

30-025-42083

5D Survey Report

GMT Exploration Co., LLC

Field Name: *Lea Co., New Mexico (NAD 83 NME)*

Site Name: *Apple Gap 36 #2H*

Well Name: *Apple Gap 36 #2H*

Survey: *Weatherford MWD Survey*

03 November 2014



JUL 15 2015

Apple Gap 36 #2H

Field Name Lea Co., New Mexico (NAD 83 NME)	Map Units : US ft Company Name : GMT Exploration Co., LLC Vertical Reference Datum (VRD) : Mean Sea Level Projected Coordinate System : NAD83 / New Mexico East (ftUS) Comment :	
Site Name Apple Gap 36 #2H	Units : US ft North Reference : Grid Convergence Angle : 0.49 Position Northing : 494121.60 US ft Latitude : 32° 21' 18.55" Easting : 821245.40 US ft Longitude : -103° 25' 36.75" Elevation above Mean Sea Level: 3429.00 US ft Comment :	
Slot Name Apple Gap 36 #2H	Position (Offsets relative to Site Centre) +N / -S : 0.00 US ft Northing : 494121.60 US ft Latitude : 32° 21' 18.55" +E / -W : 0.00 US ft Easting : 821245.40 US ft Longitude : -103° 25' 36.75" Slot TVD Reference : Ground Elevation Elevation above Mean Sea Level : 3429.00 US ft Comment :	
Well Name Apple Gap 36 #2H	Type : Main well UWI : Rig Height Well TVD Reference : 20.00 US ft Comment : Relative to Mean Sea Level: 3449.00 US ft Closure Distance : 4834.27 US ft Closure Azimuth : 179.664° Vertical Section (Position of Origin Relative to Slot) +N / -S : 0.00 US ft +E / -W : 0.00 US ft Az : 179.64°	

Target Set			
Name : Apple Gap 36 #2H		Number of Targets : 1	
Comment :			
Target Name: PBHL	Position (Relative to Slot centre) +N / -S : -4851.30 US ft Northing : 489270.30 US ft Latitude : 32° 20' 30.55" +E / -W : 30.70 US ft Easting : 821276.10 US ft Longitude : -103° 25' 36.87" TVD (Well TVD Reference) : 10535.00 US ft		
Shape: Cuboid	Orientation Azimuth : 0.00° Inclination : 0.00° Dimensions Length : 0.00 US ft Breadth : 0.00 US ft Height : 0.00 US ft		

Survey Name: Weatherford MWD Survey			
Date : 11/Oct/2014	Survey Tool : MWD	Comment :	Company :
Magnetic Model			
Model Name: BGGM	Date: 01/Nov/2014	Field Strength: 48358.4 nT	Declination: 7.28° Dip: 60.24°
Tie Point MD: 1730	Inclination: 0.34	Azimuth: 21.67	TVD: 1729.96 North Offset: -5.57957 East Offset: 2.75585

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Wellpath created using minimum curvature

