

30-015-39219

OCCIDENTAL PERMIAN LTD.

Nash Draw Delaware
Eddy County, NM
Cypress 34 Federal #7H
VH - Job #32K0911850

Survey: Actual

SDI Standard Survey Report

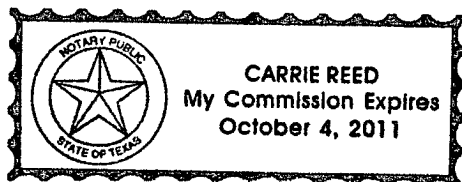
This survey is correct to the best of my knowledge and is supported by actual field data.

L. Leharth

Notarized this date 4th of October, 2011.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0911850	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0911850	Database:	EDM-Regulatory

Project	Nash Draw Delaware		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Eddy County, NM		
Site Position:		Northing:	461,073 91 usft
From:	Lat/Long	Easting:	611,392 06 usft
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 16' 1 542 N
		Longitude:	103° 58' 22 621 W
		Grid Convergence:	0 19 °

Well	Cypress 34 Federal #7H, Directional (Unknown)		
Well Position	+N/-S	0 0 usft	Northing: 461,073 91 usft
	+E/-W	0 0 usft	Easting: 611,392 06 usft
Position Uncertainty	0 0 usft	Wellhead Elevation:	usft
		Latitude:	32° 16' 1 542 N
		Longitude:	103° 58' 22 621 W
		Ground Level:	0 0 usft

Wellbore	VH - Job #32K0911850		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	9/7/2011	7 75
			Dip Angle
			60 15
			Field Strength
			48,600

Design	VH - Job #32K0911850		
Audit Notes:			
Version:	1 0	Phase:	ACTUAL
		Tie On Depth:	0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 0	0 0	0 0
		Direction	
		(°)	319 36

Survey Program	Date	10/23/2011		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
104 8	257 1	Actual (VH - Job #32K0911850)	Keeper	Keeper Surface Readout

Survey							
Measured Depth	Inclination	Azimuth	True Vertical	North/South	East/West	Closure Azimuth	Closure Distance
(usft)	(°)	(°)	Depth	(usft)	(usft)	(°)	(usft)
0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 0
104 8	0 40	332 55	104 8	0 3	-0.2	332 55	0 4
166 1	0 41	313 54	166 1	0 7	-0.4	327 36	0 8
257 1	0 69	311 27	257 1	1 3	-1.1	319 36	1 6



Project: Nash Draw Delaware
Eddy County, NM
Well: Cypress 34 Federal #7H
Wellbore: VH - Job #32K0911850
Design: VH - Job #32K0911850

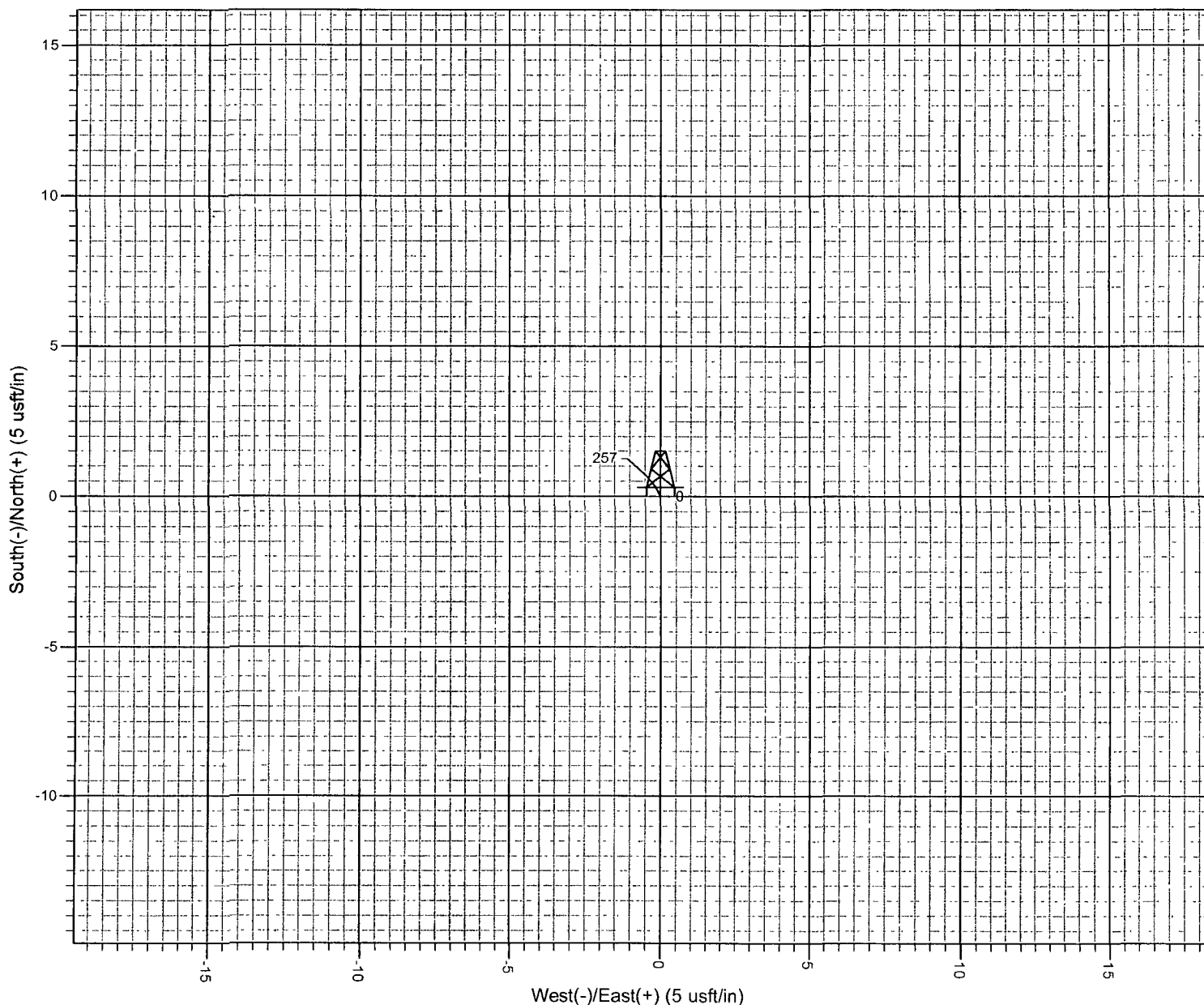


Azimuths to Grid North
True North: -0 19°
Magnetic North: 7 55°
Magnetic Field
Strength 48600 2snT
Dip Angle 60 15°
Date 9/7/2011
Model IGRF2010

WELL DETAILS: Cypress 34 Federal #7H
WELL @ 0.0usft (Original Well Elev)

Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	461073.91	611392.06	32° 16' 1.542 N	103° 58' 22.621 W	



PROJECT DETAILS: Nash Draw Delaware
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SITE DETAILS: Eddy County, NM
Site Centre Latitude: 32° 16' 1.542 N
Longitude: 103° 58' 22.621 W
Positional Uncertainty: 0.0
Convergence: 0.19
Local North: Grid



Weatherford

SURVEY REPORT

Report Date: 9/27/2011
 Customer: Oxy Permian
 Job Name: 4023827
 Well Name: Cypress 34 Fed #7H

Field: Nash Draw Delaware
 Rig: H&P 370
 Rig Loc: Eddy County, NM

Survey Calculation Method: Minimum Curvature						
Magnetic Reference	Target Direction	Total Magnetic Field	Magnetic Dip Angle	Magnetic Declination	Grid Convergence	Total Correction
Grid North	180.13 deg	48590 nT	60.15 deg	7.74 deg	0.19 deg	7.55 deg
Survey Tie-On	Depth	INC	AZ	TVD	NS	EW
	0.00 ft	0.00 deg	0.00 deg	0.00 ft	0.00 ft	0.00 ft

