

ENSIGN

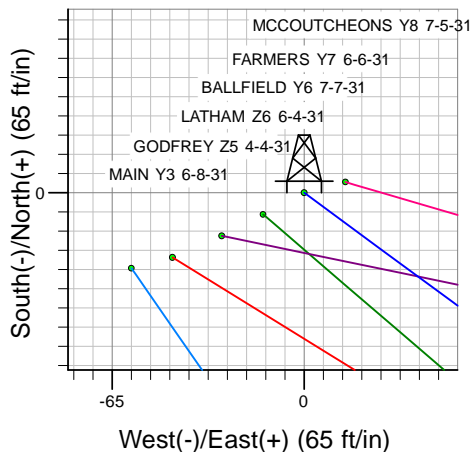
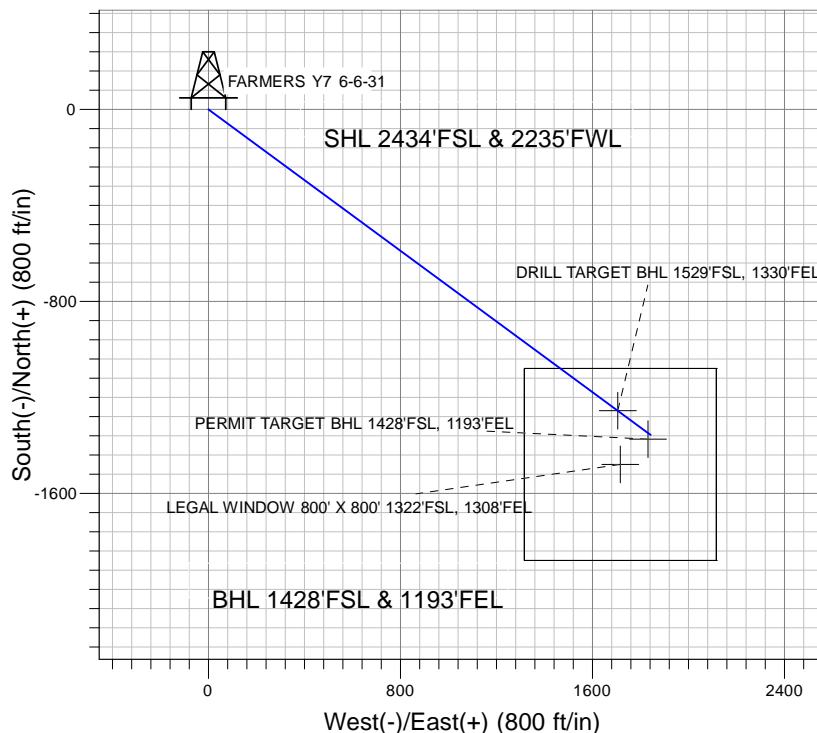
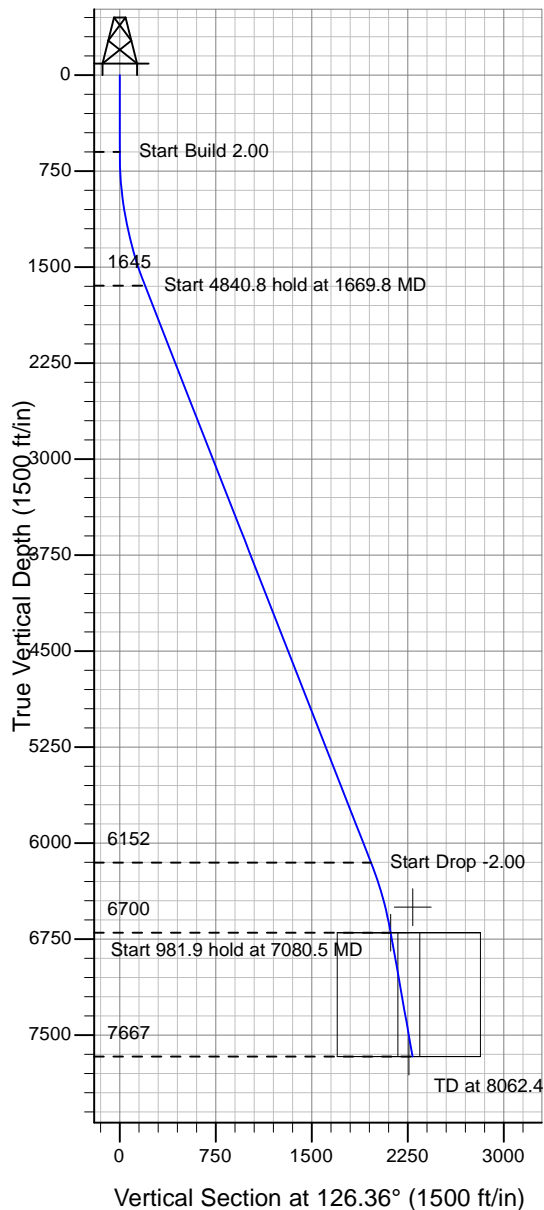
Directional

Well Name: FARMERS Y7 6-6-31

Surface Location: PAD Y SEC.31-T5N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4658.0

+N/-S+E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1373583.42 3220806.24 40° 21' 22.248 N 104° 42' 27.684 W
Original Well Elev WELL @ 4673.0ft (Original Well Elev)

Mineral Resources Inc



PAD Y SEC.31-T5N-R65W
FARMERS Y7 6-6-31
Plan #4 (3-29-10)
16:00, April 05 2010



Azimuths to True North
Magnetic North: 8.99°
Magnetic Field
Strength: 53242.1snT
Dip Angle: 67.07°
Date: 4/5/2010
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PERMIT TARGET BHL 1428'FSL, 1193'FEL	6500.0	-1373.4	1831.2	40° 21' 8.676 N	104° 42' 4.032 W	Point
DRILL TARGET BHL 1529'FSL, 1330'FEL	6700.0	-1255.3	1705.2	40° 21' 9.843 N	104° 42' 5.659 W	Point
LEGAL WINDOW 800' X 800' 1322'FSL, 1308'FEL	7667.0	-1479.4	1716.2	40° 21' 7.628 N	104° 42' 5.517 W	Rectangle (Sides: L800.0 W800.0)

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	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1669.8	21.40	126.36	1645.1	-117.1	159.0	2.00	126.36	197.5	
4	6510.7	21.40	126.36	6152.3	-1164.0	1581.2	0.00	0.00	1963.5	
5	7080.5	10.00	126.36	6700.0	-1255.3	1705.2	2.00	180.00	2117.4	DRILL TARGET BHL 1529'FSL, 1330'FEL
6	8062.4	10.00	126.36	7667.0	-1356.4	1842.5	0.00	0.00	2287.9	



Mineral Resources Inc

SEC.31-T5N-R65W

PAD Y SEC.31-T5N-R65W

FARMERS Y7 6-6-31

Wellbore #1

Plan: Plan #4 (3-29-10)

Standard Planning Report

05 April, 2010

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Project:	SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site:	PAD Y SEC.31-T5N-R65W	North Reference:	True
Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (3-29-10)		

Project	SEC.31-T5N-R65W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site						PAD Y SEC.31-T5N-R65W							
Site Position:						Northing:		1,373,449.41 ft		Latitude:		40° 21' 20.952 N	
From:			Lat/Long			Easting:		3,220,484.14 ft		Longitude:		104° 42' 31.860 W	
Position Uncertainty:			0.0 ft			Slot Radius:		"		Grid Convergence:		0.51 °	

Well	FARMERS Y7 6-6-31					
Well Position	+N-S	131.1 ft	Northing:	1,373,583.42 ft	Latitude:	40° 21' 22.248 N
	+E-W	323.3 ft	Easting:	3,220,806.24 ft	Longitude:	104° 42' 27.684 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,658.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/29/2008	9.25	67.15	53,487
	IGRF200510	10/7/2008	9.16	67.12	53,416
	IGRF2010	4/5/2010	8.99	67.07	53,242

Design	Plan #4 (3-29-10)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	126.36

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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,669.8	21.40	126.36	1,645.1	-117.1	159.0	2.00	2.00	0.00	126.36	
6,510.7	21.40	126.36	6,152.3	-1,164.0	1,581.2	0.00	0.00	0.00	0.00	
7,080.5	10.00	126.36	6,700.0	-1,255.3	1,705.2	2.00	-2.00	0.00	180.00	DRILL TARGET B-
8,062.4	10.00	126.36	7,667.0	-1,356.4	1,842.5	0.00	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Project:	SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site:	PAD Y SEC.31-T5N-R65W	North Reference:	True
Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (3-29-10)		

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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.80	126.36	640.0	-0.2	0.2	0.3	2.00	2.00	0.00
680.0	1.60	126.36	680.0	-0.7	0.9	1.1	2.00	2.00	0.00
720.0	2.40	126.36	720.0	-1.5	2.0	2.5	2.00	2.00	0.00
760.0	3.20	126.36	759.9	-2.6	3.6	4.5	2.00	2.00	0.00
800.0	4.00	126.36	799.8	-4.1	5.6	7.0	2.00	2.00	0.00
840.0	4.80	126.36	839.7	-6.0	8.1	10.0	2.00	2.00	0.00
880.0	5.60	126.36	879.6	-8.1	11.0	13.7	2.00	2.00	0.00
920.0	6.40	126.36	919.3	-10.6	14.4	17.9	2.00	2.00	0.00
960.0	7.20	126.36	959.1	-13.4	18.2	22.6	2.00	2.00	0.00
1,000.0	8.00	126.36	998.7	-16.5	22.5	27.9	2.00	2.00	0.00
1,040.0	8.80	126.36	1,038.3	-20.0	27.2	33.7	2.00	2.00	0.00
1,080.0	9.60	126.36	1,077.8	-23.8	32.3	40.1	2.00	2.00	0.00
1,120.0	10.40	126.36	1,117.1	-27.9	37.9	47.1	2.00	2.00	0.00
1,160.0	11.20	126.36	1,156.4	-32.3	43.9	54.6	2.00	2.00	0.00
1,200.0	12.00	126.36	1,195.6	-37.1	50.4	62.6	2.00	2.00	0.00
1,240.0	12.80	126.36	1,234.7	-42.2	57.3	71.2	2.00	2.00	0.00
1,280.0	13.60	126.36	1,273.6	-47.6	64.7	80.3	2.00	2.00	0.00
1,320.0	14.40	126.36	1,312.4	-53.4	72.5	90.0	2.00	2.00	0.00
1,360.0	15.20	126.36	1,351.1	-59.4	80.7	100.2	2.00	2.00	0.00
1,400.0	16.00	126.36	1,389.6	-65.8	89.4	111.0	2.00	2.00	0.00
1,440.0	16.80	126.36	1,428.0	-72.5	98.5	122.3	2.00	2.00	0.00
1,480.0	17.60	126.36	1,466.2	-79.5	108.0	134.1	2.00	2.00	0.00
1,520.0	18.40	126.36	1,504.3	-86.8	117.9	146.5	2.00	2.00	0.00
1,560.0	19.20	126.36	1,542.1	-94.5	128.3	159.3	2.00	2.00	0.00
1,600.0	20.00	126.36	1,579.8	-102.4	139.1	172.8	2.00	2.00	0.00
1,640.0	20.80	126.36	1,617.3	-110.7	150.4	186.7	2.00	2.00	0.00
1,669.8	21.40	126.36	1,645.1	-117.1	159.0	197.5	2.00	2.00	0.00
1,680.0	21.40	126.36	1,654.6	-119.3	162.0	201.2	0.00	0.00	0.00
1,720.0	21.40	126.36	1,691.8	-127.9	173.7	215.8	0.00	0.00	0.00
1,760.0	21.40	126.36	1,729.1	-136.6	185.5	230.3	0.00	0.00	0.00
1,800.0	21.40	126.36	1,766.3	-145.2	197.3	244.9	0.00	0.00	0.00
1,840.0	21.40	126.36	1,803.6	-153.9	209.0	259.5	0.00	0.00	0.00
1,880.0	21.40	126.36	1,840.8	-162.5	220.8	274.1	0.00	0.00	0.00
1,920.0	21.40	126.36	1,878.1	-171.2	232.5	288.7	0.00	0.00	0.00
1,960.0	21.40	126.36	1,915.3	-179.8	244.3	303.3	0.00	0.00	0.00
2,000.0	21.40	126.36	1,952.6	-188.5	256.0	317.9	0.00	0.00	0.00
2,040.0	21.40	126.36	1,989.8	-197.1	267.8	332.5	0.00	0.00	0.00
2,080.0	21.40	126.36	2,027.0	-205.8	279.5	347.1	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Project:	SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site:	PAD Y SEC.31-T5N-R65W	North Reference:	True
Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (3-29-10)		