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Easting (US ft)	Survey Tool	Comment
1835.00	0.25	340.25	1834.96	-5.07	2.79	5.09	0.00	494116.53	821248.19	MWD	First Wft Svy
1867.00	0.07	304.46	1866.96	-5.00	2.75	5.01	0.62	494116.60	821248.15	MWD	
1930.00	0.16	336.61	1929.96	-4.90	2.69	4.91	0.17	494116.70	821248.09	MWD	
2026.00	0.41	341.44	2025.96	-4.45	2.52	4.46	0.26	494117.15	821247.92	MWD	
2121.00	0.25	20.62	2120.95	-3.93	2.49	3.95	0.28	494117.67	821247.89	MWD	
2216.00	0.07	325.51	2215.95	-3.69	2.53	3.70	0.23	494117.91	821247.93	MWD	
2311.00	0.25	325.20	2310.95	-3.47	2.38	3.49	0.19	494118.13	821247.78	MWD	
2405.00	0.29	1.15	2404.95	-3.06	2.27	3.08	0.18	494118.54	821247.67	MWD	
2501.00	0.30	305.24	2500.95	-2.68	2.07	2.69	0.29	494118.92	821247.47	MWD	
2596.00	0.16	328.78	2595.95	-2.42	1.79	2.43	0.17	494119.18	821247.19	MWD	
2692.00	0.41	350.69	2691.95	-1.97	1.67	1.98	0.28	494119.63	821247.07	MWD	
2788.00	0.30	337.73	2787.95	-1.39	1.52	1.40	0.14	494120.21	821246.92	MWD	
2886.00	0.40	328.69	2885.95	-0.86	1.24	0.87	0.12	494120.74	821246.64	MWD	
2982.00	0.31	354.31	2981.94	-0.32	1.04	0.33	0.19	494121.28	821246.44	MWD	
3078.00	0.45	333.52	3077.94	0.28	0.85	-0.27	0.20	494121.88	821246.25	MWD	
3174.00	0.36	327.56	3173.94	0.87	0.52	-0.86	0.10	494122.47	821245.92	MWD	
3270.00	0.45	327.04	3269.94	1.44	0.15	-1.44	0.09	494123.04	821245.55	MWD	
3366.00	0.56	355.21	3365.93	2.22	-0.09	-2.22	0.28	494123.82	821245.31	MWD	
3462.00	0.70	357.54	3461.93	3.28	-0.16	-3.28	0.15	494124.88	821245.24	MWD	
3558.00	0.91	16.00	3557.92	4.59	0.03	-4.59	0.34	494126.19	821245.43	MWD	
3654.00	0.99	17.74	3653.90	6.12	0.49	-6.11	0.09	494127.72	821245.89	MWD	
3750.00	1.15	24.49	3749.89	7.78	1.14	-7.78	0.21	494129.38	821246.54	MWD	
3846.00	1.26	35.67	3845.87	9.52	2.16	-9.50	0.27	494131.12	821247.56	MWD	
3942.00	1.30	38.95	3941.84	11.22	3.46	-11.20	0.09	494132.82	821248.86	MWD	
4038.00	1.19	34.34	4037.82	12.89	4.71	-12.86	0.15	494134.49	821250.11	MWD	
4133.00	0.98	32.58	4132.80	14.39	5.70	-14.36	0.22	494135.99	821251.10	MWD	
4229.00	0.85	38.37	4228.79	15.64	6.58	-15.60	0.17	494137.24	821251.98	MWD	
4325.00	0.63	39.87	4324.78	16.61	7.36	-16.56	0.23	494138.21	821252.76	MWD	
