

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-015-45813
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name <325175> PALMILLO 10 STATE COM
8. Well Number 354H
9. OGRID Number 873
10. Pool name or Wildcat <96413> PALMILLO; BONE SPRING, SW

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator APACHE CORPORATION	
3. Address of Operator 3000 VETERANS AIRPARK LN #1000 MIDLAND, TX 79705	
4. Well Location Unit Letter H : 2090' feet from the NORTH line and 180' feet from the EAST line Section 3 Township 19S Range 28E NMPM County EDDY	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) GL:3485'	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Apache respectfully request to change SHL for the Palmillo 3 State Com 354H. SHL moving on pad with 3 other wells in order to reduce footprint and reduce facility costs. Surf & Interm csg/cmt will remain same. Only change will be to Prod csg/cmt listed below:

OLD: SHL - Sec 3, 2090' FNL & 180' FEL FTP: 1844' FNL & 100' FEL
NEW SHL - Sec 3, 2110' FNL & 180' FEL FTP: 1891' FNL & 100' FEL

OLD Prod - 8-3/4" - setting depth: 8713' Est TOC: 2500' Total sx cmt: 714sx
8-1/2" - setting depth: 13290' Est TOC - 8713' Total sx cmt: 854sx

NEW Prod - 8-3/4" - setting depth: 8790' Est TOC: 2500' Total sx cmt: 721sx
8-1/2" - setting depth: 13370' Est TOC - 8790' Total sx cmt: 854sx

RECEIVED

DEC 13 2019

DISTRICT/ARTESIA/O.C.D.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE: Supv Drlg Services DATE 12/9/19

Type or print name Sorina L Flores E-mail address: sorina.flores@apachecorp.com PHONE: 432-818-1167

For State Use Only

APPROVED BY: [Signature] TITLE: Geologist DATE 2-14-20

Conditions of Approval (if any):



RECEIVED

DEC 13 2019

DISTRICT/ARTESIAO.C.D.

5D Plan Report

Apache Corporation

Field Name: *Apache NM (Nad 83 NMEZ)*
Site Name: *Palmillo 3 State Com (356,244,243,354) Pad*
Well Name: *Palmillo 3 State Com 354H*
Plan: *P1:V3 (Current plan)*

20 November 2019



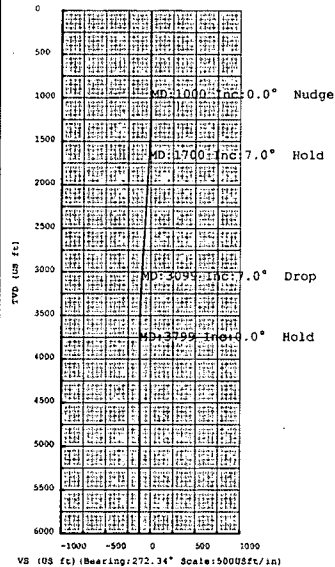
Weatherford®



Palmillo 3 State Com 354H Eddy Co, New Mexico



KB: 3511.00°
GL: 3485.00°

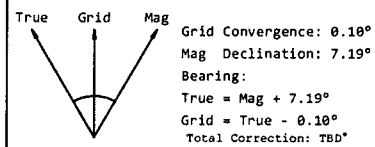


Plan Data for Palmillo 3 State Com 354H

Plan Point Information:									
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	615271.80	595824.80	0.00	0.00
1000.00	0.00	0.00	1000.00	0.00	-0.00	615271.80	595824.80	0.00	0.00 Nudge
1699.94	7.00	30.73	1698.21	36.70	21.82	615308.50	595846.62	-20.31	1.00 Hold
3099.46	7.00	30.73	3087.29	183.30	108.98	615455.10	595933.78	-101.40	0.00 Drop
3799.41	0.00	0.00	3785.50	220.00	130.80	615491.80	595955.60	-121.71	1.00 Hold
8619.06	0.00	0.00	8005.15	220.00	130.80	615491.80	595955.60	-121.71	0.00 KOP
8790.98	92.63	269.80	8482.11	218.24	-368.57	615490.04	595456.23	377.18	12.00 LP
9883.02	92.63	269.80	8432.00	214.41	-1459.46	615486.21	594365.34	1467.00	0.00 T1/Drop
10819.27	89.91	269.80	8428.99	213.93	-1595.66	615485.73	594229.14	1603.06	2.00 Hold
11104.27	89.91	269.80	8430.78	210.15	-2680.65	615481.95	593144.15	2686.99	0.00 Drop
12121.41	87.74	269.80	8433.00	209.77	-2788.76	615481.57	593036.04	2795.00	2.00 T2
12147.80	87.74	269.80	8469.85	206.50	-3723.42	615478.30	592101.38	3728.74	0.00 Build
12413.41	93.05	269.80	8468.00	205.57	-3988.93	615477.37	591835.87	3994.00	2.00 T3
13370.45	93.05	269.80	8417.00	202.20	-4944.60	615474.00	590880.20	4948.73	0.00 PBHL 354H

Plan Data for Palmillo 3 State Com 354H

Target Set Information:									
Name: Palmillo 3 354H									
Position offsets from Slot centre									
Name	TVD Elevation	+N/-S	+E/-W	Northing	Easting				
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)				
VP 8005.15	-4494.15	220.00	130.80	615491.80	595955.60				
FTP 354H	0.00	3511.00	267.50	82.50	615539.30	595907.30			
LP 8483.00	-4972.00	218.31	-350.38	615490.11	595474.42				
T1 8432.00	-4921.00	214.41	-1459.46	615486.21	594365.34				
T2 8433.00	-4922.00	209.77	-2788.76	615481.57	593036.04				
T3 8468.00	-4957.00	205.57	-3988.93	615477.37	591835.87				
LTP 354H	8419.66	-4908.66	202.80	-4894.70	615474.00	590930.10			
PBHL 354H	8417.00	-4906.00	202.20	-4944.60	615474.00	590880.20			



Grid Convergence: 0.10°
Mag Declination: 7.19°
Bearing:
True = Mag + 7.19°
Grid = True - 0.10°
Total Correction: TBD°

Plan Data for Palmillo 3 State Com 354H

Field: Apache NM (Nad 83 NMEZ)
Map Unit: USft
Vertical Reference Datum (VRD): Mean Sea Level
Projected Coordinate System: NAD83 / New Mexico East (ftUS)

Site: Palmillo 3 State Com (356,244,243,354) Pad
Unit: USfeet
Company Name: Apache Corporation
Position: Northing: 615361.80USft Latitude: 32.691548°
Easting: 595825.60USft Longitude: -104.156216°
North Reference: Grid Grid Convergence: 0.10°
Elevation Above VRD: 3484.00USft
Comment: Eddy Co., NM

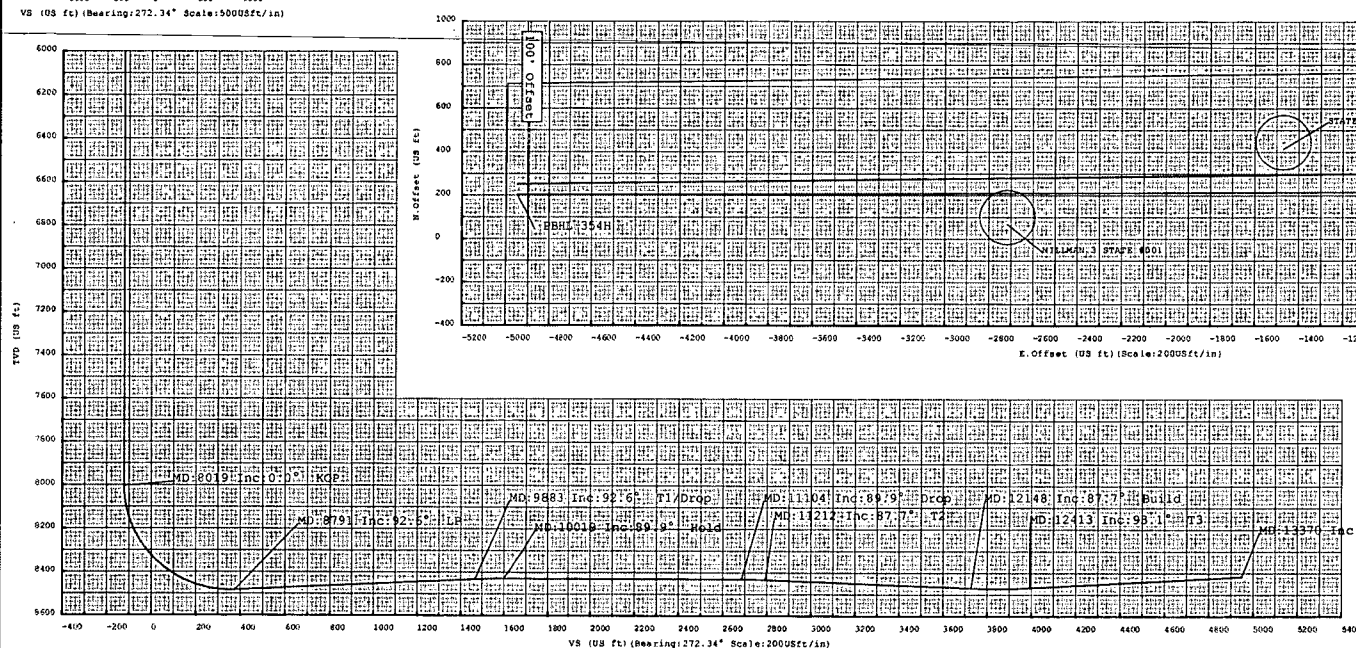
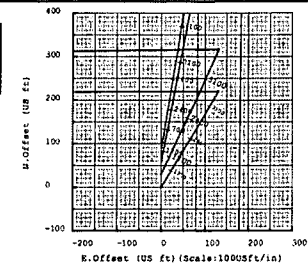
Slot: Palmillo 3 State Com 354H

