

Results of Directional Survey

API number:	30-025-40047		
OGRID:		Operator:	DEVON ENERGY PRODUCTION COMPANY, LP
		Property:	TRIONYX 6 FEDERAL # 7H

surface	ULSTR:	P	06	T 25S	R 32E
				200 FSL	685 FEL

BH Loc	ULSTR:	A	06	T 25S	R 32E
12952	MD	8358.7	TVD	316 FNL	400 FEL
				4964 FSL	

Top Perf/OH	ULSTR:	P	06	T 25S	R 32E
8635	MD	8370.6	TVD	664 FSL	445 FEL

Bot Perf/OH	ULSTR:	A	06	T 25S	R 32E
12867	MD	8358.5	TVD	401 FNL	398 FEL
				4879 FSL	

	MD	N/S	E/W	VD
	8634	463.04	239.74	8370.45
TOP PERFS/OH	8635	463.99	240.04	8370.56
	8665	492.36	249.18	8373.94
	12828	4639.54	287.89	8358.44
BOT PERFS/OH	12867	4678.53	286.90	8358.47
	12897	4708.52	286.14	8358.50

NEXT TO LAST	12950.8	4762.30	285.02	8358.69
LAST READING	12952	4763.50	284.99	8358.70
TD	12952	4763.50	284.99	8358.70

Surface Location	200	FS	685	FE
Projected BHL	4964	FS	400	FE
Location of				
Top Perfs/OH	664	FS	445	FE
Bottom Perfs/OH	4879	FS	398	FE

SUMMARY of Subsurface Locations

Surface Location	P-06-25S-32E	200	FS	685	FE	Vert. Depth
Top Perfs/OH	P-06-25S-32E	664	FS	445	FE	8370.56
Bottom Perfs/OH	A-06-25S-32E	4879	FS	398	FE	8358.47
Projected TD	A-06-25S-32E	4964	FS	400	FE	8358.70

NOV 25 2013



Perforation Summary

District		County		Field Name		Project Group		State/Province							
PERMIAN BASIN		LEA		PADUCA		DELAWARE BASIN		NM							
Surface Legal Location		API/UWI		Latitude (°)		Longitude (°)		Ground Elev MSL (ft)		KB - Ground Level (ft)		Orig KB Elevation (ft)		Tubing Head Elevation (ft)	
SEC 6 T25S R32E		3002540047		32° 9' 9.579" N		103° 42' 28.824" W		3,443.60		28.00		3,471.60			
Date	Zone	Top (ftKB)	Top (TVD) (ftKB)	Btm (ftKB)	Btm (TVD) (ftKB)	Current Status	Carrier Des	Gun Size (in)	Charge Type	Chg SZ (g)	Shot Dens (shots/ft)	Phasing (%)	Conveyance Method		
4/5/2013	DELAWARE, OH	8,635.0	8,370.7	8,637.0	8,371.0			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/5/2013	DELAWARE, OH	8,820.0	8,379.5	8,822.0	8,379.4			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/5/2013	DELAWARE, OH	9,005.0	8,375.8	9,007.0	8,375.7			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/5/2013	DELAWARE, OH	9,190.0	8,367.9	9,192.0	8,367.8			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/5/2013	DELAWARE, OH	9,375.0	8,361.8	9,377.0	8,361.8			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/5/2013	DELAWARE, OH	9,560.0	8,362.5	9,562.0	8,362.6			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/4/2013	DELAWARE, OH	9,745.0	8,366.8	9,747.0	8,366.8			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/4/2013	DELAWARE, OH	9,930.0	8,369.5	9,932.0	8,369.5			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/4/2013	DELAWARE, OH	10,115.0	8,369.7	10,117.0	8,369.7			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/4/2013	DELAWARE, OH	10,300.0	8,368.8	10,302.0	8,368.8			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/4/2013	DELAWARE, OH	10,485.0	8,367.2	10,487.0	8,367.1			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/4/2013	DELAWARE, OH	10,670.0	8,362.5	10,672.0	8,362.4			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/4/2013	DELAWARE, OH	10,855.0	8,357.4	10,857.0	8,357.4			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/4/2013	DELAWARE, OH	11,040.0	8,357.0	11,042.0	8,357.0			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/4/2013	DELAWARE, OH	11,225.0	8,354.4	11,227.0	8,354.4			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/3/2013	DELAWARE, OH	11,410.0	8,352.9	11,412.0	8,352.9			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/3/2013	DELAWARE, OH	11,595.0	8,354.2	11,597.0	8,354.2			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/3/2013	DELAWARE, OH	11,780.0	8,358.5	11,782.0	8,358.5			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/3/2013	DELAWARE, OH	11,965.0	8,360.8	11,967.0	8,360.8			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/3/2013	DELAWARE, OH	12,150.0	8,359.5	12,152.0	8,359.5			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/3/2013	DELAWARE, OH	12,335.0	8,356.6	12,337.0	8,356.5			3 3/8	SHAPED	25.0	6.0	60	WIRELINE		
4/1/2013	DELAWARE, OH	12,520.0	8,355.9	12,522.0	8,356.0			3 3/8	SHAPED	25.0	6.0	60	TUBING		
4/1/2013	DELAWARE, OH	12,635.0	8,357.8	12,637.0	8,357.8			3 3/8	SHAPED	25.0	6.0	60	TUBING		
4/1/2013	DELAWARE, OH	12,750.0	8,358.8	12,752.0	8,358.8			3 3/8	SHAPED	25.0	6.0	60	TUBING		
4/1/2013	DELAWARE, OH	12,865.0	8,358.7	12,867.0	8,358.7			3 3/8	SHAPED	25.0	6.0	60	TUBING		



A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

March 12, 2013

Devon Energy Production Co., LP
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010

HOESS COO

OCT 23 2013

RECEIVED

Attn: Patti Riechers

Re: **Trionyx 6 Federal No 007H**

Please find enclosed a copy of the survey from 0' to 7,832' ran on the above referenced well.

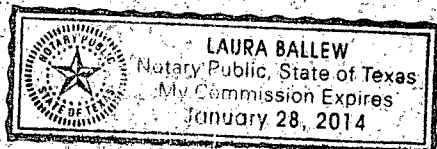
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 12th day of March A.D., 2013, by Keith Havelka.



Laura Ballew
Notary Public, State of Texas

Leam Drilling Systems LLC

Survey Report - Geographic

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 7H
Project:	Lea County, NM (NAD-83)	TVD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Site:	Trionyx "6" Fed	MD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Well:	7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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

Site:	Trionyx "6" Fed				
Site Position:		Northing:	419,774.49 usft	Latitude:	32° 9' 8.973 N
From:	Map	Easting:	734,923.10 usft	Longitude:	103° 42' 28.107 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.33 °

Well	7H					
Well Position	+N/-S	0.00 usft	Northing:	419,774.12 usft	Latitude:	32° 9' 8.972 N
	+E/-W	0.00 usft	Easting:	734,873.07 usft	Longitude:	103° 42' 28.689 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,447.00 usft

Wellbore:	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	02/12/13	(°)	(°)	(nT)
			7.44	60.06	48,392

Design:	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	3.72	

Survey Program	Date	09/19/13			
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
100.00	7,800.00	Survey #2 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
7,812.00	12,897.00	Survey #3 (OH)	LEAM MWD	MWD - Standard	
12,952.00	12,952.00	Survey #4 (OH)	Project	Projection	

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude	
Depth	(°)	(°)	Depth	(usft)	(usft)	North	Easting			
(usft)			(usft)			(usft)	(usft)			
0.00	0.00	0.00	0.00	0.00	0.00	419,774.12	734,873.07	32° 9' 8.972 N	103° 42' 28.689 W	
100.00	0.11	4.99	100.00	0.10	0.01	419,774.22	734,873.07	32° 9' 8.973 N	103° 42' 28.689 W	
200.00	0.20	32.43	200.00	0.34	0.11	419,774.46	734,873.18	32° 9' 8.976 N	103° 42' 28.688 W	
300.00	0.18	85.99	300.00	0.50	0.36	419,774.62	734,873.43	32° 9' 8.977 N	103° 42' 28.685 W	
400.00	0.41	96.33	400.00	0.47	0.87	419,774.59	734,873.94	32° 9' 8.977 N	103° 42' 28.679 W	
500.00	0.60	113.42	499.99	0.22	1.71	419,774.34	734,874.78	32° 9' 8.974 N	103° 42' 28.669 W	
600.00	0.70	114.95	599.99	-0.24	2.74	419,773.87	734,875.81	32° 9' 8.970 N	103° 42' 28.657 W	
700.00	0.73	110.55	699.98	-0.73	3.89	419,773.39	734,876.96	32° 9' 8.965 N	103° 42' 28.644 W	
800.00	0.84	108.41	799.97	-1.18	5.19	419,772.94	734,878.25	32° 9' 8.960 N	103° 42' 28.629 W	
900.00	1.04	107.28	899.96	-1.68	6.75	419,772.44	734,879.81	32° 9' 8.955 N	103° 42' 28.611 W	