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)
2,120.0	21.40	126.36	2,064.3	-214.4	291.3	361.7	0.00	0.00	0.00
2,160.0	21.40	126.36	2,101.5	-223.1	303.0	376.3	0.00	0.00	0.00
2,200.0	21.40	126.36	2,138.8	-231.7	314.8	390.9	0.00	0.00	0.00
2,240.0	21.40	126.36	2,176.0	-240.4	326.5	405.5	0.00	0.00	0.00
2,280.0	21.40	126.36	2,213.3	-249.0	338.3	420.1	0.00	0.00	0.00
2,320.0	21.40	126.36	2,250.5	-257.7	350.0	434.6	0.00	0.00	0.00
2,360.0	21.40	126.36	2,287.7	-266.3	361.8	449.2	0.00	0.00	0.00
2,400.0	21.40	126.36	2,325.0	-275.0	373.5	463.8	0.00	0.00	0.00
2,440.0	21.40	126.36	2,362.2	-283.6	385.3	478.4	0.00	0.00	0.00
2,480.0	21.40	126.36	2,399.5	-292.3	397.0	493.0	0.00	0.00	0.00
2,520.0	21.40	126.36	2,436.7	-300.9	408.8	507.6	0.00	0.00	0.00
2,560.0	21.40	126.36	2,474.0	-309.6	420.5	522.2	0.00	0.00	0.00
2,600.0	21.40	126.36	2,511.2	-318.2	432.3	536.8	0.00	0.00	0.00
2,640.0	21.40	126.36	2,548.4	-326.9	444.0	551.4	0.00	0.00	0.00
2,680.0	21.40	126.36	2,585.7	-335.5	455.8	566.0	0.00	0.00	0.00
2,720.0	21.40	126.36	2,622.9	-344.2	467.5	580.6	0.00	0.00	0.00
2,760.0	21.40	126.36	2,660.2	-352.8	479.3	595.2	0.00	0.00	0.00
2,800.0	21.40	126.36	2,697.4	-361.5	491.1	609.8	0.00	0.00	0.00
2,840.0	21.40	126.36	2,734.7	-370.1	502.8	624.4	0.00	0.00	0.00
2,880.0	21.40	126.36	2,771.9	-378.8	514.6	638.9	0.00	0.00	0.00
2,920.0	21.40	126.36	2,809.1	-387.4	526.3	653.5	0.00	0.00	0.00
2,960.0	21.40	126.36	2,846.4	-396.1	538.1	668.1	0.00	0.00	0.00
3,000.0	21.40	126.36	2,883.6	-404.7	549.8	682.7	0.00	0.00	0.00
3,040.0	21.40	126.36	2,920.9	-413.4	561.6	697.3	0.00	0.00	0.00
3,080.0	21.40	126.36	2,958.1	-422.1	573.3	711.9	0.00	0.00	0.00
3,120.0	21.40	126.36	2,995.4	-430.7	585.1	726.5	0.00	0.00	0.00
3,160.0	21.40	126.36	3,032.6	-439.4	596.8	741.1	0.00	0.00	0.00
3,200.0	21.40	126.36	3,069.8	-448.0	608.6	755.7	0.00	0.00	0.00
3,240.0	21.40	126.36	3,107.1	-456.7	620.3	770.3	0.00	0.00	0.00
3,280.0	21.40	126.36	3,144.3	-465.3	632.1	784.9	0.00	0.00	0.00
3,320.0	21.40	126.36	3,181.6	-474.0	643.8	799.5	0.00	0.00	0.00
3,360.0	21.40	126.36	3,218.8	-482.6	655.6	814.1	0.00	0.00	0.00
3,400.0	21.40	126.36	3,256.1	-491.3	667.3	828.7	0.00	0.00	0.00
3,440.0	21.40	126.36	3,293.3	-499.9	679.1	843.2	0.00	0.00	0.00
3,480.0	21.40	126.36	3,330.5	-508.6	690.8	857.8	0.00	0.00	0.00
3,520.0	21.40	126.36	3,367.8	-517.2	702.6	872.4	0.00	0.00	0.00
3,560.0	21.40	126.36	3,405.0	-525.9	714.3	887.0	0.00	0.00	0.00
3,600.0	21.40	126.36	3,442.3	-534.5	726.1	901.6	0.00	0.00	0.00
3,640.0	21.40	126.36	3,479.5	-543.2	737.8	916.2	0.00	0.00	0.00
3,680.0	21.40	126.36	3,516.8	-551.8	749.6	930.8	0.00	0.00	0.00
3,720.0	21.40	126.36	3,554.0	-560.5	761.3	945.4	0.00	0.00	0.00
3,760.0	21.40	126.36	3,591.2	-569.1	773.1	960.0	0.00	0.00	0.00
3,800.0	21.40	126.36	3,628.5	-577.8	784.9	974.6	0.00	0.00	0.00
3,840.0	21.40	126.36	3,665.7	-586.4	796.6	989.2	0.00	0.00	0.00
3,880.0	21.40	126.36	3,703.0	-595.1	808.4	1,003.8	0.00	0.00	0.00
3,920.0	21.40	126.36	3,740.2	-603.7	820.1	1,018.4	0.00	0.00	0.00
3,960.0	21.40	126.36	3,777.5	-612.4	831.9	1,033.0	0.00	0.00	0.00
4,000.0	21.40	126.36	3,814.7	-621.0	843.6	1,047.5	0.00	0.00	0.00
4,040.0	21.40	126.36	3,851.9	-629.7	855.4	1,062.1	0.00	0.00	0.00
4,080.0	21.40	126.36	3,889.2	-638.3	867.1	1,076.7	0.00	0.00	0.00
4,120.0	21.40	126.36	3,926.4	-647.0	878.9	1,091.3	0.00	0.00	0.00
4,160.0	21.40	126.36	3,963.7	-655.6	890.6	1,105.9	0.00	0.00	0.00
4,200.0	21.40	126.36	4,000.9	-664.3	902.4	1,120.5	0.00	0.00	0.00
4,240.0	21.40	126.36	4,038.2	-672.9	914.1	1,135.1	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Project:	SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site:	PAD Y SEC.31-T5N-R65W	North Reference:	True
Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (3-29-10)		

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)
4,280.0	21.40	126.36	4,075.4	-681.6	925.9	1,149.7	0.00	0.00	0.00
4,320.0	21.40	126.36	4,112.6	-690.2	937.6	1,164.3	0.00	0.00	0.00
4,360.0	21.40	126.36	4,149.9	-698.9	949.4	1,178.9	0.00	0.00	0.00
4,400.0	21.40	126.36	4,187.1	-707.5	961.1	1,193.5	0.00	0.00	0.00
4,440.0	21.40	126.36	4,224.4	-716.2	972.9	1,208.1	0.00	0.00	0.00
4,480.0	21.40	126.36	4,261.6	-724.8	984.6	1,222.7	0.00	0.00	0.00
4,520.0	21.40	126.36	4,298.9	-733.5	996.4	1,237.3	0.00	0.00	0.00
4,560.0	21.40	126.36	4,336.1	-742.1	1,008.1	1,251.8	0.00	0.00	0.00
4,600.0	21.40	126.36	4,373.4	-750.8	1,019.9	1,266.4	0.00	0.00	0.00
4,640.0	21.40	126.36	4,410.6	-759.5	1,031.6	1,281.0	0.00	0.00	0.00
4,680.0	21.40	126.36	4,447.8	-768.1	1,043.4	1,295.6	0.00	0.00	0.00
4,720.0	21.40	126.36	4,485.1	-776.8	1,055.1	1,310.2	0.00	0.00	0.00
4,760.0	21.40	126.36	4,522.3	-785.4	1,066.9	1,324.8	0.00	0.00	0.00
4,800.0	21.40	126.36	4,559.6	-794.1	1,078.6	1,339.4	0.00	0.00	0.00
4,840.0	21.40	126.36	4,596.8	-802.7	1,090.4	1,354.0	0.00	0.00	0.00
4,880.0	21.40	126.36	4,634.1	-811.4	1,102.2	1,368.6	0.00	0.00	0.00
4,920.0	21.40	126.36	4,671.3	-820.0	1,113.9	1,383.2	0.00	0.00	0.00
4,960.0	21.40	126.36	4,708.5	-828.7	1,125.7	1,397.8	0.00	0.00	0.00
5,000.0	21.40	126.36	4,745.8	-837.3	1,137.4	1,412.4	0.00	0.00	0.00
5,040.0	21.40	126.36	4,783.0	-846.0	1,149.2	1,427.0	0.00	0.00	0.00
5,080.0	21.40	126.36	4,820.3	-854.6	1,160.9	1,441.6	0.00	0.00	0.00
5,120.0	21.40	126.36	4,857.5	-863.3	1,172.7	1,456.1	0.00	0.00	0.00
5,160.0	21.40	126.36	4,894.8	-871.9	1,184.4	1,470.7	0.00	0.00	0.00
5,200.0	21.40	126.36	4,932.0	-880.6	1,196.2	1,485.3	0.00	0.00	0.00
5,240.0	21.40	126.36	4,969.2	-889.2	1,207.9	1,499.9	0.00	0.00	0.00
5,280.0	21.40	126.36	5,006.5	-897.9	1,219.7	1,514.5	0.00	0.00	0.00
5,320.0	21.40	126.36	5,043.7	-906.5	1,231.4	1,529.1	0.00	0.00	0.00
5,360.0	21.40	126.36	5,081.0	-915.2	1,243.2	1,543.7	0.00	0.00	0.00
5,400.0	21.40	126.36	5,118.2	-923.8	1,254.9	1,558.3	0.00	0.00	0.00
5,440.0	21.40	126.36	5,155.5	-932.5	1,266.7	1,572.9	0.00	0.00	0.00
5,480.0	21.40	126.36	5,192.7	-941.1	1,278.4	1,587.5	0.00	0.00	0.00
5,520.0	21.40	126.36	5,229.9	-949.8	1,290.2	1,602.1	0.00	0.00	0.00
5,560.0	21.40	126.36	5,267.2	-958.4	1,301.9	1,616.7	0.00	0.00	0.00
5,600.0	21.40	126.36	5,304.4	-967.1	1,313.7	1,631.3	0.00	0.00	0.00
5,640.0	21.40	126.36	5,341.7	-975.7	1,325.4	1,645.9	0.00	0.00	0.00
5,680.0	21.40	126.36	5,378.9	-984.4	1,337.2	1,660.4	0.00	0.00	0.00
5,720.0	21.40	126.36	5,416.2	-993.0	1,348.9	1,675.0	0.00	0.00	0.00
5,760.0	21.40	126.36	5,453.4	-1,001.7	1,360.7	1,689.6	0.00	0.00	0.00
5,800.0	21.40	126.36	5,490.6	-1,010.3	1,372.4	1,704.2	0.00	0.00	0.00
5,840.0	21.40	126.36	5,527.9	-1,019.0	1,384.2	1,718.8	0.00	0.00	0.00
5,880.0	21.40	126.36	5,565.1	-1,027.6	1,396.0	1,733.4	0.00	0.00	0.00
5,920.0	21.40	126.36	5,602.4	-1,036.3	1,407.7	1,748.0	0.00	0.00	0.00
5,960.0	21.40	126.36	5,639.6	-1,044.9	1,419.5	1,762.6	0.00	0.00	0.00
6,000.0	21.40	126.36	5,676.9	-1,053.6	1,431.2	1,777.2	0.00	0.00	0.00
6,040.0	21.40	126.36	5,714.1	-1,062.2	1,443.0	1,791.8	0.00	0.00	0.00
6,080.0	21.40	126.36	5,751.3	-1,070.9	1,454.7	1,806.4	0.00	0.00	0.00
6,120.0	21.40	126.36	5,788.6	-1,079.5	1,466.5	1,821.0	0.00	0.00	0.00
6,160.0	21.40	126.36	5,825.8	-1,088.2	1,478.2	1,835.6	0.00	0.00	0.00
6,200.0	21.40	126.36	5,863.1	-1,096.9	1,490.0	1,850.2	0.00	0.00	0.00
6,240.0	21.40	126.36	5,900.3	-1,105.5	1,501.7	1,864.8	0.00	0.00	0.00
6,280.0	21.40	126.36	5,937.6	-1,114.2	1,513.5	1,879.3	0.00	0.00	0.00
6,320.0	21.40	126.36	5,974.8	-1,122.8	1,525.2	1,893.9	0.00	0.00	0.00
6,360.0	21.40	126.36	6,012.0	-1,131.5	1,537.0	1,908.5	0.00	0.00	0.00
6,400.0	21.40	126.36	6,049.3	-1,140.1	1,548.7	1,923.1	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Project:	SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site:	PAD Y SEC.31-T5N-R65W	North Reference:	True
Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (3-29-10)		