Position:
Offset is from Site centre
+N/-S: -90.00USft Northing: 615271.80USft Latitude: 32.691300°
+E/-W: -0.80USft Easting: 595824.80USft Longitude: -104.156219°
Elevation Above VRD: 3485.00USft

Well: Palmillo 3 State Com 354H

Type: Main-Well
File Number:
Plan Folder: P1
Plan: P1:V3
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USft
+E/-W: -0.00USft
Azimuth: 272.34°
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
bggm2019 47870(nT) 7.19° 60.40° 2019-12-25

Palmillo 3 State Com 354H
Palmillo 3 State Com 354H
Palmillo 3 State Com 244H
Palmillo 3 State Com 243H



Drawing By: Ty Hardin Date: 11 November 2019
Office Name: Drilling Services - Houston
Address: 12101 Cutten Road
Houston, TX 77066

Phone: +1.713.882.8256


Weatherford®

Palmillo 3 State Com 354H

Field Name: Apache NM (Nad 83, NMEZ)	Map Units: US ft Vertical Reference Datum (VRD): Mean Sea Level Projected Coordinate System: NAD83 / New Mexico East (ftUS) Comment:	Company Name: Apache Corporation	
Site: Palmillo 3, State Com 354H (356,244,243,354) Pad	Units: US ft Position: North Reference: Grid Northing: 615361.80 US ft Easting: 595825.60 US ft Elevation above MSL: 3484.00 US ft Comment: Eddy Co., NM	Convergence Angle: 0.10 Latitude: 32.691547774 Longitude: -104.156216364	
Slot: Palmillo 3, State Com 354H	Position (Relative to Site Centre): +N/-S: -90.00 US ft Northing: 615271.80 US ft +E/-W: -0.80 US ft Easting: 595824.80 US ft Slot TVD Reference: Ground Elevation Elevation above MSL: 3485.00 US ft Comment:		
Well: Palmillo 3, State Com 354H	Type: Main well File Number: Comment: Closure Distance: 4948.73 US ft Vertical Section: Position of Origin (Relative to Slot centre) +N/-S: 0.00 US ft +E/-W: -0.00 US ft Magnetic Parameters: Model: bggm2019 Field Strength: 47870.9 nT Declination: 7.19°		
	UWI: Plan: P1:V3 (Current plan) Closure Azimuth: 272.34° Az: 272.34° Dip: 60.40° Date: 25/Dec/2019		

Drill floor: Plan: P1:V3 (Current plan)
Rig Height (Drill Floor): 26.00 US ft **Elevation above MSL:** 3511.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00°

Target set: Palmillo3 354H Comment:

Target Name:	Shape:	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	C. Pt. Distance (US ft)	Comment
VP	Point	8005.15	220.00	130.80	615491.80	595955.60	0.00	
FTP 354H	Point	0.00	267.50	82.50	615539.30	595907.30	279.93	
LP	Point	8483.00	218.31	-350.38	615490.11	595474.42	0.40	
T1	Point	8432.00	214.41	-1459.46	615486.21	594365.34	0.00	
T2	Point	8433.00	209.77	-2788.76	615481.57	593036.04	0.00	
T3	Point	8468.00	205.57	-3988.93	615477.37	591835.87	0.00	
LTP 354H	Point	8419.66	202.80	-4894.70	615474.60	590930.10	0.42	
PBHL 354H	Point	8417.00	202.20	-4944.60	615474.00	590880.20	0.00	

SD Plan Report

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

Wellpath created using minimum curvature.

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	615271.80	595824.80	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	Nudge
1699.94	7.00	30.73	1698.21	-20.31	36.70	21.82	615308.50	595846.62	1.00	Hold
3099.46	7.00	30.73	3087.29	-101.40	183.30	108.98	615455.10	595933.78	0.00	Drop
3799.41	0.00	0.00	3785.50	-121.71	220.00	130.80	615491.80	595955.60	1.00	Hold
8019.06	0.00	0.00	8005.15	-121.71	220.00	130.80	615491.80	595955.60	0.00	KOP
8790.98	92.63	269.80	8482.11	377.18	218.24	-368.57	615490.04	595456.23	12.00	LP
9883.02	92.63	269.80	8432.00	1467.00	214.41	-1459.46	615486.21	594365.34	0.00	T1/Drop
10019.27	89.91	269.80	8428.99	1603.06	213.93	-1595.66	615485.73	594229.14	2.00	Hold
11104.27	89.91	269.80	8430.78	2686.99	210.15	-2680.65	615481.95	593144.15	0.00	Drop
11212.41	87.74	269.80	8433.00	2795.00	209.77	-2788.76	615481.57	593036.04	2.00	T2
12147.80	87.74	269.80	8469.85	3728.74	206.50	-3723.42	615478.30	592101.38	0.00	Build
12413.41	93.05	269.80	8468.00	3994.00	205.57	-3988.93	615477.37	591835.87	2.00	T3
13370.45	93.05	269.80	8417.00	4948.73	202.20	-4944.60	615474.00	590880.20	0.00	PBHL 354H

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	615271.80	595824.80	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	-0.00	615271.80	595824.80	0.00	Nudge
1100.00	1.00	30.73	1099.99	-0.41	0.75	0.45	615272.55	595825.25	1.00	
1200.00	2.00	30.73	1199.96	-1.66	3.00	1.78	615274.80	595826.58	1.00	
1300.00	3.00	30.73	1299.86	-3.73	6.75	4.01	615278.55	595828.81	1.00	
1400.00	4.00	30.73	1399.68	-6.64	12.00	7.13	615283.80	595831.93	1.00	
1500.00	5.00	30.73	1499.37	-10.37	18.74	11.14	615290.54	595835.94	1.00	
1600.00	6.00	30.73	1598.90	-14.93	26.98	16.04	615298.78	595840.84	1.00	
1699.94	7.00	30.73	1698.21	-20.31	36.70	21.82	615308.50	595846.62	1.00	Hold
1700.00	7.00	30.73	1698.26	-20.31	36.71	21.83	615308.51	595846.63	0.00	
1800.00	7.00	30.73	1797.51	-26.10	47.18	28.05	615318.98	595852.85	0.00	
1900.00	7.00	30.73	1896.77	-31.90	57.66	34.28	615329.46	595859.08	0.00	
2000.00	7.00	30.73	1996.02	-37.69	68.13	40.51	615339.93	595865.31	0.00	
2100.00	7.00	30.73	2095.28	-43.49	78.61	46.74	615350.41	595871.54	0.00	
2200.00	7.00	30.73	2194.53	-49.28	89.08	52.96	615360.88	595877.76	0.00	
2300.00	7.00	30.73	2293.79	-55.08	99.56	59.19	615371.36	595883.99	0.00	
2400.00	7.00	30.73	2393.04	-60.87	110.03	65.42	615381.83	595890.22	0.00	
2500.00	7.00	30.73	2492.30	-66.67	120.51	71.65	615392.31	595896.45	0.00	
2600.00	7.00	30.73	2591.55	-72.46	130.98	77.87	615402.78	595902.67	0.00	
2700.00	7.00	30.73	2690.81	-78.26	141.45	84.10	615413.25	595908.90	0.00	
2800.00	7.00	30.73	2790.06	-84.05	151.93	90.33	615423.73	595915.13	0.00	
2900.00	7.00	30.73	2889.32	-89.84	162.40	96.56	615434.20	595921.36	0.00	
3000.00	7.00	30.73	2988.57	-95.64	172.88	102.78	615444.68	595927.58	0.00	
3099.46	7.00	30.73	3087.29	-101.40	183.30	108.98	615455.10	595933.78	0.00	Drop
3100.00	7.00	30.73	3087.83	-101.43	183.35	109.01	615455.15	595933.81	0.00	
3200.00	5.99	30.73	3187.18	-106.81	193.07	114.79	615464.87	595939.59	1.00	
3300.00	4.99	30.73	3286.72	-111.37	201.30	119.68	615473.10	595944.48	1.00	