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head				Dogleg (deg/100ft)
				NS (ft)	EW (ft)	Vsect (ft)		
104.80	0.40	332.55	104.80	0.32	-0.17	-0.32		0.38
166.10	0.41	313.54	166.10	0.67	-0.43	-0.66		0.22
257.10	0.69	311.27	257.09	1.25	-1.07	-1.25		0.31
415.00	0.64	304.70	414.98	2.38	-2.51	-2.37		0.06
507.00	0.53	302.53	506.98	2.90	-3.29	-2.89		0.12
599.00	0.61	305.74	598.97	3.42	-4.05	-3.41		0.09
691.00	0.55	298.81	690.97	3.92	-4.84	-3.90		0.10
783.00	0.65	309.38	782.96	4.46	-5.63	-4.45		0.16
875.00	0.60	309.54	874.96	5.10	-6.40	-5.08		0.05
967.00	0.62	300.76	966.95	5.66	-7.20	-5.64		0.10
1059.00	0.55	294.68	1058.95	6.10	-8.03	-6.08		0.10
1154.00	0.64	284.80	1153.94	6.42	-8.96	-6.40		0.14
1248.00	0.84	284.66	1247.93	6.73	-10.13	-6.71		0.21
1343.00	0.73	280.40	1342.93	7.02	-11.40	-6.99		0.13
1437.00	0.27	239.41	1436.92	7.01	-12.18	-6.98		0.59
1532.00	0.25	149.83	1531.92	6.72	-12.27	-6.69		0.39
1626.00	0.11	212.77	1625.92	6.47	-12.21	-6.44		0.24
1721.00	0.11	224.10	1720.92	6.32	-12.33	-6.30		0.02
1815.00	0.15	257.85	1814.92	6.23	-12.51	-6.21		0.09
1910.00	0.11	332.31	1909.92	6.29	-12.67	-6.26		0.17
2005.00	0.05	316.24	2004.92	6.40	-12.74	-6.37		0.07
2099.00	0.05	21.99	2098.92	6.47	-12.76	-6.44		0.06
2194.00	0.05	250.07	2193.92	6.49	-12.78	-6.46		0.10
2289.00	0.30	107.77	2288.92	6.40	-12.58	-6.37		0.36
2383.00	0.52	97.27	2382.92	6.27	-11.93	-6.24		0.25
2477.00	1.10	122.15	2476.91	5.74	-10.74	-5.71		0.71
2572.00	0.89	120.42	2571.89	4.88	-9.33	-4.86		0.22
2666.00	1.24	119.32	2665.88	4.01	-7.81	-3.99		0.37
2761.00	1.64	131.45	2760.85	2.61	-5.90	-2.59		0.53
2855.00	1.64	150.81	2854.81	0.54	-4.23	-0.53		0.59
2950.00	0.98	173.39	2949.78	-1.45	-3.48	1.46		0.87
3044.00	0.55	165.81	3043.78	-2.69	-3.27	2.69		0.47
3074.00	0.62	166.37	3073.77	-2.98	-3.20	2.99		0.23
3202.00	0.53	187.20	3201.77	-4.24	-3.11	4.25		0.18
3296.00	0.33	176.88	3295.76	-4.95	-3.15	4.95		0.23

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
3391.00	0.44	154.05	3390.76	-5.55	-2.98	5.55	0.20
3486.00	0.45	129.97	3485.76	-6.11	-2.53	6.12	0.20
3580.00	0.31	160.99	3579.76	-6.59	-2.17	6.60	0.26
3674.00	0.51	148.35	3673.76	-7.19	-1.86	7.19	0.23
3768.00	0.33	141.38	3767.75	-7.76	-1.47	7.76	0.20
3862.00	0.44	144.25	3861.75	-8.26	-1.10	8.26	0.12
3957.00	0.44	146.12	3956.75	-8.86	-0.68	8.86	0.02
4051.00	0.44	134.48	4050.74	-9.41	-0.22	9.41	0.09
4146.00	0.31	124.75	4145.74	-9.81	0.25	9.81	0.15
4240.00	0.36	130.19	4239.74	-10.15	0.69	10.15	0.06
4334.00	0.50	119.65	4333.74	-10.54	1.27	10.54	0.17
4428.00	0.53	123.91	4427.73	-10.99	1.99	10.98	0.05
4523.00	0.53	143.12	4522.73	-11.59	2.61	11.58	0.19
4617.00	0.53	137.10	4616.73	-12.25	3.17	12.24	0.06
4712.00	0.44	144.89	4711.72	-12.87	3.68	12.86	0.12
4806.00	0.49	135.98	4805.72	-13.46	4.17	13.45	0.09
4900.00	0.49	153.99	4899.72	-14.11	4.62	14.10	0.16
4994.00	0.44	151.06	4993.71	-14.78	4.97	14.77	0.06
5087.00	0.44	164.87	5086.71	-15.44	5.24	15.43	0.11
5181.00	0.36	177.37	5180.71	-16.08	5.35	16.07	0.13
5275.00	0.38	195.10	5274.71	-16.68	5.28	16.67	0.12
5370.00	0.58	187.33	5369.70	-17.46	5.14	17.45	0.22
5464.00	0.41	185.40	5463.70	-18.27	5.04	18.26	0.18
5558.00	0.31	175.39	5557.70	-18.86	5.03	18.84	0.13
5653.00	0.26	187.73	5652.70	-19.33	5.02	19.31	0.08
5747.00	0.19	170.24	5746.70	-19.69	5.02	19.68	0.10
5841.00	0.14	169.43	5840.70	-19.96	5.07	19.95	0.05
5936.00	0.20	159.09	5935.69	-20.23	5.15	20.21	0.07
6026.00	0.28	142.38	6025.69	-20.55	5.34	20.54	0.12
6090.00	0.80	156.31	6089.69	-21.08	5.61	21.07	0.83
6122.00	4.33	177.96	6121.65	-22.49	5.75	22.48	11.25
6153.00	10.15	183.60	6152.39	-26.39	5.62	26.38	18.89
6185.00	15.02	184.91	6183.62	-33.34	5.09	33.33	15.24
6216.00	18.66	186.43	6213.28	-42.27	4.19	42.27	11.83
6247.00	22.26	186.16	6242.32	-53.04	3.00	53.04	11.62
6278.00	24.72	185.51	6270.75	-65.34	1.75	65.33	7.98
6310.00	27.00	183.94	6299.54	-79.24	0.61	79.24	7.44
6342.00	29.28	180.63	6327.76	-94.32	0.02	94.32	8.63
6373.00	30.98	178.35	6354.57	-109.88	0.17	109.87	6.61
6405.00	32.55	178.01	6381.78	-126.71	0.70	126.71	4.94
6436.00	34.88	177.11	6407.56	-143.90	1.44	143.90	7.69
6467.00	38.01	178.19	6432.50	-162.30	2.19	162.29	10.31
6499.00	40.20	178.56	6457.33	-182.47	2.76	182.47	6.88
6530.00	42.36	179.95	6480.62	-202.92	3.02	202.91	7.57
6562.00	44.58	181.00	6503.85	-224.93	2.83	224.93	7.30
6593.00	45.75	181.91	6525.70	-246.91	2.27	246.90	4.31
6625.00	47.38	181.12	6547.70	-270.14	1.66	270.13	5.40
6656.00	49.98	180.68	6568.17	-293.41	1.30	293.41	8.45
6687.00	52.17	180.39	6587.65	-317.53	1.07	317.53	7.10
6719.00	53.99	179.21	6606.87	-343.11	1.16	343.11	6.41

