

BONANZA CREEK ENERGY OPERATING

Well Name: **Wetco Farms F-J-4HC**

Surface Location: Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

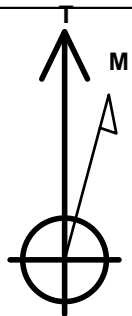
Ground Elevation: 4569.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1371340.58	3292187.95	40.347990	-104.451670	

RKB - 15' WELL @ 4584.0ft (RKB - 15')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
BHL 470'FSL & 1600'FWL	6498.0	-4699.5	1349.3	Point
T1 620'FNL & 1700'FWL	6498.0	-360.6	1521.9	Point



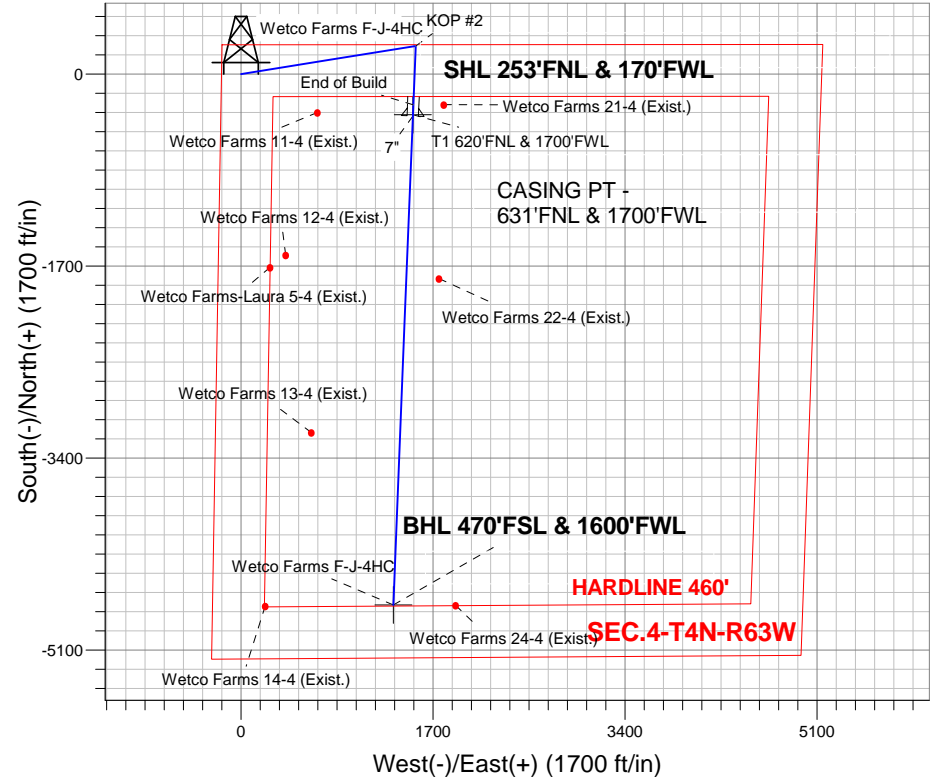
Azimuths to True North
Magnetic North: 8.48°

Magnetic Field
Strength: 52974.0nT
Dip Angle: 67.01°
Date: 1/8/2013
Model: IGRF2010

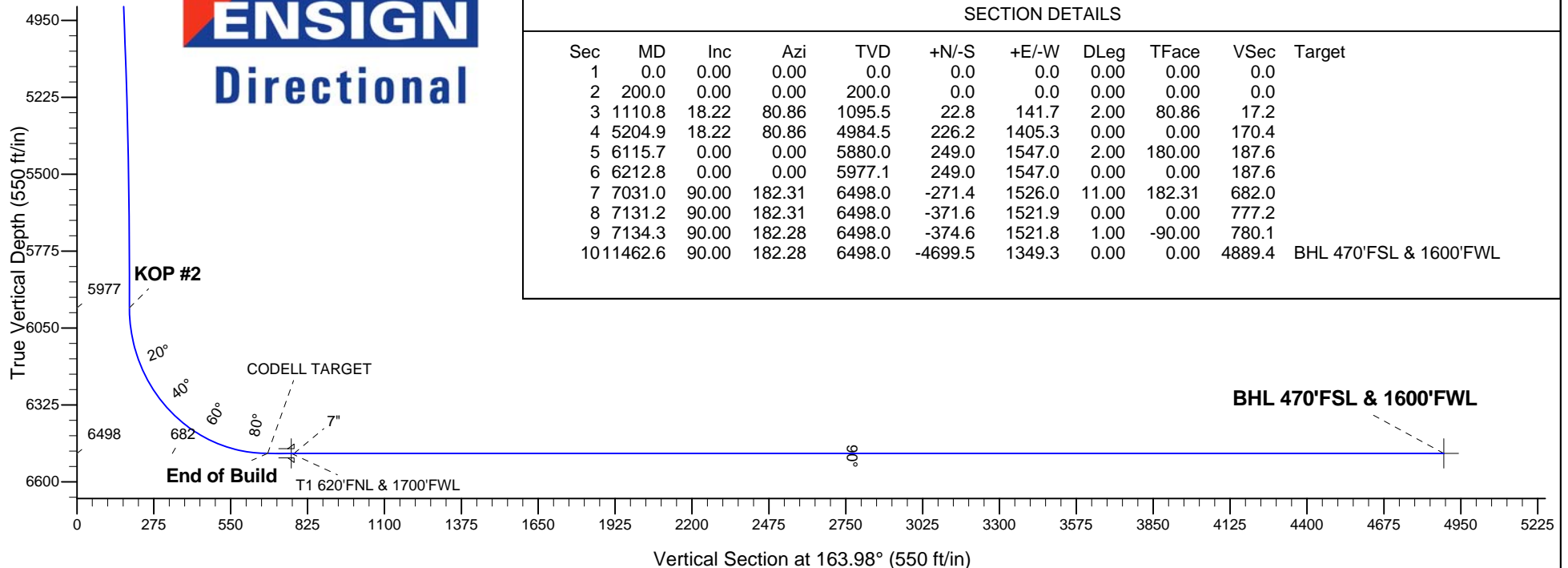
Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W
Wetco Farms F-J-4HC
Plan #2 (1-8-13)
16:08, January 08 2013

ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP #1
5977.1	6212.8	KOP #2
6498.0	7031.0	End of Build