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)	
3400.00	3.99	30.73	3386.41	-115.09	208.04	123.69	615479.84	595948.49	1.00	
3500.00	2.99	30.73	3486.23	-117.99	213.28	126.80	615485.08	595951.60	1.00	
3600.00	1.99	30.73	3586.13	-120.06	217.02	129.03	615488.82	595953.83	1.00	
3700.00	0.99	30.73	3686.10	-121.30	219.26	130.36	615491.06	595955.16	1.00	
3799.41	0.00	0.00	3785.50	-121.71	220.00	130.80	615491.80	595955.60	1.00	Hold
3800.00	0.00	0.00	3786.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
3900.00	0.00	0.00	3886.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
4000.00	0.00	0.00	3986.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
4100.00	0.00	0.00	4086.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
4200.00	0.00	0.00	4186.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
4300.00	0.00	0.00	4286.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
4400.00	0.00	0.00	4386.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
4500.00	0.00	0.00	4486.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
4600.00	0.00	0.00	4586.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
4700.00	0.00	0.00	4686.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
4800.00	0.00	0.00	4786.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
4900.00	0.00	0.00	4886.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
5000.00	0.00	0.00	4986.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
5100.00	0.00	0.00	5086.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
5200.00	0.00	0.00	5186.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
5300.00	0.00	0.00	5286.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
5400.00	0.00	0.00	5386.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
5500.00	0.00	0.00	5486.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
5600.00	0.00	0.00	5586.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
5700.00	0.00	0.00	5686.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
5800.00	0.00	0.00	5786.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
5900.00	0.00	0.00	5886.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
6000.00	0.00	0.00	5986.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
6100.00	0.00	0.00	6086.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
6200.00	0.00	0.00	6186.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
6300.00	0.00	0.00	6286.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
6400.00	0.00	0.00	6386.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
6500.00	0.00	0.00	6486.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
6600.00	0.00	0.00	6586.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
6700.00	0.00	0.00	6686.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
6800.00	0.00	0.00	6786.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
6900.00	0.00	0.00	6886.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
7000.00	0.00	0.00	6986.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
7100.00	0.00	0.00	7086.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
7200.00	0.00	0.00	7186.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
7300.00	0.00	0.00	7286.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
7400.00	0.00	0.00	7386.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
7500.00	0.00	0.00	7486.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
7600.00	0.00	0.00	7586.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
7700.00	0.00	0.00	7686.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
7800.00	0.00	0.00	7786.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
7900.00	0.00	0.00	7886.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
8000.00	0.00	0.00	7986.09	-121.71	220.00	130.80	615491.80	595955.60	0.00	
8019.06	0.00	0.00	8005.15	-121.71	220.00	130.80	615491.80	595955.60	0.00	KOP
8100.00	9.71	269.80	8085.70	-114.87	219.98	123.96	615491.78	595948.76	12.00	
8200.00	21.71	269.80	8181.79	-87.87	219.88	96.92	615491.68	595921.72	12.00	
8300.00	33.71	269.80	8270.16	-41.49	219.72	50.51	615491.52	595875.31	12.00	
8400.00	45.71	269.80	8346.94	22.22	219.49	-13.27	615491.29	595811.53	12.00	
8500.00	57.71	269.80	8408.79	100.49	219.22	-91.62	615491.02	595733.18	12.00	
8600.00	69.71	269.80	8453.00	189.90	218.90	-181.11	615490.70	595643.69	12.00	
8700.00	81.71	269.80	8477.63	286.54	218.56	-277.84	615490.36	595546.96	12.00	
8790.98	92.63	269.80	8482.11	377.18	218.24	-368.57	615490.04	595456.23	12.00	LP
8800.00	92.63	269.80	8481.70	386.18	218.21	-377.58	615490.01	595447.22	0.00	
8900.00	92.63	269.80	8477.11	485.98	217.86	-477.48	615489.66	595347.32	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)	
9000.00	92.63	269.80	8472.52	585.77	217.51	-577.37	615489.31	595247.43	0.00	
9100.00	92.63	269.80	8467.93	685.57	217.16	-677.27	615488.96	595147.53	0.00	
9200.00	92.63	269.80	8463.34	785.37	216.81	-777.16	615488.61	595047.64	0.00	
9300.00	92.63	269.80	8458.75	885.16	216.46	-877.06	615488.26	594947.74	0.00	
9400.00	92.63	269.80	8454.16	984.96	216.11	-976.95	615487.91	594847.85	0.00	
9500.00	92.63	269.80	8449.58	1084.75	215.75	-1076.84	615487.55	594747.96	0.00	
9600.00	92.63	269.80	8444.99	1184.55	215.40	-1176.74	615487.20	594648.06	0.00	
9700.00	92.63	269.80	8440.40	1284.35	215.05	-1276.63	615486.85	594548.17	0.00	
9800.00	92.63	269.80	8435.81	1384.14	214.70	-1376.53	615486.50	594448.27	0.00	
9883.02	92.63	269.80	8432.00	1467.00	214.41	-1459.46	615486.21	594365.34	0.00	T1/Drop
9900.00	92.29	269.80	8431.27	1483.94	214.35	-1476.42	615486.15	594348.38	2.00	
10000.00	90.29	269.80	8429.02	1583.81	214.00	-1576.39	615485.80	594248.41	2.00	
10019.27	89.91	269.80	8428.99	1603.06	213.93	-1595.66	615485.73	594229.14	2.00	Hold
10100.00	89.91	269.80	8429.12	1683.72	213.65	-1676.39	615485.45	594148.41	0.00	
10200.00	89.91	269.80	8429.28	1783.62	213.30	-1776.39	615485.10	594048.41	0.00	
10300.00	89.91	269.80	8429.45	1883.52	212.95	-1876.39	615484.75	593948.41	0.00	
10400.00	89.91	269.80	8429.62	1983.42	212.60	-1976.39	615484.40	593848.41	0.00	
10500.00	89.91	269.80	8429.78	2083.32	212.26	-2076.39	615484.06	593748.41	0.00	
10600.00	89.91	269.80	8429.95	2183.22	211.91	-2176.39	615483.71	593648.41	0.00	
10700.00	89.91	269.80	8430.11	2283.12	211.56	-2276.39	615483.36	593548.41	0.00	
10800.00	89.91	269.80	8430.28	2383.03	211.21	-2376.38	615483.01	593448.42	0.00	
10900.00	89.91	269.80	8430.44	2482.93	210.86	-2476.38	615482.66	593348.42	0.00	
11000.00	89.91	269.80	8430.61	2582.83	210.51	-2576.38	615482.31	593248.42	0.00	
11100.00	89.91	269.80	8430.77	2682.73	210.16	-2676.38	615481.96	593148.42	0.00	
11104.27	89.91	269.80	8430.78	2686.99	210.15	-2680.65	615481.95	593144.15	0.00	Drop
11200.00	87.99	269.80	8432.54	2782.61	209.81	-2776.36	615481.61	593048.44	2.00	
11212.41	87.74	269.80	8433.00	2795.00	209.77	-2788.76	615481.57	593036.04	2.00	T2
11300.00	87.74	269.80	8436.45	2882.44	209.46	-2876.28	615481.26	592948.52	0.00	
11400.00	87.74	269.80	8440.39	2982.26	209.11	-2976.21	615480.91	592848.59	0.00	
11500.00	87.74	269.80	8444.33	3082.09	208.77	-3076.13	615480.57	592748.67	0.00	
11600.00	87.74	269.80	8448.27	3181.91	208.42	-3176.05	615480.22	592648.75	0.00	
11700.00	87.74	269.80	8452.21	3281.73	208.07	-3275.97	615479.87	592548.83	0.00	
11800.00	87.74	269.80	8456.15	3381.56	207.72	-3375.89	615479.52	592448.91	0.00	
11900.00	87.74	269.80	8460.09	3481.38	207.37	-3475.81	615479.17	592348.99	0.00	
12000.00	87.74	269.80	8464.02	3581.21	207.02	-3575.74	615478.82	592249.06	0.00	
12100.00	87.74	269.80	8467.96	3681.03	206.67	-3675.66	615478.47	592149.14	0.00	
12147.80	87.74	269.80	8469.85	3728.74	206.50	-3723.42	615478.30	592101.38	0.00	Build
12200.00	88.79	269.80	8471.43	3780.87	206.32	-3775.60	615478.12	592049.20	2.00	
12300.00	90.79	269.80	8471.80	3880.77	205.97	-3875.59	615477.77	591949.21	2.00	
12400.00	92.79	269.80	8468.68	3980.62	205.62	-3975.54	615477.42	591849.26	2.00	
12413.41	93.05	269.80	8468.00	3994.00	205.57	-3988.93	615477.37	591835.87	2.00	T3
12500.00	93.05	269.80	8463.39	4080.38	205.27	-4075.39	615477.07	591749.41	0.00	
12600.00	93.05	269.80	8458.06	4180.14	204.91	-4175.25	615476.71	591649.55	0.00	
12700.00	93.05	269.80	8452.73	4279.90	204.56	-4275.11	615476.36	591549.69	0.00	
12800.00	93.05	269.80	8447.40	4379.66	204.21	-4374.97	615476.01	591449.83	0.00	
12900.00	93.05	269.80	8442.07	4479.42	203.86	-4474.82	615475.66	591349.98	0.00	
13000.00	93.05	269.80	8436.74	4579.17	203.50	-4574.68	615475.30	591250.12	0.00	
13100.00	93.05	269.80	8431.41	4678.93	203.15	-4674.54	615474.95	591150.26	0.00	
13200.00	93.05	269.80	8426.08	4778.69	202.80	-4774.39	615474.60	591050.41	0.00	
13300.00	93.05	269.80	8420.75	4878.45	202.45	-4874.25	615474.25	590950.55	0.00	
13370.45	93.05	269.80	8417.00	4948.73	202.20	-4944.60	615474.00	590880.20	0.00	PBHL 354H