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)
6,440.0	21.40	126.36	6,086.5	-1,148.8	1,560.5	1,937.7	0.00	0.00	0.00
6,480.0	21.40	126.36	6,123.8	-1,157.4	1,572.2	1,952.3	0.00	0.00	0.00
6,510.7	21.40	126.36	6,152.3	-1,164.0	1,581.2	1,963.5	0.00	0.00	0.00
6,520.0	21.21	126.36	6,161.0	-1,166.1	1,584.0	1,966.9	2.00	-2.00	0.00
6,560.0	20.41	126.36	6,198.4	-1,174.5	1,595.4	1,981.1	2.00	-2.00	0.00
6,600.0	19.61	126.36	6,236.0	-1,182.6	1,606.4	1,994.8	2.00	-2.00	0.00
6,640.0	18.81	126.36	6,273.8	-1,190.4	1,617.0	2,007.9	2.00	-2.00	0.00
6,680.0	18.01	126.36	6,311.7	-1,197.9	1,627.2	2,020.6	2.00	-2.00	0.00
6,720.0	17.21	126.36	6,349.8	-1,205.1	1,637.0	2,032.7	2.00	-2.00	0.00
6,760.0	16.41	126.36	6,388.1	-1,211.9	1,646.3	2,044.2	2.00	-2.00	0.00
6,800.0	15.61	126.36	6,426.6	-1,218.5	1,655.2	2,055.3	2.00	-2.00	0.00
6,840.0	14.81	126.36	6,465.2	-1,224.7	1,663.6	2,065.8	2.00	-2.00	0.00
6,880.0	14.01	126.36	6,503.9	-1,230.6	1,671.6	2,075.7	2.00	-2.00	0.00
6,920.0	13.21	126.36	6,542.8	-1,236.2	1,679.2	2,085.1	2.00	-2.00	0.00
6,923.4	13.14	126.36	6,546.1	-1,236.6	1,679.8	2,085.9	2.00	-2.00	0.00
PERMIT TARGET BHL 1428'FSL, 1193'FEL									
6,960.0	12.41	126.36	6,581.8	-1,241.4	1,686.3	2,094.0	2.00	-2.00	0.00
7,000.0	11.61	126.36	6,620.9	-1,246.3	1,693.0	2,102.3	2.00	-2.00	0.00
7,040.0	10.81	126.36	6,660.2	-1,251.0	1,699.3	2,110.1	2.00	-2.00	0.00
7,080.0	10.01	126.36	6,699.5	-1,255.2	1,705.1	2,117.3	2.00	-2.00	0.00
7,080.5	10.00	126.36	6,700.0	-1,255.3	1,705.2	2,117.4	2.00	-2.00	0.00
DRILL TARGET BHL 1529'FSL, 1330'FEL									
7,120.0	10.00	126.36	6,738.9	-1,259.4	1,710.7	2,124.3	0.00	0.00	0.00
7,131.3	10.00	126.36	6,750.0	-1,260.5	1,712.3	2,126.2	0.00	0.00	0.00
NIOBRARA									
7,160.0	10.00	126.36	6,778.3	-1,263.5	1,716.3	2,131.2	0.00	0.00	0.00
7,200.0	10.00	126.36	6,817.7	-1,267.6	1,721.9	2,138.2	0.00	0.00	0.00
7,240.0	10.00	126.36	6,857.1	-1,271.7	1,727.5	2,145.1	0.00	0.00	0.00
7,280.0	10.00	126.36	6,896.5	-1,275.8	1,733.1	2,152.1	0.00	0.00	0.00
7,320.0	10.00	126.36	6,935.9	-1,280.0	1,738.7	2,159.0	0.00	0.00	0.00
7,360.0	10.00	126.36	6,975.3	-1,284.1	1,744.3	2,166.0	0.00	0.00	0.00
7,400.0	10.00	126.36	7,014.6	-1,288.2	1,749.9	2,172.9	0.00	0.00	0.00
7,440.0	10.00	126.36	7,054.0	-1,292.3	1,755.5	2,179.8	0.00	0.00	0.00
7,480.0	10.00	126.36	7,093.4	-1,296.4	1,761.1	2,186.8	0.00	0.00	0.00
7,501.9	10.00	126.36	7,115.0	-1,298.7	1,764.1	2,190.6	0.00	0.00	0.00
CODELL									
7,520.0	10.00	126.36	7,132.8	-1,300.5	1,766.7	2,193.7	0.00	0.00	0.00
7,560.0	10.00	126.36	7,172.2	-1,304.7	1,772.3	2,200.7	0.00	0.00	0.00
7,600.0	10.00	126.36	7,211.6	-1,308.8	1,777.8	2,207.6	0.00	0.00	0.00
7,640.0	10.00	126.36	7,251.0	-1,312.9	1,783.4	2,214.6	0.00	0.00	0.00
7,680.0	10.00	126.36	7,290.4	-1,317.0	1,789.0	2,221.5	0.00	0.00	0.00
7,720.0	10.00	126.36	7,329.8	-1,321.1	1,794.6	2,228.5	0.00	0.00	0.00
7,760.0	10.00	126.36	7,369.2	-1,325.2	1,800.2	2,235.4	0.00	0.00	0.00
7,800.0	10.00	126.36	7,408.6	-1,329.4	1,805.8	2,242.4	0.00	0.00	0.00
7,840.0	10.00	126.36	7,448.0	-1,333.5	1,811.4	2,249.3	0.00	0.00	0.00
7,880.0	10.00	126.36	7,487.4	-1,337.6	1,817.0	2,256.3	0.00	0.00	0.00
7,908.1	10.00	126.36	7,515.0	-1,340.5	1,820.9	2,261.1	0.00	0.00	0.00
J SAND									
7,920.0	10.00	126.36	7,526.7	-1,341.7	1,822.6	2,263.2	0.00	0.00	0.00
7,960.0	10.00	126.36	7,566.1	-1,345.8	1,828.2	2,270.1	0.00	0.00	0.00
8,000.0	10.00	126.36	7,605.5	-1,350.0	1,833.8	2,277.1	0.00	0.00	0.00
8,040.0	10.00	126.36	7,644.9	-1,354.1	1,839.4	2,284.0	0.00	0.00	0.00
8,057.4	10.00	126.36	7,662.1	-1,355.9	1,841.8	2,287.1	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Company:	Mineral Resources Inc	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Project:	SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site:	PAD Y SEC.31-T5N-R65W	North Reference:	True
Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #4 (3-29-10)		

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)	
LEGAL WINDOW 800' X 800' 1322'FSL, 1308'FEL										
8,062.4	10.00	126.36	7,667.0	-1,356.4	1,842.5	2,287.9	0.00	0.00	0.00	

Targets										
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
DRILL TARGET BHL	- plan hits target center	0.00	0.00	6,700.0	-1,255.3	1,705.2	1,372,343.47	3,222,522.51	40° 21' 9.843 N	104° 42' 5.659 W
	- Point									
LEGAL WINDOW 80C	- plan misses target center by 176.2ft at 8057.4ft MD (7662.1 TVD, -1355.9 N, 1841.8 E)	0.00	0.00	7,667.0	-1,479.4	1,716.2	1,372,119.48	3,222,535.51	40° 21' 7.628 N	104° 42' 5.517 W
	- Rectangle (sides W800.0 H800.0 D0.0)									
PERMIT TARGET BH	- plan misses target center by 209.1ft at 6923.4ft MD (6546.1 TVD, -1236.6 N, 1679.8 E)	0.00	0.00	6,500.0	-1,373.4	1,831.2	1,372,226.53	3,222,649.53	40° 21' 8.676 N	104° 42' 4.032 W
	- Point									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,131.3	6,750.0	NIOBRARA		0.00		
7,501.9	7,115.0	CODELL		0.00		
7,908.1	7,515.0	J SAND		0.00		



Mineral Resources Inc

SEC.31-T5N-R65W

PAD Y SEC.31-T5N-R65W

FARMERS Y7 6-6-31

Wellbore #1

Plan #4 (3-29-10)

Anticollision Report

05 April, 2010

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Project:	SEC.31-T5N-R65W	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Reference Site:	PAD Y SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Plan #4 (3-29-10)	Offset TVD Reference:	Offset Datum

Reference	Plan #4 (3-29-10)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	4/5/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	8,062.4	Plan #4 (3-29-10) (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
PAD Y SEC.31-T5N-R65W						
BALLFIELD Y6 7-7-31 - Wellbore #1 - Plan #4 (3-29-10)	387.8	388.0	14.6	13.1	9.754	CC
BALLFIELD Y6 7-7-31 - Wellbore #1 - Plan #4 (3-29-10)	400.0	400.1	14.7	13.1	9.449	ES, SF
MCCOUTCHEONS Y8 7-5-31 - Wellbore #1 - Plan #4 (3	300.0	300.0	14.4	13.3	12.816	CC, ES
MCCOUTCHEONS Y8 7-5-31 - Wellbore #1 - Plan #4 (3	7,700.0	7,715.5	920.7	825.8	9.702	SF
PAD Z SEC.31-T5N-R65W						
GODFREY Z5 4-4-31 - Wellbore #1 - Plan #4 (3-29-10)	600.0	600.0	49.7	47.2	20.086	CC, ES
GODFREY Z5 4-4-31 - Wellbore #1 - Plan #4 (3-29-10)	900.0	899.5	58.6	54.8	15.621	SF
LATHAM Z6 6-4-31 - Wellbore #1 - Plan #4 (3-29-10)	600.0	600.0	31.4	29.0	12.720	CC, ES
LATHAM Z6 6-4-31 - Wellbore #1 - Plan #4 (3-29-10)	800.0	799.8	35.1	31.8	10.570	SF

PAD Y SEC.31-T5N-R65W - BALLFIELD Y6 7-7-31 - Wellbore #1 - Plan #4 (3-29-10)													Offset Site Error: 0.0 ft	
Survey Design				Survey Program: 0-MWD									Offset Well Error: 0.0 ft	
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	
0.0	0.0	0.0	0.0	0.0	0.0	-117.60	-7.3	-13.9	15.7	15.7	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-117.60	-7.3	-13.9	15.7	15.5	0.22	69.962		
200.0	200.0	200.0	200.0	0.3	0.3	-117.60	-7.3	-13.9	15.7	15.1	0.67	23.321		
300.0	300.0	300.2	300.2	0.6	0.6	-120.25	-7.8	-13.4	15.5	14.3	1.11	13.864		
387.8	387.8	388.0	387.8	0.8	0.7	-139.29	-11.1	-9.5	14.6	13.1	1.50	9.754 CC		
400.0	400.0	400.1	399.9	0.8	0.8	-143.47	-11.8	-8.7	14.7	13.1	1.55	9.449 ES, SF		
500.0	500.0	499.0	498.0	1.0	1.0	178.87	-19.6	0.4	19.7	17.7	2.03	9.693		
600.0	600.0	596.0	593.4	1.2	1.4	156.22	-31.0	13.7	34.6	32.0	2.60	13.310		
700.0	700.0	691.1	685.8	1.4	1.8	20.15	-45.8	30.8	55.4	52.5	2.98	18.629		
800.0	799.8	784.3	774.9	1.6	2.3	15.64	-63.7	51.6	79.2	75.8	3.42	23.150		
900.0	899.5	875.7	860.6	1.9	2.9	13.16	-84.3	75.6	105.4	101.5	3.89	27.091		
1,000.0	998.7	965.1	942.6	2.1	3.7	11.64	-107.6	102.6	133.6	129.2	4.38	30.521		
1,100.0	1,097.5	1,052.6	1,020.8	2.4	4.4	10.64	-133.0	132.2	163.8	158.9	4.89	33.513		
1,200.0	1,195.6	1,147.5	1,104.4	2.7	5.4	9.97	-162.4	166.3	193.5	188.1	5.44	35.574		
1,300.0	1,293.1	1,243.9	1,189.3	3.1	6.3	9.62	-192.2	201.0	220.0	214.0	5.99	36.732		
1,400.0	1,389.6	1,341.2	1,275.0	3.6	7.3	9.48	-222.2	235.9	243.1	236.5	6.58	36.920		
1,500.0	1,485.3	1,439.2	1,361.3	4.1	8.3	9.49	-252.5	271.1	262.8	255.6	7.21	36.475		
1,600.0	1,579.8	1,537.9	1,448.2	4.8	9.3	9.62	-283.0	306.5	279.2	271.4	7.86	35.546		