ENSIGN
Directional



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	1110.8	18.22	80.86	1095.5	22.8	141.7	2.00	80.86	17.2	
4	5204.9	18.22	80.86	4984.5	226.2	1405.3	0.00	0.00	170.4	
5	6115.7	0.00	0.00	5880.0	249.0	1547.0	2.00	180.00	187.6	
6	6212.8	0.00	0.00	5977.1	249.0	1547.0	0.00	0.00	187.6	
7	7031.0	90.00	182.31	6498.0	-271.4	1526.0	11.00	182.31	682.0	
8	7131.2	90.00	182.31	6498.0	-371.6	1521.9	0.00	0.00	777.2	
9	7134.3	90.00	182.28	6498.0	-374.6	1521.8	1.00	-90.00	780.1	
10	11462.6	90.00	182.28	6498.0	-4699.5	1349.3	0.00	0.00	4889.4	BHL 470'FSL & 1600'FWL



BONANZA CREEK ENERGY OPERATING

SEC.4-T4N-R63W

Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W

Wetco Farms F-J-4HC

Wellbore #1

Plan: Plan #2 (1-8-13)

Standard Planning Report

08 January, 2013

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,110.8	18.22	80.86	1,095.5	22.8	141.7	2.00	2.00	0.00	80.86	
5,204.9	18.22	80.86	4,984.5	226.2	1,405.3	0.00	0.00	0.00	0.00	
6,115.7	0.00	0.00	5,880.0	249.0	1,547.0	2.00	-2.00	0.00	180.00	
6,212.8	0.00	0.00	5,977.1	249.0	1,547.0	0.00	0.00	0.00	0.00	
7,031.0	90.00	182.31	6,498.0	-271.4	1,526.0	11.00	11.00	0.00	182.31	
7,131.2	90.00	182.31	6,498.0	-371.6	1,521.9	0.00	0.00	0.00	0.00	
7,134.3	90.00	182.28	6,498.0	-374.6	1,521.8	1.00	0.00	-1.00	-90.00	
11,462.6	90.00	182.28	6,498.0	-4,699.5	1,349.3	0.00	0.00	0.00	0.00	BHL 470'FSL & 160'

Database:	Landmark	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Project:	SEC.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	North Reference:	True
Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (1-8-13)		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
300.0	2.00	80.86	300.0	0.3	1.7	0.2	2.00	2.00	0.00
400.0	4.00	80.86	399.8	1.1	6.9	0.8	2.00	2.00	0.00
500.0	6.00	80.86	499.5	2.5	15.5	1.9	2.00	2.00	0.00
600.0	8.00	80.86	598.7	4.4	27.5	3.3	2.00	2.00	0.00
700.0	10.00	80.86	697.5	6.9	43.0	5.2	2.00	2.00	0.00
800.0	12.00	80.86	795.6	9.9	61.8	7.5	2.00	2.00	0.00
900.0	14.00	80.86	893.1	13.5	84.0	10.2	2.00	2.00	0.00
1,000.0	16.00	80.86	989.6	17.6	109.6	13.3	2.00	2.00	0.00
1,100.0	18.00	80.86	1,085.3	22.3	138.4	16.8	2.00	2.00	0.00
1,110.8	18.22	80.86	1,095.5	22.8	141.7	17.2	2.00	2.00	0.00
1,200.0	18.22	80.86	1,180.3	27.2	169.3	20.5	0.00	0.00	0.00
1,300.0	18.22	80.86	1,275.3	32.2	200.1	24.3	0.00	0.00	0.00
1,400.0	18.22	80.86	1,370.2	37.2	231.0	28.0	0.00	0.00	0.00
1,500.0	18.22	80.86	1,465.2	42.1	261.9	31.8	0.00	0.00	0.00
1,600.0	18.22	80.86	1,560.2	47.1	292.7	35.5	0.00	0.00	0.00
1,700.0	18.22	80.86	1,655.2	52.1	323.6	39.2	0.00	0.00	0.00
1,800.0	18.22	80.86	1,750.2	57.1	354.4	43.0	0.00	0.00	0.00
1,900.0	18.22	80.86	1,845.2	62.0	385.3	46.7	0.00	0.00	0.00
2,000.0	18.22	80.86	1,940.2	67.0	416.2	50.5	0.00	0.00	0.00
2,100.0	18.22	80.86	2,035.2	72.0	447.0	54.2	0.00	0.00	0.00
2,200.0	18.22	80.86	2,130.2	76.9	477.9	58.0	0.00	0.00	0.00
2,300.0	18.22	80.86	2,225.1	81.9	508.8	61.7	0.00	0.00	0.00
2,400.0	18.22	80.86	2,320.1	86.9	539.6	65.4	0.00	0.00	0.00
2,500.0	18.22	80.86	2,415.1	91.8	570.5	69.2	0.00	0.00	0.00
2,600.0	18.22	80.86	2,510.1	96.8	601.3	72.9	0.00	0.00	0.00
2,700.0	18.22	80.86	2,605.1	101.8	632.2	76.7	0.00	0.00	0.00
2,800.0	18.22	80.86	2,700.1	106.7	663.1	80.4	0.00	0.00	0.00
2,900.0	18.22	80.86	2,795.1	111.7	693.9	84.1	0.00	0.00	0.00
3,000.0	18.22	80.86	2,890.1	116.7	724.8	87.9	0.00	0.00	0.00
3,100.0	18.22	80.86	2,985.1	121.6	755.6	91.6	0.00	0.00	0.00
3,200.0	18.22	80.86	3,080.0	126.6	786.5	95.4	0.00	0.00	0.00
3,300.0	18.22	80.86	3,175.0	131.6	817.4	99.1	0.00	0.00	0.00
3,400.0	18.22	80.86	3,270.0	136.5	848.2	102.9	0.00	0.00	0.00
3,500.0	18.22	80.86	3,365.0	141.5	879.1	106.6	0.00	0.00	0.00
3,600.0	18.22	80.86	3,460.0	146.5	910.0	110.3	0.00	0.00	0.00
3,700.0	18.22	80.86	3,555.0	151.4	940.8	114.1	0.00	0.00	0.00
3,800.0	18.22	80.86	3,650.0	156.4	971.7	117.8	0.00	0.00	0.00
3,900.0	18.22	80.86	3,745.0	161.4	1,002.5	121.6	0.00	0.00	0.00
4,000.0	18.22	80.86	3,840.0	166.3	1,033.4	125.3	0.00	0.00	0.00
4,100.0	18.22	80.86	3,934.9	171.3	1,064.3	129.1	0.00	0.00	0.00
4,200.0	18.22	80.86	4,029.9	176.3	1,095.1	132.8	0.00	0.00	0.00
4,300.0	18.22	80.86	4,124.9	181.2	1,126.0	136.5	0.00	0.00	0.00
4,400.0	18.22	80.86	4,219.9	186.2	1,156.9	140.3	0.00	0.00	0.00
4,500.0	18.22	80.86	4,314.9	191.2	1,187.7	144.0	0.00	0.00	0.00
4,600.0	18.22	80.86	4,409.9	196.1	1,218.6	147.8	0.00	0.00	0.00
4,700.0	18.22	80.86	4,504.9	201.1	1,249.4	151.5	0.00	0.00	0.00
4,800.0	18.22	80.86	4,599.9	206.1	1,280.3	155.3	0.00	0.00	0.00
4,900.0	18.22	80.86	4,694.9	211.0	1,311.2	159.0	0.00	0.00	0.00
5,000.0	18.22	80.86	4,789.8	216.0	1,342.0	162.7	0.00	0.00	0.00
5,100.0	18.22	80.86	4,884.8	221.0	1,372.9	166.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Project:	SEC.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	North Reference:	True
Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (1-8-13)		

