



HOBBS OCD

OCT 24 2016

RECEIVED

Endurance Resources L.L.C.

Lea County, NM (NAD 83)

TALCO

TALCO 9 Fec #3H

Talco #3H - Lateral

Plan: Plan#1

Standard Planning Report

02 August, 2016



Planning Report

Database: EDM 5000.1 Single User Db
Company: Endurance Resources L.L.C.
Project: Lea County, NM (NAD 83)
Site: TALCO
Well: TALCO 9 Fec #3H
Wellbore: Talco #3H - Lateral
Design: Plan#1

Local Co-ordinate Reference: Site TALCO
TVD Reference: GL 3174.3' + 27.7' RKB @ 3202.00ft (TBD)
MD Reference: GL 3174.3' + 27.7' RKB @ 3202.00ft (TBD)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, NM (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 TALCO

Site Position:
From: Lat/Long
Position Uncertainty: 0.00 ft

Northing: 386,298.31 usft
Easting: 839,386.45 usft
Slot Radius: 13.200 in

Latitude: 32° 3' 30.105 N
Longitude: 103° 22' 16.529 W
Grid Convergence: 0.51 °

Well TALCO 9 Fec #3H

Well Position +N/-S 0.00 ft
 +E/-W 0.00 ft
Position Uncertainty 0.00 ft

Northing: 386,298.31 usft
Easting: 839,386.45 usft
Wellhead Elevation: 0.00 ft

Latitude: 32° 3' 30.105 N
Longitude: 103° 22' 16.529 W
Ground Level: 3,174.30 ft

Wellbore Talco #3H - Lateral

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/2/2016	6.94	59.95	47,952

Design Plan#1

Audit Notes:

Version: Phase: PROTOTYPE Tie On Depth: 0.00

Vertical Section: Depth From (TVD) (ft) +N/-S (ft) +E/-W (ft) Direction (°)

0.00 0.00 0.00 359.43

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12,191.50	0.00	0.00	12,191.50	0.00	0.00	0.00	0.00	0.00	0.00	
13,091.45	90.00	359.43	12,764.46	572.88	-5.69	10.00	10.00	-0.06	359.43	
19,909.54	90.00	359.43	12,765.00	7,390.64	-73.47	0.00	0.00	0.00	0.00	Talco 9 Fed #3H Pt



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 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
Fresh Water									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8"									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00



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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,290.00	0.00	0.00	5,290.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar									
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,320.00	0.00	0.00	5,320.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon									
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,275.00	0.00	0.00	6,275.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,730.00	0.00	0.00	7,730.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,165.00	0.00	0.00	9,165.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring									
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00