4421.00	0.49	29.65	4420.78	17.37	7.91	-17.32	0.18	494138.97	821253.31	MWD	
4517.00	0.42	45.13	4516.78	17.97	8.36	-17.92	0.15	494139.57	821253.76	MWD	
4612.00	0.38	47.07	4611.77	18.43	8.84	-18.38	0.04	494140.03	821254.24	MWD	
4708.00	0.38	38.13	4707.77	18.90	9.26	-18.84	0.06	494140.50	821254.66	MWD	
4804.00	0.29	31.27	4803.77	19.36	9.59	-19.30	0.10	494140.96	821254.99	MWD	
4900.00	0.35	50.89	4899.77	19.75	9.94	-19.69	0.13	494141.35	821255.34	MWD	
4996.00	0.44	17.73	4995.77	20.29	10.28	-20.22	0.25	494141.89	821255.68	MWD	
5067.00	0.50	11.18	5066.76	20.85	10.42	-20.78	0.11	494142.45	821255.82	MWD	
5224.00	0.58	359.91	5223.76	22.32	10.56	-22.25	0.08	494143.92	821255.96	MWD	
5287.00	0.63	1.54	5286.75	22.98	10.56	-22.91	0.08	494144.58	821255.96	MWD	
5383.00	0.64	356.12	5382.75	24.04	10.54	-23.98	0.06	494145.64	821255.94	MWD	
5479.00	0.35	321.30	5478.74	24.81	10.32	-24.74	0.42	494146.41	821255.72	MWD	
5575.00	0.35	225.95	5574.74	24.83	9.93	-24.77	0.54	494146.43	821255.33	MWD	
5671.00	0.45	204.39	5670.74	24.29	9.56	-24.22	0.19	494145.89	821254.96	MWD	
5767.00	0.51	196.07	5766.74	23.53	9.29	-23.47	0.10	494145.13	821254.69	MWD	
5863.00	0.51	196.59	5862.73	22.71	9.05	-22.65	0.00	494144.31	821254.45	MWD	
5959.00	0.53	206.28	5958.73	21.90	8.73	-21.85	0.09	494143.50	821254.13	MWD	
6055.00	0.56	210.28	6054.72	21.10	8.30	-21.05	0.05	494142.70	821253.70	MWD	
6151.00	0.71	37.29	6150.72	21.17	8.42	-21.12	1.32	494142.77	821253.82	MWD	
6247.00	0.53	207.79	6246.72	21.25	8.57	-21.19	1.29	494142.85	821253.97	MWD	
6343.00	0.55	220.28	6342.72	20.50	8.07	-20.45	0.12	494142.10	821253.47	MWD	
6439.00	0.56	217.96	6438.71	19.78	7.48	-19.74	0.03	494141.38	821252.88	MWD	
6535.00	0.63	231.00	6534.71	19.08	6.78	-19.04	0.16	494140.68	821252.18	MWD	
6630.00	0.64	242.88	6629.70	18.51	5.91	-18.47	0.14	494140.11	821251.31	MWD	
6726.00	0.66	245.29	6725.69	18.04	4.93	-18.00	0.04	494139.64	821250.33	MWD	
6822.00	0.66	259.91	6821.69	17.71	3.88	-17.68	0.17	494139.31	821249.28	MWD	
6918.00	0.69	266.78	6917.68	17.58	2.76	-17.56	0.09	494139.18	821248.16	MWD	
7013.00	0.66	264.09	7012.67	17.49	1.64	-17.48	0.05	494139.09	821247.04	MWD	

