

Verdad Oil & Gas Corporation

Well Name: **Johnson 01N-65W-30-9C**

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	1249523.60	3221399.36	40.015620	-104.709530	
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	-22.4	Circle (Radius: 300.0)
SHL 205'FSL & 1854'FWL	1.0	0.0	0.0	Point
BHL 460'FNL & 2478'FWL	7482.0	4630.1	644.1	Point



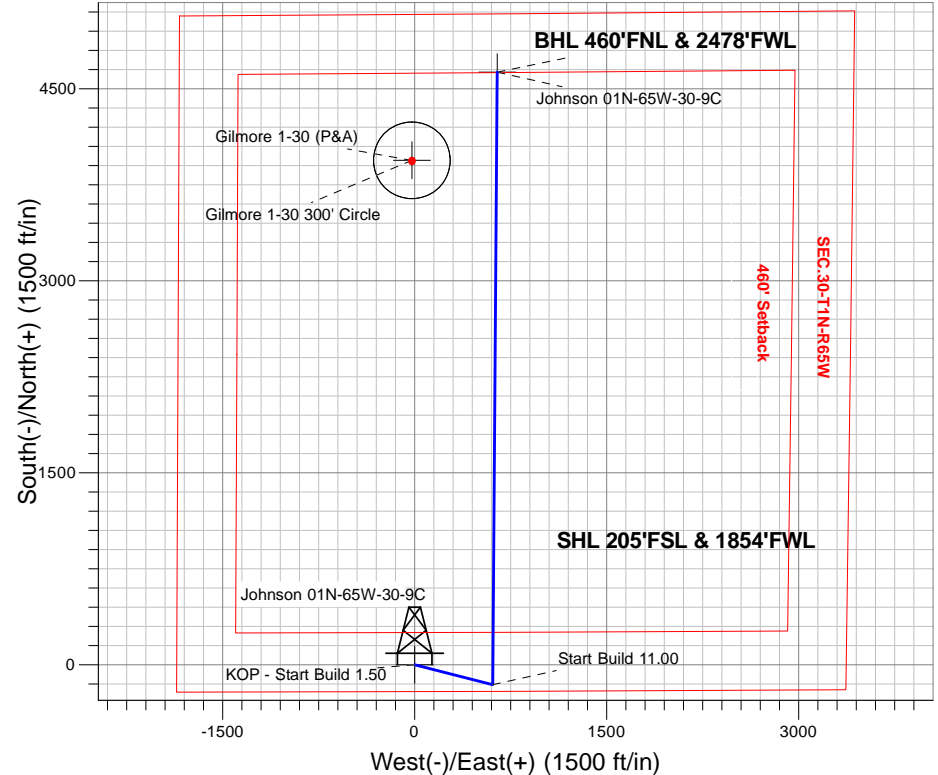
Azimuths to True North
Magnetic North: 8.16°

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-30-9C
Plan #3 (4-22-16)