**5D Anti-Collision Report****Apache Corporation****Field Name:** *Apache NM (Nad 83 NMEZ)***Site Name:** *Palmillo 3 State Com (356,244,243,354) Pad***Well Name:** *Palmillo 3 State Com 354H*

20 November 2019

**Weatherford®**



Palmillo 3 State Com 354H

Field Name: Apache NM (Nad 83 NMEZ)	Map Units: US ft Vertical Reference Datum (VRD): Mean Sea Level Projected Coordinate System: NAD83 / New Mexico East (ftUS) Comment:		Company Name: Apache Corporation	
Site: Palmillo 3 State Com (356,244,243,354) Pad	Units: US ft Position:	North Reference: Grid Northing: 615361.80 US ft Easting: 595825.60 US ft	Convergence Angle: 0.10 Latitude: 32.691547774 Longitude: -104.156216364	
	Elevation above MSL: 3484.00 US ft Comment: Eddy Co., NM			
Slot: Palmillo 3 State Com 354H	Position (Relative to Site Centre)			
	+N/-S: -90.00 US ft +E/-W: -0.80 US ft		Northing: 615271.80 US ft Easting: 595824.80 US ft	
			Latitude: 32.691300396 Longitude: -104.156219452	
Slot TVD Reference: Ground Elevation Elevation above MSL: 3485.00 US ft Comment:				
Well: Palmillo 3 State Com 354H	Type: Main well File Number:		UWI:	
	Comment:		Plan: P1:V3	
	Closure Distance: 4948.73 US ft		Closure Azimuth: 272.34°	
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: 0.00 US ft		+E/-W: -0.00 US ft	
Magnetic Parameters:				
Model: bggm2019		Field Strength: 47870.9nT	Declination: 7.19°	Dip: 60.40°
		Date: 25/Dec/2019		

Drill floor: Plan: P1:V3	Rig Height (Drill Floor): 26.00 US ft
Elevation above MSL: 3511.00 US ft	Inclination: 0.00°
	Azimuth: 0.00°

5D Anti-Collision Report

Anti-Collision Analysis Criteria			
Primary Well		Palmillo 3 State Com 354H (p)	
Depth Range	0.00 - 13370.45 US ft	Analysis Interval	100.00US ft
Orientation of Ellipsoid dimensions	Wellbore (High Side, Lateral, Along Hole)	AC Filter Info:	Separation Factor: 5
Separation Factor Method	STANDARD	Uncertainties computed at	2 σ
Analysis Method	Vector Separation	Ellipsoid Combination Method	Independent
Surface uncertainty	Not Applied		
Secondary Well Names: MILLMAN 3 STATE #001 (s), STATE AI 001 (s), Palmillo 3 State Com 356H (p), Palmillo 3 State Com 244H (p), Palmillo 3 State Com 243H (p)			

Report Terminology	
Ellipsoid Parameters	
TVD Spread:	Dimension in the TVD Direction.
Ellipse Parameters	
S.Minor, S.Major:	Dimensions of the bounding ellipse in the High Side, Lateral plane.
PHI:	Angle between HS and S.Minor axes.
AC Parameters	
ES:	Distance between the extremities of the primary and secondary uncertainty ellipsoids in the direction Cr-Cr.
CC:	3D closest approach distance from a point on the primary well to the secondary well.
T.Face to Sec:	Angle between the Hi-Side vector of the primary well at the current location and line of closest approach between the two wells.

Survey Tool Ranges: (Using Anticipated Survey Programme)			
Name	Start MD(USft)	End MD(USft)	Source Survey
MWD + IFR1_OW2	0.00	7947.41	ASP
MWD+IFR1+SAG+EDIR	7947.41	13298.00	ASP
MWD	13298.00	13370.45	Default Tool

Wellpath created using minimum curvature.

Anti-Collision Summary (TVD relative to Drill Floor)								
SF								
Secondary Well Name	Pri MD (US ft)	Pri TVD (US ft)	Sec MD (US ft)	Sec TVD (US ft)	ES (US ft)	CC (US ft)	SF	Risk
MILLMAN 3 STATE #001 (s)	11138.67	8431.04	8457.04	8431.04	-77.78	110.88	0.59	SF(Hi)
STATE AI 001 (s)	9893.16	8431.55	8580.55	8431.55	47.73	229.60	1.26	SF(Med)
Palmillo 3 State Com 243H (p)	7069.34	7055.43	7073.83	7053.53	55.91	97.37	2.35	SF(Lo)
Palmillo 3 State Com 244H (p)	1851.95	1849.08	1844.17	1844.81	35.89	49.38	3.66	
Palmillo 3 State Com 356H (p)	1861.52	1858.58	1846.75	1844.67	87.88	101.25	7.57	
CC								
Secondary Well Name	Pri MD (US ft)	Pri TVD (US ft)	Sec MD (US ft)	Sec TVD (US ft)	ES (US ft)	CC (US ft)	SF	Risk
Palmillo 3 State Com 243H (p)	0.00	-0.00	0.00	-0.00	29.27	30.00	41.14	
Palmillo 3 State Com 244H (p)	1710.74	1708.92	1704.05	1705.40	35.03	47.55	3.80	
Palmillo 3 State Com 356H (p)	50.00	50.00	49.00	50.00	89.09	90.00	99.05	
MILLMAN 3 STATE #001 (s)	11138.67	8431.04	8457.04	8431.04	-77.78	110.88	0.59	SF(Hi)
STATE AI 001 (s)	9891.60	8431.62	8580.62	8431.62	47.73	229.59	1.26	SF(Med)