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
6750.00	56.26	178.87	6624.59	-368.54	1.59	368.53	7.38
6782.00	58.74	179.33	6641.78	-395.52	2.01	395.51	7.84
6813.00	60.92	180.30	6657.36	-422.32	2.10	422.31	7.53
6845.00	62.32	181.13	6672.57	-450.47	1.75	450.46	4.93
6876.00	64.67	182.17	6686.41	-478.20	0.94	478.19	8.15
6907.00	66.90	182.18	6699.12	-506.45	-0.13	506.45	7.19
6939.00	69.44	181.74	6711.02	-536.13	-1.14	536.13	8.04
6971.00	72.16	181.23	6721.54	-566.34	-1.93	566.34	8.63
7002.00	75.33	181.66	6730.22	-596.09	-2.68	596.09	10.31
7034.00	77.23	181.97	6737.81	-627.16	-3.66	627.16	6.01
7065.00	79.57	182.17	6744.04	-657.50	-4.76	657.51	7.57
7096.00	82.56	182.21	6748.86	-688.10	-5.93	688.11	9.65
7128.00	85.00	182.39	6752.32	-719.88	-7.21	719.90	7.65
7159.00	87.53	182.37	6754.34	-750.79	-8.49	750.81	8.16
7190.00	89.81	181.73	6755.06	-781.76	-9.60	781.78	7.64
7253.00	91.59	180.32	6754.29	-844.74	-10.73	844.76	3.60
7347.00	92.47	180.12	6750.96	-938.68	-11.09	938.70	0.96
7442.00	91.36	179.59	6747.79	-1033.62	-10.85	1033.65	1.29
7536.00	91.23	179.87	6745.66	-1127.60	-10.40	1127.62	0.33
7630.00	89.81	178.02	6744.81	-1221.57	-8.67	1221.59	2.48
7724.00	90.09	178.74	6744.89	-1315.53	-6.01	1315.54	0.82
7819.00	91.11	179.26	6743.90	-1410.51	-4.36	1410.52	1.21
7913.00	90.12	178.78	6742.89	-1504.49	-2.75	1504.49	1.17
8007.00	90.37	178.90	6742.49	-1598.47	-0.85	1598.47	0.30
8101.00	90.56	178.94	6741.72	-1692.45	0.93	1692.45	0.21
8195.00	90.00	177.85	6741.26	-1786.41	3.56	1786.40	1.30
8290.00	89.81	177.08	6741.42	-1881.32	7.76	1881.30	0.83
8384.00	90.00	175.90	6741.58	-1975.14	13.51	1975.10	1.27
8478.00	88.89	176.98	6742.49	-2068.95	19.35	2068.90	1.65
8572.00	87.29	178.84	6745.62	-2162.83	22.78	2162.77	2.61
8666.00	87.53	182.13	6749.87	-2256.72	21.98	2256.66	3.51
8761.00	88.39	183.48	6753.25	-2351.54	17.34	2351.49	1.68
8855.00	90.00	184.57	6754.57	-2445.29	10.74	2445.26	2.07
8949.00	90.74	184.71	6753.97	-2538.98	3.14	2538.97	0.80
9043.00	90.93	184.33	6752.60	-2632.68	-4.27	2632.68	0.45
9137.00	90.06	184.05	6751.78	-2726.43	-11.14	2726.44	0.97
9231.00	90.68	183.36	6751.18	-2820.23	-17.21	2820.26	0.99
9325.00	89.01	180.89	6751.43	-2914.15	-20.70	2914.19	3.17
9420.00	90.12	181.46	6752.15	-3009.13	-22.65	3009.17	1.31
9514.00	91.11	180.58	6751.14	-3103.10	-24.32	3103.15	1.41
9608.00	91.85	179.46	6748.71	-3197.07	-24.35	3197.12	1.43
9702.00	90.56	177.25	6746.74	-3291.00	-21.65	3291.04	2.72
9797.00	91.61	178.01	6744.94	-3385.90	-17.73	3385.93	1.36
9891.00	89.69	178.21	6743.87	-3479.84	-14.63	3479.86	2.05
9985.00	89.65	178.91	6744.41	-3573.81	-12.26	3573.83	0.75
10079.00	90.92	179.99	6743.95	-3667.80	-11.36	3667.82	1.77
10173.00	90.56	179.38	6742.73	-3761.79	-10.85	3761.80	0.75
10268.00	89.32	178.78	6742.83	-3856.78	-9.32	3856.79	1.45
10362.00	88.76	178.18	6744.41	-3950.73	-6.83	3950.73	0.87
10456.00	89.07	177.86	6746.19	-4044.65	-3.58	4044.65	0.47

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
10550.00	89.26	180.28	6747.56	-4138.63	-2.05	4138.62	2.58
10644.00	88.83	178.31	6749.12	-4232.60	-0.90	4232.59	2.14
10739.00	88.83	180.30	6751.06	-4327.57	0.25	4327.56	2.09
10768.00	89.20	180.97	6751.56	-4356.56	-0.07	4356.55	2.64

Weatherford surveys from 415 ft MD to 10768 ft MD.

TD at 10833 ft MD.

The total correction is 7.55 deg relative to Grid North.

OCCIDENTAL PERMIAN LTD.

Nash Draw Delaware
Eddy County, NM
Cypress 34 Federal #7H
VH - Job #32K0212204

Survey: Gyro

SDI Standard Survey Report

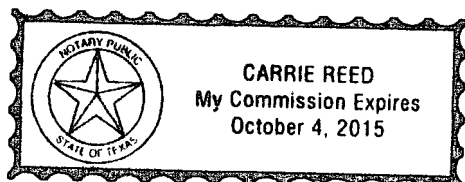
This survey is correct to the best of my knowledge and is supported by actual field data.

[Signature]

Notarized this date 14th of March, 2012.

[Signature]

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0212204	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212204	Database:	EDM-Regulatory

Project:	Nash Draw Delaware		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Eddy County, NM			
Site Position:		Northing:	461,073 91 usft	Latitude:	32° 16' 1 542 N
From:	Lat/Long	Easting:	611,392 06 usft	Longitude:	103° 58' 22 621 W
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0 19 °

Well:	Cypress 34 Federal #7H, Directional (Unknown)					
Well Position	+N/-S	0.0 usft	Northing:	461,073 91 usft	Latitude:	32° 16' 1 542 N
	+E/-W	0 0 usft	Easting:	611,392 06 usft	Longitude:	103° 58' 22 621 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	0 0 usft

Wellbore					
VH - Job #32K0212204					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	2/21/2012	7 69	60 14	48,555

Design:	VH - Job #32K0212204			
Audit Notes:				
Version:	1 0	Phase:	ACTUAL	Tie On Depth: 0 0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0 0	0 0	0 0	166 79

Survey Program		Date	3/13/2012		
From	To	Survey (Wellbore)			
(usft)	(usft)				
100.0	6,098 0	Gyro (VH - Job #32K0212204)			
		Tool Name	Description		
		Keeper	Keeper Surface Readout		

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 0
100 0	0 34	338 95	100 0	0 3	-0 1	338 95	0 3
115 0	0 50	328 12	115 0	0 4	-0 2	337 21	0 4
130 0	0 59	322 42	130 0	0 5	-0 2	334 06	0 5
145 0	0 47	314 67	145 0	0 6	-0 3	331 02	0 7
160 0	0 47	308 32	160 0	0 7	-0 4	328 07	0 8
175 0	0 49	298 32	175 0	0 7	-0 5	324 76	0 9
190 0	0 53	299 32	190 0	0 8	-0 6	321 53	1 0
205 0	0 53	299 76	205 0	0 9	-0 8	318 97	1 2
220 0	0 53	300 46	220 0	0 9	-0 9	316 99	1 3
235 0	0 54	300 07	235 0	1 0	-1 0	315 37	1 4
250 0	0 51	297 75	250 0	1 1	-1 1	313 95	1 6