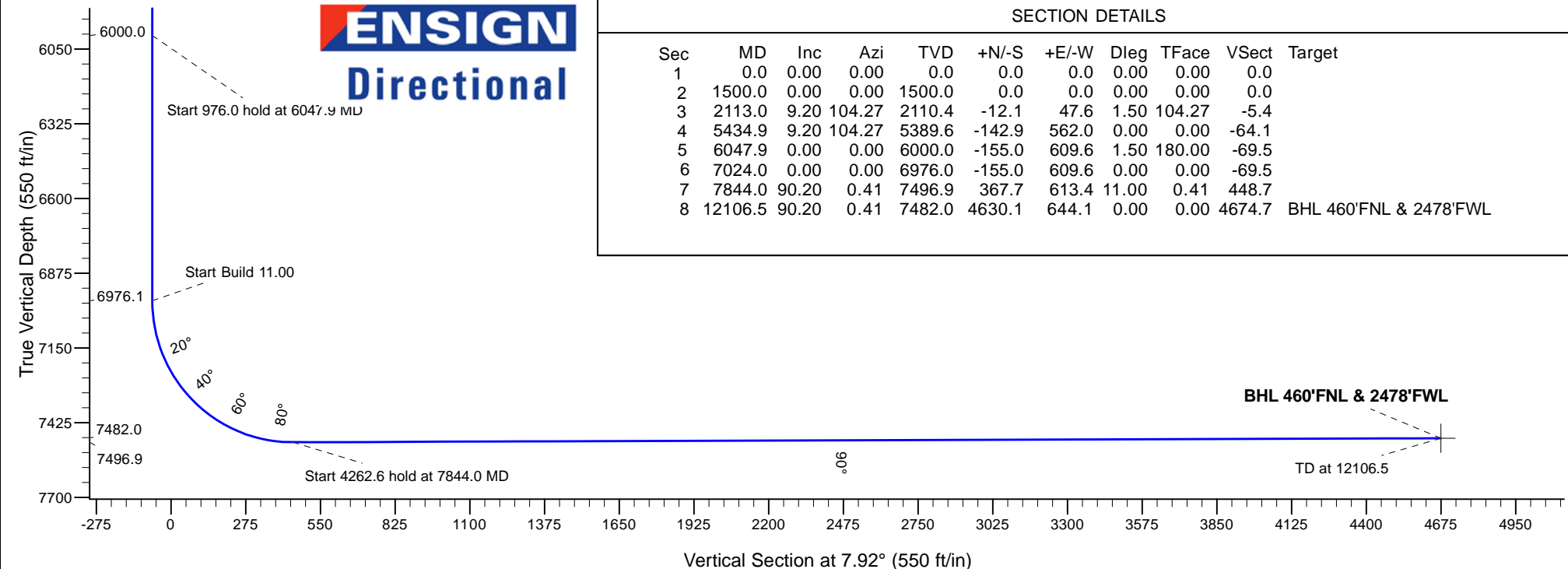
ANNOTATIONS

TVD	MD	Annotation
1500.0	1500.0	KOP - Start Build 1.50
5389.6	5434.9	Start Drop -1.50
6000.0	6047.9	Start 976.0 hold at 6047.9 MD
6976.1	7024.0	Start Build 11.00
7496.9	7844.0	Start 4262.6 hold at 7844.0 MD
7482.0	12106.5	TD at 12106.5



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	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	2113.0	9.20	104.27	2110.4	-12.1	47.6	1.50	104.27	-5.4	
4	5434.9	9.20	104.27	5389.6	-142.9	562.0	0.00	0.00	-64.1	
5	6047.9	0.00	0.00	6000.0	-155.0	609.6	1.50	180.00	-69.5	
6	7024.0	0.00	0.00	6976.0	-155.0	609.6	0.00	0.00	-69.5	
7	7844.0	90.20	0.41	7496.9	367.7	613.4	11.00	0.41	448.7	
8	12106.5	90.20	0.41	7482.0	4630.1	644.1	0.00	0.00	4674.7	BHL 460'FNL & 2478'FWL





Directional

Verdad Oil & Gas Corporation

SEC.30-T1N-R65W

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

Johnson 01N-65W-30-9C

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-30-9C
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-30-9C	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-30-9C					
Well Position	+N/-S	3.6 ft	Northing:	1,249,523.59 usft	Latitude:	40.015620
	+E/-W	120.4 ft	Easting:	3,221,399.36 usft	Longitude:	-104.709530
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	7.92

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,113.0	9.20	104.27	2,110.4	-12.1	47.6	1.50	1.50	0.00	104.27	
5,434.9	9.20	104.27	5,389.6	-142.9	562.0	0.00	0.00	0.00	0.00	
6,047.9	0.00	0.00	6,000.0	-155.0	609.6	1.50	-1.50	0.00	180.00	
7,024.0	0.00	0.00	6,976.0	-155.0	609.6	0.00	0.00	0.00	0.00	
7,844.0	90.20	0.41	7,496.9	367.7	613.4	11.00	11.00	0.00	0.41	
12,106.5	90.20	0.41	7,482.0	4,630.1	644.1	0.00	0.00	0.00	0.00	BHL 460'FNL & 2478'