5D Anti-Collision Report

Range Summary											
Secondary Well Name: MILLMAN 3 STATE #001 (s)											
SF											
Start MD (US ft)			End MD (US ft)			Risk					
10800.00			10800.00			SF (Lo)					
10900.00			10900.00			SF (Med)					
11000.00			11200.00			SF (Hi)					
11300.00			11300.00			SF (Med)					
11400.00			11500.00			SF (Lo)					
Secondary Well Name: STATE AI 001 (s)											
SF											
Start MD (US ft)			End MD (US ft)			Risk					
9600.00			9700.00			SF (Lo)					
9800.00			10000.00			SF (Med)					
10100.00			10200.00			SF (Lo)					
Secondary Well Name: Palmillo 3 State Com 243H (p)											
SF											
Start MD (US ft)			End MD (US ft)			Risk					
6700.00			7100.00			SF (Lo)					
Primary Well: Palmillo 3 State Com 354H (p)(TVD relative to Drill Floor)(All Azimuth Relative to GRID NORTH)											
Pri MD (US ft)	Inc (°)	Az (°)	Pri TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	ES (US ft)	CC (US ft)	SF	Nearest Well	Risk
1000.00	0.00	0.00	1000.00	3.41	3.41	0.38	23.73	30.00	4.78	Palmillo 3 State Com 243H (p)	
1100.00	1.00	30.73	1099.99	3.76	3.76	329.49	23.19	30.04	4.39	Palmillo 3 State Com 243H (p)	
1200.00	2.00	30.73	1199.96	4.12	4.12	329.02	22.73	30.16	4.06	Palmillo 3 State Com 243H (p)	
1300.00	3.00	30.73	1299.86	4.47	4.47	328.24	22.36	30.36	3.80	Palmillo 3 State Com 243H (p)	
1400.00	4.00	30.73	1399.67	4.83	4.82	327.17	22.08	30.64	3.58	Palmillo 3 State Com 243H (p)	
1500.00	5.00	30.73	1499.36	5.19	5.18	325.83	21.90	31.03	3.40	Palmillo 3 State Com 243H (p)	
1600.00	6.00	30.73	1598.90	5.54	5.53	324.23	21.83	31.52	3.25	Palmillo 3 State Com 243H (p)	
1700.00	7.00	30.73	1698.26	5.90	5.88	322.41	21.87	32.14	3.13	Palmillo 3 State Com 243H (p)	
1800.00	7.00	30.73	1797.51	6.26	6.24	321.33	22.73	33.56	3.10	Palmillo 3 State Com 243H (p)	
1900.00	7.00	30.73	1896.77	6.62	6.60	321.18	24.35	35.78	3.13	Palmillo 3 State Com 243H (p)	
2000.00	7.00	30.73	1996.02	6.99	6.96	321.04	25.97	38.01	3.16	Palmillo 3 State Com 243H (p)	
2100.00	7.00	30.73	2095.28	7.35	7.32	320.92	27.58	40.23	3.18	Palmillo 3 State Com 243H (p)	
2200.00	7.00	30.73	2194.53	7.71	7.69	320.81	29.18	42.45	3.20	Palmillo 3 State Com 243H (p)	
2300.00	7.00	30.73	2293.79	8.08	8.05	320.71	30.79	44.68	3.22	Palmillo 3 State Com 243H (p)	
2400.00	7.00	30.73	2393.04	8.44	8.41	320.63	32.40	46.90	3.23	Palmillo 3 State Com 243H (p)	
2500.00	7.00	30.73	2492.29	8.81	8.78	320.55	34.00	49.12	3.25	Palmillo 3 State Com 243H (p)	
2600.00	7.00	30.73	2591.55	9.17	9.14	320.47	35.60	51.34	3.26	Palmillo 3 State Com 243H (p)	
2700.00	7.00	30.73	2690.81	9.54	9.50	320.41	37.20	53.57	3.27	Palmillo 3 State Com 243H (p)	

5D Anti-Collision Report

Primary Well: Palmillo 3 State Com 354H (p)(TVD relative to Drill Floor)(All Azimuth Relative to GRID NORTH)											
Pri MD (US ft)	Inc (°)	Az (°)	Pri TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	ES (US ft)	CC (US ft)	SF	Nearest Well	Risk
2800.00	7.00	30.73	2790.06	9.91	9.87	320.34	38.80	55.79	3.28	Palmillo 3 State Com 243H (p)	
2900.00	7.00	30.73	2889.32	10.27	10.23	320.29	40.40	58.02	3.29	Palmillo 3 State Com 243H (p)	
3000.00	7.00	30.73	2988.57	10.64	10.60	320.23	41.99	60.24	3.30	Palmillo 3 State Com 243H (p)	
3100.00	6.99	30.73	3087.83	11.01	10.96	320.18	43.59	62.46	3.31	Palmillo 3 State Com 243H (p)	
3200.00	5.99	30.73	3187.18	11.38	11.33	320.62	45.87	65.37	3.35	Palmillo 3 State Com 243H (p)	
3300.00	4.99	30.73	3286.72	11.74	11.70	321.88	49.47	69.58	3.46	Palmillo 3 State Com 243H (p)	
3400.00	3.99	30.73	3386.41	12.10	12.06	323.30	53.39	74.10	3.58	Palmillo 3 State Com 243H (p)	
3500.00	2.99	30.73	3486.23	12.46	12.42	324.66	57.26	78.54	3.69	Palmillo 3 State Com 243H (p)	
3600.00	1.99	30.73	3586.13	12.82	12.78	325.98	61.08	82.92	3.80	Palmillo 3 State Com 243H (p)	
3700.00	0.99	30.73	3686.10	13.17	13.13	327.26	64.86	87.23	3.90	Palmillo 3 State Com 243H (p)	
3800.00	0.00	0.00	3786.09	13.52	13.47	359.26	68.61	91.47	4.00	Palmillo 3 State Com 243H (p)	
3900.00	0.00	0.00	3886.09	13.88	13.82	0.25	71.55	94.88	4.07	Palmillo 3 State Com 243H (p)	
4000.00	0.00	0.00	3986.09	14.23	14.18	0.74	72.92	96.69	4.07	Palmillo 3 State Com 243H (p)	
4100.00	0.00	0.00	4086.09	14.58	14.53	0.83	72.76	97.01	4.00	Palmillo 3 State Com 243H (p)	
4200.00	0.00	0.00	4186.09	14.94	14.88	0.83	72.19	97.01	3.91	Palmillo 3 State Com 243H (p)	
4300.00	0.00	0.00	4286.09	15.29	15.24	0.83	71.62	97.01	3.82	Palmillo 3 State Com 243H (p)	
4400.00	0.00	0.00	4386.09	15.64	15.59	0.83	71.05	97.01	3.74	Palmillo 3 State Com 243H (p)	
4500.00	0.00	0.00	4486.09	16.00	15.94	0.83	70.48	97.01	3.66	Palmillo 3 State Com 243H (p)	
4600.00	0.00	0.00	4586.09	16.35	16.30	0.83	69.91	97.01	3.58	Palmillo 3 State Com 243H (p)	
4700.00	0.00	0.00	4686.09	16.71	16.65	0.83	69.34	97.01	3.51	Palmillo 3 State Com 243H (p)	
4800.00	0.00	0.00	4786.09	17.06	17.01	0.83	68.76	97.01	3.43	Palmillo 3 State Com 243H (p)	
4900.00	0.00	0.00	4886.09	17.42	17.36	0.83	68.19	97.01	3.37	Palmillo 3 State Com 243H (p)	
5000.00	0.00	0.00	4986.09	17.77	17.72	0.83	67.62	97.01	3.30	Palmillo 3 State Com 243H (p)	
5100.00	0.00	0.00	5086.09	18.13	18.07	0.83	67.04	97.01	3.24	Palmillo 3 State Com 243H (p)	
5200.00	0.00	0.00	5186.09	18.48	18.43	0.83	66.47	97.01	3.18	Palmillo 3 State Com 243H (p)	
5300.00	0.00	0.00	5286.09	18.84	18.78	0.83	65.89	97.01	3.12	Palmillo 3 State Com 243H (p)	