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)
5,200.0	18.22	80.86	4,979.8	225.9	1,403.7	170.2	0.00	0.00	0.00
5,204.9	18.22	80.86	4,984.5	226.2	1,405.3	170.4	0.00	0.00	0.00
5,300.0	16.31	80.86	5,075.3	230.7	1,433.1	173.8	2.00	-2.00	0.00
5,400.0	14.31	80.86	5,171.7	234.9	1,459.2	177.0	2.00	-2.00	0.00
5,500.0	12.31	80.86	5,269.0	238.5	1,481.9	179.7	2.00	-2.00	0.00
5,600.0	10.31	80.86	5,367.1	241.6	1,501.3	182.1	2.00	-2.00	0.00
5,700.0	8.31	80.86	5,465.8	244.2	1,517.3	184.0	2.00	-2.00	0.00
5,800.0	6.31	80.86	5,564.9	246.2	1,529.8	185.5	2.00	-2.00	0.00
5,900.0	4.31	80.86	5,664.5	247.7	1,539.0	186.6	2.00	-2.00	0.00
6,000.0	2.31	80.86	5,764.3	248.6	1,544.7	187.3	2.00	-2.00	0.00
6,100.0	0.31	80.86	5,864.3	249.0	1,547.0	187.6	2.00	-2.00	0.00
6,115.7	0.00	0.00	5,880.0	249.0	1,547.0	187.6	2.00	-2.00	0.00
6,200.0	0.00	0.00	5,964.3	249.0	1,547.0	187.6	0.00	0.00	0.00
6,212.8	0.00	0.00	5,977.1	249.0	1,547.0	187.6	0.00	0.00	0.00
KOP #2									
6,300.0	9.59	182.31	6,063.9	241.7	1,546.7	194.5	11.00	11.00	0.00
6,400.0	20.59	182.31	6,160.3	215.8	1,545.7	219.2	11.00	11.00	0.00
6,500.0	31.59	182.31	6,250.0	171.9	1,543.9	260.9	11.00	11.00	0.00
6,600.0	42.59	182.31	6,329.6	111.7	1,541.5	318.0	11.00	11.00	0.00
6,700.0	53.59	182.31	6,396.3	37.5	1,538.5	388.6	11.00	11.00	0.00
6,800.0	64.59	182.31	6,447.6	-48.1	1,535.0	469.9	11.00	11.00	0.00
6,900.0	75.59	182.31	6,481.6	-141.9	1,531.2	559.0	11.00	11.00	0.00
7,000.0	86.59	182.31	6,497.1	-240.5	1,527.2	652.6	11.00	11.00	0.00
7,031.0	90.00	182.31	6,498.0	-271.4	1,526.0	682.0	11.00	11.00	0.00
End of Build - CODELL TARGET									
7,100.0	90.00	182.31	6,498.0	-340.4	1,523.2	747.5	0.00	0.00	0.00
7,120.3	90.00	182.31	6,498.0	-360.6	1,522.4	766.8	0.00	0.00	0.00
T1 620'FNL & 1700'FWL									
7,131.2	90.00	182.31	6,498.0	-371.6	1,521.9	777.1	0.00	0.00	0.00
7"									
7,134.3	90.00	182.28	6,498.0	-374.6	1,521.8	780.1	0.99	0.00	-0.99
7,200.0	90.00	182.28	6,498.0	-440.3	1,519.2	842.5	0.00	0.00	0.00
7,300.0	90.00	182.28	6,498.0	-540.2	1,515.2	937.4	0.00	0.00	0.00
7,400.0	90.00	182.28	6,498.0	-640.1	1,511.2	1,032.3	0.00	0.00	0.00
7,500.0	90.00	182.28	6,498.0	-740.1	1,507.2	1,127.3	0.00	0.00	0.00
7,600.0	90.00	182.28	6,498.0	-840.0	1,503.2	1,222.2	0.00	0.00	0.00
7,700.0	90.00	182.28	6,498.0	-939.9	1,499.3	1,317.2	0.00	0.00	0.00
7,800.0	90.00	182.28	6,498.0	-1,039.8	1,495.3	1,412.1	0.00	0.00	0.00
7,900.0	90.00	182.28	6,498.0	-1,139.7	1,491.3	1,507.0	0.00	0.00	0.00
8,000.0	90.00	182.28	6,498.0	-1,239.7	1,487.3	1,602.0	0.00	0.00	0.00
8,100.0	90.00	182.28	6,498.0	-1,339.6	1,483.3	1,696.9	0.00	0.00	0.00
8,200.0	90.00	182.28	6,498.0	-1,439.5	1,479.3	1,791.9	0.00	0.00	0.00
8,300.0	90.00	182.28	6,498.0	-1,539.4	1,475.4	1,886.8	0.00	0.00	0.00
8,400.0	90.00	182.28	6,498.0	-1,639.4	1,471.4	1,981.7	0.00	0.00	0.00
8,500.0	90.00	182.28	6,498.0	-1,739.3	1,467.4	2,076.7	0.00	0.00	0.00
8,600.0	90.00	182.28	6,498.0	-1,839.2	1,463.4	2,171.6	0.00	0.00	0.00
8,700.0	90.00	182.28	6,498.0	-1,939.1	1,459.4	2,266.6	0.00	0.00	0.00
8,800.0	90.00	182.28	6,498.0	-2,039.0	1,455.4	2,361.5	0.00	0.00	0.00
8,900.0	90.00	182.28	6,498.0	-2,139.0	1,451.4	2,456.4	0.00	0.00	0.00
9,000.0	90.00	182.28	6,498.0	-2,238.9	1,447.5	2,551.4	0.00	0.00	0.00
9,100.0	90.00	182.28	6,498.0	-2,338.8	1,443.5	2,646.3	0.00	0.00	0.00
9,200.0	90.00	182.28	6,498.0	-2,438.7	1,439.5	2,741.3	0.00	0.00	0.00
9,300.0	90.00	182.28	6,498.0	-2,538.6	1,435.5	2,836.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Project:	SEC.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	North Reference:	True
Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (1-8-13)		