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0212204	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212204	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
265 0	0 51	297 94	265 0	1 1	-1 2	312 69	1 7	
280 0	0 52	300 71	280 0	1 2	-1 4	311 72	1 8	
295 0	0 54	300 66	295 0	1 3	-1 5	310 94	2 0	
310 0	0 54	301 25	310 0	1 4	-1 6	310 27	2 1	
325 0	0 54	302 02	325 0	1 4	-1 7	309 73	2 2	
340 0	0 56	304 24	340 0	1 5	-1 8	309 33	2 4	
355 0	0 58	304 61	355 0	1 6	-2 0	309 04	2 5	
370 0	0 60	304 71	370 0	1 7	-2 1	308 79	2 7	
385 0	0 56	303 60	385 0	1 8	-2 2	308 54	2 8	
400 0	0 56	301 62	400 0	1 8	-2 3	308 25	3 0	
415 0	0 59	304 15	415 0	1 9	-2 5	308 00	3 1	
430 0	0 61	305 46	430 0	2 0	-2 6	307 84	3 3	
445 0	0 60	302 36	445 0	2 1	-2 7	307 66	3 4	
460 0	0 61	302 41	460 0	2 2	-2 9	307 43	3 6	
475 0	0 61	301 73	475 0	2 3	-3 0	307 20	3 8	
490 0	0 58	299 94	490 0	2 4	-3 1	306 95	3 9	
505 0	0 58	298 30	505 0	2 4	-3 3	306 66	4 1	
520 0	0 62	303 52	520 0	2 5	-3 4	306 45	4 2	
535 0	0 60	302 41	535 0	2 6	-3 5	306 33	4 4	
550 0	0 61	302 36	550 0	2 7	-3 7	306 19	4 5	
565 0	0 59	299 75	565 0	2 8	-3 8	306 02	4 7	
580 0	0 58	299 12	580 0	2 8	-3 9	305 81	4 9	
595 0	0 58	300 56	595 0	2 9	-4 1	305 63	5 0	
610 0	0 56	299 52	610 0	3 0	-4 2	305 47	5 2	
625 0	0 59	301 36	625 0	3 1	-4 3	305 33	5 3	
640 0	0 58	299 51	640 0	3 1	-4 5	305 19	5 5	
655 0	0 56	299 57	655 0	3 2	-4 6	305 04	5 6	
670 0	0 57	298 61	670 0	3 3	-4 7	304 89	5 7	
685 0	0 59	298 67	685 0	3 4	-4 8	304 73	5 9	
700 0	0 56	300 23	700 0	3 4	-5 0	304 59	6 0	
715 0	0 56	302 47	715 0	3 5	-5 1	304 52	6 2	
730 0	0 52	298 34	730 0	3 6	-5 2	304 43	6 3	
745 0	0 50	298 87	745 0	3 6	-5 3	304 31	6 5	
760 0	0 54	301 67	760 0	3 7	-5 5	304 22	6 6	
775 0	0 57	302 79	775 0	3 8	-5 6	304 18	6 8	
790 0	0 56	305 05	790 0	3 9	-5 7	304 18	6 9	
805 0	0 53	300 58	805 0	4 0	-5 8	304 15	7 0	
820 0	0 55	303 38	820 0	4 0	-5 9	304 11	7 2	
835 0	0 57	302 94	835 0	4 1	-6 1	304 09	7 3	
850 0	0 54	300 55	850 0	4 2	-6 2	304 04	7 5	
865 0	0 58	304 68	865 0	4 3	-6 3	304 02	7 6	
880 0	0 59	302 24	880 0	4 3	-6 4	304 01	7 8	
895 0	0 61	300 19	895 0	4 4	-6 6	303 95	7 9	
910 0	0 58	299 49	910 0	4 5	-6 7	303 87	8 1	

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0212204	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212204	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
925.0	0.59	300.45	925.0	4.6	-6.8	303.80	8.2	
940.0	0.61	299.15	940.0	4.7	-7.0	303.72	8.4	
955.0	0.62	297.16	955.0	4.7	-7.1	303.62	8.6	
970.0	0.61	293.60	970.0	4.8	-7.3	303.47	8.7	
985.0	0.60	292.66	985.0	4.9	-7.4	303.29	8.9	
1,000.0	0.64	296.01	1,000.0	4.9	-7.6	303.13	9.0	
1,015.0	0.62	293.53	1,015.0	5.0	-7.7	302.98	9.2	
1,030.0	0.62	292.93	1,030.0	5.1	-7.9	302.81	9.4	
1,045.0	0.65	295.62	1,045.0	5.1	-8.0	302.66	9.5	
1,060.0	0.64	296.00	1,060.0	5.2	-8.2	302.54	9.7	
1,075.0	0.64	295.98	1,075.0	5.3	-8.3	302.43	9.9	
1,090.0	0.63	294.61	1,090.0	5.4	-8.5	302.31	10.0	
1,105.0	0.64	295.31	1,104.9	5.4	-8.6	302.19	10.2	
1,120.0	0.66	292.23	1,119.9	5.5	-8.8	302.05	10.4	
1,135.0	0.68	288.69	1,134.9	5.6	-8.9	301.86	10.5	
1,150.0	0.72	289.30	1,149.9	5.6	-9.1	301.64	10.7	
1,165.0	0.74	289.80	1,164.9	5.7	-9.3	301.43	10.9	
1,180.0	0.71	286.03	1,179.9	5.7	-9.5	301.20	11.1	
1,195.0	0.71	285.05	1,194.9	5.8	-9.6	300.95	11.3	
1,210.0	0.72	286.01	1,209.9	5.8	-9.8	300.70	11.4	
1,225.0	0.75	285.03	1,224.9	5.9	-10.0	300.45	11.6	
1,240.0	0.73	281.51	1,239.9	5.9	-10.2	300.17	11.8	
1,255.0	0.70	281.20	1,254.9	6.0	-10.4	299.88	12.0	
1,270.0	0.70	282.01	1,269.9	6.0	-10.6	299.61	12.2	
1,285.0	0.69	279.88	1,284.9	6.0	-10.7	299.34	12.3	
1,300.0	0.67	280.88	1,299.9	6.1	-10.9	299.08	12.5	
1,315.0	0.66	282.41	1,314.9	6.1	-11.1	298.84	12.7	
1,330.0	0.66	283.30	1,329.9	6.1	-11.3	298.63	12.8	
1,345.0	0.64	283.75	1,344.9	6.2	-11.4	298.43	13.0	
1,360.0	0.65	282.28	1,359.9	6.2	-11.6	298.24	13.2	
1,375.0	0.56	280.39	1,374.9	6.3	-11.7	298.04	13.3	
1,390.0	0.50	279.88	1,389.9	6.3	-11.9	297.86	13.4	
1,405.0	0.37	278.05	1,404.9	6.3	-12.0	297.70	13.5	
1,420.0	0.29	278.55	1,419.9	6.3	-12.1	297.58	13.6	
1,435.0	0.22	281.47	1,434.9	6.3	-12.1	297.50	13.7	
1,450.0	0.16	275.47	1,449.9	6.3	-12.2	297.43	13.7	
1,465.0	0.15	279.59	1,464.9	6.3	-12.2	297.37	13.8	
1,480.0	0.10	267.68	1,479.9	6.3	-12.3	297.32	13.8	
1,495.0	0.07	262.76	1,494.9	6.3	-12.3	297.27	13.8	
1,510.0	0.12	268.15	1,509.9	6.3	-12.3	297.22	13.8	
1,525.0	0.11	270.42	1,524.9	6.3	-12.3	297.16	13.9	
1,540.0	0.10	254.94	1,539.9	6.3	-12.4	297.10	13.9	
1,555.0	0.12	256.12	1,554.9	6.3	-12.4	297.02	13.9	
1,570.0	0.10	246.52	1,569.9	6.3	-12.4	296.94	13.9	

Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVL Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0212204	Survey/Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212204	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
1,585 0	0 09	247 24	1,584 9	6 3	-12 4	296 86	14 0	
1,600 0	0 09	243 04	1,599 9	6 3	-12 5	296 78	14 0	
1,615 0	0 10	247 94	1,614 9	6 3	-12 5	296 70	14 0	
1,630 0	0 10	253.76	1,629 9	6 3	-12 5	296.63	14 0	
1,645 0	0 09	228 31	1,644 9	6 3	-12 5	296 55	14 0	
1,660 0	0 11	260.45	1,659 9	6 3	-12 6	296 47	14 0	
1,675 0	0 10	255 72	1,674.9	6 2	-12 6	296 40	14 1	
1,690 0	0 12	273 13	1,689 9	6 2	-12 6	296 34	14 1	
1,705 0	0 20	292 74	1,704 9	6 3	-12 7	296 31	14 1	
1,720 0	0 28	295.23	1,719.9	6 3	-12 7	296 30	14 2	
1,735 0	0 13	272 11	1,734 9	6 3	-12 8	296 27	14 2	
1,750 0	0 09	245 85	1,749 9	6 3	-12 8	296 20	14 3	
1,765 0	0 08	248 50	1,764 9	6 3	-12 8	296.13	14 3	
1,780 0	0 07	260.63	1,779 9	6 3	-12 8	296 08	14 3	
1,795 0	0 07	204.78	1,794 9	6 3	-12 8	296 02	14.3	
1,810 0	0 05	206 59	1,809 9	6 3	-12 9	295 96	14 3	
1,825 0	0 03	243 96	1,824 9	6 2	-12 9	295 92	14.3	
1,840 0	0 03	262 00	1,839 9	6 2	-12 9	295 90	14.3	
1,855 0	0 03	219 15	1,854 9	6 2	-12 9	295 88	14 3	
1,870 0	0 04	267 74	1,869.9	6 2	-12 9	295 85	14 3	
1,885 0	0 06	289 91	1,884 9	6 2	-12 9	295 84	14 3	
1,900 0	0 04	281 49	1,899 9	6 2	-12 9	295 83	14 3	
1,915 0	0 07	283 48	1,914 9	6 2	-12 9	295 82	14 4	
1,930 0	0 09	287.98	1,929 9	6 3	-12 9	295 80	14 4	
1,945 0	0 07	280 17	1,944 9	6 3	-13 0	295 79	14 4	
1,960 0	0 09	284 99	1,959 9	6 3	-13 0	295 77	14 4	
1,975 0	0 04	277 79	1,974 9	6.3	-13 0	295 75	14 4	
1,990 0	0 02	243 36	1,989 9	6 3	-13 0	295 74	14 4	
2,005 0	0 03	268.44	2,004 9	6 3	-13 0	295 72	14.4	
2,020 0	0 03	264 46	2,019.9	6 3	-13 0	295 71	14 4	
2,035 0	0 03	249 88	2,034 9	6 3	-13 0	295 69	14 5	
2,050 0	0 04	276 48	2,049 9	6 3	-13 0	295 67	14 5	
2,065 0	0 04	292 60	2,064 9	6 3	-13 0	295 66	14 5	
2,080 0	0 04	311 57	2,079 9	6 3	-13 1	295 67	14 5	
2,095.0	0 06	345 41	2,094 9	6 3	-13 1	295 70	14 5	
2,110 0	0 05	332 47	2,109 9	6 3	-13 1	295 74	14 5	
2,125 0	0 03	300 49	2,124 9	6.3	-13 1	295.75	14 5	
2,140 0	0 04	287 26	2,139 9	6 3	-13 1	295 75	14 5	
2,155 0	0 06	60 86	2,154 9	6 3	-13 1	295 77	14 5	
2,170 0	0 08	80 85	2,169 9	6 3	-13 1	295 82	14 5	
2,185 0	0.08	98 78	2,184 9	6 3	-13 0	295 86	14 5	
2,200 0	0 08	113 62	2,199 9	6 3	-13 0	295 87	14 5	
2,215 0	0 10	125 22	2,214 9	6 3	-13 0	295 86	14.4	
2,230 0	0 09	121 36	2,229 9	6 3	-13 0	295 85	14.4	
2,245 0	0 08	148 35	2,244 9	6 3	-13 0	295 82	14 4	

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0212204	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212204	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
2,260.0	0.15	130.86	2,259.9	6.3	-12.9	295.78	14.4	
2,275.0	0.24	119.30	2,274.9	6.2	-12.9	295.75	14.3	
2,290.0	0.32	113.76	2,289.9	6.2	-12.8	295.75	14.2	
2,305.0	0.38	110.53	2,304.9	6.2	-12.7	295.78	14.2	
2,320.0	0.42	108.40	2,319.9	6.1	-12.6	295.82	14.1	
2,335.0	0.47	104.59	2,334.9	6.1	-12.5	295.90	13.9	
2,350.0	0.48	105.25	2,349.9	6.1	-12.4	296.00	13.8	
2,365.0	0.56	109.83	2,364.9	6.0	-12.3	296.08	13.7	
2,380.0	0.66	114.18	2,379.9	6.0	-12.1	296.13	13.5	
2,395.0	0.72	113.93	2,394.9	5.9	-12.0	296.16	13.3	
2,410.0	0.81	115.61	2,409.9	5.8	-11.8	296.18	13.1	
2,425.0	0.83	118.65	2,424.9	5.7	-11.6	296.16	12.9	
2,440.0	0.82	119.16	2,439.9	5.6	-11.4	296.11	12.7	
2,455.0	0.84	119.57	2,454.9	5.5	-11.2	296.06	12.5	
2,470.0	0.84	120.84	2,469.9	5.4	-11.0	295.98	12.3	
2,485.0	0.86	122.86	2,484.9	5.3	-10.8	295.87	12.1	
2,500.0	0.89	121.53	2,499.9	5.1	-10.7	295.75	11.8	
2,515.0	0.92	123.15	2,514.9	5.0	-10.5	295.62	11.6	
2,530.0	0.97	121.90	2,529.9	4.9	-10.2	295.47	11.3	
2,545.0	1.01	123.77	2,544.9	4.7	-10.0	295.30	11.1	
2,560.0	1.06	122.70	2,559.9	4.6	-9.8	295.10	10.8	
2,575.0	1.03	121.46	2,574.9	4.4	-9.6	294.92	10.5	
2,590.0	1.04	121.75	2,589.9	4.3	-9.3	294.74	10.3	
2,605.0	1.06	122.49	2,604.9	4.2	-9.1	294.54	10.0	
2,620.0	1.10	123.47	2,619.9	4.0	-8.9	294.29	9.7	
2,635.0	1.14	124.42	2,634.9	3.8	-8.6	294.00	9.4	
2,650.0	1.22	126.66	2,649.9	3.7	-8.4	293.61	9.1	
2,665.0	1.26	126.68	2,664.9	3.5	-8.1	293.13	8.8	
2,680.0	1.28	127.41	2,679.9	3.3	-7.8	292.59	8.5	
2,695.0	1.30	128.56	2,694.9	3.1	-7.6	291.96	8.2	
2,710.0	1.32	130.10	2,709.9	2.8	-7.3	291.22	7.8	
2,725.0	1.38	131.90	2,724.9	2.6	-7.0	290.30	7.5	
2,740.0	1.44	132.19	2,739.9	2.4	-6.8	289.21	7.2	
2,755.0	1.49	133.37	2,754.9	2.1	-6.5	287.92	6.8	
2,770.0	1.54	134.37	2,769.9	1.8	-6.2	286.38	6.5	
2,785.0	1.53	134.51	2,784.8	1.5	-5.9	284.61	6.1	
2,800.0	1.52	135.21	2,799.8	1.3	-5.6	282.62	5.8	
2,815.0	1.49	139.59	2,814.8	1.0	-5.4	280.26	5.5	
2,830.0	1.45	142.01	2,829.8	0.7	-5.1	277.49	5.2	
2,845.0	1.35	146.54	2,844.8	0.4	-4.9	274.39	4.9	
2,860.0	1.29	149.27	2,859.8	0.1	-4.7	271.03	4.7	
2,875.0	1.23	150.00	2,874.8	-0.2	-4.6	267.49	4.6	
2,890.0	1.17	151.99	2,889.8	-0.5	-4.4	263.86	4.4	
2,905.0	1.08	154.38	2,904.8	-0.7	-4.3	260.22	4.3	