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9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00
10,480.00	0.00	0.00	10,480.00	0.00	0.00	0.00	0.00	0.00	0.00
First Bone Spring Sand									
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00
10,600.00	0.00	0.00	10,600.00	0.00	0.00	0.00	0.00	0.00	0.00
10,700.00	0.00	0.00	10,700.00	0.00	0.00	0.00	0.00	0.00	0.00
10,800.00	0.00	0.00	10,800.00	0.00	0.00	0.00	0.00	0.00	0.00
10,900.00	0.00	0.00	10,900.00	0.00	0.00	0.00	0.00	0.00	0.00
11,000.00	0.00	0.00	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00
11,010.00	0.00	0.00	11,010.00	0.00	0.00	0.00	0.00	0.00	0.00
Second Bone Spring Sand									
11,100.00	0.00	0.00	11,100.00	0.00	0.00	0.00	0.00	0.00	0.00
11,200.00	0.00	0.00	11,200.00	0.00	0.00	0.00	0.00	0.00	0.00
11,300.00	0.00	0.00	11,300.00	0.00	0.00	0.00	0.00	0.00	0.00
11,400.00	0.00	0.00	11,400.00	0.00	0.00	0.00	0.00	0.00	0.00
11,500.00	0.00	0.00	11,500.00	0.00	0.00	0.00	0.00	0.00	0.00
11,565.00	0.00	0.00	11,565.00	0.00	0.00	0.00	0.00	0.00	0.00
7 5/8"									
11,600.00	0.00	0.00	11,600.00	0.00	0.00	0.00	0.00	0.00	0.00
11,700.00	0.00	0.00	11,700.00	0.00	0.00	0.00	0.00	0.00	0.00
11,800.00	0.00	0.00	11,800.00	0.00	0.00	0.00	0.00	0.00	0.00
11,900.00	0.00	0.00	11,900.00	0.00	0.00	0.00	0.00	0.00	0.00
12,000.00	0.00	0.00	12,000.00	0.00	0.00	0.00	0.00	0.00	0.00
12,100.00	0.00	0.00	12,100.00	0.00	0.00	0.00	0.00	0.00	0.00
12,150.00	0.00	0.00	12,150.00	0.00	0.00	0.00	0.00	0.00	0.00
Third Bone Spring Sand									
12,191.50	0.00	0.00	12,191.50	0.00	0.00	0.00	0.00	0.00	0.00
12192'MD: KOP Build @ 10°/100'MD									
12,200.00	0.85	359.43	12,200.00	0.06	0.00	0.06	10.00	10.00	0.00
12,300.00	10.85	359.43	12,299.35	10.24	-0.10	10.24	10.00	10.00	0.00
12,400.00	20.85	359.43	12,395.43	37.52	-0.37	37.52	10.00	10.00	0.00
12,496.15	30.47	359.43	12,482.00	79.10	-0.79	79.11	10.00	10.00	0.00
Wolfcamp									
12,500.00	30.85	359.43	12,485.31	81.06	-0.81	81.07	10.00	10.00	0.00
12,600.00	40.85	359.43	12,566.26	139.55	-1.39	139.56	10.00	10.00	0.00
12,700.00	50.85	359.43	12,635.83	211.21	-2.10	211.22	10.00	10.00	0.00
12,800.00	60.85	359.43	12,691.89	293.86	-2.92	293.87	10.00	10.00	0.00
12,900.00	70.85	359.43	12,732.75	384.98	-3.83	385.00	10.00	10.00	0.00
13,000.00	80.85	359.43	12,757.17	481.82	-4.79	481.85	10.00	10.00	0.00
13,091.45	90.00	359.43	12,764.46	572.88	-5.69	572.91	10.00	10.00	0.00
Hold 90° on Azm. 359.43° - 19091'MD: End Build w/90° Inc.									
13,100.00	90.00	359.43	12,764.46	581.43	-5.78	581.46	0.00	0.00	0.00
13,200.00	90.00	359.43	12,764.47	681.42	-6.77	681.46	0.00	0.00	0.00



Planning Report

Database: EDM 5000.1 Single User Db
 Company: Endurance Resources L.L.C.
 Project: Lea County, NM (NAD 83)
 Site: TALCO
 Well: TALCO 9 Fec #3H
 Wellbore: Talco #3H - Lateral
 Design: Plan#1