Leam Drilling Systems LLC

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Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 7H
Project:	Lea County, NM (NAD-83)	TVD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
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Well:	7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,000.00	1.15	108.25	999.94	-2.27	8.57	419,771.85	734,881.63	32° 9' 8.949 N	103° 42' 28.590 W
1,100.00	1.16	99.06	1,099.92	-2.74	10.52	419,771.38	734,883.59	32° 9' 8.945 N	103° 42' 28.567 W
1,200.00	1.25	87.46	1,199.90	-2.85	12.61	419,771.27	734,885.68	32° 9' 8.943 N	103° 42' 28.543 W
1,300.00	1.36	87.21	1,299.87	-2.74	14.88	419,771.37	734,887.95	32° 9' 8.944 N	103° 42' 28.516 W
1,400.00	1.50	89.42	1,399.84	-2.67	17.38	419,771.45	734,890.44	32° 9' 8.945 N	103° 42' 28.487 W
1,500.00	1.67	107.77	1,499.80	-3.11	20.07	419,771.01	734,893.14	32° 9' 8.940 N	103° 42' 28.456 W
1,600.00	1.73	118.61	1,599.76	-4.27	22.79	419,769.85	734,895.85	32° 9' 8.929 N	103° 42' 28.424 W
1,700.00	1.79	119.96	1,699.71	-5.78	25.47	419,768.34	734,898.53	32° 9' 8.914 N	103° 42' 28.393 W
1,800.00	1.72	123.05	1,799.66	-7.37	28.08	419,766.75	734,901.14	32° 9' 8.898 N	103° 42' 28.363 W
1,900.00	1.83	119.56	1,899.62	-8.98	30.72	419,765.14	734,903.79	32° 9' 8.882 N	103° 42' 28.332 W
2,000.00	1.98	117.67	1,999.56	-10.57	33.64	419,763.55	734,906.71	32° 9' 8.866 N	103° 42' 28.298 W
2,100.00	1.62	121.32	2,099.51	-12.11	36.38	419,762.01	734,909.45	32° 9' 8.850 N	103° 42' 28.267 W
2,200.00	1.40	115.71	2,199.48	-13.37	38.69	419,760.75	734,911.75	32° 9' 8.838 N	103° 42' 28.240 W
2,300.00	1.30	113.55	2,299.45	-14.36	40.83	419,759.76	734,913.90	32° 9' 8.828 N	103° 42' 28.215 W
2,400.00	1.38	113.44	2,399.42	-15.29	42.97	419,758.83	734,916.04	32° 9' 8.819 N	103° 42' 28.190 W
2,500.00	1.57	112.08	2,499.39	-16.28	45.35	419,757.84	734,918.41	32° 9' 8.809 N	103° 42' 28.163 W
2,600.00	1.63	107.26	2,599.35	-17.22	47.98	419,756.90	734,921.04	32° 9' 8.799 N	103° 42' 28.132 W
2,700.00	1.94	103.42	2,699.30	-18.03	50.98	419,756.09	734,924.05	32° 9' 8.791 N	103° 42' 28.097 W
2,800.00	2.20	99.66	2,799.24	-18.75	54.52	419,755.37	734,927.58	32° 9' 8.784 N	103° 42' 28.056 W
2,900.00	2.28	97.44	2,899.16	-19.33	58.38	419,754.79	734,931.45	32° 9' 8.778 N	103° 42' 28.011 W
3,000.00	2.22	96.08	2,999.08	-19.79	62.28	419,754.33	734,935.35	32° 9' 8.773 N	103° 42' 27.966 W
3,100.00	2.01	97.01	3,099.01	-20.21	65.95	419,753.91	734,939.01	32° 9' 8.769 N	103° 42' 27.923 W
3,200.00	1.75	91.42	3,198.96	-20.46	69.21	419,753.66	734,942.28	32° 9' 8.766 N	103° 42' 27.885 W
3,300.00	1.19	94.12	3,298.93	-20.57	71.78	419,753.55	734,944.84	32° 9' 8.765 N	103° 42' 27.856 W
3,400.00	1.35	72.91	3,398.90	-20.30	73.94	419,753.82	734,947.01	32° 9' 8.767 N	103° 42' 27.830 W
3,500.00	1.46	73.15	3,498.87	-19.59	76.28	419,754.53	734,949.35	32° 9' 8.774 N	103° 42' 27.803 W
3,600.00	1.38	69.28	3,598.84	-18.79	78.63	419,755.33	734,951.70	32° 9' 8.782 N	103° 42' 27.776 W
3,700.00	1.62	58.51	3,698.81	-17.63	80.96	419,756.49	734,954.03	32° 9' 8.793 N	103° 42' 27.749 W
3,800.00	2.22	64.33	3,798.75	-16.05	83.91	419,758.07	734,956.98	32° 9' 8.809 N	103° 42' 27.714 W
3,900.00	2.70	78.89	3,898.66	-14.76	87.97	419,759.36	734,961.04	32° 9' 8.821 N	103° 42' 27.667 W
4,000.00	2.57	76.14	3,998.55	-13.77	92.46	419,760.35	734,965.52	32° 9' 8.831 N	103° 42' 27.615 W
4,100.00	3.55	83.38	4,098.41	-12.87	97.71	419,761.25	734,970.78	32° 9' 8.839 N	103° 42' 27.553 W
4,200.00	3.91	91.10	4,198.20	-12.58	104.19	419,761.54	734,977.26	32° 9' 8.842 N	103° 42' 27.478 W
4,300.00	4.00	99.82	4,297.96	-13.24	111.04	419,760.88	734,984.11	32° 9' 8.835 N	103° 42' 27.398 W
4,400.00	2.82	105.53	4,397.78	-14.49	116.85	419,759.63	734,989.91	32° 9' 8.822 N	103° 42' 27.331 W
4,500.00	1.98	107.74	4,497.69	-15.68	120.86	419,758.44	734,993.93	32° 9' 8.810 N	103° 42' 27.284 W
4,600.00	1.40	112.87	4,597.65	-16.68	123.63	419,757.44	734,996.70	32° 9' 8.800 N	103° 42' 27.252 W
4,700.00	1.12	106.18	4,697.63	-17.43	125.70	419,756.69	734,998.76	32° 9' 8.793 N	103° 42' 27.228 W
4,800.00	1.10	104.09	4,797.61	-17.93	127.57	419,756.19	735,000.63	32° 9' 8.787 N	103° 42' 27.206 W
4,900.00	0.66	106.01	4,897.60	-18.33	129.05	419,755.79	735,002.12	32° 9' 8.784 N	103° 42' 27.189 W
5,000.00	0.46	87.66	4,997.59	-18.47	130.01	419,755.65	735,003.07	32° 9' 8.782 N	103° 42' 27.178 W
5,100.00	0.49	94.35	5,097.59	-18.48	130.83	419,755.63	735,003.90	32° 9' 8.782 N	103° 42' 27.168 W
5,200.00	0.12	71.71	5,197.59	-18.48	131.36	419,755.64	735,004.43	32° 9' 8.782 N	103° 42' 27.162 W
5,300.00	0.07	145.97	5,297.59	-18.50	131.49	419,755.62	735,004.56	32° 9' 8.782 N	103° 42' 27.161 W
5,400.00	0.06	133.28	5,397.59	-18.59	131.57	419,755.53	735,004.63	32° 9' 8.781 N	103° 42' 27.160 W
5,500.00	0.68	291.60	5,497.58	-18.41	131.05	419,755.71	735,004.12	32° 9' 8.783 N	103° 42' 27.166 W
5,600.00	0.77	275.69	5,597.58	-18.12	129.83	419,756.00	735,002.90	32° 9' 8.786 N	103° 42' 27.180 W
5,700.00	0.69	299.24	5,697.57	-17.76	128.64	419,756.36	735,001.70	32° 9' 8.789 N	103° 42' 27.194 W
5,800.00	0.54	303.99	5,797.56	-17.20	127.72	419,756.92	735,000.79	32° 9' 8.795 N	103° 42' 27.205 W
5,900.00	0.38	321.96	5,897.56	-16.68	127.13	419,757.44	735,000.19	32° 9' 8.800 N	103° 42' 27.211 W
6,000.00	0.38	313.86	5,997.56	-16.19	126.68	419,757.93	734,999.75	32° 9' 8.805 N	103° 42' 27.217 W
6,100.00	0.49	324.29	6,097.55	-15.61	126.19	419,758.51	734,999.26	32° 9' 8.811 N	103° 42' 27.222 W
6,200.00	0.44	310.82	6,197.55	-15.01	125.65	419,759.11	734,998.72	32° 9' 8.817 N	103° 42' 27.229 W
6,300.00	0.48	302.55	6,297.55	-14.54	125.01	419,759.58	734,998.08	32° 9' 8.821 N	103° 42' 27.236 W
6,400.00	0.70	275.93	6,397.54	-14.25	124.05	419,759.87	734,997.12	32° 9' 8.824 N	103° 42' 27.247 W

