

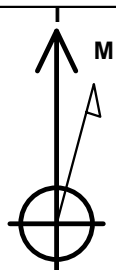
Verdad Oil & Gas Corporation

Well Name: **Johnson 01N-65W-30-8N**

Surface Location: Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
Ground Elevation: 4999.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1249523.47 3221385.35 40.015620 -104.709580
Original Well Elev WELL @ 5012.0ft (Original Well Elev)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Gilmore 1-30 300' Circle	1.0	3941.6	-8.4	Circle (Radius: 300.0)
SHL 205'FSL & 1839'FWL	1.0	0.0	0.0	Point
BHL 460'FNL & 2313'FWL	7277.0	4630.1	492.9	Point



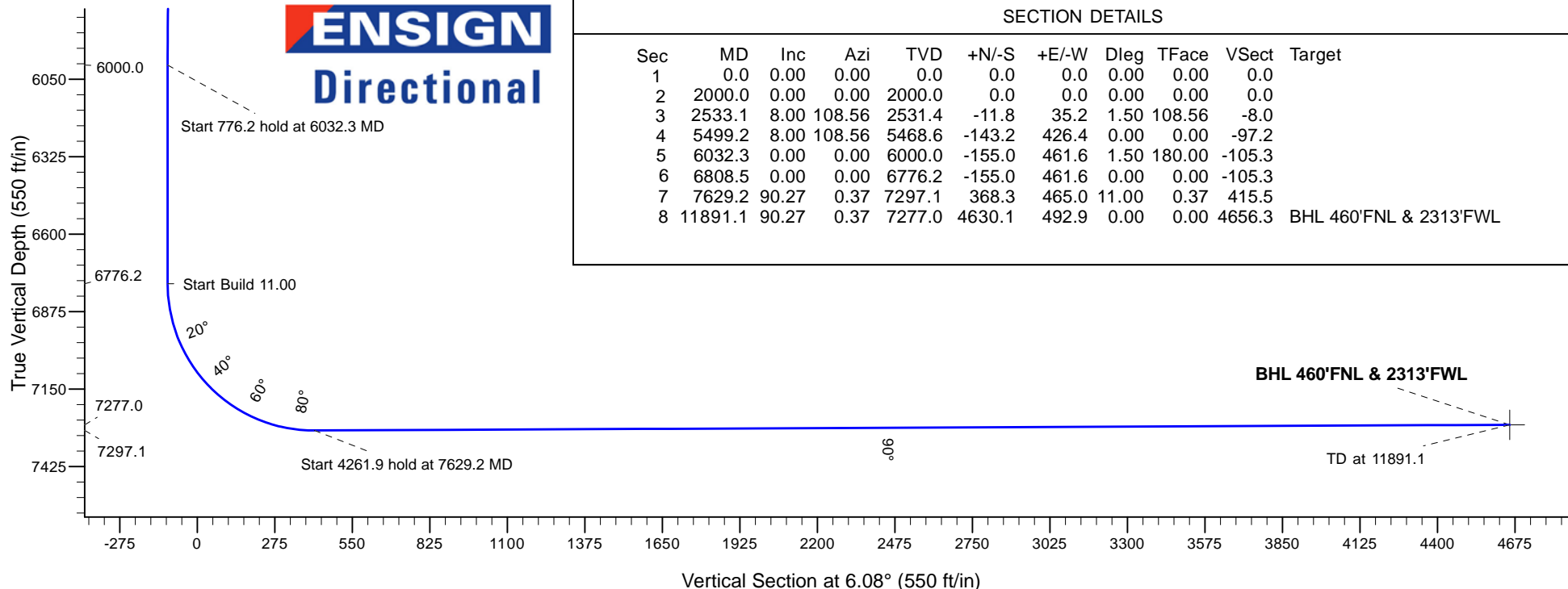
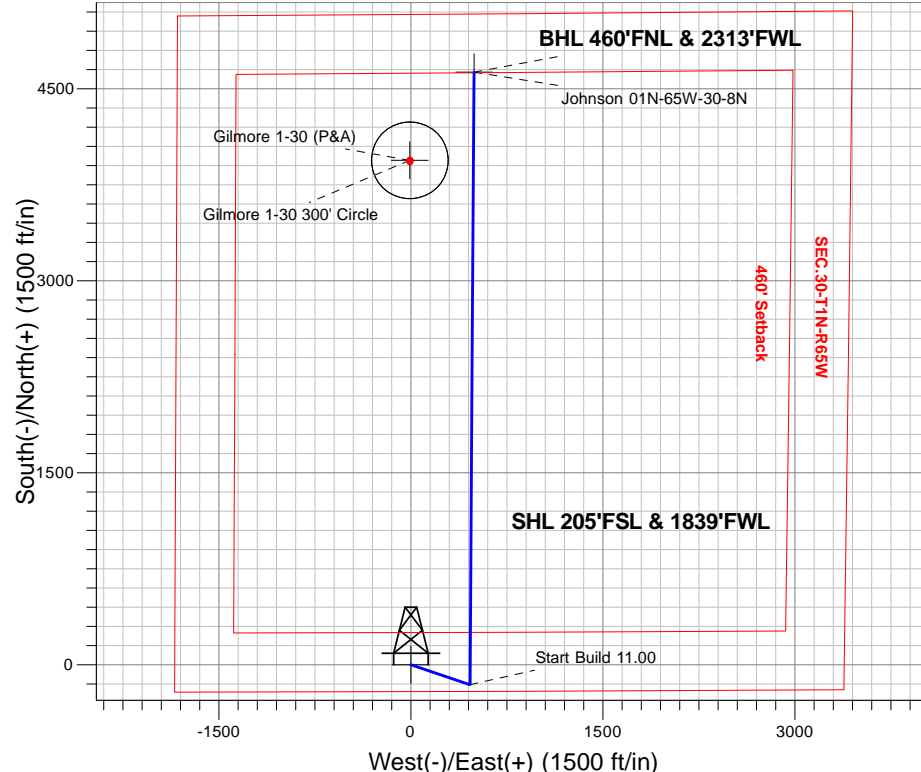
Azimuths to True North
Magnetic North: 8.16°

Magnetic Field
Strength: 52429.9snT
Dip Angle: 66.58°
Date: 3/28/2016
Model: IGRF2010

Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W
Johnson 01N-65W-30-8N
Plan #3 (4-22-16)

ANNOTATIONS

TVD	MD	Annotation
2000.0	2000.0	KOP - Start Build 1.50
5468.6	5499.2	Start Drop -1.50
6000.0	6032.3	Start 776.2 hold at 6032.3 MD
6776.2	6808.5	Start Build 11.00
7297.1	7629.2	Start 4261.9 hold at 7629.2 MD
7277.0	11891.1	TD at 11891.1



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	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	2533.1	8.00	108.56	2531.4	-11.8	35.2	1.50	108.56	-8.0	
4	5499.2	8.00	108.56	5468.6	-143.2	426.4	0.00	0.00	-97.2	
5	6032.3	0.00	0.00	6000.0	-155.0	461.6	1.50	180.00	-105.3	
6	6808.5	0.00	0.00	6776.2	-155.0	461.6	0.00	0.00	-105.3	
7	7629.2	90.27	0.37	7297.1	368.3	465.0	11.00	0.37	415.5	
8	11891.1	90.27	0.37	7277.0	4630.1	492.9	0.00	0.00	4656.3	BHL 460'FNL & 2313'FWL



Directional

Verdad Oil & Gas Corporation

SEC.30-T1N-R65W

Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W

Johnson 01N-65W-30-8N

Wellbore #1

Plan: Plan #3 (4-22-16)

Standard Planning Report

22 April, 2016

Database:	US_EDM	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Project:	SEC.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	North Reference:	True
Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (4-22-16)		

Project	SEC.30-T1N-R65W, Weld County, CO		
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	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W				
Site Position:		Northing:	1,249,518.89 usft	Latitude:	40.015610
From:	Lat/Long	Easting:	3,221,278.96 usft	Longitude:	-104.709960
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51

Well	Johnson 01N-65W-30-8N					
Well Position	+N/-S	3.6 ft	Northing:	1,249,523.47 usft	Latitude:	40.015620
	+E/-W	106.4 ft	Easting:	3,221,385.35 usft	Longitude:	-104.709580
Position Uncertainty		0.0 ft	Wellhead Elevation:		Ground Level:	4,999.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/28/2016	8.16	66.58	52,430

Design	Plan #3 (4-22-16)			
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	6.08

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,533.1	8.00	108.56	2,531.4	-11.8	35.2	1.50	1.50	0.00	108.56	
5,499.2	8.00	108.56	5,468.6	-143.2	426.4	0.00	0.00	0.00	0.00	
6,032.3	0.00	0.00	6,000.0	-155.0	461.6	1.50	-1.50	0.00	180.00	
6,808.5	0.00	0.00	6,776.2	-155.0	461.6	0.00	0.00	0.00	0.00	
7,629.2	90.27	0.37	7,297.1	368.3	465.0	11.00	11.00	0.00	0.37	
11,891.1	90.27	0.37	7,277.0	4,630.1	492.9	0.00	0.00	0.00	0.00	BHL 460'FNL & 2313'

Database:	US_EDM	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Project:	SEC.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	North Reference:	True
Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (4-22-16)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00	
Gilmore 1-30 300' Circle - SHL 205'FSL & 1839'FWL										
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	
300.0	0.00	0.00	300.0	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	
500.0	0.00	0.00	500.0	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	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
KOP - Start Build 1.50										
2,100.0	1.50	108.56	2,100.0	-0.4	1.2	-0.3	1.50	1.50	0.00	
2,200.0	3.00	108.56	2,199.9	-1.7	5.0	-1.1	1.50	1.50	0.00	
2,300.0	4.50	108.56	2,299.7	-3.7	11.2	-2.5	1.50	1.50	0.00	
2,400.0	6.00	108.56	2,399.3	-6.7	19.8	-4.5	1.50	1.50	0.00	
2,500.0	7.50	108.56	2,498.6	-10.4	31.0	-7.1	1.50	1.50	0.00	
2,533.1	8.00	108.56	2,531.4	-11.8	35.2	-8.0	1.50	1.50	0.00	
2,600.0	8.00	108.56	2,597.6	-14.8	44.0	-10.0	0.00	0.00	0.00	
2,700.0	8.00	108.56	2,696.6	-19.2	57.2	-13.0	0.00	0.00	0.00	
2,800.0	8.00	108.56	2,795.7	-23.6	70.4	-16.1	0.00	0.00	0.00	
2,900.0	8.00	108.56	2,894.7	-28.1	83.6	-19.1	0.00	0.00	0.00	
3,000.0	8.00	108.56	2,993.7	-32.5	96.8	-22.1	0.00	0.00	0.00	
3,100.0	8.00	108.56	3,092.8	-36.9	110.0	-25.1	0.00	0.00	0.00	
3,200.0	8.00	108.56	3,191.8	-41.4	123.2	-28.1	0.00	0.00	0.00	
3,300.0	8.00	108.56	3,290.8	-45.8	136.4	-31.1	0.00	0.00	0.00	
3,400.0	8.00	108.56	3,389.8	-50.2	149.5	-34.1	0.00	0.00	0.00	
3,500.0	8.00	108.56	3,488.9	-54.6	162.7	-37.1	0.00	0.00	0.00	
3,600.0	8.00	108.56	3,587.9	-59.1	175.9	-40.1	0.00	0.00	0.00	
3,700.0	8.00	108.56	3,686.9	-63.5	189.1	-43.1	0.00	0.00	0.00	
3,800.0	8.00	108.56	3,786.0	-67.9	202.3	-46.1	0.00	0.00	0.00	
3,900.0	8.00	108.56	3,885.0	-72.4	215.5	-49.1	0.00	0.00	0.00	
4,000.0	8.00	108.56	3,984.0	-76.8	228.7	-52.1	0.00	0.00	0.00	
4,100.0	8.00	108.56	4,083.0	-81.2	241.9	-55.2	0.00	0.00	0.00	
4,200.0	8.00	108.56	4,182.1	-85.6	255.0	-58.2	0.00	0.00	0.00	
4,300.0	8.00	108.56	4,281.1	-90.1	268.2	-61.2	0.00	0.00	0.00	
4,400.0	8.00	108.56	4,380.1	-94.5	281.4	-64.2	0.00	0.00	0.00	
4,500.0	8.00	108.56	4,479.1	-98.9	294.6	-67.2	0.00	0.00	0.00	
4,600.0	8.00	108.56	4,578.2	-103.4	307.8	-70.2	0.00	0.00	0.00	
4,700.0	8.00	108.56	4,677.2	-107.8	321.0	-73.2	0.00	0.00	0.00	
4,800.0	8.00	108.56	4,776.2	-112.2	334.2	-76.2	0.00	0.00	0.00	

Database:	US_EDM	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Project:	SEC.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	North Reference:	True
Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (4-22-16)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,900.0	8.00	108.56	4,875.3	-116.6	347.4	-79.2	0.00	0.00	0.00
5,000.0	8.00	108.56	4,974.3	-121.1	360.6	-82.2	0.00	0.00	0.00
5,100.0	8.00	108.56	5,073.3	-125.5	373.7	-85.2	0.00	0.00	0.00
5,200.0	8.00	108.56	5,172.3	-129.9	386.9	-88.2	0.00	0.00	0.00
5,300.0	8.00	108.56	5,271.4	-134.4	400.1	-91.2	0.00	0.00	0.00
5,400.0	8.00	108.56	5,370.4	-138.8	413.3	-94.3	0.00	0.00	0.00
5,499.2	8.00	108.56	5,468.6	-143.2	426.4	-97.2	0.00	0.00	0.00
Start Drop -1.50									
5,500.0	7.98	108.56	5,469.4	-143.2	426.5	-97.3	1.56	-1.56	0.00
5,600.0	6.48	108.56	5,568.6	-147.2	438.4	-100.0	1.50	-1.50	0.00
5,700.0	4.98	108.56	5,668.1	-150.4	447.9	-102.1	1.50	-1.50	0.00
5,800.0	3.48	108.56	5,767.8	-152.8	454.9	-103.7	1.50	-1.50	0.00
5,900.0	1.98	108.56	5,867.7	-154.3	459.4	-104.8	1.50	-1.50	0.00
6,000.0	0.48	108.56	5,967.7	-155.0	461.5	-105.2	1.50	-1.50	0.00
6,032.3	0.00	0.00	6,000.0	-155.0	461.6	-105.3	1.50	-1.50	-336.10
Start 776.2 hold at 6032.3 MD									
6,100.0	0.00	0.00	6,067.7	-155.0	461.6	-105.3	0.00	0.00	0.00
6,200.0	0.00	0.00	6,167.7	-155.0	461.6	-105.3	0.00	0.00	0.00
6,300.0	0.00	0.00	6,267.7	-155.0	461.6	-105.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,367.7	-155.0	461.6	-105.3	0.00	0.00	0.00
6,500.0	0.00	0.00	6,467.7	-155.0	461.6	-105.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,567.7	-155.0	461.6	-105.3	0.00	0.00	0.00
6,700.0	0.00	0.00	6,667.7	-155.0	461.6	-105.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,767.7	-155.0	461.6	-105.3	0.00	0.00	0.00
6,808.5	0.00	0.00	6,776.2	-155.0	461.6	-105.3	0.00	0.00	0.00
Start Build 11.00									
6,900.0	10.06	0.37	6,867.2	-147.0	461.7	-97.3	11.00	11.00	0.00
7,000.0	21.06	0.37	6,963.4	-120.2	461.8	-70.6	11.00	11.00	0.00
7,100.0	32.06	0.37	7,052.7	-75.6	462.1	-26.2	11.00	11.00	0.00
7,200.0	43.06	0.37	7,131.9	-14.7	462.5	34.4	11.00	11.00	0.00
7,300.0	54.06	0.37	7,197.9	60.2	463.0	108.8	11.00	11.00	0.00
7,400.0	65.06	0.37	7,248.5	146.3	463.6	194.5	11.00	11.00	0.00
7,500.0	76.06	0.37	7,281.8	240.4	464.2	288.2	11.00	11.00	0.00
7,600.0	87.06	0.37	7,296.4	339.2	464.8	386.5	11.00	11.00	0.00
7,629.2	90.27	0.37	7,297.1	368.4	465.0	415.5	10.98	10.98	0.00
Start 4261.9 hold at 7629.2 MD									
7,700.0	90.27	0.37	7,296.7	439.2	465.5	486.0	0.00	0.00	0.00
7,800.0	90.27	0.37	7,296.3	539.2	466.1	585.5	0.00	0.00	0.00
7,900.0	90.27	0.37	7,295.8	639.1	466.8	685.0	0.00	0.00	0.00
8,000.0	90.27	0.37	7,295.3	739.1	467.4	784.5	0.00	0.00	0.00
8,100.0	90.27	0.37	7,294.9	839.1	468.1	884.0	0.00	0.00	0.00
8,200.0	90.27	0.37	7,294.4	939.1	468.8	983.5	0.00	0.00	0.00
8,300.0	90.27	0.37	7,293.9	1,039.1	469.4	1,083.0	0.00	0.00	0.00
8,400.0	90.27	0.37	7,293.5	1,139.1	470.1	1,182.5	0.00	0.00	0.00
8,500.0	90.27	0.37	7,293.0	1,239.1	470.7	1,282.0	0.00	0.00	0.00
8,600.0	90.27	0.37	7,292.5	1,339.1	471.4	1,381.5	0.00	0.00	0.00
8,700.0	90.27	0.37	7,292.0	1,439.1	472.0	1,481.0	0.00	0.00	0.00
8,800.0	90.27	0.37	7,291.6	1,539.1	472.7	1,580.5	0.00	0.00	0.00
8,900.0	90.27	0.37	7,291.1	1,639.1	473.3	1,680.0	0.00	0.00	0.00
9,000.0	90.27	0.37	7,290.6	1,739.1	474.0	1,779.5	0.00	0.00	0.00
9,100.0	90.27	0.37	7,290.2	1,839.1	474.6	1,879.0	0.00	0.00	0.00
9,200.0	90.27	0.37	7,289.7	1,939.1	475.3	1,978.5	0.00	0.00	0.00
9,300.0	90.27	0.37	7,289.2	2,039.1	475.9	2,078.0	0.00	0.00	0.00