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Site TALCO
 GL 3174.3' + 27.7' RKB @ 3202.00ft (TBD)
 GL 3174.3' + 27.7' RKB @ 3202.00ft (TBD)
 Grid
 Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,300.00	90.00	359.43	12,764.47	781.42	-7.77	781.46	0.00	0.00	0.00
13,400.00	90.00	359.43	12,764.48	881.41	-8.76	881.46	0.00	0.00	0.00
13,500.00	90.00	359.43	12,764.49	981.41	-9.76	981.46	0.00	0.00	0.00
13,600.00	90.00	359.43	12,764.50	1,081.40	-10.75	1,081.46	0.00	0.00	0.00
13,700.00	90.00	359.43	12,764.51	1,181.40	-11.74	1,181.46	0.00	0.00	0.00
13,800.00	90.00	359.43	12,764.51	1,281.39	-12.74	1,281.46	0.00	0.00	0.00
13,900.00	90.00	359.43	12,764.52	1,381.39	-13.73	1,381.46	0.00	0.00	0.00
14,000.00	90.00	359.43	12,764.53	1,481.38	-14.73	1,481.46	0.00	0.00	0.00
14,100.00	90.00	359.43	12,764.54	1,581.38	-15.72	1,581.46	0.00	0.00	0.00
14,200.00	90.00	359.43	12,764.55	1,681.37	-16.71	1,681.46	0.00	0.00	0.00
14,300.00	90.00	359.43	12,764.55	1,781.37	-17.71	1,781.46	0.00	0.00	0.00
14,400.00	90.00	359.43	12,764.56	1,881.36	-18.70	1,881.46	0.00	0.00	0.00
14,500.00	90.00	359.43	12,764.57	1,981.36	-19.70	1,981.46	0.00	0.00	0.00
14,600.00	90.00	359.43	12,764.58	2,081.36	-20.69	2,081.46	0.00	0.00	0.00
14,700.00	90.00	359.43	12,764.59	2,181.35	-21.68	2,181.46	0.00	0.00	0.00
14,800.00	90.00	359.43	12,764.59	2,281.35	-22.68	2,281.46	0.00	0.00	0.00
14,900.00	90.00	359.43	12,764.60	2,381.34	-23.67	2,381.46	0.00	0.00	0.00
15,000.00	90.00	359.43	12,764.61	2,481.34	-24.67	2,481.46	0.00	0.00	0.00
15,100.00	90.00	359.43	12,764.62	2,581.33	-25.66	2,581.46	0.00	0.00	0.00
15,200.00	90.00	359.43	12,764.63	2,681.33	-26.65	2,681.46	0.00	0.00	0.00
15,300.00	90.00	359.43	12,764.63	2,781.32	-27.65	2,781.46	0.00	0.00	0.00
15,400.00	90.00	359.43	12,764.64	2,881.32	-28.64	2,881.46	0.00	0.00	0.00
15,500.00	90.00	359.43	12,764.65	2,981.31	-29.64	2,981.46	0.00	0.00	0.00
15,600.00	90.00	359.43	12,764.66	3,081.31	-30.63	3,081.46	0.00	0.00	0.00
15,700.00	90.00	359.43	12,764.67	3,181.30	-31.62	3,181.46	0.00	0.00	0.00
15,800.00	90.00	359.43	12,764.67	3,281.30	-32.62	3,281.46	0.00	0.00	0.00
15,900.00	90.00	359.43	12,764.68	3,381.29	-33.61	3,381.46	0.00	0.00	0.00
16,000.00	90.00	359.43	12,764.69	3,481.29	-34.61	3,481.46	0.00	0.00	0.00
16,100.00	90.00	359.43	12,764.70	3,581.28	-35.60	3,581.46	0.00	0.00	0.00
16,200.00	90.00	359.43	12,764.71	3,681.28	-36.59	3,681.46	0.00	0.00	0.00
16,300.00	90.00	359.43	12,764.71	3,781.27	-37.59	3,781.46	0.00	0.00	0.00
16,400.00	90.00	359.43	12,764.72	3,881.27	-38.58	3,881.46	0.00	0.00	0.00
16,500.00	90.00	359.43	12,764.73	3,981.26	-39.58	3,981.46	0.00	0.00	0.00
16,600.00	90.00	359.43	12,764.74	4,081.26	-40.57	4,081.46	0.00	0.00	0.00
16,700.00	90.00	359.43	12,764.75	4,181.25	-41.56	4,181.46	0.00	0.00	0.00
16,800.00	90.00	359.43	12,764.75	4,281.25	-42.56	4,281.46	0.00	0.00	0.00
16,900.00	90.00	359.43	12,764.76	4,381.24	-43.55	4,381.46	0.00	0.00	0.00
17,000.00	90.00	359.43	12,764.77	4,481.24	-44.55	4,481.46	0.00	0.00	0.00
17,100.00	90.00	359.43	12,764.78	4,581.23	-45.54	4,581.46	0.00	0.00	0.00
17,200.00	90.00	359.43	12,764.78	4,681.23	-46.53	4,681.46	0.00	0.00	0.00
17,300.00	90.00	359.43	12,764.79	4,781.22	-47.53	4,781.46	0.00	0.00	0.00
17,400.00	90.00	359.43	12,764.80	4,881.22	-48.52	4,881.46	0.00	0.00	0.00
17,500.00	90.00	359.43	12,764.81	4,981.21	-49.52	4,981.46	0.00	0.00	0.00
17,600.00	90.00	359.43	12,764.82	5,081.21	-50.51	5,081.46	0.00	0.00	0.00
17,700.00	90.00	359.43	12,764.82	5,181.20	-51.50	5,181.46	0.00	0.00	0.00
17,800.00	90.00	359.43	12,764.83	5,281.20	-52.50	5,281.46	0.00	0.00	0.00
17,900.00	90.00	359.43	12,764.84	5,381.19	-53.49	5,381.46	0.00	0.00	0.00
18,000.00	90.00	359.43	12,764.85	5,481.19	-54.49	5,481.46	0.00	0.00	0.00
18,100.00	90.00	359.43	12,764.86	5,581.18	-55.48	5,581.46	0.00	0.00	0.00
18,200.00	90.00	359.43	12,764.86	5,681.18	-56.47	5,681.46	0.00	0.00	0.00
18,300.00	90.00	359.43	12,764.87	5,781.17	-57.47	5,781.46	0.00	0.00	0.00
18,400.00	90.00	359.43	12,764.88	5,881.17	-58.46	5,881.46	0.00	0.00	0.00
18,500.00	90.00	359.43	12,764.89	5,981.16	-59.46	5,981.46	0.00	0.00	0.00
18,600.00	90.00	359.43	12,764.90	6,081.16	-60.45	6,081.46	0.00	0.00	0.00