Leam Drilling Systems LLC

Survey Report - Geographic

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 7H
Project:	Lea County, NM (NAD-83)	TVD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Site:	Trionyx "6" Fed	MD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Well:	7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	*N/-S (usft)	*E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,500.00	0.61	251.37	6,497.54	-14.35	122.94	419,759.77	734,996.00	32° 9' 8.823 N	103° 42' 27.260 W
6,600.00	0.71	223.66	6,597.53	-14.97	122.01	419,759.15	734,995.07	32° 9' 8.817 N	103° 42' 27.271 W
6,700.00	0.60	209.88	6,697.52	-15.87	121.32	419,758.24	734,994.38	32° 9' 8.808 N	103° 42' 27.279 W
6,800.00	0.67	220.56	6,797.52	-16.77	120.68	419,757.35	734,993.74	32° 9' 8.799 N	103° 42' 27.287 W
6,900.00	0.55	204.86	6,897.51	-17.65	120.09	419,756.47	734,993.16	32° 9' 8.791 N	103° 42' 27.293 W
7,000.00	0.41	186.33	6,997.51	-18.44	119.85	419,755.68	734,992.92	32° 9' 8.783 N	103° 42' 27.296 W
7,100.00	0.83	186.82	7,097.50	-19.52	119.73	419,754.60	734,992.79	32° 9' 8.772 N	103° 42' 27.298 W
7,200.00	1.03	187.86	7,197.49	-21.13	119.52	419,752.99	734,992.58	32° 9' 8.756 N	103° 42' 27.300 W
7,300.00	1.13	187.40	7,297.47	-23.00	119.27	419,751.12	734,992.33	32° 9' 8.738 N	103° 42' 27.303 W
7,400.00	1.55	180.76	7,397.44	-25.33	119.12	419,748.79	734,992.19	32° 9' 8.715 N	103° 42' 27.305 W
7,500.00	1.33	181.08	7,497.41	-27.84	119.08	419,746.28	734,992.15	32° 9' 8.690 N	103° 42' 27.306 W
7,600.00	1.13	176.14	7,597.39	-29.98	119.13	419,744.14	734,992.19	32° 9' 8.669 N	103° 42' 27.305 W
7,700.00	1.06	165.03	7,697.37	-31.86	119.43	419,742.26	734,992.50	32° 9' 8.650 N	103° 42' 27.302 W
7,800.00	0.97	153.41	7,797.35	-33.51	120.05	419,740.61	734,993.12	32° 9' 8.634 N	103° 42' 27.295 W
7,812.00	1.10	93.90	7,809.35	-33.61	120.21	419,740.51	734,993.28	32° 9' 8.633 N	103° 42' 27.293 W
7,844.00	4.20	40.30	7,841.32	-32.74	121.28	419,741.38	734,994.34	32° 9' 8.641 N	103° 42' 27.281 W
7,876.00	8.00	23.40	7,873.13	-29.80	122.92	419,744.32	734,995.99	32° 9' 8.670 N	103° 42' 27.261 W
7,907.00	12.40	21.40	7,903.64	-24.72	124.99	419,749.40	734,998.06	32° 9' 8.721 N	103° 42' 27.237 W
7,939.00	15.90	19.40	7,934.66	-17.38	127.70	419,756.74	735,000.77	32° 9' 8.793 N	103° 42' 27.205 W
7,970.00	18.60	23.00	7,964.26	-8.82	131.04	419,765.30	735,004.11	32° 9' 8.877 N	103° 42' 27.165 W
8,002.00	21.60	14.70	7,994.32	1.58	134.53	419,775.70	735,007.60	32° 9' 8.980 N	103° 42' 27.124 W
8,033.00	24.40	6.60	8,022.86	13.46	136.72	419,787.58	735,009.79	32° 9' 9.098 N	103° 42' 27.098 W
8,065.00	28.30	3.50	8,051.53	27.61	137.94	419,801.72	735,011.01	32° 9' 9.238 N	103° 42' 27.083 W
8,097.00	30.00	8.40	8,079.48	43.09	139.58	419,817.21	735,012.64	32° 9' 9.391 N	103° 42' 27.063 W
8,129.00	33.80	9.00	8,106.64	59.81	142.14	419,833.92	735,015.20	32° 9' 9.556 N	103° 42' 27.032 W
8,161.00	37.20	11.20	8,132.69	78.09	145.41	419,852.21	735,018.48	32° 9' 9.737 N	103° 42' 26.992 W
8,192.00	40.90	12.10	8,156.76	97.21	149.36	419,871.33	735,022.42	32° 9' 9.926 N	103° 42' 26.945 W
8,224.00	43.30	12.70	8,180.50	118.17	153.97	419,892.28	735,027.03	32° 9' 10.133 N	103° 42' 26.890 W
8,243.80	44.79	12.70	8,194.73	131.59	156.99	419,905.71	735,030.06	32° 9' 10.265 N	103° 42' 26.854 W
HL Crossing: 8244' MD, 8195' TVD									
8,256.00	45.70	12.70	8,203.32	140.04	158.90	419,914.16	735,031.96	32° 9' 10.349 N	103° 42' 26.831 W
8,288.00	48.60	12.80	8,225.08	162.92	164.08	419,937.04	735,037.14	32° 9' 10.575 N	103° 42' 26.770 W
8,320.00	52.10	13.30	8,245.50	186.92	169.64	419,961.04	735,042.71	32° 9' 10.812 N	103° 42' 26.703 W
8,352.00	54.80	12.80	8,264.56	211.96	175.44	419,986.08	735,048.51	32° 9' 11.060 N	103° 42' 26.634 W
8,383.00	59.00	12.60	8,281.48	237.29	181.15	420,011.41	735,054.22	32° 9' 11.310 N	103° 42' 26.566 W
8,415.00	62.20	12.60	8,297.19	264.49	187.23	420,038.61	735,060.30	32° 9' 11.579 N	103° 42' 26.493 W
8,446.00	64.70	13.30	8,311.04	291.52	193.45	420,065.64	735,066.51	32° 9' 11.846 N	103° 42' 26.419 W
8,478.00	67.10	13.10	8,324.11	319.95	200.12	420,094.07	735,073.18	32° 9' 12.127 N	103° 42' 26.340 W
8,509.00	68.70	14.70	8,335.77	347.83	207.02	420,121.95	735,080.08	32° 9' 12.402 N	103° 42' 26.258 W
8,540.00	70.60	14.10	8,346.55	375.98	214.24	420,150.10	735,087.31	32° 9' 12.681 N	103° 42' 26.172 W
8,571.00	72.50	15.50	8,356.36	404.41	221.76	420,178.53	735,094.82	32° 9' 12.961 N	103° 42' 26.082 W
8,602.00	76.90	17.10	8,364.54	433.10	230.15	420,207.22	735,103.22	32° 9' 13.245 N	103° 42' 25.983 W
8,634.00	81.80	18.40	8,370.45	463.04	239.74	420,237.16	735,112.81	32° 9' 13.541 N	103° 42' 25.869 W
8,665.00	85.30	17.30	8,373.94	492.36	249.18	420,266.48	735,122.24	32° 9' 13.830 N	103° 42' 25.757 W
8,697.00	86.60	15.50	8,376.20	522.98	258.19	420,297.10	735,131.26	32° 9' 14.133 N	103° 42' 25.650 W
8,729.00	87.30	15.50	8,377.90	553.77	266.73	420,327.89	735,139.80	32° 9' 14.437 N	103° 42' 25.549 W
8,823.00	91.00	13.00	8,379.29	644.85	289.86	420,418.97	735,162.92	32° 9' 15.337 N	103° 42' 25.274 W
8,918.00	91.20	11.10	8,377.47	737.73	309.69	420,511.85	735,182.75	32° 9' 16.255 N	103° 42' 25.037 W
9,012.00	91.20	8.30	8,375.50	830.36	325.52	420,604.48	735,198.59	32° 9' 17.170 N	103° 42' 24.846 W
9,107.00	93.00	8.60	8,372.02	924.26	339.47	420,698.38	735,212.54	32° 9' 18.099 N	103° 42' 24.678 W
9,152.00	92.95	8.03	8,369.68	968.73	345.97	420,742.85	735,219.04	32° 9' 18.538 N	103° 42' 24.599 W
HL Crossing: 9152' MD, 8370' TVD									
9,202.00	92.90	7.40	8,367.13	1,018.21	352.67	420,792.33	735,225.74	32° 9' 19.028 N	103° 42' 24.518 W
9,297.00	91.90	6.10	8,363.15	1,112.46	363.83	420,886.58	735,236.89	32° 9' 19.960 N	103° 42' 24.382 W
9,392.00	89.90	3.90	8,361.66	1,207.08	372.11	420,981.20	735,245.17	32° 9' 20.896 N	103° 42' 24.279 W

