

Apache Corporation

Eddy County, New Mexico (NAD 83)

Sec 32, T17S, R28E, U.L.: L SL: 2250' FSL + 1185' FWL

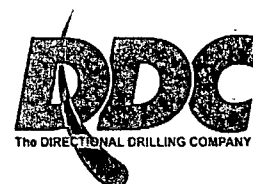
AB State 647 #4 API #30-D15-41505

Wellbore #1

Design: Wellbore #1

DDC Survey Report

10 October, 2013





DDC
Survey Report



Company:	Apache Corporation	Local Co-ordinate Reference:	Well AB State 647 #4
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3697.0usft (Capstar#118)
Site:	Sec 32, T17S, R28E	MD Reference:	WELL @ 3697.0usft (Capstar#118)
Well:	AB State 647 #4	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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

Site:	Sec 32, T17S, R28E				
Site Position:		Northing:	651,211.44 usft	Latitude:	32° 47' 24.499 N
From:	Map	Easting:	582,974.92 usft	Longitude:	104° 11' 52.221 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.07 °

Well:	AB State 647 #4					
Well Position	+N/-S	0.0 usft	Northing:	651,078.20 usft	Latitude:	32° 47' 23.199 N
	+E/-W	0.0 usft	Easting:	581,562.18 usft	Longitude:	104° 12' 8.773 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,686.0 usft	

Wellbore:	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/26/2013	7.64	60.54	48,657

Design:	Wellbore #1				
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	270.87	

Survey Program	Date 10/10/2013				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
37.0	385.0	GYRO (Wellbore #1)	Good_gyro	Good Gyro	
574.0	5,046.0	MWD (Wellbore #1)	MWD default	MWD - Standard	

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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
37.0	0.80	199.05	37.0	-0.2	-0.1	0.1	2.16	2.16	0.00	
123.0	1.02	203.36	123.0	-1.5	-0.6	0.6	0.27	0.26	5.01	
213.0	0.87	197.43	213.0	-2.9	-1.1	1.1	0.20	-0.17	-6.59	
300.0	0.91	200.77	300.0	-4.2	-1.5	1.5	0.08	0.05	3.84	
385.0	0.73	202.71	385.0	-5.3	-2.0	1.9	0.21	-0.21	2.28	
TIE IN @ 385' MD / 385' TVD										
385.1	0.73	202.71	385.1	-5.3	-2.0	1.9	0.00	0.00	0.00	
574.0	0.90	221.90	573.9	-7.5	-3.5	3.3	0.17	0.09	10.16	
703.0	1.00	328.50	702.9	-7.3	-4.7	4.6	1.18	0.08	82.64	