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)	
9,400.0	90.00	182.28	6,498.0	-2,638.6	1,431.5	2,931.2	0.00	0.00	0.00	
9,500.0	90.00	182.28	6,498.0	-2,738.5	1,427.5	3,026.1	0.00	0.00	0.00	
9,600.0	90.00	182.28	6,498.0	-2,838.4	1,423.6	3,121.0	0.00	0.00	0.00	
9,700.0	90.00	182.28	6,498.0	-2,938.3	1,419.6	3,216.0	0.00	0.00	0.00	
9,800.0	90.00	182.28	6,498.0	-3,038.2	1,415.6	3,310.9	0.00	0.00	0.00	
9,900.0	90.00	182.28	6,498.0	-3,138.2	1,411.6	3,405.9	0.00	0.00	0.00	
10,000.0	90.00	182.28	6,498.0	-3,238.1	1,407.6	3,500.8	0.00	0.00	0.00	
10,100.0	90.00	182.28	6,498.0	-3,338.0	1,403.6	3,595.7	0.00	0.00	0.00	
10,200.0	90.00	182.28	6,498.0	-3,437.9	1,399.6	3,690.7	0.00	0.00	0.00	
10,300.0	90.00	182.28	6,498.0	-3,537.8	1,395.7	3,785.6	0.00	0.00	0.00	
10,400.0	90.00	182.28	6,498.0	-3,637.8	1,391.7	3,880.6	0.00	0.00	0.00	
10,500.0	90.00	182.28	6,498.0	-3,737.7	1,387.7	3,975.5	0.00	0.00	0.00	
10,600.0	90.00	182.28	6,498.0	-3,837.6	1,383.7	4,070.4	0.00	0.00	0.00	
10,700.0	90.00	182.28	6,498.0	-3,937.5	1,379.7	4,165.4	0.00	0.00	0.00	
10,800.0	90.00	182.28	6,498.0	-4,037.4	1,375.7	4,260.3	0.00	0.00	0.00	
10,900.0	90.00	182.28	6,498.0	-4,137.4	1,371.8	4,355.3	0.00	0.00	0.00	
11,000.0	90.00	182.28	6,498.0	-4,237.3	1,367.8	4,450.2	0.00	0.00	0.00	
11,100.0	90.00	182.28	6,498.0	-4,337.2	1,363.8	4,545.1	0.00	0.00	0.00	
11,200.0	90.00	182.28	6,498.0	-4,437.1	1,359.8	4,640.1	0.00	0.00	0.00	
11,300.0	90.00	182.28	6,498.0	-4,537.0	1,355.8	4,735.0	0.00	0.00	0.00	
11,400.0	90.00	182.28	6,498.0	-4,637.0	1,351.8	4,830.0	0.00	0.00	0.00	
11,462.6	90.00	182.28	6,498.0	-4,699.5	1,349.3	4,889.4	0.00	0.00	0.00	
BHL 470'FSL & 1600'FWL										

Targets										
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
T1 620'FNL & 1700'FV	- plan misses target center by 0.4ft at 7120.3ft MD (6498.0 TVD, -360.6 N, 1522.4 E)	0.00	0.00	6,498.0	-360.6	1,521.9	1,370,998.00	3,293,713.96	40.347000	-104.446210
	- Point									
BHL 470'FSL & 1600'FV	- plan hits target center	0.00	0.00	6,498.0	-4,699.5	1,349.3	1,366,657.53	3,293,592.69	40.335090	-104.446830
	- Point									

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
7,131.2	6,498.0	7"	7	7-1/2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,031.0	6,498.0	CODELL TARGET		0.00		

Database:	Landmark	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Project:	SEC.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	North Reference:	True
Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (1-8-13)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP #1
6,212.8	5,977.1	249.0	1,547.0	KOP #2
7,031.0	6,498.0	-271.4	1,526.0	End of Build



BONANZA CREEK ENERGY OPERATING

SEC.4-T4N-R63W

Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W

Wetco Farms F-J-4HC

Wellbore #1

Plan #2 (1-8-13)