Leam Drilling Systems LLC

Survey Report - Geographic

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 7H
Project:	Lea County, NM (NAD-83)	TVD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Site:	Trionyx "6" Fed	MD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Well:	7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,487.00	90.00	2.80	8,361.74	1,301.92	377.66	421,076.04	735,250.72	32° 9' 21.834 N	103° 42' 24.208 W
9,582.00	88.70	1.00	8,362.82	1,396.85	380.81	421,170.97	735,253.87	32° 9' 22.773 N	103° 42' 24.165 W
9,677.00	88.50	0.70	8,365.14	1,491.81	382.22	421,265.93	735,255.28	32° 9' 23.713 N	103° 42' 24.142 W
9,772.00	89.10	359.00	8,367.13	1,586.79	381.97	421,360.91	735,255.03	32° 9' 24.653 N	103° 42' 24.139 W
9,867.00	89.10	359.50	8,368.62	1,681.77	380.72	421,455.89	735,253.79	32° 9' 25.592 N	103° 42' 24.147 W
9,962.00	89.80	358.10	8,369.54	1,776.74	378.73	421,550.86	735,251.80	32° 9' 26.532 N	103° 42' 24.163 W
10,057.00	90.10	357.60	8,369.62	1,871.67	375.17	421,645.79	735,248.24	32° 9' 27.472 N	103° 42' 24.198 W
10,152.00	90.10	356.70	8,369.45	1,966.55	370.45	421,740.67	735,243.51	32° 9' 28.411 N	103° 42' 24.247 W
10,247.00	90.40	356.50	8,369.04	2,061.39	364.81	421,835.51	735,237.88	32° 9' 29.350 N	103° 42' 24.306 W
10,342.00	90.50	356.70	8,368.29	2,156.22	359.18	421,930.34	735,232.24	32° 9' 30.289 N	103° 42' 24.365 W
10,437.00	90.40	356.80	8,367.55	2,251.06	353.79	422,025.18	735,226.86	32° 9' 31.227 N	103° 42' 24.421 W
10,531.00	91.30	356.80	8,366.15	2,344.90	348.55	422,119.02	735,221.61	32° 9' 32.156 N	103° 42' 24.476 W
10,626.00	91.70	357.00	8,363.66	2,439.73	343.41	422,213.85	735,216.48	32° 9' 33.095 N	103° 42' 24.529 W
10,720.00	91.70	357.10	8,360.88	2,533.56	338.57	422,307.68	735,211.64	32° 9' 34.024 N	103° 42' 24.579 W
10,815.00	91.60	357.20	8,358.14	2,628.41	333.85	422,402.53	735,206.92	32° 9' 34.963 N	103° 42' 24.628 W
10,933.00	89.70	357.60	8,356.80	2,746.27	328.50	422,520.39	735,201.57	32° 9' 36.129 N	103° 42' 24.682 W
HL Crossing: 10933' MD, 8357' TVD									
11,028.00	90.20	358.00	8,356.88	2,841.20	324.85	422,615.32	735,197.92	32° 9' 37.069 N	103° 42' 24.718 W
11,122.00	91.30	358.30	8,355.65	2,935.14	321.82	422,709.26	735,194.89	32° 9' 37.999 N	103° 42' 24.747 W
11,217.00	90.30	356.70	8,354.33	3,030.04	317.68	422,804.16	735,190.74	32° 9' 38.938 N	103° 42' 24.789 W
11,311.00	91.20	357.10	8,353.10	3,123.89	312.59	422,898.01	735,185.66	32° 9' 39.867 N	103° 42' 24.842 W
11,406.00	89.30	355.90	8,352.68	3,218.71	306.79	422,992.83	735,179.86	32° 9' 40.806 N	103° 42' 24.903 W
11,500.00	89.60	356.40	8,353.58	3,312.49	300.48	423,086.61	735,173.55	32° 9' 41.734 N	103° 42' 24.970 W
11,595.00	89.80	356.70	8,354.08	3,407.32	294.77	423,181.44	735,167.83	32° 9' 42.673 N	103° 42' 25.030 W
11,691.00	88.40	357.40	8,355.59	3,503.18	289.83	423,277.30	735,162.89	32° 9' 43.622 N	103° 42' 25.081 W
11,786.00	88.30	0.40	8,358.33	3,598.11	288.00	423,372.23	735,161.07	32° 9' 44.561 N	103° 42' 25.096 W
11,879.00	89.50	1.30	8,360.11	3,691.08	289.38	423,465.20	735,162.45	32° 9' 45.481 N	103° 42' 25.073 W
11,974.00	90.10	1.60	8,360.44	3,786.05	291.79	423,560.17	735,164.85	32° 9' 46.421 N	103° 42' 25.039 W
12,069.00	90.70	1.70	8,359.78	3,881.00	294.52	423,655.12	735,167.59	32° 9' 47.360 N	103° 42' 25.001 W
12,163.00	90.00	2.10	8,359.21	3,974.95	297.64	423,749.07	735,170.71	32° 9' 48.290 N	103° 42' 24.958 W
12,258.00	91.30	2.20	8,358.13	4,069.88	301.20	423,844.00	735,174.27	32° 9' 49.229 N	103° 42' 24.910 W
12,354.00	91.50	359.60	8,355.78	4,165.83	302.71	423,939.95	735,175.78	32° 9' 50.178 N	103° 42' 24.886 W
12,448.00	89.60	358.80	8,354.88	4,259.81	301.40	424,033.93	735,174.46	32° 9' 51.108 N	103° 42' 24.895 W
12,543.00	89.10	357.60	8,355.96	4,354.75	298.41	424,128.87	735,171.48	32° 9' 52.048 N	103° 42' 24.923 W
12,638.00	89.00	357.60	8,357.53	4,449.66	294.44	424,223.78	735,167.50	32° 9' 52.987 N	103° 42' 24.963 W
12,733.00	89.90	358.10	8,358.44	4,544.58	290.87	424,318.70	735,163.94	32° 9' 53.927 N	103° 42' 24.998 W
12,828.00	90.10	358.30	8,358.44	4,639.54	287.89	424,413.66	735,160.95	32° 9' 54.867 N	103° 42' 25.026 W
12,897.00	89.80	358.80	8,358.50	4,708.52	286.14	424,482.63	735,159.21	32° 9' 55.549 N	103° 42' 25.042 W
12,950.80	89.80	358.80	8,358.69	4,762.30	285.02	424,536.42	735,158.08	32° 9' 56.082 N	103° 42' 25.051 W
HL Crossing: 12951' MD, 8359' TVD									
12,952.00	89.80	358.80	8,358.70	4,763.50	284.99	424,537.62	735,158.06	32° 9' 56.093 N	103° 42' 25.052 W

Leam Drilling Systems LLC

Survey Report - Geographic

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 7H
Project:	Lea County, NM (NAD-83)	TVD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Site:	Trionyx "6" Fed	MD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Well:	7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Design Targets										
Target Name	hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
SHL(T"6"F 7H)		0.00	0.00	0.00	0.00	0.00	419,774.12	734,873.07	32° 9' 8.972 N	103° 42' 28.689 W
	- actual wellpath hits target center									
	- Point									
BHL(T"6"F 7H)		0.00	0.00	8,358.70	4,763.50	284.99	424,537.62	735,158.06	32° 9' 56.093 N	103° 42' 25.052 W
	- actual wellpath hits target center									
	- Point									
PBHL(T"6"F 7H)		0.00	0.00	8,362.00	4,761.75	309.44	424,535.87	735,182.51	32° 9' 56.075 N	103° 42' 24.767 W
	- actual wellpath misses target center by 24.63usft at 12949.75usft MD (8358.69 TVD, 4761.25 N, 285.04 E)									
	- Point									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,243.80	8,194.73	131.59	156.99	HL Crossing: 8244' MD, 8195' TVD
9,152.00	8,369.68	968.73	345.97	HL Crossing: 9152' MD, 8370' TVD
10,933.00	8,356.80	2,746.27	328.50	HL Crossing: 10933' MD, 8357' TVD
12,950.80	8,358.69	4,762.30	285.02	HL Crossing: 12951' MD, 8359' TVD

Checked By: _____	Approved By: _____	Date: _____
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Company: Devon Energy Production Co., LP
Lease/Well: Trionyx 6 Federal/No 007H

Rig Name: Cactus
State/County: New Mexico/Lea
Latitude: 32.15, Longitude: -103.71
GRID North is 0.33 Degrees East of True North
VS-Azi: 0.00 Degrees



HOBBS OGD

OCT 23 2013

RECEIVED

Depth Reference : RKB=28

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: survey.ut
Minimum Curvature Method
Report Date/Time: 3/12/2013 / 08:36

Vaughn Energy Services
Midland, Texas
432-563-5444
Surveyor: Kyle Willis
Trionyx 6 Federal No 007H / API 30-025-40047