Planning Report

Database: EDM 5000.1 Single User Db
Company: Endurance Resources L.L.C.
Project: Lea County, NM (NAD 83)
Site: TALCO
Well: TALCO 9 Fed #3H
Wellbore: Talco #3H - Lateral
Design: Plan#1

Local Co-ordinate Reference: Site TALCO
TVD Reference: GL 3174.3' + 27.7' RKB @ 3202.00ft (TBD)
MD Reference: GL 3174.3' + 27.7' RKB @ 3202.00ft (TBD)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
18,700.00	90.00	359.43	12,764.90	6,181.15	-61.44	6,181.46	0.00	0.00	0.00
18,800.00	90.00	359.43	12,764.91	6,281.15	-62.44	6,281.46	0.00	0.00	0.00
18,900.00	90.00	359.43	12,764.92	6,381.14	-63.43	6,381.46	0.00	0.00	0.00
19,000.00	90.00	359.43	12,764.93	6,481.14	-64.43	6,481.46	0.00	0.00	0.00
19,100.00	90.00	359.43	12,764.94	6,581.13	-65.42	6,581.46	0.00	0.00	0.00
19,200.00	90.00	359.43	12,764.94	6,681.13	-66.41	6,681.46	0.00	0.00	0.00
19,300.00	90.00	359.43	12,764.95	6,781.12	-67.41	6,781.46	0.00	0.00	0.00
19,400.00	90.00	359.43	12,764.96	6,881.12	-68.40	6,881.46	0.00	0.00	0.00
19,500.00	90.00	359.43	12,764.97	6,981.11	-69.40	6,981.46	0.00	0.00	0.00
19,600.00	90.00	359.43	12,764.98	7,081.11	-70.39	7,081.46	0.00	0.00	0.00
19,605.00	90.00	359.43	12,764.98	7,086.11	-70.44	7,086.46	0.00	0.00	0.00
5"									
19,700.00	90.00	359.43	12,764.98	7,181.10	-71.38	7,181.46	0.00	0.00	0.00
19,800.00	90.00	359.43	12,764.99	7,281.10	-72.38	7,281.46	0.00	0.00	0.00
19,900.00	90.00	359.43	12,765.00	7,381.09	-73.37	7,381.46	0.00	0.00	0.00
19,909.54	90.00	359.43	12,765.00	7,390.64	-73.47	7,391.00	0.00	0.00	0.00
TD at 19909.54'MD - Talco 9 Fed #3H PBHL									