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

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Project:	SEC.31-T5N-R65W	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Reference Site:	PAD Y SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Plan #4 (3-29-10)	Offset TVD Reference:	Offset Datum

PAD Y SEC.31-T5N-R65W - BALLFIELD Y6 7-7-31 - Wellbore #1 - Plan #4 (3-29-10)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
1,700.0	1,673.2	1,637.0	1,535.5	5.4	10.3	9.87	-313.6	342.1	292.4	283.8	8.54	34.234		
1,800.0	1,766.3	1,736.2	1,622.8	6.2	11.4	10.15	-344.3	377.8	304.7	295.4	9.26	32.888		
1,900.0	1,859.4	1,835.4	1,710.2	6.9	12.4	10.42	-375.0	413.4	317.0	307.0	10.00	31.700		
2,000.0	1,952.6	1,934.7	1,797.6	7.6	13.4	10.66	-405.6	449.1	329.3	318.6	10.74	30.647		
2,100.0	2,045.7	2,033.9	1,885.0	8.4	14.4	10.88	-436.3	484.7	341.6	330.1	11.50	29.709		
2,200.0	2,138.8	2,133.1	1,972.4	9.1	15.4	11.09	-467.0	520.3	354.0	341.7	12.26	28.870		
2,300.0	2,231.9	2,232.4	2,059.8	9.9	16.4	11.28	-497.6	556.0	366.3	353.3	13.03	28.115		
2,400.0	2,325.0	2,331.6	2,147.1	10.6	17.5	11.47	-528.3	591.6	378.6	364.8	13.80	27.434		
2,500.0	2,418.1	2,430.8	2,234.5	11.4	18.5	11.64	-558.9	627.3	391.0	376.4	14.58	26.817		
2,600.0	2,511.2	2,530.0	2,321.9	12.2	19.5	11.80	-589.6	662.9	403.3	388.0	15.36	26.255		
2,700.0	2,604.3	2,629.3	2,409.3	12.9	20.5	11.95	-620.3	698.6	415.7	399.5	16.15	25.742		
2,800.0	2,697.4	2,728.5	2,496.7	13.7	21.5	12.09	-650.9	734.2	428.0	411.1	16.94	25.271		
2,900.0	2,790.5	2,827.7	2,584.1	14.5	22.6	12.22	-681.6	769.8	440.4	422.6	17.73	24.838		
3,000.0	2,883.6	2,927.0	2,671.4	15.3	23.6	12.35	-712.3	805.5	452.7	434.2	18.53	24.438		
3,100.0	2,976.7	3,026.2	2,758.8	16.0	24.6	12.47	-742.9	841.1	465.1	445.8	19.32	24.069		
3,200.0	3,069.8	3,125.4	2,846.2	16.8	25.6	12.58	-773.6	876.8	477.4	457.3	20.12	23.726		
3,300.0	3,163.0	3,224.6	2,933.6	17.6	26.7	12.69	-804.3	912.4	489.8	468.9	20.93	23.407		
3,400.0	3,256.1	3,323.9	3,021.0	18.4	27.7	12.79	-834.9	948.0	502.2	480.4	21.73	23.109		
3,500.0	3,349.2	3,423.1	3,108.3	19.1	28.7	12.89	-865.6	983.7	514.5	492.0	22.54	22.831		
3,600.0	3,442.3	3,522.3	3,195.7	19.9	29.7	12.98	-896.2	1,019.3	526.9	503.6	23.34	22.571		
3,700.0	3,535.4	3,621.6	3,283.1	20.7	30.7	13.07	-926.9	1,055.0	539.3	515.1	24.15	22.327		
3,800.0	3,628.5	3,720.8	3,370.5	21.5	31.8	13.16	-957.6	1,090.6	551.6	526.7	24.96	22.097		
3,900.0	3,721.6	3,820.0	3,457.9	22.2	32.8	13.24	-988.2	1,126.3	564.0	538.2	25.78	21.881		
4,000.0	3,814.7	3,919.2	3,545.3	23.0	33.8	13.32	-1,018.9	1,161.9	576.4	549.8	26.59	21.677		
4,100.0	3,907.8	4,018.5	3,632.6	23.8	34.8	13.39	-1,049.6	1,197.5	588.7	561.3	27.40	21.484		
4,200.0	4,000.9	4,117.7	3,720.0	24.6	35.9	13.46	-1,080.2	1,233.2	601.1	572.9	28.22	21.302		
4,300.0	4,094.0	4,216.9	3,807.4	25.4	36.9	13.53	-1,110.9	1,268.8	613.5	584.5	29.04	21.129		
4,400.0	4,187.1	4,316.2	3,894.8	26.1	37.9	13.59	-1,141.6	1,304.5	625.9	596.0	29.85	20.965		
4,500.0	4,280.2	4,415.4	3,982.2	26.9	38.9	13.66	-1,172.2	1,340.1	638.2	607.6	30.67	20.809		
4,600.0	4,373.4	4,514.6	4,069.6	27.7	39.9	13.72	-1,202.9	1,375.7	650.6	619.1	31.49	20.661		
4,700.0	4,466.5	4,613.9	4,156.9	28.5	41.0	13.78	-1,233.6	1,411.4	663.0	630.7	32.31	20.520		
4,800.0	4,559.6	4,713.1	4,244.3	29.3	42.0	13.83	-1,264.2	1,447.0	675.4	642.2	33.13	20.385		
4,900.0	4,652.7	4,812.3	4,331.7	30.0	43.0	13.89	-1,294.9	1,482.7	687.8	653.8	33.95	20.257		
5,000.0	4,745.8	4,911.5	4,419.1	30.8	44.0	13.94	-1,325.5	1,518.3	700.1	665.4	34.77	20.134		
5,100.0	4,838.9	5,010.8	4,506.5	31.6	45.1	13.99	-1,356.2	1,554.0	712.5	676.9	35.60	20.016		
5,200.0	4,932.0	5,110.0	4,593.9	32.4	46.1	14.04	-1,386.9	1,589.6	724.9	688.5	36.42	19.904		
5,300.0	5,025.1	5,209.2	4,681.2	33.2	47.1	14.09	-1,417.5	1,625.2	737.3	700.0	37.24	19.796		
5,400.0	5,118.2	5,308.5	4,768.6	33.9	48.1	14.13	-1,448.2	1,660.9	749.6	711.6	38.07	19.693		
5,500.0	5,211.3	5,407.7	4,856.0	34.7	49.2	14.18	-1,478.9	1,696.5	762.0	723.1	38.89	19.593		
5,600.0	5,304.4	5,506.9	4,943.4	35.5	50.2	14.22	-1,509.5	1,732.2	774.4	734.7	39.72	19.498		
5,700.0	5,397.5	5,606.1	5,030.8	36.3	51.2	14.26	-1,540.2	1,767.8	786.8	746.2	40.54	19.406		
5,800.0	5,490.6	5,705.4	5,118.2	37.1	52.2	14.30	-1,570.9	1,803.4	799.2	757.8	41.37	19.318		
5,900.0	5,583.8	5,804.6	5,205.5	37.8	53.2	14.34	-1,601.5	1,839.1	811.6	769.4	42.20	19.233		
6,000.0	5,676.9	5,903.8	5,292.9	38.6	54.3	14.38	-1,632.2	1,874.7	823.9	780.9	43.02	19.151		
6,100.0	5,770.0	6,003.1	5,380.3	39.4	55.3	14.41	-1,662.8	1,910.4	836.3	792.5	43.85	19.072		
6,200.0	5,863.1	6,102.3	5,467.7	40.2	56.3	14.45	-1,693.5	1,946.0	848.7	804.0	44.68	18.996		
6,300.0	5,956.2	6,201.5	5,555.1	41.0	57.3	14.48	-1,724.2	1,981.6	861.1	815.6	45.51	18.923		
6,400.0	6,049.3	6,300.7	5,642.5	41.7	58.4	14.52	-1,754.8	2,017.3	873.5	827.1	46.33	18.852		
6,500.0	6,142.4	6,400.0	5,729.8	42.5	59.4	14.55	-1,785.5	2,052.9	885.9	838.7	47.16	18.783		
6,600.0	6,236.0	6,499.0	5,819.1	43.2	60.4	14.62	-1,816.1	2,088.5	899.6	851.7	47.91	18.776		
6,700.0	6,330.8	6,597.5	5,903.8	43.7	61.4	14.66	-1,846.6	2,123.9	916.6	868.1	48.54	18.882		
6,800.0	6,426.6	6,695.4	5,990.0	44.2	62.4	14.67	-1,876.8	2,159.1	937.0	887.9	49.09	19.088		

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Project:	SEC.31-T5N-R65W	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Reference Site:	PAD Y SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Plan #4 (3-29-10)	Offset TVD Reference:	Offset Datum

Offset Design PAD Y SEC.31-T5N-R65W - BALLFIELD Y6 7-7-31 - Wellbore #1 - Plan #4 (3-29-10)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
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
6,900.0	6,523.3	6,792.6	6,075.6	44.6	63.4	14.64	-1,906.8	2,193.9	960.6	911.1	49.54	19.390	
7,000.0	6,620.9	6,933.2	6,200.8	45.0	64.7	14.52	-1,948.5	2,242.4	985.6	935.6	50.01	19.710	
7,100.0	6,719.2	7,081.1	6,335.7	45.3	65.7	14.37	-1,988.1	2,288.4	1,009.0	958.5	50.42	20.011	
7,200.0	6,817.7	7,232.1	6,476.4	45.7	66.6	14.19	-2,023.7	2,329.7	1,028.4	977.3	51.04	20.149	
7,300.0	6,916.2	7,385.8	6,622.5	46.1	67.4	14.09	-2,054.9	2,366.0	1,042.6	990.9	51.68	20.176	
7,400.0	7,014.6	7,514.3	6,746.3	46.5	68.0	14.07	-2,077.3	2,392.1	1,052.2	999.9	52.26	20.133	
7,500.0	7,113.1	7,613.9	6,842.5	46.9	68.6	14.06	-2,094.1	2,411.6	1,061.0	1,008.2	52.79	20.099	
7,600.0	7,211.6	7,713.5	6,938.7	47.3	69.1	14.05	-2,110.9	2,431.2	1,069.9	1,016.6	53.32	20.066	
7,700.0	7,310.1	7,813.1	7,034.9	47.7	69.7	14.04	-2,127.7	2,450.7	1,078.8	1,024.9	53.85	20.033	
7,800.0	7,408.6	7,912.7	7,131.2	48.0	70.2	14.03	-2,144.5	2,470.2	1,087.6	1,033.2	54.38	20.000	
7,900.0	7,507.1	8,012.3	7,227.4	48.4	70.7	14.02	-2,161.3	2,489.8	1,096.5	1,041.6	54.91	19.968	
8,000.0	7,605.5	8,051.6	7,265.3	48.8	71.0	14.01	-2,168.0	2,497.5	1,107.0	1,051.7	55.24	20.041	
8,062.4	7,667.0	8,051.6	7,265.3	49.1	71.0	14.01	-2,168.0	2,497.5	1,117.6	1,062.2	55.39	20.176	

