	55.56	51.53	89.07	-2,562.22	-4,372.26	4,064.81	3,957.74	107.07	37.963			
9,700.00	6,822.19	9,442.05	6,756.82	57.31	53.27	89.10	-2,661.69	-4,382.05	4,062.83	3,952.27	110.55	36.750			
9,800.00	6,819.79	9,542.00	6,756.73	59.06	55.01	89.14	-2,761.17	-4,391.84	4,060.84	3,946.80	114.04	35.608			
9,900.00	6,817.38	9,641.96	6,756.64	60.81	56.75	89.17	-2,860.64	-4,401.63	4,058.86	3,941.32	117.54	34.532			
10,000.00	6,814.97	9,741.91	6,756.55	62.56	58.50	89.20	-2,960.11	-4,411.42	4,056.88	3,935.83	121.04	33.516			
10,100.00	6,812.57	9,841.87	6,756.45	64.32	60.25	89.23	-3,059.59	-4,421.21	4,054.89	3,930.34	124.55	32.555			
10,200.00	6,810.16	9,941.82	6,756.36	66.08	62.01	89.27	-3,159.06	-4,431.00	4,052.91	3,924.84	128.07	31.646			
10,300.00	6,807.76	10,041.77	6,756.27	67.85	63.77	89.30	-3,258.53	-4,440.79	4,050.93	3,919.34	131.59	30.784			
10,400.00	6,805.35	10,141.73	6,756.18	69.61	65.53	89.33	-3,358.01	-4,450.57	4,048.96	3,913.84	135.12	29.966			
10,500.00	6,802.95	10,241.68	6,756.09	71.38	67.29	89.36	-3,457.48	-4,460.36	4,046.98	3,908.33	138.65	29.188			
10,600.00	6,800.54	10,341.64	6,756.00	73.15	69.06	89.40	-3,556.96	-4,470.15	4,045.01	3,902.82	142.19	28.448			
10,700.00	6,798.14	10,441.59	6,755.91	74.92	70.82	89.43	-3,656.43	-4,479.94	4,043.03	3,897.30	145.73	27.744			
10,800.00	6,795.73	10,541.54	6,755.82	76.70	72.59	89.46	-3,755.90	-4,489.73	4,041.06	3,891.79	149.27	27.072			
10,900.00	6,793.33	10,641.50	6,755.73	78.47	74.37	89.49	-3,855.38	-4,499.52	4,039.09	3,886.27	152.82	26.430			
11,000.00	6,790.92	10,741.45	6,755.64	80.25	76.14	89.53	-3,954.85	-4,509.31	4,037.12	3,880.75	156.37	25.818			
11,100.00	6,788.51	10,841.41	6,755.55	82.03	77.92	89.56	-4,054.32	-4,519.09	4,035.15	3,875.22	159.92	25.232			
11,200.00	6,786.11	10,941.36	6,755.46	83.81	79.69	89.59	-4,153.80	-4,528.88	4,033.18	3,869.70	163.48	24.671			
11,246.07	6,785.00	10,987.41	6,755.42	84.63	80.51	89.61	-4,199.63	-4,533.39	4,032.28	3,867.16	165.12	24.420 CC, ES, SF			

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 2H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 80-NS-GYRO-MS, 4361-LEAM MWD, 9485-Project												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	43.84	3.84	0.00	0.04	-87.71	169.79	-4,253.22	4,256.61				
100.00	100.00	148.78	108.78	0.08	0.25	-87.71	169.72	-4,253.05	4,256.44	4,256.11	0.34	N/A	
200.00	200.00	253.82	213.82	0.31	0.53	-87.72	169.59	-4,252.78	4,256.19	4,255.34	0.84	5,061.814	
300.00	300.00	356.70	316.70	0.53	0.81	-87.72	169.43	-4,252.42	4,255.82	4,254.48	1.34	3,179.393	
400.00	400.00	465.54	425.53	0.76	1.09	-87.72	169.18	-4,251.89	4,255.33	4,253.48	1.85	2,297.517	
500.00	500.00	574.65	534.65	0.98	1.38	-87.73	168.79	-4,251.14	4,254.83	4,252.26	2.37	1,797.987	
600.00	600.00	684.71	644.70	1.21	1.68	-87.73	168.28	-4,250.12	4,253.69	4,250.80	2.88	1,475.748	
700.00	700.00	794.26	754.23	1.43	1.96	-87.74	167.35	-4,248.89	4,252.53	4,249.14	3.40	1,252.436	
800.00	800.00	910.43	870.39	1.66	2.27	-87.76	166.13	-4,247.26	4,251.09	4,247.16	3.93	1,082.715	
900.00	900.00	1,021.02	980.95	1.88	2.56	-87.78	164.74	-4,245.33	4,249.29	4,244.85	4.44	956.279	
1,000.00	1,000.00	1,124.95	1,084.85	2.11	2.84	-87.80	163.13	-4,243.35	4,247.34	4,242.39	4.94	859.431	
1,100.00	1,100.00	1,228.31	1,188.17	2.33	3.11	-87.82	161.09	-4,241.36	4,245.33	4,239.89	5.44	780.932	
1,200.00	1,200.00	1,341.81	1,301.60	2.56	3.40	-87.87	157.92	-4,238.85	4,243.01	4,237.05	5.95	712.651	
1,300.00	1,300.00	1,434.72	1,394.45	2.78	3.64	-87.90	155.15	-4,236.80	4,240.70	4,234.28	6.42	660.781	
1,400.00	1,400.00	1,525.19	1,484.86	3.01	3.87	-87.94	152.57	-4,234.96	4,238.56	4,231.68	6.88	616.441	
1,500.00	1,500.00	1,618.56	1,578.19	3.23	4.12	-87.97	150.39	-4,233.32	4,236.72	4,229.37	7.34	576.941	
1,600.00	1,600.00	1,729.12	1,688.71	3.45	4.41	-87.99	148.45	-4,231.12	4,234.65	4,226.79	7.86	538.757	
1,700.00	1,700.00	1,815.85	1,775.42	3.68	4.64	-88.00	147.33	-4,229.43	4,232.67	4,224.36	8.31	509.043	
1,800.00	1,800.00	1,898.90	1,858.46	3.90	4.86	-88.01	146.56	-4,228.18	4,231.12	4,222.36	8.76	483.018	
1,900.00	1,900.00	1,993.49	1,953.03	4.13	5.11	-88.02	145.85	-4,226.96	4,229.81	4,220.57	9.23	458.033	
2,000.00	2,000.00	2,094.39	2,053.92	4.35	5.38	-88.03	145.19	-4,225.76	4,228.60	4,218.87	9.73	434.761	
2,100.00	2,100.00	2,206.63	2,166.15	4.58	5.67	-88.04	144.19	-4,224.15	4,227.13	4,216.88	10.25	412.468	
2,200.00	2,200.00	2,308.62	2,268.12	4.80	5.94	-88.06	143.26	-4,222.55	4,225.53	4,214.79	10.74	393.314	
2,300.00	2,300.00	2,406.04	2,365.53	5.03	6.20	-88.07	142.40	-4,221.03	4,223.93	4,212.71	11.23	376.266	
2,400.00	2,400.00	2,499.95	2,459.42	5.25	6.45	-88.08	141.72	-4,219.65	4,222.45	4,210.75	11.70	360.944	
2,500.00	2,500.00	2,596.80	2,556.27	5.48	6.71	-88.08	141.12	-4,218.36	4,221.10	4,208.92	12.18	346.604	
2,600.00	2,600.00	2,695.25	2,654.70	5.70	6.97	-88.09	140.44	-4,217.09	4,219.78	4,207.12	12.66	333.224	
2,700.00	2,700.00	2,797.39	2,756.83	5.93	7.24	-88.10	139.71	-4,215.78	4,218.47	4,205.31	13.16	320.580	
2,800.00	2,800.00	2,905.56	2,864.98	6.15	7.52	-88.11	138.79	-4,214.25	4,217.04	4,203.37	13.67	308.474	
2,900.00	2,900.00	2,999.86	2,959.28	6.38	7.77	-88.12	138.01	-4,212.87	4,215.55	4,201.41	14.15	298.018	
3,000.00	3,000.00	3,098.26	3,057.66	6.60	8.03	-88.13	137.38	-4,211.54	4,214.17	4,199.54	14.63	288.056	
3,100.00	3,100.00	3,209.45	3,168.84	6.83	8.32	-88.14	136.83	-4,209.90	4,212.68	4,197.54	15.14	278.185	
3,200.00	3,200.00	3,319.09	3,278.46	7.05	8.60	-88.14	136.55	-4,207.94	4,210.88	4,195.24	15.64	269.173	
3,300.00	3,300.00	3,410.14	3,369.49	7.28	8.82	-88.14	136.57	-4,206.30	4,209.09	4,193.01	16.09	261.633	
3,400.00	3,400.00	3,493.58	3,452.93	7.50	9.01	-88.14	136.77	-4,205.10	4,207.66	4,191.16	16.50	254.941	
3,500.00	3,500.00	3,589.99	3,548.33	7.73	9.22	-88.13	137.10	-4,203.91	4,206.44	4,189.50	16.94	248.310	
3,600.00	3,600.00	3,682.20	3,641.53	7.95	9.41	-88.12	137.61	-4,202.91	4,205.36	4,188.01	17.35	242.382	
3,700.00	3,700.00	3,779.10	3,738.42	8.17	9.58	-88.11	138.43	-4,201.95	4,204.41	4,186.66	17.74	236.951	
3,800.00	3,800.00	3,874.79	3,834.10	8.40	9.73	-88.10	139.44	-4,201.11	4,203.56	4,185.44	18.12	231.999	
3,900.00	3,900.00	3,974.28	3,933.59	8.62	9.89	-88.09	140.43	-4,200.24	4,202.72	4,184.22	18.50	227.147	
4,000.00	4,000.00	4,064.31	4,023.61	8.85	10.03	-88.07	141.25	-4,199.62	4,202.06	4,183.19	18.87	222.692	
4,100.00	4,100.00	4,163.29	4,122.58	9.07	10.18	-88.06	142.10	-4,199.03	4,201.50	4,182.25	19.25	218.308	
4,200.00	4,200.00	4,257.91	4,217.20	9.30	10.32	-88.05	142.89	-4,198.57	4,201.03	4,181.42	19.61	214.197	
4,300.00	4,300.00	4,383.22	4,342.39	9.52	10.45	-88.08	140.60	-4,197.87	4,200.44	4,180.47	19.97	210.369	
4,400.00	4,400.00	4,456.00	4,414.47	9.75	10.46	-88.22	130.62	-4,197.76	4,199.82	4,179.62	20.20	207.943	
4,500.00	4,500.00	4,559.54	4,514.76	9.97	10.49	-88.56	105.26	-4,198.18	4,199.53	4,179.07	20.46	205.298	
4,538.85	4,538.85	4,584.69	4,538.42	10.06	10.50	-88.68	96.72	-4,198.35	4,199.46	4,178.90	20.56	204.248 CC	
4,600.00	4,600.00	4,624.04	4,574.68	10.20	10.53	-88.89	81.47	-4,198.76	4,199.63	4,178.89	20.74	202.530 ES	
4,700.00	4,700.00	4,676.00	4,621.00	10.42	10.58	-89.21	57.98	-4,199.73	4,200.87	4,179.84	21.03	199.743	
4,800.00	4,800.00	4,729.13	4,666.15	10.65	10.68	-89.59	30.05	-4,201.21	4,203.45	4,182.08	21.36	196.750	
4,900.00	4,900.00	4,787.09	4,711.74	10.87	10.83	-90.08	-5.64	-4,202.98	4,207.20	4,185.44	21.76	193.355	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 2H - OH - OH											Offset Site Error:	0.00 usft
Survey Program: 80-NS-GYRO-MS, 4361-LEAM MWD, 9485-Project											Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
5,000.00	5,000.00	4,802.00	4,722.71	11.10	10.88	-90.21	-15.71	-4,203.49	4,212.65	4,190.62	22.04	191.176
5,100.00	5,100.00	4,833.00	4,744.74	11.32	11.00	-90.51	-37.47	-4,204.86	4,220.01	4,197.62	22.39	188.517
5,200.00	5,200.00	4,848.75	4,755.55	11.55	11.07	-90.67	-48.89	-4,205.78	4,229.48	4,206.80	22.68	186.465
5,300.00	5,300.00	4,865.00	4,766.38	11.77	11.14	-90.83	-60.96	-4,206.88	4,241.03	4,218.05	22.98	184.538
5,400.00	5,400.00	4,878.40	4,775.01	12.00	11.20	-90.97	-71.16	-4,207.91	4,254.66	4,231.39	23.28	182.784
5,500.00	5,500.00	4,897.00	4,786.43	12.22	11.30	-91.17	-85.75	-4,209.52	4,270.43	4,246.83	23.60	180.956
5,600.00	5,600.00	4,897.00	4,786.43	12.45	11.30	-91.17	-85.75	-4,209.52	4,288.27	4,264.45	23.82	179.998
5,700.00	5,700.00	4,915.74	4,797.32	12.67	11.41	-91.37	-100.89	-4,211.33	4,308.17	4,284.01	24.16	178.321
5,800.00	5,800.00	4,928.00	4,804.14	12.89	11.48	-91.51	-111.00	-4,212.62	4,330.15	4,305.70	24.46	177.054
5,900.00	5,900.00	4,960.00	4,820.83	13.12	11.69	-91.88	-138.09	-4,215.94	4,354.06	4,329.17	24.89	174.934
6,000.00	6,000.00	4,974.71	4,828.01	13.34	11.80	-92.05	-150.85	-4,217.42	4,379.84	4,354.62	25.22	173.665
6,100.00	6,100.00	4,991.00	4,835.63	13.57	11.92	-92.24	-165.15	-4,219.10	4,407.57	4,382.01	25.56	172.432
6,200.00	6,200.00	5,002.92	4,840.97	13.79	12.02	-92.38	-175.73	-4,220.34	4,437.24	4,411.36	25.88	171.457
6,300.00	6,300.00	5,023.00	4,849.48	14.02	12.18	-92.63	-193.79	-4,222.44	4,468.84	4,442.58	26.26	170.170
6,349.00	6,349.00	5,023.00	4,849.48	14.13	12.18	-92.63	-193.79	-4,222.44	4,484.99	4,458.62	26.37	170.071
6,350.00	6,350.00	5,023.00	4,849.48	14.13	12.18	81.07	-193.79	-4,222.44	4,485.32	4,459.04	26.28	170.664
6,375.00	6,374.99	5,023.00	4,849.48	14.17	12.18	80.02	-193.79	-4,222.44	4,493.64	4,467.33	26.31	170.772
6,400.00	6,399.90	5,023.00	4,849.48	14.22	12.18	78.99	-193.79	-4,222.44	4,501.87	4,475.53	26.34	170.903
6,425.00	6,424.68	5,023.00	4,849.48	14.26	12.18	77.98	-193.79	-4,222.44	4,509.98	4,483.62	26.36	171.062
6,450.00	6,449.25	5,023.00	4,849.48	14.30	12.18	77.00	-193.79	-4,222.44	4,517.97	4,491.58	26.39	171.232
6,475.00	6,473.54	5,035.65	4,854.47	14.35	12.29	75.91	-205.34	-4,223.77	4,525.71	4,499.18	26.53	170.564
6,500.00	6,497.50	5,038.96	4,855.72	14.39	12.32	74.95	-208.39	-4,224.11	4,533.31	4,506.71	26.60	170.399
6,525.00	6,521.04	5,054.00	4,861.09	14.44	12.45	73.91	-222.35	-4,225.69	4,540.77	4,514.01	26.76	169.679
6,550.00	6,544.12	5,054.00	4,861.09	14.48	12.45	73.06	-222.35	-4,225.69	4,547.90	4,521.10	26.79	169.733
6,575.00	6,566.66	5,054.00	4,861.09	14.52	12.45	72.24	-222.35	-4,225.69	4,554.78	4,527.96	26.82	169.813
6,600.00	6,588.60	5,054.00	4,861.09	14.57	12.45	71.45	-222.35	-4,225.69	4,561.40	4,534.56	26.84	169.922
6,625.00	6,609.88	5,054.00	4,861.09	14.61	12.45	70.71	-222.35	-4,225.69	4,567.75	4,540.89	26.86	170.056
6,650.00	6,630.46	5,054.00	4,861.09	14.65	12.45	70.00	-222.35	-4,225.69	4,573.81	4,546.94	26.87	170.213
6,675.00	6,650.25	5,054.00	4,861.09	14.71	12.45	69.34	-222.35	-4,225.69	4,579.57	4,552.69	26.88	170.387
6,700.00	6,669.23	5,054.00	4,861.09	14.78	12.45	68.71	-222.35	-4,225.69	4,585.00	4,558.12	26.88	170.570
6,725.00	6,687.33	5,070.85	4,866.49	14.85	12.61	68.04	-238.20	-4,227.48	4,589.91	4,562.89	27.02	169.873
6,750.00	6,704.49	5,086.00	4,870.79	14.93	12.76	67.44	-252.64	-4,229.14	4,594.66	4,567.52	27.14	169.267
6,775.00	6,720.69	5,086.00	4,870.79	15.02	12.76	66.96	-252.64	-4,229.14	4,598.90	4,571.75	27.15	169.401
6,800.00	6,735.86	5,086.00	4,870.79	15.12	12.76	66.53	-252.64	-4,229.14	4,602.76	4,575.60	27.16	169.491
6,825.00	6,749.98	5,086.00	4,870.79	15.23	12.76	66.15	-252.64	-4,229.14	4,606.24	4,579.06	27.17	169.524
6,850.00	6,763.00	5,086.00	4,870.79	15.34	12.76	65.81	-252.64	-4,229.14	4,609.32	4,582.13	27.20	169.484
6,875.00	6,774.88	5,097.84	4,873.83	15.47	12.88	65.48	-264.00	-4,230.46	4,611.95	4,584.61	27.34	168.696
6,900.00	6,785.59	5,103.98	4,875.34	15.61	12.94	65.23	-269.91	-4,231.15	4,614.15	4,586.71	27.45	168.118
6,925.00	6,795.11	5,117.00	4,878.36	15.76	13.07	65.02	-282.49	-4,232.62	4,615.93	4,588.30	27.63	167.045
6,950.00	6,803.40	5,117.00	4,878.36	15.92	13.07	64.88	-282.49	-4,232.62	4,617.22	4,589.50	27.72	166.555
6,975.00	6,810.45	5,117.00	4,878.36	16.08	13.07	64.78	-282.49	-4,232.62	4,618.09	4,590.25	27.83	165.933
7,000.00	6,816.24	5,117.00	4,878.36	16.26	13.07	64.73	-282.49	-4,232.62	4,618.53	4,590.57	27.96	165.173
7,025.00	6,820.74	5,132.45	4,881.62	16.45	13.24	64.74	-297.49	-4,234.40	4,618.43	4,590.18	28.27	163.372
7,050.00	6,823.95	5,149.00	4,884.69	16.65	13.42	64.81	-313.64	-4,236.34	4,618.00	4,589.38	28.61	161.390
7,075.00	6,825.86	5,149.00	4,884.69	16.86	13.42	64.92	-313.64	-4,236.34	4,617.00	4,588.19	28.82	160.223
7,097.77	6,826.46	5,149.00	4,884.69	17.06	13.42	65.06	-313.64	-4,236.34	4,615.73	4,586.71	29.02	159.057
7,100.00	6,826.47	5,149.00	4,884.69	17.08	13.42	65.06	-313.64	-4,236.34	4,615.59	4,586.55	29.04	158.953
7,200.00	6,826.73	5,181.00	4,889.50	18.02	13.78	65.11	-345.05	-4,240.05	4,610.04	4,579.79	30.25	152.383
7,300.00	6,826.98	5,230.40	4,894.59	19.10	14.37	65.17	-393.90	-4,245.34	4,605.72	4,573.93	31.79	144.869
7,400.00	6,827.24	5,244.00	4,895.58	20.27	14.54	65.18	-407.39	-4,246.74	4,602.84	4,569.81	33.03	139.342

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000:1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design: Lone Tree Draw "13" State - 2H - OH - OH													Offset Site Error:
Survey Program: 80-NS-GYRO-MS, 4381-LEAM MWD, 9485-Project													0.00 usft
Reference	Vertical	Measured	Vertical	Semi Major Axis		Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation	Warning
Depth	Depth	Depth	Depth	Reference	Offset	Tooface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(')	(usft)	(usft)	(usft)	(usft)	(usft)		
7,500.00	6,827.50	5,275.00	4,896.47	21.54	14.93	65.19	-438.18	-4,250.14	4,601.76	4,567.20	34.56	133.147	
7,515.90	6,827.54	5,275.00	4,896.47	21.75	14.93	65.19	-438.18	-4,250.14	4,601.73	4,566.97	34.76	132.393	
7,600.00	6,827.76	5,275.00	4,896.47	22.88	14.93	65.19	-438.18	-4,250.14	4,602.50	4,566.70	35.80	128.571	
7,700.00	6,828.01	5,317.44	4,895.48	24.28	15.47	65.18	-480.29	-4,255.38	4,604.93	4,567.34	37.59	122.516	
7,800.00	6,828.27	5,427.79	4,895.70	25.73	16.80	65.20	-589.54	-4,270.77	4,607.71	4,567.55	40.17	114.709	
7,900.00	6,828.53	5,832.99	4,901.30	27.22	23.89	65.19	-1,092.06	-4,316.42	4,603.56	4,555.54	48.02	95.867	
8,000.00	6,828.79	6,058.00	4,904.84	28.75	25.74	65.19	-1,216.86	-4,322.75	4,597.12	4,546.01	51.11	89.949	
8,100.00	6,829.04	6,115.67	4,906.68	30.31	26.63	65.19	-1,274.42	-4,325.70	4,590.81	4,537.46	53.35	86.047	
8,200.00	6,829.30	6,152.00	4,907.46	31.90	27.19	65.19	-1,310.67	-4,328.00	4,585.91	4,530.58	55.32	82.892	
8,300.00	6,829.56	6,152.00	4,907.46	33.51	27.19	65.19	-1,310.67	-4,328.00	4,582.82	4,528.01	56.81	80.669	
8,400.00	6,829.82	6,209.29	4,907.71	35.14	28.11	65.19	-1,367.77	-4,332.59	4,580.60	4,521.45	59.15	77.435	
8,500.00	6,830.07	6,604.28	4,906.59	36.79	34.42	65.07	-1,761.66	-4,358.61	4,578.60	4,512.26	66.34	69.017	
8,600.00	6,830.33	6,625.00	4,906.81	38.45	34.76	65.06	-1,782.38	-4,359.25	4,571.80	4,503.62	68.17	67.083	
8,700.00	6,830.59	6,679.82	4,907.19	40.12	35.65	65.05	-1,837.13	-4,361.67	4,566.07	4,495.55	70.52	64.752	
8,800.00	6,830.85	6,719.00	4,907.22	41.81	36.29	65.04	-1,876.23	-4,364.25	4,562.05	4,489.41	72.64	62.801	
8,900.00	6,831.10	6,772.02	4,907.21	43.50	37.16	65.03	-1,929.09	-4,368.40	4,559.24	4,484.25	74.99	60.798	
9,000.00	6,831.36	6,842.58	4,907.37	45.21	38.32	65.02	-1,999.39	-4,374.46	4,557.14	4,479.53	77.61	58.716	
9,100.00	6,831.62	6,922.15	4,907.16	46.92	39.64	65.01	-2,078.63	-4,381.68	4,555.66	4,475.28	80.39	56.671	
9,200.00	6,831.88	7,044.70	4,906.93	48.64	41.67	64.99	-2,200.72	-4,392.31	4,553.74	4,469.93	83.81	54.334	
9,248.03	6,832.00	7,078.78	4,906.82	49.46	42.23	64.98	-2,234.66	-4,395.30	4,552.94	4,467.85	85.08	53.511	
9,300.00	6,831.68	7,098.00	4,906.73	50.36	42.55	64.99	-2,253.81	-4,397.03	4,551.96	4,465.74	86.22	52.793	
9,327.90	6,831.14	7,098.00	4,906.73	50.84	42.55	65.01	-2,253.81	-4,397.03	4,551.39	4,464.71	86.68	52.510	
9,400.00	6,829.41	7,151.50	4,906.13	52.09	43.46	65.01	-2,307.06	-4,402.19	4,549.74	4,461.08	88.66	51.316	
9,500.00	6,827.00	7,193.00	4,905.23	53.82	44.17	65.01	-2,348.31	-4,406.63	4,548.71	4,457.80	90.91	50.037	
9,600.00	6,824.60	7,287.00	4,902.69	55.56	45.77	65.00	-2,441.67	-4,417.27	4,548.45	4,454.47	93.98	48.396	
9,626.20	6,823.97	7,299.90	4,902.32	56.02	45.99	65.00	-2,454.48	-4,418.75	4,548.44	4,453.83	94.61	48.077	
9,700.00	6,822.19	7,353.83	4,900.66	57.31	46.92	65.00	-2,508.01	-4,425.07	4,548.64	4,452.00	96.64	47.066	
9,800.00	6,819.79	7,608.24	4,899.35	59.06	51.12	65.05	-2,760.65	-4,454.54	4,548.14	4,445.99	102.15	44.524	
9,900.00	6,817.38	7,689.01	4,901.13	60.81	52.45	65.09	-2,840.91	-4,463.39	4,545.49	4,440.47	105.01	43.285	
10,000.00	6,814.97	7,761.00	4,903.00	62.56	53.64	65.13	-2,912.41	-4,471.57	4,543.12	4,435.37	107.75	42.163	
10,100.00	6,812.57	7,856.00	4,905.48	64.32	55.23	65.18	-3,006.68	-4,483.06	4,541.34	4,430.46	110.88	40.957	
10,200.00	6,810.16	7,927.88	4,907.34	66.08	56.44	65.23	-3,077.95	-4,492.24	4,540.12	4,426.46	113.65	39.947	
10,300.00	6,807.76	8,002.11	4,909.37	67.85	57.69	65.28	-3,151.52	-4,501.94	4,539.21	4,422.74	116.47	38.972	
10,400.00	6,805.35	8,091.20	4,911.76	69.61	59.18	65.34	-3,239.73	-4,514.20	4,538.93	4,419.39	119.54	37.971	
10,500.00	6,802.95	8,329.00	4,916.38	71.38	63.13	65.47	-3,475.63	-4,543.55	4,538.49	4,413.58	124.91	36.334	
10,600.00	6,800.54	8,423.00	4,916.46	73.15	64.71	65.48	-3,569.22	-4,552.31	4,535.25	4,407.24	128.01	35.430	
10,700.00	6,798.14	8,550.47	4,914.49	74.92	66.86	65.47	-3,696.21	-4,563.14	4,531.99	4,400.39	131.60	34.437	
10,800.00	6,795.73	8,765.67	4,912.73	76.70	70.49	65.45	-3,910.91	-4,577.45	4,526.46	4,389.93	136.52	33.155	
10,900.00	6,793.33	8,802.00	4,912.74	78.47	71.11	65.45	-3,947.18	-4,579.66	4,520.61	4,381.89	138.72	32.588	
11,000.00	6,790.92	8,854.81	4,912.61	80.25	72.01	65.45	-3,999.84	-4,583.51	4,515.90	4,374.70	141.19	31.984	
11,100.00	6,788.51	8,897.00	4,912.32	82.03	72.74	65.46	-4,041.86	-4,587.36	4,512.69	4,369.19	143.50	31.447	
11,200.00	6,786.11	9,258.06	4,920.08	83.81	78.79	65.56	-4,399.73	-4,613.57	4,505.65	4,354.89	150.75	29.888	
11,246.07	6,785.00	9,289.72	4,921.39	84.63	79.37	65.58	-4,433.32	-4,615.44	4,501.85	4,349.81	152.05	29.608 SF	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00' usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 2H - Pilot - Pilot													Offset Site Error:	0.00 usft
Survey Program: 80-NS-GYRO-MS													Offset Well Error:	0.00 usft
Reference	Vertical	Offset	Vertical	Semi Major Axis		Highside	Distance		Minimum	Separation	Warning			
Measured Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor		
0.00	0.00	43.84	3.84	0.00	0.04	-87.71	169.79	-4,253.22	4,256.61					
100.00	100.00	148.78	108.78	0.08	0.25	-87.71	169.72	-4,253.05	4,256.44	4,256.11	0.34	N/A		
200.00	200.00	253.82	213.82	0.31	0.53	-87.72	169.59	-4,252.78	4,256.19	4,255.34	0.84	5,061.814		
300.00	300.00	356.70	316.70	0.53	0.81	-87.72	169.43	-4,252.42	4,255.82	4,254.48	1.34	3,179.394		
400.00	400.00	465.54	425.53	0.76	1.09	-87.72	169.18	-4,251.89	4,255.33	4,253.48	1.85	2,297.518		
500.00	500.00	574.65	534.65	0.98	1.38	-87.73	168.79	-4,251.14	4,254.63	4,252.26	2.37	1,797.989		
600.00	600.00	684.71	644.70	1.21	1.68	-87.73	168.28	-4,250.12	4,253.69	4,250.80	2.88	1,475.750		
700.00	700.00	794.28	754.23	1.43	1.96	-87.74	167.35	-4,248.89	4,252.53	4,249.14	3.40	1,252.439		
800.00	800.00	910.43	870.39	1.66	2.27	-87.76	166.13	-4,247.26	4,251.09	4,247.16	3.93	1,082.720		
900.00	900.00	1,021.02	980.95	1.88	2.56	-87.78	164.74	-4,245.33	4,249.29	4,244.85	4.44	956.285		
1,000.00	1,000.00	1,124.95	1,084.85	2.11	2.84	-87.80	163.13	-4,243.35	4,247.34	4,242.39	4.94	859.440		
1,100.00	1,100.00	1,228.31	1,188.17	2.33	3.11	-87.82	161.09	-4,241.36	4,245.33	4,239.89	5.44	780.942		
1,200.00	1,200.00	1,341.81	1,301.60	2.56	3.40	-87.87	157.92	-4,238.85	4,243.01	4,237.05	5.95	712.684		
1,300.00	1,300.00	1,434.72	1,394.45	2.78	3.64	-87.90	155.15	-4,236.80	4,240.70	4,234.28	6.42	660.796		
1,400.00	1,400.00	1,525.19	1,484.86	3.01	3.87	-87.94	152.57	-4,234.96	4,238.56	4,231.68	6.88	616.456		
1,500.00	1,500.00	1,618.56	1,578.19	3.23	4.12	-87.97	150.39	-4,233.32	4,236.72	4,229.37	7.34	576.957		
1,600.00	1,600.00	1,729.12	1,688.71	3.45	4.41	-87.99	148.45	-4,231.12	4,234.65	4,226.79	7.86	538.773		
1,700.00	1,700.00	1,815.85	1,775.42	3.68	4.64	-88.00	147.33	-4,229.43	4,232.67	4,224.36	8.31	509.059		
1,800.00	1,800.00	1,898.90	1,858.46	3.90	4.86	-88.01	146.56	-4,228.18	4,231.12	4,222.36	8.76	483.033		
1,900.00	1,900.00	1,993.49	1,953.03	4.13	5.11	-88.02	145.85	-4,226.96	4,229.81	4,220.57	9.23	458.046		
2,000.00	2,000.00	2,094.39	2,053.92	4.35	5.38	-88.03	145.19	-4,225.76	4,228.60	4,218.67	9.73	434.774		
2,100.00	2,100.00	2,206.63	2,166.15	4.58	5.67	-88.04	144.19	-4,224.15	4,227.13	4,216.88	10.25	412.480		
2,200.00	2,200.00	2,308.62	2,268.12	4.80	5.94	-88.06	143.26	-4,222.55	4,225.53	4,214.79	10.74	393.325		
2,300.00	2,300.00	2,406.04	2,365.53	5.03	6.20	-88.07	142.40	-4,221.03	4,223.93	4,212.71	11.23	376.277		
2,400.00	2,400.00	2,499.95	2,459.42	5.25	6.45	-88.08	141.72	-4,219.65	4,222.45	4,210.75	11.70	360.954		
2,500.00	2,500.00	2,596.80	2,556.27	5.48	6.71	-88.08	141.12	-4,218.36	4,221.10	4,208.92	12.18	346.614		
2,600.00	2,600.00	2,695.25	2,654.70	5.70	6.97	-88.09	140.44	-4,217.09	4,219.78	4,207.12	12.66	333.233		
2,700.00	2,700.00	2,797.39	2,756.83	5.93	7.24	-88.10	139.71	-4,215.78	4,218.47	4,205.31	13.16	320.588		
2,800.00	2,800.00	2,905.56	2,864.98	6.15	7.52	-88.11	138.79	-4,214.25	4,217.04	4,203.37	13.67	308.483		
2,900.00	2,900.00	2,999.86	2,959.28	6.38	7.77	-88.12	138.01	-4,212.87	4,215.55	4,201.41	14.14	298.026		
3,000.00	3,000.00	3,098.26	3,057.66	6.60	8.03	-88.13	137.38	-4,211.54	4,214.17	4,199.54	14.63	288.064		
3,100.00	3,100.00	3,209.45	3,168.84	6.83	8.32	-88.14	136.83	-4,209.90	4,212.68	4,197.54	15.14	278.192		
3,200.00	3,200.00	3,319.09	3,278.46	7.05	8.60	-88.14	136.55	-4,207.94	4,210.88	4,195.24	15.64	269.180		
3,300.00	3,300.00	3,410.14	3,369.49	7.28	8.82	-88.14	136.57	-4,206.30	4,209.09	4,193.01	16.09	261.639		
3,400.00	3,400.00	3,493.58	3,452.93	7.50	9.01	-88.14	136.77	-4,205.10	4,207.66	4,191.16	16.50	254.947		
3,500.00	3,500.00	3,589.99	3,549.33	7.73	9.22	-88.13	137.10	-4,203.91	4,206.44	4,189.50	16.94	248.316		
3,600.00	3,600.00	3,682.20	3,641.53	7.95	9.41	-88.12	137.61	-4,202.91	4,205.36	4,188.01	17.35	242.388		
3,700.00	3,700.00	3,779.10	3,738.42	8.17	9.58	-88.11	138.43	-4,201.95	4,204.41	4,186.66	17.74	236.957		
3,800.00	3,800.00	3,874.78	3,834.10	8.40	9.73	-88.10	139.44	-4,201.11	4,203.56	4,185.44	18.12	232.004		
3,900.00	3,900.00	3,974.28	3,933.59	8.62	9.89	-88.09	140.43	-4,200.24	4,202.72	4,184.22	18.50	227.152		
4,000.00	4,000.00	4,064.31	4,023.61	8.85	10.03	-88.07	141.25	-4,199.62	4,202.06	4,183.19	18.87	222.697		
4,100.00	4,100.00	4,163.29	4,122.58	9.07	10.18	-88.06	142.10	-4,199.03	4,201.50	4,182.25	19.25	218.312		
4,200.00	4,200.00	4,257.91	4,217.20	9.30	10.32	-88.05	142.89	-4,198.57	4,201.03	4,181.42	19.61	214.201		
4,300.00	4,300.00	4,356.45	4,315.73	9.52	10.47	-88.04	143.71	-4,198.16	4,200.64	4,180.66	19.98	210.231		
4,400.00	4,400.00	4,456.54	4,415.82	9.75	10.62	-88.03	144.49	-4,197.76	4,200.27	4,179.91	20.36	206.335		
4,500.00	4,500.00	4,556.25	4,515.53	9.97	10.77	-88.02	145.26	-4,197.35	4,199.89	4,179.15	20.74	202.535		
4,600.00	4,600.00	4,652.73	4,612.01	10.20	10.92	-88.01	146.01	-4,197.00	4,199.55	4,178.45	21.11	198.943		
4,700.00	4,700.00	4,747.20	4,706.47	10.42	11.05	-88.00	146.71	-4,196.76	4,199.33	4,177.86	21.47	195.606		
4,800.00	4,800.00	4,842.19	4,801.46	10.65	11.17	-87.99	147.44	-4,196.66	4,199.25	4,177.43	21.81	192.514		
4,900.00	4,900.00	4,942.95	4,902.21	10.87	11.29	-87.98	148.36	-4,196.60	4,199.22	4,177.07	22.16	189.510		
5,000.00	5,000.00	5,058.87	5,018.13	11.10	11.45	-87.95	149.87	-4,196.33	4,199.05	4,176.50	22.54	186.275		