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MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Easting (US ft)	Survey Tool	Comment
7108.00	0.72	251.95	7107.67	17.25	0.53	-17.24	0.17	494138.85	821245.93	MWD	
7203.00	0.72	233.29	7202.66	16.71	-0.52	-16.71	0.25	494138.31	821244.88	MWD	
7298.00	0.88	228.35	7297.65	15.86	-1.54	-15.87	0.18	494137.46	821243.86	MWD	
7393.00	0.78	230.13	7392.64	14.97	-2.58	-14.98	0.11	494136.57	821242.82	MWD	
7487.00	0.77	234.53	7486.63	14.19	-3.59	-14.21	0.06	494135.79	821241.81	MWD	
7582.00	0.79	229.56	7581.62	13.39	-4.60	-13.42	0.07	494134.99	821240.80	MWD	
7677.00	0.80	225.30	7676.61	12.50	-5.57	-12.54	0.06	494134.10	821239.83	MWD	
7772.00	0.77	232.28	7771.61	11.65	-6.55	-11.69	0.11	494133.25	821238.85	MWD	
7867.00	0.64	232.40	7866.60	10.93	-7.48	-10.98	0.14	494132.53	821237.92	MWD	
7961.00	0.66	237.36	7960.59	10.32	-8.35	-10.37	0.06	494131.92	821237.05	MWD	
8056.00	0.69	237.27	8055.59	9.71	-9.29	-9.77	0.03	494131.31	821236.11	MWD	
8151.00	0.73	241.27	8150.58	9.11	-10.30	-9.18	0.07	494130.71	821235.10	MWD	
8246.00	0.73	241.10	8245.57	8.53	-11.36	-8.60	0.00	494130.13	821234.04	MWD	
8341.00	0.77	245.51	8340.56	7.97	-12.47	-8.05	0.07	494129.57	821232.93	MWD	
8436.00	0.73	242.60	8435.55	7.43	-13.59	-7.52	0.06	494129.03	821231.81	MWD	
8531.00	0.71	232.49	8530.55	6.79	-14.60	-6.89	0.14	494128.39	821230.80	MWD	
8626.00	0.74	228.16	8625.54	6.03	-15.52	-6.12	0.07	494127.63	821229.88	MWD	
8721.00	1.19	244.97	8720.53	5.20	-16.87	-5.31	0.55	494126.80	821228.53	MWD	
8816.00	1.64	254.07	8815.50	4.41	-19.07	-4.53	0.53	494126.01	821226.33	MWD	
8911.00	1.75	268.58	8910.46	4.00	-21.83	-4.14	0.46	494125.60	821223.57	MWD	
9006.00	1.68	280.30	9005.41	4.21	-24.65	-4.37	0.38	494125.81	821220.75	MWD	
9101.00	1.38	278.04	9100.38	4.62	-27.15	-4.79	0.32	494126.22	821218.25	MWD	
9196.00	1.54	270.21	9195.35	4.79	-29.56	-4.97	0.27	494126.39	821215.84	MWD	
9290.00	1.63	262.71	9289.31	4.62	-32.15	-4.82	0.24	494126.22	821213.25	MWD	
9390.00	2.08	260.37	9389.26	4.14	-35.35	-4.36	0.46	494125.74	821210.05	MWD	
9485.00	0.25	231.55	9484.24	3.72	-37.21	-3.95	1.96	494125.32	821208.19	MWD	
9580.00	0.25	246.43	9579.24	3.51	-37.56	-3.74	0.07	494125.11	821207.84	MWD	
9674.00	0.60	249.90	9673.23	3.26	-38.21	-3.50	0.37	494124.86	821207.19	MWD	
9769.00	0.99	188.10	9768.23	2.27	-38.80	-2.52	0.93	494123.87	821206.60	MWD	