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Project:	SEC.31-T5N-R65W	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Reference Site:	PAD Y SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Plan #4 (3-29-10)	Offset TVD Reference:	Offset Datum

PAD Y SEC.31-T5N-R65W - MCCOUTCHEONS Y8 7-5-31 - Wellbore #1 - Plan #4 (3-29-10)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	75.35	3.6	13.9	14.4	14.4	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	75.35	3.6	13.9	14.4	14.2	0.22	64.082		
200.0	200.0	200.0	200.0	0.3	0.3	75.35	3.6	13.9	14.4	13.7	0.67	21.361		
300.0	300.0	300.0	300.0	0.6	0.6	75.35	3.6	13.9	14.4	13.3	1.12	12.816 CC, ES		
400.0	400.0	399.1	399.1	0.8	0.8	80.55	2.8	16.8	17.1	15.5	1.56	10.936		
500.0	500.0	497.5	497.1	1.0	1.0	89.34	0.3	25.4	25.5	23.5	2.01	12.681		
600.0	600.0	594.5	592.9	1.2	1.3	95.51	-3.8	39.3	40.1	37.6	2.50	16.041		
700.0	700.0	689.8	686.2	1.4	1.7	-27.82	-9.4	58.3	59.1	56.2	2.93	20.192		
800.0	799.8	783.5	776.5	1.6	2.1	-26.81	-16.3	82.0	80.7	77.4	3.37	23.982		
900.0	899.5	875.4	863.6	1.9	2.7	-26.62	-24.5	110.0	104.8	101.0	3.83	27.357		
1,000.0	998.7	966.3	948.1	2.1	3.3	-26.79	-34.0	142.2	131.2	126.9	4.33	30.285		
1,100.0	1,097.5	1,063.0	1,037.2	2.4	4.1	-27.34	-44.6	178.3	156.6	151.7	4.86	32.199		
1,200.0	1,195.6	1,160.4	1,126.9	2.7	4.9	-28.23	-55.2	214.7	179.0	173.6	5.44	32.881		
1,300.0	1,293.1	1,258.4	1,217.1	3.1	5.7	-29.40	-66.0	251.3	198.5	192.4	6.06	32.734		
1,400.0	1,389.6	1,356.8	1,307.8	3.6	6.5	-30.83	-76.7	288.0	215.1	208.4	6.77	31.758		
1,500.0	1,485.3	1,455.6	1,398.8	4.1	7.3	-32.51	-87.6	324.9	229.0	221.4	7.57	30.245		
1,600.0	1,579.8	1,554.6	1,490.0	4.8	8.1	-34.47	-98.4	361.9	240.2	231.7	8.48	28.327		
1,700.0	1,673.2	1,653.7	1,581.3	5.4	9.0	-36.75	-109.3	398.9	249.1	239.5	9.53	26.140		
1,800.0	1,766.3	1,752.8	1,672.6	6.2	9.8	-39.05	-120.1	435.9	257.6	246.9	10.68	24.114		
1,900.0	1,859.4	1,851.9	1,763.9	6.9	10.6	-41.21	-131.0	472.9	266.6	254.7	11.91	22.381		
2,000.0	1,952.6	1,951.0	1,855.2	7.6	11.4	-43.22	-141.8	509.9	275.9	262.7	13.20	20.902		
2,100.0	2,045.7	2,050.1	1,946.5	8.4	12.3	-45.10	-152.7	546.9	285.5	271.0	14.54	19.638		
2,200.0	2,138.8	2,149.2	2,037.8	9.1	13.1	-46.86	-163.5	583.9	295.5	279.5	15.92	18.555		
2,300.0	2,231.9	2,248.3	2,129.1	9.9	13.9	-48.50	-174.4	620.9	305.6	288.3	17.34	17.623		
2,400.0	2,325.0	2,347.4	2,220.4	10.6	14.8	-50.03	-185.2	657.9	316.1	297.3	18.79	16.817		
2,500.0	2,418.1	2,446.6	2,311.7	11.4	15.6	-51.47	-196.1	695.0	326.7	306.4	20.27	16.117		
2,600.0	2,511.2	2,545.7	2,403.0	12.2	16.4	-52.82	-206.9	732.0	337.5	315.7	21.77	15.506		
2,700.0	2,604.3	2,644.8	2,494.3	12.9	17.3	-54.08	-217.8	769.0	348.5	325.2	23.28	14.969		
2,800.0	2,697.4	2,743.9	2,585.6	13.7	18.1	-55.27	-228.6	806.0	359.6	334.8	24.81	14.495		
2,900.0	2,790.5	2,843.0	2,676.8	14.5	18.9	-56.38	-239.5	843.0	370.9	344.6	26.35	14.076		
3,000.0	2,883.6	2,942.1	2,768.1	15.3	19.8	-57.43	-250.3	880.0	382.4	354.4	27.90	13.702		
3,100.0	2,976.7	3,041.2	2,859.4	16.0	20.6	-58.42	-261.2	917.0	393.9	364.4	29.47	13.368		
3,200.0	3,069.8	3,140.3	2,950.7	16.8	21.5	-59.35	-272.0	954.0	405.5	374.5	31.03	13.068		
3,300.0	3,163.0	3,239.4	3,042.0	17.6	22.3	-60.23	-282.9	991.0	417.3	384.7	32.61	12.798		
3,400.0	3,256.1	3,338.5	3,133.3	18.4	23.1	-61.06	-293.8	1,028.0	429.1	395.0	34.19	12.554		
3,500.0	3,349.2	3,437.6	3,224.6	19.1	24.0	-61.84	-304.6	1,065.0	441.1	405.3	35.77	12.332		
3,600.0	3,442.3	3,536.7	3,315.9	19.9	24.8	-62.59	-315.5	1,102.0	453.1	415.7	37.35	12.130		
3,700.0	3,535.4	3,635.9	3,407.2	20.7	25.6	-63.30	-326.3	1,139.0	465.2	426.2	38.94	11.945		
3,800.0	3,628.5	3,735.0	3,498.5	21.5	26.5	-63.97	-337.2	1,176.0	477.3	436.8	40.53	11.776		
3,900.0	3,721.6	3,834.1	3,589.8	22.2	27.3	-64.60	-348.0	1,213.1	489.5	447.4	42.13	11.620		
4,000.0	3,814.7	3,933.2	3,681.1	23.0	28.1	-65.21	-358.9	1,250.1	501.8	458.1	43.72	11.477		
4,100.0	3,907.8	4,032.3	3,772.4	23.8	29.0	-65.79	-369.7	1,287.1	514.1	468.8	45.31	11.345		
4,200.0	4,000.9	4,131.4	3,863.7	24.6	29.8	-66.34	-380.6	1,324.1	526.5	479.5	46.91	11.223		
4,300.0	4,094.0	4,230.5	3,955.0	25.4	30.6	-66.86	-391.4	1,361.1	538.9	490.4	48.51	11.109		
4,400.0	4,187.1	4,329.6	4,046.3	26.1	31.5	-67.37	-402.3	1,398.1	551.3	501.2	50.10	11.003		
4,500.0	4,280.2	4,428.7	4,137.6	26.9	32.3	-67.84	-413.1	1,435.1	563.8	512.1	51.70	10.905		
4,600.0	4,373.4	4,527.8	4,228.9	27.7	33.2	-68.30	-424.0	1,472.1	576.3	523.0	53.30	10.813		
4,700.0	4,466.5	4,626.9	4,320.2	28.5	34.0	-68.74	-434.8	1,509.1	588.9	534.0	54.90	10.728		
4,800.0	4,559.6	4,726.0	4,411.5	29.3	34.8	-69.16	-445.7	1,546.1	601.5	545.0	56.49	10.647		
4,900.0	4,652.7	4,825.2	4,502.8	30.0	35.7	-69.57	-456.6	1,583.1	614.1	556.0	58.09	10.572		
5,000.0	4,745.8	4,924.3	4,594.1	30.8	36.5	-69.95	-467.4	1,620.1	626.8	567.1	59.69	10.501		
5,100.0	4,838.9	5,023.4	4,685.4	31.6	37.3	-70.33	-478.3	1,657.1	639.5	578.2	61.29	10.434		

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Project:	SEC.31-T5N-R65W	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Reference Site:	PAD Y SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Plan #4 (3-29-10)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
PAD Y SEC.31-T5N-R65W - MCCOUTCHEONS Y8 7-5-31 - Wellbore #1 - Plan #4 (3-29-10)												Offset Well Error:	0.0 ft
Survey Program: 0-MWD													
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
5,200.0	4,932.0	5,122.5	4,776.7	32.4	38.2	-70.68	-489.1	1,694.1	652.2	589.3	62.88	10.371	
5,300.0	5,025.1	5,221.6	4,868.0	33.2	39.0	-71.03	-500.0	1,731.1	664.9	600.4	64.48	10.312	
5,400.0	5,118.2	5,320.7	4,959.3	33.9	39.8	-71.36	-510.8	1,768.2	677.7	611.6	66.08	10.256	
5,500.0	5,211.3	5,419.8	5,050.6	34.7	40.7	-71.68	-521.7	1,805.2	690.5	622.8	67.67	10.203	
5,600.0	5,304.4	5,518.9	5,141.9	35.5	41.5	-71.98	-532.5	1,842.2	703.3	634.0	69.27	10.153	
5,700.0	5,397.5	5,618.0	5,233.2	36.3	42.3	-72.28	-543.4	1,879.2	716.1	645.2	70.86	10.105	
5,800.0	5,490.6	5,717.1	5,324.5	37.1	43.2	-72.57	-554.2	1,916.2	728.9	656.4	72.46	10.060	
5,900.0	5,583.8	5,816.2	5,415.8	37.8	44.0	-72.84	-565.1	1,953.2	741.8	667.7	74.05	10.016	
6,000.0	5,676.9	5,915.3	5,507.1	38.6	44.9	-73.11	-575.9	1,990.2	754.6	679.0	75.65	9.976	
6,100.0	5,770.0	6,014.5	5,598.4	39.4	45.7	-73.37	-586.8	2,027.2	767.5	690.3	77.24	9.936	
6,200.0	5,863.1	6,113.6	5,689.6	40.2	46.5	-73.62	-597.6	2,064.2	780.4	701.6	78.84	9.899	
6,300.0	5,956.2	6,212.7	5,780.9	41.0	47.4	-73.86	-608.5	2,101.2	793.3	712.9	80.43	9.864	
6,400.0	6,049.3	6,311.8	5,872.2	41.7	48.2	-74.09	-619.3	2,138.2	806.3	724.2	82.02	9.830	
6,500.0	6,142.4	6,410.9	5,963.5	42.5	49.0	-74.32	-630.2	2,175.2	819.2	735.6	83.61	9.797	
6,600.0	6,236.0	6,510.0	6,054.8	43.2	49.9	-74.67	-641.0	2,212.2	832.5	747.4	85.13	9.779	
6,700.0	6,330.8	6,622.6	6,159.0	43.7	50.7	-74.88	-653.1	2,253.2	846.2	759.8	86.41	9.792	
6,800.0	6,426.6	6,741.7	6,270.8	44.2	51.4	-75.05	-664.6	2,292.4	858.6	771.1	87.52	9.811	
6,900.0	6,523.3	6,861.3	6,384.8	44.6	52.0	-75.20	-674.8	2,327.3	869.5	781.0	88.49	9.826	
7,000.0	6,620.9	6,981.5	6,500.7	45.0	52.6	-75.33	-683.7	2,357.7	879.1	789.7	89.35	9.839	
7,100.0	6,719.2	7,102.0	6,618.3	45.3	53.0	-75.42	-691.3	2,383.4	887.1	797.0	90.08	9.848	
7,200.0	6,817.7	7,216.4	6,730.6	45.7	53.4	-75.54	-697.2	2,403.6	893.1	802.3	90.86	9.830	
7,300.0	6,916.2	7,316.2	6,828.9	46.1	53.8	-75.69	-702.1	2,420.3	898.6	807.0	91.67	9.803	
7,400.0	7,014.6	7,416.0	6,927.2	46.5	54.2	-75.85	-706.9	2,436.9	904.1	811.7	92.48	9.777	
7,500.0	7,113.1	7,515.8	7,025.6	46.9	54.5	-76.01	-711.8	2,453.5	909.7	816.4	93.29	9.751	
7,600.0	7,211.6	7,615.6	7,123.9	47.3	54.9	-76.16	-716.7	2,470.2	915.2	821.1	94.09	9.726	
7,700.0	7,310.1	7,715.5	7,222.2	47.7	55.3	-76.31	-721.6	2,486.8	920.7	825.8	94.90	9.702 SF	
7,800.0	7,408.6	7,759.0	7,265.0	48.0	55.5	-76.37	-723.7	2,494.0	928.0	832.5	95.47	9.720	
7,900.0	7,507.1	7,759.0	7,265.0	48.4	55.5	-76.37	-723.7	2,494.0	944.8	848.9	95.86	9.856	
8,000.0	7,605.5	7,759.0	7,265.0	48.8	55.5	-76.37	-723.7	2,494.0	971.6	875.4	96.24	10.096	
8,062.4	7,667.0	7,759.0	7,265.0	49.1	55.5	-76.37	-723.7	2,494.0	993.2	896.7	96.48	10.294	