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Site:	Sec 32, T17S, R28E	MD Reference:	WELL @ 3697.0usft (Capstar#118)
Well:	AB State 647 #4	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)	
830.0	0.70	332.40	829.9	-5.7	-5.7	5.6	0.24	-0.24	3.07	
916.0	2.50	304.60	915.9	-4.2	-7.4	7.4	2.22	2.09	-32.33	
958.0	3.50	302.40	957.8	-2.9	-9.3	9.2	2.40	2.38	-5.24	
1,044.0	4.80	286.60	1,043.6	-0.5	-14.9	14.9	2.00	1.51	-18.37	
1,129.0	6.30	282.00	1,128.2	1.5	-22.9	22.9	1.84	1.76	-5.41	
1,214.0	7.10	278.30	1,212.6	3.2	-32.7	32.7	1.07	0.94	-4.35	
1,300.0	7.00	267.80	1,298.0	3.8	-43.2	43.2	1.50	-0.12	-12.21	
1,428.0	6.90	270.50	1,425.0	3.5	-58.7	58.7	0.27	-0.08	2.11	
1,556.0	6.90	262.90	1,552.1	2.7	-74.0	74.0	0.71	0.00	-5.94	
1,684.0	7.50	268.70	1,679.1	1.5	-90.0	90.0	0.74	0.47	4.53	
1,769.0	7.20	270.90	1,763.4	1.5	-100.8	100.8	0.48	-0.35	2.59	
1,855.0	6.70	269.40	1,848.8	1.5	-111.2	111.2	0.62	-0.58	-1.74	
1,940.0	6.40	272.40	1,933.2	1.6	-120.9	120.9	0.54	-0.35	3.53	
2,025.0	7.60	279.40	2,017.6	2.8	-131.2	131.2	1.73	1.41	8.24	
2,111.0	7.50	279.70	2,102.8	4.6	-142.3	142.4	0.12	-0.12	0.35	
2,196.0	7.90	269.50	2,187.1	5.5	-153.7	153.7	1.67	0.47	-12.00	
2,281.0	6.90	266.20	2,271.4	5.1	-164.6	164.7	1.28	-1.18	-3.88	
2,367.0	7.00	268.00	2,356.7	4.6	-175.0	175.0	0.28	0.12	2.09	
2,452.0	6.70	266.40	2,441.1	4.1	-185.1	185.2	0.42	-0.35	-1.88	
CROSSED HARDLINE @ 2527' MD / 2515.6' TVD										
2,527.0	6.79	266.31	2,515.6	3.6	-193.9	193.9	0.12	0.12	-0.12	
2,538.0	6.80	266.30	2,526.5	3.5	-195.2	195.2	0.12	0.12	-0.11	
2,623.0	6.40	265.30	2,611.0	2.8	-204.9	205.0	0.49	-0.47	-1.18	
2,751.0	5.20	262.50	2,738.3	1.4	-217.8	217.8	0.96	-0.94	-2.19	
2,836.0	3.80	252.20	2,823.0	0.1	-224.3	224.3	1.90	-1.65	-12.12	
2,922.0	1.90	243.50	2,908.9	-1.5	-228.3	228.2	2.26	-2.21	-10.12	
3,007.0	2.60	286.10	2,993.9	-1.5	-231.4	231.4	2.07	0.82	50.12	
3,093.0	2.00	257.70	3,079.8	-1.3	-234.7	234.7	1.48	-0.70	-33.02	
3,178.0	1.60	266.00	3,164.8	-1.7	-237.4	237.3	0.56	-0.47	9.76	
3,263.0	0.30	254.00	3,249.7	-1.9	-238.8	238.7	1.54	-1.53	-14.12	
3,348.0	0.30	248.10	3,334.7	-2.0	-239.2	239.1	0.04	0.00	-6.94	
3,434.0	0.40	272.20	3,420.7	-2.1	-239.7	239.6	0.20	0.12	28.02	
3,519.0	0.60	266.90	3,505.7	-2.1	-240.4	240.4	0.24	0.24	-6.24	
3,647.0	0.80	130.60	3,633.7	-2.7	-240.4	240.4	1.02	0.16	-106.48	
3,733.0	0.70	221.60	3,719.7	-3.5	-240.3	240.2	1.25	-0.12	105.81	
3,818.0	0.70	215.90	3,804.7	-4.3	-241.0	240.9	0.08	0.00	-6.71	
3,903.0	0.20	104.30	3,889.7	-4.8	-241.1	241.0	0.94	-0.59	-131.29	
3,989.0	0.30	98.10	3,975.7	-4.8	-240.8	240.7	0.12	0.12	-7.21	
4,075.0	0.30	27.80	4,061.7	-4.7	-240.4	240.3	0.40	0.00	-81.74	
4,160.0	0.80	40.30	4,146.7	-4.0	-240.0	239.9	0.60	0.59	14.71	
4,288.0	0.50	346.50	4,274.7	-2.8	-239.5	239.4	0.50	-0.23	-42.03	
4,416.0	0.90	354.70	4,402.7	-1.2	-239.7	239.7	0.32	0.31	6.41	
4,544.0	0.40	111.90	4,530.7	-0.4	-239.4	239.4	0.89	-0.39	91.56	



DDC
Survey Report

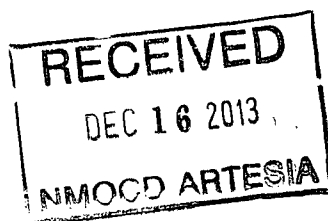
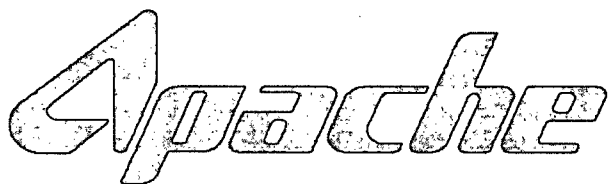