Database:	US_EDM	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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 & 1854'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	
KOP - Start Build 1.50										
1,600.0	1.50	104.27	1,600.0	-0.3	1.3	-0.1	1.50	1.50	0.00	
1,700.0	3.00	104.27	1,699.9	-1.3	5.1	-0.6	1.50	1.50	0.00	
1,800.0	4.50	104.27	1,799.7	-2.9	11.4	-1.3	1.50	1.50	0.00	
1,900.0	6.00	104.27	1,899.3	-5.2	20.3	-2.3	1.50	1.50	0.00	
2,000.0	7.50	104.27	1,998.6	-8.1	31.7	-3.6	1.50	1.50	0.00	
2,100.0	9.00	104.27	2,097.5	-11.6	45.6	-5.2	1.50	1.50	0.00	
2,113.0	9.20	104.27	2,110.4	-12.1	47.6	-5.4	1.50	1.50	0.00	
2,200.0	9.20	104.27	2,196.3	-15.5	61.0	-7.0	0.00	0.00	0.00	
2,300.0	9.20	104.27	2,295.0	-19.5	76.5	-8.7	0.00	0.00	0.00	
2,400.0	9.20	104.27	2,393.7	-23.4	92.0	-10.5	0.00	0.00	0.00	
2,500.0	9.20	104.27	2,492.4	-27.3	107.5	-12.3	0.00	0.00	0.00	
2,600.0	9.20	104.27	2,591.1	-31.3	123.0	-14.0	0.00	0.00	0.00	
2,700.0	9.20	104.27	2,689.8	-35.2	138.5	-15.8	0.00	0.00	0.00	
2,800.0	9.20	104.27	2,788.5	-39.1	154.0	-17.6	0.00	0.00	0.00	
2,900.0	9.20	104.27	2,887.3	-43.1	169.4	-19.3	0.00	0.00	0.00	
3,000.0	9.20	104.27	2,986.0	-47.0	184.9	-21.1	0.00	0.00	0.00	
3,100.0	9.20	104.27	3,084.7	-51.0	200.4	-22.9	0.00	0.00	0.00	
3,200.0	9.20	104.27	3,183.4	-54.9	215.9	-24.6	0.00	0.00	0.00	
3,300.0	9.20	104.27	3,282.1	-58.8	231.4	-26.4	0.00	0.00	0.00	
3,400.0	9.20	104.27	3,380.8	-62.8	246.9	-28.2	0.00	0.00	0.00	
3,500.0	9.20	104.27	3,479.5	-66.7	262.4	-29.9	0.00	0.00	0.00	
3,600.0	9.20	104.27	3,578.3	-70.6	277.9	-31.7	0.00	0.00	0.00	
3,700.0	9.20	104.27	3,677.0	-74.6	293.3	-33.5	0.00	0.00	0.00	
3,800.0	9.20	104.27	3,775.7	-78.5	308.8	-35.2	0.00	0.00	0.00	
3,900.0	9.20	104.27	3,874.4	-82.5	324.3	-37.0	0.00	0.00	0.00	
4,000.0	9.20	104.27	3,973.1	-86.4	339.8	-38.8	0.00	0.00	0.00	
4,100.0	9.20	104.27	4,071.8	-90.3	355.3	-40.5	0.00	0.00	0.00	
4,200.0	9.20	104.27	4,170.6	-94.3	370.8	-42.3	0.00	0.00	0.00	
4,300.0	9.20	104.27	4,269.3	-98.2	386.3	-44.1	0.00	0.00	0.00	
4,400.0	9.20	104.27	4,368.0	-102.2	401.8	-45.8	0.00	0.00	0.00	
4,500.0	9.20	104.27	4,466.7	-106.1	417.2	-47.6	0.00	0.00	0.00	
4,600.0	9.20	104.27	4,565.4	-110.0	432.7	-49.4	0.00	0.00	0.00	
4,700.0	9.20	104.27	4,664.1	-114.0	448.2	-51.1	0.00	0.00	0.00	
4,800.0	9.20	104.27	4,762.8	-117.9	463.7	-52.9	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-30-9C	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	9.20	104.27	4,861.6	-121.8	479.2	-54.7	0.00	0.00	0.00
5,000.0	9.20	104.27	4,960.3	-125.8	494.7	-56.4	0.00	0.00	0.00
5,100.0	9.20	104.27	5,059.0	-129.7	510.2	-58.2	0.00	0.00	0.00
5,200.0	9.20	104.27	5,157.7	-133.7	525.6	-60.0	0.00	0.00	0.00
5,300.0	9.20	104.27	5,256.4	-137.6	541.1	-61.7	0.00	0.00	0.00
5,400.0	9.20	104.27	5,355.1	-141.5	556.6	-63.5	0.00	0.00	0.00
5,434.9	9.20	104.27	5,389.6	-142.9	562.0	-64.1	0.00	0.00	0.00