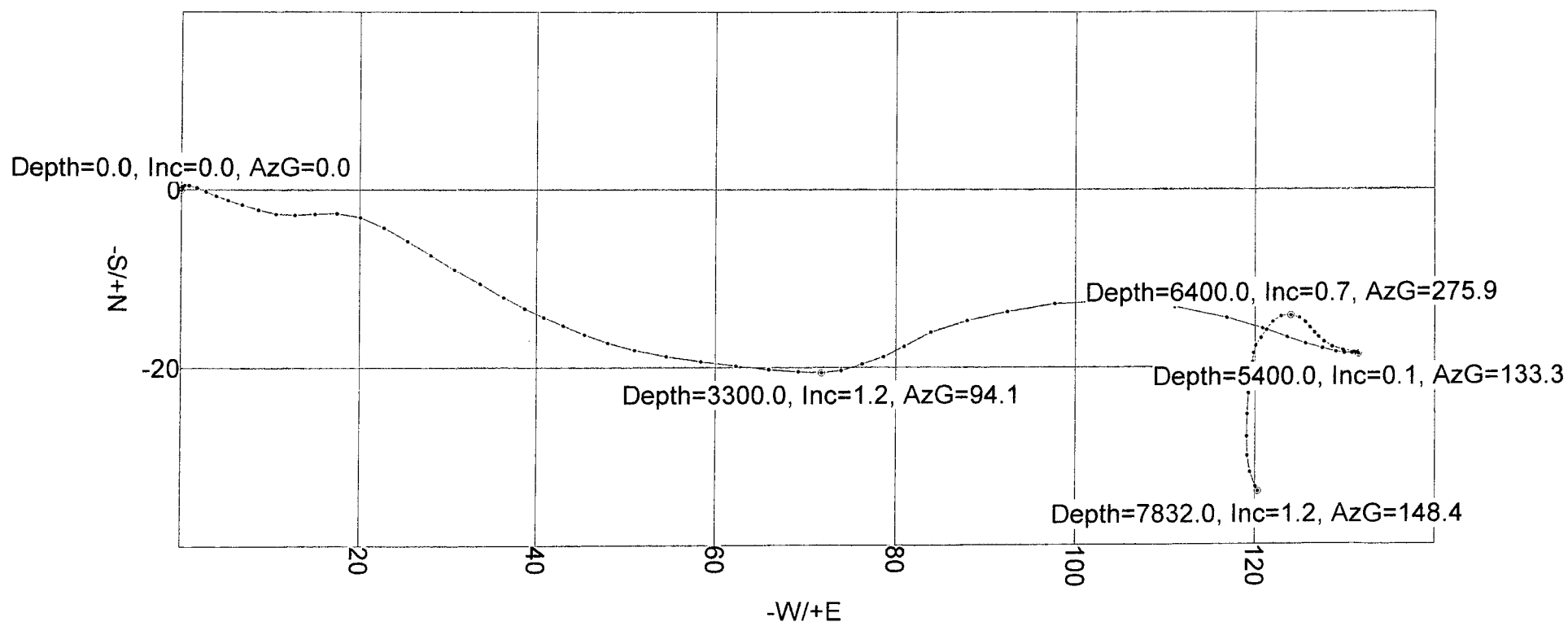
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.11	4.99	100.00	0.09	0.01	0.09	0.09	4.99	0.11
200.00	0.20	32.43	200.00	0.34	0.11	0.34	0.35	18.34	0.12
300.00	0.18	85.99	300.00	0.50	0.36	0.50	0.61	35.91	0.17
400.00	0.41	96.33	400.00	0.47	0.87	0.47	0.99	61.63	0.24
500.00	0.60	113.42	499.99	0.22	1.70	0.22	1.72	82.62	0.24
600.00	0.70	114.95	599.99	-0.25	2.74	-0.25	2.75	95.12	0.10
700.00	0.73	110.55	699.98	-0.73	3.89	-0.73	3.96	100.59	0.06
800.00	0.84	108.41	799.97	-1.18	5.18	-1.18	5.31	102.85	0.11
900.00	1.04	107.28	899.96	-1.68	6.74	-1.68	6.95	104.01	0.20
1000.00	1.15	108.25	999.94	-2.26	8.55	-2.26	8.85	104.82	0.11
1100.00	1.16	99.06	1099.92	-2.74	10.50	-2.74	10.85	104.60	0.18
1200.00	1.25	87.46	1199.90	-2.85	12.58	-2.85	12.90	102.75	0.26
1300.00	1.36	87.21	1299.87	-2.74	14.86	-2.74	15.11	100.45	0.11
1400.00	1.50	89.42	1399.84	-2.67	17.35	-2.67	17.56	98.75	0.15
1500.00	1.67	107.77	1499.80	-3.10	20.05	-3.10	20.28	98.79	0.53
1600.00	1.73	118.61	1599.76	-4.27	22.76	-4.27	23.16	100.62	0.33
1700.00	1.79	119.96	1699.71	-5.77	25.44	-5.77	26.09	102.79	0.08
1800.00	1.72	123.05	1799.66	-7.38	28.06	-7.38	29.01	104.73	0.12

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	1.83	119.56	1899.62	-8.98	30.71	-8.98	31.99	106.31	0.15
2000.00	1.98	117.67	1999.56	-10.57	33.63	-10.57	35.25	107.45	0.16
2100.00	1.62	121.32	2099.51	-12.11	36.37	-12.11	38.33	108.42	0.38
2200.00	1.40	115.71	2199.48	-13.37	38.67	-13.37	40.92	109.08	0.27
2300.00	1.30	113.55	2299.45	-14.35	40.81	-14.35	43.26	109.38	0.11
2400.00	1.38	113.44	2399.42	-15.29	42.95	-15.29	45.59	109.59	0.09
2500.00	1.57	112.08	2499.39	-16.28	45.33	-16.28	48.16	109.76	0.19
2600.00	1.63	107.26	2599.35	-17.22	47.95	-17.22	50.95	109.75	0.15
2700.00	1.94	103.42	2699.30	-18.03	50.96	-18.03	54.06	109.49	0.34
2800.00	2.20	99.66	2799.24	-18.75	54.50	-18.75	57.64	108.98	0.29
2900.00	2.28	97.44	2899.16	-19.33	58.36	-19.33	61.48	108.32	0.12
3000.00	2.22	96.08	2999.08	-19.79	62.26	-19.79	65.32	107.63	0.08
3100.00	2.01	97.01	3099.01	-20.21	65.92	-20.21	68.94	107.04	0.21
3200.00	1.75	91.42	3198.96	-20.46	69.18	-20.46	72.14	106.48	0.31
3300.00	1.19	94.12	3298.93	-20.57	71.74	-20.57	74.63	106.00	0.56
3400.00	1.35	72.91	3398.90	-20.30	73.90	-20.30	76.64	105.36	0.49
3500.00	1.46	73.15	3498.87	-19.59	76.25	-19.59	78.72	104.41	0.11
3600.00	1.38	69.28	3598.84	-18.79	78.59	-18.79	80.80	103.45	0.12
3700.00	1.62	58.51	3698.81	-17.63	80.92	-17.63	82.82	102.29	0.37
3800.00	2.22	64.33	3798.75	-16.05	83.87	-16.05	85.39	100.84	0.64
3900.00	2.70	78.89	3898.66	-14.76	87.93	-14.76	89.16	99.53	0.79
4000.00	2.57	76.14	3998.55	-13.77	92.42	-13.77	93.44	98.47	0.18
4100.00	3.55	83.38	4098.41	-12.87	97.68	-12.87	98.52	97.51	1.05
4200.00	3.91	91.10	4198.20	-12.58	104.17	-12.58	104.93	96.89	0.62
4300.00	4.00	99.82	4297.96	-13.24	111.02	-13.24	111.81	96.80	0.61
4400.00	2.82	105.53	4397.78	-14.49	116.83	-14.49	117.72	97.07	1.22
4500.00	1.98	107.74	4497.69	-15.68	120.85	-15.68	121.86	97.39	0.84
4600.00	1.40	112.87	4597.65	-16.68	123.62	-16.68	124.74	97.69	0.61
4700.00	1.12	106.18	4697.63	-17.43	125.67	-17.43	126.88	97.89	0.32
4800.00	1.10	104.09	4797.61	-17.93	127.54	-17.93	128.79	98.00	0.04
4900.00	0.66	106.01	4897.60	-18.32	129.02	-18.32	130.31	98.08	0.43
5000.00	0.46	87.66	4997.59	-18.47	129.98	-18.47	131.28	98.09	0.27
5100.00	0.49	94.35	5097.59	-18.48	130.80	-18.48	132.10	98.04	0.06
5200.00	0.12	71.71	5197.59	-18.48	131.33	-18.48	132.63	98.01	0.38
5300.00	0.07	145.97	5297.59	-18.50	131.47	-18.50	132.76	98.01	0.12
5400.00	0.06	133.28	5397.59	-18.58	131.54	-18.58	132.85	98.04	0.02
5500.00	0.68	291.60	5497.58	-18.40	131.03	-18.40	132.32	97.99	0.73
5600.00	0.77	275.69	5597.58	-18.12	129.81	-18.12	131.07	97.95	0.22
5700.00	0.69	299.24	5697.57	-17.76	128.62	-17.76	129.84	97.86	0.31

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	0.54	303.99	5797.56	-17.20	127.70	-17.20	128.86	97.67	0.15
5900.00	0.38	321.96	5897.56	-16.68	127.11	-16.68	128.20	97.47	0.22
6000.00	0.38	313.86	5997.56	-16.18	126.66	-16.18	127.69	97.28	0.05
6100.00	0.49	324.29	6097.55	-15.61	126.17	-15.61	127.14	97.05	0.13
6200.00	0.44	310.82	6197.55	-15.01	125.63	-15.01	126.53	96.81	0.12
6300.00	0.48	302.55	6297.55	-14.53	124.98	-14.53	125.83	96.63	0.08
6400.00	0.70	275.93	6397.54	-14.24	124.02	-14.24	124.83	96.55	0.35
6500.00	0.61	251.37	6497.54	-14.34	122.91	-14.34	123.74	96.66	0.29
6600.00	0.71	223.66	6597.53	-14.96	121.98	-14.96	122.89	96.99	0.33
6700.00	0.60	209.88	6697.52	-15.86	121.29	-15.86	122.33	97.45	0.19
6800.00	0.67	220.56	6797.52	-16.76	120.65	-16.76	121.81	97.91	0.14
6900.00	0.55	204.86	6897.51	-17.64	120.07	-17.64	121.36	98.36	0.20
7000.00	0.41	186.33	6997.51	-18.43	119.83	-18.43	121.24	98.74	0.21
7100.00	0.83	186.82	7097.50	-19.51	119.70	-19.51	121.28	99.26	0.42
7200.00	1.03	187.86	7197.49	-21.13	119.49	-21.13	121.35	100.03	0.20
7300.00	1.13	187.40	7297.47	-23.00	119.24	-23.00	121.44	100.92	0.10
7400.00	1.55	180.76	7397.44	-25.33	119.10	-25.33	121.76	102.01	0.45
7500.00	1.33	181.08	7497.41	-27.85	119.06	-27.85	122.27	103.17	0.22
7600.00	1.13	176.14	7597.39	-29.99	119.10	-29.99	122.82	104.14	0.23
7700.00	1.06	165.03	7697.37	-31.86	119.41	-31.86	123.58	104.94	0.22
7800.00	0.97	153.41	7797.35	-33.52	120.02	-33.52	124.62	105.60	0.22
7832.00	1.15	148.41	7829.35	-34.03	120.32	-34.03	125.04	105.79	0.63