Anticollision Report

08 January, 2013

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Project:	SEC.4-T4N-R63W	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Reference Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (1-8-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 6406-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1,500.0	1,465.2	1,466.2	1,466.2	6.1	29.3	53.09	-338.8	677.3	563.7	529.6	34.10	16.531		
1,600.0	1,560.2	1,561.2	1,561.2	6.7	31.2	55.63	-338.8	677.3	544.9	508.2	36.68	14.854		
1,700.0	1,655.2	1,656.2	1,656.2	7.4	33.1	58.33	-338.8	677.3	527.2	487.9	39.30	13.414		
1,800.0	1,750.2	1,751.2	1,751.2	8.1	35.0	61.20	-338.8	677.3	510.8	468.9	41.96	12.175		
1,900.0	1,845.2	1,846.2	1,846.2	8.7	36.9	64.24	-338.8	677.3	495.9	451.3	44.65	11.107		
2,000.0	1,940.2	1,941.2	1,941.2	9.4	38.8	67.44	-338.8	677.3	482.6	435.2	47.36	10.189		
2,100.0	2,035.2	2,036.2	2,036.2	10.0	40.7	70.80	-338.8	677.3	470.9	420.8	50.09	9.401		
2,200.0	2,130.2	2,131.2	2,131.2	10.7	42.6	74.30	-338.8	677.3	461.1	408.3	52.82	8.729		
2,300.0	2,225.1	2,226.1	2,226.1	11.3	44.5	77.92	-338.8	677.3	453.2	397.7	55.55	8.159		
2,400.0	2,320.1	2,321.1	2,321.1	12.0	46.4	81.65	-338.8	677.3	447.4	389.1	58.25	7.680		
2,500.0	2,415.1	2,416.1	2,416.1	12.7	48.3	85.45	-338.8	677.3	443.7	382.8	60.92	7.284		
2,600.0	2,510.1	2,511.1	2,511.1	13.3	50.2	89.28	-338.8	677.3	442.2	378.6	63.53	6.960		
2,618.6	2,527.8	2,528.8	2,528.8	13.4	50.6	90.00	-338.8	677.3	442.1	378.1	64.01	6.907 CC		
2,700.0	2,605.1	2,606.1	2,606.1	14.0	52.1	93.13	-338.8	677.3	442.9	376.8	66.08	6.702 ES		
2,800.0	2,700.1	2,701.1	2,701.1	14.6	54.0	96.95	-338.8	677.3	445.8	377.2	68.56	6.501		
2,900.0	2,795.1	2,796.1	2,796.1	15.3	55.9	100.70	-338.8	677.3	450.8	379.8	70.97	6.352		
3,000.0	2,890.1	2,891.1	2,891.1	16.0	57.8	104.37	-338.8	677.3	457.9	384.6	73.30	6.248		
3,100.0	2,985.1	2,986.1	2,986.1	16.6	59.7	107.92	-338.8	677.3	467.0	391.5	75.55	6.182		
3,200.0	3,080.0	3,081.0	3,081.0	17.3	61.6	111.33	-338.8	677.3	478.0	400.3	77.73	6.150		
3,300.0	3,175.0	3,176.0	3,176.0	17.9	63.5	114.59	-338.8	677.3	490.8	410.9	79.85	6.146		
3,400.0	3,270.0	3,271.0	3,271.0	18.6	65.4	117.69	-338.8	677.3	505.1	423.2	81.91	6.167		
3,500.0	3,365.0	3,366.0	3,366.0	19.3	67.3	120.62	-338.8	677.3	521.0	437.0	83.92	6.208		
3,600.0	3,460.0	3,461.0	3,461.0	19.9	69.2	123.39	-338.8	677.3	538.1	452.2	85.90	6.265		
3,700.0	3,555.0	3,556.0	3,556.0	20.6	71.1	125.99	-338.8	677.3	556.6	468.7	87.84	6.336		
3,800.0	3,650.0	3,651.0	3,651.0	21.2	73.0	128.43	-338.8	677.3	576.1	486.3	89.76	6.418		
3,900.0	3,745.0	3,746.0	3,746.0	21.9	74.9	130.71	-338.8	677.3	596.6	504.9	91.66	6.509		
4,000.0	3,840.0	3,841.0	3,841.0	22.6	76.8	132.85	-338.8	677.3	618.0	524.5	93.56	6.606		
4,100.0	3,934.9	3,935.9	3,935.9	23.2	78.7	134.85	-338.8	677.3	640.2	544.8	95.44	6.708		
4,200.0	4,029.9	4,030.9	4,030.9	23.9	80.6	136.72	-338.8	677.3	663.2	565.9	97.32	6.815		
4,300.0	4,124.9	4,125.9	4,125.9	24.6	82.5	138.47	-338.8	677.3	686.8	587.6	99.20	6.923		
4,400.0	4,219.9	4,220.9	4,220.9	25.2	84.4	140.11	-338.8	677.3	711.0	609.9	101.09	7.034		
4,500.0	4,314.9	4,315.9	4,315.9	25.9	86.3	141.64	-338.8	677.3	735.8	632.8	102.97	7.145		
4,600.0	4,409.9	4,410.9	4,410.9	26.5	88.2	143.07	-338.8	677.3	761.0	656.1	104.86	7.257		
4,700.0	4,504.9	4,505.9	4,505.9	27.2	90.1	144.42	-338.8	677.3	786.6	679.9	106.76	7.368		
4,800.0	4,599.9	4,600.9	4,600.9	27.9	92.0	145.68	-338.8	677.3	812.7	704.0	108.67	7.479		
4,900.0	4,694.9	4,695.9	4,695.9	28.5	93.9	146.87	-338.8	677.3	839.1	728.5	110.58	7.588		
5,000.0	4,789.8	4,790.8	4,790.8	29.2	95.8	147.98	-338.8	677.3	865.8	753.3	112.50	7.696		
5,100.0	4,884.8	4,885.8	4,885.8	29.9	97.7	149.03	-338.8	677.3	892.8	778.4	114.42	7.803		
5,204.9	4,984.5	4,985.5	4,985.5	30.6	99.7	150.07	-338.8	677.3	921.5	805.0	116.45	7.913		
5,300.0	5,075.3	5,076.3	5,076.3	31.1	101.5	151.16	-338.8	677.3	946.3	827.4	118.94	7.956		
5,400.0	5,171.7	5,172.7	5,172.7	31.5	103.5	152.14	-338.8	677.3	969.7	848.2	121.52	7.980		
5,500.0	5,269.0	5,270.0	5,270.0	31.9	105.4	152.95	-338.8	677.3	990.3	866.2	124.08	7.981		
6,550.0	6,291.2	6,292.2	6,292.2	33.3	125.8	63.99	-338.8	677.3	990.8	852.7	138.09	7.175		
6,600.0	6,329.6	6,330.6	6,330.6	33.3	126.6	67.10	-338.8	677.3	974.5	836.1	138.40	7.041		
6,650.0	6,364.8	6,365.8	6,365.8	33.2	127.3	70.44	-338.8	677.3	957.3	818.0	139.34	6.870		
6,700.0	6,396.3	6,397.3	6,397.3	33.2	127.9	73.91	-338.8	677.3	939.7	798.9	140.80	6.674		
6,750.0	6,424.0	6,406.0	6,406.0	33.2	128.1	76.31	-338.8	677.3	922.5	780.9	141.65	6.513		
6,800.0	6,447.6	6,406.0	6,406.0	33.2	128.1	78.11	-338.8	677.3	906.6	764.3	142.25	6.373		
6,850.0	6,466.9	6,406.0	6,406.0	33.2	128.1	79.73	-338.8	677.3	892.2	749.3	142.88	6.244		
6,900.0	6,481.6	6,406.0	6,406.0	33.2	128.1	81.14	-338.8	677.3	879.6	736.1	143.50	6.130		
6,950.0	6,491.7	6,406.0	6,406.0	33.2	128.1	82.33	-338.8	677.3	869.0	724.9	144.06	6.032		
7,000.0	6,497.1	6,406.0	6,406.0	33.3	128.1	83.27	-338.8	677.3	860.5	715.9	144.57	5.952		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Project:	SEC.4-T4N-R63W	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Reference Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (1-8-13)	Offset TVD Reference:	Offset Datum