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Project:	SEC.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	North Reference:	True
Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (4-22-16)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,400.0	90.27	0.37	7,288.7	2,139.1	476.6	2,177.5	0.00	0.00	0.00
9,500.0	90.27	0.37	7,288.3	2,239.1	477.3	2,277.0	0.00	0.00	0.00
9,600.0	90.27	0.37	7,287.8	2,339.1	477.9	2,376.5	0.00	0.00	0.00
9,700.0	90.27	0.37	7,287.3	2,439.1	478.6	2,476.0	0.00	0.00	0.00
9,800.0	90.27	0.37	7,286.9	2,539.1	479.2	2,575.5	0.00	0.00	0.00
9,900.0	90.27	0.37	7,286.4	2,639.1	479.9	2,675.1	0.00	0.00	0.00
10,000.0	90.27	0.37	7,285.9	2,739.1	480.5	2,774.6	0.00	0.00	0.00
10,100.0	90.27	0.37	7,285.4	2,839.1	481.2	2,874.1	0.00	0.00	0.00
10,200.0	90.27	0.37	7,285.0	2,939.1	481.8	2,973.6	0.00	0.00	0.00
10,300.0	90.27	0.37	7,284.5	3,039.1	482.5	3,073.1	0.00	0.00	0.00
10,400.0	90.27	0.37	7,284.0	3,139.1	483.1	3,172.6	0.00	0.00	0.00
10,500.0	90.27	0.37	7,283.6	3,239.1	483.8	3,272.1	0.00	0.00	0.00
10,600.0	90.27	0.37	7,283.1	3,339.1	484.4	3,371.6	0.00	0.00	0.00
10,700.0	90.27	0.37	7,282.6	3,439.1	485.1	3,471.1	0.00	0.00	0.00
10,800.0	90.27	0.37	7,282.1	3,539.1	485.8	3,570.6	0.00	0.00	0.00
10,900.0	90.27	0.37	7,281.7	3,639.1	486.4	3,670.1	0.00	0.00	0.00
11,000.0	90.27	0.37	7,281.2	3,739.0	487.1	3,769.6	0.00	0.00	0.00
11,100.0	90.27	0.37	7,280.7	3,839.0	487.7	3,869.1	0.00	0.00	0.00
11,200.0	90.27	0.37	7,280.3	3,939.0	488.4	3,968.6	0.00	0.00	0.00
11,300.0	90.27	0.37	7,279.8	4,039.0	489.0	4,068.1	0.00	0.00	0.00
11,400.0	90.27	0.37	7,279.3	4,139.0	489.7	4,167.6	0.00	0.00	0.00
11,500.0	90.27	0.37	7,278.8	4,239.0	490.3	4,267.1	0.00	0.00	0.00
11,600.0	90.27	0.37	7,278.4	4,339.0	491.0	4,366.6	0.00	0.00	0.00
11,700.0	90.27	0.37	7,277.9	4,439.0	491.6	4,466.1	0.00	0.00	0.00
11,800.0	90.27	0.37	7,277.4	4,539.0	492.3	4,565.6	0.00	0.00	0.00
11,891.1	90.27	0.37	7,277.0	4,630.1	492.9	4,656.3	0.00	0.00	0.00
TD at 11891.1 - BHL 460'FNL & 2313'FWL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Gilmore 1-30 300' Circle - hit/miss target - Shape	0.00	0.00	1.0	3,941.6	-8.4	1,253,464.70	3,221,341.82	40.026440	-104.709610
- plan misses target center by 3941.6ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E) - Circle (radius 300.0)									
SHL 205'FSL & 1839'FM - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,249,523.48	3,221,385.35	40.015620	-104.709580
BHL 460'FNL & 2313'FM - plan hits target center - Point	0.00	0.00	7,277.0	4,630.1	492.9	1,254,157.62	3,221,836.93	40.028330	-104.707820

Database:	US_EDM	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Company:	Verdad Oil & Gas Corporation	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Project:	SEC.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	North Reference:	True
Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (4-22-16)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,000.0	2,000.0	0.0	0.0	KOP - Start Build 1.50
5,499.2	5,468.6	-143.2	426.4	Start Drop -1.50
6,032.3	6,000.0	-155.0	461.6	Start 776.2 hold at 6032.3 MD
6,808.5	6,776.2	-155.0	461.6	Start Build 11.00
7,629.2	7,297.1	368.4	465.0	Start 4261.9 hold at 7629.2 MD
11,891.1	7,277.0	4,630.1	492.9	TD at 11891.1



Directional

Verdad Oil & Gas Corporation

SEC.30-T1N-R65W

Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W

Johnson 01N-65W-30-8N

Wellbore #1

Plan #3 (4-22-16)

Anticollision Report

22 April, 2016

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Reference	Plan #3 (4-22-16)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0 ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	4/22/2016		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,891.1	Plan #3 (4-22-16) (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (ft)	Measured Depth (ft)	Between Centres (ft)	Between Ellipses (ft)		
Existing Wells Sec.30-T1N-R65W						
Gilmore 1-30 (P&A) - Wellbore #1 - Wellbore #1	11,198.9	7,259.3	495.9	273.4	2.228	CC
Gilmore 1-30 (P&A) - Wellbore #1 - Wellbore #1	11,200.0	7,259.3	495.9	273.3	2.228	ES, SF
Lehl 1 (P&A) - Wellbore #1 - Wellbore #1						Out of range
Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W						
Johnson 01N-65W-30-1C - Wellbore #1 - Plan #2 (8-5-14	166.3	167.3	106.5	106.0	202.785	CC
Johnson 01N-65W-30-1C - Wellbore #1 - Plan #2 (8-5-14	200.0	200.0	106.5	105.8	157.950	ES
Johnson 01N-65W-30-1C - Wellbore #1 - Plan #2 (8-5-14	2,000.0	1,953.5	387.7	376.7	35.045	SF
Johnson 01N-65W-30-2N - Wellbore #1 - Plan #3 (8-6-14	366.3	367.3	92.5	91.1	64.950	CC
Johnson 01N-65W-30-2N - Wellbore #1 - Plan #3 (8-6-14	400.0	400.0	92.5	90.9	58.798	ES
Johnson 01N-65W-30-2N - Wellbore #1 - Plan #3 (8-6-14	2,000.0	1,960.8	333.0	322.5	31.744	SF
Johnson 01N-65W-30-3N - Wellbore #1 - Plan #2 (8-5-14	566.3	567.3	75.7	73.4	32.589	CC
Johnson 01N-65W-30-3N - Wellbore #1 - Plan #2 (8-5-14	600.0	600.0	75.7	73.2	30.626	ES
Johnson 01N-65W-30-3N - Wellbore #1 - Plan #2 (8-5-14	900.0	892.3	90.9	87.1	24.122	SF
Johnson 01N-65W-30-4N - Wellbore #1 - Plan #2 (8-5-14	766.3	767.3	61.6	58.4	19.123	CC
Johnson 01N-65W-30-4N - Wellbore #1 - Plan #2 (8-5-14	800.0	800.0	61.6	58.3	18.280	ES
Johnson 01N-65W-30-4N - Wellbore #1 - Plan #2 (8-5-14	1,000.0	996.6	68.3	64.1	16.177	SF
Johnson 01N-65W-30-5C - Wellbore #1 - Plan #2 (8-5-14	1,166.3	1,167.3	44.8	39.8	8.927	CC
Johnson 01N-65W-30-5C - Wellbore #1 - Plan #2 (8-5-14	1,200.0	1,201.0	44.8	39.6	8.666	ES
Johnson 01N-65W-30-5C - Wellbore #1 - Plan #2 (8-5-14	1,300.0	1,300.0	46.5	40.9	8.299	SF
Johnson 01N-65W-30-6N - Wellbore #1 - Plan #2 (8-5-14	1,366.3	1,367.3	30.8	24.9	5.205	CC
Johnson 01N-65W-30-6N - Wellbore #1 - Plan #2 (8-5-14	1,400.0	1,401.0	30.8	24.7	5.075	ES
Johnson 01N-65W-30-6N - Wellbore #1 - Plan #2 (8-5-14	11,891.1	11,879.2	829.0	648.4	4.592	SF
Johnson 01N-65W-30-7N - Wellbore #1 - Plan #2 (8-5-14	1,600.0	1,600.0	16.8	9.8	2.412	CC, ES
Johnson 01N-65W-30-7N - Wellbore #1 - Plan #2 (8-5-14	1,700.0	1,699.7	17.8	10.4	2.407	SF
Johnson 01N-65W-30-9C - Wellbore #1 - Plan #3 (3-28-1	1,500.0	1,500.0	14.0	7.5	2.149	CC, ES
Johnson 01N-65W-30-9C - Wellbore #1 - Plan #3 (3-28-1	11,891.1	12,106.1	263.3	139.9	2.135	SF

[illegible]