Vaughn Energy Services
Midland, Texas
432-563-5444
Surveyor: Kyle Willis
Trionyx 6 Federal No 007H / API 30-025-40047



DEVON ENERGY

Project: Lea County, NM (NAD-83)
 Site: Trionyx "6" Fed
 Well: 7H
 Wellbore: OH
 Design: OH



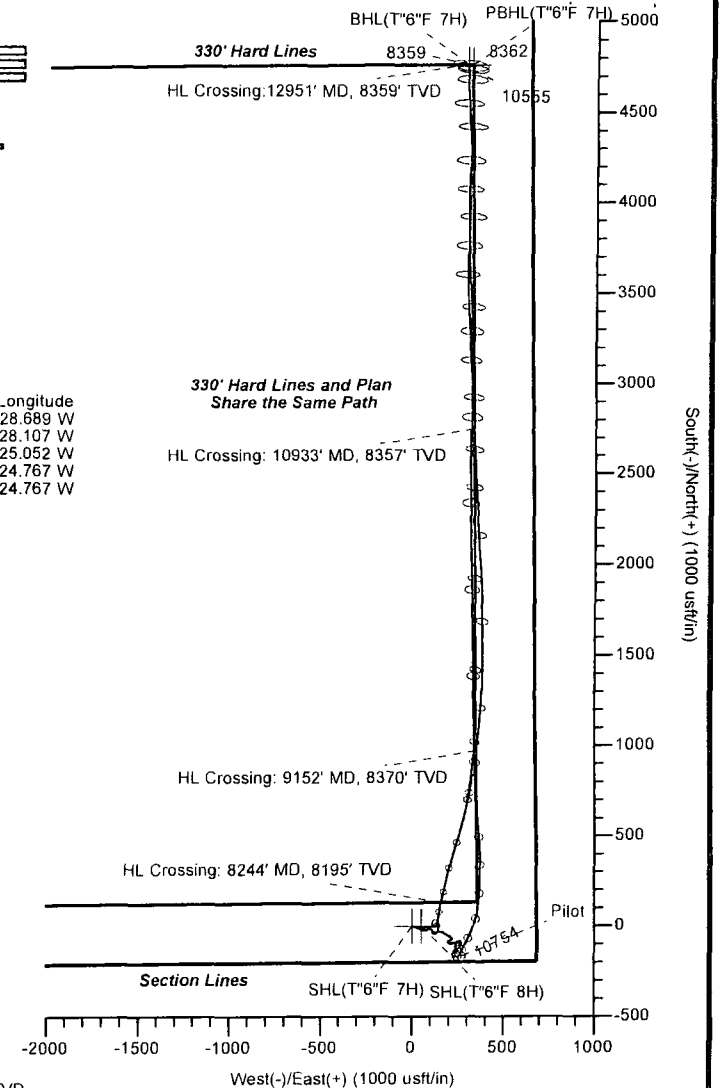
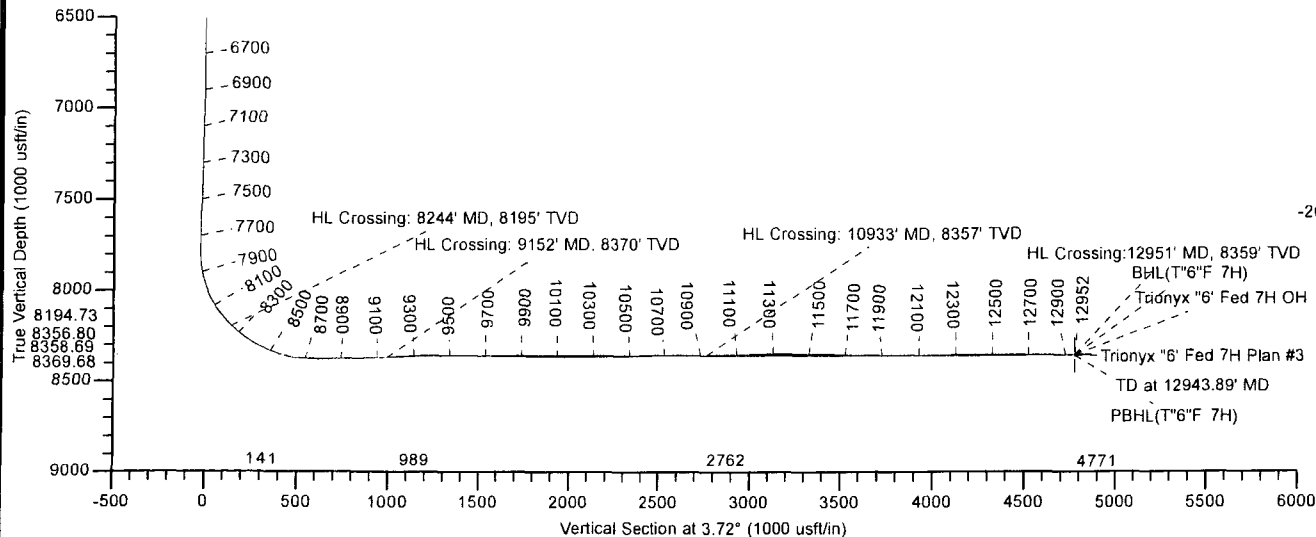
Azimuths to Grid North
 True North: -0.33°
 Magnetic North: 7.11°

Magnetic Field
 Strength: 48391.7snT
 Dip Angle: 60.06°
 Date: 02/12/2013
 Model: IGRF2010

devon

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL(T"6"F 7H)	0.00	0.00	0.00	419774.12	734873.07	32° 9' 8.972 N	103° 42' 28.689 W
SHL(T"6"F 8H)	0.00	0.37	50.03	419774.49	734923.10	32° 9' 8.973 N	103° 42' 28.107 W
BHL(T"6"F 7H)	8358.70	4763.50	284.99	424537.62	735158.06	32° 9' 56.093 N	103° 42' 25.052 W
PBHL(T"6"F 7H)	8362.00	4761.75	309.44	424535.87	735182.51	32° 9' 56.075 N	103° 42' 24.767 W
PBHL(T"6"F 8H)	10560.81	4761.75	309.44	424535.87	735182.51	32° 9' 56.075 N	103° 42' 24.767 W



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

Design: OH (7H/OH)
 Trionyx "6" Fed
 Created By: Heber Claros
 Date: 12/37, September 19 2013
 Approved: _____
 Date: _____

Leam Drilling Systems LLC

Survey Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 7H
Project:	Lea County, NM (NAD-83)	TVD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Site:	Trionyx "6" Fed	MD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Well:	7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project:	Lea 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	Trionyx "6" Fed				
Site Position:		Northing:	419,774.49 usft	Latitude:	32° 9' 8.973 N
From:	Map	Easting:	734,923.10 usft	Longitude:	103° 42' 28.107 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.33 °

Well	7H					
Well Position	+N/-S	0.00 usft	Northing:	419,774.12 usft	Latitude:	32° 9' 8.972 N
	+E/-W	0.00 usft	Easting:	734,873.07 usft	Longitude:	103° 42' 28.689 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,447.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/12/13	7.44	60.06	48,392

Design:		OH			
Audit Notes:					
Version:		1.0	Phase:		ACTUAL
			Tie On Depth:		0.00
Vertical Section:		Depth From (TVD)		+N/-S	+E/-W
		(usft)		(usft)	(usft)
		0.00		0.00	0.00
					3.72

Survey Program		Date	09/19/13		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	7,800.00	Survey #2 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
7,812.00	12,897.00	Survey #3 (OH)	LEAM MWD	MWD - Standard	
12,952.00	12,952.00	Survey #4 (OH)	Project	Projection	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.11	4.99	100.00	0.10	0.01	0.10	0.11	0.11	0.00
200.00	0.20	32.43	200.00	0.34	0.11	0.35	0.11	0.09	27.44
300.00	0.18	85.99	300.00	0.50	0.36	0.52	0.17	-0.02	53.56
400.00	0.41	96.33	400.00	0.47	0.87	0.52	0.24	0.23	10.34
500.00	0.60	113.42	499.99	0.22	1.71	0.33	0.24	0.19	17.09
600.00	0.70	114.95	599.99	-0.24	2.74	-0.07	0.10	0.10	1.53
700.00	0.73	110.55	699.98	-0.73	3.89	-0.47	0.06	0.03	-4.40
800.00	0.84	108.41	799.97	-1.18	5.19	-0.84	0.11	0.11	-2.14