5D Anti-Collision Report

Primary Well: Palmillo 3 State Com 354H (p)(TVD relative to Drill Floor)(All Azimuth Relative to GRID NORTH)											
Pri MD (US ft)	Inc (°)	Az (°)	Pri TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	ES (US ft)	CC (US ft)	SF	Nearest Well	Risk
5400.00	0.00	0.00	5386.09	19.19	19.14	0.83	65.32	97.01	3.06	Palmillo 3 State Com 243H (p)	
5500.00	0.00	0.00	5486.09	19.55	19.49	0.83	64.74	97.01	3.01	Palmillo 3 State Com 243H (p)	
5600.00	0.00	0.00	5586.09	19.91	19.85	0.83	64.16	97.01	2.95	Palmillo 3 State Com 243H (p)	
5700.00	0.00	0.00	5686.09	20.26	20.21	0.83	63.59	97.01	2.90	Palmillo 3 State Com 243H (p)	
5800.00	0.00	0.00	5786.09	20.62	20.56	0.83	63.01	97.01	2.85	Palmillo 3 State Com 243H (p)	
5900.00	0.00	0.00	5886.09	20.97	20.92	0.83	62.43	97.01	2.81	Palmillo 3 State Com 243H (p)	
6000.00	0.00	0.00	5986.09	21.33	21.27	0.83	61.86	97.01	2.76	Palmillo 3 State Com 243H (p)	
6100.00	0.00	0.00	6086.09	21.69	21.63	0.83	61.28	97.01	2.72	Palmillo 3 State Com 243H (p)	
6200.00	0.00	0.00	6186.09	22.04	21.99	0.83	60.70	97.01	2.67	Palmillo 3 State Com 243H (p)	
6300.00	0.00	0.00	6286.09	22.40	22.34	0.83	60.12	97.01	2.63	Palmillo 3 State Com 243H (p)	
6400.00	0.00	0.00	6386.09	22.75	22.70	0.83	59.55	97.01	2.59	Palmillo 3 State Com 243H (p)	
6500.00	0.00	0.00	6486.09	23.11	23.05	0.83	58.97	97.01	2.55	Palmillo 3 State Com 243H (p)	
6600.00	0.00	0.00	6586.09	23.47	23.41	0.83	58.39	97.01	2.51	Palmillo 3 State Com 243H (p)	
6700.00	0.00	0.00	6686.09	23.82	23.77	0.83	57.81	97.01	2.47	Palmillo 3 State Com 243H (p)	SF(Lo)
6800.00	0.00	0.00	6786.09	24.18	24.12	0.83	57.23	97.01	2.44	Palmillo 3 State Com 243H (p)	SF(Lo)
6900.00	0.00	0.00	6886.09	24.54	24.48	0.83	56.65	97.01	2.40	Palmillo 3 State Com 243H (p)	SF(Lo)
7000.00	0.00	0.00	6986.09	24.89	24.84	0.04	56.05	96.98	2.37	Palmillo 3 State Com 243H (p)	SF(Lo)
7069.34	0.00	0.00	7055.43	25.14	25.08	354.19	55.91	97.37	2.35	Palmillo 3 State Com 243H (p)	SF(Lo)
7100.00	0.00	0.00	7086.09	25.25	25.19	350.06	56.68	98.34	2.36	Palmillo 3 State Com 243H (p)	SF(Lo)
7200.00	0.00	0.00	7186.09	25.61	25.55	333.35	71.12	110.31	2.81	Palmillo 3 State Com 243H (p)	
7300.00	0.00	0.00	7286.09	25.96	25.91	318.06	109.50	142.18	4.35	Palmillo 3 State Com 243H (p)	
9100.00	92.63	269.80	8467.93	29.59	12.05	N/A	645.47	823.43	4.63	STATE AI 001 (s)	
9200.00	92.63	269.80	8463.34	29.91	12.18	N/A	550.10	728.03	4.09	STATE AI 001 (s)	
9300.00	92.63	269.80	8458.75	30.27	12.32	N/A	456.09	634.01	3.56	STATE AI 001 (s)	
9400.00	92.63	269.80	8454.16	30.67	12.48	N/A	364.14	542.11	3.05	STATE AI 001 (s)	
9500.00	92.63	269.80	8449.58	31.11	12.65	N/A	275.46	453.59	2.55	STATE AI 001 (s)	

5D Anti-Collision Report

Primary Well: Palmillo 3 State Com 354H (p)(TVD relative to Drill Floor)(All Azimuth Relative to GRID NORTH)												
Pri MD (US ft)	Inc (°)	Az (°)	Pri TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	ES (US ft)	CC (US ft)	SF	Nearest Well	Risk	
9600.00	92.63	269.80	8444.99	31.58	12.84	N/A	192.40	370.90	2.08	STATE AI 001 (s)	SF(Lo)	
9700.00	92.63	269.80	8440.40	32.08	13.04	N/A	119.62	298.91	1.67	STATE AI 001 (s)	SF(Lo)	
9800.00	92.63	269.80	8435.81	32.61	13.25	N/A	66.46	247.16	1.37	STATE AI 001 (s)	SF(Med)	
9893.16	92.43	269.80	8431.55	33.14	13.45	N/A	47.73	229.60	1.26	STATE AI 001 (s)	SF(Med)	
9900.00	92.29	269.80	8431.27	33.18	13.45	N/A	47.84	229.74	1.26	STATE AI 001 (s)	SF(Med)	
10000.00	90.29	269.80	8429.02	33.77	13.57	N/A	72.50	253.88	1.40	STATE AI 001 (s)	SF(Med)	
10100.00	89.91	269.80	8429.12	34.38	13.80	N/A	129.90	310.04	1.72	STATE AI 001 (s)	SF(Lo)	
10200.00	89.91	269.80	8429.28	35.02	14.06	N/A	205.21	384.44	2.14	STATE AI 001 (s)	SF(Lo)	
10300.00	89.91	269.80	8429.45	35.69	14.33	N/A	289.80	468.47	2.62	STATE AI 001 (s)		
10400.00	89.91	269.80	8429.62	36.38	14.61	N/A	379.46	557.79	3.13	STATE AI 001 (s)		
10500.00	89.91	269.80	8429.78	37.09	14.90	N/A	472.12	650.23	3.65	STATE AI 001 (s)		
10500.00	89.91	269.80	8429.78	37.09	14.90	N/A	472.78	648.15	3.70	MILLMAN 3 STATE #001 (s)		
10600.00	89.91	269.80	8429.95	37.82	15.20	N/A	374.42	549.89	3.13	MILLMAN 3 STATE #001 (s)		
10700.00	89.91	269.80	8430.11	38.57	15.50	N/A	276.75	452.39	2.58	MILLMAN 3 STATE #001 (s)		
10800.00	89.91	269.80	8430.28	39.34	15.81	N/A	180.33	356.29	2.02	MILLMAN 3 STATE #001 (s)	SF(Lo)	
10900.00	89.91	269.80	8430.44	40.12	16.13	N/A	86.44	263.10	1.49	MILLMAN 3 STATE #001 (s)	SF(Med)	
11000.00	89.91	269.80	8430.61	40.92	16.45	N/A	-1.27	177.49	0.99	MILLMAN 3 STATE #001 (s)	SF(Hi)	
11100.00	89.91	269.80	8430.77	41.74	16.78	N/A	-68.79	117.40	0.63	MILLMAN 3 STATE #001 (s)	SF(Hi)	
11138.67	89.22	269.80	8431.04	42.06	16.88	N/A	-77.78	110.88	0.59	MILLMAN 3 STATE #001 (s)	SF(Hi)	
11200.00	87.99	269.80	8432.54	42.57	17.05	N/A	-57.28	126.74	0.69	MILLMAN 3 STATE #001 (s)	SF(Hi)	
11300.00	87.74	269.80	8436.45	43.41	17.38	N/A	17.47	195.74	1.10	MILLMAN 3 STATE #001 (s)	SF(Med)	
11400.00	87.74	269.80	8440.39	44.26	17.73	N/A	107.02	283.79	1.61	MILLMAN 3 STATE #001 (s)	SF(Lo)	
11500.00	87.74	269.80	8444.33	45.13	18.09	N/A	201.51	377.79	2.14	MILLMAN 3 STATE #001 (s)	SF(Lo)	
11600.00	87.74	269.80	8448.27	46.01	18.44	N/A	298.10	474.22	2.69	MILLMAN 3 STATE #001 (s)		
11700.00	87.74	269.80	8452.21	46.89	18.81	N/A	395.78	571.85	3.25	MILLMAN 3 STATE #001 (s)		
11800.00	87.74	269.80	8456.15	47.79	19.17	N/A	494.08	670.16	3.81	MILLMAN 3 STATE #001 (s)		
11900.00	87.74	269.80	8460.09	48.70	19.54	N/A	592.76	768.88	4.37	MILLMAN 3 STATE #001 (s)		
12000.00	87.74	269.80	8464.02	49.61	19.91	N/A	691.70	867.88	4.93	MILLMAN 3 STATE #001 (s)		