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Existing Wells Sec.30-T1N-R65W - Gilmore 1-30 (P&A) - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 8208-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		
10,400.0	7,284.0	7,263.0	7,263.0	62.9	145.3	-90.43	3,941.2	-7.6	940.3	732.6	207.77	4.526		
10,500.0	7,283.6	7,262.6	7,262.6	64.7	145.3	-90.38	3,941.2	-7.6	857.0	647.4	209.61	4.089		
10,600.0	7,283.1	7,262.1	7,262.1	66.5	145.2	-90.33	3,941.2	-7.6	777.6	566.2	211.46	3.677		
10,700.0	7,282.6	7,261.6	7,261.6	68.4	145.2	-90.27	3,941.2	-7.6	703.5	490.2	213.30	3.298		
10,800.0	7,282.1	7,261.1	7,261.1	70.2	145.2	-90.22	3,941.2	-7.6	636.5	421.3	215.16	2.958		
10,900.0	7,281.7	7,260.7	7,260.7	72.1	145.2	-90.16	3,941.2	-7.6	579.1	362.1	217.01	2.668		
11,000.0	7,281.2	7,260.2	7,260.2	74.0	145.2	-90.11	3,941.2	-7.6	534.3	315.5	218.86	2.441		
11,100.0	7,280.7	7,259.7	7,259.7	75.8	145.2	-90.05	3,941.2	-7.6	505.7	285.0	220.72	2.291		
11,198.9	7,280.3	7,259.3	7,259.3	77.7	145.2	-90.00	3,941.2	-7.6	495.9	273.4	222.56	2.228 CC		
11,200.0	7,280.3	7,259.3	7,259.3	77.7	145.2	-90.00	3,941.2	-7.6	495.9	273.3	222.58	2.228 ES, SF		
11,300.0	7,279.8	7,258.8	7,258.8	79.6	145.2	-89.94	3,941.2	-7.6	506.1	281.7	224.44	2.255		
11,400.0	7,279.3	7,258.3	7,258.3	81.4	145.2	-89.89	3,941.2	-7.6	535.1	308.8	226.31	2.365		
11,500.0	7,278.8	7,257.8	7,257.8	83.3	145.2	-89.84	3,941.2	-7.6	580.2	352.0	228.17	2.543		
11,600.0	7,278.4	7,257.4	7,257.4	85.2	145.1	-89.78	3,941.2	-7.6	637.8	407.8	230.04	2.773		
11,700.0	7,277.9	7,256.9	7,256.9	87.0	145.1	-89.73	3,941.2	-7.6	705.0	473.1	231.91	3.040		
11,800.0	7,277.4	7,256.4	7,256.4	88.9	145.1	-89.67	3,941.2	-7.6	779.2	545.5	233.77	3.333		
11,891.1	7,277.0	7,256.0	7,256.0	90.6	145.1	-89.62	3,941.2	-7.6	851.5	616.0	235.48	3.616		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design		Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-1C - Wellbore #1 - Plan #2 (8)											Offset Site Error:		0.0 ft
Survey Program:		0-MWD											Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
0.0	0.0	1.0	1.0	0.0	0.0	-91.96	-3.6	-106.4	106.5	106.5	0.00	N/A			
100.0	100.0	101.0	101.0	0.1	0.1	-91.96	-3.6	-106.4	106.5	106.3	0.23	469.136			
166.3	166.3	167.3	167.3	0.3	0.3	-91.96	-3.6	-106.4	106.5	106.0	0.53	202.785 CC			
200.0	200.0	200.0	200.0	0.3	0.3	-91.96	-3.6	-106.4	106.5	105.8	0.67	157.950 ES			
300.0	300.0	297.4	297.3	0.6	0.5	-92.06	-3.9	-108.1	108.2	107.1	1.11	97.802			
400.0	400.0	393.5	393.4	0.8	0.8	-92.33	-4.6	-112.9	113.3	111.7	1.54	73.355			
500.0	500.0	489.3	488.8	1.0	1.0	-92.74	-5.8	-120.9	121.6	119.6	2.01	60.602			
600.0	600.0	584.4	583.2	1.2	1.3	-93.22	-7.4	-131.9	133.3	130.8	2.50	53.288			
700.0	700.0	678.6	676.4	1.5	1.6	-93.72	-9.5	-145.9	148.3	145.2	3.03	48.883			
800.0	800.0	774.1	770.4	1.7	1.9	-94.21	-12.0	-162.9	166.2	162.6	3.61	46.080			
900.0	900.0	872.4	866.9	1.9	2.3	-94.63	-14.6	-180.8	184.6	180.4	4.21	43.848			
1,000.0	1,000.0	970.7	963.5	2.1	2.7	-94.97	-17.3	-198.8	203.0	198.2	4.82	42.111			
1,100.0	1,100.0	1,069.0	1,060.1	2.4	3.1	-95.26	-20.0	-216.8	221.5	216.1	5.44	40.729			
1,200.0	1,200.0	1,167.3	1,156.7	2.6	3.5	-95.50	-22.6	-234.8	240.0	233.9	6.06	39.607			
1,300.0	1,300.0	1,265.5	1,253.3	2.8	3.9	-95.71	-25.3	-252.7	258.4	251.7	6.68	38.682			
1,400.0	1,400.0	1,363.8	1,349.9	3.0	4.3	-95.89	-27.9	-270.7	276.9	269.6	7.30	37.907			
1,500.0	1,500.0	1,462.1	1,446.4	3.3	4.7	-96.05	-30.6	-288.7	295.4	287.4	7.93	37.248			
1,600.0	1,600.0	1,560.4	1,543.0	3.5	5.2	-96.19	-33.2	-306.6	313.8	305.3	8.56	36.683			
1,700.0	1,700.0	1,658.6	1,639.6	3.7	5.6	-96.31	-35.9	-324.6	332.3	323.1	9.18	36.192			
1,800.0	1,800.0	1,756.9	1,736.2	3.9	6.0	-96.42	-38.6	-342.6	350.8	341.0	9.81	35.762			
1,900.0	1,900.0	1,855.2	1,832.8	4.2	6.4	-96.52	-41.2	-360.5	369.2	358.8	10.44	35.382			
2,000.0	2,000.0	1,953.5	1,929.4	4.4	6.8	-96.61	-43.9	-378.5	387.7	376.7	11.06	35.045 SF			
2,100.0	2,100.0	2,051.5	2,025.7	4.6	7.2	154.70	-46.5	-396.4	407.4	397.9	9.44	43.173			
2,200.0	2,199.9	2,149.1	2,121.6	4.8	7.6	154.70	-49.2	-414.3	429.3	419.5	9.85	43.577			
2,300.0	2,299.7	2,246.1	2,216.9	5.0	8.0	154.83	-51.8	-432.0	453.6	443.3	10.26	44.192			
2,400.0	2,399.3	2,342.4	2,311.6	5.2	8.4	155.04	-54.4	-449.6	480.1	469.5	10.67	44.995			
2,500.0	2,498.6	2,438.1	2,405.6	5.4	8.9	155.32	-57.0	-467.1	509.0	497.9	11.07	45.966			
2,533.1	2,531.4	2,469.6	2,436.6	5.5	9.0	155.43	-57.8	-472.9	519.1	507.9	11.21	46.322			
2,600.0	2,597.6	2,533.1	2,499.0	5.6	9.3	155.77	-59.5	-484.5	539.7	528.2	11.51	46.908			
2,700.0	2,696.6	2,628.2	2,592.4	5.9	9.7	156.24	-62.1	-501.9	570.5	558.6	11.96	47.714			
2,800.0	2,795.7	2,723.2	2,685.8	6.2	10.1	156.66	-64.7	-519.3	601.4	589.0	12.41	48.446			
2,900.0	2,894.7	2,818.2	2,779.2	6.4	10.5	157.04	-67.2	-536.6	632.3	619.4	12.87	49.112			
3,000.0	2,993.7	2,913.3	2,872.6	6.7	10.9	157.38	-69.8	-554.0	663.2	649.9	13.34	49.720			
3,100.0	3,092.8	3,008.3	2,966.0	7.0	11.3	157.70	-72.4	-571.4	694.1	680.3	13.81	50.277			
3,200.0	3,191.8	3,103.3	3,059.4	7.3	11.7	157.98	-75.0	-588.8	725.1	710.8	14.28	50.789			
3,300.0	3,290.8	3,198.3	3,152.8	7.6	12.1	158.25	-77.5	-606.1	756.1	741.3	14.75	51.261			
3,400.0	3,389.8	3,293.4	3,246.2	7.9	12.5	158.49	-80.1	-623.5	787.0	771.8	15.22	51.696			
3,500.0	3,488.9	3,388.4	3,339.6	8.2	12.9	158.71	-82.7	-640.9	818.0	802.3	15.70	52.099			
3,600.0	3,587.9	3,483.4	3,433.0	8.5	13.3	158.92	-85.2	-658.3	849.0	832.9	16.18	52.473			
3,700.0	3,686.9	3,578.5	3,526.4	8.8	13.7	159.11	-87.8	-675.7	880.1	863.4	16.66	52.820			
3,800.0	3,786.0	3,673.5	3,619.7	9.1	14.1	159.29	-90.4	-693.0	911.1	893.9	17.14	53.144			
3,900.0	3,885.0	3,768.5	3,713.1	9.4	14.5	159.46	-92.9	-710.4	942.1	924.5	17.63	53.447			
4,000.0	3,984.0	3,863.5	3,806.5	9.7	14.9	159.62	-95.5	-727.8	973.1	955.0	18.11	53.729			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-2N - Wellbore #1 - Plan #3 (8)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
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	1.0	1.0	0.0	0.0	-92.26	-3.6	-92.4	92.5	92.5	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-92.26	-3.6	-92.4	92.5	92.3	0.23	407.485		
200.0	200.0	201.0	201.0	0.3	0.3	-92.26	-3.6	-92.4	92.5	91.8	0.68	136.731		
300.0	300.0	301.0	301.0	0.6	0.6	-92.26	-3.6	-92.4	92.5	91.4	1.13	82.148		
366.3	366.3	367.3	367.3	0.7	0.7	-92.26	-3.6	-92.4	92.5	91.1	1.42	64.950 CC		
400.0	400.0	400.0	400.0	0.8	0.8	-92.26	-3.6	-92.4	92.5	90.9	1.57	58.798 ES		
500.0	500.0	497.8	497.8	1.0	1.0	-92.39	-3.9	-94.1	94.2	92.2	2.00	47.007		
600.0	600.0	594.5	594.3	1.2	1.2	-92.74	-4.7	-98.9	99.3	96.8	2.43	40.807		
700.0	700.0	690.7	690.2	1.5	1.4	-93.26	-6.1	-107.0	107.7	104.8	2.88	37.356		
800.0	800.0	786.2	785.0	1.7	1.7	-93.85	-8.0	-118.1	119.4	116.0	3.36	35.530		
900.0	900.0	880.9	878.6	1.9	2.0	-94.46	-10.3	-132.1	134.4	130.5	3.87	34.703		
1,000.0	1,000.0	977.3	973.5	2.1	2.3	-95.05	-13.2	-149.1	152.2	147.7	4.43	34.368		
1,100.0	1,100.0	1,075.7	1,070.2	2.4	2.7	-95.52	-16.1	-166.6	170.2	165.2	5.01	33.984		
1,200.0	1,200.0	1,174.0	1,167.0	2.6	3.0	-95.91	-19.1	-184.2	188.3	182.7	5.60	33.615		
1,300.0	1,300.0	1,272.4	1,263.7	2.8	3.4	-96.23	-22.0	-201.8	206.4	200.2	6.20	33.278		
1,400.0	1,400.0	1,370.7	1,360.4	3.0	3.8	-96.50	-25.0	-219.3	224.5	217.7	6.81	32.976		
1,500.0	1,500.0	1,469.1	1,457.1	3.3	4.2	-96.72	-27.9	-236.9	242.6	235.1	7.42	32.708		
1,600.0	1,600.0	1,567.4	1,553.8	3.5	4.6	-96.92	-30.9	-254.5	260.6	252.6	8.03	32.469		
1,700.0	1,700.0	1,665.7	1,650.6	3.7	5.0	-97.09	-33.8	-272.0	278.7	270.1	8.64	32.257		
1,800.0	1,800.0	1,764.1	1,747.3	3.9	5.4	-97.24	-36.8	-289.6	296.8	287.6	9.26	32.067		
1,900.0	1,900.0	1,862.4	1,844.0	4.2	5.8	-97.37	-39.7	-307.2	314.9	305.1	9.87	31.897		
2,000.0	2,000.0	1,960.8	1,940.7	4.4	6.2	-97.49	-42.7	-324.7	333.0	322.5	10.49	31.744 SF		
2,100.0	2,100.0	2,058.9	2,037.2	4.6	6.6	153.81	-45.6	-342.3	352.3	343.0	9.30	37.879		
2,200.0	2,199.9	2,156.6	2,133.3	4.8	7.0	153.83	-48.6	-359.7	373.8	364.1	9.72	38.474		
2,300.0	2,299.7	2,253.6	2,228.7	5.0	7.4	154.00	-51.5	-377.0	397.7	387.6	10.13	39.261		
2,400.0	2,399.3	2,350.1	2,323.6	5.2	7.8	154.26	-54.4	-394.3	423.8	413.3	10.54	40.221		
2,500.0	2,498.6	2,445.9	2,417.8	5.4	8.2	154.61	-57.3	-411.4	452.3	441.3	10.94	41.333		
2,533.1	2,531.4	2,477.5	2,448.9	5.5	8.3	154.74	-58.2	-417.0	462.2	451.1	11.08	41.733		
2,600.0	2,597.6	2,541.1	2,511.4	5.6	8.6	155.13	-60.1	-428.4	482.5	471.2	11.37	42.425		
2,700.0	2,696.6	2,636.3	2,605.0	5.9	9.0	155.65	-63.0	-445.4	512.9	501.1	11.82	43.380		
2,800.0	2,795.7	2,731.4	2,698.6	6.2	9.4	156.11	-65.8	-462.4	543.4	531.1	12.28	44.251		
2,900.0	2,894.7	2,826.6	2,792.2	6.4	9.8	156.52	-68.7	-479.4	573.8	561.1	12.74	45.046		
3,000.0	2,993.7	2,921.8	2,885.8	6.7	10.2	156.90	-71.5	-496.4	604.3	591.1	13.20	45.775		
3,100.0	3,092.8	3,016.9	2,979.4	7.0	10.6	157.23	-74.4	-513.4	634.9	621.2	13.67	46.445		
3,200.0	3,191.8	3,112.1	3,073.0	7.3	11.0	157.54	-77.3	-530.4	665.4	651.2	14.14	47.063		
3,300.0	3,290.8	3,207.3	3,166.6	7.6	11.4	157.82	-80.1	-547.4	695.9	681.3	14.61	47.633		
3,400.0	3,389.8	3,302.4	3,260.2	7.9	11.8	158.07	-83.0	-564.4	726.5	711.4	15.08	48.160		
3,500.0	3,488.9	3,397.6	3,353.8	8.2	12.2	158.31	-85.8	-581.4	757.1	741.5	15.56	48.650		
3,600.0	3,587.9	3,492.8	3,447.4	8.5	12.6	158.52	-88.7	-598.4	787.7	771.6	16.04	49.106		
3,700.0	3,686.9	3,587.9	3,541.0	8.8	12.9	158.72	-91.6	-615.4	818.3	801.7	16.52	49.530		
3,800.0	3,786.0	3,683.1	3,634.6	9.1	13.3	158.91	-94.4	-632.4	848.9	831.9	17.00	49.927		
3,900.0	3,885.0	3,778.3	3,728.2	9.4	13.7	159.08	-97.3	-649.4	879.5	862.0	17.49	50.298		
4,000.0	3,984.0	3,873.4	3,821.7	9.7	14.1	159.24	-100.1	-666.3	910.1	892.1	17.97	50.645		
4,100.0	4,083.0	3,968.6	3,915.3	10.0	14.5	159.40	-103.0	-683.3	940.7	922.3	18.46	50.971		
4,200.0	4,182.1	4,063.8	4,008.9	10.4	14.9	159.54	-105.8	-700.3	971.3	952.4	18.94	51.278		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-3N - Wellbore #1 - Plan #2 (8)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
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	1.0	1.0	0.0	0.0	-92.76	-3.6	-75.6	75.7	75.7	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-92.76	-3.6	-75.6	75.7	75.5	0.23	333.524		
200.0	200.0	201.0	201.0	0.3	0.3	-92.76	-3.6	-75.6	75.7	75.0	0.68	111.914		
300.0	300.0	301.0	301.0	0.6	0.6	-92.76	-3.6	-75.6	75.7	74.6	1.13	67.237		
400.0	400.0	401.0	401.0	0.8	0.8	-92.76	-3.6	-75.6	75.7	74.1	1.58	48.054		
500.0	500.0	501.0	501.0	1.0	1.0	-92.76	-3.6	-75.6	75.7	73.7	2.03	37.387		
566.3	566.3	567.3	567.3	1.2	1.2	-92.76	-3.6	-75.6	75.7	73.4	2.32	32.589 CC		
600.0	600.0	600.0	600.0	1.2	1.2	-92.76	-3.6	-75.6	75.7	73.2	2.47	30.626 ES		
700.0	700.0	698.4	698.4	1.5	1.4	-92.96	-4.0	-77.3	77.4	74.5	2.90	26.670		
800.0	800.0	795.6	795.4	1.7	1.6	-93.51	-5.0	-82.2	82.5	79.2	3.33	24.794		
900.0	900.0	892.3	891.8	1.9	1.9	-94.29	-6.8	-90.2	90.9	87.1	3.77	24.122 SF		
1,000.0	1,000.0	988.4	987.2	2.1	2.1	-95.16	-9.2	-101.3	102.7	98.4	4.24	24.238		
1,100.0	1,100.0	1,086.1	1,083.9	2.4	2.4	-96.01	-12.1	-115.2	117.1	112.3	4.74	24.719		
1,200.0	1,200.0	1,185.0	1,181.7	2.6	2.7	-96.69	-15.2	-129.4	131.7	126.4	5.26	25.046		
1,300.0	1,300.0	1,283.9	1,279.6	2.8	3.0	-97.23	-18.2	-143.6	146.3	140.5	5.79	25.266		
1,400.0	1,400.0	1,382.8	1,377.4	3.0	3.3	-97.67	-21.3	-157.8	161.0	154.7	6.33	25.416		
1,500.0	1,500.0	1,481.8	1,475.2	3.3	3.6	-98.04	-24.3	-172.0	175.6	168.8	6.88	25.520		
1,600.0	1,600.0	1,580.7	1,573.1	3.5	4.0	-98.36	-27.4	-186.3	190.3	182.9	7.44	25.593		
1,700.0	1,700.0	1,679.6	1,670.9	3.7	4.3	-98.62	-30.4	-200.5	205.0	197.0	7.99	25.646		
1,800.0	1,800.0	1,778.5	1,768.8	3.9	4.7	-98.86	-33.5	-214.7	219.7	211.1	8.55	25.684		
1,900.0	1,900.0	1,877.4	1,866.6	4.2	5.0	-99.06	-36.5	-228.9	234.3	225.2	9.11	25.711		
2,000.0	2,000.0	1,976.3	1,964.4	4.4	5.4	-99.24	-39.5	-243.1	249.0	239.3	9.68	25.730		
2,100.0	2,100.0	2,075.1	2,062.1	4.6	5.7	152.06	-42.6	-257.3	264.8	255.7	9.16	28.924		
2,200.0	2,199.9	2,173.4	2,159.4	4.8	6.0	152.16	-45.6	-271.4	282.9	273.4	9.57	29.571		
2,300.0	2,299.7	2,271.3	2,256.2	5.0	6.4	152.45	-48.6	-285.5	303.3	293.4	9.98	30.401		
2,400.0	2,399.3	2,368.6	2,352.5	5.2	6.7	152.89	-51.6	-299.5	326.0	315.6	10.38	31.394		
2,500.0	2,498.6	2,465.4	2,448.2	5.4	7.1	153.43	-54.6	-313.4	351.0	340.2	10.79	32.534		
2,533.1	2,531.4	2,497.3	2,479.7	5.5	7.2	153.63	-55.6	-318.0	359.8	348.9	10.92	32.942		
2,600.0	2,597.6	2,561.6	2,543.3	5.6	7.4	154.13	-57.6	-327.2	377.8	366.6	11.22	33.682		
2,700.0	2,696.6	2,657.8	2,638.5	5.9	7.8	154.80	-60.5	-341.1	404.8	393.1	11.66	34.711		
2,800.0	2,795.7	2,754.0	2,733.6	6.2	8.1	155.38	-63.5	-354.9	431.8	419.7	12.11	35.653		
2,900.0	2,894.7	2,850.2	2,828.8	6.4	8.5	155.90	-66.5	-368.7	458.8	446.3	12.56	36.518		
3,000.0	2,993.7	2,946.4	2,923.9	6.7	8.8	156.36	-69.4	-382.5	485.9	472.9	13.02	37.314		
3,100.0	3,092.8	3,042.6	3,019.1	7.0	9.1	156.77	-72.4	-396.4	513.0	499.6	13.48	38.049		
3,200.0	3,191.8	3,138.7	3,114.2	7.3	9.5	157.14	-75.4	-410.2	540.2	526.2	13.95	38.729		
3,300.0	3,290.8	3,234.9	3,209.4	7.6	9.8	157.47	-78.3	-424.0	567.3	552.9	14.41	39.360		
3,400.0	3,389.8	3,331.1	3,304.5	7.9	10.2	157.77	-81.3	-437.8	594.5	579.6	14.88	39.945		
3,500.0	3,488.9	3,427.3	3,399.7	8.2	10.5	158.05	-84.2	-451.7	621.7	606.3	15.35	40.491		
3,600.0	3,587.9	3,523.5	3,494.8	8.5	10.9	158.30	-87.2	-465.5	648.9	633.0	15.83	40.999		
3,700.0	3,686.9	3,619.7	3,590.0	8.8	11.2	158.54	-90.2	-479.3	676.1	659.8	16.30	41.475		
3,800.0	3,786.0	3,715.9	3,685.1	9.1	11.6	158.75	-93.1	-493.1	703.3	686.5	16.78	41.920		
3,900.0	3,885.0	3,812.1	3,780.3	9.4	11.9	158.95	-96.1	-507.0	730.5	713.3	17.25	42.338		
4,000.0	3,984.0	3,908.3	3,875.4	9.7	12.3	159.13	-99.1	-520.8	757.8	740.0	17.73	42.731		
4,100.0	4,083.0	4,004.5	3,970.6	10.0	12.6	159.31	-102.0	-534.6	785.0	766.8	18.21	43.100		
4,200.0	4,182.1	4,100.7	4,065.7	10.4	12.9	159.47	-105.0	-548.4	812.2	793.5	18.69	43.448		
4,300.0	4,281.1	4,196.9	4,160.9	10.7	13.3	159.62	-108.0	-562.3	839.5	820.3	19.18	43.777		
4,400.0	4,380.1	4,293.1	4,256.0	11.0	13.6	159.76	-110.9	-576.1	866.7	847.1	19.66	44.088		
4,500.0	4,479.1	4,389.3	4,351.2	11.3	14.0	159.89	-113.9	-589.9	894.0	873.9	20.14	44.382		
4,600.0	4,578.2	4,485.4	4,446.3	11.7	14.3	160.01	-116.8	-603.7	921.3	900.6	20.63	44.660		
4,700.0	4,677.2	4,581.6	4,541.5	12.0	14.7	160.13	-119.8	-617.6	948.5	927.4	21.11	44.925		
4,800.0	4,776.2	4,677.8	4,636.6	12.3	15.0	160.24	-122.8	-631.4	975.8	954.2	21.60	45.176		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-4N - Wellbore #1 - Plan #2 (8)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis 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	1.0	1.0	0.0	0.0	-90.00	0.0	-61.6	61.6	61.6	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-90.00	0.0	-61.6	61.6	61.4	0.23	271.446		
200.0	200.0	201.0	201.0	0.3	0.3	-90.00	0.0	-61.6	61.6	60.9	0.68	91.083		
300.0	300.0	301.0	301.0	0.6	0.6	-90.00	0.0	-61.6	61.6	60.5	1.13	54.723		
400.0	400.0	401.0	401.0	0.8	0.8	-90.00	0.0	-61.6	61.6	60.0	1.58	39.110		
500.0	500.0	501.0	501.0	1.0	1.0	-90.00	0.0	-61.6	61.6	59.6	2.03	30.428		
600.0	600.0	601.0	601.0	1.2	1.2	-90.00	0.0	-61.6	61.6	59.1	2.47	24.901		
700.0	700.0	701.0	701.0	1.5	1.5	-90.00	0.0	-61.6	61.6	58.7	2.92	21.073		
766.3	766.3	767.3	767.3	1.6	1.6	-90.00	0.0	-61.6	61.6	58.4	3.22	19.123 CC		
800.0	800.0	800.0	800.0	1.7	1.7	-90.00	0.0	-61.6	61.6	58.3	3.37	18.280 ES		
900.0	900.0	898.9	898.9	1.9	1.9	-90.38	-0.4	-63.3	63.3	59.5	3.80	16.651		
1,000.0	1,000.0	996.6	996.4	2.1	2.1	-91.40	-1.7	-68.2	68.3	64.1	4.22	16.177 SF		
1,100.0	1,100.0	1,093.8	1,093.3	2.4	2.3	-92.80	-3.7	-76.2	76.7	72.0	4.66	16.455		
1,200.0	1,200.0	1,190.4	1,189.2	2.6	2.5	-94.30	-6.6	-87.4	88.4	83.3	5.12	17.266		
1,300.0	1,300.0	1,288.2	1,285.9	2.8	2.8	-95.70	-10.1	-101.2	102.8	97.2	5.61	18.331		
1,400.0	1,400.0	1,387.0	1,383.7	3.0	3.1	-96.78	-13.7	-115.4	117.5	111.4	6.12	19.203		
1,500.0	1,500.0	1,485.9	1,481.5	3.3	3.4	-97.62	-17.4	-129.7	132.3	125.6	6.64	19.907		
1,600.0	1,600.0	1,584.8	1,579.3	3.5	3.7	-98.30	-21.0	-143.9	147.0	139.9	7.18	20.484		
1,700.0	1,700.0	1,683.7	1,677.1	3.7	4.0	-98.85	-24.6	-158.1	161.8	154.1	7.72	20.962		
1,800.0	1,800.0	1,782.6	1,774.9	3.9	4.4	-99.31	-28.2	-172.4	176.6	168.3	8.27	21.365		
1,900.0	1,900.0	1,881.5	1,872.7	4.2	4.7	-99.69	-31.9	-186.6	191.4	182.6	8.82	21.707		
2,000.0	2,000.0	1,980.4	1,970.4	4.4	5.0	-100.03	-35.5	-200.8	206.2	196.9	9.37	22.002		
2,100.0	2,100.0	2,079.1	2,068.1	4.6	5.4	151.17	-39.1	-215.0	222.2	213.1	9.09	24.436		
2,200.0	2,199.9	2,177.4	2,165.3	4.8	5.7	151.24	-42.7	-229.2	240.4	230.9	9.50	25.297		
2,300.0	2,299.7	2,275.3	2,262.1	5.0	6.0	151.54	-46.3	-243.3	260.9	250.9	9.91	26.320		
2,400.0	2,399.3	2,372.6	2,358.3	5.2	6.4	152.02	-49.9	-257.3	283.6	273.3	10.32	27.488		
2,500.0	2,498.6	2,469.4	2,454.0	5.4	6.7	152.61	-53.5	-271.2	308.6	297.9	10.72	28.785		
2,533.1	2,531.4	2,501.3	2,485.5	5.5	6.8	152.83	-54.6	-275.8	317.4	306.6	10.86	29.242		
2,600.0	2,597.6	2,565.6	2,549.2	5.6	7.1	153.37	-57.0	-285.1	335.5	324.3	11.15	30.089		
2,700.0	2,696.6	2,661.8	2,644.3	5.9	7.4	154.08	-60.5	-298.9	362.5	350.9	11.59	31.266		
2,800.0	2,795.7	2,758.0	2,739.4	6.2	7.8	154.69	-64.1	-312.8	389.5	377.5	12.04	32.347		
2,900.0	2,894.7	2,854.2	2,834.5	6.4	8.1	155.23	-67.6	-326.6	416.6	404.1	12.50	33.341		
3,000.0	2,993.7	2,950.4	2,929.7	6.7	8.4	155.69	-71.1	-340.5	443.7	430.8	12.95	34.257		
3,100.0	3,092.8	3,046.5	3,024.8	7.0	8.8	156.11	-74.7	-354.3	470.9	457.5	13.41	35.103		
3,200.0	3,191.8	3,142.7	3,119.9	7.3	9.1	156.48	-78.2	-368.1	498.0	484.2	13.88	35.886		
3,300.0	3,290.8	3,238.9	3,215.0	7.6	9.5	156.81	-81.7	-382.0	525.2	510.9	14.35	36.613		
3,400.0	3,389.8	3,335.1	3,310.2	7.9	9.8	157.10	-85.2	-395.8	552.4	537.6	14.81	37.288		
3,500.0	3,488.9	3,431.3	3,405.3	8.2	10.2	157.37	-88.8	-409.7	579.6	564.3	15.29	37.918		
3,600.0	3,587.9	3,527.5	3,500.4	8.5	10.5	157.62	-92.3	-423.5	606.8	591.1	15.76	38.505		
3,700.0	3,686.9	3,623.7	3,595.5	8.8	10.9	157.85	-95.8	-437.4	634.1	617.8	16.24	39.054		
3,800.0	3,786.0	3,719.9	3,690.7	9.1	11.2	158.05	-99.4	-451.2	661.3	644.6	16.71	39.568		
3,900.0	3,885.0	3,816.1	3,785.8	9.4	11.5	158.24	-102.9	-465.1	688.6	671.4	17.19	40.051		
4,000.0	3,984.0	3,912.3	3,880.9	9.7	11.9	158.42	-106.4	-478.9	715.8	698.1	17.67	40.505		
4,100.0	4,083.0	4,008.5	3,976.0	10.0	12.2	158.58	-110.0	-492.8	743.1	724.9	18.15	40.932		
4,200.0	4,182.1	4,104.7	4,071.2	10.4	12.6	158.73	-113.5	-506.6	770.3	751.7	18.64	41.334		
4,300.0	4,281.1	4,200.9	4,166.3	10.7	12.9	158.87	-117.0	-520.4	797.6	778.5	19.12	41.714		
4,400.0	4,380.1	4,297.1	4,261.4	11.0	13.3	159.00	-120.6	-534.3	824.9	805.3	19.61	42.074		
4,500.0	4,479.1	4,393.3	4,356.5	11.3	13.6	159.13	-124.1	-548.1	852.1	832.0	20.09	42.414		
4,600.0	4,578.2	4,489.4	4,451.7	11.7	14.0	159.24	-127.6	-562.0	879.4	858.8	20.58	42.736		
4,700.0	4,677.2	4,585.6	4,546.8	12.0	14.3	159.35	-131.2	-575.8	906.7	885.6	21.07	43.042		
4,800.0	4,776.2	4,681.8	4,641.9	12.3	14.7	159.45	-134.7	-589.7	934.0	912.4	21.55	43.333		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-4N - Wellbore #1 - Plan #2 (8)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												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	
4,900.0	4,875.3	4,778.0	4,737.1	12.6	15.0	159.55	-138.2	-603.5	961.3	939.2	22.04	43.609	
5,000.0	4,974.3	4,874.2	4,832.2	13.0	15.4	159.64	-141.7	-617.4	988.5	966.0	22.53	43.872	

