

5D Plan Report

NM OIL CONSERVATION
ARTESIA DISTRICT

APR 25 2018

RECEIVED

The Apache logo is rendered in a large, stylized, italicized font. The letter 'A' is significantly larger and more prominent than the rest of the word, with a thick, blocky appearance. The letters 'p', 'a', 'c', 'h', and 'e' are smaller and follow a cursive-like script style.5D Plan Report

Apache Corporation**Field Name:** *Apache NM (Nad 83 NMEZ)***Site Name:** *Palmillo 26 State COM (311H,312H)***Well Name:** *Palmillo 26 State COM 312H - 30-015-44904***Plan:** *P1:V1*

6 April 2018

**Weatherford®**



Palmillo 26 State COM 312H

Field Name: Apache NM (Nad 83 NMEZ)	Map Units: US ft		Company Name: Apache Corporation	
	Vertical Reference Datum (VRD): Mean Sea Level			
	Projected Coordinate System: NAD83 / New Mexico East (ftUS)			
	Comment:			
Site: Palmillo 26 State COM (311H,312H)	Units: US ft	North Reference: Grid	Convergence Angle: 0.10	
	Position:	Northing: 591842.80 US ft	Latitude: 32.626876372	
		Easting: 600965.80 US ft	Longitude: -104.139647364	
	Elevation above MSL:3329.00 US ft			
Comment: Eddy Co., New Mexico				
Slot: Palmillo 26 State COM 312H	Position (Relative to Site Centre)			
	+N/-S: 40.00 US ft	Northing: 591882.80 US ft	Latitude: 32.626986322	
	+E/-W: -0.20 US ft	Easting: 600965.60 US ft	Longitude: -104.139647777	
	Slot TVD Reference: Ground Elevation			
Elevation above MSL: 3329.00 US ft				
Comment:				
Well: Palmillo 26 State COM 312H	Type:Main well		UWI:	Plan:P1:V1
	File Number:	Comment: H&P 482		
	Closure Distance:4946.49US ft		Closure Azimuth:274.43°	
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: 0.00 US ft		+E/-W: -0.00 US ft	Az: 269.64°
	Magnetic Parameters:			
	Model: bggm2017	Field Strength:	Declination: 7.21°	Dip: 60.31°
	48106.9nT		Date: 01/Jul/2018	

Drill floor: Plan: P1:V1

Rig Height (Drill Floor): 26.00us ft	Elevation above MSL: 3355.00us ft	Inclination: 0.00°	Azimuth: 0.00°
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Target set: P26 St Com 312H Comment:

Target Name:	Shape:	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (USFt)	Easting (USFt)	C.Pt.Distance (US ft)	Comment
KOP	Point	8239.60	414.00	130.00	592296.80	601095.60	0.00	
LP	Point	8717.05	410.99	-350.59	592293.79	600615.01	0.00	
T1	Point	8703.00	397.56	-2494.17	592280.36	598471.43	0.00	
T2	Point	8695.00	388.98	-3863.88	592271.78	597101.72	0.00	
PBHL	Point	8688.00	382.60	-4881.70	592265.40	596083.90	0.00	

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Casing Points: (Relative to Slot centre)(TVD relative to Drill Floor)								
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Name
400.00	0.00	0.00	400.00	0.00	-0.00	591882.80	600965.60	13 3/8 in
8021.06	0.00	0.00	8000.00	414.00	130.00	592296.80	601095.60	9 5/8 in

Wellpath created using minimum curvature.

Tie Point:						
MD: 0.00USFt	Inclination: 0.00°	Azimuth: 0.00°	TVD: - 0.00USFt	North Offset: 0.00USFt	East Offset: - 0.00USFt	