Company:	Apache Corporation	Local Co-ordinate Reference:	Well AB State 647 #4
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3697.0usft (Capstar#118)
Site:	Sec 32, T17S, R28E	MD Reference:	WELL @ 3697.0usft (Capstar#118)
Well:	AB State 647 #4	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)	
4,672.0	0.50	58.70	4,658.7	-0.3	-238.5	238.5	0.32	0.08	-41.56	
4,800.0	0.70	34.30	4,786.7	0.6	-237.6	237.6	0.25	0.16	-19.06	
4,886.0	0.80	47.60	4,872.7	1.5	-236.9	236.9	0.23	0.12	15.47	
4,996.0	1.20	43.90	4,982.7	2.8	-235.5	235.5	0.37	0.36	-3.36	
TD @ 5046' MD / 5032.6' TVD										
5,046.0	1.20	43.90	5,032.6	3.6	-234.8	234.8	0.00	0.00	0.00	

Design Annotations:					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
385.1	385.1	-5.3	-2.0	TIE IN @ 385' MD / 385' TVD	
2,527.0	2,515.6	3.6	-193.9	CROSSED HARDLINE @ 2527' MD / 2515.6' TVD	
5,046.0	5,032.6	3.6	-234.8	TD @ 5046' MD / 5032.6' TVD	

Checked By: _____	Approved By: _____	Date: _____
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Apache Corporation

Eddy County, New Mexico (NAD 83)

Sec 32, T17S, R28E, U.L.L. 2250' FSL + 1185' FWL ← SL

AB State 647 #4 API #30-015-41505

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

10 October, 2013





DDC

Survey Report - Geographic



Company:	Apache Corporation	Local Co-ordinate Reference:	Well AB State 647 #4
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3697.0usft (Capstar#118)
Site:	Sec 32, T17S, R28E	MD Reference:	WELL @ 3697.0usft (Capstar#118)
Well:	AB State 647 #4	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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

Site	Sec 32, T17S, R28E		
Site Position:	Northing:	651,211.44 usft	Latitude: 32° 47' 24.499 N
From: Map	Easting:	582,974.92 usft	Longitude: 104° 11' 52.221 W
Position Uncertainty: 0.0 usft	Slot Radius: 13-3/16 "		Grid Convergence: 0.07 °

Well	AB State 647 #4		
Well Position	+N-S 0.0 usft	Northing: 651,078.20 usft	Latitude: 32° 47' 23.199 N
	+E-W 0.0 usft	Easting: 581,562.18 usft	Longitude: 104° 12' 8.773 W
Position Uncertainty 0.0 usft	Wellhead Elevation: usft	Ground Level:	3,686.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/26/2013	7.64	60.54	48,657

Design	Wellbore #1				
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	270.87	

Survey Program	Date 10/10/2013			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
37.0	385.0	GYRO (Wellbore #1)	Good_gyro	Good Gyro
574.0	5,046.0	MWD (Wellbore #1)	MWD default	MWD - Standard

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	651,078.20	581,562.18	32° 47' 23.199 N	104° 12' 8.773 W	
37.0	0.80	199.05	37.0	-0.2	-0.1	651,077.96	581,562.10	32° 47' 23.196 N	104° 12' 8.774 W	
123.0	1.02	203.36	123.0	-1.5	-0.6	651,076.69	581,561.60	32° 47' 23.184 N	104° 12' 8.780 W	
213.0	0.87	197.43	213.0	-2.9	-1.1	651,075.30	581,561.08	32° 47' 23.170 N	104° 12' 8.786 W	
300.0	0.91	200.77	300.0	-4.2	-1.5	651,074.03	581,560.63	32° 47' 23.157 N	104° 12' 8.791 W	
385.0	0.73	202.71	385.0	-5.3	-2.0	651,072.90	581,560.19	32° 47' 23.146 N	104° 12' 8.796 W	
385.1	0.73	202.71	385.1	-5.3	-2.0	651,072.89	581,560.19	32° 47' 23.146 N	104° 12' 8.796 W	
TIE IN @ 385' MD / 385' TVD										
574.0	0.90	221.90	573.9	-7.5	-3.5	651,070.68	581,558.73	32° 47' 23.124 N	104° 12' 8.813 W	
703.0	1.00	328.50	702.9	-7.3	-4.7	651,070.89	581,557.46	32° 47' 23.126 N	104° 12' 8.828 W	
830.0	0.70	332.40	829.9	-5.7	-5.7	651,072.52	581,556.53	32° 47' 23.142 N	104° 12' 8.839 W	