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft.1	Offset TVD Reference:	Reference Datum

Offset Design: Lone Tree Draw "13" State - 2H - Pilot - Pilot													Offset Site Error:
Survey Program: 80-NS-GYRO-MS													0.00 usft
Reference													Offset Well Error:
Offset													0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,100.00	5,172.46	5,131.70	11.32	11.64	-87.93	151.83	-4,195.55	4,198.42	4,175.46	22.95	182.902	
5,200.00	5,200.00	5,277.42	5,236.63	11.55	11.83	-87.90	153.89	-4,194.60	4,197.58	4,174.21	23.37	179.643	
5,300.00	5,300.00	5,365.55	5,324.74	11.77	11.98	-87.87	155.64	-4,193.87	4,196.83	4,173.08	23.75	176.735	
5,400.00	5,400.00	5,461.19	5,420.36	12.00	12.15	-87.85	157.50	-4,193.30	4,196.30	4,172.17	24.13	173.880	
5,500.00	5,500.00	5,560.92	5,520.07	12.22	12.32	-87.82	158.49	-4,192.71	4,195.79	4,171.26	24.53	171.056	
5,600.00	5,600.00	5,658.03	5,617.17	12.45	12.49	-87.80	161.05	-4,192.19	4,195.32	4,170.39	24.93	168.300	
5,700.00	5,700.00	5,773.53	5,732.66	12.67	12.74	-87.79	162.03	-4,191.41	4,194.67	4,169.26	25.40	165.125	
5,800.00	5,800.00	5,869.63	5,828.76	12.89	12.97	-87.79	161.90	-4,190.71	4,193.93	4,168.08	25.85	162.222	
5,900.00	5,900.00	5,961.56	5,920.68	13.12	13.15	-87.80	161.09	-4,190.17	4,193.31	4,167.05	26.27	159.651	
6,000.00	6,000.00	6,044.34	6,003.45	13.34	13.29	-87.81	160.02	-4,189.87	4,193.02	4,166.40	26.62	157.489	
6,020.01	6,020.01	6,050.90	6,020.01	13.39	13.31	-87.82	159.79	-4,189.97	4,193.02	4,166.33	26.69	157.101 CC	
6,100.00	6,100.00	6,127.92	6,087.02	13.57	13.39	-87.83	158.82	-4,190.12	4,193.15	4,166.19	26.95	155.567	
6,200.00	6,200.00	6,204.35	6,163.44	13.79	13.46	-87.84	157.77	-4,190.62	4,193.75	4,166.50	27.24	153.928	
6,300.00	6,300.00	6,266.40	6,225.49	14.02	13.49	-87.85	157.09	-4,191.43	4,195.03	4,167.53	27.51	152.518	
6,349.00	6,349.00	6,294.54	6,253.62	14.13	13.51	-87.86	156.89	-4,192.00	4,196.02	4,168.39	27.63	151.876	
6,350.00	6,350.00	6,295.11	6,254.19	14.13	13.51	85.88	156.89	-4,192.02	4,196.04	4,168.42	27.63	151.868	
6,375.00	6,374.99	6,316.92	6,275.99	14.17	13.52	85.82	156.79	-4,192.56	4,196.61	4,168.93	27.68	151.614	
6,400.00	6,399.90	6,326.85	6,285.92	14.22	13.52	85.77	156.75	-4,192.83	4,197.11	4,169.39	27.72	151.400	
6,425.00	6,424.68	6,347.50	6,306.56	14.26	13.53	85.75	156.63	-4,193.41	4,197.56	4,169.79	27.77	151.170	
6,450.00	6,449.25	6,368.00	6,327.04	14.30	13.53	85.76	156.46	-4,194.00	4,197.94	4,170.13	27.81	150.942	
6,475.00	6,473.54	6,388.30	6,347.34	14.35	13.54	85.78	156.24	-4,194.61	4,198.26	4,170.40	27.86	150.715	
6,500.00	6,497.50	6,411.42	6,370.45	14.39	13.55	85.84	155.93	-4,195.33	4,198.51	4,170.61	27.90	150.479	
6,525.00	6,521.04	6,441.14	6,400.15	14.44	13.56	85.95	155.47	-4,196.24	4,198.67	4,170.71	27.95	150.194	
6,550.00	6,544.12	6,475.70	6,434.68	14.48	13.58	86.12	154.86	-4,197.22	4,198.69	4,170.67	28.01	149.881	
6,575.00	6,566.66	6,508.37	6,467.34	14.52	13.60	86.32	154.21	-4,198.06	4,198.58	4,170.51	28.07	149.555	
6,600.00	6,588.60	6,530.65	6,489.61	14.57	13.61	86.48	153.74	-4,198.61	4,198.40	4,170.26	28.13	149.223	
6,625.00	6,609.88	6,552.33	6,511.28	14.61	13.63	86.65	153.25	-4,199.15	4,198.17	4,169.97	28.20	148.872	
6,650.00	6,630.46	6,573.35	6,532.28	14.65	13.64	86.84	152.76	-4,199.67	4,197.90	4,169.63	28.27	148.499	
6,675.00	6,650.25	6,593.65	6,552.57	14.71	13.66	87.04	152.26	-4,200.17	4,197.61	4,169.27	28.34	148.099	
6,700.00	6,669.23	6,618.24	6,577.15	14.78	13.68	87.29	151.65	-4,200.77	4,197.30	4,168.87	28.43	147.641	
6,725.00	6,687.33	6,644.26	6,603.15	14.85	13.70	87.57	151.03	-4,201.36	4,196.95	4,168.43	28.52	147.135	
6,750.00	6,704.49	6,668.92	6,627.80	14.93	13.72	87.85	150.49	-4,201.87	4,196.59	4,167.97	28.63	146.597	
6,775.00	6,720.69	6,692.16	6,651.03	15.02	13.73	88.13	150.02	-4,202.32	4,196.24	4,167.50	28.74	146.026	
6,800.00	6,735.86	6,709.48	6,668.35	15.12	13.75	88.35	149.68	-4,202.63	4,195.91	4,167.06	28.85	145.440	
6,825.00	6,749.98	6,725.02	6,683.88	15.23	13.76	88.56	149.39	-4,202.90	4,195.63	4,166.66	28.97	144.819	
6,850.00	6,763.00	6,739.36	6,698.22	15.34	13.77	88.75	149.14	-4,203.15	4,195.42	4,166.32	29.10	144.163	
6,875.00	6,774.88	6,752.49	6,711.34	15.47	13.78	88.92	148.91	-4,203.37	4,195.29	4,166.04	29.24	143.470	
6,898.74	6,785.08	6,763.79	6,722.64	15.60	13.79	89.07	148.71	-4,203.56	4,195.24	4,165.86	29.38	142.778	
6,900.00	6,785.59	6,764.36	6,723.21	15.61	13.79	89.07	148.70	-4,203.57	4,195.24	4,165.85	29.39	142.742	
6,925.00	6,795.11	6,774.94	6,733.79	15.76	13.80	89.20	148.53	-4,203.74	4,195.30	4,165.75	29.55	141.980	
6,950.00	6,803.40	6,784.21	6,743.06	15.92	13.81	89.30	148.38	-4,203.90	4,195.46	4,165.75	29.72	141.185 ES	
6,975.00	6,810.45	6,789.42	6,748.26	16.08	13.81	89.33	148.29	-4,203.98	4,195.75	4,165.86	29.89	140.372	
7,000.00	6,816.24	6,789.42	6,748.26	16.26	13.81	89.28	148.29	-4,203.98	4,196.16	4,166.09	30.07	139.549	
7,025.00	6,820.74	6,789.42	6,748.26	16.45	13.81	89.22	148.29	-4,203.98	4,196.70	4,166.45	30.26	138.696	
7,050.00	6,823.95	6,789.42	6,748.26	16.65	13.81	89.14	148.29	-4,203.98	4,197.38	4,166.92	30.46	137.816	
7,075.00	6,825.86	6,789.42	6,748.26	16.86	13.81	89.04	148.29	-4,203.98	4,198.18	4,167.52	30.66	136.914	
7,097.77	6,826.46	6,803.94	6,762.78	17.06	13.83	89.14	148.06	-4,204.23	4,198.99	4,168.12	30.87	136.015	
7,100.00	6,826.47	6,803.98	6,762.82	17.08	13.83	89.14	148.06	-4,204.23	4,199.08	4,168.19	30.89	135.932	
7,200.00	6,826.73	6,805.42	6,764.26	18.02	13.83	89.16	148.04	-4,204.25	4,204.25	4,172.41	31.84	132.043	
7,300.00	6,826.98	6,806.87	6,765.71	19.10	13.83	89.18	148.01	-4,204.28	4,211.78	4,178.86	32.91	127.964	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 2H - Pilot - Pilot														Offset Site Error:	0.00 usft
Survey Program: 80-NS-GYRO-MS														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis 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	Warning		
7,400.00	6,827.24	6,808.33	6,787.17	20.27	13.83	89.20	147.99	-4,204.31	4,221.67	4,187.57	34.09	123.829			
7,500.00	6,827.50	6,809.79	6,788.63	21.54	13.83	89.22	147.97	-4,204.33	4,233.89	4,198.53	35.36	119.739			
7,600.00	6,827.76	6,811.26	6,770.10	22.88	13.83	89.24	147.94	-4,204.36	4,248.44	4,211.74	36.70	115.763			
7,700.00	6,828.01	6,812.74	6,771.58	24.28	13.83	89.26	147.92	-4,204.39	4,265.28	4,227.18	38.10	111.948			
7,800.00	6,828.27	6,814.22	6,773.06	25.73	13.83	89.28	147.89	-4,204.42	4,284.39	4,244.84	39.55	108.321			
7,900.00	6,828.53	6,815.71	6,774.55	27.22	13.84	89.30	147.87	-4,204.44	4,305.73	4,264.69	41.05	104.895			
8,000.00	6,828.79	6,817.21	6,776.05	28.75	13.84	89.32	147.84	-4,204.47	4,329.28	4,286.70	42.58	101.675			
8,100.00	6,829.04	6,818.71	6,777.55	30.31	13.84	89.34	147.82	-4,204.50	4,355.00	4,310.86	44.14	98.659			
8,200.00	6,829.30	6,820.22	6,779.06	31.90	13.84	89.36	147.80	-4,204.53	4,382.85	4,337.12	45.73	95.841			
8,300.00	6,829.56	6,821.74	6,780.57	33.51	13.84	89.38	147.77	-4,204.56	4,412.79	4,365.45	47.34	93.212			
8,400.00	6,829.82	6,823.26	6,782.10	35.14	13.84	89.40	147.75	-4,204.59	4,444.78	4,395.81	48.97	90.761			
8,500.00	6,830.07	6,824.79	6,783.63	36.79	13.84	89.42	147.72	-4,204.62	4,478.77	4,428.15	50.62	88.479			
8,600.00	6,830.33	6,826.33	6,785.16	38.45	13.84	89.44	147.69	-4,204.65	4,514.72	4,462.44	52.28	86.354			
8,700.00	6,830.59	6,827.87	6,786.70	40.12	13.84	89.46	147.67	-4,204.68	4,552.58	4,498.63	53.96	84.374			
8,800.00	6,830.85	6,829.42	6,788.25	41.81	13.85	89.48	147.64	-4,204.71	4,592.31	4,536.67	55.64	82.531			
8,900.00	6,831.10	6,830.98	6,789.81	43.50	13.85	89.51	147.62	-4,204.75	4,633.86	4,576.52	57.34	80.814			
9,000.00	6,831.36	6,832.54	6,791.37	45.21	13.85	89.53	147.59	-4,204.78	4,677.17	4,618.12	59.04	79.214			
9,100.00	6,831.62	6,834.11	6,792.94	46.92	13.85	89.55	147.57	-4,204.81	4,722.20	4,661.44	60.76	77.721			
9,200.00	6,831.88	6,835.69	6,794.52	48.64	13.85	89.57	147.54	-4,204.84	4,768.91	4,706.43	62.48	76.329			
9,248.03	6,832.00	6,836.45	6,795.28	49.46	13.85	89.58	147.53	-4,204.86	4,791.92	4,728.61	63.31	75.693			
9,300.00	6,831.68	6,836.95	6,795.78	50.36	13.85	89.04	147.52	-4,204.87	4,817.11	4,752.91	64.19	75.040			
9,327.90	6,831.14	6,836.94	6,795.77	50.84	13.85	88.75	147.52	-4,204.87	4,830.70	4,766.04	64.67	74.701			
9,400.00	6,829.41	6,836.68	6,795.51	52.09	13.85	88.74	147.52	-4,204.87	4,866.30	4,800.39	65.91	73.830			
9,500.00	6,827.00	6,836.32	6,795.15	53.82	13.85	88.74	147.53	-4,204.86	4,917.00	4,849.35	67.65	72.685			
9,600.00	6,824.60	6,835.95	6,794.78	55.56	13.85	88.73	147.53	-4,204.85	4,969.20	4,899.81	69.39	71.614			
9,700.00	6,822.19	6,835.59	6,794.42	57.31	13.85	88.73	147.54	-4,204.84	5,022.84	4,951.71	71.13	70.612			
9,800.00	6,819.79	6,835.22	6,794.05	59.06	13.85	88.72	147.55	-4,204.83	5,077.89	5,005.00	72.88	69.674			
9,900.00	6,817.38	6,834.85	6,793.68	60.81	13.85	88.72	147.55	-4,204.83	5,134.29	5,059.66	74.63	68.795			
10,000.00	6,814.97	6,834.48	6,793.31	62.56	13.85	88.71	147.56	-4,204.82	5,192.01	5,115.62	76.39	67.970			
10,100.00	6,812.57	6,834.10	6,792.93	64.32	13.85	88.71	147.57	-4,204.81	5,250.99	5,172.85	78.14	67.196			
10,200.00	6,810.16	6,833.73	6,792.56	66.08	13.85	88.70	147.57	-4,204.80	5,311.21	5,231.30	79.90	66.469			
10,300.00	6,807.76	6,833.35	6,792.18	67.85	13.85	88.70	147.58	-4,204.80	5,372.61	5,290.94	81.67	65.786			
10,400.00	6,805.35	6,832.97	6,791.80	69.61	13.85	88.69	147.58	-4,204.79	5,435.16	5,351.72	83.43	65.144			
10,500.00	6,802.95	6,832.59	6,791.42	71.38	13.85	88.69	147.59	-4,204.78	5,498.81	5,413.61	85.20	64.540			
10,600.00	6,800.54	6,832.21	6,791.04	73.15	13.85	88.68	147.60	-4,204.77	5,563.54	5,476.57	86.97	63.971			
10,700.00	6,798.14	6,831.82	6,790.66	74.92	13.85	88.68	147.60	-4,204.76	5,629.29	5,540.55	88.74	63.435			
10,800.00	6,795.73	6,831.44	6,790.27	76.70	13.85	88.67	147.61	-4,204.76	5,696.05	5,605.53	90.51	62.931			
10,900.00	6,793.33	6,831.05	6,789.88	78.47	13.85	88.67	147.62	-4,204.75	5,763.76	5,671.47	92.29	62.454			
11,000.00	6,790.92	6,830.66	6,789.49	80.25	13.85	88.66	147.62	-4,204.74	5,832.40	5,738.34	94.06	62.005			
11,100.00	6,788.51	6,830.27	6,789.10	82.03	13.85	88.66	147.63	-4,204.73	5,901.94	5,806.10	95.84	61.581			
11,200.00	6,786.11	6,829.88	6,788.71	83.81	13.85	88.65	147.64	-4,204.72	5,972.35	5,874.73	97.62	61.180			
11,246.07	6,785.00	6,829.69	6,788.53	84.63	13.85	88.65	147.64	-4,204.72	6,005.07	5,906.63	98.44	61.003 SF			

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00-usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000:1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 18-NS-GYRO-MS, 4369-LEAM MWD, 9572-Project												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	36.45	9.45	0.00	0.02	-84.83	183.34	-2,025.00	2,033.30				
100.00	100.00	142.60	115.60	0.08	0.19	-84.81	183.76	-2,024.28	2,032.66	2,032.39	0.27	7,398.948	
200.00	200.00	244.05	217.04	0.31	0.45	-84.81	183.72	-2,023.44	2,031.84	2,031.08	0.76	2,666.153	
300.00	300.00	343.37	316.36	0.53	0.72	-84.81	183.68	-2,022.63	2,031.02	2,029.77	1.25	1,627.620	
400.00	400.00	443.39	416.38	0.76	0.98	-84.81	183.72	-2,021.82	2,030.22	2,028.48	1.74	1,168.643	
500.00	500.00	543.57	516.56	0.98	1.24	-84.81	183.60	-2,021.01	2,029.40	2,027.18	2.22	912.347	
600.00	600.00	637.31	610.29	1.21	1.46	-84.81	183.54	-2,020.34	2,028.69	2,026.02	2.67	759.576	
673.99	673.99	701.01	673.99	1.37	1.57	-84.80	183.95	-2,020.11	2,028.47	2,025.52	2.95	688.376	
700.00	700.00	722.16	695.14	1.43	1.60	-84.79	184.08	-2,020.12	2,028.50	2,025.47	3.03	669.812	
800.00	800.00	812.41	785.38	1.66	1.66	-84.79	184.42	-2,020.65	2,029.10	2,025.78	3.32	611.151	
900.00	900.00	936.70	909.67	1.88	1.78	-84.81	183.57	-2,021.15	2,029.49	2,025.83	3.66	554.443	
1,000.00	1,000.00	1,038.19	1,011.16	2.11	1.98	-84.83	182.65	-2,020.59	2,028.86	2,024.77	4.08	498.780	
1,100.00	1,100.00	1,133.15	1,106.11	2.33	2.19	-84.85	182.15	-2,020.22	2,028.43	2,023.91	4.52	448.531	
1,200.00	1,200.00	1,233.60	1,206.57	2.56	2.43	-84.85	181.88	-2,019.95	2,028.13	2,023.14	4.99	406.559	
1,300.00	1,300.00	1,333.87	1,306.83	2.78	2.69	-84.86	181.69	-2,019.63	2,027.80	2,022.33	5.47	370.902	
1,400.00	1,400.00	1,436.25	1,409.21	3.01	2.95	-84.87	181.43	-2,019.24	2,027.40	2,021.45	5.95	340.586	
1,500.00	1,500.00	1,535.99	1,508.95	3.23	3.19	-84.88	180.99	-2,018.81	2,026.93	2,020.50	6.42	315.507	
1,600.00	1,600.00	1,631.22	1,604.17	3.45	3.41	-84.89	180.46	-2,018.55	2,026.60	2,019.74	6.87	295.067	
1,683.90	1,683.90	1,710.94	1,683.90	3.64	3.58	-84.90	180.02	-2,018.50	2,026.51	2,019.29	7.22	280.688	
1,700.00	1,700.00	1,725.83	1,698.79	3.68	3.60	-84.91	179.95	-2,018.51	2,026.52	2,019.24	7.28	278.410	
1,800.00	1,800.00	1,819.57	1,792.53	3.90	3.73	-84.92	179.60	-2,018.77	2,026.76	2,019.12	7.63	265.614	
1,900.00	1,900.00	1,917.43	1,890.38	4.13	3.80	-84.92	179.56	-2,019.19	2,027.18	2,019.25	7.93	255.649	
2,000.00	2,000.00	2,015.84	1,988.79	4.35	3.86	-84.92	179.64	-2,019.69	2,027.69	2,019.47	8.22	246.724	
2,100.00	2,100.00	2,113.71	2,086.66	4.58	3.94	-84.92	179.74	-2,020.27	2,028.29	2,019.77	8.52	238.002	
2,200.00	2,200.00	2,211.31	2,184.26	4.80	4.04	-84.91	179.88	-2,020.96	2,029.01	2,020.17	8.84	229.548	
2,300.00	2,300.00	2,311.16	2,284.10	5.03	4.14	-84.91	180.13	-2,021.75	2,029.82	2,020.65	9.17	221.371	
2,400.00	2,400.00	2,414.01	2,386.95	5.25	4.26	-84.90	180.44	-2,022.47	2,030.54	2,021.03	9.51	213.456	
2,500.00	2,500.00	2,515.39	2,488.33	5.48	4.39	-84.89	180.75	-2,023.04	2,031.13	2,021.26	9.87	205.838	
2,600.00	2,600.00	2,616.98	2,589.91	5.70	4.54	-84.89	180.83	-2,023.59	2,031.68	2,021.43	10.24	198.312	
2,700.00	2,700.00	2,714.07	2,687.01	5.93	4.70	-84.89	180.84	-2,024.12	2,032.22	2,021.59	10.63	191.206	
2,800.00	2,800.00	2,811.94	2,784.88	6.15	4.86	-84.89	181.09	-2,024.78	2,032.92	2,021.91	11.01	184.620	
2,900.00	2,900.00	2,905.45	2,878.38	6.38	5.02	-84.88	181.44	-2,025.58	2,033.81	2,022.42	11.39	178.508	
3,000.00	3,000.00	3,000.25	2,973.17	6.60	5.19	-84.88	181.48	-2,026.72	2,035.01	2,023.21	11.79	172.546	
3,100.00	3,100.00	3,108.07	3,080.98	6.83	5.41	-84.90	181.12	-2,028.01	2,036.17	2,023.93	12.23	166.425	
3,200.00	3,200.00	3,214.87	3,187.78	7.05	5.63	-84.91	180.65	-2,028.83	2,036.89	2,024.21	12.68	160.620	
3,300.00	3,300.00	3,319.09	3,292.00	7.28	5.82	-84.90	180.88	-2,029.48	2,037.55	2,024.45	13.10	155.573	
3,400.00	3,400.00	3,436.49	3,409.39	7.50	5.99	-84.87	182.00	-2,029.10	2,037.26	2,023.77	13.49	151.002	
3,500.00	3,500.00	3,533.37	3,506.27	7.73	6.13	-84.86	182.58	-2,028.66	2,036.87	2,023.02	13.85	147.063	
3,600.00	3,600.00	3,631.75	3,604.65	7.95	6.27	-84.85	182.87	-2,028.39	2,036.62	2,022.41	14.22	143.242	
3,700.00	3,700.00	3,731.61	3,704.50	8.17	6.42	-84.84	183.09	-2,028.15	2,036.40	2,021.81	14.59	139.530	
3,800.00	3,800.00	3,829.24	3,802.14	8.40	6.58	-84.84	183.29	-2,027.95	2,036.22	2,021.25	14.98	135.962	
3,862.35	3,862.35	3,889.45	3,862.35	8.54	6.68	-84.83	183.46	-2,027.91	2,036.19	2,020.97	15.22	133.792	
3,900.00	3,900.00	3,925.77	3,898.67	8.62	6.74	-84.83	183.56	-2,027.91	2,036.20	2,020.83	15.37	132.503	
4,000.00	4,000.00	4,023.66	3,996.56	8.85	6.92	-84.82	183.86	-2,028.01	2,036.33	2,020.56	15.77	129.124	
4,100.00	4,100.00	4,121.61	4,094.50	9.07	7.11	-84.81	184.22	-2,028.19	2,036.54	2,020.36	16.18	125.866	
4,200.00	4,200.00	4,220.07	4,192.96	9.30	7.30	-84.80	184.57	-2,028.46	2,036.85	2,020.26	16.60	122.725	
4,300.00	4,300.00	4,318.39	4,291.28	9.52	7.49	-84.79	184.88	-2,028.81	2,037.24	2,020.22	17.02	119.713	
4,400.00	4,400.00	4,416.00	4,388.89	9.75	7.68	-84.78	185.19	-2,029.16	2,037.63	2,020.17	17.45	116.880	
4,500.00	4,500.00	4,513.16	4,486.50	9.97	7.87	-84.77	185.50	-2,029.51	2,038.02	2,020.12	17.88	114.147	
4,600.00	4,600.00	4,595.00	4,493.55	10.20	8.06	-84.76	185.81	-2,029.86	2,038.41	2,020.07	18.31	111.514	
4,700.00	4,700.00	4,620.00	4,495.29	10.42	8.25	-84.75	186.12	-2,030.21	2,038.80	2,020.02	18.74	108.881	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 4H - OH - OH														Offset Site Error:	0.00 usft
Survey Program: 18-NS-GYRO-MS, 4369-LEAM MWD, 9572-Project														Offset Well Error:	0.00 usft
Reference	Vertical	Measured	Vertical	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Between	Between	Minimum	Separation	Warning		
Depth	Depth	Depth	Depth	Reference	Offset		Tooface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)		(')	(usft)	(usft)	(usft)	(usft)	(usft)			
4,800.00	4,800.00	5,216.00	4,947.83	10.65	11.74		-98.26	-278.86	-1,921.49	1,947.24	1,924.10	23.14	84.143		
4,900.00	4,900.00	5,227.00	4,949.72	10.87	11.89		-98.58	-289.57	-1,919.81	1,942.16	1,918.63	23.53	82.523		
4,949.72	4,949.72	5,227.00	4,949.72	10.98	11.89		-98.58	-289.57	-1,919.81	1,941.53	1,917.88	23.65	82.106 CC, ES		
5,000.00	5,000.00	5,227.00	4,949.72	11.10	11.89		-98.58	-289.57	-1,919.81	1,942.18	1,918.42	23.76	81.743		
5,100.00	5,100.00	5,239.74	4,951.62	11.32	12.07		-98.95	-302.02	-1,917.94	1,947.23	1,923.05	24.18	80.516		
5,200.00	5,200.00	5,244.98	4,952.31	11.55	12.14		-99.10	-307.17	-1,917.19	1,957.38	1,932.88	24.49	79.921		
5,300.00	5,300.00	5,259.00	4,953.89	11.77	12.34		-99.51	-320.96	-1,915.27	1,972.58	1,947.64	24.94	78.108		
5,400.00	5,400.00	5,259.00	4,953.89	12.00	12.34		-99.51	-320.96	-1,915.27	1,992.56	1,967.40	25.16	79.195		
5,500.00	5,500.00	5,259.00	4,953.89	12.22	12.34		-99.51	-320.96	-1,915.27	2,017.30	1,991.92	25.38	79.469		
5,600.00	5,600.00	5,259.00	4,953.89	12.45	12.34		-99.51	-320.96	-1,915.27	2,046.64	2,021.03	25.61	79.917		
5,700.00	5,700.00	5,259.00	4,953.89	12.67	12.34		-99.51	-320.96	-1,915.27	2,080.37	2,054.54	25.83	80.527		
5,800.00	5,800.00	5,259.00	4,953.89	12.89	12.34		-99.51	-320.96	-1,915.27	2,118.29	2,092.23	26.06	81.288		
5,900.00	5,900.00	5,259.00	4,953.89	13.12	12.34		-99.51	-320.96	-1,915.27	2,160.18	2,133.90	26.28	82.186		
6,000.00	6,000.00	5,271.05	4,954.93	13.34	12.52		-99.87	-332.86	-1,913.67	2,205.70	2,179.00	26.70	82.610		
6,100.00	6,100.00	5,273.03	4,955.07	13.57	12.55		-99.93	-334.82	-1,913.41	2,254.79	2,227.84	26.96	83.646		
6,200.00	6,200.00	5,274.81	4,955.19	13.79	12.57		-99.98	-336.58	-1,913.18	2,307.18	2,279.97	27.21	84.794		
6,300.00	6,300.00	5,276.41	4,955.30	14.02	12.60		-100.02	-338.16	-1,912.97	2,362.63	2,335.17	27.46	86.041		
6,349.00	6,349.00	5,277.14	4,955.34	14.13	12.61		-100.05	-338.88	-1,912.87	2,390.86	2,363.28	27.58	86.685		
6,350.00	6,350.00	5,277.15	4,955.34	14.13	12.61		73.61	-338.89	-1,912.87	2,391.44	2,364.70	26.74	89.438		
6,375.00	6,374.99	5,277.67	4,955.37	14.17	12.62		71.55	-339.41	-1,912.80	2,405.94	2,379.16	26.78	89.836		
6,400.00	6,399.90	5,278.46	4,955.42	14.22	12.63		69.55	-340.19	-1,912.70	2,420.27	2,393.46	26.81	90.271		
6,425.00	6,424.68	5,291.00	4,956.00	14.26	12.81		67.29	-352.61	-1,911.08	2,434.52	2,407.53	26.98	90.219		
6,450.00	6,449.25	5,291.00	4,956.00	14.30	12.81		65.46	-352.61	-1,911.08	2,448.38	2,421.43	26.96	90.826		
6,475.00	6,473.54	5,291.00	4,956.00	14.35	12.81		63.71	-352.61	-1,911.08	2,461.97	2,435.07	26.90	91.508		
6,500.00	6,497.50	5,291.00	4,956.00	14.39	12.81		62.03	-352.61	-1,911.08	2,475.25	2,448.42	26.83	92.271		
6,525.00	6,521.04	5,291.00	4,956.00	14.44	12.81		60.44	-352.61	-1,911.08	2,488.19	2,461.47	26.72	93.122		
6,550.00	6,544.12	5,291.00	4,956.00	14.48	12.81		58.94	-352.61	-1,911.08	2,500.76	2,474.18	26.59	94.064		
6,575.00	6,566.66	5,291.00	4,956.00	14.52	12.81		57.51	-352.61	-1,911.08	2,512.94	2,486.51	26.42	95.101		
6,600.00	6,588.60	5,291.00	4,956.00	14.57	12.81		56.18	-352.61	-1,911.08	2,524.68	2,498.45	26.23	96.234		
6,625.00	6,609.88	5,301.17	4,956.27	14.61	12.96		54.72	-362.69	-1,909.76	2,535.93	2,509.79	26.14	97.013		
6,650.00	6,630.46	5,309.00	4,956.38	14.65	13.08		53.41	-370.45	-1,908.72	2,546.68	2,520.60	26.08	97.642		
6,675.00	6,650.25	5,324.56	4,956.51	14.71	13.32		52.08	-385.86	-1,906.56	2,556.86	2,530.78	26.09	98.018		
6,700.00	6,669.23	5,349.77	4,956.57	14.76	13.70		50.65	-410.81	-1,902.89	2,566.37	2,540.21	26.16	98.110		
6,725.00	6,687.33	5,384.84	4,956.42	14.85	14.22		49.20	-445.43	-1,897.34	2,575.16	2,548.87	26.29	97.955		
6,750.00	6,704.49	5,468.00	4,957.21	14.93	15.44		47.17	-527.37	-1,883.21	2,582.86	2,556.06	26.79	96.404		
6,775.00	6,720.69	5,487.46	4,957.61	15.02	15.74		46.27	-546.53	-1,879.76	2,589.63	2,562.89	26.74	96.862		
6,800.00	6,735.86	5,503.57	4,957.91	15.12	15.99		45.51	-562.37	-1,876.91	2,595.63	2,568.99	26.64	97.428		
6,825.00	6,749.98	5,520.21	4,958.17	15.23	16.25		44.84	-578.74	-1,873.95	2,600.85	2,574.30	26.55	97.952		
6,850.00	6,763.00	5,537.33	4,958.40	15.34	16.51		44.26	-595.59	-1,870.89	2,605.28	2,578.79	26.47	98.415		
6,875.00	6,774.88	5,562.00	4,958.65	15.47	16.89		43.67	-619.86	-1,866.47	2,608.85	2,582.38	26.47	98.570		
6,900.00	6,785.59	5,574.39	4,958.75	15.61	17.09		43.32	-632.05	-1,864.24	2,611.57	2,585.18	26.38	98.992		
6,925.00	6,795.11	5,595.31	4,958.93	15.76	17.43		42.96	-652.63	-1,860.50	2,613.41	2,587.01	26.40	99.009		
6,950.00	6,803.40	5,616.65	4,959.11	15.92	17.78		42.68	-673.62	-1,856.70	2,614.35	2,587.91	26.44	98.871		
6,975.00	6,810.45	5,638.35	4,959.29	16.08	18.13		42.50	-694.98	-1,852.85	2,614.38	2,587.85	26.53	98.559		
7,000.00	6,816.24	5,775.65	4,962.16	16.26	20.31		41.53	-829.59	-1,826.00	2,612.93	2,585.31	27.62	94.606		
7,025.00	6,820.74	5,804.37	4,963.25	16.45	20.77		41.56	-857.64	-1,819.96	2,610.04	2,582.20	27.84	93.735		
7,050.00	6,823.95	5,833.33	4,964.47	16.65	21.23		41.68	-885.94	-1,813.93	2,606.17	2,578.04	28.12	92.664		
7,075.00	6,825.86	5,846.00	4,965.05	16.86	21.44		42.00	-898.32	-1,811.31	2,601.34	2,573.02	28.32	91.853		
7,097.77	6,826.46	5,846.00	4,965.05	17.06	21.44		42.42	-898.32	-1,811.31	2,596.29	2,567.84	28.44	91.276		
7,100.00	6,826.47	5,846.00	4,965.05	17.08	21.44		42.42	-898.32	-1,811.31	2,595.77	2,567.31	28.46	91.212		