9833.00	1.21	186.71	9832.21	1.06	-38.95	-1.30	0.35	494122.66	821206.45	MWD	
9864.00	1.05	184.55	9863.21	0.45	-39.01	-0.69	0.53	494122.05	821206.39	MWD	
9896.00	2.68	185.28	9895.19	-0.59	-39.11	0.34	5.09	494121.01	821206.29	MWD	
9928.00	6.14	184.35	9927.09	-3.04	-39.31	2.80	10.81	494118.56	821206.09	MWD	
9959.00	9.93	183.15	9957.78	-7.37	-39.58	7.12	12.24	494114.23	821205.82	MWD	
9991.00	12.84	182.91	9989.15	-13.67	-39.91	13.42	9.09	494107.93	821205.49	MWD	
10022.00	15.75	183.10	10019.18	-21.32	-40.31	21.06	9.39	494100.28	821205.09	MWD	
10054.00	18.65	181.92	10049.75	-30.77	-40.72	30.51	9.13	494090.83	821204.68	MWD	
10086.00	21.44	180.65	10079.81	-41.73	-40.96	41.47	8.82	494079.87	821204.44	MWD	
10117.00	24.57	179.36	10108.34	-53.85	-40.95	53.59	10.23	494067.75	821204.45	MWD	
10149.00	27.33	179.07	10137.11	-67.85	-40.76	67.59	8.63	494053.75	821204.64	MWD	
10181.00	30.22	179.27	10165.16	-83.25	-40.53	82.99	9.04	494038.35	821204.87	MWD	
10212.00	32.99	178.73	10191.56	-99.49	-40.25	99.23	8.98	494022.11	821205.15	MWD	
10244.00	35.79	178.09	10217.96	-117.55	-39.74	117.30	8.82	494004.05	821205.66	MWD	
10275.00	38.73	178.19	10242.63	-136.31	-39.13	136.06	9.49	493985.29	821206.27	MWD	
10307.00	41.37	177.10	10267.12	-156.88	-38.28	156.64	8.54	493964.72	821207.12	MWD	
10339.00	44.44	176.73	10290.56	-178.63	-37.11	178.39	9.63	493942.97	821208.29	MWD	
10370.00	47.13	177.06	10312.18	-200.81	-35.91	200.59	8.71	493920.79	821209.49	MWD	
10402.00	50.12	177.54	10333.33	-224.80	-34.78	224.58	9.41	493896.80	821210.62	MWD	
10433.00	52.99	177.61	10352.60	-249.05	-33.75	248.84	9.26	493872.55	821211.65	MWD	
10465.00	55.60	177.17	10371.27	-275.01	-32.57	274.80	8.23	493846.59	821212.83	MWD	
10497.00	58.24	177.03	10388.74	-301.79	-31.21	301.58	8.26	493819.81	821214.19	MWD	
10528.00	60.63	176.86	10404.50	-328.44	-29.79	328.24	7.72	493793.16	821215.61	MWD	
10560.00	63.07	177.09	10419.60	-356.61	-28.30	356.43	7.65	493764.99	821217.10	MWD	
10592.00	65.71	177.18	10433.43	-385.43	-26.86	385.25	8.25	493736.17	821218.54	MWD	
10624.00	67.82	177.54	10446.05	-414.80	-25.50	414.63	6.67	493706.80	821219.90	MWD	
10655.00	71.57	176.90	10456.81	-443.83	-24.09	443.67	12.25	493677.77	821221.31	MWD	
10687.00	74.85	176.16	10466.05	-474.41	-22.24	474.26	10.49	493647.19	821223.16	MWD	
10719.00	78.94	175.97	10473.30	-505.50	-20.10	505.36	12.79	493616.10	821225.30	MWD	