Offset Design Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W - Wetco Farms 11-4 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 6406-UNKNOWN												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
7,031.0	6,498.0	6,406.0	6,406.0	33.3	128.1	83.72	-338.8	677.3	856.4	711.5	144.85	5.912	
7,100.0	6,498.0	6,406.0	6,406.0	33.4	128.1	83.72	-338.8	677.3	850.9	705.7	145.22	5.860	
7,131.2	6,498.0	6,406.0	6,406.0	33.5	128.1	83.72	-338.8	677.3	850.3	704.9	145.41	5.848	
7,132.4	6,498.0	6,406.0	6,406.0	33.5	128.1	83.72	-338.8	677.3	850.3	704.9	145.42	5.847	
7,134.3	6,498.0	6,406.0	6,406.0	33.5	128.1	83.72	-338.8	677.3	850.3	704.9	145.44	5.847 SF	
7,200.0	6,498.0	6,406.0	6,406.0	33.7	128.1	83.72	-338.8	677.3	853.0	707.2	145.84	5.849	
7,300.0	6,498.0	6,406.0	6,406.0	34.1	128.1	83.72	-338.8	677.3	866.7	720.0	146.68	5.909	
7,400.0	6,498.0	6,406.0	6,406.0	34.5	128.1	83.72	-338.8	677.3	891.5	743.8	147.67	6.037	
7,500.0	6,498.0	6,406.0	6,406.0	35.1	128.1	83.72	-338.8	677.3	926.5	777.7	148.79	6.227	
7,600.0	6,498.0	6,406.0	6,406.0	35.7	128.1	83.72	-338.8	677.3	970.5	820.5	150.00	6.470	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Project:	SEC.4-T4N-R63W	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Reference Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (1-8-13)	Offset TVD Reference:	Offset Datum