Start Drop -1.50									
5,500.0	8.22	104.27	5,453.9	-145.3	571.6	-65.2	1.50	-1.50	0.00
5,600.0	6.72	104.27	5,553.1	-148.5	584.2	-66.6	1.50	-1.50	0.00
5,700.0	5.22	104.27	5,652.5	-151.1	594.3	-67.8	1.50	-1.50	0.00
5,800.0	3.72	104.27	5,752.2	-153.0	601.8	-68.6	1.50	-1.50	0.00
5,900.0	2.22	104.27	5,852.1	-154.3	606.8	-69.2	1.50	-1.50	0.00
6,000.0	0.72	104.27	5,952.1	-154.9	609.3	-69.5	1.50	-1.50	0.00
6,047.9	0.00	104.27	6,000.0	-155.0	609.6	-69.5	1.50	-1.50	0.00
Start 976.0 hold at 6047.9 MD									
6,100.0	0.00	0.00	6,052.1	-155.0	609.6	-69.5	0.00	0.00	0.00
6,200.0	0.00	0.00	6,152.1	-155.0	609.6	-69.5	0.00	0.00	0.00
6,300.0	0.00	0.00	6,252.1	-155.0	609.6	-69.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,352.1	-155.0	609.6	-69.5	0.00	0.00	0.00
6,500.0	0.00	0.00	6,452.1	-155.0	609.6	-69.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,552.1	-155.0	609.6	-69.5	0.00	0.00	0.00
6,700.0	0.00	0.00	6,652.1	-155.0	609.6	-69.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,752.1	-155.0	609.6	-69.5	0.00	0.00	0.00
6,900.0	0.00	0.00	6,852.1	-155.0	609.6	-69.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,952.1	-155.0	609.6	-69.5	0.00	0.00	0.00
7,024.0	0.00	0.00	6,976.1	-155.0	609.6	-69.5	0.00	0.00	0.00
Start Build 11.00									
7,100.0	8.37	0.41	7,051.8	-149.5	609.6	-64.0	11.01	11.01	0.00
7,200.0	19.37	0.41	7,148.7	-125.5	609.8	-40.3	11.00	11.00	0.00
7,300.0	30.37	0.41	7,239.3	-83.5	610.1	1.3	11.00	11.00	0.00
7,400.0	41.37	0.41	7,320.2	-25.1	610.5	59.3	11.00	11.00	0.00
7,500.0	52.37	0.41	7,388.5	47.8	611.1	131.5	11.00	11.00	0.00
7,600.0	63.37	0.41	7,441.6	132.4	611.7	215.4	11.00	11.00	0.00
7,700.0	74.37	0.41	7,477.6	225.5	612.3	307.7	11.00	11.00	0.00
7,800.0	85.37	0.41	7,495.2	323.8	613.1	405.2	11.00	11.00	0.00
7,844.0	90.20	0.41	7,496.9	367.7	613.4	448.7	10.99	10.99	0.00
Start 4262.6 hold at 7844.0 MD									
7,900.0	90.20	0.41	7,496.7	423.7	613.8	504.2	0.00	0.00	0.00
8,000.0	90.20	0.41	7,496.3	523.7	614.5	603.4	0.00	0.00	0.00
8,100.0	90.20	0.41	7,496.0	623.7	615.2	702.5	0.00	0.00	0.00
8,200.0	90.20	0.41	7,495.6	723.7	615.9	801.7	0.00	0.00	0.00
8,300.0	90.20	0.41	7,495.3	823.7	616.7	900.8	0.00	0.00	0.00
8,400.0	90.20	0.41	7,494.9	923.7	617.4	1,000.0	0.00	0.00	0.00
8,500.0	90.20	0.41	7,494.6	1,023.7	618.1	1,099.1	0.00	0.00	0.00
8,600.0	90.20	0.41	7,494.2	1,123.7	618.8	1,198.2	0.00	0.00	0.00
8,700.0	90.20	0.41	7,493.9	1,223.7	619.5	1,297.4	0.00	0.00	0.00
8,800.0	90.20	0.41	7,493.5	1,323.7	620.3	1,396.5	0.00	0.00	0.00
8,900.0	90.20	0.41	7,493.2	1,423.7	621.0	1,495.7	0.00	0.00	0.00
9,000.0	90.20	0.41	7,492.8	1,523.7	621.7	1,594.8	0.00	0.00	0.00
9,100.0	90.20	0.41	7,492.5	1,623.7	622.4	1,694.0	0.00	0.00	0.00
9,200.0	90.20	0.41	7,492.1	1,723.7	623.1	1,793.1	0.00	0.00	0.00
9,300.0	90.20	0.41	7,491.8	1,823.7	623.9	1,892.2	0.00	0.00	0.00