Leam Drilling Systems LLC

Survey Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 7H
Project:	Lea County, NM (NAD-83)	TVD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Site:	Trionyx "6" Fed	MD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Well:	7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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)
900.00	1.04	107.28	899.96	-1.68	6.75	-1.24	0.20	0.20	-1.13
1,000.00	1.15	108.25	999.94	-2.27	8.57	-1.71	0.11	0.11	0.97
1,100.00	1.16	99.06	1,099.92	-2.74	10.52	-2.05	0.19	0.01	-9.19
1,200.00	1.25	87.46	1,199.90	-2.85	12.61	-2.03	0.26	0.09	-11.60
1,300.00	1.36	87.21	1,299.87	-2.74	14.88	-1.77	0.11	0.11	-0.25
1,400.00	1.50	89.42	1,399.84	-2.67	17.38	-1.54	0.15	0.14	2.21
1,500.00	1.67	107.77	1,499.80	-3.11	20.07	-1.80	0.53	0.17	18.35
1,600.00	1.73	118.61	1,599.76	-4.27	22.79	-2.79	0.33	0.06	10.84
1,700.00	1.79	119.96	1,699.71	-5.78	25.47	-4.11	0.07	0.06	1.35
1,800.00	1.72	123.05	1,799.66	-7.37	28.08	-5.54	0.12	-0.07	3.09
1,900.00	1.83	119.56	1,899.62	-8.98	30.72	-6.97	0.15	0.11	-3.49
2,000.00	1.98	117.67	1,999.56	-10.57	33.64	-8.37	0.16	0.15	-1.89
2,100.00	1.62	121.32	2,099.51	-12.11	36.38	-9.72	0.38	-0.36	3.65
2,200.00	1.40	115.71	2,199.48	-13.37	38.69	-10.83	0.26	-0.22	-5.61
2,300.00	1.30	113.55	2,299.45	-14.36	40.83	-11.68	0.11	-0.10	-2.16
2,400.00	1.38	113.44	2,399.42	-15.29	42.97	-12.47	0.08	0.08	-0.11
2,500.00	1.57	112.08	2,499.39	-16.28	45.35	-13.31	0.19	0.19	-1.36
2,600.00	1.63	107.26	2,599.35	-17.22	47.98	-14.07	0.15	0.06	-4.82
2,700.00	1.94	103.42	2,699.30	-18.03	50.98	-14.69	0.33	0.31	-3.84
2,800.00	2.20	99.66	2,799.24	-18.75	54.52	-15.17	0.29	0.26	-3.76
2,900.00	2.28	97.44	2,899.16	-19.33	58.38	-15.50	0.12	0.08	-2.22
3,000.00	2.22	96.08	2,999.08	-19.79	62.28	-15.71	0.08	-0.06	-1.36
3,100.00	2.01	97.01	3,099.01	-20.21	65.95	-15.89	0.21	-0.21	0.93
3,200.00	1.75	91.42	3,198.96	-20.46	69.21	-15.93	0.32	-0.26	-5.59
3,300.00	1.19	94.12	3,298.93	-20.57	71.78	-15.88	0.56	-0.56	2.70
3,400.00	1.35	72.91	3,398.90	-20.30	73.94	-15.46	0.49	0.16	-21.21
3,500.00	1.46	73.15	3,498.87	-19.59	76.28	-14.60	0.11	0.11	0.24
3,600.00	1.38	69.28	3,598.84	-18.79	78.63	-13.65	0.12	-0.08	-3.87
3,700.00	1.62	58.51	3,698.81	-17.63	80.96	-12.34	0.37	0.24	-10.77
3,800.00	2.22	64.33	3,798.75	-16.05	83.91	-10.57	0.63	0.60	5.82
3,900.00	2.70	78.89	3,898.66	-14.76	87.97	-9.02	0.78	0.48	14.56
4,000.00	2.57	76.14	3,998.55	-13.77	92.46	-7.74	0.18	-0.13	-2.75
4,100.00	3.55	83.38	4,098.41	-12.87	97.71	-6.51	1.05	0.98	7.24
4,200.00	3.91	91.10	4,198.20	-12.58	104.19	-5.80	0.62	0.36	7.72
4,300.00	4.00	99.82	4,297.96	-13.24	111.04	-6.01	0.61	0.09	8.72
4,400.00	2.82	105.53	4,397.78	-14.49	116.85	-6.89	1.23	-1.18	5.71
4,500.00	1.98	107.74	4,497.69	-15.68	120.86	-7.81	0.84	-0.84	2.21
4,600.00	1.40	112.87	4,597.65	-16.68	123.63	-8.63	0.60	-0.58	5.13
4,700.00	1.12	106.18	4,697.63	-17.43	125.70	-9.24	0.32	-0.28	-6.69
4,800.00	1.10	104.09	4,797.61	-17.93	127.57	-9.62	0.05	-0.02	-2.09
4,900.00	0.66	106.01	4,897.60	-18.33	129.05	-9.92	0.44	-0.44	1.92
5,000.00	0.46	87.66	4,997.59	-18.47	130.01	-10.00	0.27	-0.20	-18.35
5,100.00	0.49	94.35	5,097.59	-18.48	130.83	-9.96	0.06	0.03	6.69

Leam Drilling Systems LLC

Survey Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 7H
Project:	Lea County, NM (NAD-83)	TVD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Site:	Trionyx "6" Fed	MD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Well:	7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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)	
5,200.00	0.12	71.71	5,197.59	-18.48	131.36	-9.93	0.38	-0.37	-22.64	
5,300.00	0.07	145.97	5,297.59	-18.50	131.49	-9.94	0.12	-0.05	74.26	
5,400.00	0.06	133.28	5,397.59	-18.59	131.57	-10.02	0.02	-0.01	-12.69	
5,500.00	0.68	291.60	5,497.58	-18.41	131.05	-9.87	0.74	0.62	158.32	
5,600.00	0.77	275.69	5,597.58	-18.12	129.83	-9.66	0.22	0.09	-15.91	
5,700.00	0.69	299.24	5,697.57	-17.76	128.64	-9.38	0.31	-0.08	23.55	
5,800.00	0.54	303.99	5,797.56	-17.20	127.72	-8.88	0.16	-0.15	4.75	
5,900.00	0.38	321.96	5,897.56	-16.68	127.13	-8.40	0.21	-0.16	17.97	
6,000.00	0.38	313.86	5,997.56	-16.19	126.68	-7.94	0.05	0.00	-8.10	
6,100.00	0.49	324.29	6,097.55	-15.61	126.19	-7.39	0.14	0.11	10.43	
6,200.00	0.44	310.82	6,197.55	-15.01	125.65	-6.83	0.12	-0.05	-13.47	
6,300.00	0.48	302.55	6,297.55	-14.54	125.01	-6.40	0.08	0.04	-8.27	
6,400.00	0.70	275.93	6,397.54	-14.25	124.05	-6.17	0.35	0.22	-26.62	
6,500.00	0.61	251.37	6,497.54	-14.35	122.94	-6.35	0.29	-0.09	-24.56	
6,600.00	0.71	223.66	6,597.53	-14.97	122.01	-7.03	0.33	0.10	-27.71	
6,700.00	0.60	209.88	6,697.52	-15.87	121.32	-7.97	0.19	-0.11	-13.78	
6,800.00	0.67	220.56	6,797.52	-16.77	120.68	-8.91	0.14	0.07	10.68	
6,900.00	0.55	204.86	6,897.51	-17.65	120.09	-9.83	0.20	-0.12	-15.70	
7,000.00	0.41	186.33	6,997.51	-18.44	119.85	-10.63	0.21	-0.14	-18.53	
7,100.00	0.83	186.82	7,097.50	-19.52	119.73	-11.71	0.42	0.42	0.49	
7,200.00	1.03	187.86	7,197.49	-21.13	119.52	-13.33	0.20	0.20	1.04	
7,300.00	1.13	187.40	7,297.47	-23.00	119.27	-15.21	0.10	0.10	-0.46	
7,400.00	1.55	180.76	7,397.44	-25.33	119.12	-17.55	0.45	0.42	-6.64	
7,500.00	1.33	181.08	7,497.41	-27.84	119.08	-20.06	0.22	-0.22	0.32	
7,600.00	1.13	176.14	7,597.39	-29.98	119.13	-22.19	0.23	-0.20	-4.94	
7,700.00	1.06	165.03	7,697.37	-31.86	119.43	-24.05	0.22	-0.07	-11.11	
7,800.00	0.97	153.41	7,797.35	-33.51	120.05	-25.66	0.22	-0.09	-11.62	
7,812.00	1.10	93.90	7,809.35	-33.61	120.21	-25.74	8.61	1.08	-495.92	
7,844.00	4.20	40.30	7,841.32	-32.74	121.28	-24.80	11.42	9.69	-167.50	
7,876.00	8.00	23.40	7,873.13	-29.80	122.92	-21.76	13.01	11.88	-52.81	
7,907.00	12.40	21.40	7,903.64	-24.72	124.99	-16.56	14.24	14.19	-6.45	
7,939.00	15.90	19.40	7,934.66	-17.38	127.70	-9.06	11.04	10.94	-6.25	
7,970.00	18.60	23.00	7,964.26	-8.82	131.04	-0.31	9.36	8.71	11.61	
8,002.00	21.60	14.70	7,994.32	1.58	134.53	10.30	12.92	9.38	-25.94	
8,033.00	24.40	6.60	8,022.86	13.46	136.72	22.30	13.61	9.03	-26.13	
8,065.00	28.30	3.50	8,051.53	27.61	137.94	36.49	12.92	12.19	-9.69	
8,097.00	30.00	8.40	8,079.48	43.09	139.58	52.05	9.15	5.31	15.31	
8,129.00	33.80	9.00	8,106.64	59.81	142.14	68.90	11.92	11.88	1.88	
8,161.00	37.20	11.20	8,132.69	78.09	145.41	87.36	11.35	10.63	6.88	
8,192.00	40.90	12.10	8,156.76	97.21	149.36	106.70	12.07	11.94	2.90	
8,224.00	43.30	12.70	8,180.50	118.17	153.97	127.90	7.60	7.50	1.88	
8,243.80	44.79	12.70	8,194.73	131.59	156.99	141.50	7.50	7.50	0.00	
HL Crossing: 8244' MD, 8195' TVD										
8,256.00	45.70	12.70	8,203.32	140.04	158.90	150.05	7.50	7.50	0.00	