5D Anti-Collision Report

Secondary Well: MILLMAN 3 STATE #001 (s)(TVD relative to Drill Floor)(All Azimuth Relative to GRID NORTH)												
Pri MD (US ft)	Sec MD (US ft)	Sec TVD (US ft)	Pri TVD (US ft)	Inc (°)	Az (°)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	ES (US ft)	CC (US ft)	SF	Risk
10300.00	8455.45	8429.45	8429.45	0.00	N/A	145.90	145.90	N/A	670.64	845.89	4.83	
10400.00	8455.62	8429.62	8429.62	0.00	N/A	145.90	145.90	N/A	571.57	746.87	4.26	
10500.00	8455.78	8429.78	8429.78	0.00	N/A	145.90	145.90	N/A	472.78	648.15	3.70	
10600.00	8455.95	8429.95	8429.95	0.00	N/A	145.91	145.91	N/A	374.42	549.89	3.13	
10700.00	8456.11	8430.11	8430.11	0.00	N/A	145.91	145.91	N/A	276.75	452.39	2.58	
10800.00	8456.28	8430.28	8430.28	0.00	N/A	145.91	145.91	N/A	180.33	356.29	2.02	SF(Low)
10900.00	8456.44	8430.44	8430.44	0.00	N/A	145.92	145.92	N/A	86.44	263.10	1.49	SF(Med)
11000.00	8456.61	8430.61	8430.61	0.00	N/A	145.92	145.92	N/A	-1.27	177.49	0.99	SF(Hi)
11100.00	8456.77	8430.77	8430.77	0.00	N/A	145.92	145.92	N/A	-68.79	117.40	0.63	SF(Hi)
11138.67	8457.04	8431.04	8431.04	0.00	N/A	145.93	145.93	N/A	-77.78	110.88	0.59	SF(Hi)
11200.00	8458.54	8432.54	8432.54	0.00	N/A	145.95	145.95	N/A	-57.28	126.74	0.69	SF(Hi)
11300.00	8462.45	8436.45	8436.45	0.00	N/A	146.02	146.02	N/A	17.47	195.74	1.10	SF(Med)
11400.00	8466.39	8440.39	8440.39	0.00	N/A	146.09	146.09	N/A	107.02	283.79	1.61	SF(Low)
11500.00	8470.33	8444.33	8444.33	0.00	N/A	146.16	146.16	N/A	201.51	377.79	2.14	SF(Low)
11600.00	8474.27	8448.27	8448.27	0.00	N/A	146.23	146.23	N/A	298.10	474.22	2.69	
11700.00	8478.21	8452.21	8452.21	0.00	N/A	146.30	146.30	N/A	395.78	571.85	3.25	
11800.00	8482.15	8456.15	8456.15	0.00	N/A	146.36	146.36	N/A	494.08	670.16	3.81	
11900.00	8486.09	8460.09	8460.09	0.00	N/A	146.43	146.43	N/A	592.76	768.88	4.37	
12000.00	8490.02	8464.02	8464.02	0.00	N/A	146.50	146.50	N/A	691.70	867.88	4.93	
Secondary Well: STATE AI 001 (s)(TVD relative to Drill Floor)(All Azimuth Relative to GRID NORTH)												
Pri MD (US ft)	Sec MD (US ft)	Sec TVD (US ft)	Pri TVD (US ft)	Inc (°)	Az (°)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	ES (US ft)	CC (US ft)	SF	Risk
9100.00	8616.93	8467.93	8467.93	0.00	N/A	148.70	148.70	N/A	645.47	823.43	4.63	
9200.00	8612.34	8463.34	8463.34	0.00	N/A	148.62	148.62	N/A	550.10	728.03	4.09	
9300.00	8607.75	8458.75	8458.75	0.00	N/A	148.54	148.54	N/A	456.09	634.01	3.56	
9400.00	8603.16	8454.16	8454.16	0.00	N/A	148.46	148.46	N/A	364.14	542.11	3.05	
9500.00	8598.58	8449.58	8449.58	0.00	N/A	148.38	148.38	N/A	275.46	453.59	2.55	
9600.00	8593.99	8444.99	8444.99	0.00	N/A	148.30	148.30	N/A	192.40	370.90	2.08	SF(Low)
9700.00	8589.40	8440.40	8440.40	0.00	N/A	148.22	148.22	N/A	119.62	298.91	1.67	SF(Low)
9800.00	8584.81	8435.81	8435.81	0.00	N/A	148.14	148.14	N/A	66.46	247.16	1.37	SF(Med)
9893.16	8580.55	8431.55	8431.55	0.00	N/A	148.07	148.07	N/A	47.73	229.60	1.26	SF(Med)
9900.00	8580.27	8431.27	8431.27	0.00	N/A	148.06	148.06	N/A	47.84	229.74	1.26	SF(Med)
10000.00	8578.02	8429.02	8429.02	0.00	N/A	148.02	148.02	N/A	72.50	253.88	1.40	SF(Med)
10100.00	8578.12	8429.12	8429.12	0.00	N/A	148.02	148.02	N/A	129.90	310.04	1.72	SF(Low)
10200.00	8578.28	8429.28	8429.28	0.00	N/A	148.03	148.03	N/A	205.21	384.44	2.14	SF(Low)
10300.00	8578.45	8429.45	8429.45	0.00	N/A	148.03	148.03	N/A	289.80	468.47	2.62	
10400.00	8578.62	8429.62	8429.62	0.00	N/A	148.03	148.03	N/A	379.46	557.79	3.13	
10500.00	8578.78	8429.78	8429.78	0.00	N/A	148.04	148.04	N/A	472.12	650.23	3.65	
10600.00	8578.95	8429.95	8429.95	0.00	N/A	148.04	148.04	N/A	566.66	744.63	4.18	
10700.00	8579.11	8430.11	8430.11	0.00	N/A	148.04	148.04	N/A	662.45	840.32	4.72	
Secondary Well: Palmillo 3 State Com 244H (p)(TVD relative to Drill Floor)(All Azimuth Relative to GRID NORTH)												
Pri MD (US ft)	Sec MD (US ft)	Sec TVD (US ft)	Pri TVD (US ft)	Inc (°)	Az (°)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	ES (US ft)	CC (US ft)	SF	Risk
1400.00	1396.02	1397.99	1399.67	1.96	10.62	4.82	4.82	322.70	41.29	51.67	4.98	
1500.00	1495.11	1496.98	1499.36	2.95	10.62	5.18	5.17	318.69	38.56	49.64	4.48	
1600.00	1594.24	1595.93	1598.90	3.94	10.62	5.53	5.53	313.78	36.45	48.21	4.10	
1700.00	1693.40	1694.79	1698.26	4.93	10.62	5.88	5.88	308.05	35.11	47.56	3.82	
1800.00	1792.61	1793.55	1797.51	5.93	10.62	6.24	6.22	302.62	35.17	48.30	3.68	
1900.00	1891.86	1892.18	1896.77	6.92	10.62	6.59	6.57	298.70	36.94	50.75	3.67	
2000.00	1991.09	1990.58	1996.02	7.91	10.62	6.95	6.92	296.43	40.18	54.66	3.77	
2100.00	2090.24	2088.66	2095.28	8.90	10.62	7.31	7.26	295.64	44.73	59.87	3.95	
2200.00	2189.99	2187.18	2194.53	9.00	10.62	7.67	7.62	295.60	49.96	65.81	4.15	
2300.00	2289.81	2285.78	2293.79	9.00	10.62	8.03	7.99	295.58	55.20	71.77	4.33	
2400.00	2389.63	2384.37	2393.04	9.00	10.62	8.39	8.35	295.56	60.43	77.72	4.50	
2500.00	2489.46	2482.96	2492.29	9.00	10.62	8.76	8.72	295.54	65.66	83.67	4.65	
2600.00	2589.28	2581.56	2591.55	9.00	10.62	9.12	9.08	295.53	70.89	89.62	4.78	