Salient Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	-0.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
3100.00	0.00	0.00	3100.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	Nudge
3682.01	5.82	17.43	3681.01	-9.03	28.18	8.85	591910.98	600974.45	1.00	Hold
7378.64	5.82	17.43	7358.59	-123.57	385.82	121.15	592268.62	601086.75	0.00	Drop
7960.66	0.00	0.00	7939.60	-132.60	414.00	130.00	592296.80	601095.60	1.00	300 ft Hold
8260.66	0.00	0.00	8239.60	-132.60	414.00	130.00	592296.80	601095.60	0.00	312H KOP
9013.79	90.38	269.64	8717.05	348.00	410.99	-350.59	592293.79	600615.01	12.00	Landing Pt
11155.40	90.38	269.64	8703.01	2489.57	397.57	-2492.11	592280.37	598473.49	0.00	Drop
11157.46	90.33	269.64	8703.00	2491.62	397.56	-2494.17	592280.36	598471.43	2.00	312H T1 - Hold
12524.25	90.33	269.64	8695.02	3858.39	389.00	-3860.91	592271.80	597104.69	0.00	Build
12527.22	90.39	269.64	8695.00	3861.36	388.98	-3863.88	592271.78	597101.72	2.00	312H T2
13545.08	90.39	269.64	8688.00	4879.20	382.60	-4881.70	592265.40	596083.90	0.00	312H PBHL
13595.08	90.39	269.64	8687.66	4929.20	382.29	-4931.70	592265.09	596033.90	0.00	50' for Orio Valve