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Project:	SEC.31-T5N-R65W	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Reference Site:	PAD Y SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Plan #4 (3-29-10)	Offset TVD Reference:	Offset Datum

PAD Z SEC.31-T5N-R65W - GODFREY Z5 4-4-31 - Wellbore #1 - Plan #4 (3-29-10)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	-116.11	-21.9	-44.6	49.7					
100.0	100.0	100.0	100.0	0.1	0.1	-116.11	-21.9	-44.6	49.7	49.4	0.22	220.948		
200.0	200.0	200.0	200.0	0.3	0.3	-116.11	-21.9	-44.6	49.7	49.0	0.67	73.649		
300.0	300.0	300.0	300.0	0.6	0.6	-116.11	-21.9	-44.6	49.7	48.5	1.12	44.190		
400.0	400.0	400.0	400.0	0.8	0.8	-116.11	-21.9	-44.6	49.7	48.1	1.57	31.564		
500.0	500.0	500.0	500.0	1.0	1.0	-116.11	-21.9	-44.6	49.7	47.6	2.02	24.550		
600.0	600.0	600.0	600.0	1.2	1.2	-116.11	-21.9	-44.6	49.7	47.2	2.47	20.086 CC, ES		
700.0	700.0	700.0	700.0	1.4	1.5	119.27	-21.9	-44.6	50.5	47.6	2.90	17.407		
800.0	799.8	799.8	799.8	1.6	1.7	124.14	-21.9	-44.6	53.2	49.9	3.32	16.045		
900.0	899.5	899.5	899.5	1.9	1.9	131.11	-21.9	-44.6	58.6	54.8	3.75	15.621 SF		
1,000.0	998.7	998.7	998.7	2.1	2.1	138.82	-21.9	-44.6	67.3	63.1	4.19	16.036		
1,100.0	1,097.5	1,097.5	1,097.5	2.4	2.4	146.07	-21.9	-44.6	79.7	75.1	4.64	17.180		
1,200.0	1,195.6	1,195.6	1,195.6	2.7	2.6	152.24	-21.9	-44.6	96.2	91.1	5.09	18.913		
1,300.0	1,293.1	1,293.1	1,293.1	3.1	2.8	157.21	-21.9	-44.6	116.7	111.1	5.53	21.095		
1,400.0	1,389.6	1,389.6	1,389.6	3.6	3.0	161.12	-21.9	-44.6	141.0	135.0	5.97	23.608		
1,500.0	1,485.3	1,485.3	1,485.3	4.1	3.2	164.16	-21.9	-44.6	169.0	162.6	6.41	26.361		
1,600.0	1,579.8	1,579.8	1,579.8	4.8	3.4	166.53	-21.9	-44.6	200.6	193.8	6.85	29.289		
1,700.0	1,673.2	1,673.2	1,673.2	5.4	3.6	168.45	-21.9	-44.6	235.6	228.3	7.30	32.263		
1,800.0	1,766.3	1,766.3	1,766.3	6.2	3.9	169.99	-21.9	-44.6	271.5	263.7	7.79	34.849		
1,900.0	1,859.4	1,859.4	1,859.4	6.9	4.1	171.17	-21.9	-44.6	307.5	299.3	8.29	37.115		
2,000.0	1,952.6	1,952.6	1,952.6	7.6	4.3	172.10	-21.9	-44.6	343.7	334.9	8.79	39.112		
2,100.0	2,045.7	2,045.7	2,045.7	8.4	4.5	172.86	-21.9	-44.6	379.9	370.6	9.29	40.880		
2,200.0	2,138.8	2,138.8	2,138.8	9.1	4.7	173.48	-21.9	-44.6	416.2	406.4	9.80	42.453		
2,300.0	2,231.9	2,231.9	2,231.9	9.9	4.9	174.00	-21.9	-44.6	452.4	442.1	10.32	43.860		
2,400.0	2,325.0	2,325.0	2,325.0	10.6	5.1	174.45	-21.9	-44.6	488.8	477.9	10.83	45.125		
2,500.0	2,418.1	2,418.1	2,418.1	11.4	5.3	174.83	-21.9	-44.6	525.1	513.8	11.35	46.267		
2,600.0	2,511.2	2,511.2	2,511.2	12.2	5.5	175.17	-21.9	-44.6	561.5	549.6	11.87	47.302		
2,700.0	2,604.3	2,604.3	2,604.3	12.9	5.7	175.46	-21.9	-44.6	597.9	585.5	12.39	48.245		
2,800.0	2,697.4	2,697.4	2,697.4	13.7	6.0	175.72	-21.9	-44.6	634.2	621.3	12.92	49.106		
2,900.0	2,790.5	2,790.5	2,790.5	14.5	6.2	175.96	-21.9	-44.6	670.6	657.2	13.44	49.896		
3,000.0	2,883.6	2,883.6	2,883.6	15.3	6.4	176.17	-21.9	-44.6	707.0	693.1	13.97	50.622		
3,100.0	2,976.7	2,976.7	2,976.7	16.0	6.6	176.35	-21.9	-44.6	743.5	729.0	14.49	51.292		
3,200.0	3,069.8	3,095.9	3,095.9	16.8	6.8	176.58	-22.7	-43.2	778.7	763.7	15.05	51.730		
3,300.0	3,163.0	3,227.3	3,227.0	17.6	7.1	176.81	-26.4	-36.8	809.9	794.2	15.61	51.896		
3,400.0	3,256.1	3,362.4	3,361.4	18.4	7.3	177.06	-33.4	-24.8	836.6	820.4	16.17	51.729		
3,500.0	3,349.2	3,500.8	3,498.2	19.1	7.6	177.32	-43.8	-6.9	858.6	841.9	16.75	51.253		
3,600.0	3,442.3	3,634.5	3,629.3	19.9	8.0	177.58	-57.1	15.8	876.0	858.7	17.34	50.524		
3,700.0	3,535.4	3,733.2	3,725.8	20.7	8.2	177.77	-67.7	34.1	891.8	873.9	17.87	49.906		
3,800.0	3,628.5	3,831.9	3,822.2	21.5	8.5	177.95	-78.3	52.3	907.5	889.1	18.40	49.312		
3,900.0	3,721.6	3,930.6	3,918.6	22.2	8.8	178.13	-89.0	70.6	923.2	904.3	18.94	48.738		
4,000.0	3,814.7	4,029.3	4,015.0	23.0	9.2	178.30	-99.6	88.8	939.0	919.5	19.49	48.187		
4,100.0	3,907.8	4,128.1	4,111.5	23.8	9.5	178.46	-110.3	107.1	954.8	934.7	20.03	47.657		
4,200.0	4,000.9	4,226.8	4,207.9	24.6	9.8	178.62	-120.9	125.3	970.5	950.0	20.58	47.148		
4,300.0	4,094.0	4,325.5	4,304.3	25.4	10.2	178.78	-131.5	143.5	986.3	965.2	21.14	46.659		
4,400.0	4,187.1	4,424.2	4,400.7	26.1	10.5	178.92	-142.2	161.8	1,002.1	980.4	21.70	46.188		
4,500.0	4,280.2	4,522.9	4,497.2	26.9	10.9	179.07	-152.8	180.0	1,017.9	995.7	22.26	45.735		
4,600.0	4,373.4	4,621.6	4,593.6	27.7	11.3	179.21	-163.4	198.3	1,033.7	1,010.9	22.82	45.300		
4,700.0	4,466.5	4,720.3	4,690.0	28.5	11.7	179.35	-174.1	216.5	1,049.5	1,026.1	23.38	44.881		
4,800.0	4,559.6	4,819.0	4,786.5	29.3	12.1	179.48	-184.7	234.8	1,065.3	1,041.4	23.95	44.477		
4,900.0	4,652.7	4,917.8	4,882.9	30.0	12.5	179.61	-195.3	253.0	1,081.1	1,056.6	24.52	44.088		
5,000.0	4,745.8	5,016.5	4,979.3	30.8	12.9	179.73	-206.0	271.3	1,097.0	1,071.9	25.09	43.713		
5,100.0	4,838.9	5,115.2	5,075.7	31.6	13.3	179.85	-216.6	289.5	1,112.8	1,087.1	25.67	43.352		

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

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Project:	SEC.31-T5N-R65W	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Reference Site:	PAD Y SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Plan #4 (3-29-10)	Offset TVD Reference:	Offset Datum

Offset Design PAD Z SEC.31-T5N-R65W - GODFREY Z5 4-4-31 - Wellbore #1 - Plan #4 (3-29-10)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
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
5,200.0	4,932.0	5,213.9	5,172.2	32.4	13.7	179.97	-227.2	307.8	1,128.6	1,102.4	26.25	43.003	
5,300.0	5,025.1	5,288.9	5,245.5	33.2	14.0	-179.94	-235.0	321.1	1,145.3	1,118.6	26.76	42.795	
5,400.0	5,118.2	5,358.9	5,314.4	33.9	14.2	-179.88	-241.4	332.1	1,164.4	1,137.1	27.26	42.708	
5,500.0	5,211.3	5,428.3	5,382.9	34.7	14.4	-179.82	-246.9	341.5	1,185.9	1,158.1	27.76	42.716	
5,600.0	5,304.4	5,500.0	5,454.0	35.5	14.6	-179.77	-251.7	349.8	1,209.6	1,181.4	28.26	42.801	
5,700.0	5,397.5	5,564.7	5,518.3	36.3	14.7	-179.74	-255.3	355.9	1,235.7	1,207.0	28.74	42.993	
5,800.0	5,490.6	5,631.6	5,584.9	37.1	14.9	-179.71	-258.2	360.9	1,264.0	1,234.8	29.23	43.252	
5,900.0	5,583.8	5,700.0	5,653.2	37.8	15.0	-179.70	-260.4	364.6	1,294.6	1,264.9	29.71	43.576	
6,000.0	5,676.9	5,762.5	5,715.7	38.6	15.2	-179.69	-261.7	366.8	1,327.2	1,297.1	30.18	43.985	
6,100.0	5,770.0	5,826.5	5,779.6	39.4	15.3	-179.69	-262.3	367.8	1,362.0	1,331.4	30.64	44.449	
6,200.0	5,863.1	5,909.9	5,863.1	40.2	15.4	-179.70	-262.3	367.9	1,398.4	1,367.3	31.14	44.901	
6,300.0	5,956.2	6,003.0	5,956.2	41.0	15.6	-179.71	-262.3	367.9	1,434.9	1,403.2	31.67	45.306	
6,400.0	6,049.3	6,096.2	6,049.3	41.7	15.7	-179.71	-262.3	367.9	1,471.4	1,439.2	32.20	45.697	
6,500.0	6,142.4	6,189.3	6,142.4	42.5	15.9	-179.72	-262.3	367.9	1,507.9	1,475.1	32.73	46.074	
6,600.0	6,236.0	6,282.9	6,236.0	43.2	16.1	-179.73	-262.3	367.9	1,543.0	1,509.7	33.34	46.287	
6,700.0	6,330.8	6,377.6	6,330.8	43.7	16.3	-179.74	-262.3	367.9	1,574.9	1,541.0	33.90	46.462	
6,800.0	6,426.6	6,473.5	6,426.6	44.2	16.4	-179.74	-262.3	367.9	1,603.5	1,569.1	34.41	46.596	
6,900.0	6,523.3	6,570.2	6,523.3	44.6	16.6	-179.75	-262.3	367.9	1,628.7	1,593.9	34.88	46.692	
7,000.0	6,620.9	6,667.8	6,620.9	45.0	16.8	-179.76	-262.3	367.9	1,650.6	1,615.3	35.30	46.754	
7,100.0	6,719.2	6,766.1	6,719.2	45.3	17.0	-179.76	-262.3	367.9	1,669.1	1,633.4	35.69	46.762	
7,200.0	6,817.7	6,864.6	6,817.7	45.7	17.2	-179.76	-262.3	367.9	1,686.4	1,650.3	36.14	46.658	
7,300.0	6,916.2	6,963.0	6,916.2	46.1	17.3	-179.77	-262.3	367.9	1,703.8	1,667.2	36.60	46.556	
7,400.0	7,014.6	7,061.5	7,014.6	46.5	17.5	-179.77	-262.3	367.9	1,721.1	1,684.1	37.05	46.456	
7,500.0	7,113.1	7,160.0	7,113.1	46.9	17.7	-179.77	-262.3	367.9	1,738.5	1,701.0	37.50	46.357	
7,600.0	7,211.6	7,258.5	7,211.6	47.3	17.9	-179.77	-262.3	367.9	1,755.9	1,717.9	37.96	46.260	
7,700.0	7,310.1	7,357.0	7,310.1	47.7	18.1	-179.77	-262.3	367.9	1,773.2	1,734.8	38.41	46.165	
7,800.0	7,408.6	7,455.4	7,408.6	48.0	18.3	-179.78	-262.3	367.9	1,790.6	1,751.7	38.87	46.071	
7,900.0	7,507.1	7,553.9	7,507.1	48.4	18.5	-179.78	-262.3	367.9	1,808.0	1,768.7	39.32	45.978	
8,000.0	7,605.5	7,652.4	7,605.5	48.8	18.7	-179.78	-262.3	367.9	1,825.3	1,785.6	39.78	45.887	
8,062.4	7,667.0	7,713.9	7,667.0	49.1	18.8	-179.78	-262.3	367.9	1,836.2	1,796.1	40.06	45.831	