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error: 0.00 usft	
Lone Tree Draw "13" State - 4H - OH - OH												Offset Well Error: 0.00 usft	
Survey Program: 18-NS-GYRO-MS, 4369-LEAM-MWD, 9572-Project													
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)	Offset Wellbore Centre E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,200.00	6,826.73	5,906.64	4,967.13	18.02	22.45	42.14	-957.70	-1,799.20	2,572.65	2,542.95	29.70	86.612	
7,300.00	6,826.98	5,939.00	4,967.62	19.10	22.99	41.98	-989.47	-1,793.07	2,551.79	2,521.01	30.78	82.916	
7,400.00	6,827.24	5,987.97	4,967.58	20.27	23.83	41.75	-1,037.69	-1,784.52	2,533.08	2,500.99	32.09	78.926	
7,500.00	6,827.50	6,034.00	4,966.74	21.54	24.63	41.53	-1,083.16	-1,777.45	2,516.79	2,483.35	33.44	75.256	
7,600.00	6,827.76	6,070.11	4,965.76	22.88	25.23	41.36	-1,118.95	-1,772.73	2,502.77	2,468.02	34.75	72.015	
7,700.00	6,828.01	6,125.00	4,964.22	24.28	26.16	41.14	-1,173.54	-1,767.32	2,491.05	2,454.76	36.29	68.649	
7,800.00	6,828.27	6,266.89	4,960.35	25.73	28.51	40.55	-1,314.60	-1,752.53	2,479.27	2,440.64	38.63	64.176	
7,900.00	6,828.53	6,515.44	4,959.25	27.22	32.69	39.45	-1,560.90	-1,719.61	2,464.77	2,422.91	41.86	58.881	
8,000.00	6,828.79	6,590.00	4,961.15	28.75	33.96	39.12	-1,634.58	-1,708.33	2,446.43	2,402.86	43.57	56.145	
8,100.00	6,829.04	6,659.64	4,963.23	30.31	35.14	38.84	-1,703.59	-1,699.23	2,429.23	2,383.95	45.27	53.658	
8,200.00	6,829.30	6,684.00	4,963.96	31.90	35.55	38.75	-1,727.79	-1,696.57	2,414.18	2,367.59	46.60	51.807	
8,300.00	6,829.56	6,747.79	4,965.12	33.51	36.64	38.53	-1,791.31	-1,690.92	2,400.96	2,352.65	48.31	49.703	
8,400.00	6,829.82	6,780.00	4,965.13	35.14	37.19	38.43	-1,823.45	-1,688.81	2,390.48	2,340.74	49.74	48.063	
8,500.00	6,830.07	6,827.02	4,964.36	36.79	37.99	38.27	-1,870.41	-1,686.58	2,382.45	2,331.13	51.32	46.424	
8,600.00	6,830.33	6,875.00	4,962.50	38.45	38.82	38.12	-1,918.34	-1,685.34	2,377.06	2,324.14	52.92	44.921	
8,700.00	6,830.59	6,931.50	4,959.51	40.12	39.78	37.95	-1,974.76	-1,684.65	2,373.73	2,319.13	54.60	43.475	
8,800.00	6,830.85	7,060.74	4,952.82	41.81	41.95	37.56	-2,103.82	-1,683.83	2,371.09	2,314.16	56.93	41.651	
8,900.00	6,831.10	7,320.85	4,950.36	43.50	46.25	36.83	-2,363.74	-1,677.02	2,363.75	2,303.38	60.37	39.157	
9,000.00	6,831.36	7,411.74	4,951.23	45.21	47.81	36.55	-2,454.48	-1,671.97	2,353.29	2,291.00	62.29	37.779	
9,100.00	6,831.62	7,506.97	4,952.26	46.92	49.43	36.27	-2,549.60	-1,667.53	2,343.33	2,279.08	64.25	36.471	
9,200.00	6,831.88	7,586.94	4,953.61	48.64	50.78	36.06	-2,629.50	-1,664.71	2,333.66	2,267.56	66.10	35.305	
9,248.03	6,832.00	7,620.05	4,954.01	49.46	51.35	35.97	-2,662.60	-1,663.84	2,329.44	2,262.50	66.94	34.797	
9,300.00	6,831.68	7,683.30	4,954.73	50.36	52.43	35.85	-2,725.84	-1,662.41	2,324.62	2,256.62	68.00	34.185	
9,327.90	6,831.14	7,728.97	4,955.64	50.84	53.21	35.77	-2,771.48	-1,661.23	2,321.41	2,252.74	68.67	33.804	
9,400.00	6,829.41	7,816.56	4,957.30	52.09	54.69	35.55	-2,858.98	-1,657.76	2,312.28	2,242.04	70.24	32.921	
9,500.00	6,827.00	7,921.92	4,958.61	53.82	56.49	35.23	-2,964.16	-1,651.70	2,299.15	2,226.95	72.21	31.841	
9,600.00	6,824.60	8,014.00	4,960.31	55.56	58.05	34.96	-3,056.09	-1,646.81	2,285.86	2,211.79	74.07	30.860	
9,700.00	6,822.19	8,077.31	4,961.75	57.31	59.13	34.81	-3,119.35	-1,644.82	2,273.60	2,197.85	75.75	30.016	
9,800.00	6,819.79	8,109.00	4,962.35	59.06	59.67	34.74	-3,151.04	-1,644.51	2,263.46	2,186.29	77.17	29.329	
9,900.00	6,817.38	8,179.00	4,962.92	60.81	60.86	34.62	-3,221.03	-1,645.36	2,255.11	2,176.14	78.96	28.558	
10,000.00	6,814.97	8,240.62	4,962.47	62.56	61.90	34.53	-3,282.60	-1,647.67	2,249.09	2,168.39	80.70	27.870	
10,100.00	6,812.57	8,322.86	4,961.69	64.32	63.28	34.44	-3,364.72	-1,652.12	2,244.28	2,161.63	82.65	27.153	
10,200.00	6,810.16	8,424.39	4,966.56	66.08	68.33	34.01	-3,665.92	-1,659.08	2,236.40	2,149.85	86.55	25.840	
10,300.00	6,807.76	8,705.30	4,969.40	67.85	69.71	33.82	-3,746.74	-1,656.39	2,223.12	2,134.81	88.32	25.173	
10,400.00	6,805.35	8,773.00	4,970.47	69.61	70.87	33.64	-3,814.39	-1,654.18	2,211.37	2,121.43	89.95	24.585	
10,500.00	6,802.95	8,836.21	4,970.45	71.38	71.96	33.46	-3,877.58	-1,652.33	2,201.16	2,109.63	91.53	24.049	
10,600.00	6,800.54	8,907.84	4,969.57	73.15	73.21	33.24	-3,949.17	-1,650.39	2,192.22	2,099.08	93.15	23.535	
10,700.00	6,798.14	9,009.05	4,966.96	74.92	74.96	32.92	-4,050.31	-1,647.62	2,184.45	2,089.55	94.91	23.017	
10,800.00	6,795.73	9,116.56	4,964.65	76.70	76.83	32.54	-4,157.68	-1,642.92	2,175.46	2,078.84	96.63	22.514	
10,900.00	6,793.33	9,202.74	4,962.47	78.47	78.33	32.24	-4,243.78	-1,639.70	2,167.24	2,069.02	98.22	22.065	
11,000.00	6,790.92	9,298.91	4,959.76	80.25	80.00	31.90	-4,339.85	-1,636.19	2,159.39	2,059.55	99.84	21.628	
11,100.00	6,788.51	9,396.22	4,956.97	82.03	81.70	31.56	-4,437.06	-1,632.65	2,151.68	2,050.22	101.46	21.208	
11,200.00	6,786.11	9,498.12	4,954.02	83.81	83.46	31.19	-4,538.84	-1,628.93	2,144.07	2,041.02	103.05	20.805	
11,246.07	6,785.00	9,544.95	4,952.75	84.63	83.80	31.03	-4,585.82	-1,627.22	2,140.52	2,037.03	103.49	20.684 SF	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00-sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:
Lone Tree Draw "13" State - 4H - Pilot - Pilot													0.00 usft
Survey Program: 18-NS-GYRO-MS													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		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	36.45	9.45	0.00	0.02	-84.83	183.34	-2,025.00	2,033.30				
100.00	100.00	142.60	115.60	0.08	0.19	-84.81	183.76	-2,024.28	2,032.66	2,032.39	0.27	7,399.161	
200.00	200.00	244.05	217.04	0.31	0.45	-84.81	183.72	-2,023.44	2,031.84	2,031.08	0.76	2,666.149	
300.00	300.00	343.37	316.36	0.53	0.72	-84.81	183.68	-2,022.63	2,031.02	2,029.77	1.25	1,627.618	
400.00	400.00	443.39	416.38	0.76	0.98	-84.81	183.72	-2,021.82	2,030.22	2,028.48	1.74	1,168.643	
500.00	500.00	543.57	516.56	0.98	1.24	-84.81	183.60	-2,021.01	2,029.40	2,027.18	2.22	912.347	
600.00	600.00	637.31	610.29	1.21	1.46	-84.81	183.54	-2,020.34	2,028.69	2,026.02	2.67	759.576	
673.99	673.99	701.01	673.99	1.37	1.57	-84.80	183.95	-2,020.11	2,028.47	2,025.52	2.95	688.376	
700.00	700.00	722.16	695.14	1.43	1.60	-84.79	184.08	-2,020.12	2,028.50	2,025.47	3.03	669.812	
800.00	800.00	812.41	785.38	1.66	1.66	-84.79	184.42	-2,020.65	2,029.10	2,025.78	3.32	611.150	
900.00	900.00	936.70	909.67	1.88	1.78	-84.81	183.57	-2,021.15	2,029.49	2,025.83	3.66	554.442	
1,000.00	1,000.00	1,038.19	1,011.16	2.11	1.98	-84.83	182.65	-2,020.59	2,028.86	2,024.77	4.08	496.760	
1,100.00	1,100.00	1,133.15	1,106.11	2.33	2.19	-84.85	182.15	-2,020.22	2,028.43	2,023.91	4.52	448.531	
1,200.00	1,200.00	1,233.60	1,206.57	2.56	2.43	-84.85	181.88	-2,019.95	2,028.13	2,023.14	4.99	406.559	
1,300.00	1,300.00	1,333.87	1,306.83	2.78	2.69	-84.86	181.69	-2,019.63	2,027.80	2,022.33	5.47	370.903	
1,400.00	1,400.00	1,436.25	1,409.21	3.01	2.95	-84.87	181.43	-2,019.24	2,027.40	2,021.45	5.95	340.586	
1,500.00	1,500.00	1,535.99	1,508.95	3.23	3.19	-84.88	180.99	-2,018.81	2,026.93	2,020.50	6.42	315.508	
1,600.00	1,600.00	1,631.22	1,604.17	3.45	3.41	-84.89	180.46	-2,018.55	2,026.60	2,019.74	6.87	295.067	
1,683.90	1,683.90	1,710.94	1,683.90	3.64	3.58	-84.90	180.02	-2,018.50	2,026.51	2,019.29	7.22	280.689	CC
1,700.00	1,700.00	1,725.83	1,698.79	3.68	3.60	-84.91	179.95	-2,018.51	2,026.52	2,019.24	7.28	278.410	
1,800.00	1,800.00	1,819.57	1,792.53	3.90	3.73	-84.92	179.60	-2,018.77	2,026.76	2,019.12	7.63	265.614	
1,900.00	1,900.00	1,917.43	1,890.38	4.13	3.80	-84.92	179.56	-2,019.19	2,027.18	2,019.25	7.93	255.649	
2,000.00	2,000.00	2,015.84	1,988.79	4.35	3.86	-84.92	179.64	-2,019.69	2,027.69	2,019.47	8.22	246.724	
2,100.00	2,100.00	2,113.71	2,086.66	4.58	3.94	-84.92	179.74	-2,020.27	2,028.29	2,019.77	8.52	238.003	
2,200.00	2,200.00	2,211.31	2,184.26	4.80	4.04	-84.91	179.88	-2,020.96	2,029.01	2,020.17	8.84	229.548	
2,300.00	2,300.00	2,311.16	2,284.10	5.03	4.14	-84.91	180.13	-2,021.75	2,029.82	2,020.65	9.17	221.371	
2,400.00	2,400.00	2,414.01	2,386.95	5.25	4.26	-84.90	180.44	-2,022.47	2,030.54	2,021.03	9.51	213.456	
2,500.00	2,500.00	2,515.39	2,488.33	5.48	4.39	-84.89	180.75	-2,023.04	2,031.13	2,021.26	9.87	205.838	
2,600.00	2,600.00	2,616.98	2,589.91	5.70	4.54	-84.89	180.83	-2,023.59	2,031.68	2,021.43	10.24	198.312	
2,700.00	2,700.00	2,714.07	2,687.01	5.93	4.70	-84.89	180.84	-2,024.12	2,032.22	2,021.59	10.63	191.206	
2,800.00	2,800.00	2,811.94	2,784.88	6.15	4.86	-84.89	181.09	-2,024.78	2,032.92	2,021.91	11.01	184.620	
2,900.00	2,900.00	2,905.45	2,878.38	6.38	5.02	-84.88	181.44	-2,025.58	2,033.81	2,022.42	11.39	178.508	
3,000.00	3,000.00	3,000.25	2,973.17	6.60	5.19	-84.88	181.48	-2,026.72	2,035.01	2,023.21	11.79	172.546	
3,100.00	3,100.00	3,108.07	3,080.98	6.83	5.41	-84.90	181.12	-2,028.01	2,036.17	2,023.93	12.23	166.425	
3,200.00	3,200.00	3,214.87	3,187.78	7.05	5.63	-84.91	180.65	-2,028.83	2,036.89	2,024.21	12.68	160.620	
3,300.00	3,300.00	3,319.09	3,292.00	7.28	5.82	-84.90	180.98	-2,029.48	2,037.55	2,024.45	13.10	155.573	
3,400.00	3,400.00	3,436.49	3,409.39	7.50	5.99	-84.87	182.00	-2,029.10	2,037.26	2,023.77	13.49	151.002	
3,500.00	3,500.00	3,533.37	3,506.27	7.73	6.13	-84.86	182.58	-2,028.66	2,036.87	2,023.02	13.85	147.063	
3,600.00	3,600.00	3,631.75	3,604.65	7.95	6.27	-84.85	182.87	-2,028.39	2,036.62	2,022.41	14.22	143.242	
3,700.00	3,700.00	3,731.61	3,704.50	8.17	6.42	-84.84	183.09	-2,028.15	2,036.40	2,021.81	14.59	139.530	
3,800.00	3,800.00	3,828.24	3,802.14	8.40	6.58	-84.84	183.29	-2,027.95	2,036.22	2,021.25	14.98	135.962	
3,862.35	3,862.35	3,889.45	3,862.35	8.54	6.68	-84.83	183.46	-2,027.91	2,036.19	2,020.97	15.22	133.792	
3,900.00	3,900.00	3,925.77	3,898.67	8.62	6.74	-84.83	183.56	-2,027.91	2,036.20	2,020.83	15.37	132.503	
4,000.00	4,000.00	4,023.66	3,996.56	8.85	6.92	-84.82	183.86	-2,028.01	2,036.33	2,020.56	15.77	129.124	
4,100.00	4,100.00	4,121.61	4,094.50	9.07	7.11	-84.81	184.22	-2,028.19	2,036.54	2,020.36	16.18	125.866	
4,200.00	4,200.00	4,220.07	4,192.96	9.30	7.30	-84.80	184.57	-2,028.46	2,036.85	2,020.26	16.60	122.725	
4,300.00	4,300.00	4,318.39	4,291.28	9.52	7.49	-84.79	184.88	-2,028.81	2,037.24	2,020.22	17.02	119.713	
4,400.00	4,400.00	4,414.65	4,387.54	9.75	7.69	-84.79	185.05	-2,029.34	2,037.80	2,020.36	17.44	116.876	
4,500.00	4,500.00	4,510.92	4,483.81	9.97	7.88	-84.80	184.91	-2,030.07	2,038.54	2,020.69	17.85	114.213	
4,600.00	4,600.00	4,606.59	4,579.47	10.20	8.07	-84.80	184.73	-2,030.96	2,039.44	2,021.18	18.26	111.672	
4,700.00	4,700.00	4,704.59	4,677.47	10.42	8.27	-84.80	184.87	-2,031.99	2,040.51	2,021.82	18.69	109.168	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design: Lone Tree Draw "13" State - 4H - Pilot - Pilot													Offset Site Error:
Survey Program: 18-NS-GYRO-MS													0.00 usft
Reference													Offset Well Error:
Offset													0.00 usft
Semi Major Axis													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	
4,800.00	4,800.00	4,807.43	4,780.30	10.65	8.49	-84.79	185.26	-2,033.03	2,041.55	2,022.41	19.14	106.688	
4,900.00	4,900.00	4,916.78	4,889.64	10.87	8.72	-84.78	185.78	-2,033.90	2,042.39	2,022.80	19.59	104.251	
5,000.00	5,000.00	5,032.57	5,005.43	11.10	8.93	-84.76	186.42	-2,033.87	2,042.40	2,022.38	20.02	102.000	
5,100.00	5,100.00	5,140.70	5,113.57	11.32	9.08	-84.76	186.48	-2,033.36	2,041.94	2,021.54	20.40	100.090	
5,200.00	5,200.00	5,248.20	5,221.06	11.55	9.22	-84.76	186.28	-2,032.46	2,041.09	2,020.32	20.77	98.279	
5,300.00	5,300.00	5,343.10	5,315.95	11.77	9.36	-84.76	186.20	-2,031.58	2,040.16	2,019.03	21.13	96.557	
5,400.00	5,400.00	5,432.58	5,405.43	12.00	9.51	-84.75	186.56	-2,031.07	2,039.63	2,018.12	21.50	94.847	
5,470.28	5,470.28	5,497.43	5,470.28	12.15	9.63	-84.74	186.91	-2,030.96	2,039.54	2,017.75	21.79	93.618	
5,500.00	5,500.00	5,525.06	5,497.91	12.22	9.69	-84.74	187.06	-2,030.96	2,039.99	2,017.65	21.91	93.104	
5,600.00	5,600.00	5,619.55	5,592.40	12.45	9.88	-84.73	187.52	-2,031.15	2,039.80	2,017.47	22.33	91.367	
5,700.00	5,700.00	5,722.79	5,695.63	12.67	10.10	-84.72	187.91	-2,031.44	2,040.12	2,017.35	22.77	89.806	
5,800.00	5,800.00	5,826.78	5,799.63	12.89	10.31	-84.70	188.29	-2,031.53	2,040.24	2,017.03	23.21	87.911	
5,900.00	5,900.00	5,930.92	5,903.76	13.12	10.50	-84.70	188.45	-2,031.39	2,040.12	2,016.50	23.61	86.393	
6,000.00	6,000.00	6,029.90	6,002.75	13.34	10.63	-84.70	188.36	-2,031.28	2,039.99	2,016.02	23.98	85.081	
6,100.00	6,100.00	6,133.42	6,106.26	13.57	10.77	-84.72	187.73	-2,031.08	2,039.75	2,015.41	24.34	83.804	
6,200.00	6,200.00	6,235.77	6,208.61	13.79	10.91	-84.75	186.48	-2,030.85	2,039.41	2,014.70	24.71	82.546	
6,300.00	6,300.00	6,339.86	6,312.69	14.02	11.06	-84.79	185.20	-2,030.41	2,038.88	2,013.80	25.08	81.296	
6,349.00	6,349.00	6,392.05	6,364.87	14.13	11.14	-84.80	184.62	-2,030.11	2,038.55	2,013.28	25.27	80.686	
6,350.00	6,350.00	6,393.22	6,366.04	14.13	11.14	88.93	184.61	-2,030.10	2,038.54	2,013.27	25.27	80.674	
6,375.00	6,374.99	6,422.56	6,395.38	14.17	11.18	88.98	184.29	-2,029.87	2,038.31	2,012.95	25.35	80.395	
6,400.00	6,399.90	6,451.82	6,424.64	14.22	11.23	89.07	183.98	-2,029.57	2,037.99	2,012.56	25.44	80.118	
6,425.00	6,424.68	6,480.88	6,453.69	14.26	11.27	89.22	183.67	-2,029.21	2,037.61	2,012.09	25.52	79.842	
6,450.00	6,449.25	6,509.54	6,482.35	14.30	11.31	89.41	183.39	-2,028.80	2,037.17	2,011.56	25.60	79.563	
6,475.00	6,473.54	6,537.88	6,510.68	14.35	11.36	89.65	183.15	-2,028.33	2,036.67	2,010.99	25.69	79.286	
6,500.00	6,497.50	6,565.81	6,538.61	14.39	11.40	89.94	182.95	-2,027.82	2,036.15	2,010.38	25.77	79.011	
6,525.00	6,521.04	6,588.83	6,561.63	14.44	11.44	90.22	182.78	-2,027.37	2,035.62	2,009.78	25.85	78.754	
6,550.00	6,544.12	6,611.33	6,584.12	14.48	11.47	90.51	182.62	-2,026.94	2,035.16	2,009.23	25.93	78.500	
6,575.00	6,566.66	6,633.32	6,606.11	14.52	11.51	90.83	182.45	-2,026.52	2,034.75	2,008.75	26.00	78.246	
6,600.00	6,588.60	6,654.75	6,627.53	14.57	11.54	91.15	182.27	-2,026.13	2,034.44	2,008.36	26.09	77.992	
6,625.00	6,609.88	6,675.41	6,648.19	14.61	11.57	91.47	182.09	-2,025.76	2,034.24	2,008.07	26.17	77.738	
6,650.00	6,630.46	6,695.35	6,668.12	14.65	11.61	91.80	181.91	-2,025.41	2,034.16	2,007.91	26.25	77.482	
6,650.03	6,630.48	6,695.37	6,668.14	14.65	11.61	91.80	181.91	-2,025.41	2,034.16	2,007.91	26.25	77.482	
6,675.00	6,650.25	6,714.56	6,687.33	14.71	11.64	92.12	181.73	-2,025.07	2,034.24	2,007.90	26.34	77.224 ES	
6,700.00	6,669.23	6,733.01	6,705.77	14.78	11.67	92.42	181.54	-2,024.76	2,034.50	2,008.06	26.44	76.962	
6,725.00	6,687.33	6,750.62	6,723.38	14.85	11.69	92.71	181.36	-2,024.47	2,034.95	2,008.42	26.53	76.696	
6,750.00	6,704.49	6,767.49	6,740.25	14.93	11.72	92.97	181.19	-2,024.20	2,035.62	2,008.98	26.64	76.422	
6,775.00	6,720.69	6,783.40	6,756.15	15.02	11.75	93.20	181.05	-2,023.94	2,036.53	2,009.78	26.75	76.140	
6,800.00	6,735.86	6,798.27	6,771.02	15.12	11.77	93.39	180.94	-2,023.70	2,037.70	2,010.83	26.86	75.851	
6,825.00	6,749.98	6,812.06	6,784.81	15.23	11.80	93.53	180.86	-2,023.48	2,039.14	2,012.15	26.99	75.553	
6,850.00	6,763.00	6,824.74	6,797.49	15.34	11.82	93.63	180.80	-2,023.27	2,040.89	2,013.76	27.12	75.244	
6,875.00	6,774.88	6,836.28	6,809.03	15.47	11.84	93.67	180.75	-2,023.08	2,042.95	2,015.68	27.27	74.924	
6,900.00	6,785.59	6,846.95	6,819.70	15.61	11.85	93.65	180.72	-2,022.90	2,045.33	2,017.91	27.42	74.591	
6,925.00	6,795.11	6,855.34	6,828.08	15.76	11.87	93.54	180.70	-2,022.77	2,048.05	2,020.46	27.58	74.247	
6,950.00	6,803.40	6,862.87	6,835.61	15.92	11.88	93.37	180.69	-2,022.65	2,051.11	2,023.36	27.76	73.891	
6,975.00	6,810.45	6,869.25	6,841.99	16.08	11.89	93.13	180.68	-2,022.55	2,054.53	2,026.59	27.94	73.525	
7,000.00	6,816.24	6,874.46	6,847.21	16.26	11.90	92.82	180.68	-2,022.47	2,058.30	2,030.16	28.14	73.150	
7,025.00	6,820.74	6,878.51	6,851.25	16.45	11.91	92.43	180.68	-2,022.40	2,062.41	2,034.07	28.34	72.770	
7,050.00	6,823.95	6,881.38	6,854.12	16.65	11.91	91.97	180.68	-2,022.36	2,066.87	2,038.31	28.55	72.388	
7,075.00	6,825.86	6,883.06	6,855.81	16.86	11.92	91.43	180.68	-2,022.33	2,071.66	2,042.89	28.77	72.008	
7,097.77	6,826.46	6,883.57	6,856.31	17.06	11.92	90.87	180.68	-2,022.33	2,076.30	2,047.33	28.97	71.666	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset-TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 18-NS-GYRO-MS												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		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
7,100.00	6,826.47	6,883.57	6,856.31	17.08	11.92	90.87	180.68	-2,022.33	2,076.77	2,047.78	28.99	71.634	
7,200.00	6,826.73	6,883.65	6,856.39	18.02	11.92	90.88	180.68	-2,022.33	2,100.10	2,070.16	29.94	70.146	
7,300.00	6,826.98	6,883.73	6,856.47	19.10	11.92	90.88	180.68	-2,022.32	2,127.88	2,086.87	31.01	68.615	
7,400.00	6,827.24	6,883.81	6,856.55	20.27	11.92	90.88	180.68	-2,022.32	2,159.94	2,127.75	32.19	67.101	
7,500.00	6,827.50	6,883.88	6,856.63	21.54	11.92	90.88	180.68	-2,022.32	2,196.09	2,162.63	33.45	65.643	
7,600.00	6,827.76	6,883.96	6,856.70	22.88	11.92	90.89	180.68	-2,022.32	2,236.13	2,201.33	34.79	64.269	
7,700.00	6,828.01	6,884.03	6,856.78	24.28	11.92	90.89	180.68	-2,022.32	2,279.85	2,243.66	36.19	62.991	
7,800.00	6,828.27	6,884.11	6,856.85	25.73	11.92	90.89	180.68	-2,022.32	2,327.06	2,289.41	37.64	61.817	
7,900.00	6,828.53	6,884.18	6,856.92	27.22	11.92	90.89	180.68	-2,022.32	2,377.53	2,338.39	39.14	60.747	
8,000.00	6,828.79	6,884.25	6,857.00	28.75	11.92	90.89	180.68	-2,022.32	2,431.07	2,390.40	40.67	59.778	
8,100.00	6,829.04	6,884.33	6,857.07	30.31	11.92	90.90	180.68	-2,022.32	2,487.48	2,445.26	42.23	58.904	
8,200.00	6,829.30	6,884.40	6,857.14	31.90	11.92	90.90	180.68	-2,022.31	2,546.57	2,502.76	43.82	58.119	
8,300.00	6,829.56	6,884.47	6,857.21	33.51	11.92	90.90	180.68	-2,022.31	2,608.16	2,562.73	45.43	57.415	
8,400.00	6,829.82	6,884.54	6,857.28	35.14	11.92	90.90	180.68	-2,022.31	2,672.07	2,625.02	47.06	56.786	
8,500.00	6,830.07	6,884.61	6,857.35	36.79	11.92	90.90	180.68	-2,022.31	2,738.14	2,689.44	48.70	56.223	
8,600.00	6,830.33	6,884.67	6,857.42	38.45	11.92	90.91	180.68	-2,022.31	2,806.22	2,755.86	50.36	55.721	
8,700.00	6,830.59	6,884.74	6,857.48	40.12	11.92	90.91	180.68	-2,022.31	2,876.17	2,824.13	52.04	55.273	
8,800.00	6,830.85	6,884.81	6,857.55	41.81	11.92	90.91	180.68	-2,022.31	2,947.85	2,894.13	53.72	54.874	
8,900.00	6,831.10	6,884.87	6,857.62	43.50	11.92	90.91	180.68	-2,022.31	3,021.14	2,965.72	55.42	54.518	
9,000.00	6,831.36	6,884.94	6,857.68	45.21	11.92	90.91	180.68	-2,022.31	3,095.92	3,038.80	57.12	54.201	
9,100.00	6,831.62	6,885.00	6,857.74	46.92	11.92	90.91	180.68	-2,022.31	3,172.10	3,113.26	58.83	53.919	
9,200.00	6,831.88	6,885.07	6,857.81	48.64	11.92	90.92	180.68	-2,022.30	3,249.56	3,189.01	60.55	53.667	
9,248.03	6,832.00	6,885.10	6,857.84	49.46	11.92	90.92	180.68	-2,022.30	3,287.20	3,225.82	61.38	53.557	
9,300.00	6,831.68	6,884.77	6,857.51	50.36	11.92	89.64	180.68	-2,022.31	3,328.15	3,265.87	62.28	53.440	
9,327.90	6,831.14	6,884.29	6,857.04	50.84	11.92	88.94	180.68	-2,022.32	3,350.19	3,287.44	62.75	53.391	
9,400.00	6,829.41	6,882.81	6,855.55	52.09	11.92	88.90	180.68	-2,022.34	3,407.46	3,343.47	63.99	53.249	
9,500.00	6,827.00	6,880.76	6,853.51	53.82	11.91	88.85	180.68	-2,022.37	3,487.82	3,422.10	65.72	53.069	
9,600.00	6,824.60	6,878.74	6,851.48	55.56	11.91	88.79	180.68	-2,022.40	3,569.16	3,501.71	67.46	52.909	
9,700.00	6,822.19	6,876.74	6,849.48	57.31	11.91	88.73	180.68	-2,022.43	3,651.44	3,582.24	69.20	52.768	
9,800.00	6,819.79	6,874.75	6,847.50	59.06	11.90	88.68	180.68	-2,022.46	3,734.57	3,663.63	70.94	52.643	
9,900.00	6,817.38	6,872.79	6,845.53	60.81	11.90	88.62	180.68	-2,022.49	3,818.51	3,745.82	72.69	52.532	
10,000.00	6,814.97	6,870.85	6,843.59	62.56	11.90	88.57	180.68	-2,022.52	3,903.21	3,828.77	74.44	52.435	
10,100.00	6,812.57	6,868.92	6,841.66	64.32	11.89	88.52	180.68	-2,022.55	3,988.82	3,912.42	76.19	52.349	
10,200.00	6,810.16	6,867.01	6,839.76	66.08	11.89	88.46	180.69	-2,022.58	4,074.69	3,996.74	77.95	52.274	
10,300.00	6,807.76	6,865.12	6,837.87	67.85	11.89	88.41	180.69	-2,022.61	4,161.38	4,081.67	79.71	52.209	
10,400.00	6,805.35	6,863.25	6,836.00	69.61	11.88	88.36	180.69	-2,022.64	4,248.65	4,167.18	81.47	52.152	
10,500.00	6,802.95	6,861.40	6,834.14	71.38	11.88	88.31	180.69	-2,022.67	4,336.47	4,253.24	83.23	52.103	
10,600.00	6,800.54	6,859.56	6,832.31	73.15	11.88	88.25	180.70	-2,022.70	4,424.81	4,339.82	84.99	52.061	
10,700.00	6,798.14	6,846.95	6,819.70	74.92	11.85	87.90	180.72	-2,022.90	4,513.65	4,426.93	86.73	52.044	
10,800.00	6,795.73	6,846.95	6,819.70	76.70	11.85	87.90	180.72	-2,022.90	4,602.93	4,514.43	88.50	52.011	
10,900.00	6,793.33	6,846.95	6,819.70	78.47	11.85	87.90	180.72	-2,022.90	4,692.64	4,602.36	90.27	51.982	
11,000.00	6,790.92	6,846.95	6,819.70	80.25	11.85	87.90	180.72	-2,022.90	4,782.75	4,690.71	92.05	51.958	
11,100.00	6,788.51	6,846.95	6,819.70	82.03	11.85	87.90	180.72	-2,022.90	4,873.26	4,779.43	93.83	51.939	
11,200.00	6,786.11	6,846.95	6,819.70	83.81	11.85	87.90	180.72	-2,022.90	4,964.12	4,868.52	95.61	51.923	
11,246.07	6,785.00	6,846.95	6,819.70	84.63	11.85	87.90	180.72	-2,022.90	5,006.11	4,909.68	96.43	51.917 SF	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 5H - OH - OH											Offset Site Error:	0.00 usft
Survey Program: 233-ISCWSA-GYRO-3, 4541-LEAM MWD+IGRF, 9585-Project											Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		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	11.75	-0.25	0.00	0.01	-72.94	192.02	-625.54	654.35			
100.00	100.00	109.65	97.65	0.08	0.09	-72.93	192.15	-625.71	654.55	654.38	0.17	3,861.500
200.00	200.00	207.55	195.54	0.31	0.16	-72.91	192.49	-626.13	655.07	654.60	0.47	1,389.735
300.00	300.00	307.11	295.10	0.53	0.31	-72.90	192.79	-626.82	655.82	654.97	0.85	775.320
400.00	400.00	409.62	397.61	0.76	0.49	-72.95	192.50	-627.54	656.40	655.15	1.25	525.219
500.00	500.00	510.88	498.87	0.98	0.67	-73.00	192.04	-627.95	656.66	655.01	1.65	397.645
600.00	600.00	610.38	598.37	1.21	0.84	-73.05	191.53	-628.33	656.88	654.83	2.05	320.432
700.00	700.00	710.77	698.75	1.43	1.02	-73.12	190.81	-628.78	657.10	654.65	2.45	268.176
800.00	800.00	811.30	799.28	1.66	1.20	-73.20	189.97	-629.20	657.25	654.40	2.85	230.555
900.00	900.00	911.74	899.72	1.88	1.37	-73.24	189.49	-629.41	657.31	654.06	3.25	202.191
1,000.00	1,000.00	1,011.23	999.20	2.11	1.55	-73.30	188.93	-629.64	657.38	653.73	3.65	180.127
1,100.00	1,100.00	1,108.13	1,096.11	2.33	1.72	-73.32	188.73	-629.98	657.66	653.61	4.04	162.634
1,200.00	1,200.00	1,207.73	1,195.70	2.56	1.89	-73.33	188.90	-630.74	658.43	653.99	4.44	148.198
1,300.00	1,300.00	1,309.78	1,297.75	2.78	2.07	-73.31	189.27	-631.13	658.90	654.06	4.85	135.960
1,400.00	1,400.00	1,410.24	1,398.22	3.01	2.24	-73.29	189.52	-631.36	659.19	653.94	5.25	125.635
1,500.00	1,500.00	1,506.97	1,494.94	3.23	2.41	-73.27	189.87	-631.74	659.67	654.03	5.64	116.942
1,600.00	1,600.00	1,605.71	1,593.68	3.45	2.59	-73.26	190.27	-632.52	660.55	654.51	6.04	109.385
1,700.00	1,700.00	1,711.29	1,699.25	3.68	2.77	-73.27	190.28	-633.10	661.07	654.62	6.45	102.519
1,800.00	1,800.00	1,813.63	1,801.59	3.90	2.95	-73.31	189.83	-633.13	660.98	654.13	6.85	96.473
1,900.00	1,900.00	1,915.24	1,903.20	4.13	3.13	-73.35	189.30	-632.96	660.67	653.42	7.25	91.090
2,000.00	2,000.00	2,016.39	2,004.34	4.35	3.30	-73.42	188.33	-632.52	659.98	652.32	7.65	86.228
2,100.00	2,100.00	2,114.80	2,102.75	4.58	3.47	-73.49	187.39	-632.29	659.48	651.43	8.05	81.921
2,200.00	2,200.00	2,213.10	2,201.05	4.80	3.65	-73.56	186.58	-632.19	659.15	650.71	8.45	78.039
2,300.00	2,300.00	2,312.54	2,300.49	5.03	3.82	-73.57	186.40	-632.18	659.09	650.25	8.84	74.520
2,400.00	2,400.00	2,412.60	2,400.55	5.25	3.99	-73.59	186.16	-632.16	659.00	649.76	9.24	71.292
2,500.00	2,500.00	2,514.89	2,502.83	5.48	4.17	-73.63	185.71	-632.06	658.78	649.14	9.65	68.290
2,600.00	2,600.00	2,614.17	2,602.12	5.70	4.35	-73.68	185.06	-631.84	658.38	648.34	10.04	65.545
2,700.00	2,700.00	2,714.47	2,702.41	5.93	4.52	-73.72	184.49	-631.63	658.03	647.58	10.44	63.003
2,800.00	2,800.00	2,812.72	2,800.66	6.15	4.69	-73.77	183.87	-631.57	657.79	646.95	10.84	60.678
2,827.90	2,827.90	2,839.98	2,827.92	6.21	4.74	-73.78	183.74	-631.59	657.78	646.82	10.95	60.065
2,900.00	2,900.00	2,911.13	2,899.07	6.38	4.87	-73.79	183.60	-631.71	657.85	646.82	11.24	58.541
3,000.00	3,000.00	3,011.81	2,999.74	6.60	5.04	-73.80	183.57	-631.79	657.92	646.28	11.64	56.531
3,100.00	3,100.00	3,110.00	3,097.94	6.83	5.21	-73.79	183.66	-631.88	658.03	646.00	12.03	54.678
3,200.00	3,200.00	3,210.63	3,198.56	7.05	5.39	-73.74	184.35	-632.17	658.50	646.06	12.44	52.954
3,300.00	3,300.00	3,315.88	3,303.81	7.28	5.57	-73.66	185.18	-631.67	658.26	645.42	12.84	51.251
3,400.00	3,400.00	3,415.70	3,403.63	7.50	5.75	-73.62	185.42	-630.91	657.60	644.36	13.24	49.659
3,500.00	3,500.00	3,515.91	3,503.84	7.73	5.92	-73.63	185.20	-630.42	657.07	643.43	13.64	48.167
3,600.00	3,600.00	3,616.86	3,604.78	7.95	6.10	-73.66	184.67	-629.89	656.42	642.38	14.04	46.746
3,700.00	3,700.00	3,716.14	3,704.06	8.17	6.27	-73.70	184.06	-629.36	655.74	641.30	14.44	45.411
3,800.00	3,800.00	3,817.67	3,805.58	8.40	6.45	-73.71	183.67	-628.69	655.00	640.15	14.84	44.132
3,900.00	3,900.00	3,917.86	3,905.77	8.62	6.62	-73.70	183.59	-627.76	654.09	638.84	15.24	42.916
4,000.00	4,000.00	4,015.95	4,003.86	8.85	6.79	-73.70	183.35	-627.13	653.39	637.76	15.64	41.785
4,100.00	4,100.00	4,115.34	4,103.25	9.07	6.96	-73.73	182.89	-626.65	652.80	636.77	16.04	40.711
4,200.00	4,200.00	4,214.27	4,202.18	9.30	7.14	-73.75	182.53	-626.39	652.45	636.02	16.43	39.705
4,300.00	4,300.00	4,314.06	4,301.97	9.52	7.31	-73.79	182.04	-626.16	652.08	635.25	16.83	38.742
4,400.00	4,400.00	4,415.83	4,403.73	9.75	7.47	-73.83	181.54	-626.00	651.80	634.59	17.21	37.875
4,500.00	4,500.00	4,524.03	4,511.90	9.97	7.56	-73.98	179.48	-625.24	650.60	633.07	17.53	37.112
4,600.00	4,600.00	4,709.07	4,693.27	10.20	7.64	-76.54	148.20	-619.28	643.56	625.74	17.82	36.106
4,700.00	4,700.00	4,848.07	4,813.97	10.42	7.91	-82.42	81.09	-609.72	625.55	607.23	18.33	34.134
4,800.00	4,800.00	4,930.72	4,874.28	10.65	8.31	-87.64	24.93	-604.57	609.63	590.67	18.95	32.166
4,900.00	4,900.00	4,974.59	4,903.63	10.87	8.60	-90.72	-7.63	-603.18	603.24	583.77	19.47	30.984