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
0.00	0.00	0.00	-0.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
100.00	0.00	0.00	100.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
200.00	0.00	0.00	200.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
300.00	0.00	0.00	300.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
400.00	0.00	0.00	400.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	13 3/8 in
500.00	0.00	0.00	500.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
600.00	0.00	0.00	600.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
700.00	0.00	0.00	700.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
800.00	0.00	0.00	800.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
900.00	0.00	0.00	900.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
1000.00	0.00	0.00	1000.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
1100.00	0.00	0.00	1100.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
1200.00	0.00	0.00	1200.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
1300.00	0.00	0.00	1300.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
1400.00	0.00	0.00	1400.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
1500.00	0.00	0.00	1500.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
1600.00	0.00	0.00	1600.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
1700.00	0.00	0.00	1700.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
1800.00	0.00	0.00	1800.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
1900.00	0.00	0.00	1900.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
2000.00	0.00	0.00	2000.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
2100.00	0.00	0.00	2100.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
2200.00	0.00	0.00	2200.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
2300.00	0.00	0.00	2300.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
2400.00	0.00	0.00	2400.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
2500.00	0.00	0.00	2500.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
2600.00	0.00	0.00	2600.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
2700.00	0.00	0.00	2700.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
2800.00	0.00	0.00	2800.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
2900.00	0.00	0.00	2900.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										Comment
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	
3000.00	0.00	0.00	3000.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	Nudge Delaware Sands :
3100.00	0.00	0.00	3100.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	
3105.00	0.05	17.43	3105.00	-0.00	0.00	0.00	591882.80	600965.60	1.00	
3200.00	1.00	17.43	3199.99	-0.27	0.83	0.26	591883.63	600965.86	1.00	Hold
3300.00	2.00	17.43	3299.96	-1.07	3.33	1.05	591886.13	600966.65	1.00	
3400.00	3.00	17.43	3399.86	-2.40	7.49	2.35	591890.29	600967.95	1.00	
3500.00	4.00	17.43	3499.68	-4.26	13.32	4.18	591896.12	600969.78	1.00	
3600.00	5.00	17.43	3599.37	-6.66	20.80	6.53	591903.60	600972.13	1.00	
3682.01	5.82	17.43	3681.01	-9.03	28.18	8.85	591910.98	600974.45	1.00	
3700.00	5.82	17.43	3698.91	-9.58	29.92	9.39	591912.72	600974.99	0.00	
3800.00	5.82	17.43	3798.39	-12.68	39.59	12.43	591922.39	600978.03	0.00	
3900.00	5.82	17.43	3897.88	-15.78	49.27	15.47	591932.07	600981.07	0.00	
4000.00	5.82	17.43	3997.36	-18.88	58.94	18.51	591941.74	600984.11	0.00	
4007.68	5.82	17.43	4005.00	-19.12	59.69	18.74	591942.49	600984.34	0.00	1BSC :
4100.00	5.82	17.43	4096.84	-21.98	68.62	21.55	591951.42	600987.15	0.00	
4200.00	5.82	17.43	4196.33	-25.08	78.29	24.58	591961.09	600990.18	0.00	
4300.00	5.82	17.43	4295.81	-28.17	87.97	27.62	591970.77	600993.22	0.00	
4400.00	5.82	17.43	4395.30	-31.27	97.64	30.66	591980.44	600996.26	0.00	
4500.00	5.82	17.43	4494.78	-34.37	107.32	33.70	591990.12	600999.30	0.00	
4600.00	5.82	17.43	4594.27	-37.47	116.99	36.74	591999.79	601002.34	0.00	
4700.00	5.82	17.43	4693.75	-40.57	126.67	39.77	592009.47	601005.37	0.00	
4800.00	5.82	17.43	4793.24	-43.67	136.34	42.81	592019.14	601008.41	0.00	
4900.00	5.82	17.43	4892.72	-46.77	146.02	45.85	592028.82	601011.45	0.00	
5000.00	5.82	17.43	4992.21	-49.87	155.69	48.89	592038.49	601014.49	0.00	1 BSS :
5100.00	5.82	17.43	5091.69	-52.96	165.37	51.93	592048.17	601017.53	0.00	
5200.00	5.82	17.43	5191.17	-56.06	175.04	54.96	592057.84	601020.56	0.00	
5300.00	5.82	17.43	5290.66	-59.16	184.72	58.00	592067.52	601023.60	0.00	
5400.00	5.82	17.43	5390.14	-62.26	194.39	61.04	592077.19	601026.64	0.00	
5500.00	5.82	17.43	5489.63	-65.36	204.07	64.08	592086.87	601029.68	0.00	
5600.00	5.82	17.43	5589.11	-68.46	213.74	67.12	592096.54	601032.72	0.00	
5700.00	5.82	17.43	5688.60	-71.56	223.42	70.15	592106.22	601035.75	0.00	
5800.00	5.82	17.43	5788.08	-74.66	233.09	73.19	592115.89	601038.79	0.00	
5900.00	5.82	17.43	5887.57	-77.75	242.77	76.23	592125.57	601041.83	0.00	
6000.00	5.82	17.43	5987.05	-80.85	252.44	79.27	592135.24	601044.87	0.00	2 BSC :
6100.00	5.82	17.43	6086.54	-83.95	262.11	82.31	592144.91	601047.91	0.00	
6200.00	5.82	17.43	6186.02	-87.05	271.79	85.34	592154.59	601050.94	0.00	
6300.00	5.82	17.43	6285.50	-90.15	281.46	88.38	592164.26	601053.98	0.00	
6400.00	5.82	17.43	6384.99	-93.25	291.14	91.42	592173.94	601057.02	0.00	
6500.00	5.82	17.43	6484.47	-96.35	300.81	94.46	592183.61	601060.06	0.00	
6600.00	5.82	17.43	6583.96	-99.45	310.49	97.50	592193.29	601063.10	0.00	
6621.15	5.82	17.43	6605.00	-100.10	312.54	98.14	592195.34	601063.74	0.00	
6700.00	5.82	17.43	6683.44	-102.54	320.16	100.53	592202.96	601066.13	0.00	
6800.00	5.82	17.43	6782.93	-105.64	329.84	103.57	592212.64	601069.17	0.00	
6822.19	5.82	17.43	6805.00	-106.33	331.99	104.25	592214.79	601069.85	0.00	Drop
6900.00	5.82	17.43	6882.41	-108.74	339.51	106.61	592222.31	601072.21	0.00	
7000.00	5.82	17.43	6981.90	-111.84	349.19	109.65	592231.99	601075.25	0.00	
7100.00	5.82	17.43	7081.38	-114.94	358.86	112.69	592241.66	601078.29	0.00	
7200.00	5.82	17.43	7180.86	-118.04	368.54	115.72	592251.34	601081.32	0.00	
7300.00	5.82	17.43	7280.35	-121.14	378.21	118.76	592261.01	601084.36	0.00	
7378.64	5.82	17.43	7358.59	-123.57	385.82	121.15	592268.62	601086.75	0.00	
7400.00	5.61	17.43	7379.84	-124.22	387.85	121.79	592270.65	601087.39	1.00	
7495.54	4.65	17.43	7475.00	-126.83	396.00	124.35	592278.80	601089.95	1.00	
7500.00	4.61	17.43	7479.44	-126.94	396.34	124.46	592279.14	601090.06	1.00	3 BSC :
7600.00	3.61	17.43	7579.18	-129.13	403.17	126.60	592285.97	601092.20	1.00	
7700.00	2.61	17.43	7679.03	-130.79	408.34	128.22	592291.14	601093.82	1.00	
7766.02	1.95	17.43	7745.00	-131.59	410.85	129.01	592293.65	601094.61	1.00	
7800.00	1.61	17.43	7778.96	-131.91	411.85	129.33	592294.65	601094.93	1.00	
7900.00	0.61	17.43	7878.94	-132.50	413.69	129.90	592296.49	601095.50	1.00	