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-5C - Wellbore #1 - Plan #2 (8)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													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		
0.0	0.0	1.0	1.0	0.0	0.0	-90.00	0.0	-44.8	44.8	44.8	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-90.00	0.0	-44.8	44.8	44.6	0.23	197.415		
200.0	200.0	201.0	201.0	0.3	0.3	-90.00	0.0	-44.8	44.8	44.1	0.68	66.242		
300.0	300.0	301.0	301.0	0.6	0.6	-90.00	0.0	-44.8	44.8	43.7	1.13	39.798		
400.0	400.0	401.0	401.0	0.8	0.8	-90.00	0.0	-44.8	44.8	43.2	1.58	28.444		
500.0	500.0	501.0	501.0	1.0	1.0	-90.00	0.0	-44.8	44.8	42.8	2.03	22.130		
600.0	600.0	601.0	601.0	1.2	1.2	-90.00	0.0	-44.8	44.8	42.3	2.47	18.110		
700.0	700.0	701.0	701.0	1.5	1.5	-90.00	0.0	-44.8	44.8	41.9	2.92	15.326		
800.0	800.0	801.0	801.0	1.7	1.7	-90.00	0.0	-44.8	44.8	41.4	3.37	13.284		
900.0	900.0	901.0	901.0	1.9	1.9	-90.00	0.0	-44.8	44.8	41.0	3.82	11.722		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-90.00	0.0	-44.8	44.8	40.5	4.27	10.489		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-90.00	0.0	-44.8	44.8	40.1	4.72	9.490		
1,166.3	1,166.3	1,167.3	1,167.3	2.5	2.5	-90.00	0.0	-44.8	44.8	39.8	5.02	8.927 CC		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-90.00	0.0	-44.8	44.8	39.6	5.17	8.666 ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.68	-0.6	-46.5	46.5	40.9	5.60	8.299 SF		
1,400.0	1,400.0	1,397.7	1,397.6	3.0	3.0	-92.42	-2.2	-51.3	51.4	45.4	6.02	8.549		
1,500.0	1,500.0	1,495.5	1,495.0	3.3	3.2	-94.67	-4.8	-59.3	59.8	53.3	6.45	9.269		
1,600.0	1,600.0	1,592.7	1,591.4	3.5	3.4	-96.92	-8.5	-70.3	71.5	64.6	6.89	10.365		
1,700.0	1,700.0	1,690.9	1,688.6	3.7	3.7	-98.86	-13.1	-83.8	85.7	78.3	7.37	11.634		
1,800.0	1,800.0	1,789.8	1,786.5	3.9	3.9	-100.26	-17.6	-97.5	100.1	92.3	7.86	12.747		
1,900.0	1,900.0	1,888.8	1,884.4	4.2	4.2	-101.31	-22.2	-111.2	114.6	106.3	8.36	13.713		
2,000.0	2,000.0	1,987.7	1,982.2	4.4	4.5	-102.12	-26.8	-124.9	129.1	120.3	8.87	14.557		
2,100.0	2,100.0	2,086.5	2,079.9	4.6	4.8	148.82	-31.4	-138.6	144.8	135.8	9.02	16.050		
2,200.0	2,199.9	2,184.8	2,177.3	4.8	5.1	148.86	-36.0	-152.2	162.6	153.2	9.42	17.262		
2,300.0	2,299.7	2,282.8	2,274.2	5.0	5.4	149.28	-40.5	-165.8	182.7	172.9	9.82	18.599		
2,400.0	2,399.3	2,380.2	2,370.6	5.2	5.7	149.95	-45.1	-179.3	205.0	194.8	10.22	20.050		
2,500.0	2,498.6	2,477.1	2,466.4	5.4	6.1	150.77	-49.6	-192.7	229.5	218.9	10.62	21.604		
2,533.1	2,531.4	2,509.1	2,498.0	5.5	6.2	151.06	-51.0	-197.2	238.2	227.4	10.76	22.141		
2,600.0	2,597.6	2,573.5	2,561.7	5.6	6.4	151.74	-54.0	-206.1	255.9	244.8	11.05	23.165		
2,700.0	2,696.6	2,669.8	2,657.0	5.9	6.7	152.59	-58.5	-219.5	282.4	270.9	11.48	24.593		
2,800.0	2,795.7	2,766.2	2,752.3	6.2	7.0	153.30	-63.0	-232.8	309.0	297.0	11.93	25.906		
2,900.0	2,894.7	2,862.5	2,847.7	6.4	7.3	153.90	-67.5	-246.2	335.6	323.2	12.37	27.118		
3,000.0	2,993.7	2,958.8	2,943.0	6.7	7.7	154.41	-71.9	-259.5	362.2	349.4	12.83	28.236		
3,100.0	3,092.8	3,055.2	3,038.3	7.0	8.0	154.85	-76.4	-272.9	388.9	375.6	13.28	29.271		
3,200.0	3,191.8	3,151.5	3,133.6	7.3	8.3	155.23	-80.9	-286.2	415.5	401.8	13.75	30.230		
3,300.0	3,290.8	3,247.9	3,228.9	7.6	8.7	155.57	-85.3	-299.6	442.2	428.0	14.21	31.120		
3,400.0	3,389.8	3,344.2	3,324.2	7.9	9.0	155.87	-89.8	-312.9	468.9	454.2	14.68	31.949		
3,500.0	3,488.9	3,440.6	3,419.5	8.2	9.3	156.13	-94.3	-326.3	495.6	480.5	15.15	32.721		
3,600.0	3,587.9	3,536.9	3,514.8	8.5	9.7	156.37	-98.8	-339.6	522.4	506.7	15.62	33.442		
3,700.0	3,686.9	3,633.2	3,610.1	8.8	10.0	156.59	-103.2	-353.0	549.1	533.0	16.09	34.117		
3,800.0	3,786.0	3,729.6	3,705.4	9.1	10.3	156.78	-107.7	-366.3	575.8	559.2	16.57	34.749		
3,900.0	3,885.0	3,825.9	3,800.7	9.4	10.7	156.96	-112.2	-379.7	602.6	585.5	17.05	35.342		
4,000.0	3,984.0	3,922.3	3,896.0	9.7	11.0	157.13	-116.7	-393.0	629.3	611.8	17.53	35.899		
4,100.0	4,083.0	4,018.6	3,991.3	10.0	11.4	157.28	-121.1	-406.4	656.1	638.0	18.01	36.424		
4,200.0	4,182.1	4,114.9	4,086.6	10.4	11.7	157.41	-125.6	-419.7	682.8	664.3	18.50	36.919		
4,300.0	4,281.1	4,211.3	4,182.0	10.7	12.0	157.54	-130.1	-433.1	709.6	690.6	18.98	37.386		
4,400.0	4,380.1	4,307.6	4,277.3	11.0	12.4	157.66	-134.6	-446.5	736.3	716.9	19.47	37.827		
4,500.0	4,479.1	4,404.0	4,372.6	11.3	12.7	157.77	-139.0	-459.8	763.1	743.1	19.95	38.245		
4,600.0	4,578.2	4,500.3	4,467.9	11.7	13.1	157.87	-143.5	-473.2	789.9	769.4	20.44	38.641		
4,700.0	4,677.2	4,596.7	4,563.2	12.0	13.4	157.97	-148.0	-486.5	816.6	795.7	20.93	39.017		
4,800.0	4,776.2	4,723.8	4,689.3	12.3	13.8	158.13	-153.2	-502.2	842.0	820.5	21.46	39.235		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-5C - Wellbore #1 - Plan #2 (8)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
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	
4,900.0	4,875.3	4,860.8	4,825.8	12.6	14.1	158.40	-156.9	-513.2	863.0	841.0	21.97	39.281		
5,000.0	4,974.3	5,000.1	4,964.9	13.0	14.3	158.77	-158.5	-518.0	879.4	857.0	22.47	39.136		
5,100.0	5,073.3	5,109.5	5,074.3	13.3	14.5	159.13	-158.6	-518.2	892.6	869.6	22.93	38.933		
5,200.0	5,172.3	5,208.5	5,173.3	13.6	14.6	159.44	-158.6	-518.2	905.6	882.2	23.37	38.756		
5,300.0	5,271.4	5,307.5	5,272.4	14.0	14.8	159.75	-158.6	-518.2	918.7	894.8	23.81	38.586		
5,400.0	5,370.4	5,406.6	5,371.4	14.3	15.0	160.04	-158.6	-518.2	931.7	907.5	24.25	38.422		
5,499.2	5,468.6	5,504.8	5,469.6	14.6	15.1	160.33	-158.6	-518.2	944.7	920.0	24.69	38.265		
5,600.0	5,568.6	5,604.8	5,569.6	14.9	15.3	160.64	-158.6	-518.2	956.7	931.5	25.18	37.999		
5,700.0	5,668.1	5,704.3	5,669.1	15.2	15.4	160.89	-158.6	-518.2	966.2	940.5	25.62	37.705		
5,800.0	5,767.8	5,804.0	5,768.8	15.4	15.6	161.06	-158.6	-518.2	973.1	947.1	26.05	37.353		
5,900.0	5,867.7	5,903.9	5,868.7	15.6	15.8	161.17	-158.6	-518.2	977.7	951.2	26.46	36.946		
6,000.0	5,967.7	6,003.9	5,968.7	15.7	15.9	161.22	-158.6	-518.2	979.7	952.8	26.85	36.485		
6,032.3	6,000.0	6,036.2	6,001.0	15.8	16.0	-90.21	-158.6	-518.2	979.8	952.8	26.97	36.324		
6,100.0	6,067.7	6,103.9	6,068.7	15.9	16.1	-90.21	-158.6	-518.2	979.8	952.6	27.24	35.971		
6,200.0	6,167.7	6,203.9	6,168.7	16.1	16.3	-90.21	-158.6	-518.2	979.8	952.2	27.64	35.455		
6,300.0	6,267.7	6,303.9	6,268.7	16.2	16.5	-90.21	-158.6	-518.2	979.8	951.8	28.03	34.951		
6,400.0	6,367.7	6,403.9	6,368.7	16.4	16.6	-90.21	-158.6	-518.2	979.8	951.4	28.43	34.460		
6,500.0	6,467.7	6,503.9	6,468.7	16.6	16.8	-90.21	-158.6	-518.2	979.8	951.0	28.83	33.981		
6,600.0	6,567.7	6,603.9	6,568.7	16.8	17.0	-90.21	-158.6	-518.2	979.8	950.6	29.24	33.513		
6,700.0	6,667.7	6,703.9	6,668.7	17.0	17.2	-90.21	-158.6	-518.2	979.8	950.2	29.64	33.056		
6,808.5	6,776.2	6,812.4	6,777.2	17.2	17.4	-90.21	-158.6	-518.2	979.8	949.7	30.08	32.573		
6,850.0	6,817.7	6,853.8	6,818.7	17.2	17.4	-90.68	-158.6	-518.2	979.8	949.6	30.24	32.397		
6,900.0	6,867.2	6,903.4	6,868.2	17.3	17.5	-91.04	-158.6	-518.2	979.9	949.5	30.43	32.207		
6,950.0	6,916.0	6,952.1	6,917.0	17.4	17.6	-91.64	-158.6	-518.2	980.2	949.6	30.59	32.041		
7,000.0	6,963.4	6,999.6	6,964.4	17.4	17.7	-92.44	-158.6	-518.2	980.8	950.1	30.74	31.903		
7,050.0	7,009.1	7,049.7	7,014.5	17.5	17.8	-93.44	-157.2	-518.2	981.8	951.0	30.88	31.792		
7,100.0	7,052.7	7,103.2	7,067.6	17.5	17.9	-94.46	-150.7	-518.2	983.3	952.3	31.01	31.711		
7,150.0	7,093.8	7,159.3	7,122.2	17.6	17.9	-95.47	-138.0	-518.1	985.0	953.9	31.12	31.658		
7,200.0	7,131.9	7,218.1	7,177.6	17.6	18.0	-96.46	-118.4	-518.1	987.1	955.9	31.22	31.619		
7,250.0	7,166.7	7,280.0	7,233.2	17.6	18.1	-97.42	-91.2	-518.0	989.3	958.0	31.33	31.581		
7,300.0	7,197.9	7,345.1	7,287.7	17.7	18.1	-98.34	-55.8	-517.9	991.7	960.2	31.46	31.522		
7,350.0	7,225.3	7,413.6	7,339.8	17.7	18.2	-99.19	-11.4	-517.7	994.0	962.4	31.64	31.413		
7,400.0	7,248.5	7,485.4	7,387.7	17.8	18.2	-99.95	42.0	-517.5	996.2	964.3	31.91	31.223		
7,450.0	7,267.4	7,560.3	7,429.4	17.9	18.3	-100.59	104.2	-517.3	998.2	965.9	32.28	30.924		
7,500.0	7,281.8	7,637.9	7,462.7	18.1	18.4	-101.09	174.2	-517.0	999.8	967.0	32.80	30.482		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-6N - Wellbore #1 - Plan #2 (8)													Offset Site Error:	0.0 ft
Survey Program: O-MWD													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		
0.0	0.0	1.0	1.0	0.0	0.0	-90.00	0.0	-30.8	30.8	30.8	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-90.00	0.0	-30.8	30.8	30.6	0.23	135.723		
200.0	200.0	201.0	201.0	0.3	0.3	-90.00	0.0	-30.8	30.8	30.1	0.68	45.542		
300.0	300.0	301.0	301.0	0.6	0.6	-90.00	0.0	-30.8	30.8	29.7	1.13	27.361		
400.0	400.0	401.0	401.0	0.8	0.8	-90.00	0.0	-30.8	30.8	29.2	1.58	19.555		
500.0	500.0	501.0	501.0	1.0	1.0	-90.00	0.0	-30.8	30.8	28.8	2.03	15.214		
600.0	600.0	601.0	601.0	1.2	1.2	-90.00	0.0	-30.8	30.8	28.3	2.47	12.451		
700.0	700.0	701.0	701.0	1.5	1.5	-90.00	0.0	-30.8	30.8	27.9	2.92	10.537		
800.0	800.0	801.0	801.0	1.7	1.7	-90.00	0.0	-30.8	30.8	27.4	3.37	9.133		
900.0	900.0	901.0	901.0	1.9	1.9	-90.00	0.0	-30.8	30.8	27.0	3.82	8.059		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-90.00	0.0	-30.8	30.8	26.5	4.27	7.211		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-90.00	0.0	-30.8	30.8	26.1	4.72	6.525		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-90.00	0.0	-30.8	30.8	25.6	5.17	5.957		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-90.00	0.0	-30.8	30.8	25.2	5.62	5.481		
1,366.3	1,366.3	1,367.3	1,367.3	3.0	3.0	-90.00	0.0	-30.8	30.8	24.9	5.92	5.205 CC		
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-90.00	0.0	-30.8	30.8	24.7	6.07	5.075 ES		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.2	-91.36	-0.8	-32.4	32.4	25.9	6.50	4.986		
1,600.0	1,600.0	1,598.8	1,598.6	3.5	3.4	-94.70	-3.0	-37.0	37.2	30.3	6.91	5.382		
1,700.0	1,700.0	1,697.1	1,696.5	3.7	3.6	-98.66	-6.8	-44.6	45.4	38.0	7.34	6.182		
1,800.0	1,800.0	1,795.0	1,793.8	3.9	3.8	-102.26	-12.0	-55.1	56.9	49.1	7.78	7.315		
1,900.0	1,900.0	1,894.2	1,892.1	4.2	4.1	-104.85	-17.7	-66.8	69.7	61.4	8.24	8.455		
2,000.0	2,000.0	1,993.3	1,990.4	4.4	4.3	-106.64	-23.4	-78.4	82.5	73.8	8.71	9.473		
2,100.0	2,100.0	2,092.3	2,088.5	4.6	4.6	143.84	-29.1	-90.0	96.5	87.4	9.01	10.703		
2,200.0	2,199.9	2,191.0	2,186.4	4.8	4.9	143.87	-34.8	-101.6	112.5	103.1	9.41	11.962		
2,300.0	2,299.7	2,289.3	2,283.9	5.0	5.1	144.53	-40.5	-113.1	130.7	120.9	9.80	13.331		
2,400.0	2,399.3	2,387.2	2,380.9	5.2	5.4	145.55	-46.2	-124.6	151.0	140.8	10.20	14.801		
2,500.0	2,498.6	2,484.6	2,477.4	5.4	5.7	146.76	-51.8	-136.0	173.4	162.8	10.60	16.365		
2,533.1	2,531.4	2,516.7	2,509.3	5.5	5.8	147.19	-53.6	-139.7	181.4	170.6	10.73	16.902		
2,600.0	2,597.6	2,581.5	2,573.5	5.6	6.0	148.10	-57.4	-147.3	197.7	186.6	11.02	17.942		
2,700.0	2,696.6	2,678.4	2,669.6	5.9	6.3	149.22	-63.0	-158.7	222.1	210.6	11.45	19.396		
2,800.0	2,795.7	2,775.3	2,765.6	6.2	6.6	150.11	-68.6	-170.1	246.6	234.7	11.89	20.737		
2,900.0	2,894.7	2,872.2	2,861.7	6.4	6.9	150.84	-74.2	-181.4	271.1	258.8	12.34	21.976		
3,000.0	2,993.7	2,969.0	2,957.7	6.7	7.2	151.45	-79.8	-192.8	295.7	282.9	12.79	23.121		
3,100.0	3,092.8	3,065.9	3,053.8	7.0	7.5	151.97	-85.3	-204.1	320.3	307.1	13.25	24.181		
3,200.0	3,191.8	3,162.8	3,149.9	7.3	7.8	152.42	-90.9	-215.5	344.9	331.2	13.71	25.164		
3,300.0	3,290.8	3,259.7	3,245.9	7.6	8.1	152.80	-96.5	-226.9	369.6	355.4	14.17	26.078		
3,400.0	3,389.8	3,356.6	3,342.0	7.9	8.4	153.14	-102.1	-238.2	394.2	379.6	14.64	26.929		
3,500.0	3,488.9	3,453.5	3,438.0	8.2	8.7	153.43	-107.7	-249.6	418.9	403.8	15.11	27.722		
3,600.0	3,587.9	3,550.4	3,534.1	8.5	9.0	153.70	-113.3	-260.9	443.6	428.0	15.59	28.462		
3,700.0	3,686.9	3,647.3	3,630.1	8.8	9.3	153.94	-118.9	-272.3	468.3	452.2	16.06	29.155		
3,800.0	3,786.0	3,744.2	3,726.2	9.1	9.7	154.15	-124.5	-283.6	493.0	476.4	16.54	29.804		
3,900.0	3,885.0	3,841.0	3,822.3	9.4	10.0	154.34	-130.1	-295.0	517.7	500.7	17.02	30.413		
4,000.0	3,984.0	3,937.9	3,918.3	9.7	10.3	154.51	-135.7	-306.4	542.4	524.9	17.50	30.986		
4,100.0	4,083.0	4,034.8	4,014.4	10.0	10.6	154.67	-141.3	-317.7	567.1	549.1	17.99	31.525		
4,200.0	4,182.1	4,131.7	4,110.4	10.4	10.9	154.82	-146.9	-329.1	591.8	573.3	18.47	32.033		
4,300.0	4,281.1	4,249.2	4,227.1	10.7	11.2	155.04	-152.8	-341.2	615.1	596.2	18.98	32.416		
4,400.0	4,380.1	4,372.4	4,350.0	11.0	11.5	155.42	-156.9	-349.4	634.6	615.2	19.47	32.603		
4,500.0	4,479.1	4,497.3	4,474.8	11.3	11.7	155.94	-158.6	-352.8	650.2	630.2	19.95	32.594		
4,600.0	4,578.2	4,601.7	4,579.2	11.7	11.9	156.45	-158.6	-352.9	663.0	642.6	20.40	32.504		
4,700.0	4,677.2	4,700.7	4,678.2	12.0	12.1	156.93	-158.6	-352.9	675.8	655.0	20.84	32.425		
4,800.0	4,776.2	4,799.7	4,777.2	12.3	12.2	157.38	-158.6	-352.9	688.7	667.4	21.29	32.350		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design		Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-6N - Wellbore #1 - Plan #2 (8											Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	Separation (ft)	Factor			
4,900.0	4,875.3	4,898.7	4,876.3	12.6	12.4	157.81	-158.6	-352.9	701.5	679.8	21.73	32.279			
5,000.0	4,974.3	4,997.8	4,975.3	13.0	12.6	158.24	-158.6	-352.9	714.5	692.3	22.18	32.213			
5,100.0	5,073.3	5,096.8	5,074.3	13.3	12.8	158.64	-158.6	-352.9	727.4	704.8	22.63	32.150			
5,200.0	5,172.3	5,195.8	5,173.3	13.6	12.9	159.03	-158.6	-352.9	740.4	717.3	23.07	32.090			
5,300.0	5,271.4	5,294.8	5,272.4	14.0	13.1	159.41	-158.6	-352.9	753.4	729.9	23.52	32.033			
5,400.0	5,370.4	5,393.9	5,371.4	14.3	13.3	159.78	-158.6	-352.9	766.5	742.5	23.97	31.980			
5,499.2	5,468.6	5,492.1	5,469.6	14.6	13.5	160.13	-158.6	-352.9	779.5	755.0	24.41	31.929			
5,600.0	5,568.6	5,592.1	5,569.6	14.9	13.7	160.50	-158.6	-352.9	791.4	766.5	24.90	31.790			
5,700.0	5,668.1	5,691.6	5,669.1	15.2	13.8	160.78	-158.6	-352.9	800.9	775.5	25.34	31.607			
5,800.0	5,767.8	5,791.3	5,768.8	15.4	14.0	160.99	-158.6	-352.9	807.8	782.1	25.76	31.356			
5,900.0	5,867.7	5,891.2	5,868.7	15.6	14.2	161.12	-158.6	-352.9	812.4	786.2	26.17	31.040			
6,000.0	5,967.7	5,991.2	5,968.7	15.7	14.4	161.18	-158.6	-352.9	814.4	787.8	26.56	30.662			
6,032.3	6,000.0	6,023.5	6,001.0	15.8	14.5	-90.25	-158.6	-352.9	814.5	787.8	26.69	30.521			
6,100.0	6,067.7	6,091.2	6,068.7	15.9	14.6	-90.25	-158.6	-352.9	814.5	787.6	26.96	30.216			
6,200.0	6,167.7	6,191.2	6,168.7	16.1	14.8	-90.25	-158.6	-352.9	814.5	787.2	27.36	29.770			
6,300.0	6,267.7	6,291.2	6,268.7	16.2	15.0	-90.25	-158.6	-352.9	814.5	786.8	27.77	29.335			
6,400.0	6,367.7	6,391.2	6,368.7	16.4	15.2	-90.25	-158.6	-352.9	814.5	786.3	28.17	28.912			
6,500.0	6,467.7	6,491.2	6,468.7	16.6	15.4	-90.25	-158.6	-352.9	814.5	785.9	28.58	28.499			
6,600.0	6,567.7	6,591.2	6,568.7	16.8	15.6	-90.25	-158.6	-352.9	814.5	785.5	28.99	28.097			
6,700.0	6,667.7	6,691.2	6,668.7	17.0	15.8	-90.25	-158.6	-352.9	814.5	785.1	29.40	27.705			
6,808.5	6,776.2	6,799.7	6,777.2	17.2	16.0	-90.25	-158.6	-352.9	814.5	784.7	29.85	27.290			
6,808.6	6,776.3	6,799.7	6,777.3	17.2	16.0	-90.25	-158.6	-352.9	814.5	784.7	29.85	27.290			
6,850.0	6,817.7	6,841.7	6,819.2	17.2	16.0	-90.63	-156.9	-352.9	814.5	784.5	30.00	27.148			
6,900.0	6,867.2	6,892.3	6,869.4	17.3	16.1	-90.62	-150.4	-352.9	814.5	784.4	30.17	26.999			
6,950.0	6,916.0	6,942.9	6,918.7	17.4	16.2	-90.60	-139.0	-352.8	814.6	784.3	30.31	26.878			
7,000.0	6,963.4	6,993.5	6,966.6	17.4	16.3	-90.58	-122.9	-352.8	814.6	784.2	30.42	26.777			
7,050.0	7,009.1	7,044.1	7,012.7	17.5	16.3	-90.56	-102.3	-352.7	814.7	784.2	30.53	26.688			
7,100.0	7,052.7	7,094.6	7,056.7	17.5	16.4	-90.53	-77.3	-352.6	814.8	784.1	30.63	26.601			
7,150.0	7,093.8	7,145.2	7,097.9	17.6	16.4	-90.50	-48.2	-352.5	814.8	784.1	30.74	26.505			
7,200.0	7,131.9	7,195.6	7,136.1	17.6	16.4	-90.46	-15.2	-352.4	814.9	784.0	30.88	26.386			
7,250.0	7,166.7	7,246.1	7,170.9	17.6	16.5	-90.41	21.2	-352.3	815.0	784.0	31.07	26.233			
7,300.0	7,197.9	7,296.4	7,202.0	17.7	16.5	-90.37	60.9	-352.1	815.2	783.8	31.31	26.036			
7,350.0	7,225.3	7,346.8	7,229.1	17.7	16.6	-90.31	103.3	-352.0	815.3	783.7	31.62	25.785			
7,400.0	7,248.5	7,397.1	7,252.0	17.8	16.7	-90.26	148.0	-351.8	815.4	783.4	32.01	25.476			
7,450.0	7,267.4	7,447.3	7,270.4	17.9	16.8	-90.20	194.7	-351.7	815.5	783.1	32.48	25.109			
7,500.0	7,281.8	7,497.5	7,284.2	18.1	17.0	-90.15	242.9	-351.5	815.7	782.6	33.04	24.686			
7,550.0	7,291.5	7,547.6	7,293.3	18.3	17.3	-90.09	292.2	-351.3	815.8	782.1	33.69	24.214			
7,600.0	7,296.4	7,597.6	7,297.7	18.5	17.6	-90.03	342.0	-351.1	816.0	781.6	34.42	23.704			
7,629.2	7,297.1	7,626.8	7,298.0	18.7	17.8	-90.00	371.2	-351.0	816.1	781.2	34.89	23.391			
7,700.0	7,296.7	7,697.6	7,297.7	19.3	18.4	-90.00	442.0	-350.8	816.3	780.2	36.12	22.597			
7,800.0	7,296.3	7,797.6	7,297.2	20.2	19.4	-90.00	542.0	-350.4	816.6	778.5	38.13	21.415			
7,900.0	7,295.8	7,897.6	7,296.8	21.3	20.6	-90.00	642.0	-350.1	816.9	776.5	40.40	20.219			
8,000.0	7,295.3	7,997.6	7,296.3	22.5	21.8	-90.00	742.0	-349.7	817.2	774.3	42.90	19.051			
8,100.0	7,294.9	8,097.6	7,295.8	23.7	23.1	-90.00	842.0	-349.4	817.5	771.9	45.57	17.938			
8,200.0	7,294.4	8,197.6	7,295.3	25.1	24.5	-90.00	942.0	-349.0	817.8	769.4	48.41	16.894			
8,300.0	7,293.9	8,297.6	7,294.9	26.5	26.0	-90.00	1,042.0	-348.7	818.1	766.7	51.37	15.926			
8,400.0	7,293.5	8,397.6	7,294.4	28.0	27.5	-90.00	1,142.0	-348.3	818.4	764.0	54.44	15.034			
8,500.0	7,293.0	8,497.6	7,293.9	29.6	29.1	-90.00	1,242.0	-348.0	818.7	761.1	57.60	14.214			
8,600.0	7,292.5	8,597.6	7,293.5	31.2	30.7	-90.00	1,342.0	-347.6	819.0	758.2	60.83	13.463			
8,700.0	7,292.0	8,697.6	7,293.0	32.8	32.3	-90.00	1,442.0	-347.3	819.3	755.2	64.14	12.774			
8,800.0	7,291.6	8,797.6	7,292.5	34.4	34.0	-90.00	1,542.0	-346.9	819.6	752.1	67.49	12.143			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design		Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-6N - Wellbore #1 - Plan #2 (8)											Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
8,900.0	7,291.1	8,897.6	7,292.0	36.1	35.7	-90.00	1,642.0	-346.6	819.9	749.0	70.90	11.565		
9,000.0	7,290.6	8,997.6	7,291.6	37.8	37.4	-90.00	1,742.0	-346.2	820.2	745.9	74.34	11.033		
9,100.0	7,290.2	9,097.6	7,291.1	39.5	39.1	-90.00	1,842.0	-345.9	820.5	742.7	77.83	10.543		
9,200.0	7,289.7	9,197.6	7,290.6	41.3	40.9	-90.00	1,942.0	-345.5	820.8	739.5	81.34	10.091		
9,300.0	7,289.2	9,297.6	7,290.2	43.0	42.6	-90.00	2,042.0	-345.2	821.1	736.2	84.88	9.674		
9,400.0	7,288.7	9,397.6	7,289.7	44.8	44.4	-90.00	2,142.0	-344.8	821.4	733.0	88.44	9.288		
9,500.0	7,288.3	9,497.6	7,289.2	46.5	46.2	-90.00	2,242.0	-344.4	821.7	729.7	92.03	8.929		
9,600.0	7,287.8	9,597.6	7,288.7	48.3	48.0	-90.00	2,342.0	-344.1	822.0	726.4	95.63	8.596		
9,700.0	7,287.3	9,697.6	7,288.3	50.1	49.8	-90.00	2,442.0	-343.7	822.3	723.1	99.25	8.285		
9,800.0	7,286.9	9,797.6	7,287.8	51.9	51.6	-90.00	2,542.0	-343.4	822.6	719.7	102.88	7.996		
9,900.0	7,286.4	9,897.6	7,287.3	53.7	53.4	-90.00	2,642.0	-343.0	822.9	716.4	106.53	7.725		
10,000.0	7,285.9	9,997.6	7,286.9	55.5	55.3	-90.00	2,742.0	-342.7	823.2	713.0	110.19	7.471		
10,100.0	7,285.4	10,097.6	7,286.4	57.4	57.1	-90.00	2,842.0	-342.3	823.5	709.6	113.86	7.232		
10,200.0	7,285.0	10,197.6	7,285.9	59.2	58.9	-90.00	2,942.0	-342.0	823.8	706.3	117.55	7.008		
10,300.0	7,284.5	10,297.6	7,285.4	61.0	60.8	-90.00	3,042.0	-341.6	824.1	702.9	121.24	6.798		
10,400.0	7,284.0	10,397.6	7,285.0	62.9	62.6	-90.00	3,142.0	-341.3	824.4	699.5	124.93	6.599		
10,500.0	7,283.6	10,497.6	7,284.5	64.7	64.5	-90.00	3,242.0	-340.9	824.7	696.1	128.64	6.411		
10,600.0	7,283.1	10,597.6	7,284.0	66.5	66.3	-90.00	3,342.0	-340.6	825.0	692.7	132.35	6.233		
10,700.0	7,282.6	10,697.6	7,283.6	68.4	68.2	-90.00	3,442.0	-340.2	825.3	689.2	136.07	6.065		
10,800.0	7,282.1	10,797.6	7,283.1	70.2	70.0	-90.00	3,542.0	-339.9	825.6	685.8	139.80	5.906		
10,900.0	7,281.7	10,897.6	7,282.6	72.1	71.9	-90.00	3,642.0	-339.5	825.9	682.4	143.53	5.754		
11,000.0	7,281.2	10,997.6	7,282.2	74.0	73.8	-90.00	3,742.0	-339.2	826.2	679.0	147.26	5.611		
11,100.0	7,280.7	11,097.6	7,281.7	75.8	75.6	-90.00	3,842.0	-338.8	826.5	675.5	151.00	5.474		
11,200.0	7,280.3	11,197.6	7,281.2	77.7	77.5	-90.00	3,942.0	-338.5	826.8	672.1	154.75	5.343		
11,300.0	7,279.8	11,297.6	7,280.7	79.6	79.4	-90.00	4,042.0	-338.1	827.1	668.6	158.49	5.219		
11,400.0	7,279.3	11,397.6	7,280.3	81.4	81.2	-90.00	4,142.0	-337.8	827.4	665.2	162.25	5.100		
11,500.0	7,278.8	11,497.6	7,279.8	83.3	83.1	-90.00	4,241.9	-337.4	827.7	661.7	166.00	4.986		
11,600.0	7,278.4	11,597.6	7,279.3	85.2	85.0	-90.00	4,341.9	-337.0	828.0	658.3	169.76	4.878		
11,700.0	7,277.9	11,697.6	7,278.9	87.0	86.9	-90.00	4,441.9	-336.7	828.3	654.8	173.52	4.774		
11,800.0	7,277.4	11,797.6	7,278.4	88.9	88.8	-90.00	4,541.9	-336.3	828.6	651.4	177.28	4.674		
11,891.1	7,277.0	11,879.2	7,278.0	90.6	90.3	-90.00	4,623.6	-336.1	829.0	648.4	180.53	4.592 SF		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-7N - Wellbore #1 - Plan #2 (8)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis 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	-90.01	0.0	-16.8	16.8	16.8	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-90.01	0.0	-16.8	16.8	16.6	0.22	74.771		
200.0	200.0	200.0	200.0	0.3	0.3	-90.01	0.0	-16.8	16.8	16.1	0.67	24.924		
300.0	300.0	300.0	300.0	0.6	0.6	-90.01	0.0	-16.8	16.8	15.7	1.12	14.954		
400.0	400.0	400.0	400.0	0.8	0.8	-90.01	0.0	-16.8	16.8	15.2	1.57	10.682		
500.0	500.0	500.0	500.0	1.0	1.0	-90.01	0.0	-16.8	16.8	14.8	2.02	8.308		
600.0	600.0	600.0	600.0	1.2	1.2	-90.01	0.0	-16.8	16.8	14.3	2.47	6.797		
700.0	700.0	700.0	700.0	1.5	1.5	-90.01	0.0	-16.8	16.8	13.9	2.92	5.752		
800.0	800.0	800.0	800.0	1.7	1.7	-90.01	0.0	-16.8	16.8	13.4	3.37	4.985		
900.0	900.0	900.0	900.0	1.9	1.9	-90.01	0.0	-16.8	16.8	13.0	3.82	4.398		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.01	0.0	-16.8	16.8	12.5	4.27	3.935		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-90.01	0.0	-16.8	16.8	12.1	4.72	3.561		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.01	0.0	-16.8	16.8	11.6	5.17	3.251		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.01	0.0	-16.8	16.8	11.2	5.62	2.991		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.01	0.0	-16.8	16.8	10.7	6.07	2.769		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-90.01	0.0	-16.8	16.8	10.3	6.52	2.578		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-90.01	0.0	-16.8	16.8	9.8	6.97	2.412 CC, ES		
1,700.0	1,700.0	1,699.7	1,699.6	3.7	3.7	-92.84	-0.9	-17.8	17.8	10.4	7.39	2.407 SF		
1,800.0	1,800.0	1,799.2	1,799.1	3.9	3.9	-99.64	-3.5	-20.6	21.0	13.2	7.80	2.687		
1,900.0	1,900.0	1,898.4	1,898.1	4.2	4.1	-107.19	-7.9	-25.4	26.7	18.5	8.21	3.247		
2,000.0	2,000.0	1,997.3	1,996.5	4.4	4.3	-113.48	-13.9	-32.0	35.1	26.5	8.63	4.066		
2,100.0	2,100.0	2,095.9	2,094.5	4.6	4.5	134.39	-21.6	-40.4	47.1	38.0	9.02	5.216		
2,200.0	2,199.9	2,194.9	2,192.8	4.8	4.7	133.87	-29.6	-49.2	61.4	52.0	9.40	6.528		
2,300.0	2,299.7	2,293.5	2,290.7	5.0	4.9	134.88	-37.6	-58.0	77.5	67.8	9.79	7.919		
2,400.0	2,399.3	2,391.8	2,388.3	5.2	5.2	136.59	-45.6	-66.8	95.6	85.4	10.19	9.384		
2,500.0	2,498.6	2,489.7	2,485.5	5.4	5.4	138.56	-53.6	-75.5	115.6	105.0	10.59	10.922		
2,533.1	2,531.4	2,522.1	2,517.6	5.5	5.5	139.23	-56.2	-78.3	122.7	112.0	10.72	11.448		
2,600.0	2,597.6	2,587.3	2,582.3	5.6	5.7	140.57	-61.5	-84.1	137.3	126.3	11.00	12.477		
2,700.0	2,696.6	2,684.8	2,679.1	5.9	5.9	142.12	-69.4	-92.8	159.2	147.7	11.44	13.920		
2,800.0	2,795.7	2,782.2	2,775.9	6.2	6.2	143.30	-77.3	-101.5	181.2	169.3	11.88	15.253		
2,900.0	2,894.7	2,879.7	2,872.7	6.4	6.5	144.22	-85.2	-110.2	203.2	190.9	12.33	16.485		
3,000.0	2,993.7	2,977.2	2,969.4	6.7	6.8	144.96	-93.2	-118.8	225.3	212.5	12.78	17.625		
3,100.0	3,092.8	3,074.7	3,066.2	7.0	7.0	145.57	-101.1	-127.5	247.4	234.2	13.25	18.679		
3,200.0	3,191.8	3,172.2	3,163.0	7.3	7.3	146.08	-109.0	-136.2	269.6	255.9	13.71	19.656		
3,300.0	3,290.8	3,269.7	3,259.8	7.6	7.6	146.51	-116.9	-144.9	291.7	277.5	14.19	20.563		
3,400.0	3,389.8	3,367.2	3,356.6	7.9	7.9	146.88	-124.8	-153.5	313.9	299.2	14.66	21.407		
3,500.0	3,488.9	3,464.7	3,453.4	8.2	8.2	147.20	-132.8	-162.2	336.1	320.9	15.14	22.192		
3,600.0	3,587.9	3,563.1	3,551.1	8.5	8.5	147.49	-140.8	-171.0	358.3	342.6	15.63	22.922		
3,700.0	3,686.9	3,669.9	3,657.3	8.8	8.7	147.90	-148.2	-179.1	379.0	362.9	16.11	23.525		
3,800.0	3,786.0	3,777.7	3,764.7	9.1	9.0	148.48	-153.7	-185.2	397.4	380.8	16.59	23.958		
3,900.0	3,885.0	3,886.2	3,873.2	9.4	9.2	149.23	-157.2	-189.0	413.4	396.3	17.06	24.235		
4,000.0	3,984.0	3,995.4	3,982.3	9.7	9.4	150.14	-158.6	-190.5	427.1	409.5	17.52	24.370		
4,100.0	4,083.0	4,096.1	4,083.0	10.0	9.6	151.05	-158.6	-190.5	439.2	421.3	17.97	24.441		
4,200.0	4,182.1	4,195.2	4,182.1	10.4	9.8	151.91	-158.6	-190.5	451.5	433.1	18.42	24.511		
4,300.0	4,281.1	4,294.2	4,281.1	10.7	10.0	152.71	-158.6	-190.5	463.8	445.0	18.87	24.582		
4,400.0	4,380.1	4,393.2	4,380.1	11.0	10.2	153.48	-158.6	-190.5	476.3	456.9	19.32	24.655		
4,500.0	4,479.1	4,492.2	4,479.1	11.3	10.4	154.21	-158.6	-190.5	488.8	469.0	19.77	24.728		
4,600.0	4,578.2	4,591.3	4,578.2	11.7	10.6	154.90	-158.6	-190.5	501.4	481.1	20.21	24.802		
4,700.0	4,677.2	4,690.3	4,677.2	12.0	10.7	155.55	-158.6	-190.5	514.0	493.3	20.66	24.875		
4,800.0	4,776.2	4,789.3	4,776.2	12.3	10.9	156.18	-158.6	-190.5	526.7	505.6	21.11	24.949		
4,900.0	4,875.3	4,888.4	4,875.3	12.6	11.1	156.78	-158.6	-190.5	539.5	517.9	21.56	25.022		