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 5H - OH - OH														Offset Site Error:	0.00 usft
Survey Program: 233-ISCWSA-GYRO-3, 4541-LEAM MWD+IGRF, 9585-Project														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
4,905.40	4,905.40	4,977.33	4,905.40	10.88	8.62	-90.92		-8.72	-603.15	603.22	583.72	19.50	30.929	CC, ES	
5,000.00	5,000.00	5,015.00	4,928.24	11.10	8.91	-93.76		-39.66	-602.99	608.54	588.53	20.01	30.415		
5,100.00	5,100.00	5,050.20	4,946.38	11.32	9.26	-96.60		-89.80	-603.33	626.48	605.91	20.56	30.465		
5,200.00	5,200.00	5,062.00	4,951.61	11.55	9.37	-97.59		-80.37	-603.53	657.57	636.68	20.90	31.467		
5,300.00	5,300.00	5,088.65	4,961.84	11.77	9.69	-99.86		-104.96	-604.16	700.27	678.88	21.40	32.717		
5,400.00	5,400.00	5,110.00	4,968.46	12.00	9.94	-101.70		-125.24	-604.87	753.51	731.67	21.84	34.495		
5,500.00	5,500.00	5,110.00	4,968.46	12.22	9.94	-101.70		-125.24	-604.87	814.91	792.84	22.07	36.926		
5,600.00	5,600.00	5,110.00	4,968.46	12.45	9.94	-101.70		-125.24	-604.87	883.40	861.10	22.29	39.625		
5,700.00	5,700.00	5,124.18	4,972.00	12.67	10.12	-102.93		-138.96	-605.44	957.00	934.33	22.67	42.208		
5,800.00	5,800.00	5,141.00	4,975.18	12.89	10.34	-104.38		-155.45	-606.23	1,035.38	1,012.30	23.08	44.869		
5,900.00	5,900.00	5,141.00	4,975.18	13.12	10.34	-104.38		-155.45	-606.23	1,116.68	1,093.38	23.30	47.926		
6,000.00	6,000.00	5,141.00	4,975.18	13.34	10.34	-104.38		-155.45	-606.23	1,200.80	1,177.28	23.52	51.044		
6,100.00	6,100.00	5,141.00	4,975.18	13.57	10.34	-104.38		-155.45	-606.23	1,287.20	1,263.45	23.75	54.199		
6,200.00	6,200.00	5,141.00	4,975.18	13.79	10.34	-104.38		-155.45	-606.23	1,375.45	1,351.47	23.97	57.371		
6,300.00	6,300.00	5,141.00	4,975.18	14.02	10.34	-104.38		-155.45	-606.23	1,465.20	1,441.00	24.20	60.547		
6,349.00	6,349.00	5,141.00	4,975.18	14.13	10.34	-104.38		-155.45	-606.23	1,509.65	1,485.34	24.31	62.102		
6,350.00	6,350.00	5,141.00	4,975.18	14.13	10.34	69.11		-155.45	-606.23	1,510.56	1,486.16	24.41	61.894		
6,375.00	6,374.99	5,141.00	4,975.18	14.17	10.34	63.20		-155.45	-606.23	1,533.24	1,508.89	24.35	62.970		
6,400.00	6,399.90	5,141.00	4,975.18	14.22	10.34	57.81		-155.45	-606.23	1,555.74	1,531.49	24.25	64.152		
6,425.00	6,424.68	5,141.00	4,975.18	14.26	10.34	52.98		-155.45	-606.23	1,578.00	1,553.89	24.12	65.436		
6,450.00	6,449.25	5,141.00	4,975.18	14.30	10.34	48.68		-155.45	-606.23	1,599.99	1,576.05	23.94	66.822		
6,475.00	6,473.54	5,141.00	4,975.18	14.35	10.34	44.88		-155.45	-606.23	1,621.65	1,597.91	23.74	68.311		
6,500.00	6,497.50	5,141.00	4,975.18	14.39	10.34	41.55		-155.45	-606.23	1,642.93	1,619.43	23.50	69.904		
6,525.00	6,521.04	5,141.00	4,975.18	14.44	10.34	38.63		-155.45	-606.23	1,663.80	1,640.57	23.24	71.606		
6,550.00	6,544.12	5,141.00	4,975.18	14.48	10.34	35.05		-155.45	-606.23	1,684.21	1,661.27	22.94	73.422		
6,575.00	6,566.66	5,160.59	4,977.63	14.52	10.62	33.25		-174.87	-607.15	1,703.45	1,680.73	22.72	74.963		
6,600.00	6,588.60	5,162.90	4,977.84	14.57	10.65	31.27		-177.16	-607.25	1,722.67	1,700.29	22.38	76.975		
6,625.00	6,609.88	5,165.33	4,978.04	14.61	10.68	29.52		-179.58	-607.35	1,741.29	1,719.28	22.01	79.109		
6,650.00	6,630.46	5,167.88	4,978.22	14.65	10.72	27.97		-182.12	-607.46	1,759.28	1,737.66	21.62	81.370		
6,675.00	6,650.25	5,188.00	4,978.98	14.71	11.00	26.29		-202.21	-608.19	1,777.14	1,755.85	21.29	83.481		
6,700.00	6,669.23	5,188.00	4,978.96	14.78	11.00	25.15		-202.21	-608.19	1,793.62	1,772.77	20.85	86.039		
6,725.00	6,687.33	5,188.00	4,978.96	14.85	11.00	24.14		-202.21	-608.19	1,809.39	1,789.00	20.39	88.734		
6,750.00	6,704.49	5,188.00	4,978.96	14.93	11.00	23.23		-202.21	-608.19	1,824.44	1,804.51	19.93	91.562		
6,775.00	6,720.69	5,188.00	4,978.96	15.02	11.00	22.42		-202.21	-608.19	1,838.73	1,819.28	19.45	94.518		
6,800.00	6,735.86	5,188.00	4,978.96	15.12	11.00	21.69		-202.21	-608.19	1,852.26	1,833.28	18.98	97.592		
6,825.00	6,749.98	5,188.00	4,978.96	15.23	11.00	21.04		-202.21	-608.19	1,865.00	1,846.49	18.51	100.766		
6,850.00	6,763.00	5,201.89	4,978.97	15.34	11.21	20.35		-216.10	-608.63	1,876.84	1,858.74	18.10	103.692		
6,875.00	6,774.88	5,214.68	4,978.90	15.47	11.41	19.75		-228.88	-608.98	1,887.70	1,870.01	17.70	106.654		
6,900.00	6,785.59	5,227.73	4,978.74	15.61	11.60	19.22		-241.93	-609.31	1,897.57	1,880.26	17.32	109.571		
6,925.00	6,795.11	5,240.00	4,978.52	15.76	11.79	18.77		-254.19	-609.58	1,906.42	1,889.46	16.96	112.407		
6,950.00	6,803.40	5,258.42	4,978.10	15.92	12.09	18.34		-272.61	-609.94	1,914.21	1,897.54	16.66	114.866		
6,975.00	6,810.45	5,275.82	4,977.64	16.08	12.37	17.98		-289.99	-610.27	1,920.89	1,904.48	16.41	117.066		
7,000.00	6,816.24	5,293.44	4,977.10	16.26	12.65	17.68		-307.61	-610.57	1,926.45	1,910.25	16.20	118.883		
7,025.00	6,820.74	5,311.26	4,976.49	16.45	12.94	17.44		-325.41	-610.86	1,930.88	1,914.82	16.06	120.236		
7,050.00	6,823.95	5,331.00	4,975.73	16.65	13.26	17.24		-345.13	-611.16	1,934.17	1,918.19	15.99	120.998		
7,075.00	6,825.86	5,348.93	4,974.97	16.86	13.57	17.10		-363.05	-611.40	1,936.29	1,920.31	15.99	121.125		
7,097.77	6,826.46	5,367.11	4,974.16	17.06	13.88	17.00		-381.21	-611.63	1,937.20	1,921.14	16.06	120.638		
7,100.00	6,826.47	5,368.90	4,974.08	17.08	13.91	17.00		-382.99	-611.65	1,937.24	1,921.17	16.07	120.515		
7,200.00	6,826.73	5,577.31	4,967.00	18.02	17.43	16.21		-591.21	-608.98	1,938.25	1,920.79	17.46	111.035		
7,300.00	6,826.98	5,672.71	4,966.57	19.10	19.13	15.75		-686.44	-603.37	1,934.29	1,915.88	18.41	105.065		

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 5H - OH - OH														Offset Site Error:	0.00 usft
Survey Program: 233-ISCWSA-GYRO-3, 4541-LEAM MWD+IGRF, 9585-Project														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (')	Distance		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	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)										
7,400.00	6,827.24	5,814.73	4,966.33	20.27	21.75	15.01	-828.07	-593.11	1,929.81	1,910.16	19.66	98.180			
7,500.00	6,827.50	5,907.71	4,966.50	21.54	23.51	14.49	-920.70	-585.03	1,924.80	1,904.10	20.70	92.990			
7,600.00	6,827.76	6,058.25	4,967.91	22.88	26.36	13.57	-1,070.39	-569.17	1,918.96	1,886.93	22.03	87.112			
7,700.00	6,828.01	6,148.00	4,971.08	24.28	27.99	13.08	-1,159.75	-561.52	1,911.25	1,888.14	23.11	82.697			
7,800.00	6,828.27	6,243.00	4,974.07	25.73	29.80	12.63	-1,254.52	-555.60	1,904.54	1,880.28	24.27	78.481			
7,900.00	6,828.53	6,294.53	4,974.85	27.22	30.79	12.39	-1,305.98	-553.22	1,899.61	1,874.39	25.22	75.318			
8,000.00	6,828.79	6,361.99	4,975.19	28.75	32.10	12.13	-1,373.42	-551.58	1,896.51	1,870.22	26.29	72.146			
8,100.00	6,829.04	6,433.00	4,974.44	30.31	33.47	11.87	-1,444.42	-550.60	1,895.19	1,867.80	27.39	69.194			
8,133.03	6,829.13	6,453.54	4,974.01	30.84	33.88	11.79	-1,464.96	-550.40	1,895.11	1,867.37	27.74	68.312			
8,200.00	6,829.30	6,505.27	4,972.67	31.90	34.90	11.60	-1,516.67	-548.95	1,895.39	1,866.87	28.51	66.479			
8,300.00	6,829.56	6,676.28	4,970.58	33.51	38.23	10.88	-1,687.54	-544.68	1,883.90	1,863.76	30.15	62.824			
8,400.00	6,829.82	6,829.63	4,972.28	35.14	41.20	10.11	-1,840.58	-535.29	1,890.02	1,858.39	31.63	59.759			
8,500.00	6,830.07	6,921.41	4,974.60	36.79	43.00	9.65	-1,932.15	-529.41	1,884.74	1,851.94	32.80	57.459			
8,600.00	6,830.33	7,016.30	4,976.95	38.45	44.87	9.19	-2,026.87	-524.34	1,879.84	1,845.84	34.00	55.282			
8,700.00	6,830.59	7,106.92	4,978.97	40.12	46.66	8.77	-2,117.36	-519.91	1,875.37	1,840.18	35.19	53.292			
8,800.00	6,830.85	7,189.00	4,980.40	41.81	48.29	8.40	-2,199.35	-516.36	1,871.62	1,835.28	36.34	51.505			
8,900.00	6,831.10	7,273.40	4,981.28	43.50	49.95	8.04	-2,283.70	-513.63	1,868.80	1,831.29	37.51	49.822			
9,000.00	6,831.36	7,353.02	4,981.44	45.21	51.53	7.73	-2,363.30	-511.99	1,867.07	1,828.40	38.67	48.285			
9,100.00	6,831.62	7,434.78	4,980.88	46.92	53.16	7.43	-2,445.07	-511.20	1,866.42	1,826.57	39.85	46.837			
9,117.11	6,831.66	7,448.97	4,980.72	47.21	53.44	7.38	-2,459.25	-511.11	1,866.41	1,826.35	40.05	46.598			
9,200.00	6,831.88	7,521.51	4,979.61	48.64	54.89	7.12	-2,531.78	-510.72	1,866.68	1,825.61	41.06	45.459			
9,248.03	6,832.00	7,568.00	4,978.71	49.46	55.81	6.95	-2,578.26	-510.31	1,867.02	1,825.35	41.67	44.805			
9,300.00	6,831.68	7,630.75	4,977.60	50.36	57.05	6.70	-2,640.98	-509.16	1,866.83	1,824.51	42.32	44.114			
9,327.90	6,831.14	7,667.32	4,977.13	50.84	57.77	6.54	-2,677.53	-508.02	1,866.18	1,823.51	42.67	43.735			
9,400.00	6,829.41	7,758.00	4,976.74	52.09	59.54	6.09	-2,768.12	-503.86	1,863.42	1,819.77	43.65	42.689			
9,500.00	6,827.00	7,852.00	4,976.38	53.82	61.40	5.61	-2,861.99	-499.00	1,859.67	1,814.82	44.85	41.464			
9,600.00	6,824.60	7,972.80	4,976.50	55.56	63.80	4.98	-2,962.60	-492.23	1,855.55	1,809.36	46.19	40.172			
9,700.00	6,822.19	8,058.16	4,976.83	57.31	65.49	4.53	-3,067.82	-487.46	1,851.32	1,803.96	47.36	39.091			
9,800.00	6,819.79	8,138.14	4,976.43	59.06	67.11	4.12	-3,147.69	-483.21	1,848.12	1,799.61	48.51	38.099			
9,900.00	6,817.38	8,249.24	4,975.83	60.81	69.30	3.56	-3,258.67	-478.10	1,845.16	1,795.31	49.85	37.015			
10,000.00	6,814.97	8,355.97	4,975.65	62.56	71.41	3.04	-3,365.31	-473.75	1,842.02	1,790.83	51.19	35.987			
10,100.00	6,812.57	8,465.01	4,976.52	64.32	73.55	2.51	-3,474.26	-469.42	1,838.01	1,785.46	52.56	34.971			
10,200.00	6,810.16	8,564.54	4,977.13	66.08	75.50	2.06	-3,573.74	-466.40	1,834.40	1,780.51	53.90	34.036			
10,300.00	6,807.76	8,664.78	4,978.24	67.85	77.46	1.61	-3,673.94	-463.73	1,830.41	1,775.16	55.26	33.126			
10,400.00	6,805.35	8,757.29	4,978.92	69.61	79.29	1.22	-3,766.43	-462.06	1,826.93	1,770.34	56.59	32.285			
10,500.00	6,802.95	8,847.68	4,979.32	71.38	81.09	0.84	-3,856.80	-460.42	1,823.83	1,765.92	57.92	31.490			
10,600.00	6,800.54	8,966.22	4,979.66	73.15	83.44	0.35	-3,975.33	-458.51	1,821.06	1,761.60	59.46	30.626			
10,700.00	6,798.14	9,070.24	4,981.24	74.92	85.48	-0.13	-4,079.30	-455.74	1,817.09	1,756.16	60.93	29.823			
10,800.00	6,795.73	9,166.13	4,982.59	76.70	87.38	-0.59	-4,175.11	-452.30	1,813.36	1,751.00	62.36	29.077			
10,900.00	6,793.33	9,260.38	4,983.72	78.47	89.26	-1.05	-4,269.30	-448.85	1,809.96	1,746.15	63.81	28.364			
11,000.00	6,790.92	9,351.05	4,984.50	80.25	91.09	-1.48	-4,359.91	-445.92	1,807.03	1,741.77	65.26	27.691			
11,100.00	6,788.51	9,459.00	4,985.45	82.03	93.25	-2.01	-4,467.79	-442.09	1,804.20	1,737.32	66.88	26.978			
11,200.00	6,786.11	9,549.27	4,986.30	83.81	94.65	-2.47	-4,557.97	-438.12	1,801.49	1,733.26	68.23	26.404			
11,246.07	6,785.00	9,585.00	4,986.54	84.63	94.65	-2.65	-4,593.67	-436.55	1,800.42	1,731.84	68.58	26.253 SF			

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 6H - OH - Plan #1 Draft 1														Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD-ADJ														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	49.00	0.00	0.00	0.04	-88.25	142.29	-4,666.08	4,668.25						
100.00	100.00	149.00	100.00	0.08	0.19	-88.25	142.29	-4,666.08	4,668.25	4,667.97	0.28	N/A			
200.00	200.00	249.00	200.00	0.31	0.42	-88.25	142.29	-4,666.08	4,668.25	4,667.52	0.73	6,430.144			
300.00	300.00	349.00	300.00	0.53	0.64	-88.25	142.29	-4,666.08	4,668.25	4,667.07	1.18	3,971.198			
400.00	400.00	449.00	400.00	0.76	0.87	-88.25	142.29	-4,666.08	4,668.25	4,666.62	1.63	2,872.665			
500.00	500.00	549.00	500.00	0.98	1.09	-88.25	142.29	-4,666.08	4,668.25	4,666.17	2.07	2,250.202			
600.00	600.00	649.00	600.00	1.21	1.32	-88.25	142.29	-4,666.08	4,668.25	4,665.73	2.52	1,849.454			
700.00	700.00	749.00	700.00	1.43	1.54	-88.25	142.29	-4,666.08	4,668.25	4,665.28	2.97	1,569.869			
800.00	800.00	849.00	800.00	1.66	1.77	-88.25	142.29	-4,666.08	4,668.25	4,664.83	3.42	1,363.714			
900.00	900.00	949.00	900.00	1.88	1.99	-88.25	142.29	-4,666.08	4,668.25	4,664.38	3.87	1,205.419			
1,000.00	1,000.00	1,049.00	1,000.00	2.11	2.22	-88.25	142.29	-4,666.08	4,668.25	4,663.93	4.32	1,080.050			
1,100.00	1,100.00	1,149.00	1,100.00	2.33	2.44	-88.25	142.29	-4,666.08	4,668.25	4,663.48	4.77	978.303			
1,200.00	1,200.00	1,249.00	1,200.00	2.56	2.67	-88.25	142.29	-4,666.08	4,668.25	4,663.03	5.22	894.075			
1,300.00	1,300.00	1,349.00	1,300.00	2.78	2.89	-88.25	142.29	-4,666.08	4,668.25	4,662.58	5.67	823.201			
1,400.00	1,400.00	1,449.00	1,400.00	3.01	3.12	-88.25	142.29	-4,666.08	4,668.25	4,662.13	6.12	762.739			
1,500.00	1,500.00	1,549.00	1,500.00	3.23	3.34	-88.25	142.29	-4,666.08	4,668.25	4,661.68	6.57	710.550			
1,600.00	1,600.00	1,649.00	1,600.00	3.45	3.56	-88.25	142.29	-4,666.08	4,668.25	4,661.23	7.02	665.045			
1,700.00	1,700.00	1,749.00	1,700.00	3.68	3.79	-88.25	142.29	-4,666.08	4,668.25	4,660.78	7.47	625.019			
1,800.00	1,800.00	1,849.00	1,800.00	3.90	4.01	-88.25	142.29	-4,666.08	4,668.25	4,660.33	7.92	589.536			
1,900.00	1,900.00	1,949.00	1,900.00	4.13	4.24	-88.25	142.29	-4,666.08	4,668.25	4,659.88	8.37	557.867			
2,000.00	2,000.00	2,049.00	2,000.00	4.35	4.46	-88.25	142.29	-4,666.08	4,668.25	4,659.43	8.82	529.426			
2,100.00	2,100.00	2,149.00	2,100.00	4.58	4.69	-88.25	142.29	-4,666.08	4,668.25	4,658.98	9.27	503.744			
2,200.00	2,200.00	2,249.00	2,200.00	4.80	4.91	-88.25	142.29	-4,666.08	4,668.25	4,658.53	9.72	480.439			
2,300.00	2,300.00	2,349.00	2,300.00	5.03	5.14	-88.25	142.29	-4,666.08	4,668.25	4,658.08	10.17	459.195			
2,400.00	2,400.00	2,449.00	2,400.00	5.25	5.36	-88.25	142.29	-4,666.08	4,668.25	4,657.63	10.62	439.750			
2,500.00	2,500.00	2,549.00	2,500.00	5.48	5.59	-88.25	142.29	-4,666.08	4,668.25	4,657.18	11.07	421.884			
2,600.00	2,600.00	2,649.00	2,600.00	5.70	5.81	-88.25	142.29	-4,666.08	4,668.25	4,656.73	11.51	405.414			
2,700.00	2,700.00	2,749.00	2,700.00	5.93	6.04	-88.25	142.29	-4,666.08	4,668.25	4,656.28	11.96	390.182			
2,800.00	2,800.00	2,849.00	2,800.00	6.15	6.26	-88.25	142.29	-4,666.08	4,668.25	4,655.84	12.41	376.052			
2,900.00	2,900.00	2,949.00	2,900.00	6.38	6.49	-88.25	142.29	-4,666.08	4,668.25	4,655.39	12.86	362.911			
3,000.00	3,000.00	3,049.00	3,000.00	6.60	6.71	-88.25	142.29	-4,666.08	4,668.25	4,654.94	13.31	350.656			
3,100.00	3,100.00	3,149.00	3,100.00	6.83	6.94	-88.25	142.29	-4,666.08	4,668.25	4,654.49	13.76	339.203			
3,200.00	3,200.00	3,249.00	3,200.00	7.05	7.16	-88.25	142.29	-4,666.08	4,668.25	4,654.04	14.21	328.473			
3,300.00	3,300.00	3,349.00	3,300.00	7.28	7.39	-88.25	142.29	-4,666.08	4,668.25	4,653.59	14.66	318.402			
3,400.00	3,400.00	3,449.00	3,400.00	7.50	7.61	-88.25	142.29	-4,666.08	4,668.25	4,653.14	15.11	308.930			
3,500.00	3,500.00	3,549.00	3,500.00	7.73	7.84	-88.25	142.29	-4,666.08	4,668.25	4,652.69	15.56	300.005			
3,600.00	3,600.00	3,649.00	3,600.00	7.95	8.06	-88.25	142.29	-4,666.08	4,668.25	4,652.24	16.01	291.582			
3,700.00	3,700.00	3,749.00	3,700.00	8.17	8.28	-88.25	142.29	-4,666.08	4,668.25	4,651.79	16.46	283.618			
3,800.00	3,800.00	3,849.00	3,800.00	8.40	8.51	-88.25	142.29	-4,666.08	4,668.25	4,651.34	16.91	276.078			
3,900.00	3,900.00	3,949.00	3,900.00	8.62	8.73	-88.25	142.29	-4,666.08	4,668.25	4,650.89	17.36	268.929			
4,000.00	4,000.00	4,049.00	4,000.00	8.85	8.96	-88.25	142.29	-4,666.08	4,668.25	4,650.44	17.81	262.140			
4,100.00	4,100.00	4,149.00	4,100.00	9.07	9.18	-88.25	142.29	-4,666.08	4,668.25	4,649.99	18.26	255.886			
4,200.00	4,200.00	4,249.00	4,200.00	9.30	9.41	-88.25	142.29	-4,666.08	4,668.25	4,649.54	18.71	249.542			
4,300.00	4,300.00	4,349.00	4,300.00	9.52	9.63	-88.25	142.29	-4,666.08	4,668.25	4,649.09	19.16	243.686			
4,400.00	4,400.00	4,449.00	4,400.00	9.75	9.86	-88.25	142.29	-4,666.08	4,668.25	4,648.64	19.61	238.089			
4,500.00	4,500.00	4,549.00	4,500.00	9.97	10.08	-88.25	142.29	-4,666.08	4,668.25	4,648.19	20.06	232.762			
4,600.00	4,600.00	4,649.00	4,600.00	10.20	10.31	-88.25	142.29	-4,666.08	4,668.25	4,647.74	20.51	227.659			
4,700.00	4,700.00	4,749.00	4,700.00	10.42	10.53	-88.25	142.29	-4,666.08	4,668.25	4,647.29	20.95	222.776			
4,800.00	4,800.00	4,849.00	4,800.00	10.65	10.76	-88.25	142.29	-4,666.08	4,668.25	4,646.84	21.40	218.097			
4,900.00	4,900.00	4,949.00	4,900.00	10.87	10.98	-88.25	142.29	-4,666.08	4,668.25	4,646.40	21.85	213.611			
5,000.00	5,000.00	5,049.00	5,000.00	11.10	11.21	-88.25	142.29	-4,666.08	4,668.25	4,645.95	22.30	209.305			

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 6H - OH - Plan #1 Draft 1													Offset Site Error: 0.00 usft	
Survey Program: O-LEAM MWD-ADJ													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	5,100.00	5,149.00	5,100.00	11.32	11.43	-88.25	142.29	-4,666.08	4,668.25	4,645.50	22.75	205.170		
5,200.00	5,200.00	5,249.00	5,200.00	11.55	11.66	-88.25	142.29	-4,666.08	4,668.25	4,645.05	23.20	201.195		
5,300.00	5,300.00	5,349.00	5,300.00	11.77	11.88	-88.25	142.29	-4,666.08	4,668.25	4,644.60	23.65	197.371		
5,400.00	5,400.00	5,449.00	5,400.00	12.00	12.11	-88.25	142.29	-4,666.08	4,668.25	4,644.15	24.10	193.690		
5,500.00	5,500.00	5,549.00	5,500.00	12.22	12.33	-88.25	142.29	-4,666.08	4,668.25	4,643.70	24.55	190.143		
5,600.00	5,600.00	5,649.00	5,600.00	12.45	12.56	-88.25	142.29	-4,666.08	4,668.25	4,643.25	25.00	186.725		
5,700.00	5,700.00	5,749.00	5,700.00	12.67	12.78	-88.25	142.29	-4,666.08	4,668.25	4,642.80	25.45	183.426		
5,800.00	5,800.00	5,849.00	5,800.00	12.89	13.00	-88.25	142.29	-4,666.08	4,668.25	4,642.35	25.90	180.243		
5,900.00	5,900.00	5,949.00	5,900.00	13.12	13.23	-88.25	142.29	-4,666.08	4,668.25	4,641.90	26.35	177.168		
6,000.00	6,000.00	6,049.00	6,000.00	13.34	13.45	-88.25	142.29	-4,666.08	4,668.25	4,641.45	26.80	174.196		
6,100.00	6,100.00	6,149.00	6,100.00	13.57	13.68	-88.25	142.29	-4,666.08	4,668.25	4,641.00	27.25	171.322		
6,200.00	6,200.00	6,249.00	6,200.00	13.79	13.90	-88.25	142.29	-4,666.08	4,668.25	4,640.55	27.70	168.542		
6,300.00	6,300.00	6,349.00	6,300.00	14.02	14.13	-88.25	142.29	-4,666.08	4,668.25	4,640.10	28.15	165.850		
6,349.00	6,349.00	6,398.00	6,349.00	14.13	14.24	-88.25	142.29	-4,666.08	4,668.25	4,639.88	28.37	164.562		
6,350.00	6,350.00	6,399.00	6,350.00	14.13	14.24	85.48	142.29	-4,666.08	4,668.25	4,639.88	28.37	164.538		
6,375.00	6,374.99	6,423.99	6,374.99	14.17	14.30	85.50	142.29	-4,666.08	4,668.19	4,639.72	28.47	163.975		
6,400.00	6,399.90	6,448.90	6,399.90	14.22	14.35	85.54	142.29	-4,666.08	4,668.04	4,639.47	28.56	163.419		
6,425.00	6,424.68	6,473.68	6,424.68	14.26	14.41	85.61	142.29	-4,666.08	4,667.78	4,639.12	28.66	162.870		
6,450.00	6,449.25	6,498.25	6,449.25	14.30	14.46	85.71	142.29	-4,666.08	4,667.42	4,638.67	28.75	162.328		
6,475.00	6,473.54	6,522.54	6,473.54	14.35	14.52	85.83	142.29	-4,666.08	4,666.98	4,638.13	28.85	161.790		
6,500.00	6,497.50	6,546.50	6,497.50	14.39	14.57	85.98	142.29	-4,666.08	4,666.44	4,637.51	28.94	161.255		
6,525.00	6,521.04	6,570.04	6,521.04	14.44	14.63	86.15	142.29	-4,666.08	4,665.83	4,636.80	29.03	160.721		
6,550.00	6,544.12	6,593.12	6,544.12	14.48	14.68	86.34	142.29	-4,666.08	4,665.15	4,636.03	29.12	160.185		
6,575.00	6,566.66	6,615.66	6,566.66	14.52	14.73	86.55	142.29	-4,666.08	4,664.41	4,635.19	29.22	159.644		
6,600.00	6,588.60	6,637.60	6,588.60	14.57	14.78	86.77	142.29	-4,666.08	4,663.61	4,634.30	29.31	159.094		
6,625.00	6,609.88	6,658.88	6,609.88	14.61	14.83	87.01	142.29	-4,666.08	4,662.78	4,633.37	29.41	158.534		
6,650.00	6,630.46	6,679.46	6,630.46	14.65	14.87	87.26	142.29	-4,666.08	4,661.92	4,632.40	29.51	157.959		
6,675.00	6,650.25	6,699.25	6,650.25	14.71	14.92	87.51	142.29	-4,666.08	4,661.04	4,631.42	29.62	157.368		
6,700.00	6,669.23	6,718.23	6,669.23	14.78	14.96	87.77	142.29	-4,666.08	4,660.16	4,630.43	29.73	156.757		
6,725.00	6,687.33	6,736.33	6,687.33	14.85	15.00	88.03	142.29	-4,666.08	4,659.28	4,629.44	29.84	156.125		
6,750.00	6,704.49	6,753.49	6,704.49	14.93	15.04	88.28	142.29	-4,666.08	4,658.43	4,628.47	29.96	155.469		
6,775.00	6,720.69	6,769.69	6,720.69	15.02	15.07	88.53	142.29	-4,666.08	4,657.62	4,627.53	30.09	154.789		
6,800.00	6,735.86	6,784.86	6,735.86	15.12	15.11	88.77	142.29	-4,666.08	4,656.85	4,626.63	30.22	154.082		
6,825.00	6,749.98	6,798.98	6,749.98	15.23	15.14	89.00	142.29	-4,666.08	4,656.14	4,625.78	30.36	153.349		
6,850.00	6,763.00	6,812.00	6,763.00	15.34	15.17	89.21	142.29	-4,666.08	4,655.51	4,625.00	30.51	152.588		
6,875.00	6,774.88	6,823.88	6,774.88	15.47	15.20	89.41	142.29	-4,666.08	4,654.95	4,624.29	30.67	151.800		
6,900.00	6,785.59	6,834.59	6,785.59	15.61	15.22	89.58	142.29	-4,666.08	4,654.49	4,623.67	30.83	150.985		
6,925.00	6,795.11	6,844.11	6,795.11	15.76	15.24	89.73	142.29	-4,666.08	4,654.14	4,623.14	31.00	150.145		
6,950.00	6,803.40	6,852.40	6,803.40	15.92	15.26	89.86	142.29	-4,666.08	4,653.89	4,622.71	31.18	149.281		
6,975.00	6,810.45	6,859.45	6,810.45	16.08	15.28	89.96	142.29	-4,666.08	4,653.76	4,622.40	31.36	148.394		
6,988.27	6,813.68	6,862.68	6,813.68	16.18	15.28	90.00	142.29	-4,666.08	4,653.74	4,622.28	31.46	147.909		
7,000.00	6,816.24	6,865.24	6,816.24	16.26	15.29	90.03	142.29	-4,666.08	4,653.76	4,622.20	31.55	147.487		
7,025.00	6,820.74	6,869.74	6,820.74	16.45	15.30	90.07	142.29	-4,666.08	4,653.88	4,622.13	31.75	146.563		
7,050.00	6,823.95	6,872.95	6,823.95	16.65	15.31	90.08	142.29	-4,666.08	4,654.14	4,622.18	31.96	145.626		
7,075.00	6,825.86	6,874.86	6,825.86	16.86	15.31	90.05	142.29	-4,666.08	4,654.53	4,622.36	32.17	144.678		
7,097.77	6,826.46	8,528.16	7,752.83	17.06	24.42	101.66	-820.23	-4,596.24	4,650.69	4,610.13	40.56	114.656		
7,100.00	6,826.47	8,530.35	7,752.79	17.08	24.45	101.66	-822.42	-4,596.08	4,650.28	4,609.67	40.61	114.513		
7,200.00	6,826.73	8,628.88	7,750.97	18.02	25.79	101.68	-920.48	-4,588.97	4,632.16	4,589.34	42.82	108.177		
7,300.00	6,826.98	8,727.01	7,749.16	19.10	27.19	101.70	-1,018.53	-4,581.86	4,614.03	4,568.82	45.21	102.058		
7,400.00	6,827.24	8,825.35	7,747.35	20.27	28.63	101.72	-1,116.59	-4,574.74	4,595.91	4,548.15	47.75	96.248		