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Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)											
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10750.00	82.14	176.24	10478.40	-536.00	-18.02	535.88	10.36	493585.60	821227.38	MWD	
10782.00	84.96	176.52	10481.99	-567.73	-16.01	567.62	8.86	493553.87	821229.39	MWD	
10814.00	86.36	176.45	10484.41	-599.58	-14.06	599.48	4.38	493522.02	821231.34	MWD	
10851.00	86.67	176.53	10486.66	-636.44	-11.80	636.35	0.87	493485.16	821233.60	MWD	
10886.00	87.10	176.75	10488.56	-671.33	-9.75	671.25	1.38	493450.27	821235.65	MWD	
10981.00	89.38	178.57	10491.48	-766.19	-5.87	766.14	3.07	493355.41	821239.53	MWD	
11076.00	88.95	179.55	10492.87	-861.17	-4.31	861.13	1.13	493260.43	821241.09	MWD	
11171.00	89.07	180.48	10494.51	-956.15	-4.34	956.11	0.99	493165.45	821241.06	MWD	
11266.00	89.26	181.37	10495.89	-1051.13	-5.87	1051.07	0.96	493070.47	821239.53	MWD	
11361.00	89.44	181.94	10496.97	-1146.09	-8.61	1146.01	0.63	492975.51	821236.79	MWD	
11456.00	89.32	181.17	10498.00	-1241.04	-11.19	1240.95	0.82	492880.56	821234.21	MWD	
11551.00	89.82	179.83	10498.71	-1336.04	-12.02	1335.93	1.51	492785.56	821233.38	MWD	
11646.00	89.75	178.95	10499.07	-1431.03	-11.01	1430.93	0.93	492690.57	821234.39	MWD	
11741.00	89.14	178.99	10499.99	-1526.01	-9.30	1525.92	0.64	492595.59	821236.10	MWD	
11836.00	89.51	177.05	10501.11	-1620.94	-6.02	1620.87	2.08	492500.66	821239.38	MWD	
11930.00	89.38	177.53	10502.02	-1714.83	-1.58	1714.79	0.53	492406.77	821243.82	MWD	
12024.00	89.45	178.48	10502.98	-1808.77	1.70	1808.74	1.01	492312.83	821247.10	MWD	
12120.00	89.38	179.56	10503.96	-1904.75	3.34	1904.73	1.13	492216.85	821248.74	MWD	
12213.00	89.63	178.70	10504.76	-1997.73	4.75	1997.72	0.96	492123.87	821250.15	MWD	
12308.00	89.26	177.95	10505.68	-2092.69	7.53	2092.69	0.88	492028.91	821252.93	MWD	
12402.00	89.38	178.52	10506.80	-2186.63	10.42	2186.66	0.62	491934.97	821255.82	MWD	
12495.00	89.38	179.35	10507.80	-2279.61	12.15	2279.64	0.89	491841.99	821257.55	MWD	
12589.00	89.45	180.21	10508.76	-2373.61	12.51	2373.64	0.92	491747.99	821257.91	MWD	
12684.00	89.32	179.28	10509.78	-2468.60	12.93	2468.63	0.99	491653.00	821258.33	MWD	
12779.00	89.44	178.30	10510.81	-2563.57	14.94	2563.61	1.04	491558.03	821260.34	MWD	
12872.00	89.45	179.01	10511.71	-2656.54	17.12	2656.59	0.76	491465.06	821262.52	MWD	
12967.00	90.06	178.62	10512.12	-2751.52	19.09	2751.58	0.76	491370.08	821264.49	MWD	
13061.00	88.52	179.01	10513.28	-2845.49	21.03	2845.56	1.69	491276.11	821266.43	MWD	
13156.00	89.20	179.74	10515.17	-2940.46	22.07	2940.54	1.05	491181.14	821267.47	MWD	
13251.00	89.32	180.90	10516.40	-3035.45	21.54	3035.53	1.23	491086.15	821266.94	MWD	
13346.00	89.57	180.89	10517.32	-3130.43	20.05	3130.50	0.26	490991.17	821265.45	MWD	
13440.00	89.44	180.27	10518.13	-3224.43	19.10	3224.48	0.67	490897.17	821264.50	MWD	
13534.00	89.51	179.64	10518.99	-3318.42	19.17	3318.48	0.67	490803.18	821264.57	MWD	
13627.00	89.32	179.13	10519.94	-3411.41	20.17	3411.47	0.59	490710.19	821265.57	MWD	
13722.00	89.69	179.82	10520.76	-3506.40	21.04	3506.47	0.82	490615.20	821266.44	MWD	
13816.00	89.32	178.58	10521.57	-3600.39	22.36	3600.46	1.38	490521.21	821267.76	MWD	
13910.00	89.20	178.82	10522.79	-3694.36	24.49	3694.44	0.29	490427.24	821269.89	MWD	
14005.00	89.26	179.55	10524.07	-3789.34	25.84	3789.42	0.77	490332.26	821271.24	MWD	
14098.00	89.32	179.32	10525.22	-3882.32	26.76	3882.42	0.26	490239.28	821272.16	MWD	
14193.00	89.26	179.60	10526.39	-3977.31	27.65	3977.41	0.30	490144.29	821273.05	MWD	
14288.00	89.44	179.84	10527.47	-4072.31	28.12	4072.40	0.32	490049.29	821273.52	MWD	
14382.00	89.51	178.88	10528.33	-4166.29	29.17	4166.40	1.02	489955.31	821274.57	MWD	
14477.00	89.44	179.31	10529.20	-4261.28	30.67	4261.39	0.46	489860.32	821276.07	MWD	
14572.00	89.57	179.31	10530.03	-4356.27	31.81	4356.38	0.14	489765.33	821277.21	MWD	
14665.00	89.26	179.65	10530.97	-4449.26	32.65	4449.38	0.49	489672.34	821278.05	MWD	
14758.00	89.07	180.66	10532.33	-4542.25	32.40	4542.36	1.10	489579.35	821277.80	MWD	
14853.00	89.21	181.32	10533.76	-4637.22	30.76	4637.32	0.71	489484.38	821276.16	MWD	
14948.00	89.38	180.88	10534.92	-4732.20	28.94	4732.29	0.50	489389.40	821274.34	MWD	
15027.00	89.38	179.99	10535.78	-4811.19	28.34	4811.27	1.13	489310.41	821273.74	MWD	Last Wft Svy
15050.00	89.38	179.99	10536.03	-4834.19	28.34	4834.27	0.00	489287.41	821273.74	MWD	Projection