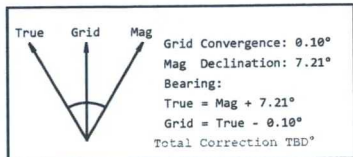
5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	Comment
7960.66	0.00	0.00	7939.60	-132.60	414.00	130.00	592296.80	601095.60	1.00	300 ft Hold
8000.00	0.00	0.00	7978.94	-132.60	414.00	130.00	592296.80	601095.60	0.00	
8021.06	0.00	0.00	8000.00	-132.60	414.00	130.00	592296.80	601095.60	0.00	9 5/8 in
8100.00	0.00	0.00	8078.94	-132.60	414.00	130.00	592296.80	601095.60	0.00	
8200.00	0.00	0.00	8178.94	-132.60	414.00	130.00	592296.80	601095.60	0.00	
8260.66	0.00	0.00	8239.60	-132.60	414.00	130.00	592296.80	601095.60	0.00	312H KOP
8300.00	4.72	269.64	8278.90	-130.98	413.99	128.38	592296.79	601093.98	12.00	
8400.00	16.72	269.64	8376.97	-112.41	413.87	109.81	592296.67	601075.41	12.00	
8500.00	28.72	269.64	8469.04	-73.86	413.63	71.26	592296.43	601036.86	12.00	
8600.00	40.72	269.64	8551.09	-17.00	413.28	14.40	592296.08	600980.00	12.00	
8625.55	43.79	269.64	8570.00	0.18	413.17	-2.77	592295.97	600962.83	12.00	3 BSS :
8700.00	52.72	269.64	8619.52	55.67	412.82	-58.26	592295.62	600907.34	12.00	
8800.00	64.72	269.64	8671.34	140.98	412.29	-143.57	592295.09	600822.03	12.00	
8875.27	73.75	269.64	8698.00	211.28	411.85	-213.88	592294.65	600751.72	12.00	Landing Top :
8900.00	76.72	269.64	8704.30	235.20	411.70	-237.79	592294.50	600727.81	12.00	
8948.29	82.52	269.64	8713.00	282.67	411.40	-285.26	592294.20	600680.34	12.00	Target :
9000.00	88.72	269.64	8716.95	334.21	411.08	-336.80	592293.88	600628.80	12.00	
9013.79	90.38	269.64	8717.05	348.00	410.99	-350.59	592293.79	600615.01	12.00	Landing Pt
9100.00	90.38	269.64	8716.49	434.21	410.45	-436.80	592293.25	600528.80	0.00	
9200.00	90.38	269.64	8715.83	534.21	409.82	-536.79	592292.62	600428.81	0.00	
9300.00	90.38	269.64	8715.18	634.20	409.20	-636.79	592292.00	600328.81	0.00	
9400.00	90.38	269.64	8714.52	734.20	408.57	-736.78	592291.37	600228.82	0.00	
9500.00	90.38	269.64	8713.87	834.20	407.94	-836.78	592290.74	600128.82	0.00	
9600.00	90.38	269.64	8713.21	934.20	407.32	-936.77	592290.12	600028.83	0.00	
9700.00	90.38	269.64	8712.56	1034.19	406.69	-1036.77	592289.49	599928.83	0.00	
9800.00	90.38	269.64	8711.90	1134.19	406.06	-1136.77	592288.86	599828.83	0.00	
9900.00	90.38	269.64	8711.24	1234.19	405.44	-1236.76	592288.24	599728.84	0.00	
10000.00	90.38	269.64	8710.59	1334.19	404.81	-1336.76	592287.61	599628.84	0.00	
10100.00	90.38	269.64	8709.93	1434.19	404.18	-1436.75	592286.98	599528.85	0.00	
10200.00	90.38	269.64	8709.28	1534.18	403.56	-1536.75	592286.36	599428.85	0.00	
10300.00	90.38	269.64	8708.62	1634.18	402.93	-1636.75	592285.73	599328.85	0.00	
10400.00	90.38	269.64	8707.97	1734.18	402.31	-1736.74	592285.11	599228.86	0.00	
10500.00	90.38	269.64	8707.31	1834.18	401.68	-1836.74	592284.48	599128.86	0.00	
10600.00	90.38	269.64	8706.65	1934.18	401.05	-1936.73	592283.85	599028.87	0.00	
10700.00	90.38	269.64	8706.00	2034.17	400.43	-2036.73	592283.23	598928.87	0.00	
10800.00	90.38	269.64	8705.34	2134.17	399.80	-2136.73	592282.60	598828.87	0.00	
10900.00	90.38	269.64	8704.69	2234.17	399.17	-2236.72	592281.97	598728.88	0.00	
11000.00	90.38	269.64	8704.03	2334.17	398.55	-2336.72	592281.35	598628.88	0.00	
11100.00	90.38	269.64	8703.38	2434.16	397.92	-2436.71	592280.72	598528.89	0.00	
11155.40	90.38	269.64	8703.01	2489.57	397.57	-2492.11	592280.37	598473.49	0.00	Drop
11157.46	90.33	269.64	8703.00	2491.62	397.56	-2494.17	592280.36	598471.43	2.00	312H T1 - Hold
11200.00	90.33	269.64	8702.75	2534.16	397.29	-2536.71	592280.09	598428.89	0.00	
11300.00	90.33	269.64	8702.17	2634.16	396.67	-2636.71	592279.47	598328.89	0.00	
11400.00	90.33	269.64	8701.58	2734.16	396.04	-2736.70	592278.84	598228.90	0.00	
11500.00	90.33	269.64	8701.00	2834.16	395.41	-2836.70	592278.21	598128.90	0.00	
11600.00	90.33	269.64	8700.42	2934.16	394.79	-2936.69	592277.59	598028.91	0.00	
11700.00	90.33	269.64	8699.83	3034.15	394.16	-3036.69	592276.96	597928.91	0.00	
11800.00	90.33	269.64	8699.25	3134.15	393.54	-3136.69	592276.34	597828.91	0.00	
11900.00	90.33	269.64	8698.66	3234.15	392.91	-3236.68	592275.71	597728.92	0.00	
12000.00	90.33	269.64	8698.08	3334.15	392.28	-3336.68	592275.08	597628.92	0.00	
12100.00	90.33	269.64	8697.50	3434.15	391.66	-3436.68	592274.46	597528.92	0.00	
12200.00	90.33	269.64	8696.91	3534.15	391.03	-3536.67	592273.83	597428.93	0.00	
12300.00	90.33	269.64	8696.33	3634.14	390.40	-3636.67	592273.20	597328.93	0.00	
12400.00	90.33	269.64	8695.74	3734.14	389.78	-3736.67	592272.58	597228.93	0.00	
12500.00	90.33	269.64	8695.16	3834.14	389.15	-3836.66	592271.95	597128.94	0.00	
12524.25	90.33	269.64	8695.02	3858.39	389.00	-3860.91	592271.80	597104.69	0.00	Build
12527.22	90.39	269.64	8695.00	3861.36	388.98	-3863.88	592271.78	597101.72	2.00	312H T2