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

Leam Drilling Systems LLC

Anticollision Report

Company:-	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 6H - OH - Plan #1 Draft 1													Offset Site Error: 0.00 usft	
Survey Program: O-LEAM MWD-ADJ													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)				
7,500.00	6,827.50	8,923.68	7,745.53	21.54	30.12	101.74	-1,214.64	-4,567.63	4,577.78	4,527.36	50.42	90.796		
7,600.00	6,827.76	9,022.01	7,743.72	22.88	31.64	101.76	-1,312.70	-4,560.51	4,559.66	4,506.46	53.19	85.719		
7,700.00	6,828.01	9,120.34	7,741.91	24.28	33.19	101.78	-1,410.76	-4,553.40	4,541.53	4,485.47	56.06	81.014		
7,800.00	6,828.27	9,218.67	7,740.10	25.73	34.77	101.80	-1,508.81	-4,546.28	4,523.41	4,464.41	59.00	76.668		
7,900.00	6,828.53	9,317.00	7,738.28	27.22	36.38	101.82	-1,606.87	-4,539.17	4,505.29	4,443.28	62.01	72.658		
8,000.00	6,828.79	9,415.33	7,736.47	28.75	38.00	101.84	-1,704.93	-4,532.05	4,487.16	4,422.10	65.07	68.961		
8,100.00	6,829.04	9,513.66	7,734.66	30.31	39.64	101.86	-1,802.98	-4,524.94	4,469.04	4,400.86	68.18	65.550		
8,200.00	6,829.30	9,611.99	7,732.85	31.90	41.30	101.88	-1,901.04	-4,517.82	4,450.92	4,379.59	71.33	62.401		
8,300.00	6,829.56	9,710.32	7,731.03	33.51	42.97	101.91	-1,999.09	-4,510.71	4,432.80	4,358.29	74.51	59.489		
8,400.00	6,829.82	9,808.65	7,729.22	35.14	44.66	101.93	-2,097.15	-4,503.59	4,414.68	4,336.95	77.73	56.794		
8,500.00	6,830.07	9,906.98	7,727.41	36.79	46.35	101.95	-2,195.21	-4,496.48	4,396.56	4,315.59	80.97	54.296		
8,600.00	6,830.33	10,005.32	7,725.59	38.45	48.06	101.97	-2,293.26	-4,489.37	4,378.44	4,294.20	84.24	51.974		
8,700.00	6,830.59	10,103.65	7,723.78	40.12	49.77	101.99	-2,391.32	-4,482.25	4,360.33	4,272.80	87.53	49.815		
8,800.00	6,830.85	10,201.98	7,721.97	41.81	51.49	102.02	-2,489.38	-4,475.14	4,342.21	4,251.37	90.84	47.802		
8,900.00	6,831.10	10,300.31	7,720.16	43.50	53.22	102.04	-2,587.43	-4,468.02	4,324.09	4,229.93	94.16	45.922		
9,000.00	6,831.36	10,398.64	7,718.34	45.21	54.95	102.06	-2,685.49	-4,460.91	4,305.98	4,208.48	97.50	44.164		
9,100.00	6,831.62	10,496.97	7,716.53	46.92	56.70	102.09	-2,783.55	-4,453.79	4,287.86	4,187.01	100.85	42.517		
9,200.00	6,831.88	10,595.30	7,714.72	48.64	58.44	102.11	-2,881.60	-4,446.68	4,269.75	4,165.53	104.21	40.971		
9,248.03	6,832.00	10,642.53	7,713.85	49.46	59.28	102.12	-2,928.70	-4,443.26	4,261.05	4,155.21	105.83	40.262		
9,300.00	6,831.68	10,693.61	7,712.91	50.36	60.19	102.33	-2,979.64	-4,439.56	4,251.59	4,144.09	107.50	39.549		
9,327.90	6,831.14	10,721.02	7,712.40	50.84	60.68	102.45	-3,006.97	-4,437.58	4,246.48	4,138.09	108.39	39.177		
9,400.00	6,829.41	10,791.82	7,711.10	52.09	61.95	102.50	-3,077.57	-4,432.46	4,233.26	4,122.44	110.82	38.201		
9,500.00	6,827.00	10,890.02	7,709.29	53.82	63.70	102.56	-3,175.50	-4,425.35	4,214.92	4,100.73	114.19	36.912		
9,600.00	6,824.60	10,988.22	7,707.48	55.56	65.47	102.62	-3,273.42	-4,418.25	4,196.58	4,079.02	117.56	35.696		
9,700.00	6,822.19	11,086.42	7,705.67	57.31	67.23	102.69	-3,371.35	-4,411.14	4,178.25	4,057.30	120.95	34.546		
9,800.00	6,819.79	11,184.62	7,703.85	59.06	69.00	102.75	-3,469.27	-4,404.04	4,159.92	4,035.59	124.34	33.457		
9,900.00	6,817.38	11,282.82	7,702.04	60.81	70.77	102.82	-3,567.20	-4,396.93	4,141.60	4,013.87	127.73	32.425		
10,000.00	6,814.97	11,381.02	7,700.23	62.56	72.54	102.88	-3,665.12	-4,389.83	4,123.28	3,992.16	131.13	31.445		
10,100.00	6,812.57	11,479.21	7,698.42	64.32	74.32	102.95	-3,763.05	-4,382.72	4,104.97	3,970.45	134.53	30.514		
10,200.00	6,810.16	11,577.41	7,696.61	66.08	76.10	103.01	-3,860.97	-4,375.62	4,086.67	3,948.74	137.93	29.629		
10,300.00	6,807.76	11,675.61	7,694.80	67.85	77.88	103.08	-3,958.90	-4,368.51	4,068.37	3,927.03	141.34	28.785		
10,400.00	6,805.35	11,773.81	7,692.99	69.61	79.66	103.15	-4,056.83	-4,361.41	4,050.07	3,905.33	144.74	27.981		
10,500.00	6,802.95	11,872.01	7,691.18	71.38	81.45	103.22	-4,154.75	-4,354.30	4,031.78	3,883.63	148.15	27.213		
10,600.00	6,800.54	11,970.21	7,689.37	73.15	83.24	103.29	-4,252.68	-4,347.20	4,013.50	3,861.93	151.57	26.480		
10,700.00	6,798.14	12,068.41	7,687.56	74.92	85.02	103.35	-4,350.60	-4,340.09	3,995.22	3,840.24	154.98	25.779		
10,800.00	6,795.73	12,166.61	7,685.75	76.70	86.81	103.42	-4,448.53	-4,332.99	3,976.95	3,818.55	158.40	25.108		
10,900.00	6,793.33	12,264.81	7,683.94	78.47	88.61	103.50	-4,546.45	-4,325.88	3,958.68	3,796.87	161.81	24.465		
11,000.00	6,790.92	12,363.01	7,682.13	80.25	90.40	103.57	-4,644.38	-4,318.78	3,940.42	3,775.19	165.23	23.849		
11,100.00	6,788.51	12,370.13	7,682.00	82.03	90.53	103.57	-4,651.48	-4,318.26	3,923.22	3,756.14	167.09	23.480		
11,200.00	6,786.11	12,370.13	7,682.00	83.81	90.53	103.57	-4,651.48	-4,318.26	3,908.50	3,739.68	168.82	23.151		
11,246.07	6,785.00	12,370.13	7,682.00	84.63	90.53	103.57	-4,651.48	-4,318.26	3,902.56	3,732.94	169.62	23.007 CC, ES, SF		

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design: Lone Tree Draw "13" State - 7H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 100-NS-GYRO-MS, 2922-LEAM MWD-ADJ, 12456-Project												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	35.10	1.10	0.00	0.03	-86.65	177.09	-3,023.56	3,028.74				
100.00	100.00	133.25	99.25	0.08	0.17	-86.65	177.15	-3,023.50	3,028.68	3,028.43	0.25	N/A	
200.00	200.00	223.97	189.96	0.31	0.36	-86.64	177.45	-3,023.66	3,028.86	3,028.21	0.67	4,538.390	
300.00	300.00	317.44	283.44	0.53	0.55	-86.64	177.72	-3,024.04	3,029.31	3,028.23	1.08	2,807.182	
400.00	400.00	400.00	366.00	0.76	0.70	-86.64	177.58	-3,024.62	3,030.02	3,028.56	1.45	2,084.771	
500.00	500.00	490.49	456.47	0.98	0.86	-86.66	176.77	-3,025.69	3,031.16	3,029.32	1.84	1,649.646	
600.00	600.00	584.54	550.50	1.21	1.04	-86.69	175.28	-3,027.24	3,032.72	3,030.47	2.25	1,348.015	
700.00	700.00	693.92	659.86	1.43	1.29	-86.72	173.64	-3,028.99	3,034.23	3,031.51	2.72	1,115.485	
800.00	800.00	787.28	763.20	1.66	1.54	-86.74	172.86	-3,030.34	3,035.49	3,032.29	3.20	948.533	
900.00	900.00	886.11	852.02	1.88	1.77	-86.74	172.45	-3,031.60	3,036.88	3,033.23	3.65	831.432	
1,000.00	1,000.00	976.35	942.25	2.11	2.01	-86.75	172.18	-3,033.19	3,038.63	3,034.52	4.11	739.165	
1,100.00	1,100.00	1,084.98	1,050.86	2.33	2.29	-86.75	172.09	-3,035.19	3,040.46	3,035.85	4.62	658.685	
1,200.00	1,200.00	1,182.35	1,148.22	2.56	2.54	-86.76	171.91	-3,036.78	3,042.08	3,036.99	5.09	597.501	
1,300.00	1,300.00	1,255.24	1,221.09	2.78	2.73	-86.78	171.15	-3,038.32	3,044.16	3,038.66	5.50	553.126	
1,400.00	1,400.00	1,343.34	1,309.12	3.01	2.95	-86.81	169.35	-3,041.10	3,047.17	3,041.22	5.95	512.021	
1,500.00	1,500.00	1,462.90	1,428.58	3.23	3.24	-86.88	165.91	-3,044.42	3,049.78	3,043.31	6.47	471.429	
1,600.00	1,600.00	1,577.00	1,542.60	3.45	3.52	-86.95	162.55	-3,047.02	3,051.89	3,044.92	6.97	437.931	
1,700.00	1,700.00	1,669.18	1,634.73	3.68	3.74	-87.00	159.90	-3,048.94	3,053.83	3,046.41	7.42	411.653	
1,800.00	1,800.00	1,774.16	1,739.64	3.90	4.01	-87.06	158.95	-3,051.36	3,055.99	3,048.09	7.90	386.665	
1,900.00	1,900.00	1,871.50	1,836.92	4.13	4.25	-87.11	154.25	-3,053.40	3,057.94	3,049.57	8.37	365.292	
2,000.00	2,000.00	1,963.89	1,929.24	4.35	4.48	-87.16	151.48	-3,055.56	3,060.13	3,051.30	8.83	346.610	
2,100.00	2,100.00	2,049.12	2,014.40	4.58	4.70	-87.21	148.80	-3,057.82	3,062.64	3,053.37	9.27	330.326	
2,200.00	2,200.00	2,139.53	2,104.72	4.80	4.94	-87.27	146.09	-3,060.73	3,065.69	3,055.96	9.73	315.043	
2,300.00	2,300.00	2,258.38	2,223.45	5.03	5.25	-87.33	142.71	-3,064.32	3,068.60	3,058.33	10.27	298.935	
2,400.00	2,400.00	2,365.53	2,330.55	5.25	5.52	-87.39	139.54	-3,066.88	3,070.84	3,060.08	10.77	285.239	
2,500.00	2,500.00	2,471.45	2,436.39	5.48	5.80	-87.46	138.38	-3,069.39	3,073.07	3,061.81	11.26	272.849	
2,600.00	2,600.00	2,573.41	2,538.28	5.70	6.06	-87.51	133.52	-3,071.55	3,075.07	3,063.32	11.75	261.705	
2,700.00	2,700.00	2,672.57	2,637.39	5.93	6.32	-87.56	130.81	-3,073.67	3,077.09	3,064.86	12.23	251.573	
2,800.00	2,800.00	2,779.30	2,744.06	6.15	6.59	-87.62	128.08	-3,075.87	3,079.05	3,066.32	12.73	241.918	
2,900.00	2,900.00	2,881.03	2,845.75	6.38	6.72	-87.65	126.30	-3,077.77	3,080.84	3,067.75	13.09	235.428	
3,000.00	3,000.00	2,980.15	2,944.85	6.60	6.78	-87.68	125.69	-3,079.54	3,082.59	3,069.22	13.37	230.561	
3,100.00	3,100.00	3,055.01	3,019.70	6.83	6.79	-87.67	125.59	-3,081.05	3,084.66	3,071.05	13.60	226.743	
3,200.00	3,200.00	3,110.00	3,074.66	7.05	6.80	-87.66	126.00	-3,082.77	3,087.89	3,074.05	13.84	223.151	
3,300.00	3,300.00	3,167.13	3,131.72	7.28	6.82	-87.64	127.13	-3,085.34	3,092.54	3,078.46	14.08	219.705	
3,400.00	3,400.00	3,226.05	3,190.49	7.50	6.83	-87.60	129.23	-3,088.94	3,098.73	3,084.41	14.32	216.449	
3,500.00	3,500.00	3,307.61	3,271.78	7.73	6.86	-87.54	132.86	-3,094.56	3,105.81	3,091.24	14.57	213.205	
3,600.00	3,600.00	3,406.79	3,370.59	7.95	6.89	-87.46	137.55	-3,101.66	3,113.17	3,098.34	14.83	209.944	
3,700.00	3,700.00	3,506.14	3,469.57	8.17	6.94	-87.38	142.23	-3,108.78	3,120.55	3,105.45	15.10	206.719	
3,800.00	3,800.00	3,606.22	3,569.29	8.40	6.99	-87.30	146.96	-3,115.94	3,127.93	3,112.56	15.37	203.491	
3,900.00	3,900.00	3,705.45	3,668.14	8.62	7.06	-87.22	151.67	-3,123.04	3,135.30	3,119.65	15.66	200.270	
4,000.00	4,000.00	3,803.29	3,765.62	8.85	7.14	-87.14	156.44	-3,130.08	3,142.74	3,126.79	15.95	197.071	
4,100.00	4,100.00	3,904.42	3,866.36	9.07	7.22	-87.05	161.41	-3,137.37	3,150.19	3,133.94	16.25	193.885	
4,200.00	4,200.00	4,037.06	3,998.53	9.30	7.34	-86.94	168.00	-3,146.42	3,157.34	3,140.76	16.58	190.477	
4,300.00	4,300.00	4,130.38	4,091.57	9.52	7.43	-86.87	172.33	-3,152.11	3,163.69	3,146.81	16.88	187.436	
4,400.00	4,400.00	4,224.35	4,185.30	9.75	7.53	-86.83	175.13	-3,158.28	3,170.41	3,153.23	17.18	184.488	
4,500.00	4,500.00	4,395.88	4,356.48	9.97	7.71	-86.73	181.00	-3,167.34	3,175.75	3,158.18	17.57	180.723	
4,600.00	4,600.00	4,499.17	4,459.60	10.20	7.83	-86.66	185.09	-3,171.71	3,180.20	3,162.30	17.90	177.630	
4,700.00	4,700.00	4,601.00	4,561.27	10.42	7.95	-86.59	189.02	-3,175.94	3,184.59	3,166.35	18.24	174.615	
4,800.00	4,800.00	4,702.67	4,662.77	10.65	8.07	-86.53	192.93	-3,180.12	3,188.92	3,170.34	18.58	171.661	
4,900.00	4,900.00	4,807.69	4,767.63	10.87	8.20	-86.46	196.84	-3,184.33	3,193.15	3,174.23	18.92	168.745	
5,000.00	5,000.00	4,907.89	4,867.69	11.10	8.33	-86.40	200.53	-3,188.25	3,197.29	3,178.02	19.27	165.924	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design: Lone Tree Draw "13" State - 7H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 100-NS-GYRO-MS, 2922-LEAM MWD-ADJ, 12456-Project													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 Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,100.00	5,006.51	4,966.16	11.32	8.47	-86.34	204.13	-3,192.13	3,201.45	3,181.84	19.62	163.192		
5,200.00	5,200.00	5,098.00	5,057.53	11.55	8.59	-86.29	207.36	-3,195.63	3,205.52	3,185.56	19.96	160.608		
5,300.00	5,300.00	5,172.61	5,132.02	11.77	8.70	-86.24	210.30	-3,198.66	3,210.16	3,189.88	20.28	158.262		
5,400.00	5,400.00	5,254.38	5,213.58	12.00	8.82	-86.18	214.12	-3,203.21	3,215.76	3,195.14	20.62	155.930		
5,500.00	5,500.00	5,356.08	5,315.01	12.22	8.98	-86.10	218.91	-3,208.83	3,221.60	3,200.61	20.99	153.459		
5,600.00	5,600.00	5,457.08	5,415.76	12.45	9.14	-86.02	223.44	-3,214.28	3,227.30	3,205.93	21.36	151.066		
5,700.00	5,700.00	5,574.60	5,533.03	12.67	9.33	-85.95	228.15	-3,220.40	3,232.78	3,211.02	21.76	148.565		
5,800.00	5,800.00	5,676.84	5,635.07	12.89	9.50	-85.89	231.97	-3,225.38	3,237.91	3,215.77	22.14	146.262		
5,900.00	5,900.00	5,781.40	5,739.45	13.12	9.67	-85.83	235.77	-3,230.40	3,242.97	3,220.45	22.52	143.995		
6,000.00	6,000.00	5,879.96	5,837.85	13.34	9.84	-85.78	238.97	-3,234.89	3,247.75	3,224.86	22.90	141.839		
6,100.00	6,100.00	5,949.00	5,906.76	13.57	9.95	-85.74	241.24	-3,238.55	3,253.27	3,230.04	23.23	140.049		
6,200.00	6,200.00	6,004.30	5,961.91	13.79	10.05	-85.71	243.16	-3,242.12	3,259.93	3,236.39	23.54	138.465		
6,300.00	6,300.00	6,073.14	6,030.50	14.02	10.18	-85.67	245.63	-3,247.41	3,267.82	3,243.94	23.88	136.845		
6,349.00	6,349.00	6,118.72	6,075.90	14.13	10.27	-85.65	247.15	-3,251.09	3,271.89	3,247.82	24.06	135.963		
6,350.00	6,350.00	6,119.65	6,076.83	14.13	10.27	88.07	247.16	-3,251.16	3,271.97	3,247.95	24.02	136.244		
6,375.00	6,374.99	6,149.77	6,106.83	14.17	10.33	87.86	248.13	-3,253.61	3,274.03	3,249.92	24.11	135.812		
6,400.00	6,399.90	6,200.05	6,156.93	14.22	10.42	87.73	249.95	-3,257.40	3,275.91	3,251.68	24.23	135.197		
6,425.00	6,424.68	6,239.78	6,196.54	14.26	10.50	87.64	251.64	-3,260.11	3,277.56	3,253.23	24.34	134.678		
6,450.00	6,449.25	6,262.69	6,219.38	14.30	10.54	87.54	252.61	-3,261.63	3,279.14	3,254.73	24.41	134.313		
6,475.00	6,473.54	6,285.33	6,241.95	14.35	10.59	87.46	253.51	-3,263.16	3,280.69	3,256.20	24.49	133.952		
6,500.00	6,497.50	6,307.65	6,264.21	14.39	10.63	87.41	254.34	-3,264.67	3,282.21	3,257.64	24.57	133.596		
6,525.00	6,521.04	6,329.64	6,286.12	14.44	10.67	87.37	255.11	-3,266.18	3,283.69	3,259.05	24.64	133.240		
6,550.00	6,544.12	6,351.29	6,307.71	14.48	10.71	87.35	255.89	-3,267.67	3,285.16	3,260.43	24.72	132.879		
6,575.00	6,566.66	6,372.34	6,328.70	14.52	10.75	87.34	256.70	-3,269.12	3,286.60	3,261.80	24.80	132.516		
6,600.00	6,588.60	6,392.74	6,349.03	14.57	10.79	87.35	257.54	-3,270.53	3,288.04	3,263.16	24.88	132.146		
6,625.00	6,609.88	6,412.41	6,368.64	14.61	10.83	87.37	258.40	-3,271.88	3,289.48	3,264.51	24.96	131.768		
6,650.00	6,630.46	6,445.91	6,402.02	14.65	10.90	87.55	259.96	-3,274.14	3,290.90	3,265.83	25.07	131.243		
6,675.00	6,650.25	6,487.15	6,443.13	14.71	10.98	87.86	262.05	-3,276.65	3,292.22	3,267.01	25.20	130.623		
6,700.00	6,669.23	6,523.25	6,479.13	14.78	11.05	88.14	264.03	-3,278.61	3,293.45	3,268.12	25.33	130.019		
6,725.00	6,687.33	6,551.42	6,507.22	14.85	11.10	88.35	265.53	-3,280.02	3,294.66	3,269.21	25.45	129.452		
6,750.00	6,704.49	6,578.17	6,533.90	14.93	11.15	88.56	266.89	-3,281.28	3,295.89	3,270.31	25.58	128.865		
6,775.00	6,720.69	6,603.41	6,559.09	15.02	11.20	88.75	268.11	-3,282.40	3,297.14	3,271.43	25.71	128.255		
6,800.00	6,735.86	6,620.92	6,576.56	15.12	11.23	88.84	268.92	-3,283.14	3,298.46	3,272.62	25.83	127.676		
6,825.00	6,749.98	6,635.76	6,591.38	15.23	11.26	88.89	269.59	-3,283.76	3,299.87	3,273.90	25.97	127.081		
6,850.00	6,763.00	6,649.37	6,604.96	15.34	11.28	88.91	270.21	-3,284.33	3,301.39	3,275.29	26.11	126.458		
6,875.00	6,774.88	6,661.71	6,617.28	15.47	11.31	88.91	270.75	-3,284.84	3,303.03	3,276.78	26.25	125.808		
6,900.00	6,785.59	6,672.74	6,628.29	15.61	11.33	88.87	271.24	-3,285.29	3,304.80	3,278.39	26.41	125.131		
6,925.00	6,795.11	6,682.42	6,637.95	15.76	11.35	88.80	271.66	-3,285.69	3,306.70	3,280.13	26.58	124.428		
6,950.00	6,803.40	6,690.72	6,646.24	15.92	11.36	88.70	272.02	-3,286.02	3,308.74	3,281.99	26.75	123.702		
6,975.00	6,810.45	6,697.63	6,653.14	16.08	11.37	88.55	272.31	-3,286.30	3,310.92	3,283.99	26.93	122.955		
7,000.00	6,816.24	6,703.10	6,658.60	16.26	11.38	88.36	272.54	-3,286.52	3,313.25	3,286.13	27.12	122.190		
7,025.00	6,820.74	6,706.77	6,662.26	16.45	11.39	88.13	272.70	-3,286.67	3,315.72	3,288.41	27.31	121.415		
7,050.00	6,823.95	6,709.11	6,664.60	16.65	11.39	87.85	272.80	-3,286.76	3,318.32	3,290.82	27.51	120.628		
7,075.00	6,825.86	6,710.11	6,665.59	16.86	11.40	87.54	272.84	-3,286.80	3,321.07	3,293.36	27.71	119.836		
7,097.77	6,826.46	6,709.84	6,665.33	17.06	11.40	87.22	272.83	-3,286.79	3,323.89	3,295.78	27.90	119.112		
7,100.00	6,826.47	6,709.76	6,665.25	17.08	11.40	87.22	272.82	-3,286.79	3,323.95	3,296.02	27.92	119.039		
7,200.00	6,826.73	6,706.15	6,661.64	18.02	11.39	87.16	272.67	-3,286.64	3,337.20	3,308.34	28.86	115.623		
7,300.00	6,826.98	6,702.47	6,657.97	19.10	11.38	87.09	272.52	-3,286.49	3,353.38	3,323.45	29.93	112.053		
7,400.00	6,827.24	6,691.72	6,646.22	20.27	21.51	105.60	-844.05	-3,306.59	3,343.95	3,303.46	40.49	82.593		
7,500.00	6,827.50	6,738.00	6,720.30	21.54	22.55	105.64	-920.30	-3,304.95	3,331.30	3,288.59	42.72	77.986		

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 7H - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 100-NS-GYRO-MS, 2922-LEAM MWD-ADJ, 12456-Project													Offset Well Error: 0.00 usft
Reference	Vertical	Offset	Vertical	Semi Major Axis		Highside	Distance		Between	Between	Minimum	Separation	Warning
Measured Depth (usft)	Depth (usft)	Measured Depth (usft)	Depth (usft)	Reference (usft)	Offset (usft)	Tooface (')	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor	
7,600.00	6,827.76	8,809.22	7,720.34	22.88	23.55	105.68	-991.51	-3,303.90	3,319.44	3,274.47	44.97	73.812	
7,700.00	6,828.01	8,864.02	7,720.24	24.28	24.35	105.71	-1,046.32	-3,303.98	3,308.96	3,281.87	47.09	70.265	
7,800.00	6,828.27	8,928.00	7,720.16	25.73	25.30	105.73	-1,110.28	-3,305.06	3,299.87	3,250.45	49.42	66.777	
7,900.00	6,828.53	9,001.09	7,720.45	27.22	26.37	105.76	-1,183.35	-3,306.89	3,291.74	3,239.84	51.90	63.431	
8,000.00	6,828.79	9,081.15	7,721.52	28.75	27.55	105.81	-1,263.37	-3,309.02	3,284.07	3,229.57	54.51	60.250	
8,100.00	6,829.04	9,495.00	7,713.75	30.31	34.01	105.91	-1,676.62	-3,301.21	3,268.70	3,206.47	62.23	52.528	
8,200.00	6,829.30	9,590.00	7,709.31	31.90	35.54	105.91	-1,771.37	-3,296.31	3,251.94	3,186.71	65.24	49.849	
8,300.00	6,829.56	9,633.02	7,708.62	33.51	36.23	105.92	-1,814.34	-3,294.29	3,236.24	3,168.78	67.46	47.975	
8,400.00	6,829.82	9,685.00	7,707.62	35.14	37.07	105.94	-1,866.27	-3,292.42	3,221.81	3,151.97	69.83	46.135	
8,500.00	6,830.07	9,747.99	7,707.39	36.79	38.09	105.98	-1,929.24	-3,290.72	3,208.63	3,136.23	72.40	44.316	
8,600.00	6,830.33	9,811.29	7,709.15	38.45	39.12	106.05	-1,992.50	-3,289.38	3,196.77	3,121.79	74.98	42.637	
8,700.00	6,830.59	9,889.56	7,712.52	40.12	40.38	106.15	-2,070.68	-3,288.10	3,185.81	3,108.03	77.78	40.957	
8,800.00	6,830.85	10,033.50	7,716.30	41.81	42.78	106.30	-2,214.55	-3,286.11	3,174.76	3,093.10	81.67	38.875	
8,900.00	6,831.10	10,148.87	7,717.13	43.50	44.69	106.39	-2,329.89	-3,283.48	3,162.22	3,077.11	85.11	37.156	
9,000.00	6,831.36	10,242.99	7,718.75	45.21	46.25	106.48	-2,423.96	-3,281.07	3,149.71	3,061.49	88.22	35.704	
9,100.00	6,831.62	10,374.20	7,717.67	46.92	48.47	106.54	-2,555.12	-3,277.93	3,136.62	3,044.64	91.98	34.103	
9,200.00	6,831.88	10,475.70	7,716.05	48.64	50.15	106.58	-2,656.58	-3,275.42	3,123.28	3,028.04	95.24	32.795	
9,248.03	6,832.00	10,534.00	7,715.81	49.46	51.11	106.62	-2,714.84	-3,273.53	3,116.67	3,019.74	96.94	32.152	
9,300.00	6,831.68	10,562.34	7,715.78	50.36	51.58	106.78	-2,743.16	-3,272.64	3,109.65	3,011.46	98.19	31.671	
9,327.90	6,831.14	10,576.52	7,715.72	50.84	51.82	106.87	-2,757.34	-3,272.30	3,106.04	3,007.20	98.84	31.425	
9,400.00	6,829.41	10,629.00	7,715.30	52.09	52.70	106.93	-2,809.82	-3,271.68	3,097.37	2,996.51	100.86	30.710	
9,500.00	6,827.00	10,700.62	7,714.64	53.82	53.90	106.99	-2,881.44	-3,271.42	3,086.08	2,982.42	103.65	29.773	
9,600.00	6,824.60	10,767.18	7,713.92	55.56	55.01	107.05	-2,947.99	-3,271.42	3,075.29	2,968.91	106.38	28.910	
9,700.00	6,822.19	10,830.17	7,711.97	57.31	56.08	107.08	-3,010.93	-3,272.75	3,065.83	2,956.77	109.06	28.111	
9,800.00	6,819.79	10,928.74	7,708.08	59.06	57.76	107.10	-3,109.38	-3,275.53	3,056.84	2,944.50	112.35	27.209	
9,900.00	6,817.38	11,012.05	7,704.78	60.81	59.17	107.11	-3,192.59	-3,278.18	3,048.20	2,932.82	115.38	26.418	
10,000.00	6,814.97	11,104.54	7,703.66	62.56	60.71	107.18	-3,285.03	-3,280.72	3,039.95	2,921.43	118.52	25.649	
10,100.00	6,812.57	11,215.64	7,704.61	64.32	62.57	107.31	-3,396.10	-3,282.97	3,031.62	2,909.69	121.92	24.865	
10,200.00	6,810.16	11,326.05	7,704.04	66.08	64.43	107.40	-3,506.48	-3,285.25	3,022.93	2,897.58	125.35	24.115	
10,300.00	6,807.76	11,433.55	7,704.28	67.85	66.25	107.52	-3,613.97	-3,286.84	3,013.91	2,885.18	128.72	23.414	
10,400.00	6,805.35	11,515.73	7,704.17	69.61	67.84	107.60	-3,696.14	-3,288.12	3,004.91	2,873.20	131.71	22.815	
10,500.00	6,802.95	11,579.00	7,706.00	71.38	68.71	107.70	-3,759.37	-3,289.25	2,997.00	2,862.62	134.37	22.304	
10,600.00	6,800.54	11,654.54	7,709.45	73.15	70.00	107.83	-3,834.81	-3,291.00	2,990.11	2,852.89	137.22	21.791	
10,700.00	6,798.14	11,731.83	7,712.74	74.92	71.33	107.97	-3,911.99	-3,293.46	2,983.99	2,843.88	140.10	21.298	
10,800.00	6,795.73	12,147.00	7,725.81	76.70	78.41	108.73	-4,326.49	-3,286.31	2,972.68	2,824.65	148.03	20.082	
10,900.00	6,793.33	12,226.62	7,723.68	78.47	79.80	108.81	-4,405.97	-3,282.23	2,956.68	2,805.89	150.89	19.583	
11,000.00	6,790.92	12,297.38	7,721.14	80.25	81.04	108.86	-4,476.64	-3,279.51	2,941.58	2,787.76	153.82	19.124	
11,100.00	6,788.51	12,363.07	7,718.12	82.03	82.20	108.90	-4,542.24	-3,277.88	2,927.47	2,770.89	156.59	18.696	
11,200.00	6,786.11	12,438.66	7,713.88	83.81	82.83	108.91	-4,617.71	-3,277.27	2,914.54	2,755.58	158.95	18.336	
11,246.07	6,785.00	12,456.00	7,712.88	84.63	82.83	108.91	-4,635.02	-3,277.18	2,908.82	2,749.01	159.81	18.202 CC, ES, SF	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 8H - OH - Plan #1											Offset Site Error: 0.00 usft		
Survey Program: O-LEAM MWD-ADJ											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	20.00	0.00	0.00	0.02	-83.44	185.67	-1,615.26	1,625.90				
100.00	100.00	120.00	100.00	0.08	0.13	-83.44	185.67	-1,615.26	1,625.90	1,625.68	0.21	7,695.446	
200.00	200.00	220.00	200.00	0.31	0.35	-83.44	185.67	-1,615.26	1,625.90	1,625.24	0.66	2,460.451	
300.00	300.00	320.00	300.00	0.53	0.58	-83.44	185.67	-1,615.26	1,625.90	1,624.79	1.11	1,464.317	
400.00	400.00	420.00	400.00	0.76	0.80	-83.44	185.67	-1,615.26	1,625.90	1,624.34	1.56	1,042.324	
500.00	500.00	520.00	500.00	0.98	1.03	-83.44	185.67	-1,615.26	1,625.90	1,623.89	2.01	809.142	
600.00	600.00	620.00	600.00	1.21	1.25	-83.44	185.67	-1,615.26	1,625.90	1,623.44	2.46	661.218	
700.00	700.00	720.00	700.00	1.43	1.48	-83.44	185.67	-1,615.26	1,625.90	1,622.99	2.91	559.021	
800.00	800.00	820.00	800.00	1.66	1.70	-83.44	185.67	-1,615.26	1,625.90	1,622.54	3.36	484.185	
900.00	900.00	920.00	900.00	1.88	1.93	-83.44	185.67	-1,615.26	1,625.90	1,622.09	3.81	427.020	
1,000.00	1,000.00	1,020.00	1,000.00	2.11	2.15	-83.44	185.67	-1,615.26	1,625.90	1,621.64	4.26	381.929	
1,100.00	1,100.00	1,120.00	1,100.00	2.33	2.38	-83.44	185.67	-1,615.26	1,625.90	1,621.19	4.71	345.450	
1,200.00	1,200.00	1,220.00	1,200.00	2.56	2.60	-83.44	185.67	-1,615.26	1,625.90	1,620.74	5.16	315.332	
1,300.00	1,300.00	1,320.00	1,300.00	2.78	2.83	-83.44	185.67	-1,615.26	1,625.90	1,620.29	5.61	290.045	
1,400.00	1,400.00	1,420.00	1,400.00	3.01	3.05	-83.44	185.67	-1,615.26	1,625.90	1,619.84	6.06	268.513	
1,500.00	1,500.00	1,520.00	1,500.00	3.23	3.27	-83.44	185.67	-1,615.26	1,625.90	1,619.39	6.50	249.956	
1,600.00	1,600.00	1,620.00	1,600.00	3.45	3.50	-83.44	185.67	-1,615.26	1,625.90	1,618.94	6.95	233.799	
1,700.00	1,700.00	1,720.00	1,700.00	3.68	3.72	-83.44	185.67	-1,615.26	1,625.90	1,618.49	7.40	219.603	
1,800.00	1,800.00	1,820.00	1,800.00	3.90	3.95	-83.44	185.67	-1,615.26	1,625.90	1,618.04	7.85	207.033	
1,900.00	1,900.00	1,920.00	1,900.00	4.13	4.17	-83.44	185.67	-1,615.26	1,625.90	1,617.59	8.30	195.824	
2,000.00	2,000.00	2,020.00	2,000.00	4.35	4.40	-83.44	185.67	-1,615.26	1,625.90	1,617.14	8.75	185.766	
2,100.00	2,100.00	2,120.00	2,100.00	4.58	4.62	-83.44	185.67	-1,615.26	1,625.90	1,616.69	9.20	176.691	
2,200.00	2,200.00	2,220.00	2,200.00	4.80	4.85	-83.44	185.67	-1,615.26	1,625.90	1,616.24	9.65	168.461	
2,300.00	2,300.00	2,320.00	2,300.00	5.03	5.07	-83.44	185.67	-1,615.26	1,625.90	1,615.80	10.10	160.964	
2,400.00	2,400.00	2,420.00	2,400.00	5.25	5.30	-83.44	185.67	-1,615.26	1,625.90	1,615.35	10.55	154.106	
2,500.00	2,500.00	2,520.00	2,500.00	5.48	5.52	-83.44	185.67	-1,615.26	1,625.90	1,614.90	11.00	147.808	
2,600.00	2,600.00	2,620.00	2,600.00	5.70	5.75	-83.44	185.67	-1,615.26	1,625.90	1,614.45	11.45	142.005	
2,700.00	2,700.00	2,720.00	2,700.00	5.93	5.97	-83.44	185.67	-1,615.26	1,625.90	1,614.00	11.90	136.640	
2,800.00	2,800.00	2,820.00	2,800.00	6.15	6.20	-83.44	185.67	-1,615.26	1,625.90	1,613.55	12.35	131.666	
2,900.00	2,900.00	2,920.00	2,900.00	6.38	6.42	-83.44	185.67	-1,615.26	1,625.90	1,613.10	12.80	127.041	
3,000.00	3,000.00	3,020.00	3,000.00	6.60	6.65	-83.44	185.67	-1,615.26	1,625.90	1,612.65	13.25	122.730	
3,100.00	3,100.00	3,120.00	3,100.00	6.83	6.87	-83.44	185.67	-1,615.26	1,625.90	1,612.20	13.70	118.702	
3,200.00	3,200.00	3,220.00	3,200.00	7.05	7.10	-83.44	185.67	-1,615.26	1,625.90	1,611.75	14.15	114.931	
3,300.00	3,300.00	3,320.00	3,300.00	7.28	7.32	-83.44	185.67	-1,615.26	1,625.90	1,611.30	14.60	111.391	
3,400.00	3,400.00	3,420.00	3,400.00	7.50	7.55	-83.44	185.67	-1,615.26	1,625.90	1,610.85	15.05	108.063	
3,500.00	3,500.00	3,520.00	3,500.00	7.73	7.77	-83.44	185.67	-1,615.26	1,625.90	1,610.40	15.50	104.928	
3,600.00	3,600.00	3,620.00	3,600.00	7.95	7.99	-83.44	185.67	-1,615.26	1,625.90	1,609.95	15.94	101.970	
3,700.00	3,700.00	3,720.00	3,700.00	8.17	8.22	-83.44	185.67	-1,615.26	1,625.90	1,609.50	16.39	99.174	
3,800.00	3,800.00	3,820.00	3,800.00	8.40	8.44	-83.44	185.67	-1,615.26	1,625.90	1,609.05	16.84	96.527	
3,900.00	3,900.00	3,920.00	3,900.00	8.62	8.67	-83.44	185.67	-1,615.26	1,625.90	1,608.60	17.29	94.018	
4,000.00	4,000.00	4,020.00	4,000.00	8.85	8.89	-83.44	185.67	-1,615.26	1,625.90	1,608.15	17.74	91.636	
4,100.00	4,100.00	4,120.00	4,100.00	9.07	9.12	-83.44	185.67	-1,615.26	1,625.90	1,607.70	18.19	89.371	
4,200.00	4,200.00	4,220.00	4,200.00	9.30	9.34	-83.44	185.67	-1,615.26	1,625.90	1,607.25	18.64	87.216	
4,300.00	4,300.00	4,320.00	4,300.00	9.52	9.57	-83.44	185.67	-1,615.26	1,625.90	1,606.80	19.09	85.163	
4,400.00	4,400.00	4,420.00	4,400.00	9.75	9.79	-83.44	185.67	-1,615.26	1,625.90	1,606.36	19.54	83.204	
4,500.00	4,500.00	4,520.00	4,500.00	9.97	10.02	-83.44	185.67	-1,615.26	1,625.90	1,605.91	19.99	81.333	
4,600.00	4,600.00	4,620.00	4,600.00	10.20	10.24	-83.44	185.67	-1,615.26	1,625.90	1,605.46	20.44	79.544	
4,700.00	4,700.00	4,720.00	4,700.00	10.42	10.47	-83.44	185.67	-1,615.26	1,625.90	1,605.01	20.89	77.832	
4,800.00	4,800.00	4,820.00	4,800.00	10.65	10.69	-83.44	185.67	-1,615.26	1,625.90	1,604.56	21.34	76.193	
4,900.00	4,900.00	4,920.00	4,900.00	10.87	10.92	-83.44	185.67	-1,615.26	1,625.90	1,604.11	21.79	74.621	
5,000.00	5,000.00	5,020.00	5,000.00	11.10	11.14	-83.44	185.67	-1,615.26	1,625.90	1,603.66	22.24	73.112	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 8H - OH - Plan #1													Offset Site Error:
Survey Program: O-LEAM MWD-ADJ													0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
				(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)	
5,100.00	5,100.00	5,120.00	5,100.00	11.32	11.37	-83.44		185.67	-1,615.26	1,625.90	1,603.21	22.69	71.664
5,200.00	5,200.00	5,220.00	5,200.00	11.55	11.59	-83.44		185.67	-1,615.26	1,625.90	1,602.76	23.14	70.271
5,300.00	5,300.00	5,320.00	5,300.00	11.77	11.82	-83.44		185.67	-1,615.26	1,625.90	1,602.31	23.59	68.932
5,400.00	5,400.00	5,420.00	5,400.00	12.00	12.04	-83.44		185.67	-1,615.26	1,625.90	1,601.86	24.04	67.643
5,500.00	5,500.00	5,520.00	5,500.00	12.22	12.27	-83.44		185.67	-1,615.26	1,625.90	1,601.41	24.49	66.401
5,600.00	5,600.00	5,620.00	5,600.00	12.45	12.49	-83.44		185.67	-1,615.26	1,625.90	1,600.96	24.94	65.204
5,700.00	5,700.00	5,720.00	5,700.00	12.67	12.72	-83.44		185.67	-1,615.26	1,625.90	1,600.51	25.39	64.049
5,800.00	5,800.00	5,820.00	5,800.00	12.89	12.94	-83.44		185.67	-1,615.26	1,625.90	1,600.06	25.83	62.935
5,900.00	5,900.00	5,920.00	5,900.00	13.12	13.16	-83.44		185.67	-1,615.26	1,625.90	1,599.61	26.28	61.858
6,000.00	6,000.00	6,020.00	6,000.00	13.34	13.39	-83.44		185.67	-1,615.26	1,625.90	1,599.16	26.73	60.818
6,100.00	6,100.00	6,120.00	6,100.00	13.57	13.61	-83.44		185.67	-1,615.26	1,625.90	1,598.71	27.18	59.813
6,200.00	6,200.00	6,220.00	6,200.00	13.79	13.84	-83.44		185.67	-1,615.26	1,625.90	1,598.26	27.63	58.839
6,300.00	6,300.00	6,320.00	6,300.00	14.02	14.06	-83.44		185.67	-1,615.26	1,625.90	1,597.81	28.08	57.898
6,349.00	6,349.00	6,369.00	6,349.00	14.13	14.17	-83.44		185.67	-1,615.26	1,625.90	1,597.59	28.30	57.447
6,350.00	6,350.00	6,370.00	6,350.00	14.13	14.18	90.29		185.67	-1,615.26	1,625.90	1,597.59	28.31	57.438
6,375.00	6,374.99	6,394.99	6,374.99	14.17	14.23	90.32		185.67	-1,615.26	1,625.90	1,597.50	28.40	57.242
6,400.00	6,399.90	6,419.90	6,399.90	14.22	14.29	90.39		185.67	-1,615.26	1,625.91	1,597.41	28.50	57.049
6,425.00	6,424.68	6,444.68	6,424.68	14.26	14.34	90.50		185.67	-1,615.26	1,625.94	1,597.34	28.60	56.859
6,450.00	6,449.25	6,469.25	6,449.25	14.30	14.40	90.65		185.67	-1,615.26	1,625.99	1,597.29	28.69	56.672
6,475.00	6,473.54	6,493.54	6,473.54	14.35	14.45	90.84		185.67	-1,615.26	1,626.06	1,597.28	28.79	56.490
6,500.00	6,497.50	6,517.50	6,497.50	14.39	14.51	91.07		185.67	-1,615.26	1,626.19	1,597.31	28.88	56.311
6,525.00	6,521.04	6,541.04	6,521.04	14.44	14.56	91.33		185.67	-1,615.26	1,626.38	1,597.40	28.97	56.136
6,550.00	6,544.12	6,564.12	6,544.12	14.48	14.61	91.61		185.67	-1,615.26	1,626.64	1,597.58	29.07	55.964
6,575.00	6,566.66	6,586.66	6,566.66	14.52	14.66	91.91		185.67	-1,615.26	1,627.01	1,597.85	29.16	55.796
6,600.00	6,588.60	6,608.60	6,588.60	14.57	14.71	92.22		185.67	-1,615.26	1,627.50	1,598.25	29.25	55.632
6,625.00	6,609.88	6,629.88	6,609.88	14.61	14.76	92.53		185.67	-1,615.26	1,628.14	1,598.79	29.35	55.471
6,650.00	6,630.46	6,650.46	6,630.46	14.65	14.81	92.85		185.67	-1,615.26	1,628.95	1,599.50	29.45	55.313
6,675.00	6,650.25	6,670.25	6,650.25	14.71	14.85	93.15		185.67	-1,615.26	1,629.96	1,600.41	29.55	55.157
6,700.00	6,669.23	6,689.23	6,669.23	14.78	14.89	93.44		185.67	-1,615.26	1,631.19	1,601.54	29.66	55.004
6,725.00	6,687.33	6,707.33	6,687.33	14.85	14.93	93.70		185.67	-1,615.26	1,632.68	1,602.91	29.76	54.853
6,750.00	6,704.49	6,724.49	6,704.49	14.93	14.97	93.92		185.67	-1,615.26	1,634.43	1,604.55	29.88	54.703
6,775.00	6,720.69	6,740.69	6,720.69	15.02	15.01	94.11		185.67	-1,615.26	1,636.49	1,606.49	30.00	54.553
6,800.00	6,735.86	6,755.86	6,735.86	15.12	15.04	94.25		185.67	-1,615.26	1,638.86	1,608.74	30.12	54.403
6,825.00	6,749.98	6,769.98	6,749.98	15.23	15.08	94.33		185.67	-1,615.26	1,641.58	1,611.33	30.26	54.252
6,850.00	6,763.00	6,783.00	6,763.00	15.34	15.10	94.34		185.67	-1,615.26	1,644.67	1,614.26	30.40	54.098
6,875.00	6,774.88	6,794.88	6,774.88	15.47	15.13	94.29		185.67	-1,615.26	1,648.12	1,617.57	30.55	53.942
6,900.00	6,785.59	6,805.59	6,785.59	15.61	15.16	94.17		185.67	-1,615.26	1,651.97	1,621.26	30.72	53.782
6,925.00	6,795.11	6,815.11	6,795.11	15.76	15.18	93.96		185.67	-1,615.26	1,656.22	1,625.33	30.89	53.620
6,950.00	6,803.40	6,823.40	6,803.40	15.92	15.20	93.66		185.67	-1,615.26	1,660.88	1,629.81	31.07	53.455
6,975.00	6,810.45	6,830.45	6,810.45	16.08	15.21	93.28		185.67	-1,615.26	1,665.94	1,634.68	31.26	53.289
7,000.00	6,816.24	6,836.24	6,816.24	16.26	15.22	92.81		185.67	-1,615.26	1,671.41	1,639.95	31.46	53.122
7,025.00	6,820.74	6,840.74	6,820.74	16.45	15.23	92.24		185.67	-1,615.26	1,677.28	1,645.61	31.67	52.958
7,050.00	6,823.95	6,843.95	6,823.95	16.65	15.24	91.58		185.67	-1,615.26	1,683.54	1,651.66	31.89	52.799
7,075.00	6,825.86	6,845.86	6,825.86	16.86	15.25	90.82		185.67	-1,615.26	1,690.18	1,658.08	32.10	52.647
7,097.77	6,826.46	6,846.46	6,826.46	17.06	15.25	90.04		185.67	-1,615.26	1,696.54	1,664.24	32.30	52.518
7,100.00	6,826.47	6,846.47	6,826.47	17.08	15.25	90.04		185.67	-1,615.26	1,697.18	1,664.85	32.32	52.506
7,200.00	6,826.73	6,846.73	6,826.73	18.02	15.25	90.05		185.67	-1,615.26	1,728.52	1,695.24	33.27	51.952
7,300.00	6,826.98	6,846.98	6,826.98	19.10	15.25	90.06		185.67	-1,615.26	1,764.97	1,730.63	34.34	51.390
7,400.00	6,827.24	6,848.35	6,827.24	20.27	24.14	119.79		-779.51	-1,612.30	1,757.38	1,717.40	39.98	43.954
7,500.00	6,827.50	6,848.35	6,827.50	21.54	25.47	119.96		-878.87	-1,612.00	1,747.46	1,705.26	42.19	41.414