Leam Drilling Systems LLC

Survey Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 7H
Project:	Lea County, NM (NAD-83)	TVD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Site:	Trionyx "6" Fed	MD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Well:	7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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)
8,288.00	48.60	12.80	8,225.08	162.92	164.08	173.22	9.07	9.06	0.31
8,320.00	52.10	13.30	8,245.50	186.92	169.64	197.53	11.00	10.94	1.56
8,352.00	54.80	12.80	8,264.56	211.96	175.44	222.89	8.53	8.44	-1.56
8,383.00	59.00	12.60	8,281.48	237.29	181.15	248.54	13.56	13.55	-0.65
8,415.00	62.20	12.60	8,297.19	264.49	187.23	276.08	10.00	10.00	0.00
8,446.00	64.70	13.30	8,311.04	291.52	193.45	303.45	8.31	8.06	2.26
8,478.00	67.10	13.10	8,324.11	319.95	200.12	332.26	7.52	7.50	-0.63
8,509.00	68.70	14.70	8,335.77	347.83	207.02	360.53	7.04	5.16	5.16
8,540.00	70.60	14.10	8,346.55	375.98	214.24	389.09	6.39	6.13	-1.94
8,571.00	72.50	15.50	8,356.36	404.41	221.76	417.94	7.48	6.13	4.52
8,602.00	76.90	17.10	8,364.54	433.10	230.15	447.12	15.04	14.19	5.16
8,634.00	81.80	18.40	8,370.45	463.04	239.74	477.62	15.82	15.31	4.06
8,665.00	85.30	17.30	8,373.94	492.36	249.18	507.48	11.83	11.29	-3.55
8,697.00	86.60	15.50	8,376.20	522.98	258.19	538.62	6.93	4.06	-5.63
8,729.00	87.30	15.50	8,377.90	553.77	266.73	569.90	2.19	2.19	0.00
8,823.00	91.00	13.00	8,379.29	644.85	289.86	662.29	4.75	3.94	-2.66
8,918.00	91.20	11.10	8,377.47	737.73	309.69	756.26	2.01	0.21	-2.00
9,012.00	91.20	8.30	8,375.50	830.36	325.52	849.72	2.98	0.00	-2.98
9,107.00	93.00	8.60	8,372.02	924.26	339.47	944.33	1.92	1.89	0.32
9,152.00	92.95	8.03	8,369.68	968.73	345.97	989.12	1.27	-0.10	-1.26
HL Crossing: 9152' MD, 8370' TVD									
9,202.00	92.90	7.40	8,367.13	1,018.21	352.67	1,038.94	1.27	-0.11	-1.26
9,297.00	91.90	6.10	8,363.15	1,112.46	363.83	1,133.72	1.73	-1.05	-1.37
9,392.00	89.90	3.90	8,361.66	1,207.08	372.11	1,228.67	3.13	-2.11	-2.32
9,487.00	90.00	2.80	8,361.74	1,301.92	377.66	1,323.67	1.16	0.11	-1.16
9,582.00	88.70	1.00	8,362.82	1,396.85	380.81	1,418.61	2.34	-1.37	-1.89
9,677.00	88.50	0.70	8,365.14	1,491.81	382.22	1,513.46	0.38	-0.21	-0.32
9,772.00	89.10	359.00	8,367.13	1,586.79	381.97	1,608.22	1.90	0.63	-1.79
9,867.00	89.10	359.50	8,368.62	1,681.77	380.72	1,702.92	0.53	0.00	0.53
9,962.00	89.80	358.10	8,369.54	1,776.74	378.73	1,797.56	1.65	0.74	-1.47
10,057.00	90.10	357.60	8,369.62	1,871.67	375.17	1,892.06	0.61	0.32	-0.53
10,152.00	90.10	356.70	8,369.45	1,966.55	370.45	1,986.44	0.95	0.00	-0.95
10,247.00	90.40	356.50	8,369.04	2,061.39	364.81	2,080.70	0.38	0.32	-0.21
10,342.00	90.50	356.70	8,368.29	2,156.22	359.18	2,174.97	0.24	0.11	0.21
10,437.00	90.40	356.80	8,367.55	2,251.06	353.79	2,269.26	0.15	-0.11	0.11
10,531.00	91.30	356.80	8,366.15	2,344.90	348.55	2,362.57	0.96	0.96	0.00
10,626.00	91.70	357.00	8,363.66	2,439.73	343.41	2,456.86	0.47	0.42	0.21
10,720.00	91.70	357.10	8,360.88	2,533.56	338.57	2,550.19	0.11	0.00	0.11
10,815.00	91.60	357.20	8,358.14	2,628.41	333.85	2,644.52	0.15	-0.11	0.11
10,933.00	89.70	357.60	8,356.80	2,746.27	328.50	2,761.80	1.65	-1.61	0.34
HL Crossing: 10933' MD, 8357' TVD									
11,028.00	90.20	358.00	8,356.88	2,841.20	324.85	2,856.29	0.67	0.53	0.42
11,122.00	91.30	358.30	8,355.65	2,935.14	321.82	2,949.84	1.21	1.17	0.32

Leam Drilling Systems LLC

Survey Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 7H
Project:	Lea County, NM (NAD-83)	TVD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Site:	Trionyx "6" Fed	MD Reference:	GE 3447' + KB 25' @ 3472.00usft (Scan Texas)
Well:	7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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)
11,217.00	90.30	356.70	8,354.33	3,030.04	317.68	3,044.26	1.99	-1.05	-1.68
11,311.00	91.20	357.10	8,353.10	3,123.89	312.59	3,137.59	1.05	0.96	0.43
11,406.00	89.30	355.90	8,352.68	3,218.71	306.79	3,231.83	2.37	-2.00	-1.26
11,500.00	89.60	356.40	8,353.58	3,312.49	300.48	3,325.01	0.62	0.32	0.53
11,595.00	89.80	356.70	8,354.08	3,407.32	294.77	3,419.26	0.38	0.21	0.32
11,691.00	88.40	357.40	8,355.59	3,503.18	289.83	3,514.60	1.63	-1.46	0.73
11,786.00	88.30	0.40	8,358.33	3,598.11	288.00	3,609.21	3.16	-0.11	3.16
11,879.00	89.50	1.30	8,360.11	3,691.08	289.38	3,702.08	1.61	1.29	0.97
11,974.00	90.10	1.60	8,360.44	3,786.05	291.79	3,797.00	0.71	0.63	0.32
12,069.00	90.70	1.70	8,359.78	3,881.00	294.52	3,891.94	0.64	0.63	0.11
12,163.00	90.00	2.10	8,359.21	3,974.95	297.64	3,985.89	0.86	-0.74	0.43
12,258.00	91.30	2.20	8,358.13	4,069.88	301.20	4,080.84	1.37	1.37	0.11
12,354.00	91.50	359.60	8,355.78	4,165.83	302.71	4,176.69	2.72	0.21	-2.71
12,448.00	89.60	358.80	8,354.88	4,259.81	301.40	4,270.39	2.19	-2.02	-0.85
12,543.00	89.10	357.60	8,355.96	4,354.75	298.41	4,364.94	1.37	-0.53	-1.26
12,638.00	89.00	357.60	8,357.53	4,449.66	294.44	4,459.38	0.11	-0.11	0.00
12,733.00	89.90	358.10	8,358.44	4,544.58	290.87	4,553.88	1.08	0.95	0.53
12,828.00	90.10	358.30	8,358.44	4,639.54	287.89	4,648.44	0.30	0.21	0.21
12,897.00	89.80	358.80	8,358.50	4,708.52	286.14	4,717.16	0.85	-0.43	0.72
12,950.80	89.80	358.80	8,358.69	4,762.30	285.02	4,770.76	0.00	0.00	0.00
HL Crossing:12951' MD, 8359' TVD									
12,952.00	89.80	358.80	8,358.70	4,763.50	284.99	4,771.96	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL(T"6"F 7H)	0.00	0.00	0.00	0.00	0.00	419,774.12	734,873.07	32° 9' 8.972 N	103° 42' 28.689 W
- actual wellpath hits target center									
- Point									
BHL(T"6"F 7H)	0.00	0.00	8,358.70	4,763.50	284.99	424,537.62	735,158.06	32° 9' 56.093 N	103° 42' 25.052 W
- actual wellpath hits target center									
- Point									
PBHL(T"6"F 7H)	0.00	0.00	8,362.00	4,761.75	309.44	424,535.87	735,182.51	32° 9' 56.075 N	103° 42' 24.767 W
- actual wellpath misses target center by 24.63usft at 12949.75usft MD (8358.69 TVD, 4761.25 N, 285.04 E)									
- Point									