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0212204	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212204	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
2,920 0	1 04	154 73	2,919 8	-1 0	-4 2	256 64	4 3	
2,935 0	0 94	155 35	2,934 8	-1 2	-4 0	253 20	4 2	
2,950 0	0 83	159 23	2,949 8	-1 4	-4 0	250 06	4 2	
2,965 0	0 76	161 81	2,964 8	-1 6	-3 9	247 23	4 2	
2,980 0	0 74	163 03	2,979 8	-1 8	-3 8	244 59	4 2	
2,995 0	0 60	167 17	2,994 8	-2 0	-3 8	242 28	4 3	
3,010 0	0 52	171 42	3,009 8	-2 1	-3 8	240 42	4 3	
3,025 0	0 52	172 10	3,024 8	-2 3	-3 7	238 76	4 4	
3,040 0	0 53	172 49	3,039 8	-2 4	-3 7	237 13	4 4	
3,055 0	0 53	172 57	3,054 8	-2 5	-3 7	235 53	4 5	
3,070 0	0 51	174 64	3,069 8	-2 7	-3 7	234 01	4 6	
3,085 0	0 53	174 11	3,084 8	-2 8	-3 7	232 56	4 6	
3,100 0	0 53	175 65	3,099 8	-2 9	-3 7	231 13	4 7	
3,115 0	0 52	178 79	3,114 8	-3 1	-3 7	229 80	4 8	
3,130 0	0 53	179 93	3,129 8	-3 2	-3 7	228 55	4 9	
3,145 0	0 54	180 13	3,144 8	-3 4	-3 7	227 34	5 0	
3,160 0	0 51	180 02	3,159 8	-3 5	-3 7	226 20	5 1	
3,175 0	0 50	180 96	3,174 8	-3 6	-3 7	225 15	5 2	
3,190 0	0 46	178 04	3,189 8	-3 8	-3 7	224 16	5 2	
3,205 0	0 42	175 06	3,204 8	-3 9	-3 6	223 25	5 3	
3,220 0	0 36	167 41	3,219 8	-4 0	-3 6	222 40	5 4	
3,235 0	0 32	157 85	3,234 8	-4 1	-3 6	221 59	5 4	
3,250 0	0 29	158 80	3,249 8	-4 1	-3 6	220 84	5 5	
3,265 0	0 31	160 69	3,264 8	-4 2	-3 5	220 13	5 5	
3,280 0	0 39	167 13	3,279 8	-4 3	-3 5	219 35	5 6	
3,295 0	0 44	168 55	3,294 8	-4 4	-3 5	218 48	5 6	
3,310 0	0 44	167 20	3,309 8	-4 5	-3 5	217 59	5 7	
3,325 0	0 45	166 28	3,324 8	-4 6	-3 4	216 69	5 8	
3,340 0	0 41	166 65	3,339 8	-4 7	-3 4	215 84	5 8	
3,355 0	0 37	162 63	3,354 8	-4 8	-3 4	215 07	5 9	
3,370 0	0 34	147 47	3,369 8	-4 9	-3 4	214 31	6 0	
3,385 0	0 31	128 09	3,384 8	-5 0	-3 3	213 53	6 0	
3,400 0	0 34	121 39	3,399 8	-5 0	-3 2	212 71	6 0	
3,415 0	0 44	119 74	3,414 8	-5 1	-3 1	211 73	6 0	
3,430 0	0 51	127 58	3,429 8	-5 2	-3 0	210 55	6 0	
3,445 0	0 62	138 20	3,444 8	-5 3	-2 9	209 18	6 0	
3,460 0	0 58	142 67	3,459 8	-5 4	-2 8	207 80	6 1	
3,475 0	0 45	155 47	3,474 8	-5 5	-2 8	206 72	6 1	
3,490 0	0 39	163 16	3,489 8	-5 6	-2 7	205 97	6 2	
3,505 0	0 38	160 12	3,504 8	-5 7	-2 7	205 33	6 3	
3,520 0	0 39	160 60	3,519 8	-5 8	-2 7	204 69	6 4	
3,535 0	0 43	153 44	3,534 8	-5 9	-2 6	203 98	6 4	
3,550 0	0 43	152 22	3,549 8	-6 0	-2 6	203 21	6 5	
3,565 0	0 48	157 02	3,564 8	-6 1	-2 5	202 44	6 6	

Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0212204	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212204	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
3,580 0	0 47	155 44	3,579 8	-6 2	-2 5	201 67	6 7	
3,595 0	0 47	158 24	3,594 8	-6 3	-2 4	200 93	6 8	
3,610 0	0 46	159 76	3,609 8	-6 4	-2 4	200 25	6 9	
3,625 0	0 40	156 69	3,624 8	-6 5	-2 3	199 63	6 9	
3,640 0	0 36	156 21	3,639 8	-6 6	-2 3	199 07	7 0	
3,655 0	0 34	137 40	3,654 8	-6 7	-2 2	198 50	7 1	
3,670 0	0 38	117 19	3,669 8	-6 8	-2 2	197 78	7 1	
3,685 0	0 40	114 25	3,684 8	-6 8	-2 1	196 97	7 1	
3,700 0	0 41	115 93	3,699 8	-6 8	-2 0	196 13	7 1	
3,715 0	0 41	125 10	3,714 8	-6 9	-1 9	195 29	7 2	
3,730 0	0 44	134 10	3,729 8	-7 0	-1 8	194 49	7 2	
3,745 0	0 43	138 66	3,744 8	-7 1	-1 7	193 73	7 3	
3,760 0	0 39	141 08	3,759 8	-7 1	-1 7	193 05	7 3	
3,775 0	0 39	148 55	3,774 8	-7 2	-1 6	192 46	7 4	
3,790 0	0 36	162 76	3,789 8	-7 3	-1 6	192 01	7 5	
3,805 0	0 38	167 02	3,804 8	-7 4	-1 5	191 68	7 6	
3,820 0	0 41	169 66	3,819 8	-7 5	-1 5	191 37	7 7	
3,835 0	0 42	163 91	3,834 8	-7 6	-1 5	191 04	7 7	
3,850 0	0 43	141 16	3,849 8	-7 7	-1 4	190 54	7 8	
3,865 0	0 43	130 71	3,864 8	-7 8	-1 4	189 87	7 9	
3,880 0	0 46	126 92	3,879 8	-7 9	-1 3	189 14	8 0	
3,895 0	0 44	126 81	3,894 8	-7 9	-1 2	188 39	8 0	
3,910 0	0 41	129 16	3,909 8	-8 0	-1 1	187 71	8 1	
3,925 0	0 40	126 78	3,924 8	-8 1	-1 0	187 06	8 1	
3,940 0	0 44	134 93	3,939 8	-8 1	-0 9	186 42	8 2	
3,955 0	0 49	141 98	3,954 8	-8 2	-0 8	185 80	8 3	
3,970 0	0 44	153 30	3,969 8	-8 3	-0 8	185 28	8 4	
3,985 0	0 43	164 02	3,984 8	-8 4	-0 7	184 94	8 5	
4,000 0	0 35	165 54	3,999 8	-8 5	-0 7	184 70	8 6	
4,015 0	0 25	166 06	4,014 8	-8 6	-0 7	184 53	8 6	
4,030 0	0 26	135 59	4,029 8	-8 7	-0 7	184 30	8 7	
4,045 0	0 41	105 60	4,044 8	-8 7	-0 6	183 78	8 7	
4,060 0	0 50	102 75	4,059 8	-8 7	-0 5	183 01	8 7	
4,075 0	0 53	107 27	4,074 8	-8 8	-0 3	182 15	8 8	
4,090 0	0 47	116 16	4,089 8	-8 8	-0 2	181 35	8 8	
4,105 0	0 36	140 26	4,104 8	-8 9	-0 1	180 79	8 9	
4,120 0	0 33	153 52	4,119 8	-9 0	-0 1	180 47	9 0	
4,135 0	0 26	152 89	4,134 8	-9 0	0 0	180 25	9 0	
4,150 0	0 26	141 82	4,149 8	-9 1	0 0	180 01	9 1	
4,165 0	0 38	120 82	4,164 8	-9 1	0 1	179 61	9 1	
4,180 0	0 48	112 04	4,179 8	-9 2	0 2	178 99	9 2	
4,195 0	0 61	109 42	4,194 8	-9 2	0 3	178 16	9 2	
4,210 0	0 67	115 14	4,209 8	-9 3	0 5	177 22	9 3	
4,225 0	0 63	131 79	4,224 8	-9 4	0 6	176 39	9 4	

Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0212204	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212204	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
4,240 0	0 54	152 70	4,239 8	-9 5	0 7	175 87	9 5	
4,255 0	0 38	165 73	4,254 8	-9 6	0 7	175 66	9 6	
4,270 0	0 24	183 53	4,269 8	-9 7	0 7	175 63	9 7	
4,285 0	0 21	151 45	4,284 8	-9 7	0 8	175 59	9 8	
4,300 0	0 35	109 02	4,299 8	-9 8	0 8	175 28	9 8	
4,315 0	0 46	103 72	4,314 8	-9 8	0 9	174 70	9 9	
4,330 0	0 51	107 22	4,329 8	-9 8	1 0	174 02	9 9	
4,345 0	0 50	117 78	4,344 8	-9 9	1 2	173 35	10 0	
4,360 0	0 49	131 68	4,359 8	-10 0	1 3	172 80	10 1	
4,375 0	0 49	132 33	4,374 8	-10 1	1 4	172 33	10 2	
4,390 0	0 47	132 56	4,389 8	-10 1	1 4	171 88	10 2	
4,405 0	0 45	130 26	4,404 8	-10 2	1 5	171 44	10 3	
4,420 0	0 43	123 28	4,419 8	-10 3	1 6	171 00	10 4	
4,435 0	0 46	122 81	4,434 8	-10 4	1 7	170 53	10 5	
4,450 0	0 45	124 28	4,449 8	-10 4	1 8	170 06	10 6	
4,465 0	0 45	131 04	4,464 8	-10 5	1 9	169 63	10 7	
4,480 0	0 50	140 92	4,479 8	-10 6	2 0	169 27	10 8	
4,495 0	0 57	147 47	4,494 8	-10 7	2 1	168 96	10 9	
4,510 0	0 60	151 71	4,509 8	-10 8	2 2	168 70	11 0	
4,525 0	0 59	151 53	4,524 8	-11 0	2 2	168 46	11 2	
4,540 0	0 50	137 06	4,539 8	-11 1	2 3	168 18	11 3	
4,555 0	0 43	122 80	4,554 8	-11 2	2 4	167 80	11 4	
4,570 0	0 40	121 92	4,569 8	-11 2	2 5	167 42	11 5	
4,585 0	0 38	121 88	4,584 8	-11 3	2 6	167 06	11 6	
4,600 0	0 38	140 21	4,599 8	-11 3	2 7	166 77	11 6	
4,615 0	0 41	161 38	4,614 8	-11 4	2 7	166 64	11 7	
4,630 0	0 42	166 75	4,629 8	-11 5	2 7	166 62	11 9	
4,645 0	0 44	161 45	4,644 8	-11 6	2 8	166 59	12 0	
4,660 0	0 48	151 38	4,659 8	-11 7	2 8	166 49	12 1	
4,675 0	0 50	140 73	4,674 8	-11 9	2 9	166 28	12 2	
4,690 0	0 51	134 45	4,689 8	-12 0	3 0	165 99	12 3	
4,705 0	0 51	134 34	4,704 8	-12 0	3 1	165 66	12 4	
4,720 0	0 49	136 32	4,719 8	-12 1	3 2	165 36	12 5	
4,735 0	0 44	146 91	4,734 8	-12 2	3 2	165 14	12 7	
4,750 0	0 37	148 50	4,749 8	-12 3	3 3	164 99	12 8	
4,765 0	0 33	121 41	4,764 8	-12 4	3 4	164 80	12 8	
4,780 0	0 36	109 63	4,779 8	-12 4	3 4	164 50	12 9	
4,795 0	0 42	114 46	4,794 7	-12 5	3 5	164 14	13 0	
4,810 0	0 47	134 51	4,809 7	-12 5	3 6	163 82	13 0	
4,825 0	0 54	164 14	4,824 7	-12 6	3 7	163 69	13 2	
4,840 0	0 54	179 19	4,839 7	-12 8	3 7	163 78	13 3	
4,855 0	0 23	184 61	4,854 7	-12 9	3 7	163 90	13 4	
4,870 0	0 04	104 68	4,869 7	-12 9	3 7	163 93	13 4	
4,885 0	0 34	133 51	4,884 7	-12 9	3 8	163 81	13 5	

Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0212204	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212204	Database:	EDM-Regulatory

Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
4,900.0	0.63	143.54	4,899.7	-13.0	3.8	163.60	13.6
4,915.0	0.68	153.22	4,914.7	-13.2	3.9	163.41	13.8
4,930.0	0.49	173.10	4,929.7	-13.3	4.0	163.39	13.9
4,945.0	0.28	198.10	4,944.7	-13.4	4.0	163.52	14.0
4,960.0	0.12	231.08	4,959.7	-13.5	3.9	163.67	14.0
4,975.0	0.22	145.01	4,974.7	-13.5	4.0	163.69	14.1
4,990.0	0.52	135.19	4,989.7	-13.6	4.0	163.52	14.2
5,005.0	0.57	150.58	5,004.7	-13.7	4.1	163.32	14.3
5,020.0	0.56	188.34	5,019.7	-13.8	4.1	163.38	14.4
5,035.0	0.57	197.22	5,034.7	-14.0	4.1	163.67	14.6
5,050.0	0.36	184.88	5,049.7	-14.1	4.1	163.89	14.7
5,065.0	0.26	138.74	5,064.7	-14.2	4.1	163.90	14.7
5,080.0	0.33	124.54	5,079.7	-14.2	4.1	163.74	14.8
5,095.0	0.38	146.13	5,094.7	-14.3	4.2	163.58	14.9
5,110.0	0.55	180.02	5,109.7	-14.4	4.2	163.60	15.0
5,125.0	0.60	196.00	5,124.7	-14.5	4.2	163.84	15.1
5,140.0	0.43	219.08	5,139.7	-14.7	4.2	164.17	15.2
5,155.0	0.27	241.44	5,154.7	-14.7	4.1	164.47	15.3
5,170.0	0.19	197.40	5,169.7	-14.8	4.1	164.65	15.3
5,185.0	0.26	156.52	5,184.7	-14.8	4.1	164.68	15.4
5,200.0	0.25	155.59	5,199.7	-14.9	4.1	164.64	15.4
5,215.0	0.24	184.17	5,214.7	-14.9	4.1	164.66	15.5
5,230.0	0.41	216.55	5,229.7	-15.0	4.1	164.86	15.6
5,245.0	0.59	222.90	5,244.7	-15.1	4.0	165.25	15.6
5,260.0	0.58	200.23	5,259.7	-15.2	3.9	165.65	15.7
5,275.0	0.59	166.90	5,274.7	-15.4	3.9	165.81	15.9
5,290.0	0.45	171.48	5,289.7	-15.5	3.9	165.84	16.0
5,305.0	0.32	196.84	5,304.7	-15.6	3.9	165.93	16.1
5,320.0	0.33	216.29	5,319.7	-15.7	3.9	166.13	16.2
5,335.0	0.36	220.92	5,334.7	-15.8	3.8	166.38	16.2
5,350.0	0.35	198.25	5,349.7	-15.8	3.8	166.60	16.3
5,365.0	0.44	164.97	5,364.7	-15.9	3.8	166.68	16.4
5,380.0	0.49	166.39	5,379.7	-16.1	3.8	166.67	16.5
5,395.0	0.51	180.43	5,394.7	-16.2	3.8	166.73	16.6
5,410.0	0.52	185.23	5,409.7	-16.3	3.8	166.85	16.8
5,425.0	0.52	186.67	5,424.7	-16.5	3.8	167.00	16.9
5,440.0	0.52	181.34	5,439.7	-16.6	3.8	167.14	17.0
5,455.0	0.56	173.84	5,454.7	-16.7	3.8	167.22	17.2
5,470.0	0.55	176.86	5,469.7	-16.9	3.8	167.29	17.3
5,485.0	0.45	202.29	5,484.7	-17.0	3.8	167.44	17.4
5,500.0	0.36	223.49	5,499.7	-17.1	3.7	167.68	17.5
5,515.0	0.26	173.72	5,514.7	-17.2	3.7	167.82	17.6
5,530.0	0.37	133.73	5,529.7	-17.2	3.7	167.74	17.6
5,545.0	0.32	155.57	5,544.7	-17.3	3.8	167.63	17.7