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 8H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD-ADJ													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface	Distance		Between Centres	Between Ellipses	Minimum Separation	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)						
7,600.00	6,827.76	8,667.08	7,896.23	22.88	28.86	120.14	-978.24	-1,611.69	1,737.55	1,693.03	44.52	39.030		
7,700.00	6,828.01	8,766.45	7,896.11	24.28	28.29	120.31	-1,077.61	-1,611.39	1,727.66	1,680.72	46.93	36.811		
7,800.00	6,828.27	8,865.82	7,896.00	25.73	29.77	120.49	-1,176.98	-1,611.09	1,717.78	1,668.35	49.43	34.755		
7,900.00	6,828.53	8,965.19	7,895.88	27.22	31.28	120.67	-1,276.35	-1,610.78	1,707.92	1,655.94	51.98	32.857		
8,000.00	6,828.79	9,064.56	7,895.77	28.75	32.83	120.85	-1,375.71	-1,610.48	1,698.07	1,643.49	54.59	31.107		
8,100.00	6,829.04	9,163.92	7,895.65	30.31	34.40	121.03	-1,475.08	-1,610.17	1,688.25	1,631.01	57.24	29.496		
8,200.00	6,829.30	9,263.29	7,895.54	31.90	36.00	121.22	-1,574.45	-1,609.87	1,678.44	1,618.52	59.92	28.010		
8,300.00	6,829.56	9,362.66	7,895.42	33.51	37.61	121.41	-1,673.82	-1,609.56	1,668.65	1,606.01	62.64	26.640		
8,400.00	6,829.82	9,462.03	7,895.30	35.14	39.25	121.60	-1,773.18	-1,609.26	1,658.88	1,593.50	65.37	25.375		
8,500.00	6,830.07	9,561.40	7,895.19	36.79	40.89	121.79	-1,872.55	-1,608.95	1,649.12	1,580.99	68.13	24.206		
8,600.00	6,830.33	9,660.77	7,895.07	38.45	42.56	121.99	-1,971.92	-1,608.65	1,639.39	1,568.49	70.90	23.122		
8,700.00	6,830.59	9,760.13	7,894.96	40.12	44.23	122.19	-2,071.29	-1,608.35	1,629.67	1,555.99	73.68	22.118		
8,800.00	6,830.85	9,859.50	7,894.84	41.81	45.92	122.39	-2,170.65	-1,608.04	1,619.97	1,543.50	76.47	21.184		
8,900.00	6,831.10	9,958.87	7,894.73	43.50	47.62	122.59	-2,270.02	-1,607.74	1,610.30	1,531.03	79.27	20.315		
9,000.00	6,831.36	10,058.24	7,894.61	45.21	49.32	122.79	-2,369.39	-1,607.43	1,600.64	1,518.57	82.07	19.504		
9,100.00	6,831.62	10,157.61	7,894.49	46.92	51.04	123.00	-2,468.76	-1,607.13	1,591.00	1,506.14	84.87	18.747		
9,200.00	6,831.88	10,256.97	7,894.38	48.64	52.76	123.21	-2,568.13	-1,606.82	1,581.39	1,493.72	87.66	18.039		
9,248.03	6,832.00	10,304.70	7,894.32	49.46	53.58	123.31	-2,615.85	-1,606.68	1,576.78	1,487.77	89.01	17.715		
9,300.00	6,831.68	10,356.33	7,894.26	50.36	54.48	123.53	-2,667.48	-1,606.52	1,571.93	1,481.53	90.40	17.389		
9,327.90	6,831.14	10,384.03	7,894.23	50.84	54.97	123.67	-2,695.18	-1,606.43	1,569.43	1,478.30	91.13	17.221		
9,400.00	6,829.41	10,455.58	7,894.15	52.09	56.21	123.89	-2,766.73	-1,606.22	1,563.11	1,470.03	93.08	16.793		
9,500.00	6,827.00	10,554.83	7,894.03	53.82	57.95	124.21	-2,865.98	-1,605.91	1,554.37	1,458.60	95.78	16.229		
9,600.00	6,824.60	10,654.07	7,893.92	55.56	59.69	124.53	-2,965.22	-1,605.61	1,545.69	1,447.23	98.46	15.699		
9,700.00	6,822.19	10,753.32	7,893.80	57.31	61.44	124.85	-3,064.47	-1,605.30	1,537.05	1,435.93	101.12	15.200		
9,800.00	6,819.79	10,852.57	7,893.68	59.06	63.19	125.18	-3,163.72	-1,605.00	1,528.47	1,424.70	103.77	14.730		
9,900.00	6,817.38	10,951.82	7,893.57	60.81	64.94	125.51	-3,262.96	-1,604.70	1,519.93	1,413.53	106.40	14.285		
10,000.00	6,814.97	11,051.06	7,893.45	62.56	66.70	125.84	-3,362.21	-1,604.39	1,511.44	1,402.43	109.01	13.865		
10,100.00	6,812.57	11,150.31	7,893.34	64.32	68.46	126.18	-3,461.46	-1,604.09	1,503.01	1,391.41	111.60	13.468		
10,200.00	6,810.16	11,249.56	7,893.22	66.08	70.22	126.52	-3,560.70	-1,603.78	1,494.63	1,380.46	114.17	13.091		
10,300.00	6,807.76	11,348.80	7,893.11	67.85	71.98	126.86	-3,659.95	-1,603.48	1,486.30	1,369.58	116.71	12.735		
10,400.00	6,805.35	11,448.05	7,892.99	69.61	73.75	127.21	-3,759.20	-1,603.17	1,478.03	1,358.79	119.24	12.396		
10,500.00	6,802.95	11,547.30	7,892.88	71.38	75.52	127.57	-3,858.44	-1,602.87	1,469.81	1,348.07	121.73	12.074		
10,600.00	6,800.54	11,646.55	7,892.76	73.15	77.30	127.92	-3,957.69	-1,602.57	1,461.65	1,337.44	124.21	11.768		
10,700.00	6,798.14	11,745.79	7,892.64	74.92	79.07	128.28	-4,056.94	-1,602.26	1,453.54	1,326.89	126.65	11.477		
10,800.00	6,795.73	11,845.04	7,892.53	76.70	80.85	128.65	-4,156.18	-1,601.96	1,445.50	1,316.43	129.07	11.199		
10,900.00	6,793.33	11,944.29	7,892.41	78.47	82.63	129.02	-4,255.43	-1,601.65	1,437.51	1,306.05	131.46	10.935		
11,000.00	6,790.92	12,043.53	7,892.30	80.25	84.41	129.39	-4,354.68	-1,601.35	1,429.59	1,295.76	133.82	10.683		
11,100.00	6,788.51	12,142.78	7,892.18	82.03	86.19	129.77	-4,453.92	-1,601.05	1,421.72	1,285.57	136.15	10.442		
11,200.00	6,786.11	12,242.03	7,892.07	83.81	87.97	130.15	-4,553.17	-1,600.74	1,413.92	1,275.47	138.45	10.212		
11,246.07	6,785.00	12,287.75	7,892.01	84.63	88.79	130.32	-4,598.89	-1,600.60	1,410.35	1,270.85	139.50	10.110 CC, ES, SF		

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 9H - OH - Plan #1 Draft 1													Offset Site Error: 0.00 usft
Survey Program: O-LEAM MWD-ADJ													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		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	0.00	0.00	0.00	0.00	43.95	38.22	34.92	50.31				
100.00	100.00	100.00	100.00	0.08	0.08	43.95	38.22	34.92	50.31	50.15	0.17	302.488	
200.00	200.00	200.00	200.00	0.31	0.31	43.95	38.22	34.92	50.31	49.70	0.62	81.694	
300.00	300.00	300.00	300.00	0.53	0.53	43.95	38.22	34.92	50.31	49.25	1.07	47.224	
400.00	400.00	400.00	400.00	0.76	0.76	43.95	38.22	34.92	50.31	48.80	1.51	33.211	
500.00	500.00	500.00	500.00	0.98	0.98	43.95	38.22	34.92	50.31	48.35	1.96	25.611	
600.00	600.00	600.00	600.00	1.21	1.21	43.95	38.22	34.92	50.31	47.90	2.41	20.842	
700.00	700.00	700.00	700.00	1.43	1.43	43.95	38.22	34.92	50.31	47.45	2.86	17.570	
800.00	800.00	800.00	800.00	1.66	1.66	43.95	38.22	34.92	50.31	47.00	3.31	15.186	
900.00	900.00	900.00	900.00	1.88	1.88	43.95	38.22	34.92	50.31	46.55	3.76	13.372	
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	43.95	38.22	34.92	50.31	46.10	4.21	11.945	
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	43.95	38.22	34.92	50.31	45.65	4.66	10.793	
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	43.95	38.22	34.92	50.31	45.20	5.11	9.844	
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	43.95	38.22	34.92	50.31	44.75	5.56	9.048	
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	43.95	38.22	34.92	50.31	44.30	6.01	8.371	
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	43.95	38.22	34.92	50.31	43.85	6.46	7.789	
1,600.00	1,600.00	1,600.00	1,600.00	3.45	3.45	43.95	38.22	34.92	50.31	43.40	6.91	7.282	
1,700.00	1,700.00	1,700.00	1,700.00	3.68	3.68	43.95	38.22	34.92	50.31	42.95	7.36	6.837	
1,800.00	1,800.00	1,800.00	1,800.00	3.90	3.90	43.95	38.22	34.92	50.31	42.50	7.81	6.443	
1,900.00	1,900.00	1,900.00	1,900.00	4.13	4.13	43.95	38.22	34.92	50.31	42.05	8.26	6.093	
2,000.00	2,000.00	2,000.00	2,000.00	4.35	4.35	43.95	38.22	34.92	50.31	41.60	8.71	5.778	
2,100.00	2,100.00	2,100.00	2,100.00	4.58	4.58	43.95	38.22	34.92	50.31	41.16	9.16	5.494	
2,200.00	2,200.00	2,200.00	2,200.00	4.80	4.80	43.95	38.22	34.92	50.31	40.71	9.61	5.237	
2,300.00	2,300.00	2,300.00	2,300.00	5.03	5.03	43.95	38.22	34.92	50.31	40.26	10.06	5.003	
2,400.00	2,400.00	2,400.00	2,400.00	5.25	5.25	43.95	38.22	34.92	50.31	39.81	10.51	4.789	
2,500.00	2,500.00	2,500.00	2,500.00	5.48	5.48	43.95	38.22	34.92	50.31	39.36	10.96	4.593	
2,600.00	2,600.00	2,600.00	2,600.00	5.70	5.70	43.95	38.22	34.92	50.31	38.91	11.40	4.412	
2,700.00	2,700.00	2,700.00	2,700.00	5.93	5.93	43.95	38.22	34.92	50.31	38.46	11.85	4.244	
2,800.00	2,800.00	2,800.00	2,800.00	6.15	6.15	43.95	38.22	34.92	50.31	38.01	12.30	4.089	
2,900.00	2,900.00	2,900.00	2,900.00	6.38	6.38	43.95	38.22	34.92	50.31	37.56	12.75	3.945	
3,000.00	3,000.00	3,000.00	3,000.00	6.60	6.60	43.95	38.22	34.92	50.31	37.11	13.20	3.811	
3,100.00	3,100.00	3,100.00	3,100.00	6.83	6.83	43.95	38.22	34.92	50.31	36.66	13.65	3.685	
3,200.00	3,200.00	3,200.00	3,200.00	7.05	7.05	43.95	38.22	34.92	50.31	36.21	14.10	3.568	
3,300.00	3,300.00	3,300.00	3,300.00	7.28	7.28	43.95	38.22	34.92	50.31	35.76	14.55	3.458	
3,400.00	3,400.00	3,400.00	3,400.00	7.50	7.50	43.95	38.22	34.92	50.31	35.31	15.00	3.354	
3,500.00	3,500.00	3,500.00	3,500.00	7.73	7.73	43.95	38.22	34.92	50.31	34.86	15.45	3.256	
3,600.00	3,600.00	3,600.00	3,600.00	7.95	7.95	43.95	38.22	34.92	50.31	34.41	15.90	3.164	
3,700.00	3,700.00	3,700.00	3,700.00	8.17	8.17	43.95	38.22	34.92	50.31	33.96	16.35	3.077	
3,800.00	3,800.00	3,800.00	3,800.00	8.40	8.40	43.95	38.22	34.92	50.31	33.51	16.80	2.995	
3,900.00	3,900.00	3,900.00	3,900.00	8.62	8.62	43.95	38.22	34.92	50.31	33.06	17.25	2.917	
4,000.00	4,000.00	4,000.00	4,000.00	8.85	8.85	43.95	38.22	34.92	50.31	32.61	17.70	2.843	
4,100.00	4,100.00	4,100.00	4,100.00	9.07	9.07	43.95	38.22	34.92	50.31	32.16	18.15	2.772	
4,200.00	4,200.00	4,200.00	4,200.00	9.30	9.30	43.95	38.22	34.92	50.31	31.71	18.60	2.705	
4,300.00	4,300.00	4,300.00	4,300.00	9.52	9.52	43.95	38.22	34.92	50.31	31.27	19.05	2.642	
4,400.00	4,400.00	4,400.00	4,400.00	9.75	9.75	43.95	38.22	34.92	50.31	30.82	19.50	2.581	
4,500.00	4,500.00	4,500.00	4,500.00	9.97	9.97	43.95	38.22	34.92	50.31	30.37	19.95	2.522	
4,600.00	4,600.00	4,600.00	4,600.00	10.20	10.20	43.95	38.22	34.92	50.31	29.92	20.40	2.467	
4,700.00	4,700.00	4,700.00	4,700.00	10.42	10.42	43.95	38.22	34.92	50.31	29.47	20.84	2.414	
4,800.00	4,800.00	4,800.00	4,800.00	10.65	10.65	43.95	38.22	34.92	50.31	29.02	21.29	2.363	
4,900.00	4,900.00	4,900.00	4,900.00	10.87	10.87	43.95	38.22	34.92	50.31	28.57	21.74	2.314	
5,000.00	5,000.00	5,000.00	5,000.00	11.10	11.10	43.95	38.22	34.92	50.31	28.12	22.19	2.267	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000:1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 9H - OH - Plan #1 Draft 1														Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD-ADJ														Offset Well Error:	0.00 usft
Reference	Vertical	Offset	Vertical	Semi Major Axis		Highside	Distance		Minimum	Separation	Warning				
Measured Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor			
5,100.00	5,100.00	5,100.00	5,100.00	11.32	11.32	43.95	36.22	34.92	50.31	27.67	22.64	2.222			
5,200.00	5,200.00	5,200.00	5,200.00	11.55	11.55	43.95	36.22	34.92	50.31	27.22	23.09	2.179			
5,300.00	5,300.00	5,300.00	5,300.00	11.77	11.77	43.95	36.22	34.92	50.31	26.77	23.54	2.137			
5,400.00	5,400.00	5,400.00	5,400.00	12.00	12.00	43.95	36.22	34.92	50.31	26.32	23.99	2.097			
5,500.00	5,500.00	5,500.00	5,500.00	12.22	12.22	43.95	36.22	34.92	50.31	25.87	24.44	2.059			
5,600.00	5,600.00	5,600.00	5,600.00	12.45	12.45	43.95	36.22	34.92	50.31	25.42	24.89	2.021			
5,700.00	5,700.00	5,700.00	5,700.00	12.67	12.67	43.95	36.22	34.92	50.31	24.97	25.34	1.985			
5,800.00	5,800.00	5,800.00	5,800.00	12.89	12.89	43.95	36.22	34.92	50.31	24.52	25.79	1.951			
5,900.00	5,900.00	5,900.00	5,900.00	13.12	13.12	43.95	36.22	34.92	50.31	24.07	26.24	1.917			
6,000.00	6,000.00	6,000.00	6,000.00	13.34	13.34	43.95	36.22	34.92	50.31	23.62	26.69	1.885			
6,100.00	6,100.00	6,100.00	6,100.00	13.57	13.57	43.95	36.22	34.92	50.31	23.17	27.14	1.854			
6,200.00	6,200.00	6,200.00	6,200.00	13.79	13.79	43.95	36.22	34.92	50.31	22.72	27.59	1.824			
6,300.00	6,300.00	6,300.00	6,300.00	14.02	14.02	43.95	36.22	34.92	50.31	22.27	28.04	1.794			
6,349.00	6,349.00	6,349.00	6,349.00	14.13	14.13	43.95	36.22	34.92	50.31	22.05	28.26	1.780 CC			
6,350.00	6,350.00	6,350.00	6,350.00	14.13	14.13	-142.31	36.22	34.92	50.31	22.05	28.26	1.780 ES, SF			
6,375.00	6,374.99	6,374.99	6,374.99	14.17	14.19	-142.76	36.22	34.92	50.87	22.54	28.34	1.795			
6,400.00	6,399.90	6,399.90	6,399.90	14.22	14.24	-143.97	36.22	34.92	52.49	24.13	28.36	1.851			
6,425.00	6,424.68	6,424.68	6,424.68	14.26	14.30	-145.81	36.22	34.92	55.21	26.87	28.34	1.948			
6,450.00	6,449.25	6,449.25	6,449.25	14.30	14.35	-148.06	36.22	34.92	59.08	30.84	28.25	2.092			
6,475.00	6,473.54	6,473.54	6,473.54	14.35	14.41	-150.51	36.22	34.92	64.19	36.10	28.10	2.285			
6,500.00	6,497.50	6,497.50	6,497.50	14.39	14.46	-152.99	36.22	34.92	70.55	42.69	27.86	2.532			
6,525.00	6,521.04	6,521.04	6,521.04	14.44	14.52	-155.36	36.22	34.92	78.19	50.63	27.56	2.837			
6,550.00	6,544.12	6,544.12	6,544.12	14.48	14.57	-157.53	36.22	34.92	87.11	59.93	27.18	3.205			
6,575.00	6,566.66	6,566.66	6,566.66	14.52	14.62	-159.48	36.22	34.92	97.30	70.56	26.73	3.639			
6,600.00	6,588.60	6,588.60	6,588.60	14.57	14.67	-161.17	36.22	34.92	108.72	82.50	26.22	4.146			
6,625.00	6,609.88	6,609.88	6,609.88	14.61	14.72	-162.63	36.22	34.92	121.35	95.70	25.65	4.731			
6,650.00	6,630.46	6,630.46	6,630.46	14.65	14.76	-163.86	36.22	34.92	135.14	110.12	25.02	5.401			
6,675.00	6,650.25	6,650.25	6,650.25	14.71	14.81	-164.89	36.22	34.92	150.04	125.69	24.35	6.163			
6,700.00	6,669.23	6,669.23	6,669.23	14.78	14.85	-165.74	36.22	34.92	166.00	142.37	23.62	7.026			
6,725.00	6,687.33	6,687.33	6,687.33	14.85	14.89	-166.41	36.22	34.92	182.97	160.11	22.87	8.002			
6,750.00	6,704.49	6,704.49	6,704.49	14.93	14.93	-168.93	36.22	34.92	200.91	178.83	22.08	9.100			
6,775.00	6,720.69	6,720.69	6,720.69	15.02	14.96	-167.31	36.22	34.92	219.74	198.47	21.27	10.332			
6,800.00	6,735.86	6,735.86	6,735.86	15.12	15.00	-167.54	36.22	34.92	239.43	218.98	20.45	11.709			
6,825.00	6,749.98	6,749.98	6,749.98	15.23	15.03	-167.62	36.22	34.92	259.90	240.27	19.63	13.240			
6,850.00	6,763.00	6,763.00	6,763.00	15.34	15.06	-167.54	36.22	34.92	281.10	262.27	18.83	14.929			
6,875.00	6,774.88	6,774.88	6,774.88	15.47	15.09	-167.28	36.22	34.92	302.97	284.91	18.07	16.770			
6,900.00	6,785.59	6,785.59	6,785.59	15.61	15.11	-166.80	36.22	34.92	325.45	308.08	17.37	18.737			
6,925.00	6,795.11	6,795.11	6,795.11	15.76	15.13	-166.04	36.22	34.92	348.47	331.69	16.78	20.770			
6,950.00	6,803.40	6,803.40	6,803.40	15.92	15.15	-164.88	36.22	34.92	371.96	355.61	16.35	22.750			
6,975.00	6,810.45	6,810.45	6,810.45	16.08	15.17	-163.12	36.22	34.92	395.87	379.68	16.18	24.464			
7,000.00	6,816.24	6,816.24	6,816.24	16.26	15.18	-160.37	36.22	34.92	420.11	403.67	16.45	25.545			
7,025.00	6,820.74	6,820.74	6,820.74	16.45	15.19	-155.81	36.22	34.92	444.64	427.14	17.50	25.408			
7,050.00	6,823.95	6,823.95	6,823.95	16.65	15.20	-147.34	36.22	34.92	469.37	449.21	20.16	23.278			
7,075.00	6,825.86	6,825.86	6,825.86	16.86	15.20	-128.86	36.22	34.92	494.25	468.11	26.13	18.912			
7,097.77	6,826.46	6,826.46	6,826.46	17.06	15.20	-92.47	36.22	34.92	516.97	484.73	32.23	16.038			
7,100.00	6,826.47	6,826.47	6,826.47	17.08	15.20	-92.48	36.22	34.92	519.19	486.94	32.25	16.098			
7,200.00	6,826.73	6,826.73	6,826.73	18.02	15.20	-92.96	36.22	34.92	619.04	585.85	33.19	18.652			
7,300.00	6,826.98	6,826.98	6,826.98	19.10	15.20	-93.44	36.22	34.92	718.94	684.69	34.25	20.993			
7,400.00	6,827.24	6,827.24	6,827.24	20.27	15.20	-93.92	36.22	34.92	818.86	783.45	35.41	23.127			
7,500.00	6,827.50	6,827.50	6,827.50	21.54	15.20	-94.40	36.22	34.92	918.79	882.14	36.65	25.068			

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw "13" State - 9H - OH - Plan #1 Draft 1														Offset Site Error:	0.00 usft
Survey Program: D-LEAM MWD-ADJ														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (")	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)							
7,600.00	6,827.76	8,560.62	7,795.79	22.88	24.77	-174.70	-974.46	-16.83	972.22	953.31	18.91	51.411			
7,700.00	6,828.01	8,660.45	7,796.07	24.28	26.11	-174.36	-1,074.16	-21.72	972.81	952.75	20.06	48.501			
7,800.00	6,828.27	8,760.28	7,796.36	25.73	27.51	-174.02	-1,173.86	-26.80	973.43	952.16	21.26	45.778			
7,900.00	6,828.53	8,860.11	7,796.64	27.22	28.95	-173.68	-1,273.56	-31.89	974.08	951.55	22.52	43.246			
8,000.00	6,828.79	8,959.94	7,796.93	28.75	30.44	-173.34	-1,373.26	-36.97	974.77	950.93	23.83	40.901			
8,100.00	6,829.04	9,058.77	7,797.21	30.31	31.95	-173.00	-1,472.96	-42.06	975.49	950.31	25.18	38.734			
8,200.00	6,829.30	9,159.60	7,797.49	31.90	33.50	-172.66	-1,572.66	-47.15	976.25	949.67	26.58	36.735			
8,300.00	6,829.56	9,258.43	7,797.78	33.51	35.07	-172.32	-1,672.36	-52.23	977.04	949.03	28.00	34.890			
8,400.00	6,829.82	9,359.26	7,798.06	35.14	36.67	-171.98	-1,772.06	-57.32	977.86	948.40	29.47	33.187			
8,500.00	6,830.07	9,459.09	7,798.35	36.79	38.28	-171.64	-1,871.76	-62.40	978.72	947.76	30.96	31.613			
8,600.00	6,830.33	9,558.92	7,798.63	38.45	39.92	-171.31	-1,971.46	-67.49	979.62	947.13	32.48	30.156			
8,700.00	6,830.59	9,658.75	7,798.91	40.12	41.56	-170.97	-2,071.16	-72.57	980.54	946.50	34.04	28.807			
8,800.00	6,830.85	9,758.57	7,799.20	41.81	43.22	-170.64	-2,170.86	-77.66	981.50	945.88	35.62	27.554			
8,900.00	6,831.10	9,858.40	7,799.48	43.50	44.90	-170.30	-2,270.56	-82.74	982.50	945.27	37.23	26.389			
9,000.00	6,831.36	9,958.23	7,799.77	45.21	46.58	-169.97	-2,370.26	-87.83	983.53	944.66	38.87	25.305			
9,100.00	6,831.62	10,060.34	7,800.04	46.92	48.30	-169.63	-2,472.23	-93.09	984.57	944.02	40.55	24.282			
9,200.00	6,831.88	10,171.80	7,799.83	48.64	50.08	-169.41	-2,583.36	-101.53	984.73	942.49	42.24	23.311			
9,248.03	6,832.00	10,219.82	7,799.62	49.46	50.88	-169.35	-2,631.19	-105.80	984.58	941.59	43.00	22.899			
9,256.89	6,832.01	10,228.68	7,799.59	49.62	51.03	-169.34	-2,640.01	-106.58	984.57	941.44	43.13	22.828			
9,300.00	6,831.68	10,271.78	7,799.40	50.36	51.76	-169.28	-2,682.94	-110.41	984.89	941.12	43.77	22.501			
9,327.90	6,831.14	10,299.67	7,799.27	50.84	52.24	-169.24	-2,710.72	-112.89	985.44	941.26	44.18	22.303			
9,400.00	6,829.41	10,371.72	7,798.96	52.09	53.47	-169.14	-2,782.49	-119.29	987.22	941.89	45.34	21.775			
9,500.00	6,827.00	10,471.66	7,798.52	53.82	55.19	-169.00	-2,882.03	-128.17	989.70	942.75	46.95	21.081			
9,600.00	6,824.60	10,571.60	7,798.08	55.58	56.91	-168.86	-2,981.57	-137.05	992.18	943.61	48.57	20.428			
9,700.00	6,822.19	10,671.54	7,797.64	57.31	58.64	-168.72	-3,081.12	-145.93	994.66	944.46	50.20	19.814			
9,800.00	6,819.79	10,771.48	7,797.21	59.06	60.37	-168.58	-3,180.66	-154.81	997.16	945.31	51.84	19.234			
9,900.00	6,817.38	10,871.42	7,796.77	60.81	62.11	-168.44	-3,280.20	-163.69	999.65	946.15	53.50	18.686			
10,000.00	6,814.97	10,971.36	7,796.33	62.56	63.85	-168.30	-3,379.75	-172.57	1,002.16	946.99	55.16	18.167			
10,100.00	6,812.57	11,071.30	7,795.89	64.32	65.59	-168.17	-3,479.29	-181.45	1,004.67	947.83	56.84	17.676			
10,200.00	6,810.16	11,171.24	7,795.45	66.08	67.34	-168.03	-3,578.84	-190.33	1,007.18	948.66	58.52	17.210			
10,300.00	6,807.76	11,271.18	7,795.02	67.85	69.09	-167.89	-3,678.38	-199.21	1,009.70	949.49	60.22	16.768			
10,400.00	6,805.35	11,371.12	7,794.58	69.61	70.84	-167.76	-3,777.92	-208.09	1,012.23	950.31	61.92	16.348			
10,500.00	6,802.95	11,471.06	7,794.14	71.38	72.60	-167.62	-3,877.47	-216.97	1,014.76	951.13	63.63	15.948			
10,600.00	6,800.54	11,571.00	7,793.70	73.15	74.36	-167.49	-3,977.01	-225.85	1,017.30	951.94	65.35	15.566			
10,700.00	6,798.14	11,670.94	7,793.26	74.92	76.12	-167.36	-4,076.55	-234.73	1,019.84	952.76	67.08	15.203			
10,800.00	6,795.73	11,770.88	7,792.83	76.70	77.88	-167.23	-4,176.10	-243.61	1,022.39	953.57	68.82	14.856			
10,900.00	6,793.33	11,870.82	7,792.39	78.47	79.65	-167.09	-4,275.64	-252.49	1,024.94	954.37	70.57	14.524			
11,000.00	6,790.92	11,970.76	7,791.95	80.25	81.42	-166.96	-4,375.18	-261.37	1,027.50	955.18	72.33	14.207			
11,100.00	6,788.51	12,070.70	7,791.51	82.03	83.19	-166.83	-4,474.73	-270.25	1,030.07	955.97	74.09	13.903			
11,200.00	6,786.11	12,170.64	7,791.07	83.81	84.96	-166.70	-4,574.27	-279.13	1,032.63	956.77	75.86	13.612			
11,246.07	6,785.00	12,187.37	7,791.00	84.63	85.25	-166.68	-4,590.94	-280.62	1,034.24	957.84	76.40	13.537			