5D Anti-Collision Report

Secondary Well: Palmillo 3 State Com 244H (p)(TVD relative to Drill Floor)(All Azimuth Relative to GRID NORTH)												
Pri MD (US ft)	Sec MD (US ft)	Sec TVD (US ft)	Pri TVD (US ft)	Inc (°)	Az (°)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	ES (US ft)	CC (US ft)	SF	Risk
2700.00	2689.10	2680.15	2690.81	9.00	10.62	9.49	9.45	295.52	76.12	95.57	4.91	
Secondary Well: Palmillo 3 State Com 243H (p)(TVD relative to Drill Floor)(All Azimuth Relative to GRID NORTH)												
Pri MD (US ft)	Sec MD (US ft)	Sec TVD (US ft)	Pri TVD (US ft)	Inc (°)	Az (°)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	ES (US ft)	CC (US ft)	SF	Risk
1000.00	1000.00	1000.00	1000.00	0.00	0.00	2.14	2.14	0.38	23.73	30.00	4.78	
1100.00	1099.52	1099.52	1099.99	1.00	24.70	2.36	2.36	329.49	23.19	30.04	4.39	
1200.00	1199.05	1199.01	1199.96	1.99	24.70	2.58	2.58	329.02	22.73	30.16	4.06	
1300.00	1298.57	1298.44	1299.86	2.99	24.70	2.80	2.80	328.24	22.36	30.36	3.80	
1400.00	1398.10	1397.78	1399.67	3.98	24.70	3.03	3.02	327.17	22.08	30.64	3.58	
1500.00	1497.62	1496.99	1499.36	4.98	24.70	3.26	3.24	325.83	21.90	31.03	3.40	
1600.00	1597.14	1596.06	1598.90	5.97	24.70	3.50	3.46	324.23	21.83	31.52	3.25	
1700.00	1696.66	1694.94	1698.26	6.97	24.70	3.75	3.69	322.41	21.87	32.14	3.13	
1800.00	1796.16	1793.60	1797.51	7.96	24.70	4.01	3.91	321.33	22.73	33.56	3.10	
1900.00	1896.11	1892.58	1896.77	8.00	24.70	4.29	4.14	321.18	24.35	35.78	3.13	
2000.00	1996.09	1991.58	1996.02	8.00	24.70	4.57	4.38	321.04	25.97	38.01	3.16	
2100.00	2096.06	2090.58	2095.28	8.00	24.70	4.86	4.61	320.92	27.58	40.23	3.18	
2200.00	2196.04	2189.59	2194.53	8.00	24.70	5.16	4.85	320.81	29.18	42.45	3.20	
2300.00	2296.01	2288.59	2293.79	8.00	24.70	5.46	5.08	320.71	30.79	44.68	3.22	
2400.00	2395.99	2387.59	2393.04	8.00	24.70	5.76	5.32	320.63	32.40	46.90	3.23	
2500.00	2495.97	2486.59	2492.29	8.00	24.70	6.07	5.56	320.55	34.00	49.12	3.25	
2600.00	2595.94	2585.59	2591.55	8.00	24.70	6.38	5.80	320.47	35.60	51.34	3.26	
2700.00	2695.92	2684.60	2690.81	8.00	24.70	6.69	6.04	320.41	37.20	53.57	3.27	
2800.00	2795.89	2783.60	2790.06	8.00	24.70	7.00	6.28	320.34	38.80	55.79	3.28	
2900.00	2895.87	2882.60	2889.32	8.00	24.70	7.32	6.52	320.29	40.40	58.02	3.29	
3000.00	2995.84	2981.60	2988.57	8.00	24.70	7.63	6.76	320.23	41.99	60.24	3.30	
3100.00	3095.82	3080.60	3087.83	8.00	24.70	7.95	7.00	320.18	43.59	62.46	3.31	
3200.00	3195.77	3179.58	3187.18	8.00	24.70	8.27	7.24	320.62	45.87	65.37	3.35	
3300.00	3295.96	3278.80	3286.72	7.72	24.70	8.58	7.47	321.88	49.47	69.58	3.46	
3400.00	3396.92	3378.97	3386.41	6.71	24.70	8.83	7.67	323.30	53.39	74.10	3.58	
3500.00	3497.97	3479.42	3486.23	5.70	24.70	9.08	7.86	324.66	57.26	78.54	3.69	
3600.00	3599.11	3580.14	3586.13	4.69	24.70	9.31	8.05	325.98	61.08	82.92	3.80	
3700.00	3700.34	3681.10	3686.10	3.68	24.70	9.52	8.23	327.26	64.86	87.23	3.90	
3800.00	3801.65	3782.25	3786.09	2.66	24.70	9.73	8.41	359.26	68.61	91.47	4.00	
3900.00	3903.07	3883.60	3886.09	1.65	24.70	9.91	8.59	0.25	71.55	94.88	4.07	
4000.00	4004.60	3985.11	3986.09	0.63	24.70	10.09	8.77	0.74	72.92	96.69	4.07	
4100.00	4105.58	4086.09	4086.09	0.00	0.00	10.26	8.95	0.83	72.76	97.01	4.00	
4200.00	4205.58	4186.09	4186.09	0.00	0.00	10.45	9.17	0.83	72.19	97.01	3.91	
4300.00	4305.58	4286.09	4286.09	0.00	0.00	10.63	9.38	0.83	71.62	97.01	3.82	
4400.00	4405.58	4386.09	4386.09	0.00	0.00	10.82	9.60	0.83	71.05	97.01	3.74	
4500.00	4505.58	4486.09	4486.09	0.00	0.00	11.02	9.81	0.83	70.48	97.01	3.66	
4600.00	4605.58	4586.09	4586.09	0.00	0.00	11.21	10.03	0.83	69.91	97.01	3.58	
4700.00	4705.58	4686.09	4686.09	0.00	0.00	11.40	10.24	0.83	69.34	97.01	3.51	
4800.00	4805.58	4786.09	4786.09	0.00	0.00	11.59	10.46	0.83	68.76	97.01	3.43	
4900.00	4905.58	4886.09	4886.09	0.00	0.00	11.79	10.68	0.83	68.19	97.01	3.37	
5000.00	5005.58	4986.09	4986.09	0.00	0.00	11.99	10.90	0.83	67.62	97.01	3.30	
5100.00	5105.58	5086.09	5086.09	0.00	0.00	12.18	11.11	0.83	67.04	97.01	3.24	
5200.00	5205.58	5186.09	5186.09	0.00	0.00	12.38	11.33	0.83	66.47	97.01	3.18	
5300.00	5305.58	5286.09	5286.09	0.00	0.00	12.58	11.55	0.83	65.89	97.01	3.12	
5400.00	5405.58	5386.09	5386.09	0.00	0.00	12.78	11.77	0.83	65.32	97.01	3.06	
5500.00	5505.58	5486.09	5486.09	0.00	0.00	12.98	11.99	0.83	64.74	97.01	3.01	
5600.00	5605.58	5586.09	5586.09	0.00	0.00	13.18	12.20	0.83	64.16	97.01	2.95	
5700.00	5705.58	5686.09	5686.09	0.00	0.00	13.39	12.42	0.83	63.59	97.01	2.90	
5800.00	5805.58	5786.09	5786.09	0.00	0.00	13.59	12.64	0.83	63.01	97.01	2.85	
5900.00	5905.58	5886.09	5886.09	0.00	0.00	13.79	12.86	0.83	62.43	97.01	2.81	
6000.00	6005.58	5986.09	5986.09	0.00	0.00	14.00	13.08	0.83	61.86	97.01	2.76	
6100.00	6105.58	6086.09	6086.09	0.00	0.00	14.20	13.30	0.83	61.28	97.01	2.72	
6200.00	6205.58	6186.09	6186.09	0.00	0.00	14.41	13.52	0.83	60.70	97.01	2.67	

5D Anti-Collision Report

Secondary Well: Palmillo 3 State Com 243H (p)(TVD relative to Drill Floor)(All Azimuth Relative to GRID NORTH)												
Pri MD (US ft)	Sec MD (US ft)	Sec TVD (US ft)	Pri TVD (US ft)	Inc (°)	Az (°)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	ES (US ft)	CC (US ft)	SF	Risk
6300.00	6305.58	6286.09	6286.09	0.00	0.00	14.62	13.74	0.83	60.12	97.01	2.63	
6400.00	6405.58	6386.09	6386.09	0.00	0.00	14.82	13.96	0.83	59.55	97.01	2.59	
6500.00	6505.58	6486.09	6486.09	0.00	0.00	15.03	14.18	0.83	58.97	97.01	2.55	
6600.00	6605.58	6586.09	6586.09	0.00	0.00	15.24	14.40	0.83	58.39	97.01	2.51	
6700.00	6705.58	6686.09	6686.09	0.00	0.00	15.45	14.62	0.83	57.81	97.01	2.47	SF(Lo)
6800.00	6805.58	6786.09	6786.09	0.00	0.00	15.65	14.84	0.83	57.23	97.01	2.44	SF(Lo)
6900.00	6905.58	6886.09	6886.09	0.00	0.00	15.86	15.07	0.83	56.65	97.01	2.40	SF(Lo)
7000.00	7005.71	6986.19	6986.09	4.29	269.26	16.04	15.26	0.04	56.05	96.98	2.37	SF(Lo)
7069.34	7073.83	7053.53	7055.43	12.46	269.26	15.99	15.29	354.19	55.91	97.37	2.35	SF(Lo)
7100.00	7102.80	7081.61	7086.09	15.94	269.26	15.94	15.26	350.06	56.68	98.34	2.36	SF(Lo)
7200.00	7189.90	7162.72	7186.09	26.39	269.26	15.83	14.89	333.35	71.12	110.31	2.81	
7300.00	7263.76	7226.08	7286.09	35.25	269.26	15.89	14.22	318.06	109.50	142.18	4.35	