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design		Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-7N - Wellbore #1 - Plan #2 (8)											Offset Site Error:		0.0 ft
Survey Program: 0-MWD													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			
5,000.0	4,974.3	4,987.4	4,974.3	13.0	11.3	157.34	-158.6	-190.5	552.3	530.3	22.01	25.094			
5,100.0	5,073.3	5,086.4	5,073.3	13.3	11.5	157.89	-158.6	-190.5	565.2	542.8	22.46	25.166			
5,200.0	5,172.3	5,185.4	5,172.3	13.6	11.7	158.40	-158.6	-190.5	578.1	555.2	22.91	25.236			
5,300.0	5,271.4	5,284.5	5,271.4	14.0	11.9	158.90	-158.6	-190.5	591.1	567.8	23.36	25.306			
5,400.0	5,370.4	5,383.5	5,370.4	14.3	12.1	159.37	-158.6	-190.5	604.1	580.3	23.81	25.374			
5,499.2	5,468.6	5,481.7	5,468.6	14.6	12.3	159.83	-158.6	-190.5	617.1	592.8	24.26	25.441			
5,600.0	5,568.6	5,581.7	5,568.6	14.9	12.5	160.29	-158.6	-190.5	629.0	604.3	24.73	25.434			
5,700.0	5,668.1	5,681.2	5,668.1	15.2	12.7	160.63	-158.6	-190.5	638.5	613.3	25.17	25.367			
5,800.0	5,767.8	5,780.9	5,767.8	15.4	12.9	160.89	-158.6	-190.5	645.4	619.8	25.59	25.222			
5,900.0	5,867.7	5,880.8	5,867.7	15.6	13.1	161.05	-158.6	-190.5	649.9	624.0	26.00	25.003			
6,000.0	5,967.7	5,980.8	5,967.7	15.7	13.4	161.12	-158.6	-190.5	652.0	625.6	26.38	24.712			
6,032.3	6,000.0	6,013.1	6,000.0	15.8	13.4	-90.32	-158.6	-190.5	652.1	625.6	26.51	24.596			
6,100.0	6,067.7	6,080.8	6,067.7	15.9	13.6	-90.32	-158.6	-190.5	652.1	625.3	26.79	24.344			
6,200.0	6,167.7	6,180.8	6,167.7	16.1	13.8	-90.32	-158.6	-190.5	652.1	624.9	27.20	23.977			
6,300.0	6,267.7	6,280.8	6,267.7	16.2	14.0	-90.32	-158.6	-190.5	652.1	624.5	27.61	23.619			
6,400.0	6,367.7	6,380.8	6,367.7	16.4	14.2	-90.32	-158.6	-190.5	652.1	624.1	28.02	23.272			
6,500.0	6,467.7	6,480.8	6,467.7	16.6	14.4	-90.32	-158.6	-190.5	652.1	623.7	28.44	22.933			
6,600.0	6,567.7	6,580.8	6,567.7	16.8	14.6	-90.32	-158.6	-190.5	652.1	623.3	28.85	22.603			
6,700.0	6,667.7	6,680.8	6,667.7	17.0	14.8	-90.32	-158.6	-190.5	652.1	622.8	29.27	22.282			
6,808.5	6,776.2	6,789.3	6,776.2	17.2	15.0	-90.32	-158.6	-190.5	652.1	622.4	29.72	21.943			
6,808.6	6,776.3	6,789.4	6,776.3	17.2	15.0	-90.32	-158.6	-190.5	652.1	622.4	29.72	21.942			
6,850.0	6,817.7	6,831.3	6,818.2	17.2	15.1	-90.69	-156.9	-190.5	652.1	622.2	29.87	21.829			
6,900.0	6,867.2	6,881.9	6,868.3	17.3	15.2	-90.68	-150.4	-190.5	652.1	622.1	30.04	21.707			
6,950.0	6,916.0	6,932.5	6,917.6	17.4	15.3	-90.67	-139.0	-190.4	652.2	622.0	30.18	21.607			
7,000.0	6,963.4	6,983.1	6,965.5	17.4	15.4	-90.64	-123.0	-190.4	652.2	621.9	30.30	21.524			
7,050.0	7,009.1	7,033.6	7,011.7	17.5	15.4	-90.62	-102.3	-190.3	652.2	621.8	30.41	21.451			
7,100.0	7,052.7	7,084.2	7,055.6	17.5	15.5	-90.58	-77.3	-190.2	652.3	621.8	30.51	21.379			
7,150.0	7,093.8	7,134.7	7,096.8	17.6	15.5	-90.55	-48.2	-190.1	652.4	621.7	30.63	21.299			
7,200.0	7,131.9	7,185.1	7,135.0	17.6	15.6	-90.50	-15.3	-189.9	652.4	621.7	30.77	21.201			
7,250.0	7,166.7	7,235.5	7,169.8	17.6	15.6	-90.45	21.1	-189.8	652.5	621.6	30.96	21.076			
7,300.0	7,197.9	7,285.9	7,200.9	17.7	15.7	-90.40	60.7	-189.6	652.6	621.4	31.20	20.914			
7,350.0	7,225.3	7,336.2	7,228.0	17.7	15.8	-90.35	103.1	-189.4	652.7	621.2	31.52	20.710			
7,400.0	7,248.5	7,386.5	7,250.9	17.8	15.9	-90.29	147.9	-189.2	652.8	620.9	31.91	20.459			
7,450.0	7,267.4	7,436.7	7,269.3	17.9	16.1	-90.23	194.6	-189.1	652.9	620.5	32.39	20.161			
7,500.0	7,281.8	7,486.9	7,283.2	18.1	16.4	-90.16	242.8	-188.9	653.0	620.1	32.95	19.818			
7,550.0	7,291.5	7,537.0	7,292.3	18.3	16.8	-90.10	292.0	-188.7	653.2	619.6	33.60	19.437			
7,600.0	7,296.4	7,587.1	7,296.7	18.5	17.1	-90.03	341.8	-188.4	653.3	618.9	34.34	19.025			
7,629.2	7,297.1	7,616.2	7,297.0	18.7	17.4	-90.00	371.0	-188.3	653.4	618.6	34.80	18.773			
7,700.0	7,296.7	7,687.1	7,296.7	19.3	18.0	-90.00	441.8	-188.0	653.5	617.5	36.05	18.129			
7,800.0	7,296.3	7,787.1	7,296.2	20.2	19.0	-90.00	541.8	-187.6	653.8	615.7	38.06	17.177			
7,900.0	7,295.8	7,887.1	7,295.8	21.3	20.2	-90.00	641.8	-187.2	654.0	613.7	40.34	16.214			
8,000.0	7,295.3	7,987.1	7,295.3	22.5	21.4	-90.00	741.8	-186.8	654.3	611.4	42.83	15.274			
8,100.0	7,294.9	8,087.1	7,294.8	23.7	22.7	-90.00	841.8	-186.4	654.5	609.0	45.52	14.379			
8,200.0	7,294.4	8,187.1	7,294.3	25.1	24.2	-90.00	941.8	-186.0	654.7	606.4	48.35	13.541			
8,300.0	7,293.9	8,287.1	7,293.9	26.5	25.7	-90.00	1,041.8	-185.6	655.0	603.7	51.32	12.763			
8,400.0	7,293.5	8,387.1	7,293.4	28.0	27.2	-90.00	1,141.8	-185.2	655.2	600.8	54.39	12.046			
8,500.0	7,293.0	8,487.1	7,292.9	29.6	28.8	-90.00	1,241.8	-184.7	655.5	597.9	57.55	11.389			
8,600.0	7,292.5	8,587.1	7,292.5	31.2	30.4	-90.00	1,341.8	-184.3	655.7	594.9	60.79	10.786			
8,700.0	7,292.0	8,687.1	7,292.0	32.8	32.0	-90.00	1,441.8	-183.9	655.9	591.8	64.10	10.233			
8,800.0	7,291.6	8,787.1	7,291.5	34.4	33.7	-90.00	1,541.8	-183.5	656.2	588.7	67.46	9.727			
8,900.0	7,291.1	8,887.1	7,291.0	36.1	35.4	-90.00	1,641.8	-183.1	656.4	585.6	70.87	9.263			