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw Offsets - Lone Tree #1 - OH - OH														Offset Site Error:	0.00 usft
Survey Program: 100-NS-GYRO-MS														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (")	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)							
0.00	0.00	0.00	0.00	0.00	0.00	-134.74	-2,981.60	-3,009.11	4,236.12						
100.00	100.00	88.12	88.12	0.08	0.10	-134.74	-2,981.63	-3,009.26	4,236.26	4,236.08	0.18	N/A			
200.00	200.00	181.76	181.76	0.31	0.33	-134.73	-2,981.66	-3,009.70	4,236.62	4,235.99	0.64	6,652.251			
300.00	300.00	273.66	273.66	0.53	0.57	-134.73	-2,981.72	-3,010.32	4,237.14	4,236.04	1.10	3,840.295			
400.00	400.00	368.82	368.82	0.76	0.82	-134.72	-2,982.00	-3,010.97	4,237.83	4,236.26	1.57	2,692.298			
500.00	500.00	463.17	463.16	0.98	1.05	-134.72	-2,982.48	-3,011.54	4,238.63	4,236.59	2.03	2,082.910			
600.00	600.00	561.28	561.26	1.21	1.30	-134.72	-2,983.19	-3,012.10	4,239.54	4,237.04	2.50	1,694.205			
700.00	700.00	678.30	678.28	1.43	1.56	-134.73	-2,984.02	-3,012.57	4,240.34	4,237.35	2.99	1,419.043			
800.00	800.00	759.62	759.60	1.66	1.74	-134.73	-2,984.66	-3,012.69	4,241.01	4,237.61	3.40	1,247.451			
900.00	900.00	860.93	860.90	1.88	1.98	-134.73	-2,985.57	-3,013.37	4,242.12	4,238.25	3.87	1,097.377			
1,000.00	1,000.00	961.64	961.60	2.11	2.22	-134.74	-2,986.55	-3,013.53	4,242.92	4,238.59	4.33	980.278			
1,100.00	1,100.00	1,046.87	1,046.83	2.33	2.43	-134.75	-2,987.71	-3,013.67	4,243.99	4,239.23	4.76	892.227			
1,200.00	1,200.00	1,129.31	1,129.26	2.56	2.63	-134.76	-2,988.92	-3,014.14	4,245.44	4,240.25	5.19	818.210			
1,300.00	1,300.00	1,212.17	1,212.11	2.78	2.85	-134.76	-2,990.27	-3,015.03	4,247.34	4,241.71	5.63	754.311			
1,400.00	1,400.00	1,317.00	1,316.91	3.01	3.13	-134.77	-2,991.95	-3,016.31	4,249.33	4,243.20	6.13	692.857			
1,500.00	1,500.00	1,413.24	1,413.13	3.23	3.38	-134.77	-2,993.54	-3,017.45	4,251.33	4,244.72	6.61	643.021			
1,600.00	1,600.00	1,513.53	1,513.40	3.45	3.64	-134.77	-2,994.73	-3,019.18	4,253.39	4,246.30	7.09	599.763			
1,700.00	1,700.00	1,622.71	1,622.56	3.68	3.90	-134.75	-2,995.33	-3,021.46	4,255.26	4,247.68	7.58	561.348			
1,800.00	1,800.00	1,714.22	1,714.04	3.90	4.13	-134.74	-2,995.84	-3,023.46	4,257.20	4,249.17	8.03	530.388			
1,900.00	1,900.00	1,818.76	1,818.55	4.13	4.38	-134.72	-2,996.48	-3,025.75	4,259.19	4,250.68	8.51	500.533			
2,000.00	2,000.00	1,945.51	1,945.30	4.35	4.69	-134.70	-2,996.91	-3,028.30	4,260.87	4,251.83	9.04	471.425			
2,100.00	2,100.00	2,066.51	2,066.26	4.58	4.96	-134.68	-2,996.73	-3,030.06	4,261.78	4,252.25	9.53	447.131			
2,200.00	2,200.00	2,171.86	2,171.60	4.80	5.17	-134.66	-2,996.16	-3,031.71	4,262.52	4,252.54	9.97	427.438			
2,300.00	2,300.00	2,273.37	2,273.10	5.03	5.38	-134.64	-2,995.53	-3,033.24	4,263.15	4,252.75	10.40	409.740			
2,400.00	2,400.00	2,372.20	2,371.92	5.25	5.59	-134.62	-2,995.00	-3,034.65	4,263.79	4,252.96	10.84	393.454			
2,500.00	2,500.00	2,472.88	2,472.58	5.48	5.80	-134.60	-2,994.36	-3,036.22	4,264.45	4,253.18	11.28	378.186			
2,600.00	2,600.00	2,580.99	2,580.67	5.70	6.03	-134.58	-2,993.67	-3,037.76	4,265.02	4,253.29	11.73	363.585			
2,700.00	2,700.00	2,682.06	2,681.74	5.93	6.25	-134.57	-2,993.13	-3,038.89	4,265.44	4,253.26	12.18	350.287			
2,800.00	2,800.00	2,784.21	2,783.88	6.15	6.48	-134.55	-2,992.76	-3,039.84	4,265.85	4,253.22	12.63	337.735			
2,900.00	2,900.00	2,884.38	2,884.05	6.38	6.71	-134.54	-2,992.26	-3,040.85	4,266.22	4,253.14	13.08	326.180			
3,000.00	3,000.00	3,000.00	2,999.66	6.60	6.95	-134.53	-2,991.72	-3,041.68	4,266.41	4,252.86	13.54	315.015			
3,100.00	3,100.00	3,094.29	3,093.95	6.83	7.13	-134.51	-2,991.16	-3,042.29	4,266.45	4,252.49	13.95	305.766			
3,200.00	3,200.00	3,222.39	3,222.04	7.05	7.35	-134.50	-2,990.01	-3,042.97	4,266.18	4,251.79	14.40	296.309			
3,300.00	3,300.00	3,321.56	3,321.20	7.28	7.50	-134.48	-2,988.84	-3,043.52	4,265.75	4,250.97	14.77	288.737			
3,400.00	3,400.00	3,436.91	3,436.55	7.50	7.66	-134.46	-2,987.26	-3,043.75	4,264.92	4,249.75	15.16	281.286			
3,500.00	3,500.00	3,527.92	3,527.54	7.73	7.80	-134.45	-2,986.01	-3,044.10	4,264.22	4,248.70	15.52	274.742			
3,600.00	3,600.00	3,648.24	3,647.84	7.95	7.99	-134.42	-2,984.04	-3,044.66	4,263.42	4,247.48	15.94	267.510			
3,700.00	3,700.00	3,761.58	3,761.16	8.17	8.15	-134.40	-2,981.67	-3,044.78	4,262.02	4,245.69	16.32	261.079			
3,800.00	3,800.00	3,856.56	3,856.13	8.40	8.29	-134.38	-2,979.80	-3,044.78	4,260.63	4,243.95	16.69	255.350			
3,900.00	3,900.00	3,953.57	3,953.11	8.62	8.44	-134.36	-2,977.85	-3,044.96	4,259.37	4,242.31	17.06	249.683			
4,000.00	4,000.00	4,051.90	4,051.43	8.85	8.59	-134.34	-2,976.00	-3,045.08	4,258.13	4,240.69	17.44	244.121			
4,100.00	4,100.00	4,142.22	4,141.73	9.07	8.75	-134.32	-2,974.27	-3,045.33	4,257.00	4,239.18	17.82	238.833			
4,200.00	4,200.00	4,231.96	4,231.46	9.30	8.92	-134.31	-2,972.86	-3,045.69	4,256.19	4,237.98	18.22	233.662			
4,300.00	4,300.00	4,334.72	4,334.21	9.52	9.11	-134.29	-2,971.41	-3,045.99	4,255.42	4,236.78	18.63	228.365			
4,400.00	4,400.00	4,443.60	4,443.07	9.75	9.32	-134.27	-2,969.68	-3,046.38	4,254.56	4,235.49	19.07	223.144			
4,500.00	4,500.00	4,540.06	4,539.51	9.97	9.51	-134.25	-2,967.86	-3,046.66	4,253.45	4,233.97	19.48	218.350			
4,600.00	4,600.00	4,625.58	4,625.03	10.20	9.68	-134.23	-2,966.70	-3,047.03	4,252.80	4,232.92	19.88	213.953			
4,700.00	4,700.00	4,735.55	4,734.99	10.42	9.90	-134.22	-2,965.16	-3,047.26	4,251.96	4,231.63	20.32	209.202			
4,800.00	4,800.00	4,824.92	4,824.34	10.65	10.09	-134.20	-2,963.83	-3,047.76	4,251.31	4,230.58	20.74	205.029			
4,900.00	4,900.00	4,925.66	4,925.07	10.87	10.30	-134.18	-2,962.52	-3,048.11	4,250.66	4,229.49	21.17	200.744			
5,000.00	5,000.00	5,019.90	5,019.30	11.10	10.52	-134.17	-2,961.40	-3,048.58	4,250.18	4,228.56	21.62	196.585			

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Lone Tree Draw Offsets -- Lone Tree #1 - OH - OH												Offset Well Error:	0.00 usft
Survey Program: 100-NS-GYRO-MS													
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)					
5,100.00	5,100.00	5,119.61	5,119.01	11.32	10.76	-134.15	-2,980.22	-3,049.09	4,249.73	4,227.65	22.09	192.420	
5,200.00	5,200.00	5,219.32	5,218.71	11.55	11.01	-134.14	-2,959.06	-3,049.60	4,249.29	4,226.74	22.55	188.427	
5,300.00	5,300.00	5,319.03	5,318.41	11.77	11.25	-134.12	-2,957.92	-3,050.10	4,248.85	4,225.84	23.02	184.595	
5,400.00	5,400.00	5,418.74	5,418.12	12.00	11.49	-134.11	-2,956.80	-3,050.59	4,248.42	4,224.94	23.48	180.916	
5,500.00	5,500.00	5,518.46	5,517.82	12.22	11.73	-134.09	-2,955.70	-3,051.07	4,248.00	4,224.05	23.95	177.380	
5,600.00	5,600.00	5,618.17	5,617.53	12.45	11.97	-134.08	-2,954.61	-3,051.55	4,247.58	4,223.17	24.41	173.980	
5,700.00	5,700.00	5,717.88	5,717.24	12.67	12.21	-134.06	-2,953.53	-3,052.02	4,247.17	4,222.29	24.88	170.707	
5,800.00	5,800.00	5,817.60	5,816.95	12.89	12.45	-134.05	-2,952.48	-3,052.48	4,246.77	4,221.43	25.35	167.554	
5,900.00	5,900.00	5,917.31	5,916.65	13.12	12.69	-134.03	-2,951.44	-3,052.94	4,246.38	4,220.57	25.81	164.516	
6,000.00	6,000.00	6,017.03	6,016.36	13.34	12.93	-134.02	-2,950.42	-3,053.38	4,245.99	4,219.71	26.28	161.585	
6,100.00	6,100.00	6,116.74	6,116.07	13.57	13.17	-134.00	-2,949.42	-3,053.82	4,245.61	4,218.86	26.74	158.757	
6,200.00	6,200.00	6,216.46	6,215.78	13.79	13.41	-133.99	-2,948.44	-3,054.25	4,245.23	4,218.02	27.21	156.026	
6,300.00	6,300.00	6,316.18	6,315.49	14.02	13.66	-133.98	-2,947.47	-3,054.68	4,244.86	4,217.19	27.67	153.387	
6,349.00	6,349.00	6,365.04	6,364.35	14.13	13.77	-133.97	-2,947.00	-3,054.88	4,244.68	4,216.78	27.90	152.126	
6,350.00	6,350.00	6,366.03	6,365.35	14.13	13.78	39.77	-2,946.99	-3,054.89	4,244.68	4,216.77	27.91	152.103	
6,375.00	6,374.99	6,390.94	6,390.26	14.17	13.84	39.82	-2,946.75	-3,054.99	4,244.05	4,216.06	27.99	151.641	
6,400.00	6,399.90	6,415.77	6,415.08	14.22	13.90	39.97	-2,946.52	-3,055.09	4,242.41	4,214.38	28.03	151.367	
6,425.00	6,424.68	6,440.45	6,439.76	14.26	13.96	40.21	-2,946.28	-3,055.20	4,239.78	4,211.75	28.03	151.273	
6,450.00	6,449.25	6,464.91	6,464.22	14.30	14.01	40.54	-2,946.06	-3,055.30	4,236.15	4,208.16	27.99	151.349	
6,475.00	6,473.54	6,489.08	6,488.39	14.35	14.07	40.96	-2,945.83	-3,055.40	4,231.55	4,203.63	27.92	151.579	
6,500.00	6,497.50	6,512.90	6,512.21	14.39	14.13	41.47	-2,945.61	-3,055.49	4,225.99	4,198.17	27.81	151.943	
6,525.00	6,521.04	6,536.31	6,535.62	14.44	14.19	42.09	-2,945.39	-3,055.59	4,219.48	4,191.79	27.68	152.415	
6,550.00	6,544.12	6,559.24	6,558.54	14.48	14.24	42.81	-2,945.18	-3,055.68	4,212.04	4,184.51	27.54	152.963	
6,575.00	6,566.66	6,581.62	6,580.92	14.52	14.30	43.63	-2,944.97	-3,055.77	4,203.71	4,176.34	27.38	153.548	
6,600.00	6,588.60	6,603.40	6,602.70	14.57	14.35	44.57	-2,944.77	-3,055.86	4,194.51	4,167.29	27.22	154.122	
6,625.00	6,609.88	6,624.52	6,623.82	14.61	14.40	45.62	-2,944.58	-3,055.94	4,184.46	4,157.40	27.06	154.629	
6,650.00	6,630.46	6,644.91	6,644.21	14.65	14.45	46.80	-2,944.40	-3,056.02	4,173.60	4,146.67	26.93	155.008	
6,675.00	6,650.25	6,664.53	6,663.83	14.71	14.50	48.10	-2,944.22	-3,056.10	4,161.96	4,135.14	26.82	155.192	
6,700.00	6,669.23	6,683.31	6,682.61	14.78	14.54	49.53	-2,944.05	-3,056.17	4,149.58	4,122.83	26.75	155.113	
6,725.00	6,687.33	6,701.22	6,700.51	14.85	14.59	51.11	-2,943.89	-3,056.24	4,136.51	4,109.77	26.74	154.706	
6,750.00	6,704.49	6,718.19	6,717.48	14.93	14.63	52.82	-2,943.74	-3,056.31	4,122.77	4,095.98	26.79	153.917	
6,775.00	6,720.99	6,734.18	6,733.48	15.02	14.67	54.69	-2,943.60	-3,056.37	4,108.42	4,081.51	26.90	152.712	
6,800.00	6,735.86	6,749.15	6,748.45	15.12	14.70	56.71	-2,943.46	-3,056.43	4,093.49	4,066.40	27.10	151.077	
6,825.00	6,749.98	6,763.06	6,762.35	15.23	14.74	58.88	-2,943.34	-3,056.49	4,078.04	4,050.68	27.36	149.030	
6,850.00	6,763.00	6,775.87	6,775.16	15.34	14.77	61.20	-2,943.23	-3,056.53	4,062.11	4,034.41	27.71	146.616	
6,875.00	6,774.88	6,787.54	6,786.83	15.47	14.79	63.67	-2,943.12	-3,056.58	4,045.75	4,017.64	28.11	143.909	
6,900.00	6,785.59	6,798.04	6,797.33	15.61	14.82	66.29	-2,943.03	-3,056.62	4,029.02	4,000.44	28.57	141.001	
6,925.00	6,795.11	6,807.34	6,806.63	15.76	14.84	69.03	-2,942.95	-3,056.66	4,011.96	3,982.88	29.07	137.996	
6,950.00	6,803.40	6,815.42	6,814.71	15.92	14.86	71.90	-2,942.88	-3,056.69	3,994.62	3,965.03	29.59	135.002	
6,975.00	6,810.45	6,822.26	6,821.55	16.08	14.88	74.86	-2,942.82	-3,056.71	3,977.05	3,946.95	30.10	132.115	
7,000.00	6,816.24	6,827.83	6,827.12	16.26	14.89	77.91	-2,942.77	-3,056.73	3,959.31	3,928.72	30.59	129.420	
7,025.00	6,820.74	6,832.12	6,831.41	16.45	14.90	81.00	-2,942.73	-3,056.75	3,941.45	3,910.41	31.04	126.983	
7,050.00	6,823.95	6,835.12	6,834.41	16.65	14.91	84.13	-2,942.71	-3,056.76	3,923.53	3,892.10	31.43	124.846	
7,075.00	6,825.86	6,836.82	6,836.11	16.86	14.91	87.25	-2,942.69	-3,056.77	3,905.58	3,873.84	31.74	123.033	
7,097.77	6,826.46	6,837.23	6,836.52	17.06	14.91	90.06	-2,942.69	-3,056.77	3,889.26	3,857.30	31.97	121.665	
7,100.00	6,826.47	6,837.22	6,836.51	17.08	14.91	90.06	-2,942.69	-3,056.77	3,887.67	3,855.68	31.99	121.541	
7,200.00	6,826.73	6,836.65	6,835.94	18.02	14.91	90.05	-2,942.69	-3,056.77	3,816.80	3,783.86	32.93	115.896	
7,300.00	6,826.98	6,836.09	6,835.38	19.10	14.91	90.04	-2,942.70	-3,056.77	3,747.25	3,713.25	34.00	110.200	
7,400.00	6,827.24	6,835.52	6,834.81	20.27	14.91	90.02	-2,942.70	-3,056.76	3,679.11	3,643.93	35.18	104.578	
7,500.00	6,827.50	6,834.95	6,834.24	21.54	14.91	90.01	-2,942.71	-3,056.76	3,612.45	3,576.00	36.44	99.122	

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error: 0.00 usft	
Lone Tree Draw Offsets - Lone Tree #1 - OH - OH													Offset Well Error: 0.00 usft	
Survey Program: 100-NS-GYRO-MS														
Reference		Offset		Semi Major Axis		Highside Tooface (")	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)						
7,600.00	6,827.76	6,834.38	6,833.67	22.88	14.91	90.00	-2,942.71	-3,056.76	3,547.36	3,509.58	37.78	93.891		
7,700.00	6,828.01	6,833.82	6,833.11	24.28	14.91	89.99	-2,942.72	-3,056.76	3,483.92	3,444.74	39.18	88.920		
7,800.00	6,828.27	6,833.25	6,832.54	25.73	14.90	89.98	-2,942.72	-3,056.76	3,422.23	3,381.60	40.63	84.229		
7,900.00	6,828.53	6,832.68	6,831.97	27.22	14.90	89.97	-2,942.73	-3,056.75	3,362.38	3,320.26	42.12	79.824		
8,000.00	6,828.79	6,832.11	6,831.40	28.75	14.90	89.95	-2,942.73	-3,056.75	3,304.47	3,260.82	43.65	75.701		
8,100.00	6,829.04	6,831.54	6,830.83	30.31	14.90	89.94	-2,942.74	-3,056.75	3,248.61	3,203.40	45.21	71.854		
8,200.00	6,829.30	6,830.98	6,830.27	31.90	14.90	89.93	-2,942.74	-3,056.75	3,194.91	3,148.11	46.80	68.272		
8,300.00	6,829.56	6,830.41	6,829.70	33.51	14.90	89.92	-2,942.75	-3,056.74	3,143.47	3,095.06	48.41	64.940		
8,400.00	6,829.82	6,829.84	6,829.13	35.14	14.90	89.91	-2,942.75	-3,056.74	3,094.40	3,044.37	50.03	61.847		
8,500.00	6,830.07	6,829.27	6,828.56	36.79	14.90	89.89	-2,942.76	-3,056.74	3,047.83	2,996.16	51.68	58.977		
8,600.00	6,830.33	6,828.70	6,827.99	38.45	14.89	89.88	-2,942.76	-3,056.74	3,003.87	2,950.53	53.34	56.318		
8,700.00	6,830.59	6,828.13	6,827.42	40.12	14.89	89.87	-2,942.77	-3,056.74	2,962.63	2,907.82	55.01	53.856		
8,800.00	6,830.85	6,827.56	6,826.85	41.81	14.89	89.86	-2,942.77	-3,056.73	2,924.23	2,867.54	56.69	51.580		
8,900.00	6,831.10	6,826.99	6,826.28	43.50	14.89	89.85	-2,942.78	-3,056.73	2,888.78	2,830.40	58.39	49.476		
9,000.00	6,831.36	6,826.42	6,825.71	45.21	14.89	89.83	-2,942.78	-3,056.73	2,856.40	2,796.31	60.09	47.536		
9,100.00	6,831.62	6,825.85	6,825.14	46.92	14.89	89.82	-2,942.79	-3,056.73	2,827.18	2,765.38	61.80	45.747		
9,200.00	6,831.88	6,825.28	6,824.57	48.64	14.89	89.81	-2,942.79	-3,056.72	2,801.23	2,737.71	63.52	44.102		
9,248.03	6,832.00	6,825.01	6,824.30	49.46	14.89	89.80	-2,942.79	-3,056.72	2,789.96	2,725.61	64.34	43.359		
9,300.00	6,831.68	6,824.26	6,823.55	50.36	14.88	90.01	-2,942.80	-3,056.72	2,778.50	2,713.26	65.24	42.590		
9,327.90	6,831.14	6,823.49	6,822.78	50.84	14.88	90.12	-2,942.81	-3,056.72	2,772.62	2,706.91	65.72	42.192		
9,400.00	6,829.41	6,821.16	6,820.45	52.09	14.88	90.07	-2,942.83	-3,056.71	2,758.57	2,691.62	66.96	41.200		
9,500.00	6,827.00	6,817.92	6,817.21	53.82	14.87	90.00	-2,942.86	-3,056.70	2,742.11	2,673.42	68.68	39.923		
9,600.00	6,824.60	6,814.68	6,813.97	55.56	14.86	89.93	-2,942.89	-3,056.68	2,729.20	2,658.79	70.42	38.757		
9,700.00	6,822.19	6,811.45	6,810.74	57.31	14.85	89.86	-2,942.91	-3,056.67	2,719.92	2,647.76	72.15	37.696		
9,800.00	6,819.79	6,808.21	6,807.50	59.06	14.84	89.79	-2,942.94	-3,056.66	2,714.28	2,640.38	73.90	36.731		
9,900.00	6,817.38	6,804.97	6,804.26	60.81	14.84	89.72	-2,942.97	-3,056.65	2,712.31	2,636.67	75.64	35.858		
9,903.36	6,817.30	6,804.86	6,804.15	60.87	14.84	89.72	-2,942.97	-3,056.65	2,712.31	2,636.61	75.70	35,830 CC, ES		
10,000.00	6,814.97	6,801.73	6,801.02	62.56	14.83	89.66	-2,943.00	-3,056.63	2,714.03	2,636.64	77.39	35.071		
10,100.00	6,812.57	6,798.49	6,797.78	64.32	14.82	89.58	-2,943.03	-3,056.62	2,719.42	2,640.28	79.14	34.363		
10,200.00	6,810.16	6,795.24	6,794.54	66.08	14.81	89.52	-2,943.06	-3,056.61	2,728.47	2,647.58	80.89	33.730		
10,300.00	6,807.76	6,792.00	6,791.29	67.85	14.81	89.45	-2,943.08	-3,056.60	2,741.13	2,658.48	82.65	33.167		
10,400.00	6,805.35	6,788.75	6,788.05	69.61	14.80	89.38	-2,943.11	-3,056.58	2,757.36	2,672.95	84.40	32.669		
10,500.00	6,802.95	6,785.51	6,784.80	71.38	14.79	89.31	-2,943.14	-3,056.57	2,777.09	2,690.93	86.16	32.231		
10,600.00	6,800.54	6,782.26	6,781.55	73.15	14.78	89.25	-2,943.17	-3,056.56	2,800.25	2,712.33	87.92	31,849		
10,700.00	6,798.14	6,779.01	6,778.31	74.92	14.77	89.18	-2,943.20	-3,056.55	2,826.76	2,737.08	89.69	31.518		
10,800.00	6,795.73	6,775.76	6,775.06	76.70	14.77	89.11	-2,943.23	-3,056.53	2,856.53	2,765.07	91.45	31.236		
10,900.00	6,793.33	6,772.51	6,771.81	78.47	14.76	89.04	-2,943.26	-3,056.52	2,889.44	2,796.22	93.22	30.997		
11,000.00	6,790.92	6,769.26	6,768.56	80.25	14.75	88.97	-2,943.28	-3,056.51	2,925.40	2,830.42	94.98	30.796		
11,100.00	6,788.51	6,766.01	6,765.30	82.03	14.74	88.90	-2,943.31	-3,056.50	2,964.30	2,867.55	96.75	30.638		
11,200.00	6,786.11	6,762.76	6,762.05	83.81	14.73	88.83	-2,943.34	-3,056.48	3,006.01	2,907.49	98.52	30.511		
11,246.07	6,785.00	6,761.26	6,760.55	84.63	14.73	88.80	-2,943.36	-3,056.48	3,026.15	2,926.82	99.34	30,464 SF		

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw Offsets - Lone Tree Draw 13 State #3H - OH - OH														Offset Site Error:	0.00 usft
Survey Program: 100-NS-GYRO-MS, 4452-MWD-ISCWSA, 9564-Project														Offset Well Error:	0.00 usft
Reference	Offset	Semi-Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum Separation		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)	Minimum Separation (usft)	Separation Factor				
0.00	0.00	29.27	3.27	0.00	0.03	-86.82	176.21	-3,173.49	3,178.38						
100.00	100.00	135.12	109.12	0.08	0.20	-86.81	176.93	-3,173.18	3,178.12	3,177.84	0.29	N/A			
200.00	200.00	231.38	205.37	0.31	0.46	-86.80	177.61	-3,172.94	3,177.91	3,177.15	0.77	4,153.572			
300.00	300.00	328.52	302.50	0.53	0.71	-86.77	178.98	-3,172.71	3,177.76	3,176.51	1.25	2,551.183			
326.36	326.36	352.38	326.36	0.59	0.78	-86.76	179.38	-3,172.68	3,177.75	3,176.38	1.37	2,324.328			
400.00	400.00	421.56	395.53	0.76	0.96	-86.74	180.51	-3,172.69	3,177.82	3,176.11	1.71	1,854.731			
500.00	500.00	526.50	500.46	0.98	1.23	-86.72	181.88	-3,172.70	3,177.91	3,175.70	2.21	1,435.960			
600.00	600.00	630.49	604.44	1.21	1.51	-86.69	183.43	-3,172.44	3,177.75	3,175.03	2.71	1,171.453			
635.07	635.07	661.24	635.18	1.29	1.59	-86.68	183.99	-3,172.39	3,177.72	3,174.85	2.87	1,106.155			
700.00	700.00	721.86	695.79	1.43	1.75	-86.66	185.22	-3,172.38	3,177.79	3,174.61	3.18	999.630			
800.00	800.00	830.17	804.09	1.66	2.03	-86.63	187.04	-3,172.31	3,177.82	3,174.13	3.69	861.140			
900.00	900.00	930.61	904.51	1.88	2.30	-86.59	188.98	-3,171.91	3,177.54	3,173.36	4.18	760.214			
919.21	919.21	945.32	919.21	1.92	2.34	-86.59	189.27	-3,171.88	3,177.52	3,173.26	4.26	745.674 CC			
1,000.00	1,000.00	1,007.99	981.87	2.11	2.50	-86.56	190.46	-3,172.00	3,177.76	3,173.16	4.60	690.076			
1,100.00	1,100.00	1,100.00	1,073.87	2.33	2.73	-86.54	192.02	-3,172.66	3,178.57	3,173.52	5.06	628.659			
1,200.00	1,200.00	1,180.67	1,154.52	2.56	2.91	-86.52	193.24	-3,173.60	3,179.80	3,174.33	5.46	581.908			
1,300.00	1,300.00	1,275.95	1,249.78	2.78	3.11	-86.50	194.44	-3,174.99	3,181.33	3,175.44	5.89	539.912			
1,400.00	1,400.00	1,387.03	1,360.85	3.01	3.34	-86.48	195.35	-3,176.55	3,182.79	3,176.44	6.34	501.752			
1,500.00	1,500.00	1,475.13	1,448.94	3.23	3.52	-86.47	196.01	-3,177.71	3,184.16	3,177.40	6.75	471.533			
1,600.00	1,600.00	1,566.28	1,540.07	3.45	3.72	-86.45	196.99	-3,179.27	3,185.93	3,178.75	7.18	443.845			
1,700.00	1,700.00	1,666.49	1,640.26	3.68	3.95	-86.43	198.27	-3,181.11	3,187.84	3,180.21	7.63	417.621			
1,800.00	1,800.00	1,752.81	1,726.55	3.90	4.15	-86.42	199.31	-3,182.76	3,189.84	3,181.79	8.05	396.248			
1,900.00	1,900.00	1,851.35	1,825.06	4.13	4.35	-86.41	199.92	-3,185.21	3,192.36	3,183.88	8.48	376.377			
2,000.00	2,000.00	1,951.25	1,924.94	4.35	4.56	-86.40	200.48	-3,187.35	3,194.53	3,185.62	8.91	358.480			
2,100.00	2,100.00	2,068.49	2,042.14	4.58	4.80	-86.40	200.82	-3,190.10	3,196.94	3,187.56	9.38	340.894			
2,200.00	2,200.00	2,168.81	2,140.45	4.80	5.00	-86.40	201.02	-3,191.69	3,198.57	3,188.77	9.80	326.317			
2,300.00	2,300.00	2,276.95	2,250.57	5.03	5.23	-86.40	200.98	-3,193.75	3,200.45	3,190.20	10.26	312.073			
2,400.00	2,400.00	2,403.77	2,377.38	5.25	5.51	-86.39	201.36	-3,195.13	3,201.55	3,190.79	10.76	297.459			
2,500.00	2,500.00	2,500.00	2,473.61	5.48	5.72	-86.39	201.37	-3,195.92	3,202.37	3,191.17	11.19	286.151			
2,600.00	2,600.00	2,578.57	2,552.17	5.70	5.88	-86.40	201.30	-3,196.87	3,203.56	3,191.98	11.58	278.693			
2,700.00	2,700.00	2,672.87	2,646.46	5.93	6.07	-86.40	201.04	-3,198.44	3,205.20	3,193.21	11.99	267.303			
2,800.00	2,800.00	2,769.32	2,742.90	6.15	6.26	-86.41	200.61	-3,200.12	3,206.91	3,194.51	12.41	258.479			
2,900.00	2,900.00	2,872.94	2,846.50	6.38	6.47	-86.42	200.24	-3,201.98	3,208.68	3,195.83	12.84	249.838			
3,000.00	3,000.00	3,000.00	2,973.54	6.60	6.74	-86.43	199.88	-3,203.64	3,209.98	3,196.64	13.33	240.739			
3,100.00	3,100.00	3,089.82	3,063.36	6.83	6.94	-86.43	199.79	-3,204.51	3,210.94	3,197.18	13.76	233.370			
3,200.00	3,200.00	3,176.05	3,149.58	7.05	7.14	-86.43	199.82	-3,205.67	3,212.29	3,198.10	14.19	226.415			
3,300.00	3,300.00	3,275.03	3,248.55	7.28	7.37	-86.43	199.88	-3,207.30	3,213.93	3,199.29	14.65	219.447			
3,400.00	3,400.00	3,387.47	3,360.97	7.50	7.63	-86.44	199.62	-3,208.93	3,215.37	3,200.24	15.13	212.578			
3,500.00	3,500.00	3,484.73	3,458.23	7.73	7.85	-86.45	199.42	-3,210.14	3,216.60	3,201.02	15.57	206.558			
3,600.00	3,600.00	3,584.96	3,558.45	7.95	8.09	-86.45	199.30	-3,211.46	3,217.90	3,201.87	16.03	200.693			
3,700.00	3,700.00	3,686.47	3,659.95	8.17	8.34	-86.45	199.33	-3,212.75	3,219.17	3,202.66	16.51	195.010			
3,800.00	3,800.00	3,785.52	3,759.00	8.40	8.58	-86.45	199.37	-3,213.99	3,220.43	3,203.45	16.98	189.699			
3,900.00	3,900.00	3,883.68	3,857.15	8.62	8.82	-86.45	199.31	-3,215.27	3,221.73	3,204.28	17.44	184.722			
4,000.00	4,000.00	3,985.68	3,959.14	8.85	9.08	-86.45	199.34	-3,216.60	3,223.03	3,205.12	17.92	179.858			
4,100.00	4,100.00	4,081.50	4,054.95	9.07	9.32	-86.45	199.47	-3,217.86	3,224.35	3,205.96	18.39	175.353			
4,200.00	4,200.00	4,175.89	4,149.33	9.30	9.56	-86.45	199.65	-3,219.25	3,225.84	3,206.98	18.85	171.096			
4,300.00	4,300.00	4,267.82	4,241.24	9.52	9.80	-86.45	199.83	-3,220.79	3,227.52	3,208.21	19.31	167.117			
4,400.00	4,400.00	4,367.12	4,340.53	9.75	10.04	-86.45	199.88	-3,222.66	3,229.40	3,209.61	19.79	163.206			
4,500.00	4,500.00	4,477.09	4,450.43	9.97	10.15	-86.50	197.36	-3,224.64	3,231.05	3,210.88	20.17	160.197			
4,600.00	4,600.00	4,826.47	4,595.66	10.20	10.20	-87.08	164.89	-3,227.74	3,231.96	3,211.52	20.43	158.163			
4,700.00	4,700.00	4,853.25	4,782.29	10.42	10.60	-89.30	39.33	-3,229.56	3,230.85	3,209.70	21.15	152.774			