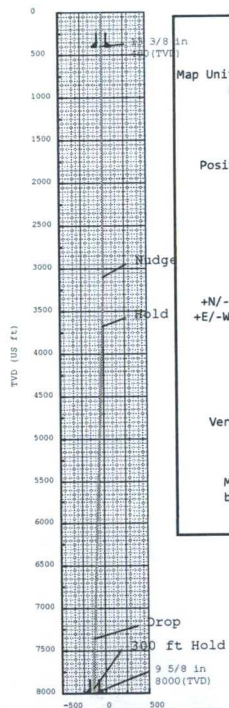
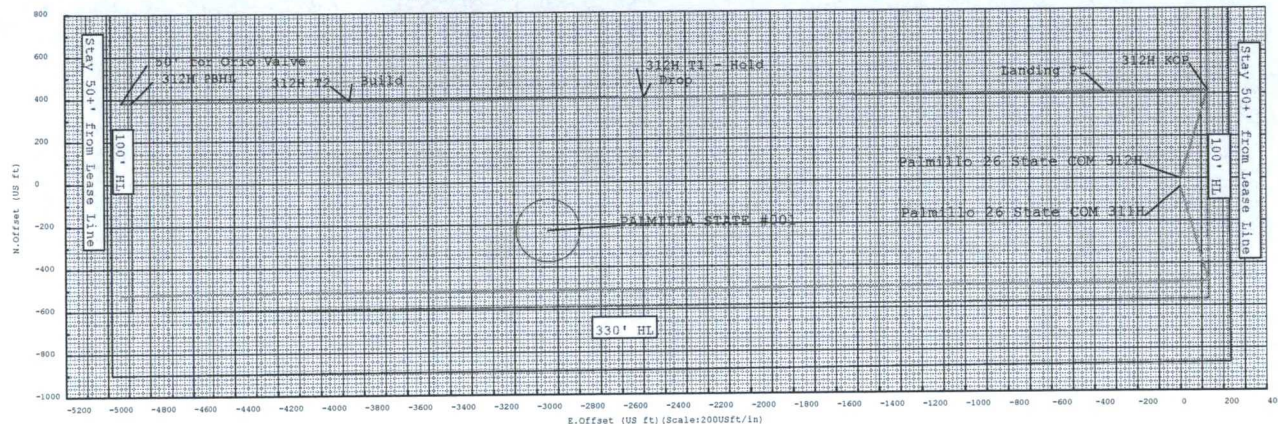
5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										Comment
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	DLS (°/100US ft)	
12600.00	90.39	269.64	8694.50	3934.14	388.52	-3936.66	592271.32	597028.94	0.00	
12700.00	90.39	269.64	8693.81	4034.14	387.90	-4036.65	592270.70	596928.95	0.00	
12800.00	90.39	269.64	8693.12	4134.13	387.27	-4136.65	592270.07	596828.95	0.00	
12900.00	90.39	269.64	8692.44	4234.13	386.64	-4236.64	592269.44	596728.96	0.00	
13000.00	90.39	269.64	8691.75	4334.13	386.02	-4336.64	592268.82	596628.96	0.00	
13100.00	90.39	269.64	8691.06	4434.13	385.39	-4436.64	592268.19	596528.96	0.00	
13200.00	90.39	269.64	8690.37	4534.12	384.76	-4536.63	592267.56	596428.97	0.00	
13300.00	90.39	269.64	8689.69	4634.12	384.14	-4636.63	592266.94	596328.97	0.00	
13400.00	90.39	269.64	8689.00	4734.12	383.51	-4736.62	592266.31	596228.98	0.00	
13500.00	90.39	269.64	8688.31	4834.12	382.88	-4836.62	592265.68	596128.98	0.00	
13545.08	90.39	269.64	8688.00	4879.20	382.60	-4881.70	592265.40	596083.90	0.00	312H PBHL
13595.08	90.39	269.64	8687.66	4929.20	382.29	-4931.70	592265.09	596033.90	0.00	50' for Orio Valve