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Project:	SEC.31-T5N-R65W	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Reference Site:	PAD Y SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Plan #4 (3-29-10)	Offset TVD Reference:	Offset Datum

PAD Z SEC.31-T5N-R65W - LATHAM Z6 6-4-31 - Wellbore #1 - Plan #4 (3-29-10)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
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	
0.0	0.0	0.0	0.0	0.0	0.0	-117.60	-14.6	-27.9	31.4					
100.0	100.0	100.0	100.0	0.1	0.1	-117.60	-14.6	-27.9	31.4	31.2	0.22	139.915		
200.0	200.0	200.0	200.0	0.3	0.3	-117.60	-14.6	-27.9	31.4	30.8	0.67	46.638		
300.0	300.0	300.0	300.0	0.6	0.6	-117.60	-14.6	-27.9	31.4	30.3	1.12	27.983		
400.0	400.0	400.0	400.0	0.8	0.8	-117.60	-14.6	-27.9	31.4	29.9	1.57	19.988		
500.0	500.0	500.0	500.0	1.0	1.0	-117.60	-14.6	-27.9	31.4	29.4	2.02	15.546		
600.0	600.0	600.0	600.0	1.2	1.2	-117.60	-14.6	-27.9	31.4	29.0	2.47	12.720 CC, ES		
700.0	700.0	700.0	700.0	1.4	1.5	118.82	-14.6	-27.9	32.3	29.4	2.90	11.119		
800.0	799.8	799.8	799.8	1.6	1.7	126.27	-14.6	-27.9	35.1	31.8	3.32	10.570 SF		
900.0	899.5	899.5	899.5	1.9	1.9	136.08	-14.6	-27.9	40.8	37.1	3.75	10.896		
1,000.0	998.7	998.7	998.7	2.1	2.1	145.61	-14.6	-27.9	50.4	46.2	4.19	12.031		
1,100.0	1,097.5	1,097.5	1,097.5	2.4	2.4	153.41	-14.6	-27.9	63.9	59.3	4.62	13.823		
1,200.0	1,195.6	1,195.6	1,195.6	2.7	2.6	159.29	-14.6	-27.9	81.5	76.4	5.06	16.100		
1,300.0	1,293.1	1,293.1	1,293.1	3.1	2.8	163.59	-14.6	-27.9	102.9	97.4	5.49	18.720		
1,400.0	1,389.6	1,389.6	1,389.6	3.6	3.0	166.75	-14.6	-27.9	127.9	122.0	5.93	21.579		
1,500.0	1,485.3	1,490.0	1,490.0	4.1	3.2	169.32	-14.9	-26.5	155.3	148.9	6.35	24.450		
1,600.0	1,579.8	1,591.7	1,591.5	4.8	3.4	171.63	-15.9	-21.6	182.9	176.2	6.76	27.076		
1,700.0	1,673.2	1,694.2	1,693.7	5.4	3.6	173.78	-17.6	-13.1	210.7	203.5	7.18	29.334		
1,800.0	1,766.3	1,798.3	1,797.0	6.2	3.9	175.82	-20.2	-0.8	236.2	228.6	7.66	30.826		
1,900.0	1,859.4	1,904.0	1,901.4	6.9	4.1	177.78	-23.5	15.4	258.7	250.5	8.17	31.668		
2,000.0	1,952.6	2,011.0	2,006.3	7.6	4.5	179.75	-27.7	35.7	278.0	269.3	8.70	31.942		
2,100.0	2,045.7	2,119.0	2,111.5	8.4	4.8	-178.19	-32.8	60.0	294.2	284.9	9.28	31.712		
2,200.0	2,138.8	2,227.8	2,216.3	9.1	5.3	-176.01	-38.7	88.4	307.4	297.5	9.91	31.018		
2,300.0	2,231.9	2,337.0	2,320.4	9.9	5.8	-173.64	-45.4	120.8	317.7	307.1	10.61	29.938		
2,400.0	2,325.0	2,444.5	2,421.5	10.6	6.4	-171.09	-52.8	156.5	325.3	313.9	11.41	28.505		
2,500.0	2,418.1	2,543.3	2,514.1	11.4	7.0	-168.74	-59.8	190.4	332.3	320.0	12.27	27.085		
2,600.0	2,511.2	2,642.1	2,606.6	12.2	7.6	-166.49	-66.9	224.4	339.9	326.7	13.20	25.745		
2,700.0	2,604.3	2,741.0	2,699.1	12.9	8.3	-164.34	-73.9	258.3	348.0	333.8	14.21	24.485		
2,800.0	2,697.4	2,839.8	2,791.7	13.7	8.9	-162.28	-80.9	292.3	356.5	341.2	15.29	23.318		
2,900.0	2,790.5	2,938.6	2,884.2	14.5	9.6	-160.33	-88.0	326.2	365.5	349.1	16.43	22.246		
3,000.0	2,883.6	3,037.4	2,976.8	15.3	10.3	-158.46	-95.0	360.2	374.9	357.3	17.63	21.268		
3,100.0	2,976.7	3,136.2	3,069.3	16.0	11.0	-156.69	-102.1	394.1	384.7	365.8	18.88	20.380		
3,200.0	3,069.8	3,235.1	3,161.8	16.8	11.7	-155.01	-109.1	428.1	394.8	374.7	20.17	19.578		
3,300.0	3,163.0	3,333.9	3,254.4	17.6	12.4	-153.41	-116.1	462.0	405.3	383.8	21.50	18.853		
3,400.0	3,256.1	3,432.7	3,346.9	18.4	13.1	-151.90	-123.2	496.0	416.1	393.2	22.86	18.199		
3,500.0	3,349.2	3,531.5	3,439.5	19.1	13.8	-150.45	-130.2	529.9	427.1	402.8	24.25	17.610		
3,600.0	3,442.3	3,630.4	3,532.0	19.9	14.5	-149.09	-137.3	563.9	438.4	412.7	25.67	17.078		
3,700.0	3,535.4	3,729.2	3,624.5	20.7	15.2	-147.79	-144.3	597.8	449.9	422.8	27.11	16.598		
3,800.0	3,628.5	3,828.0	3,717.1	21.5	15.9	-146.55	-151.3	631.8	461.7	433.1	28.56	16.163		
3,900.0	3,721.6	3,926.8	3,809.6	22.2	16.7	-145.38	-158.4	665.7	473.6	443.6	30.03	15.770		
4,000.0	3,814.7	4,025.6	3,902.2	23.0	17.4	-144.26	-165.4	699.7	485.8	454.2	31.52	15.413		
4,100.0	3,907.8	4,124.5	3,994.7	23.8	18.1	-143.20	-172.5	733.6	498.1	465.1	33.01	15.089		
4,200.0	4,000.9	4,223.3	4,087.3	24.6	18.8	-142.19	-179.5	767.6	510.5	476.0	34.51	14.793		
4,300.0	4,094.0	4,322.1	4,179.8	25.4	19.6	-141.23	-186.5	801.5	523.2	487.1	36.02	14.524		
4,400.0	4,187.1	4,420.9	4,272.3	26.1	20.3	-140.31	-193.6	835.5	535.9	498.4	37.54	14.277		
4,500.0	4,280.2	4,519.8	4,364.9	26.9	21.0	-139.44	-200.6	869.4	548.8	509.8	39.06	14.051		
4,600.0	4,373.4	4,618.6	4,457.4	27.7	21.8	-138.60	-207.6	903.4	561.8	521.2	40.58	13.843		
4,700.0	4,466.5	4,717.4	4,550.0	28.5	22.5	-137.81	-214.7	937.3	575.0	532.8	42.11	13.653		
4,800.0	4,559.6	4,816.2	4,642.5	29.3	23.2	-137.05	-221.7	971.3	588.2	544.5	43.65	13.477		
4,900.0	4,652.7	4,915.1	4,735.0	30.0	24.0	-136.32	-228.8	1,005.2	601.5	556.3	45.18	13.314		
5,000.0	4,745.8	5,013.9	4,827.6	30.8	24.7	-135.62	-235.8	1,039.2	614.9	568.2	46.72	13.164		
5,100.0	4,838.9	5,112.7	4,920.1	31.6	25.4	-134.96	-242.8	1,073.1	628.4	580.2	48.25	13.024		

Company:	Mineral Resources Inc	Local Co-ordinate Reference:	Well FARMERS Y7 6-6-31
Project:	SEC.31-T5N-R65W	TVD Reference:	WELL @ 4673.0ft (Original Well Elev)
Reference Site:	PAD Y SEC.31-T5N-R65W	MD Reference:	WELL @ 4673.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	FARMERS Y7 6-6-31	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM den0-adp01 Server Data
Reference Design:	Plan #4 (3-29-10)	Offset TVD Reference:	Offset Datum