Design Targets

Target Name

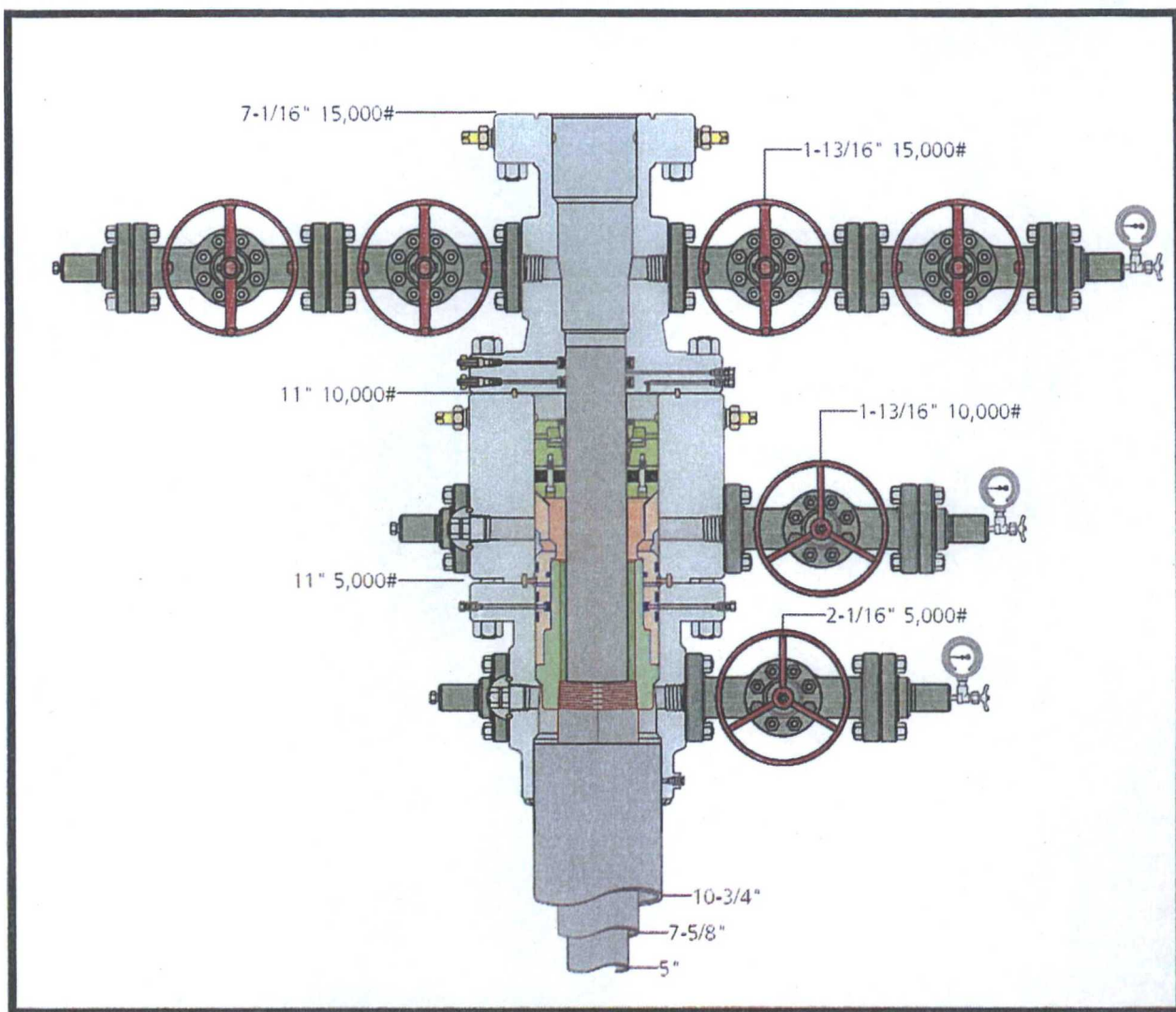
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
Talco 9 Fed #3H PBH	0.00	0.00	12,765.00	7,390.64	-73.47	393,688.93	839,312.98	32° 4' 43.241 N	103° 22' 16.617 W
- plan hits target center									
- Point									