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	
Survey Program: 0-MWD												Offset Well Error:	
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
9,000.0	7,290.6	8,987.1	7,290.6	37.8	37.2	-90.00	1,741.8	-182.7	656.7	582.4	74.31	8.837	
9,100.0	7,290.2	9,087.1	7,290.1	39.5	38.9	-90.00	1,841.8	-182.3	656.9	579.1	77.80	8.444	
9,200.0	7,289.7	9,187.1	7,289.6	41.3	40.7	-90.00	1,941.8	-181.9	657.2	575.8	81.31	8.082	
9,300.0	7,289.2	9,287.1	7,289.2	43.0	42.4	-90.00	2,041.8	-181.5	657.4	572.5	84.85	7.748	
9,400.0	7,288.7	9,387.1	7,288.7	44.8	44.2	-90.00	2,141.8	-181.0	657.6	569.2	88.42	7.438	
9,500.0	7,288.3	9,487.1	7,288.2	46.5	46.0	-90.00	2,241.8	-180.6	657.9	565.9	92.00	7.151	
9,600.0	7,287.8	9,587.1	7,287.7	48.3	47.8	-90.00	2,341.8	-180.2	658.1	562.5	95.61	6.884	
9,700.0	7,287.3	9,687.1	7,287.3	50.1	49.6	-90.00	2,441.8	-179.8	658.4	559.1	99.23	6.635	
9,800.0	7,286.9	9,787.1	7,286.8	51.9	51.4	-90.00	2,541.8	-179.4	658.6	555.7	102.86	6.403	
9,900.0	7,286.4	9,887.1	7,286.3	53.7	53.3	-90.00	2,641.8	-179.0	658.9	552.3	106.51	6.186	
10,000.0	7,285.9	9,987.1	7,285.9	55.5	55.1	-90.00	2,741.8	-178.6	659.1	548.9	110.17	5.982	
10,100.0	7,285.4	10,087.1	7,285.4	57.4	56.9	-90.00	2,841.8	-178.2	659.3	545.5	113.85	5.791	
10,200.0	7,285.0	10,187.1	7,284.9	59.2	58.8	-90.00	2,941.8	-177.7	659.6	542.1	117.53	5.612	
10,300.0	7,284.5	10,287.1	7,284.5	61.0	60.6	-90.00	3,041.8	-177.3	659.8	538.6	121.22	5.443	
10,400.0	7,284.0	10,387.1	7,284.0	62.9	62.5	-90.00	3,141.8	-176.9	660.1	535.1	124.92	5.284	
10,500.0	7,283.6	10,487.1	7,283.5	64.7	64.3	-90.00	3,241.8	-176.5	660.3	531.7	128.63	5.134	
10,600.0	7,283.1	10,587.1	7,283.0	66.5	66.2	-90.00	3,341.8	-176.1	660.5	528.2	132.34	4.991	
10,700.0	7,282.6	10,687.1	7,282.6	68.4	68.0	-90.00	3,441.8	-175.7	660.8	524.7	136.06	4.857	
10,800.0	7,282.1	10,787.1	7,282.1	70.2	69.9	-90.00	3,541.8	-175.3	661.0	521.2	139.78	4.729	
10,900.0	7,281.7	10,887.1	7,281.6	72.1	71.8	-90.00	3,641.8	-174.9	661.3	517.8	143.51	4.608	
11,000.0	7,281.2	10,987.1	7,281.2	74.0	73.6	-90.00	3,741.8	-174.5	661.5	514.3	147.25	4.492	
11,100.0	7,280.7	11,087.1	7,280.7	75.8	75.5	-90.00	3,841.8	-174.0	661.8	510.8	150.99	4.383	
11,200.0	7,280.3	11,187.1	7,280.2	77.7	77.4	-90.00	3,941.8	-173.6	662.0	507.3	154.74	4.278	
11,300.0	7,279.8	11,287.1	7,279.7	79.6	79.3	-90.00	4,041.8	-173.2	662.2	503.8	158.48	4.179	
11,400.0	7,279.3	11,387.1	7,279.3	81.4	81.1	-90.00	4,141.8	-172.8	662.5	500.3	162.24	4.083	
11,500.0	7,278.8	11,487.1	7,278.8	83.3	83.0	-90.00	4,241.8	-172.4	662.7	496.7	165.99	3.993	
11,600.0	7,278.4	11,587.1	7,278.3	85.2	84.9	-90.00	4,341.8	-172.0	663.0	493.2	169.75	3.906	
11,700.0	7,277.9	11,687.1	7,277.9	87.0	86.8	-90.00	4,441.8	-171.6	663.2	489.7	173.51	3.822	
11,800.0	7,277.4	11,787.1	7,277.4	88.9	88.7	-90.00	4,541.8	-171.2	663.5	486.2	177.27	3.743	
11,840.6	7,277.2	11,827.7	7,277.2	89.7	89.3	-90.00	4,582.4	-171.0	663.6	484.8	178.71	3.713	
11,891.1	7,277.0	11,868.1	7,277.0	90.6	89.9	-90.00	4,622.8	-170.8	663.8	483.5	180.27	3.682	