PAD Z SEC.31-T5N-R65W - LATHAM Z6 6-4-31 - Wellbore #1 - Plan #4 (3-29-10)													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.0	4,932.0	5,211.5	5,012.7	32.4	26.2	-134.32	-249.9	1,107.1	642.0	592.2	49.79	12.895		
5,300.0	5,025.1	5,310.3	5,105.2	33.2	26.9	-133.71	-256.9	1,141.0	655.7	604.4	51.33	12.775		
5,400.0	5,118.2	5,409.2	5,197.7	33.9	27.7	-133.12	-264.0	1,175.0	669.4	616.6	52.87	12.662		
5,500.0	5,211.3	5,508.0	5,290.3	34.7	28.4	-132.55	-271.0	1,208.9	683.2	628.8	54.41	12.558		
5,600.0	5,304.4	5,606.8	5,382.8	35.5	29.1	-132.01	-278.0	1,242.9	697.1	641.2	55.95	12.460		
5,700.0	5,397.5	5,705.6	5,475.4	36.3	29.9	-131.49	-285.1	1,276.8	711.0	653.5	57.48	12.369		
5,800.0	5,490.6	5,804.5	5,567.9	37.1	30.6	-130.99	-292.1	1,310.8	725.0	666.0	59.02	12.283		
5,900.0	5,583.8	5,903.3	5,660.4	37.8	31.4	-130.51	-299.2	1,344.7	739.0	678.5	60.56	12.203		
6,000.0	5,676.9	5,997.7	5,749.1	38.6	32.0	-130.11	-305.8	1,376.6	753.3	691.3	61.99	12.152		
6,100.0	5,770.0	6,089.5	5,836.2	39.4	32.5	-129.93	-311.7	1,405.1	768.4	705.2	63.17	12.164		
6,200.0	5,863.1	6,181.2	5,923.9	40.2	32.9	-129.97	-317.0	1,430.8	784.5	720.2	64.22	12.215		
6,300.0	5,956.2	6,272.4	6,012.1	41.0	33.3	-130.21	-321.7	1,453.6	801.4	736.3	65.12	12.306		
6,400.0	6,049.3	6,363.0	6,100.4	41.7	33.7	-130.64	-325.9	1,473.5	819.3	753.4	65.89	12.434		
6,500.0	6,142.4	6,452.9	6,188.6	42.5	34.0	-131.23	-329.4	1,490.6	838.2	771.7	66.53	12.599		
6,600.0	6,236.0	6,542.1	6,276.6	43.2	34.3	-132.16	-332.4	1,504.9	857.2	790.3	66.97	12.801		
6,700.0	6,330.8	6,631.1	6,364.8	43.7	34.5	-133.10	-334.8	1,516.4	875.1	807.9	67.25	13.013		
6,800.0	6,426.6	6,719.8	6,453.1	44.2	34.7	-134.00	-336.6	1,525.2	891.8	824.4	67.43	13.225		
6,900.0	6,523.3	6,808.2	6,541.3	44.6	34.8	-134.88	-337.9	1,531.4	907.3	839.7	67.53	13.435		
7,000.0	6,620.9	6,900.0	6,633.0	45.0	34.9	-135.76	-338.6	1,534.9	921.5	854.0	67.52	13.648		
7,100.0	6,719.2	6,986.2	6,719.2	45.3	35.0	-136.54	-338.7	1,535.7	934.6	867.1	67.45	13.855		
7,200.0	6,817.7	7,084.7	6,817.7	45.7	35.1	-137.26	-338.7	1,535.7	947.3	879.9	67.45	14.046		
7,300.0	6,916.2	7,183.2	6,916.2	46.1	35.2	-137.96	-338.7	1,535.7	960.3	892.8	67.44	14.238		
7,400.0	7,014.6	7,281.7	7,014.6	46.5	35.3	-138.64	-338.7	1,535.7	973.3	905.9	67.44	14.432		
7,500.0	7,113.1	7,380.2	7,113.1	46.9	35.4	-139.30	-338.7	1,535.7	986.5	919.0	67.45	14.626		
7,600.0	7,211.6	7,478.6	7,211.6	47.3	35.5	-139.95	-338.7	1,535.7	999.8	932.3	67.46	14.821		
7,700.0	7,310.1	7,577.1	7,310.1	47.7	35.6	-140.57	-338.7	1,535.7	1,013.2	945.8	67.48	15.016		
7,800.0	7,408.6	7,675.6	7,408.6	48.0	35.7	-141.19	-338.7	1,535.7	1,026.8	959.3	67.50	15.211		
7,900.0	7,507.1	7,774.1	7,507.1	48.4	35.8	-141.78	-338.7	1,535.7	1,040.5	972.9	67.53	15.407		
8,000.0	7,605.5	7,872.6	7,605.5	48.8	35.9	-142.36	-338.7	1,535.7	1,054.2	986.7	67.57	15.603		
8,062.4	7,667.0	7,934.0	7,667.0	49.1	35.9	-142.72	-338.7	1,535.7	1,062.9	995.3	67.59	15.725		

Company: Mineral Resources Inc
Project: SEC.31-T5N-R65W
Reference Site: PAD Y SEC.31-T5N-R65W
Site Error: 0.0ft
Reference Well: FARMERS Y7 6-6-31
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #4 (3-29-10)

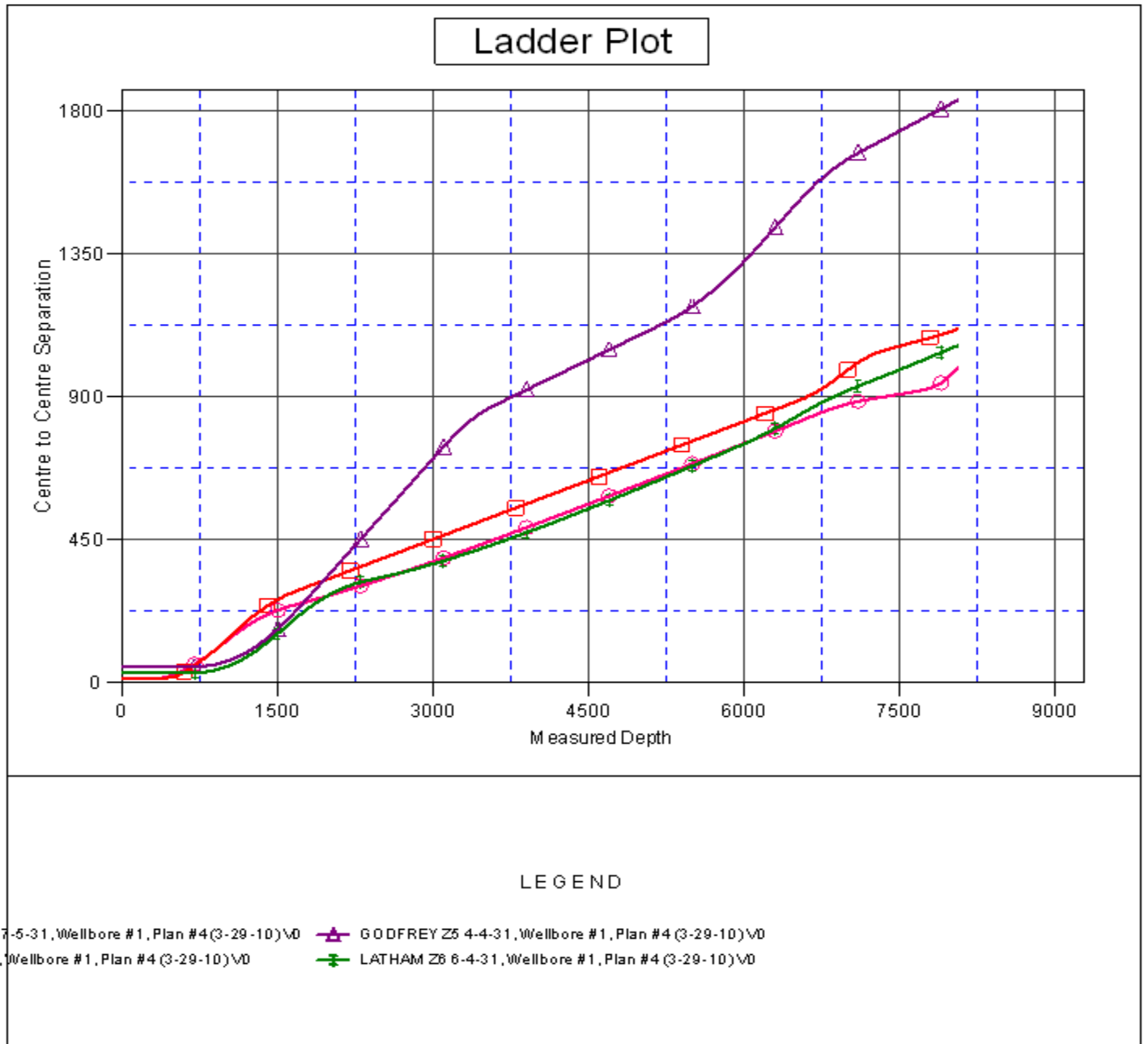
Local Co-ordinate Reference: Well FARMERS Y7 6-6-31
TVD Reference: WELL @ 4673.0ft (Original Well Elev)
MD Reference: WELL @ 4673.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM den0-adp01 Server Data
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 4673.0ft (Original Well Elev) Coordinates are relative to: FARMERS Y7 6-6-31

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.51°

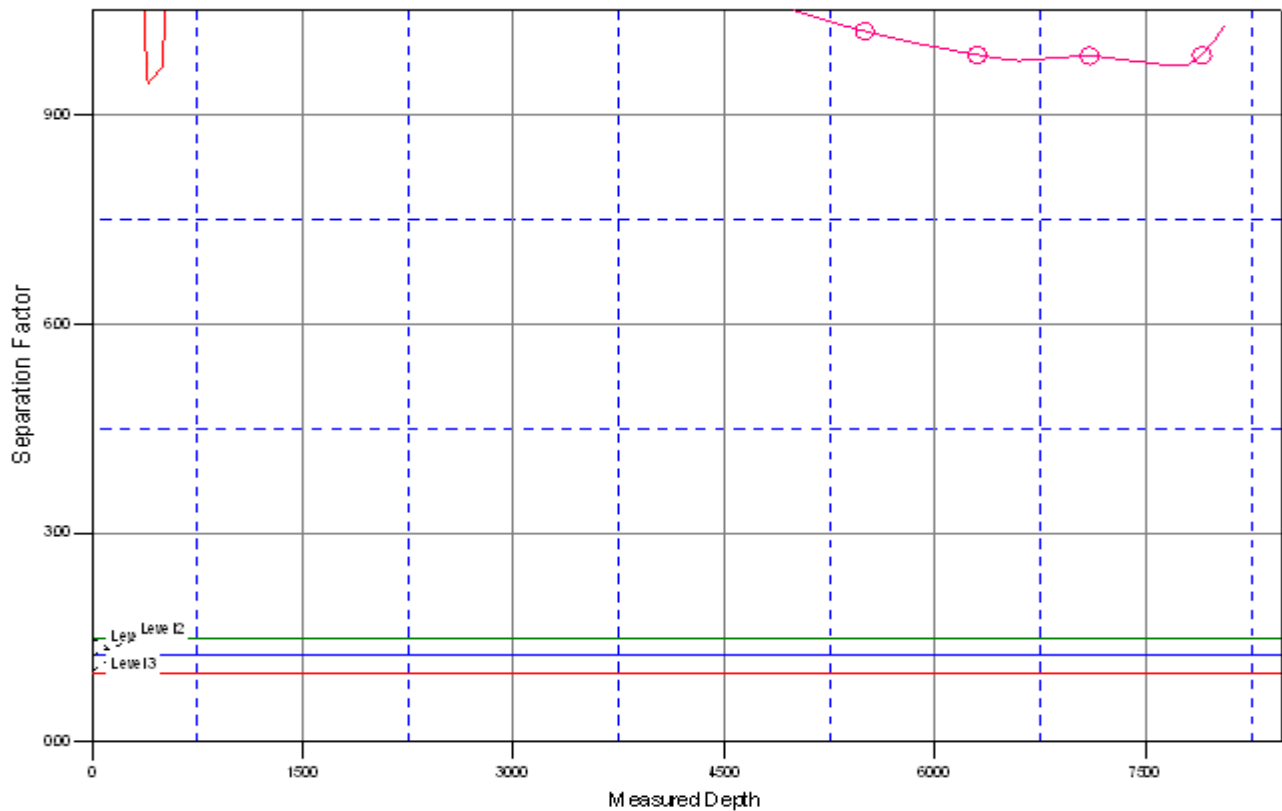


Company: Mineral Resources Inc
Project: SEC.31-T5N-R65W
Reference Site: PAD Y SEC.31-T5N-R65W
Site Error: 0.0ft
Reference Well: FARMERS Y7 6-6-31
Well Error: 0.0ft
Reference Wellbore Wellbore #1
Reference Design: Plan #4 (3-29-10)

Local Co-ordinate Reference: Well FARMERS Y7 6-6-31
TVD Reference: WELL @ 4673.0ft (Original Well Elev)
MD Reference: WELL @ 4673.0ft (Original Well Elev)
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Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM den0-adp01 Server Data
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 4673.0ft (Original Well Elev) Coordinates are relative to: FARMERS Y7 6-6-31
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.51°

Separation Factor Plot



LEGEND

8 7-5-31, Wellbore #1, Plan #4 (3-29-10) \V0 GODFREY Z5 4-4-31, Wellbore #1, Plan #4 (3-29-10) \V0
1, Wellbore #1, Plan #4 (3-29-10) \V0 LATHAM Z6 6-4-31, Wellbore #1, Plan #4 (3-29-10) \V0