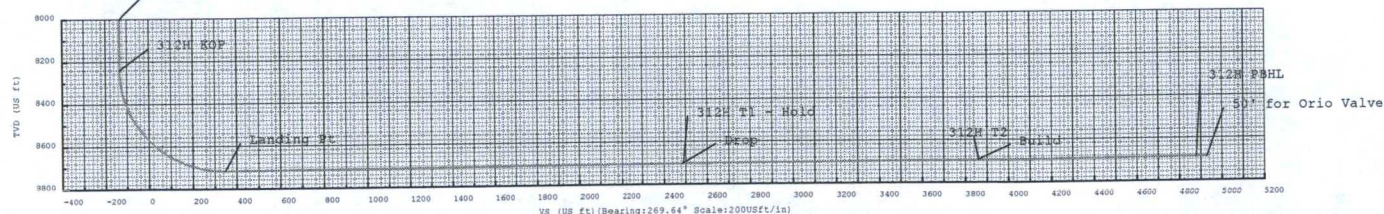
Formation Points: (Relative to Slot centre)(TVD relative to Drill Floor)								
Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)
Landing Base	N/A	2.55	17.43	8728.00	5.42	1.70	591888.22	600967.30
Wolfcamp	N/A	2.55	17.43	8965.00	5.42	1.70	591888.22	600967.30
Delaware Sands	3105.00	0.05	17.43	3105.00	0.00	0.00	591882.80	600965.60
1BSC	4007.68	5.82	17.43	4005.00	59.69	18.74	591942.49	600984.34
1 BSS	6621.15	5.82	17.43	6605.00	312.54	98.14	592195.34	601063.74
2 BSC	6822.19	5.82	17.43	6805.00	331.99	104.25	592214.79	601069.85
2 BSS	7495.54	4.65	17.43	7475.00	396.00	124.35	592278.80	601089.95
3 BSC	7766.02	1.95	17.43	7745.00	410.85	129.01	592293.65	601094.61
3 BSS	8625.55	43.79	269.64	8570.00	413.17	-2.77	592295.97	600962.83
Landing Top	8875.27	73.75	269.64	8698.00	411.85	-213.88	592294.65	600751.72
Target	8948.29	82.52	269.64	8713.00	411.40	-285.26	592294.20	600680.34