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-9C - Wellbore #1 - Plan #3 (3)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
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	90.00	0.0	14.0	14.0	14.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	14.0	14.0	13.8	0.22	62.309	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	14.0	14.0	13.3	0.67	20.770	
300.0	300.0	300.0	300.0	0.6	0.6	90.00	0.0	14.0	14.0	12.9	1.12	12.462	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	14.0	14.0	12.4	1.57	8.901	
500.0	500.0	500.0	500.0	1.0	1.0	90.00	0.0	14.0	14.0	12.0	2.02	6.923	
600.0	600.0	600.0	600.0	1.2	1.2	90.00	0.0	14.0	14.0	11.5	2.47	5.664	
700.0	700.0	700.0	700.0	1.5	1.5	90.00	0.0	14.0	14.0	11.1	2.92	4.793	
800.0	800.0	800.0	800.0	1.7	1.7	90.00	0.0	14.0	14.0	10.6	3.37	4.154	
900.0	900.0	900.0	900.0	1.9	1.9	90.00	0.0	14.0	14.0	10.2	3.82	3.665	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.00	0.0	14.0	14.0	9.7	4.27	3.279	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	90.00	0.0	14.0	14.0	9.3	4.72	2.967	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.00	0.0	14.0	14.0	8.8	5.17	2.709	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	90.00	0.0	14.0	14.0	8.4	5.62	2.492	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	90.00	0.0	14.0	14.0	7.9	6.07	2.308	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	90.00	0.0	14.0	14.0	7.5	6.52	2.149 CC, ES	
1,600.0	1,600.0	1,599.6	1,599.6	3.5	3.5	91.20	-0.3	15.3	15.3	8.3	6.95	2.197	
1,700.0	1,700.0	1,699.1	1,699.0	3.7	3.7	93.84	-1.3	19.0	19.1	11.7	7.37	2.592	
1,800.0	1,800.0	1,798.3	1,798.0	3.9	3.9	96.47	-2.9	25.3	25.5	17.7	7.79	3.275	
1,900.0	1,900.0	1,897.1	1,896.4	4.2	4.1	98.50	-5.1	34.0	34.6	26.3	8.23	4.199	
2,000.0	2,000.0	1,995.4	1,994.0	4.4	4.3	99.94	-7.9	45.1	46.2	37.5	8.68	5.321	
2,100.0	2,100.0	2,093.3	2,090.9	4.6	4.5	-7.75	-11.3	58.6	59.1	50.0	9.05	6.529	
2,200.0	2,199.9	2,192.2	2,188.6	4.8	4.8	-7.38	-15.2	73.8	71.1	61.7	9.44	7.535	
2,300.0	2,299.7	2,291.8	2,286.8	5.0	5.1	-7.35	-19.1	89.3	80.6	70.8	9.83	8.201	
2,400.0	2,399.3	2,391.5	2,385.3	5.2	5.4	-7.54	-23.1	104.7	87.6	77.3	10.23	8.561	
2,500.0	2,498.6	2,491.4	2,483.9	5.4	5.7	-7.92	-27.0	120.2	91.9	81.3	10.63	8.648	
2,533.1	2,531.4	2,524.5	2,516.6	5.5	5.8	-8.09	-28.3	125.3	92.8	82.0	10.76	8.622	
2,600.0	2,597.6	2,591.4	2,582.6	5.6	6.0	-8.46	-30.9	135.7	94.2	83.2	11.05	8.530	
2,700.0	2,696.6	2,691.3	2,681.3	5.9	6.3	-8.98	-34.9	151.1	96.4	85.0	11.48	8.398	
2,800.0	2,795.7	2,791.3	2,780.0	6.2	6.7	-9.48	-38.8	166.6	98.7	86.7	11.93	8.272	
2,900.0	2,894.7	2,891.3	2,878.7	6.4	7.0	-9.96	-42.7	182.1	100.9	88.5	12.37	8.152	
3,000.0	2,993.7	2,991.3	2,977.4	6.7	7.3	-10.42	-46.7	197.6	103.1	90.3	12.83	8.037	
3,100.0	3,092.8	3,091.2	3,076.0	7.0	7.7	-10.86	-50.6	213.1	105.3	92.1	13.29	7.928	
3,200.0	3,191.8	3,191.2	3,174.7	7.3	8.0	-11.28	-54.6	228.6	107.6	93.8	13.75	7.824	
3,300.0	3,290.8	3,291.2	3,273.4	7.6	8.4	-11.68	-58.5	244.0	109.8	95.6	14.22	7.725	
3,400.0	3,389.8	3,391.2	3,372.1	7.9	8.7	-12.07	-62.4	259.5	112.1	97.4	14.69	7.630	
3,500.0	3,488.9	3,491.1	3,470.8	8.2	9.1	-12.44	-66.4	275.0	114.3	99.2	15.16	7.540	
3,600.0	3,587.9	3,591.1	3,569.5	8.5	9.4	-12.80	-70.3	290.5	116.6	100.9	15.64	7.454	
3,700.0	3,686.9	3,691.1	3,668.2	8.8	9.8	-13.15	-74.2	306.0	118.8	102.7	16.12	7.372	
3,800.0	3,786.0	3,791.0	3,766.8	9.1	10.2	-13.48	-78.2	321.4	121.1	104.5	16.61	7.293	
3,900.0	3,885.0	3,891.0	3,865.5	9.4	10.5	-13.80	-82.1	336.9	123.4	106.3	17.09	7.218	
4,000.0	3,984.0	3,991.0	3,964.2	9.7	10.9	-14.10	-86.0	352.4	125.7	108.1	17.59	7.146	
4,100.0	4,083.0	4,091.0	4,062.9	10.0	11.2	-14.40	-90.0	367.9	127.9	109.9	18.08	7.077	
4,200.0	4,182.1	4,190.9	4,161.6	10.4	11.6	-14.69	-93.9	383.4	130.2	111.6	18.57	7.011	
4,300.0	4,281.1	4,290.9	4,260.3	10.7	12.0	-14.96	-97.9	398.9	132.5	113.4	19.07	6.947	
4,400.0	4,380.1	4,390.9	4,359.0	11.0	12.3	-15.23	-101.8	414.3	134.8	115.2	19.57	6.887	
4,500.0	4,479.1	4,490.8	4,457.7	11.3	12.7	-15.49	-105.7	429.8	137.1	117.0	20.08	6.828	
4,600.0	4,578.2	4,590.8	4,556.3	11.7	13.1	-15.74	-109.7	445.3	139.4	118.8	20.58	6.772	
4,700.0	4,677.2	4,690.8	4,655.0	12.0	13.4	-15.98	-113.6	460.8	141.7	120.6	21.09	6.718	
4,800.0	4,776.2	4,790.8	4,753.7	12.3	13.8	-16.21	-117.5	476.3	144.0	122.4	21.59	6.667	
4,900.0	4,875.3	4,890.7	4,852.4	12.6	14.2	-16.44	-121.5	491.8	146.3	124.2	22.10	6.617	