Offset Design Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W - Wetco Farms 13-4 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 6406-UNKNOWN												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis			Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
9,400.0	6,498.0	6,406.0	6,406.0	58.7	128.1	79.15	-3,173.1	621.7	982.1	805.1	176.98	5.549	
9,500.0	6,498.0	6,406.0	6,406.0	60.3	128.1	79.15	-3,173.1	621.7	928.0	749.2	178.77	5.191	
9,600.0	6,498.0	6,406.0	6,406.0	61.9	128.1	79.15	-3,173.1	621.7	882.0	701.4	180.56	4.885	
9,700.0	6,498.0	6,406.0	6,406.0	63.6	128.1	79.15	-3,173.1	621.7	845.3	663.0	182.36	4.636	
9,800.0	6,498.0	6,406.0	6,406.0	65.3	128.1	79.15	-3,173.1	621.7	819.3	635.2	184.16	4.449	
9,900.0	6,498.0	6,406.0	6,406.0	66.9	128.1	79.15	-3,173.1	621.7	805.0	619.0	185.96	4.329	
9,966.4	6,498.0	6,406.0	6,406.0	68.1	128.1	79.15	-3,173.1	621.7	802.3	615.1	187.17	4.286 CC, ES	
10,000.0	6,498.0	6,406.0	6,406.0	68.6	128.1	79.15	-3,173.1	621.7	803.0	615.2	187.78	4.276 SF	
10,100.0	6,498.0	6,406.0	6,406.0	70.4	128.1	79.15	-3,173.1	621.7	813.3	623.7	189.59	4.290	
10,200.0	6,498.0	6,406.0	6,406.0	72.1	128.1	79.15	-3,173.1	621.7	835.6	644.2	191.41	4.365	
10,300.0	6,498.0	6,406.0	6,406.0	73.8	128.1	79.15	-3,173.1	621.7	868.8	675.6	193.23	4.496	
10,400.0	6,498.0	6,406.0	6,406.0	75.5	128.1	79.15	-3,173.1	621.7	911.9	716.9	195.06	4.675	
10,500.0	6,498.0	6,406.0	6,406.0	77.3	128.1	79.15	-3,173.1	621.7	963.5	766.6	196.88	4.894	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Project:	SEC.4-T4N-R63W	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Reference Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (1-8-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 6406-UNKNOWN												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
3,600.0	3,460.0	3,459.0	3,459.0	19.9	69.2	35.70	-269.5	1,795.1	978.0	897.0	81.01	12.073	
3,700.0	3,555.0	3,554.0	3,554.0	20.6	71.1	36.78	-269.5	1,795.1	952.4	868.8	83.55	11.398	
3,800.0	3,650.0	3,649.0	3,649.0	21.2	73.0	37.91	-269.5	1,795.1	927.0	840.9	86.13	10.763	
3,900.0	3,745.0	3,744.0	3,744.0	21.9	74.9	39.11	-269.5	1,795.1	902.1	813.4	88.74	10.165	
4,000.0	3,840.0	3,839.0	3,839.0	22.6	76.8	40.37	-269.5	1,795.1	877.6	786.2	91.39	9.602	
4,100.0	3,934.9	3,933.9	3,933.9	23.2	78.7	41.70	-269.5	1,795.1	853.5	759.4	94.07	9.072	
4,200.0	4,029.9	4,028.9	4,028.9	23.9	80.6	43.10	-269.5	1,795.1	829.9	733.1	96.80	8.573	
4,300.0	4,124.9	4,123.9	4,123.9	24.6	82.5	44.58	-269.5	1,795.1	806.8	707.2	99.56	8.103	
4,400.0	4,219.9	4,218.9	4,218.9	25.2	84.4	46.15	-269.5	1,795.1	784.2	681.9	102.36	7.661	
4,500.0	4,314.9	4,313.9	4,313.9	25.9	86.3	47.79	-269.5	1,795.1	762.3	657.1	105.21	7.246	
4,600.0	4,409.9	4,408.9	4,408.9	26.5	88.2	49.53	-269.5	1,795.1	741.1	633.0	108.09	6.856	
4,700.0	4,504.9	4,503.9	4,503.9	27.2	90.1	51.37	-269.5	1,795.1	720.6	609.5	111.02	6.490	
4,800.0	4,599.9	4,598.9	4,598.9	27.9	92.0	53.30	-269.5	1,795.1	700.9	586.9	113.99	6.148	
4,900.0	4,694.9	4,693.9	4,693.9	28.5	93.9	55.33	-269.5	1,795.1	682.0	565.0	117.00	5.829	
5,000.0	4,789.8	4,788.8	4,788.8	29.2	95.8	57.47	-269.5	1,795.1	664.1	544.0	120.04	5.532	
5,100.0	4,884.8	4,883.8	4,883.8	29.9	97.7	59.72	-269.5	1,795.1	647.2	524.1	123.11	5.257	
5,204.9	4,984.5	4,983.5	4,983.5	30.6	99.7	62.20	-269.5	1,795.1	630.6	504.3	126.35	4.991	
5,300.0	5,075.3	5,074.3	5,074.3	31.1	101.5	64.19	-269.5	1,795.1	617.4	488.1	129.33	4.774	
5,400.0	5,171.7	5,170.7	5,170.7	31.5	103.4	66.16	-269.5	1,795.1	606.0	473.7	132.27	4.582	
5,500.0	5,269.0	5,268.0	5,268.0	31.9	105.4	67.96	-269.5	1,795.1	596.8	461.7	135.07	4.419	
5,600.0	5,367.1	5,366.1	5,366.1	32.3	107.3	69.56	-269.5	1,795.1	589.6	451.8	137.73	4.281	
5,700.0	5,465.8	5,464.8	5,464.8	32.6	109.3	70.93	-269.5	1,795.1	584.0	443.8	140.28	4.164	
5,800.0	5,564.9	5,563.9	5,563.9	32.8	111.3	72.03	-269.5	1,795.1	580.0	437.3	142.71	4.064	
5,900.0	5,664.5	5,663.5	5,663.5	33.0	113.3	72.85	-269.5	1,795.1	577.2	432.1	145.03	3.980	
6,000.0	5,764.3	5,763.3	5,763.3	33.1	115.3	73.37	-269.5	1,795.1	575.5	428.2	147.26	3.908	
6,100.0	5,864.3	5,863.3	5,863.3	33.2	117.3	73.57	-269.5	1,795.1	574.8	425.4	149.39	3.848	
6,115.7	5,880.0	5,879.0	5,879.0	33.2	117.6	154.43	-269.5	1,795.1	574.8	425.4	149.40	3.848	
6,200.0	5,964.3	5,963.3	5,963.3	33.3	119.3	154.43	-269.5	1,795.1	574.8	423.7	151.15	3.803	
6,212.8	5,977.1	5,976.1	5,976.1	33.3	119.5	154.43	-269.5	1,795.1	574.8	423.4	151.42	3.796	
6,250.0	6,014.3	6,013.3	6,013.3	33.3	120.3	-28.00	-269.5	1,795.1	573.6	421.4	152.21	3.769	
6,300.0	6,063.9	6,062.9	6,062.9	33.4	121.3	-28.56	-269.5	1,795.1	568.4	416.6	151.81	3.744	
6,350.0	6,112.7	6,111.7	6,111.7	33.4	122.2	-29.60	-269.5	1,795.1	559.0	408.7	150.27	3.720	
6,400.0	6,160.3	6,159.3	6,159.3	33.4	123.2	-31.16	-269.5	1,795.1	545.6	397.9	147.74	3.693	
6,450.0	6,206.2	6,205.2	6,205.2	33.4	124.1	-33.34	-269.5	1,795.1	528.5	384.0	144.46	3.658	
6,500.0	6,250.0	6,249.0	6,249.0	33.3	125.0	-36.22	-269.5	1,795.1	507.9	367.1	140.83	3.606	
6,550.0	6,291.2	6,290.2	6,290.2	33.3	125.8	-39.92	-269.5	1,795.1	484.2	346.8	137.43	3.523	
6,600.0	6,329.6	6,328.6	6,328.6	33.3	126.6	-44.57	-269.5	1,795.1	457.9	322.9	134.99	3.392	
6,650.0	6,364.8	6,363.8	6,363.8	33.2	127.3	-50.21	-269.5	1,795.1	429.6	295.4	134.27	3.200	
6,700.0	6,396.3	6,395.3	6,395.3	33.2	127.9	-56.80	-269.5	1,795.1	400.1	264.5	135.61	2.951	
6,750.0	6,424.0	6,406.0	6,406.0	33.2	128.1	-61.58	-269.5	1,795.1	370.8	234.1	136.70	2.712	
6,800.0	6,447.6	6,406.0	6,406.0	33.2	128.1	-64.69	-269.5	1,795.1	344.0	206.7	137.31	2.505	
6,850.0	6,466.9	6,406.0	6,406.0	33.2	128.1	-67.32	-269.5	1,795.1	320.8	182.7	138.18	2.322	
6,900.0	6,481.6	6,406.0	6,406.0	33.2	128.1	-69.34	-269.5	1,795.1	302.5	163.4	139.08	2.175	
6,950.0	6,491.7	6,406.0	6,406.0	33.2	128.1	-70.69	-269.5	1,795.1	289.9	150.1	139.85	2.073	
7,000.0	6,497.1	6,406.0	6,406.0	33.3	128.1	-71.30	-269.5	1,795.1	284.1	143.7	140.39	2.024	
7,015.5	6,497.8	6,406.0	6,406.0	33.3	128.1	-71.33	-269.5	1,795.1	283.7	143.2	140.51	2.019 CC, ES, SF	
7,031.0	6,498.0	6,406.0	6,406.0	33.3	128.1	-71.30	-269.5	1,795.1	284.1	143.5	140.60	2.021	
7,100.0	6,498.0	6,406.0	6,406.0	33.4	128.1	-71.30	-269.5	1,795.1	295.3	154.3	141.03	2.094	
7,131.2	6,498.0	6,406.0	6,406.0	33.5	128.1	-71.30	-269.5	1,795.1	305.5	164.2	141.25	2.163	
7,134.3	6,498.0	6,406.0	6,406.0	33.5	128.1	-71.30	-269.5	1,795.1	306.6	165.3	141.28	2.170	
7,200.0	6,498.0	6,406.0	6,406.0	33.7	128.1	-71.30	-269.5	1,795.1	337.0	195.3	141.73	2.378	
7,300.0	6,498.0	6,406.0	6,406.0	34.1	128.1	-71.30	-269.5	1,795.1	399.9	257.3	142.61	2.804	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Project:	SEC.4-T4N-R63W	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Reference Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (1-8-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W - Wetco Farms 21-4 (Exist.) - Wellbore #1 - Wellbore #1												Offset Well Error:	0.0 ft
Survey Program: 6406-UNKNOWN													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,400.0	6,498.0	6,406.0	6,406.0	34.5	128.1	-71.30	-269.5	1,795.1	475.6	332.0	143.60	3.312	
7,500.0	6,498.0	6,406.0	6,406.0	35.1	128.1	-71.30	-269.5	1,795.1	559.1	414.4	144.69	3.864	
7,600.0	6,498.0	6,406.0	6,406.0	35.7	128.1	-71.30	-269.5	1,795.1	647.2	501.3	145.87	4.437	
7,700.0	6,498.0	6,406.0	6,406.0	36.5	128.1	-71.30	-269.5	1,795.1	738.4	591.2	147.13	5.019	
7,800.0	6,498.0	6,406.0	6,406.0	37.3	128.1	-71.30	-269.5	1,795.1	831.6	683.1	148.45	5.602	
7,900.0	6,498.0	6,406.0	6,406.0	38.2	128.1	-71.30	-269.5	1,795.1	926.2	776.4	149.82	6.182	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Project:	SEC.4-T4N-R63W	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Reference Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (1-8-13)	Offset TVD Reference:	Offset Datum