Weatherford



VS (US ft) (Bearing: 269.64° Scale: 500USft/in)
8000 (TVS)



Type: Main-Well
 File Number:
 Plan Folder: P1
 Plan: P1-V1
 Vertical Section: Position offset of origin from Slot centre:
 +N/-S: 0.00USFt
 Azimuth: 269.64°
 +E/-W: -0.00USFt
 Magnetic Parameters:
 Model: Field Strength: Declination: Dip: Date:
 bggm2017 48106(nT) 7.21° 60.31° 2018-07-01
 Comment: H&P 482

Name	Position offsets from Slot centre					
	TVD (USFt)	Elevation (USFt)	+N/-S (USFt)	+E/-W (USFt)	Northing (USFt)	Easting (USFt)
KOP	8239.60	-4884.60	414.00	130.00	592296.80	601895.60
LP	8717.05	-5362.05	410.99	-350.59	592293.79	600615.81
T1	8703.08	-5348.00	397.56	-2494.17	592280.36	598471.43
T2	8695.00	-5340.00	388.98	-3863.88	592271.78	597101.72
PRH1	8688.00	-5333.00	382.60	-4881.70	592265.40	596083.90

Formation Point Information:			
Name	TVD (USFt)	Elevation (USFt)	MD (USFt)
Landing Base	8728.00	0.00	-1.00
Wolfcamp	8965.00	0.00	-1.00
Delaware Sands	3185.00	250.00	3185.00
1BSC	4085.00	-650.00	4087.68
1 BSS	6605.00	-3250.00	6621.15
2 BSC	6805.00	-3450.00	6822.15
2 BSS	7475.00	-4120.00	7495.54
3 BSC	7745.00	-4390.00	7766.02
3 BSS	8575.00	-5215.00	8625.55
Landing Top	8698.00	-5343.00	8875.25
Target	8713.00	-5358.00	8948.25

Plan Point Information:										
Dogleg Severity			Unit:	\$100.00ft		Position offsets		From Slot centre		
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS	Comments
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)	
0.00	0.00	0.00	-0.00	0.00	-0.00	591882.80	600965.60	0.00	0.00	
3100.00	0.00	0.00	3100.00	0.00	-0.00	591882.80	600965.60	0.00	0.00	Nudge
3682.01	5.82	17.43	3681.01	28.18	8.85	591910.98	600974.45	-9.03	1.00	Hold
7378.64	5.82	17.43	7358.59	385.82	121.15	592268.68	601886.75	-123.57	0.00	Drop
7960.66	0.00	0.00	7939.60	414.00	130.00	592296.80	601895.60	-132.60	1.00	300 ft Hold
8260.66	0.00	0.00	8239.60	414.00	130.00	592296.80	601895.60	-132.60	0.00	312H KOP
9113.79	70.38	269.64	8717.05	410.99	-350.59	592293.79	600615.01	348.00	12.00	Landing Pt
11015.48	30.38	269.64	8703.61	397.57	-2492.18	592280.37	600489.49	2489.57	0.00	Drop
11157.46	30.38	269.64	8703.00	398.00	-2492.18	592280.37	600489.49	2489.57	0.00	Drop
12524.25	22.30	269.64	8695.82	389.00	-3860.91	592271.80	597104.69	3485.39	2.00	312H T1 - Hold
12527.22	22.30	269.64	8695.00	388.98	-3863.88	592271.78	597101.72	3861.36	0.00	Build
13545.08	30.38	269.64	8688.00	382.60	-4881.70	592265.40	596083.90	4879.20	2.00	312H T2
13545.08	30.38	269.64	8687.66	382.29	-4931.70	592265.09	596083.90	4929.20	0.00	50' Drop PBHL
									0.00	50' for Orio Valve

Casing Point Information:						
Position offsets from Slot centre						
Name	MD (USft)	TVD (USft)	+/- S	+E/-W	Northing (USft)	Easting (USft)
13 3/8 in	400.00	400.00	0.00	-0.00	591882.80	600965.60
9 5/8 in	8021.06	8000.00	414.00	130.00	592296.80	601095.60

Drawing By: Ty Hardin Date: 5 April 2018
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Houston, TX 77066
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