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

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design		Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-9C - Wellbore #1 - Plan #3 (3											Offset Site Error:		0.0 ft
Survey Program:		0-MWD											Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
5,000.0	4,974.3	4,990.7	4,951.1	13.0	14.6	-16.66	-125.4	507.2	148.6	126.0	22.62	6.569			
5,100.0	5,073.3	5,090.7	5,049.8	13.3	14.9	-16.87	-129.3	522.7	150.9	127.7	23.13	6.523			
5,200.0	5,172.3	5,190.6	5,148.5	13.6	15.3	-17.08	-133.3	538.2	153.2	129.5	23.65	6.478			
5,300.0	5,271.4	5,290.6	5,247.2	14.0	15.7	-17.28	-137.2	553.7	155.5	131.3	24.16	6.435			
5,400.0	5,370.4	5,390.6	5,345.8	14.3	16.0	-17.47	-141.2	569.2	157.8	133.1	24.68	6.394			
5,499.2	5,468.6	5,492.1	5,446.1	14.6	16.4	-17.70	-145.0	584.5	159.7	134.5	25.19	6.340			
5,600.0	5,568.6	5,597.2	5,550.3	14.9	16.7	-18.00	-148.5	597.9	160.5	134.8	25.67	6.252			
5,700.0	5,668.1	5,701.4	5,654.0	15.2	16.9	-18.23	-151.1	608.4	161.1	135.0	26.09	6.175			
5,800.0	5,767.8	5,805.7	5,757.9	15.4	17.1	-18.40	-153.1	616.2	161.6	135.1	26.48	6.102			
5,900.0	5,867.7	5,910.0	5,862.1	15.6	17.3	-18.51	-154.4	621.2	161.9	135.0	26.84	6.032			
6,000.0	5,967.7	6,014.3	5,966.3	15.7	17.5	-18.56	-155.0	623.5	162.0	134.8	27.16	5.964			
6,032.3	6,000.0	6,047.9	6,000.0	15.8	17.5	90.00	-155.0	623.6	162.0	134.7	27.29	5.936			
6,100.0	6,067.7	6,115.6	6,067.7	15.9	17.6	90.00	-155.0	623.6	162.0	134.5	27.55	5.881			
6,200.0	6,167.7	6,215.6	6,167.7	16.1	17.8	90.00	-155.0	623.6	162.0	134.1	27.94	5.799			
6,300.0	6,267.7	6,315.6	6,267.7	16.2	17.9	90.00	-155.0	623.6	162.0	133.7	28.33	5.718			
6,400.0	6,367.7	6,415.6	6,367.7	16.4	18.1	90.00	-155.0	623.6	162.0	133.3	28.72	5.640			
6,500.0	6,467.7	6,515.6	6,467.7	16.6	18.3	90.00	-155.0	623.6	162.0	132.9	29.12	5.564			
6,600.0	6,567.7	6,615.6	6,567.7	16.8	18.4	90.00	-155.0	623.6	162.0	132.5	29.51	5.489			
6,700.0	6,667.7	6,715.6	6,667.7	17.0	18.6	90.00	-155.0	623.6	162.0	132.1	29.91	5.416			
6,808.5	6,776.2	6,824.2	6,776.2	17.2	18.8	90.00	-155.0	623.6	162.0	131.7	30.35	5.339			
6,841.7	6,809.4	6,857.4	6,809.4	17.2	18.8	90.00	-155.0	623.6	162.0	131.6	30.43	5.324			
6,850.0	6,817.7	6,865.6	6,817.7	17.2	18.8	90.21	-155.0	623.6	162.0	131.6	30.44	5.321			
6,900.0	6,867.2	6,915.2	6,867.2	17.3	18.9	92.42	-155.0	623.6	162.2	131.7	30.48	5.320			
6,950.0	6,916.0	6,963.9	6,916.0	17.4	19.0	96.12	-155.0	623.6	163.0	132.6	30.42	5.358			
7,000.0	6,963.4	7,011.4	6,963.4	17.4	19.1	101.00	-155.0	623.6	165.5	135.2	30.30	5.461			
7,050.0	7,009.1	7,060.8	7,012.9	17.5	19.2	106.74	-153.7	623.6	170.4	140.3	30.11	5.658			
7,100.0	7,052.7	7,113.3	7,065.0	17.5	19.2	112.30	-147.3	623.7	177.2	147.4	29.82	5.942			
7,150.0	7,093.8	7,168.3	7,118.5	17.6	19.3	117.43	-135.1	623.7	185.6	156.2	29.36	6.320			
7,200.0	7,131.9	7,225.9	7,172.9	17.6	19.4	122.07	-116.4	623.9	195.1	166.4	28.70	6.798			
7,250.0	7,166.7	7,286.4	7,227.5	17.6	19.4	126.20	-90.3	624.1	205.3	177.5	27.80	7.383			
7,300.0	7,197.9	7,350.1	7,281.3	17.7	19.5	129.82	-56.2	624.3	215.6	188.9	26.70	8.076			
7,350.0	7,225.3	7,417.1	7,332.9	17.7	19.5	132.92	-13.5	624.6	225.7	200.3	25.46	8.866			
7,400.0	7,248.5	7,487.5	7,380.7	17.8	19.6	135.52	38.0	625.0	235.1	210.9	24.15	9.733			
7,450.0	7,267.4	7,561.1	7,422.9	17.9	19.6	137.61	98.3	625.4	243.2	220.4	22.88	10.632			
7,500.0	7,281.8	7,637.6	7,457.2	18.1	19.7	139.19	166.6	625.9	249.8	228.0	21.80	11.460			
7,550.0	7,291.5	7,716.5	7,481.8	18.3	19.9	140.26	241.4	626.5	254.5	233.5	21.04	12.093			
7,600.0	7,296.4	7,797.0	7,494.9	18.5	20.2	140.82	320.7	627.0	257.0	236.3	20.74	12.393			
7,629.2	7,297.1	7,844.1	7,496.9	18.7	20.5	140.90	367.8	627.4	257.4	236.6	20.81	12.374			
7,700.0	7,296.7	7,915.0	7,496.6	19.3	20.9	140.91	438.7	627.9	257.5	235.9	21.67	11.884			
7,800.0	7,296.3	8,015.0	7,496.3	20.2	21.7	140.91	538.7	628.6	257.7	234.6	23.09	11.159			
7,900.0	7,295.8	8,115.0	7,495.9	21.3	22.6	140.92	638.7	629.3	257.8	233.1	24.72	10.430			
8,000.0	7,295.3	8,215.0	7,495.6	22.5	23.7	140.92	738.7	630.0	258.0	231.4	26.51	9.729			
8,100.0	7,294.9	8,315.0	7,495.2	23.7	24.9	140.93	838.7	630.8	258.1	229.6	28.44	9.074			
8,200.0	7,294.4	8,415.0	7,494.9	25.1	26.2	140.93	938.7	631.5	258.2	227.7	30.48	8.471			
8,300.0	7,293.9	8,515.0	7,494.5	26.5	27.6	140.94	1,038.7	632.2	258.4	225.7	32.61	7.922			
8,400.0	7,293.5	8,615.0	7,494.2	28.0	29.0	140.95	1,138.7	632.9	258.5	223.7	34.82	7.424			
8,500.0	7,293.0	8,715.0	7,493.8	29.6	30.5	140.95	1,238.7	633.7	258.6	221.6	37.08	6.975			
8,600.0	7,292.5	8,815.0	7,493.5	31.2	32.1	140.96	1,338.7	634.4	258.8	219.4	39.39	6.569			
8,700.0	7,292.0	8,915.0	7,493.1	32.8	33.6	140.96	1,438.6	635.1	258.9	217.2	41.75	6.202			
8,800.0	7,291.6	9,015.0	7,492.8	34.4	35.2	140.97	1,538.6	635.8	259.1	214.9	44.14	5.869			
8,900.0	7,291.1	9,115.0	7,492.4	36.1	36.9	140.97	1,638.6	636.5	259.2	212.6	46.55	5.568			

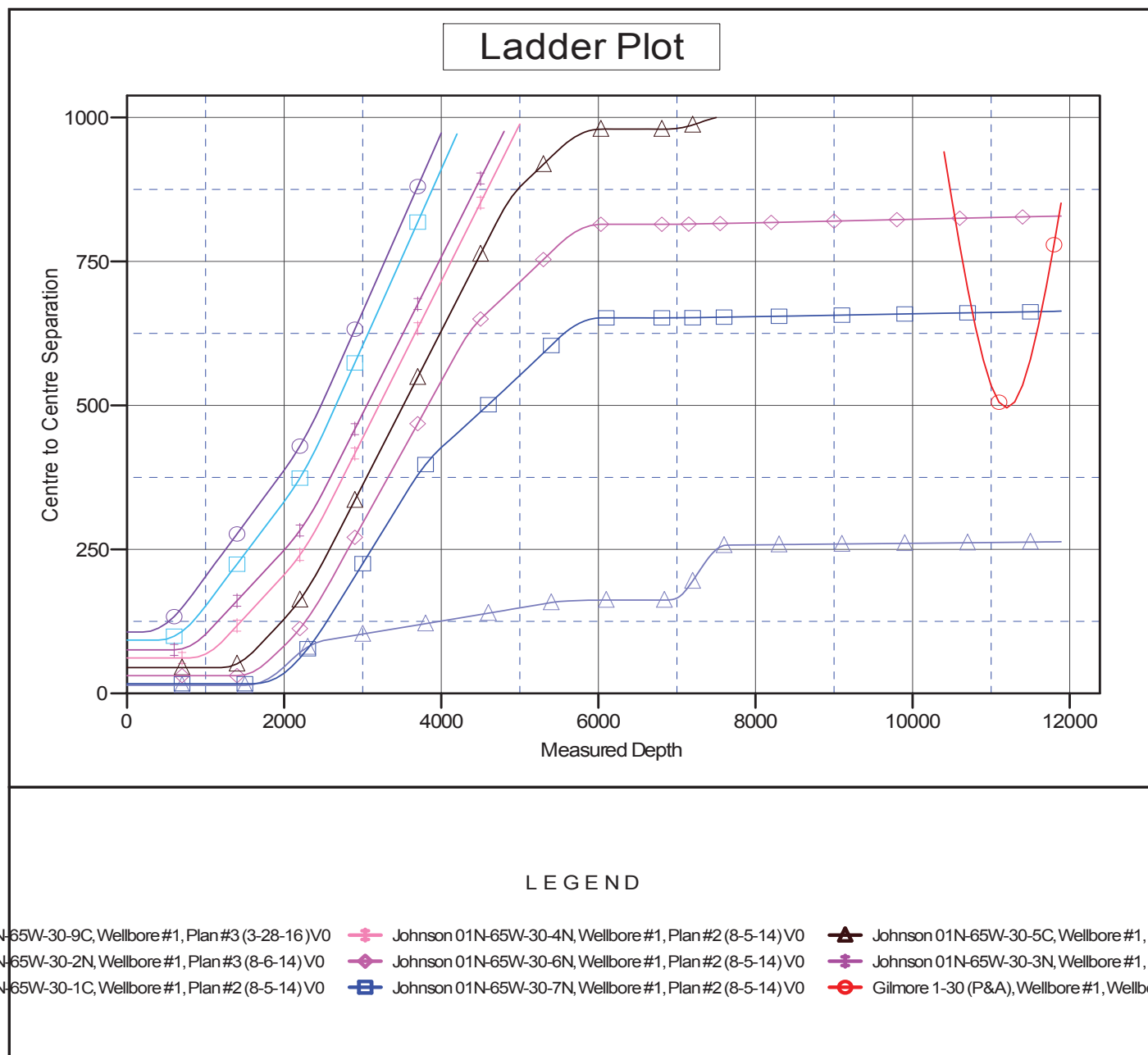
Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Offset Design Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W - Johnson 01N-65W-30-9C - Wellbore #1 - Plan #3 (3)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													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		
9,000.0	7,290.6	9,215.0	7,492.1	37.8	38.5	140.98	1,738.6	637.3	259.3	210.3	48.99	5.293		
9,100.0	7,290.2	9,315.0	7,491.7	39.5	40.2	140.98	1,838.6	638.0	259.5	208.0	51.46	5.042		
9,200.0	7,289.7	9,415.0	7,491.4	41.3	41.9	140.99	1,938.6	638.7	259.6	205.7	53.94	4.813		
9,300.0	7,289.2	9,515.0	7,491.0	43.0	43.7	140.99	2,038.6	639.4	259.7	203.3	56.44	4.602		
9,400.0	7,288.7	9,615.0	7,490.7	44.8	45.4	141.00	2,138.6	640.1	259.9	200.9	58.95	4.409		
9,500.0	7,288.3	9,715.0	7,490.3	46.5	47.1	141.00	2,238.6	640.9	260.0	198.5	61.47	4.230		
9,600.0	7,287.8	9,815.0	7,490.0	48.3	48.9	141.01	2,338.6	641.6	260.1	196.1	64.00	4.065		
9,700.0	7,287.3	9,915.0	7,489.6	50.1	50.7	141.02	2,438.6	642.3	260.3	193.7	66.54	3.912		
9,800.0	7,286.9	10,015.0	7,489.3	51.9	52.5	141.02	2,538.6	643.0	260.4	191.3	69.09	3.769		
9,900.0	7,286.4	10,115.0	7,489.0	53.7	54.2	141.03	2,638.6	643.8	260.6	188.9	71.65	3.636		
10,000.0	7,285.9	10,215.0	7,488.6	55.5	56.0	141.03	2,738.6	644.5	260.7	186.5	74.22	3.513		
10,100.0	7,285.4	10,315.0	7,488.3	57.4	57.9	141.04	2,838.6	645.2	260.8	184.1	76.79	3.397		
10,200.0	7,285.0	10,415.0	7,487.9	59.2	59.7	141.04	2,938.6	645.9	261.0	181.6	79.36	3.288		
10,300.0	7,284.5	10,515.0	7,487.6	61.0	61.5	141.05	3,038.6	646.6	261.1	179.2	81.94	3.187		
10,400.0	7,284.0	10,615.0	7,487.2	62.9	63.3	141.05	3,138.6	647.4	261.2	176.7	84.52	3.091		
10,500.0	7,283.6	10,715.0	7,486.9	64.7	65.1	141.06	3,238.6	648.1	261.4	174.3	87.11	3.001		
10,600.0	7,283.1	10,815.0	7,486.5	66.5	67.0	141.06	3,338.6	648.8	261.5	171.8	89.70	2.915		
10,700.0	7,282.6	10,915.0	7,486.2	68.4	68.8	141.07	3,438.6	649.5	261.7	169.4	92.30	2.835		
10,800.0	7,282.1	11,015.0	7,485.8	70.2	70.6	141.07	3,538.6	650.2	261.8	166.9	94.89	2.759		
10,900.0	7,281.7	11,115.0	7,485.5	72.1	72.5	141.08	3,638.6	651.0	261.9	164.4	97.49	2.687		
11,000.0	7,281.2	11,215.0	7,485.1	74.0	74.3	141.09	3,738.6	651.7	262.1	162.0	100.09	2.618		
11,100.0	7,280.7	11,315.0	7,484.8	75.8	76.2	141.09	3,838.6	652.4	262.2	159.5	102.70	2.553		
11,200.0	7,280.3	11,415.0	7,484.4	77.7	78.1	141.10	3,938.6	653.1	262.3	157.0	105.30	2.491		
11,300.0	7,279.8	11,515.0	7,484.1	79.6	79.9	141.10	4,038.6	653.8	262.5	154.6	107.91	2.432		
11,400.0	7,279.3	11,615.0	7,483.7	81.4	81.8	141.11	4,138.6	654.6	262.6	152.1	110.52	2.376		
11,500.0	7,278.8	11,715.0	7,483.4	83.3	83.6	141.11	4,238.6	655.3	262.8	149.6	113.13	2.323		
11,600.0	7,278.4	11,815.0	7,483.0	85.2	85.5	141.12	4,338.6	656.0	262.9	147.2	115.74	2.271		
11,700.0	7,277.9	11,915.0	7,482.7	87.0	87.4	141.12	4,438.5	656.7	263.0	144.7	118.35	2.222		
11,800.0	7,277.4	12,015.0	7,482.3	88.9	89.2	141.13	4,538.5	657.5	263.2	142.2	120.97	2.176		
11,891.1	7,277.0	12,106.1	7,482.0	90.6	90.9	141.13	4,629.6	658.1	263.3	139.9	123.35	2.135 SF		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5012.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: Johnson 01N-65W-30-8N
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.51°



Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-8N
Project:	SEC.30-T1N-R65W	TVD Reference:	WELL @ 5012.0ft (Original Well Elev)
Reference Site:	Johnson 01N-65W-30-1C Pad Sec.30-T1N-R65W	MD Reference:	WELL @ 5012.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	True
Reference Well:	Johnson 01N-65W-30-8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	Plan #3 (4-22-16)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5012.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Johnson 01N-65W-30-8N
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.51°