DDC
Survey Report - Geographic



Company:	Apache Corporation	Local Co-ordinate Reference:	Well AB State 647 #4
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3697.0usft (Capstar#118)
Site:	Sec 32, T17S, R28E	MD Reference:	WELL @ 3697.0usft (Capstar#118)
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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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
916.0	2.50	304.60	915.9	-4.2	-7.4	651,074.05	581,554.74	32° 47' 23.158 N	104° 12' 8.860 W
958.0	3.50	302.40	957.8	-2.9	-9.3	651,075.26	581,552.90	32° 47' 23.170 N	104° 12' 8.882 W
1,044.0	4.80	286.60	1,043.6	-0.5	-14.9	651,077.69	581,547.24	32° 47' 23.194 N	104° 12' 8.948 W
1,129.0	6.30	282.00	1,128.2	1.5	-22.9	651,079.68	581,539.27	32° 47' 23.214 N	104° 12' 9.041 W
1,214.0	7.10	278.30	1,212.6	3.2	-32.7	651,081.41	581,529.51	32° 47' 23.231 N	104° 12' 9.156 W
1,300.0	7.00	267.80	1,298.0	3.8	-43.2	651,081.97	581,519.01	32° 47' 23.236 N	104° 12' 9.279 W
1,428.0	6.90	270.50	1,425.0	3.5	-58.7	651,081.74	581,503.53	32° 47' 23.234 N	104° 12' 9.460 W
1,556.0	6.90	262.90	1,552.1	2.7	-74.0	651,080.86	581,488.21	32° 47' 23.226 N	104° 12' 9.639 W
1,684.0	7.50	268.70	1,679.1	1.5	-90.0	651,079.72	581,472.23	32° 47' 23.215 N	104° 12' 9.827 W
1,769.0	7.20	270.90	1,763.4	1.5	-100.8	651,079.67	581,461.36	32° 47' 23.214 N	104° 12' 9.954 W
1,855.0	6.70	269.40	1,848.8	1.5	-111.2	651,079.71	581,450.95	32° 47' 23.215 N	104° 12' 10.076 W
1,940.0	6.40	272.40	1,933.2	1.6	-120.9	651,079.85	581,441.26	32° 47' 23.216 N	104° 12' 10.190 W
2,025.0	7.60	279.40	2,017.6	2.8	-131.2	651,080.97	581,430.98	32° 47' 23.228 N	104° 12' 10.310 W
2,111.0	7.50	279.70	2,102.8	4.6	-142.3	651,082.84	581,419.84	32° 47' 23.246 N	104° 12' 10.440 W
2,196.0	7.90	269.50	2,187.1	5.5	-153.7	651,083.73	581,408.53	32° 47' 23.255 N	104° 12' 10.573 W
2,281.0	6.90	266.20	2,271.4	5.1	-164.6	651,083.34	581,397.59	32° 47' 23.251 N	104° 12' 10.701 W
2,367.0	7.00	268.00	2,356.7	4.6	-175.0	651,082.81	581,387.20	32° 47' 23.246 N	104° 12' 10.823 W
2,452.0	6.70	266.40	2,441.1	4.1	-185.1	651,082.32	581,377.07	32° 47' 23.242 N	104° 12' 10.941 W
2,527.0	6.79	266.31	2,515.6	3.6	-193.9	651,081.76	581,368.29	32° 47' 23.236 N	104° 12' 11.044 W
CROSSED HARDLINE @ 2527' MD / 2515.6' TVD									
2,538.0	6.80	266.30	2,526.5	3.5	-195.2	651,081.68	581,366.99	32° 47' 23.235 N	104° 12' 11.060 W
2,623.0	6.40	265.30	2,611.0	2.8	-204.9	651,080.96	581,357.24	32° 47' 23.228 N	104° 12' 11.174 W
2,751.0	5.20	262.50	2,738.3	1.4	-217.8	651,079.62	581,344.38	32° 47' 23.215 N	104° 12' 11.324 W
2,836.0	3.80	252.20	2,823.0	0.1	-224.3	651,078.26	581,337.88	32° 47' 23.202 N	104° 12' 11.401 W
2,922.0	1.90	243.50	2,908.9	-1.5	-228.3	651,076.75	581,333.89	32° 47' 23.187 N	104° 12' 11.447 W