Casing Points

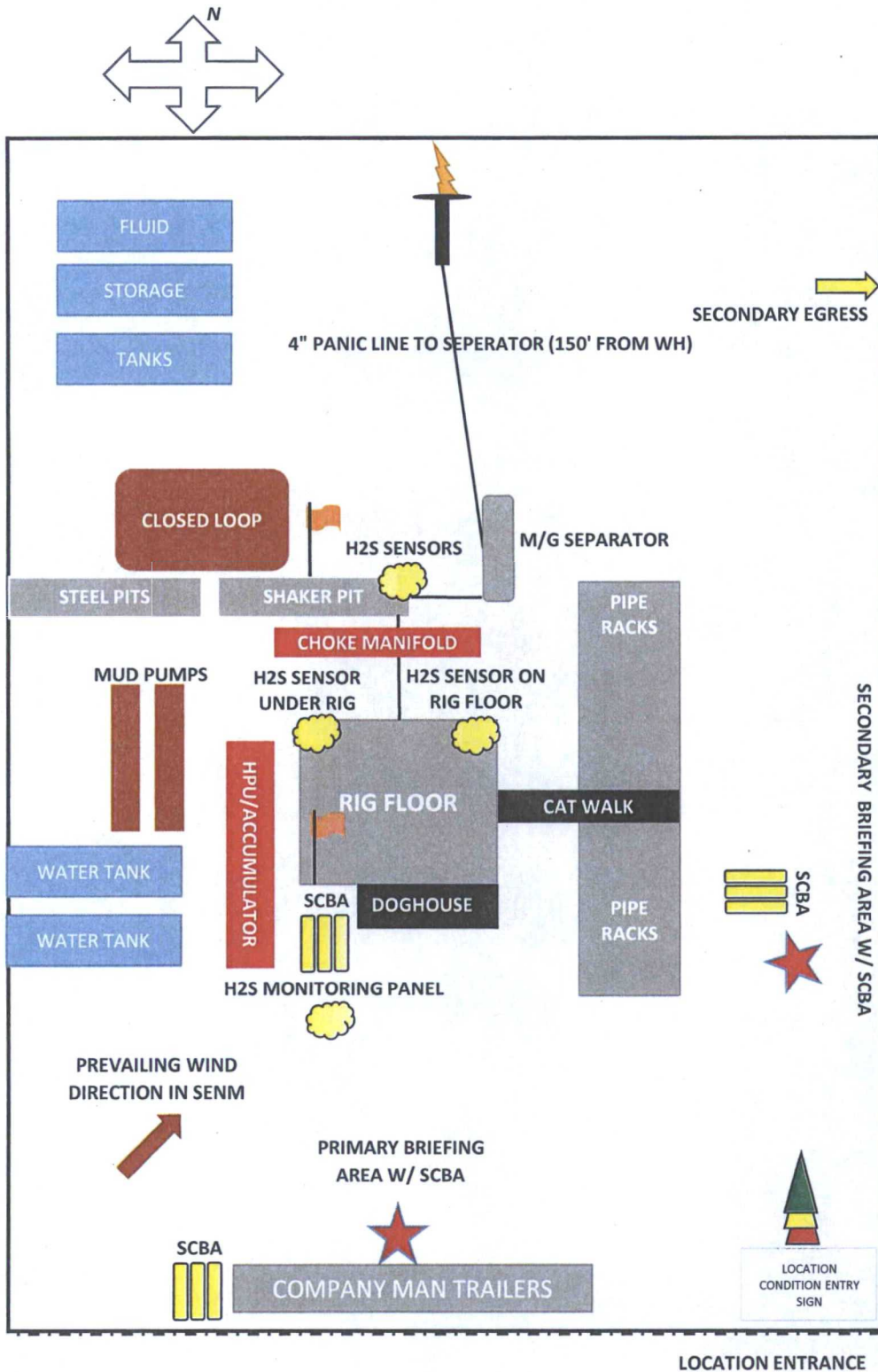
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,100.00	1,100.00	13 3/8"	13.375	17.500
11,565.00	11,565.00	7 5/8"	7.625	12.250
19,605.00	12,764.98	5"	5.000	6.000



ENDURANCE
RESOURCES, LLC



ENDURANCE RESOURCES LLC
RIG LOCATION LAYOUT & H2S SAFETY EQUIPMENT LOCATION
WELL PADS 625' X 450'
NOTE: DRAWING NOT TO SCALE
Talco 9 26 35 Fed #3H



Endurance Resources L.L.C.

DrilTech, LLC

Lea County, NM (NAD 83)
TALCO
TALCO 9 Fed #3H
Talco #3H - Lateral
Plan#1
TBD



SURFACE LOCATION

US State Plane 1983
New Mexico Eastern Zone
Elevation: GL 3174.3' + 27.7' RKB @ 3202.00ft (TBD)
Northing 386298.31 Easting 839386.45 Latitude 32° 3' 30.105 N Longitude 103° 22' 16.529 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
Talco 9 Fed #3H PBHL	12765.00	7390.64	-73.47	393688.93	839312.99



Azimuths to Grid North
True North: -0.51°
Magnetic North: 6.43°
Magnetic Field
Strength: 47952.2nT
Dip Angle: 59.95°
Date: 8/2/2016
Model: IGRF2015



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12191.50	0.00	0.00	12191.50	0.00	0.00	0.00	0.00	0.00
13091.45	90.00	359.43	12764.46	572.88	-5.69	10.00	359.43	572.91
19909.54	90.00	359.43	12765.00	7390.64	-73.47	0.00	0.00	7391.00