Offset Design Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W - Wetco Farms 22-4 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 6406-UNKNOWN												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
7,700.0	6,498.0	6,406.0	6,406.0	36.5	128.1	-69.66	-1,810.6	1,753.4	913.3	767.4	145.88	6.260	
7,800.0	6,498.0	6,406.0	6,406.0	37.3	128.1	-69.66	-1,810.6	1,753.4	819.8	672.6	147.19	5.570	
7,900.0	6,498.0	6,406.0	6,406.0	38.2	128.1	-69.66	-1,810.6	1,753.4	728.1	579.5	148.56	4.901	
8,000.0	6,498.0	6,406.0	6,406.0	39.2	128.1	-69.66	-1,810.6	1,753.4	638.9	488.9	149.97	4.260	
8,100.0	6,498.0	6,406.0	6,406.0	40.3	128.1	-69.66	-1,810.6	1,753.4	553.3	401.9	151.42	3.654	
8,200.0	6,498.0	6,406.0	6,406.0	41.4	128.1	-69.66	-1,810.6	1,753.4	473.5	320.6	152.91	3.097	
8,300.0	6,498.0	6,406.0	6,406.0	42.6	128.1	-69.66	-1,810.6	1,753.4	402.8	248.4	154.43	2.608	
8,400.0	6,498.0	6,406.0	6,406.0	43.9	128.1	-69.66	-1,810.6	1,753.4	346.8	190.9	155.97	2.224	
8,500.0	6,498.0	6,406.0	6,406.0	45.2	128.1	-69.66	-1,810.6	1,753.4	313.6	156.0	157.54	1.990	
8,559.8	6,498.0	6,406.0	6,406.0	46.0	128.1	-69.66	-1,810.6	1,753.4	307.8	149.3	158.49	1.942 CC, ES, SF	
8,600.0	6,498.0	6,406.0	6,406.0	46.6	128.1	-69.66	-1,810.6	1,753.4	310.4	151.3	159.13	1.951	
8,700.0	6,498.0	6,406.0	6,406.0	48.0	128.1	-69.66	-1,810.6	1,753.4	338.2	177.5	160.74	2.104	
8,800.0	6,498.0	6,406.0	6,406.0	49.4	128.1	-69.66	-1,810.6	1,753.4	390.4	228.1	162.36	2.405	
8,900.0	6,498.0	6,406.0	6,406.0	50.9	128.1	-69.66	-1,810.6	1,753.4	458.8	294.8	164.00	2.797	
9,000.0	6,498.0	6,406.0	6,406.0	52.4	128.1	-69.66	-1,810.6	1,753.4	537.1	371.5	165.65	3.242	
9,100.0	6,498.0	6,406.0	6,406.0	53.9	128.1	-69.66	-1,810.6	1,753.4	621.7	454.4	167.32	3.716	
9,200.0	6,498.0	6,406.0	6,406.0	55.5	128.1	-69.66	-1,810.6	1,753.4	710.3	541.3	168.99	4.203	
9,300.0	6,498.0	6,406.0	6,406.0	57.1	128.1	-69.66	-1,810.6	1,753.4	801.6	630.9	170.67	4.697	
9,400.0	6,498.0	6,406.0	6,406.0	58.7	128.1	-69.66	-1,810.6	1,753.4	894.8	722.4	172.36	5.191	
9,500.0	6,498.0	6,406.0	6,406.0	60.3	128.1	-69.66	-1,810.6	1,753.4	989.3	815.2	174.06	5.683	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Project:	SEC.4-T4N-R63W	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Reference Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (1-8-13)	Offset TVD Reference:	Offset Datum

Offset Design Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W - Wetco Farms 24-4 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 6406-UNKNOWN												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,700.0	6,498.0	6,406.0	6,406.0	80.8	128.1	-73.25	-4,703.2	1,901.3	941.2	742.9	198.33	4.745	
10,800.0	6,498.0	6,406.0	6,406.0	82.6	128.1	-73.25	-4,703.2	1,901.3	864.3	664.2	200.12	4.319	
10,900.0	6,498.0	6,406.0	6,406.0	84.3	128.1	-73.25	-4,703.2	1,901.3	792.5	590.6	201.91	3.925	
11,000.0	6,498.0	6,406.0	6,406.0	86.1	128.1	-73.25	-4,703.2	1,901.3	727.5	523.8	203.70	3.571	
11,100.0	6,498.0	6,406.0	6,406.0	87.9	128.1	-73.25	-4,703.2	1,901.3	671.1	465.6	205.50	3.266	
11,200.0	6,498.0	6,406.0	6,406.0	89.7	128.1	-73.25	-4,703.2	1,901.3	625.8	418.5	207.29	3.019	
11,300.0	6,498.0	6,406.0	6,406.0	91.5	128.1	-73.25	-4,703.2	1,901.3	593.9	384.8	209.09	2.841	
11,400.0	6,498.0	6,406.0	6,406.0	93.3	128.1	-73.25	-4,703.2	1,901.3	577.8	366.9	210.89	2.740	
11,444.2	6,498.0	6,406.0	6,406.0	94.1	128.1	-73.25	-4,703.2	1,901.3	576.1	364.5	211.69	2.722 CC	
11,462.6	6,498.0	6,406.0	6,406.0	94.4	128.1	-73.25	-4,703.2	1,901.3	576.4	364.4	212.02	2.719 ES, SF	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Project:	SEC.4-T4N-R63W	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Reference Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (1-8-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4584.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Wetco Farms F-J-4HC
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.68°



Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Wetco Farms F-J-4HC
Project:	SEC.4-T4N-R63W	TVD Reference:	WELL @ 4584.0ft (RKB - 15')
Reference Site:	Wetco Farms F-J-4HC Pad Sec.4-T4N-R63W	MD Reference:	WELL @ 4584.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Wetco Farms F-J-4HC	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (1-8-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4584.0ft (RKB - 15')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Wetco Farms F-J-4HC
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.68°