3,007.0	2.60	286.10	2,993.9	-1.5	-231.4	651,076.66	581,330.78	32° 47' 23.186 N	104° 12' 11.484 W
3,093.0	2.00	257.70	3,079.8	-1.3	-234.7	651,076.88	581,327.44	32° 47' 23.188 N	104° 12' 11.523 W
3,178.0	1.60	266.00	3,164.8	-1.7	-237.4	651,076.48	581,324.80	32° 47' 23.184 N	104° 12' 11.554 W
3,263.0	0.30	254.00	3,249.7	-1.9	-238.8	651,076.33	581,323.41	32° 47' 23.183 N	104° 12' 11.570 W
3,348.0	0.30	248.10	3,334.7	-2.0	-239.2	651,076.19	581,322.99	32° 47' 23.182 N	104° 12' 11.575 W
3,434.0	0.40	272.20	3,420.7	-2.1	-239.7	651,076.12	581,322.48	32° 47' 23.181 N	104° 12' 11.581 W
3,519.0	0.60	266.90	3,505.7	-2.1	-240.4	651,076.11	581,321.74	32° 47' 23.181 N	104° 12' 11.590 W
3,647.0	0.80	130.60	3,633.7	-2.7	-240.4	651,075.49	581,321.75	32° 47' 23.175 N	104° 12' 11.590 W
3,733.0	0.70	221.60	3,719.7	-3.5	-240.3	651,074.70	581,321.85	32° 47' 23.167 N	104° 12' 11.588 W
3,818.0	0.70	215.90	3,804.7	-4.3	-241.0	651,073.90	581,321.20	32° 47' 23.159 N	104° 12' 11.596 W
3,903.0	0.20	104.30	3,889.7	-4.8	-241.1	651,073.44	581,321.04	32° 47' 23.154 N	104° 12' 11.598 W
3,989.0	0.30	98.10	3,975.7	-4.8	-240.8	651,073.37	581,321.41	32° 47' 23.154 N	104° 12' 11.594 W
4,075.0	0.30	27.80	4,061.7	-4.7	-240.4	651,073.54	581,321.74	32° 47' 23.155 N	104° 12' 11.590 W
4,160.0	0.80	40.30	4,146.7	-4.0	-240.0	651,074.19	581,322.23	32° 47' 23.162 N	104° 12' 11.584 W
4,288.0	0.50	346.50	4,274.7	-2.8	-239.5	651,075.41	581,322.67	32° 47' 23.174 N	104° 12' 11.579 W
4,416.0	0.90	354.70	4,402.7	-1.2	-239.7	651,076.95	581,322.45	32° 47' 23.189 N	104° 12' 11.581 W
4,544.0	0.40	111.90	4,530.7	-0.4	-239.4	651,077.79	581,322.77	32° 47' 23.197 N	104° 12' 11.578 W
4,672.0	0.50	58.70	4,658.7	-0.3	-238.5	651,077.91	581,323.66	32° 47' 23.199 N	104° 12' 11.567 W
4,800.0	0.70	34.30	4,786.7	0.6	-237.6	651,078.85	581,324.58	32° 47' 23.208 N	104° 12' 11.556 W
4,886.0	0.80	47.60	4,872.7	1.5	-236.9	651,079.69	581,325.32	32° 47' 23.216 N	104° 12' 11.548 W
4,996.0	1.20	43.90	4,982.7	2.8	-235.5	651,081.04	581,326.69	32° 47' 23.230 N	104° 12' 11.532 W
5,046.0	1.20	43.90	5,032.6	3.6	-234.8	651,081.79	581,327.41	32° 47' 23.237 N	104° 12' 11.523 W
TD @ 5046' MD / 5032.6' TVD									



DDC
Survey Report - Geographic



Company:	Apache Corporation	Local Co-ordinate Reference:	Well AB State 647 #4
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3697.0usft (Capstar#118)
Site:	Sec 32, T17S, R28E	MD Reference:	WELL @ 3697.0usft (Capstar#118)
Well:	AB State 647 #4	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
385.1	385.1	-5.3	-2.0	TIE IN @ 385' MD / 385' TVD
2,527.0	2,515.6	3.6	-193.9	CROSSED HARDLINE @ 2527' MD / 2515.6' TVD
5,046.0	5,032.6	3.6	-234.8	TD @ 5046' MD / 5032.6' TVD

Checked By: _____	Approved By: _____	Date: _____
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