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw Offsets - Lone Tree Draw 13 State #3H - OH - OH														Offset Site Error:	0.00 usft
Survey Program: 100-NS-GYRO-MS. 4452-MWD-ISCWSA, 9564-Project														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		
4,800.00	4,800.00	4,802.87	4,814.77	10.65	10.82	-89.97	1.85	-3,229.36	3,229.39	3,207.78	21.61	149.417			
4,827.82	4,827.82	4,821.63	4,825.93	10.71	10.91	-90.23	-13.22	-3,229.31	3,229.33	3,207.55	21.78	148.255			
4,900.00	4,900.00	5,098.51	4,898.87	10.87	12.28	-93.08	-173.40	-3,224.74	3,229.40	3,205.96	23.45	137.744			
5,000.00	5,000.00	5,115.00	4,903.02	11.10	12.44	-93.36	-189.34	-3,223.94	3,230.95	3,207.10	23.85	135.492			
5,100.00	5,100.00	5,115.00	4,903.02	11.32	12.44	-93.36	-189.34	-3,223.94	3,235.48	3,211.42	24.07	134.416			
5,200.00	5,200.00	5,115.00	4,903.02	11.55	12.44	-93.36	-189.34	-3,223.94	3,243.12	3,218.82	24.30	133.486			
5,300.00	5,300.00	5,128.50	4,905.98	11.77	12.58	-93.59	-202.50	-3,223.38	3,253.68	3,229.01	24.67	131.879			
5,400.00	5,400.00	5,133.10	4,906.89	12.00	12.63	-93.67	-207.00	-3,223.22	3,267.28	3,242.34	24.95	130.964			
5,500.00	5,500.00	5,147.00	4,908.38	12.22	12.78	-93.92	-220.67	-3,222.83	3,283.92	3,258.59	25.33	129.660			
5,600.00	5,600.00	5,147.00	4,908.38	12.45	12.78	-93.92	-220.67	-3,222.83	3,303.37	3,277.82	25.55	129.280			
5,700.00	5,700.00	5,147.00	4,909.38	12.67	12.78	-93.92	-220.67	-3,222.83	3,325.72	3,299.94	25.78	129.020			
5,800.00	5,800.00	5,147.00	4,909.38	12.89	12.78	-93.92	-220.67	-3,222.83	3,350.90	3,324.89	26.00	128.873			
5,900.00	5,900.00	5,147.00	4,909.38	13.12	12.78	-93.92	-220.67	-3,222.83	3,378.85	3,352.62	26.23	128.834			
6,000.00	6,000.00	5,158.68	4,911.19	13.34	12.90	-94.12	-232.20	-3,222.56	3,409.45	3,382.86	26.59	128.238			
6,100.00	6,100.00	5,163.15	4,911.83	13.57	12.95	-94.20	-236.63	-3,222.47	3,442.68	3,415.81	26.86	128.154			
6,200.00	6,200.00	5,167.23	4,912.39	13.79	13.00	-94.27	-240.67	-3,222.38	3,478.45	3,451.31	27.14	128.186			
6,300.00	6,300.00	5,179.00	4,913.86	14.02	13.13	-94.48	-252.35	-3,222.15	3,516.72	3,489.22	27.50	127.887			
6,349.00	6,349.00	5,179.00	4,913.86	14.13	13.13	-94.48	-252.35	-3,222.15	3,536.32	3,508.71	27.61	128.087			
6,350.00	6,350.00	5,179.00	4,913.86	14.13	13.13	79.21	-252.35	-3,222.15	3,536.72	3,509.48	27.25	129.805			
6,375.00	6,374.99	5,179.00	4,913.86	14.17	13.13	77.91	-252.35	-3,222.15	3,546.82	3,519.54	27.28	130.022			
6,400.00	6,399.90	5,179.00	4,913.86	14.22	13.13	76.63	-252.35	-3,222.15	3,556.82	3,529.52	27.30	130.264			
6,425.00	6,424.68	5,179.00	4,913.86	14.26	13.13	75.38	-252.35	-3,222.15	3,566.69	3,539.36	27.32	130.537			
6,450.00	6,449.25	5,179.00	4,913.86	14.30	13.13	74.16	-252.35	-3,222.15	3,576.40	3,549.07	27.33	130.847			
6,475.00	6,473.54	5,179.00	4,913.86	14.35	13.13	72.97	-252.35	-3,222.15	3,585.93	3,558.60	27.33	131.201			
6,500.00	6,497.50	5,179.00	4,913.86	14.39	13.13	71.82	-252.35	-3,222.15	3,595.25	3,567.93	27.32	131.604			
6,525.00	6,521.04	5,179.00	4,913.86	14.44	13.13	70.71	-252.35	-3,222.15	3,604.35	3,577.06	27.29	132.080			
6,550.00	6,544.12	5,179.00	4,913.86	14.48	13.13	69.65	-252.35	-3,222.15	3,613.19	3,585.92	27.27	132.477			
6,575.00	6,566.66	5,179.00	4,913.86	14.52	13.13	68.62	-252.35	-3,222.15	3,621.76	3,594.46	27.30	132.681			
6,600.00	6,588.60	5,199.36	4,915.89	14.57	13.37	67.38	-272.60	-3,221.74	3,629.84	3,602.33	27.51	131.950			
6,625.00	6,609.88	5,203.71	4,916.24	14.61	13.42	66.41	-278.93	-3,221.65	3,637.70	3,610.15	27.55	132.034			
6,650.00	6,630.46	5,208.27	4,916.57	14.65	13.48	65.49	-281.48	-3,221.54	3,645.21	3,617.62	27.58	132.147			
6,675.00	6,650.25	5,213.03	4,916.88	14.71	13.53	64.62	-286.23	-3,221.44	3,652.33	3,624.72	27.61	132.285			
6,700.00	6,669.23	5,237.00	4,917.87	14.78	13.82	63.60	-310.17	-3,220.85	3,659.21	3,631.41	27.80	131.605			
6,725.00	6,687.33	5,237.00	4,917.87	14.85	13.82	62.91	-310.17	-3,220.85	3,665.43	3,637.66	27.77	132.001			
6,750.00	6,704.49	5,237.00	4,917.87	14.93	13.82	62.28	-310.17	-3,220.85	3,671.22	3,643.49	27.73	132.402			
6,775.00	6,720.69	5,237.00	4,917.87	15.02	13.82	61.70	-310.17	-3,220.85	3,676.58	3,648.90	27.69	132.794			
6,800.00	6,735.86	5,237.00	4,917.87	15.12	13.82	61.17	-310.17	-3,220.85	3,681.50	3,653.86	27.65	133.163			
6,825.00	6,749.98	5,237.00	4,917.87	15.23	13.82	60.69	-310.17	-3,220.85	3,685.97	3,658.35	27.61	133.494			
6,850.00	6,763.00	5,265.18	4,918.42	15.34	14.17	60.06	-338.34	-3,220.19	3,689.77	3,661.91	27.85	132.467			
6,875.00	6,774.88	5,277.31	4,918.62	15.47	14.32	59.62	-350.47	-3,219.94	3,693.08	3,665.13	27.95	132.113			
6,900.00	6,785.59	5,289.73	4,918.80	15.61	14.48	59.25	-362.88	-3,219.71	3,695.83	3,667.76	28.07	131.658			
6,925.00	6,795.11	5,302.42	4,918.95	15.76	14.64	58.95	-375.57	-3,219.50	3,698.01	3,669.80	28.21	131.089			
6,950.00	6,803.40	5,332.00	4,919.21	15.92	15.01	58.64	-405.14	-3,219.11	3,699.67	3,671.14	28.53	129.664			
6,975.00	6,810.45	5,332.00	4,919.21	16.08	15.01	58.55	-405.14	-3,219.11	3,700.60	3,672.00	28.60	129.408			
7,000.00	6,816.24	5,362.12	4,919.50	16.26	15.38	58.40	-435.26	-3,218.79	3,700.95	3,671.97	28.97	127.744			
7,025.00	6,820.74	5,403.73	4,920.27	16.45	15.89	58.31	-476.87	-3,218.38	3,700.51	3,671.02	29.49	125.482			
7,050.00	6,823.95	5,439.73	4,921.27	16.65	16.33	58.35	-512.84	-3,218.04	3,699.29	3,669.30	29.99	123.343			
7,075.00	6,825.86	5,468.36	4,922.16	16.86	16.88	58.51	-541.46	-3,217.77	3,697.35	3,666.89	30.46	121.394			
7,097.77	6,826.46	5,494.47	4,923.01	17.06	16.99	58.73	-567.56	-3,217.53	3,694.96	3,664.05	30.91	119.527			
7,100.00	6,826.47	5,497.03	4,923.10	17.08	17.02	58.73	-570.11	-3,217.50	3,694.70	3,663.75	30.96	119.355			

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

Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Offset Design Lone Tree Draw Offsets - Lone Tree Draw 13 State #3H - OH - OH														Offset Site Error: 0.00 usft
Survey Program: 100-NS-GYRO-MS, 4452-MWD-ISCWSA, 9564-Project														Offset Well Error: 0.00 usft
Reference	Vertical	Offset	Semi Major Axis	Reference	Offset	Highside	Offset Wellbore Centre	Distance	Between	Between	Minimum	Separation	Warning	
Measured Depth (usft)	Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)	Tooface (')	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
7,200.00	6,826.73	5,628.06	4,828.15	18.02	18.73	58.67	-701.04	-3,216.01	3,682.55	3,649.36	33.19	110.950		
7,300.00	6,826.98	5,711.00	4,931.64	19.10	19.92	58.62	-783.89	-3,214.61	3,669.82	3,634.71	35.11	104.530		
7,400.00	6,827.24	5,764.38	4,933.52	20.27	20.73	58.59	-837.23	-3,214.03	3,658.05	3,621.24	36.81	99.379		
7,500.00	6,827.50	5,806.00	4,934.54	21.54	21.36	58.57	-878.84	-3,214.19	3,647.92	3,609.48	38.44	94.899		
7,600.00	6,827.76	5,824.58	4,937.11	22.88	23.15	58.50	-907.38	-3,215.28	3,638.41	3,597.30	41.10	88.517		
7,700.00	6,828.01	5,826.66	4,939.36	24.28	24.73	58.44	-1,090.45	-3,215.40	3,628.18	3,584.54	43.64	83.140		
7,800.00	6,828.27	6,090.00	4,940.49	25.73	25.73	58.40	-1,162.77	-3,216.00	3,618.82	3,573.08	45.74	79.118		
7,900.00	6,828.53	6,133.57	4,941.12	27.22	26.42	58.38	-1,206.32	-3,216.97	3,610.71	3,563.09	47.63	75.811		
8,000.00	6,828.79	6,185.00	4,941.71	28.75	27.23	58.35	-1,257.72	-3,218.87	3,604.04	3,554.39	49.65	72.584		
8,100.00	6,829.04	6,413.58	4,947.53	30.31	30.86	58.27	-1,486.08	-3,226.19	3,596.35	3,542.27	54.08	66.502		
8,200.00	6,829.30	6,515.76	4,950.75	31.90	32.53	58.23	-1,588.19	-3,227.94	3,587.00	3,530.13	56.87	63.077		
8,300.00	6,829.56	6,619.69	4,954.16	33.51	34.25	58.19	-1,692.06	-3,228.94	3,576.94	3,517.24	59.71	59.908		
8,400.00	6,829.82	6,694.51	4,956.26	35.14	35.50	58.16	-1,766.84	-3,229.98	3,567.48	3,505.30	62.18	57.377		
8,500.00	6,830.07	6,800.01	4,958.76	36.79	37.28	58.10	-1,872.30	-3,231.82	3,558.60	3,493.51	65.09	54.673		
8,600.00	6,830.33	6,902.23	4,961.73	38.45	38.98	58.06	-1,974.47	-3,233.05	3,548.94	3,480.99	67.95	52.227		
8,700.00	6,830.59	6,985.89	4,962.46	40.12	40.37	57.99	-2,058.12	-3,233.62	3,539.90	3,469.35	70.55	50.173		
8,800.00	6,830.85	7,084.96	4,962.83	41.81	42.04	57.90	-2,157.19	-3,234.11	3,531.00	3,457.62	73.38	48.122		
8,900.00	6,831.10	7,169.75	4,962.93	43.50	43.47	57.82	-2,241.88	-3,234.51	3,522.23	3,446.21	76.01	46.338		
9,000.00	6,831.36	7,253.35	4,962.81	45.21	44.88	57.75	-2,325.57	-3,235.43	3,514.10	3,435.47	78.64	44.698		
9,100.00	6,831.62	7,357.86	4,962.94	46.92	46.62	57.66	-2,430.08	-3,236.66	3,505.92	3,424.39	81.54	42.998		
9,200.00	6,831.88	7,469.18	4,963.14	48.64	48.50	57.56	-2,541.39	-3,238.07	3,497.82	3,413.28	84.54	41.372		
9,248.03	6,832.00	7,532.13	4,963.36	49.46	49.55	57.50	-2,604.33	-3,238.47	3,493.62	3,407.50	86.11	40.569		
9,300.00	6,831.68	7,588.80	4,963.68	50.36	50.50	57.53	-2,661.00	-3,238.75	3,488.60	3,400.95	87.65	39.800		
9,327.90	6,831.14	7,614.35	4,963.86	50.84	50.93	57.55	-2,686.55	-3,238.87	3,485.59	3,397.18	88.42	39.423		
9,400.00	6,829.41	7,669.40	4,963.93	52.09	51.86	57.52	-2,741.60	-3,239.14	3,477.77	3,387.52	90.25	38.534		
9,500.00	6,827.00	7,739.57	4,963.48	53.82	53.04	57.47	-2,811.77	-3,239.65	3,467.54	3,374.82	92.72	37.398		
9,600.00	6,824.60	7,811.85	4,962.96	55.56	54.27	57.42	-2,884.04	-3,240.95	3,458.23	3,363.01	95.23	36.316		
9,700.00	6,822.19	7,911.78	4,962.23	57.31	55.95	57.36	-2,983.93	-3,243.06	3,449.22	3,351.11	98.11	35.158		
9,800.00	6,819.79	8,013.03	4,961.59	59.06	57.64	57.29	-3,085.16	-3,245.38	3,440.30	3,339.30	101.00	34.062		
9,900.00	6,817.38	8,177.33	4,961.34	60.81	60.42	57.19	-3,249.44	-3,247.80	3,430.53	3,325.72	104.81	32.732		
10,000.00	6,814.97	8,288.95	4,961.69	62.56	62.33	57.12	-3,361.06	-3,248.04	3,419.37	3,311.46	107.91	31.687		
10,100.00	6,812.57	8,380.54	4,961.96	64.32	63.90	57.06	-3,452.75	-3,248.25	3,408.25	3,297.51	110.73	30.779		
10,200.00	6,810.16	8,461.00	4,962.21	66.08	65.28	57.00	-3,533.11	-3,248.45	3,397.20	3,283.80	113.39	29.959		
10,300.00	6,807.76	8,518.08	4,962.23	67.85	66.26	56.97	-3,590.18	-3,249.11	3,387.14	3,271.41	115.73	29.267		
10,400.00	6,805.35	8,577.30	4,961.88	69.61	67.27	56.93	-3,649.37	-3,250.85	3,378.66	3,260.56	118.10	28.608		
10,500.00	6,802.95	8,691.35	4,961.06	71.38	69.22	56.87	-3,763.37	-3,254.19	3,370.34	3,249.10	121.25	27.798		
10,600.00	6,800.54	8,776.73	4,960.48	73.15	70.67	56.82	-3,848.71	-3,256.60	3,361.95	3,237.97	123.98	27.116		
10,700.00	6,798.14	8,838.00	4,959.86	74.92	71.72	56.78	-3,909.94	-3,258.80	3,354.41	3,228.03	126.38	26.541		
10,800.00	6,795.73	8,914.17	4,958.74	76.70	73.03	56.74	-3,986.03	-3,262.15	3,347.78	3,218.78	129.00	25.952		
10,900.00	6,793.33	9,084.09	4,957.31	78.47	75.94	56.66	-4,155.78	-3,269.34	3,340.70	3,207.74	132.96	25.126		
11,000.00	6,790.92	9,188.67	4,957.24	80.25	77.74	56.61	-4,260.32	-3,272.55	3,332.16	3,196.18	135.98	24.504		
11,100.00	6,788.51	9,286.00	4,956.95	82.03	79.41	56.56	-4,357.60	-3,275.60	3,323.81	3,184.92	138.90	23.930		
11,200.00	6,786.11	9,391.54	4,956.41	83.81	81.20	56.50	-4,463.09	-3,278.65	3,315.38	3,173.48	141.90	23.364		
11,246.07	6,785.00	9,434.80	4,956.13	84.63	81.93	56.47	-4,506.34	-3,279.81	3,311.45	3,168.24	143.21	23.123 ES, SF		

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

MD	INC	AZI	TVD	NS	EW	DLS	BUILD	TURN	VSECT
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	0.00
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	0.00
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00	0.00
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	0.00
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	0.00
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00	0.00
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00	0.00
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	0.00
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	0.00
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	0.00
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	0.00
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00	0.00
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00	0.00
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	0.00
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00	0.00
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00	0.00
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	0.00	0.00
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	0.00	0.00
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00	0.00
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	0.00	0.00
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00	0.00
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	0.00	0.00
3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	0.00	0.00
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00
4100.00	0.00	0.00	4100.00	0.00	0.00	0.00	0.00	0.00	0.00
4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	0.00	0.00
4300.00	0.00	0.00	4300.00	0.00	0.00	0.00	0.00	0.00	0.00
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	0.00	0.00
4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	0.00	0.00
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	0.00	0.00	0.00

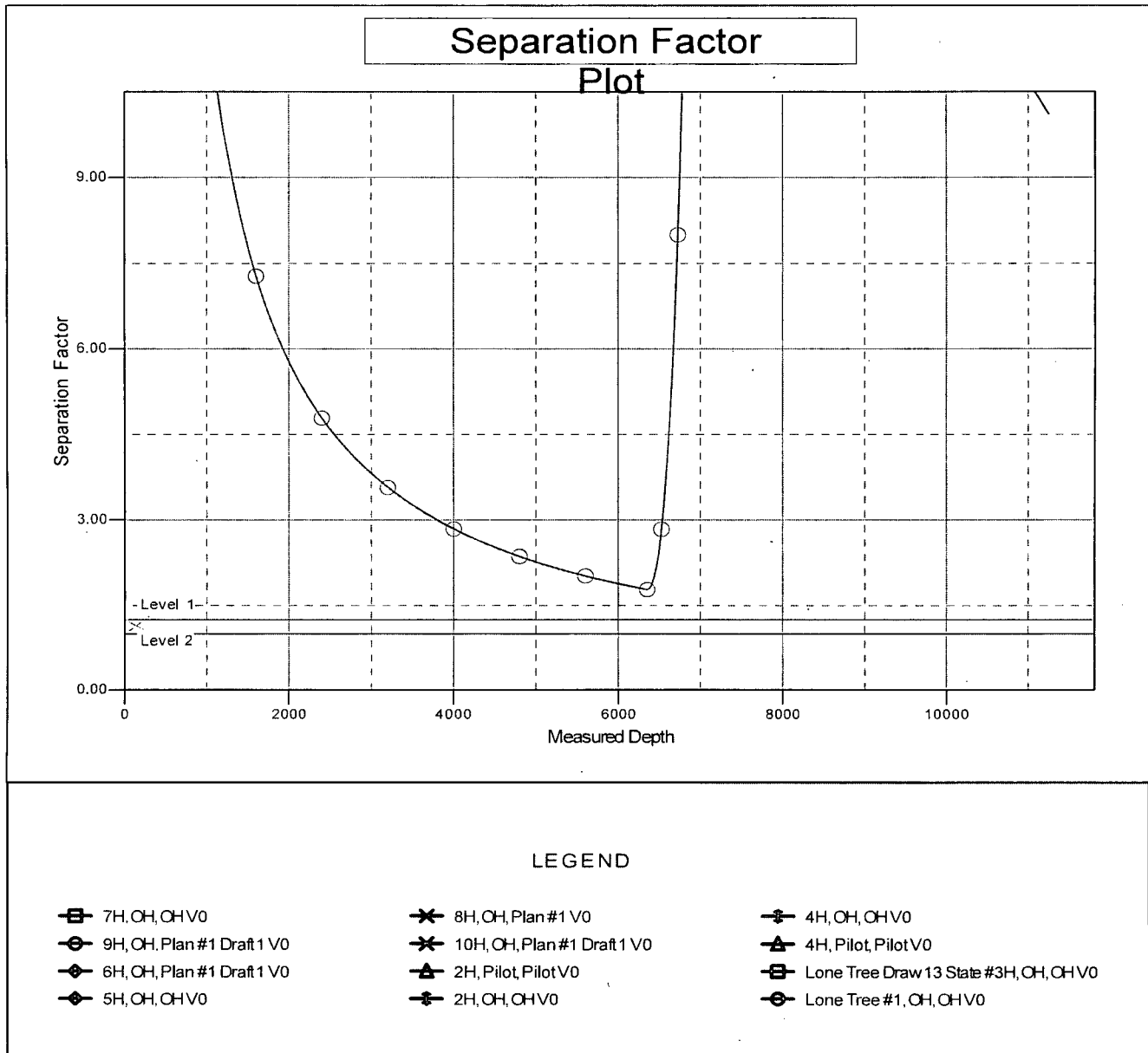
Leam Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well: 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GE 3152' + KB 26' @ 3178.00usft (Or
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: 13H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.11°



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

Leam Drilling Systems LLC

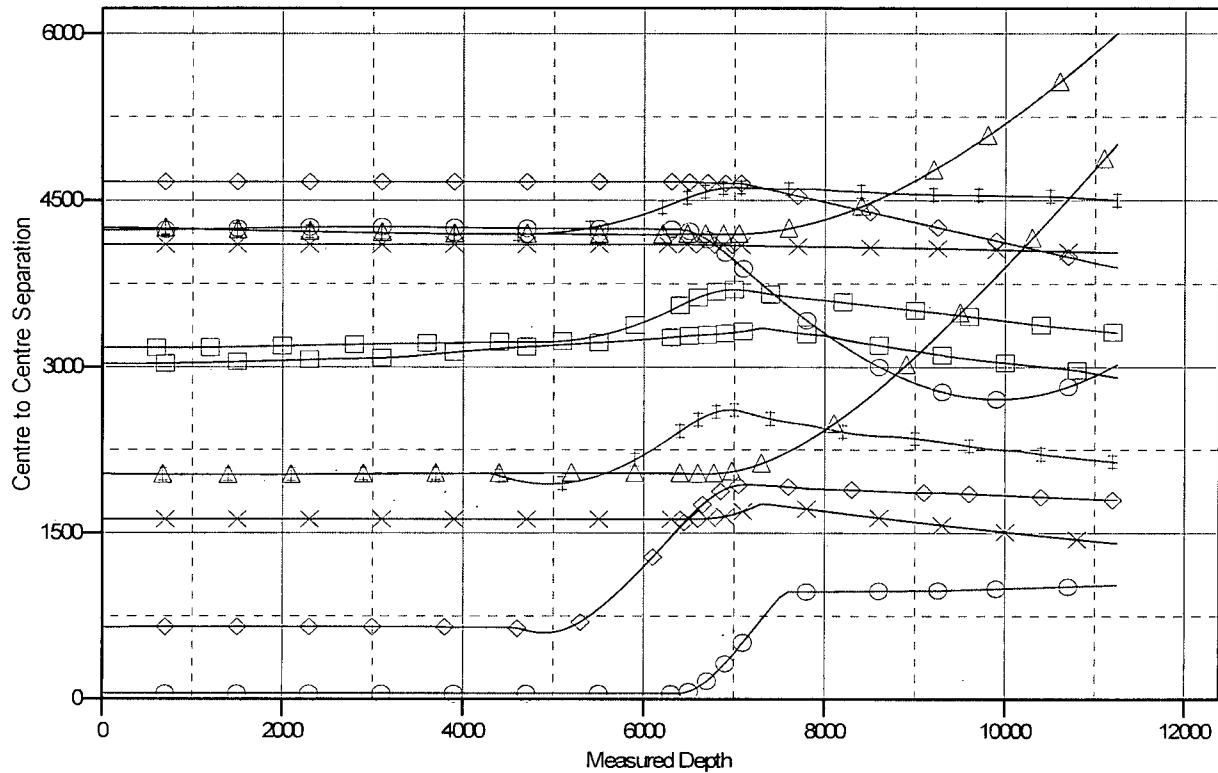
Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 13H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Reference Site:	Lone Tree Draw "13" State	MD Reference:	GE 3152' + KB 26' @ 3178.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	13H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1 Draft 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GE 3152' + KB 26' @ 3178.00usft (Or
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: 13H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.11°

Ladder Plot



LEGEND

- | | | |
|----------------------------|-----------------------------|---------------------------------------|
| 7H, OH, OHV0 | 8H, OH, Plan #1 V0 | 4H, OH, OHV0 |
| 9H, OH, Plan #1 Draft 1 V0 | 10H, OH, Plan #1 Draft 1 V0 | 4H, Pilot, PilotV0 |
| 6H, OH, Plan #1 Draft 1 V0 | 2H, Pilot, PilotV0 | Lone Tree Draw 13 State #3H, OH, OHV0 |
| 5H, OH, OHV0 | 2H, OH, OHV0 | Lone Tree #1, OH, OHV0 |

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

4700.00	0.00	0.00	4700.00	0.00	0.00	0.00	0.00	0.00	0.00
4800.00	0.00	0.00	4800.00	0.00	0.00	0.00	0.00	0.00	0.00
4900.00	0.00	0.00	4900.00	0.00	0.00	0.00	0.00	0.00	0.00
5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	0.00	0.00
5100.00	0.00	0.00	5100.00	0.00	0.00	0.00	0.00	0.00	0.00
5200.00	0.00	0.00	5200.00	0.00	0.00	0.00	0.00	0.00	0.00
5300.00	0.00	0.00	5300.00	0.00	0.00	0.00	0.00	0.00	0.00
5400.00	0.00	0.00	5400.00	0.00	0.00	0.00	0.00	0.00	0.00
5500.00	0.00	0.00	5500.00	0.00	0.00	0.00	0.00	0.00	0.00
5600.00	0.00	0.00	5600.00	0.00	0.00	0.00	0.00	0.00	0.00
5700.00	0.00	0.00	5700.00	0.00	0.00	0.00	0.00	0.00	0.00
5800.00	0.00	0.00	5800.00	0.00	0.00	0.00	0.00	0.00	0.00
5900.00	0.00	0.00	5900.00	0.00	0.00	0.00	0.00	0.00	0.00
6000.00	0.00	0.00	6000.00	0.00	0.00	0.00	0.00	0.00	0.00
6100.00	0.00	0.00	6100.00	0.00	0.00	0.00	0.00	0.00	0.00
6200.00	0.00	0.00	6200.00	0.00	0.00	0.00	0.00	0.00	0.00
6300.00	0.00	0.00	6300.00	0.00	0.00	0.00	0.00	0.00	0.00
6349.00	0.00	0.00	6349.00	0.00	0.00	0.00	0.00	0.00	0.00
6350.00	0.12	186.26	6350.00	0.00	0.00	12.00	12.00	0.00	0.00
6375.00	3.12	186.26	6374.99	-0.70	-0.08	12.00	12.00	0.00	0.71
6400.00	6.12	186.26	6399.90	-2.70	-0.30	12.00	12.00	0.00	2.72
6425.00	9.12	186.26	6424.68	-6.00	-0.66	12.00	12.00	0.00	6.04
6450.00	12.12	186.26	6449.25	-10.58	-1.16	12.00	12.00	0.00	10.64
6475.00	15.12	186.26	6473.54	-16.43	-1.80	12.00	12.00	0.00	16.53
6500.00	18.12	186.26	6497.50	-23.54	-2.58	12.00	12.00	0.00	23.68
6525.00	21.12	186.26	6521.04	-31.88	-3.50	12.00	12.00	0.00	32.07
6550.00	24.12	186.26	6544.12	-41.44	-4.55	12.00	12.00	0.00	41.69
6575.00	27.12	186.26	6566.66	-52.18	-5.73	12.00	12.00	0.00	52.50
6600.00	30.12	186.26	6588.60	-64.08	-7.03	12.00	12.00	0.00	64.47
6625.00	33.12	186.26	6609.88	-77.11	-8.46	12.00	12.00	0.00	77.57
6650.00	36.12	186.26	6630.46	-91.23	-10.01	12.00	12.00	0.00	91.78
6675.00	39.12	186.26	6650.25	-106.40	-11.68	12.00	12.00	0.00	107.03
6700.00	42.12	186.26	6669.23	-122.57	-13.46	12.00	12.00	0.00	123.31
6725.00	45.12	186.26	6687.32	-139.71	-15.34	12.00	12.00	0.00	140.55
6750.00	48.12	186.26	6704.49	-157.77	-17.32	12.00	12.00	0.00	158.72
6775.00	51.12	186.26	6720.69	-176.70	-19.40	12.00	12.00	0.00	177.76
6800.00	54.12	186.26	6735.86	-196.45	-21.57	12.00	12.00	0.00	197.63
6825.00	57.12	186.26	6749.98	-216.95	-23.82	12.00	12.00	0.00	218.26
6850.00	60.12	186.26	6763.00	-238.17	-26.14	12.00	12.00	0.00	239.60
6875.00	63.12	186.26	6774.88	-260.03	-28.54	12.00	12.00	0.00	261.59
6900.00	66.12	186.26	6785.59	-282.48	-31.01	12.00	12.00	0.00	284.17
6925.00	69.12	186.26	6795.11	-305.46	-33.53	12.00	12.00	0.00	307.29
6950.00	72.12	186.26	6803.40	-328.90	-36.10	12.00	12.00	0.00	330.87
6975.00	75.12	186.26	6810.45	-352.74	-38.72	12.00	12.00	0.00	354.85
7000.00	78.12	186.26	6816.24	-376.91	-41.38	12.00	12.00	0.00	379.17
7025.00	81.12	186.26	6820.74	-401.35	-44.06	12.00	12.00	0.00	403.76
7050.00	84.12	186.26	6823.95	-425.99	-46.76	12.00	12.00	0.00	428.55
7075.00	87.12	186.26	6825.86	-450.77	-49.48	12.00	12.00	0.00	453.47

7097.77	89.85	186.26	6826.46	-473.39	-51.97	12.00	12.00	0.00	476.23
7100.00	89.85	186.26	6826.47	-475.61	-52.21	0.00	0.00	0.00	478.46
7200.00	89.85	186.26	6826.73	-575.01	-63.12	0.00	0.00	0.00	578.46
7300.00	89.85	186.26	6826.98	-674.41	-74.03	0.00	0.00	0.00	678.46
7400.00	89.85	186.26	6827.24	-773.82	-84.95	0.00	0.00	0.00	778.46
7500.00	89.85	186.26	6827.50	-873.22	-95.86	0.00	0.00	0.00	878.46
7600.00	89.85	186.26	6827.76	-972.62	-106.77	0.00	0.00	0.00	978.46
7700.00	89.85	186.26	6828.01	-1072.02	-117.68	0.00	0.00	0.00	1078.46
7800.00	89.85	186.26	6828.27	-1171.43	-128.59	0.00	0.00	0.00	1178.46
7900.00	89.85	186.26	6828.53	-1270.83	-139.51	0.00	0.00	0.00	1278.45
8000.00	89.85	186.26	6828.79	-1370.23	-150.42	0.00	0.00	0.00	1378.45
8100.00	89.85	186.26	6829.04	-1469.63	-161.33	0.00	0.00	0.00	1478.45
8200.00	89.85	186.26	6829.30	-1569.04	-172.24	0.00	0.00	0.00	1578.45
8300.00	89.85	186.26	6829.56	-1668.44	-183.15	0.00	0.00	0.00	1678.45
8400.00	89.85	186.26	6829.82	-1767.84	-194.07	0.00	0.00	0.00	1778.45
8500.00	89.85	186.26	6830.07	-1867.24	-204.98	0.00	0.00	0.00	1878.45
8600.00	89.85	186.26	6830.33	-1966.65	-215.89	0.00	0.00	0.00	1978.45
8700.00	89.85	186.26	6830.59	-2066.05	-226.80	0.00	0.00	0.00	2078.45
8800.00	89.85	186.26	6830.85	-2165.45	-237.71	0.00	0.00	0.00	2178.45
8900.00	89.85	186.26	6831.10	-2264.85	-248.62	0.00	0.00	0.00	2278.44
9000.00	89.85	186.26	6831.36	-2364.26	-259.54	0.00	0.00	0.00	2378.44
9100.00	89.85	186.26	6831.62	-2463.66	-270.45	0.00	0.00	0.00	2478.44
9200.00	89.85	186.26	6831.88	-2563.06	-281.36	0.00	0.00	0.00	2578.44
9248.03	89.85	186.26	6832.00	-2610.80	-286.60	0.00	0.00	0.00	2626.47
9300.00	90.85	186.57	6831.68	-2662.45	-292.41	2.00	1.91	0.59	2678.44
9327.90	91.38	186.74	6831.14	-2690.16	-295.64	2.00	1.91	0.59	2706.34
9400.00	91.38	186.74	6829.41	-2761.73	-304.10	0.00	0.00	0.00	2778.41
9500.00	91.38	186.74	6827.00	-2861.02	-315.83	0.00	0.00	0.00	2878.38
9600.00	91.38	186.74	6824.60	-2960.30	-327.56	0.00	0.00	0.00	2978.35
9700.00	91.38	186.74	6822.19	-3059.58	-339.28	0.00	0.00	0.00	3078.32
9800.00	91.38	186.74	6819.79	-3158.86	-351.01	0.00	0.00	0.00	3178.29
9900.00	91.38	186.74	6817.38	-3258.14	-362.74	0.00	0.00	0.00	3278.26
10000.00	91.38	186.74	6814.97	-3357.42	-374.47	0.00	0.00	0.00	3378.23
10100.00	91.38	186.74	6812.57	-3456.70	-386.20	0.00	0.00	0.00	3478.20
10200.00	91.38	186.74	6810.16	-3555.98	-397.92	0.00	0.00	0.00	3578.17
10300.00	91.38	186.74	6807.76	-3655.26	-409.65	0.00	0.00	0.00	3678.14
10400.00	91.38	186.74	6805.35	-3754.54	-421.38	0.00	0.00	0.00	3778.11
10500.00	91.38	186.74	6802.95	-3853.82	-433.11	0.00	0.00	0.00	3878.08
10600.00	91.38	186.74	6800.54	-3953.10	-444.84	0.00	0.00	0.00	3978.05
10700.00	91.38	186.74	6798.14	-4052.38	-456.57	0.00	0.00	0.00	4078.02
10800.00	91.38	186.74	6795.73	-4151.66	-468.29	0.00	0.00	0.00	4177.99
10900.00	91.38	186.74	6793.32	-4250.95	-480.02	0.00	0.00	0.00	4277.96
11000.00	91.38	186.74	6790.92	-4350.23	-491.75	0.00	0.00	0.00	4377.93
11100.00	91.38	186.74	6788.51	-4449.51	-503.48	0.00	0.00	0.00	4477.90
11200.00	91.38	186.74	6786.11	-4548.79	-515.21	0.00	0.00	0.00	4577.87
11246.07	91.38	186.74	6785.00	-4594.53	-520.61	0.00	0.00	0.00	4623.93