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Cypress 34 Federal #7H
Project:	Nash Draw Delaware	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Cypress 34 Federal #7H	North Reference:	Grid
Wellbore:	VH - Job #32K0212204	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212204	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
5,560.0	0.38	197.41	5,559.7	-17.4	3.8	167.68	17.8	
5,575.0	0.44	211.92	5,574.7	-17.5	3.8	167.88	17.9	
5,590.0	0.47	207.25	5,589.7	-17.6	3.7	168.14	18.0	
5,605.0	0.52	179.40	5,604.7	-17.7	3.7	168.30	18.1	
5,620.0	0.55	155.34	5,619.7	-17.8	3.7	168.29	18.2	
5,635.0	0.35	141.59	5,634.7	-17.9	3.8	168.18	18.3	
5,650.0	0.06	69.06	5,649.7	-18.0	3.8	168.09	18.4	
5,665.0	0.07	266.16	5,664.7	-18.0	3.8	168.09	18.4	
5,680.0	0.39	217.86	5,679.7	-18.0	3.7	168.24	18.4	
5,695.0	0.51	196.24	5,694.7	-18.1	3.7	168.46	18.5	
5,710.0	0.40	162.95	5,709.7	-18.2	3.7	168.54	18.6	
5,725.0	0.24	116.69	5,724.7	-18.3	3.7	168.45	18.7	
5,740.0	0.18	69.89	5,739.7	-18.3	3.8	168.30	18.7	
5,755.0	0.13	146.97	5,754.7	-18.3	3.8	168.21	18.7	
5,770.0	0.39	171.64	5,769.7	-18.4	3.8	168.20	18.8	
5,785.0	0.45	183.13	5,784.7	-18.5	3.8	168.26	18.9	
5,800.0	0.25	202.13	5,799.7	-18.6	3.8	168.36	19.0	
5,815.0	0.14	260.28	5,814.7	-18.6	3.8	168.47	19.0	
5,830.0	0.10	83.93	5,829.7	-18.6	3.8	168.48	19.0	
5,845.0	0.24	115.07	5,844.7	-18.6	3.8	168.37	19.0	
5,860.0	0.42	151.98	5,859.7	-18.7	3.9	168.25	19.1	
5,875.0	0.46	171.72	5,874.7	-18.8	3.9	168.21	19.2	
5,890.0	0.16	184.86	5,889.7	-18.9	3.9	168.24	19.3	
5,905.0	0.03	295.88	5,904.7	-18.9	3.9	168.27	19.3	
5,920.0	0.13	91.81	5,919.7	-18.9	3.9	168.23	19.3	
5,935.0	0.31	118.73	5,934.7	-18.9	4.0	168.09	19.3	
5,950.0	0.32	150.61	5,949.7	-19.0	4.0	167.96	19.4	
5,965.0	0.27	177.84	5,964.7	-19.0	4.1	167.94	19.5	
5,980.0	0.05	132.83	5,979.7	-19.1	4.1	167.95	19.5	
5,995.0	0.16	43.08	5,994.7	-19.1	4.1	167.89	19.5	
6,010.0	0.23	117.72	6,009.7	-19.1	4.1	167.77	19.5	
6,025.0	0.52	153.21	6,024.7	-19.1	4.2	167.65	19.6	
6,040.0	0.46	157.44	6,039.7	-19.3	4.2	167.57	19.7	
6,055.0	0.17	80.34	6,054.7	-19.3	4.3	167.47	19.8	
6,070.0	0.36	42.26	6,069.7	-19.3	4.3	167.30	19.8	
6,085.0	0.43	94.71	6,084.7	-19.2	4.4	167.03	19.7	
6,098.0	1.10	149.41	6,097.7	-19.4	4.5	166.79	19.9	



Scientific Drilling
Directional Drilling Operations

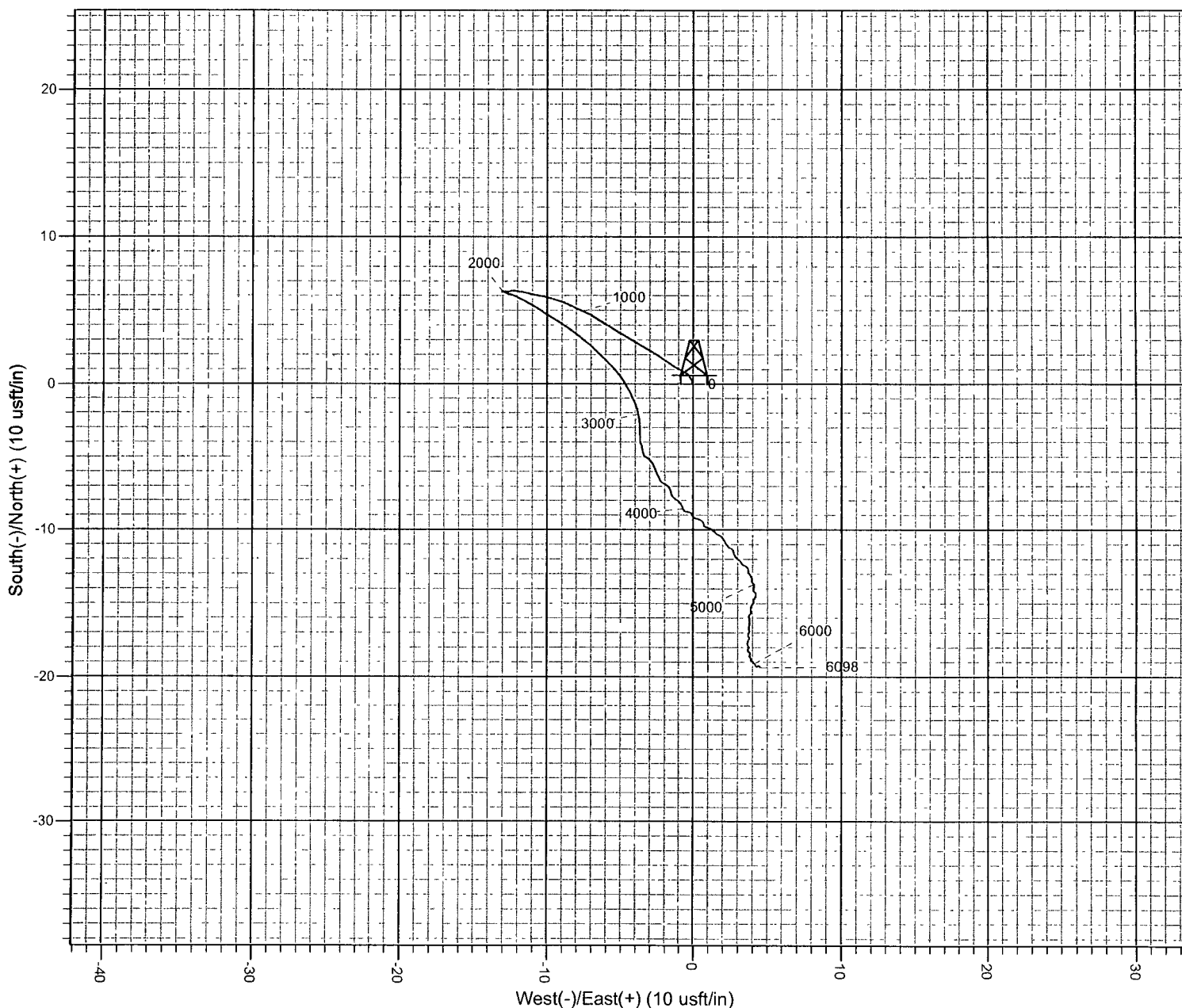
Project: Nash Draw Delaware
Eddy County, NM
Well: Cypress 34 Federal #7H
Wellbore: VH - Job #32K0212204
Design: VH - Job #32K0212204



Azimuths to Grid North
True North -0 19°
Magnetic North 7 50°
Magnetic Field
Strength 48554.6snT
Dip Angle 60 14°
Date 2/21/2012
Model IGRF2010

WELL DETAILS: Cypress 34 Federal #7H
WELL @ 0.0usft (Original Well Elev)
Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	461073.91	611392.06	32° 16' 1.542 N	103° 58' 22.621 W	



PROJECT DETAILS: Nash Draw Delaware
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SITE DETAILS: Eddy County, NM
Site Centre Latitude: 32° 16' 1.542 N
Longitude: 103° 58' 22.621 W
Positional Uncertainty: 0.0
Convergence: 0.19
Local North: Grid