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Well:	Johnson 01N-65W-30-9C	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	90.20	0.41	7,491.4	1,923.7	624.6	1,991.4	0.00	0.00	0.00
9,500.0	90.20	0.41	7,491.1	2,023.7	625.3	2,090.5	0.00	0.00	0.00
9,600.0	90.20	0.41	7,490.7	2,123.7	626.0	2,189.7	0.00	0.00	0.00
9,700.0	90.20	0.41	7,490.4	2,223.7	626.8	2,288.8	0.00	0.00	0.00
9,800.0	90.20	0.41	7,490.1	2,323.7	627.5	2,388.0	0.00	0.00	0.00
9,900.0	90.20	0.41	7,489.7	2,423.7	628.2	2,487.1	0.00	0.00	0.00
10,000.0	90.20	0.41	7,489.4	2,523.7	628.9	2,586.2	0.00	0.00	0.00
10,100.0	90.20	0.41	7,489.0	2,623.6	629.6	2,685.4	0.00	0.00	0.00
10,200.0	90.20	0.41	7,488.7	2,723.6	630.4	2,784.5	0.00	0.00	0.00
10,300.0	90.20	0.41	7,488.3	2,823.6	631.1	2,883.7	0.00	0.00	0.00
10,400.0	90.20	0.41	7,488.0	2,923.6	631.8	2,982.8	0.00	0.00	0.00
10,500.0	90.20	0.41	7,487.6	3,023.6	632.5	3,082.0	0.00	0.00	0.00
10,600.0	90.20	0.41	7,487.3	3,123.6	633.2	3,181.1	0.00	0.00	0.00
10,700.0	90.20	0.41	7,486.9	3,223.6	634.0	3,280.2	0.00	0.00	0.00
10,800.0	90.20	0.41	7,486.6	3,323.6	634.7	3,379.4	0.00	0.00	0.00
10,900.0	90.20	0.41	7,486.2	3,423.6	635.4	3,478.5	0.00	0.00	0.00
11,000.0	90.20	0.41	7,485.9	3,523.6	636.1	3,577.7	0.00	0.00	0.00
11,100.0	90.20	0.41	7,485.5	3,623.6	636.9	3,676.8	0.00	0.00	0.00
11,200.0	90.20	0.41	7,485.2	3,723.6	637.6	3,775.9	0.00	0.00	0.00
11,300.0	90.20	0.41	7,484.8	3,823.6	638.3	3,875.1	0.00	0.00	0.00
11,400.0	90.20	0.41	7,484.5	3,923.6	639.0	3,974.2	0.00	0.00	0.00
11,500.0	90.20	0.41	7,484.1	4,023.6	639.7	4,073.4	0.00	0.00	0.00
11,600.0	90.20	0.41	7,483.8	4,123.6	640.5	4,172.5	0.00	0.00	0.00
11,700.0	90.20	0.41	7,483.4	4,223.6	641.2	4,271.7	0.00	0.00	0.00
11,800.0	90.20	0.41	7,483.1	4,323.6	641.9	4,370.8	0.00	0.00	0.00
11,900.0	90.20	0.41	7,482.7	4,423.6	642.6	4,469.9	0.00	0.00	0.00
12,000.0	90.20	0.41	7,482.4	4,523.6	643.3	4,569.1	0.00	0.00	0.00
12,100.0	90.20	0.41	7,482.0	4,623.6	644.1	4,668.2	0.00	0.00	0.00
12,106.5	90.20	0.41	7,482.0	4,630.1	644.1	4,674.7	0.00	0.00	0.00
TD at 12106.5 - BHL 460'FNL & 2478'FWL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target - Shape									
Gilmore 1-30 300' Circle - plan misses target center by 3941.7ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E) - Circle (radius 300.0)	0.00	0.00	1.0	3,941.6	-22.4	1,253,464.70	3,221,341.82	40.026440	-104.709610
SHL 205'FSL & 1854'FW - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,249,523.60	3,221,399.36	40.015620	-104.709530
BHL 460'FNL & 2478'FW - plan hits target center - Point	0.00	0.00	7,482.0	4,630.1	644.1	1,254,159.10	3,222,002.15	40.028330	-104.707230

Database:	US_EDM	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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)	
1,500.0	1,500.0	0.0	0.0	KOP - Start Build 1.50
5,434.9	5,389.6	-142.9	562.0	Start Drop -1.50
6,047.9	6,000.0	-155.0	609.6	Start 976.0 hold at 6047.9 MD
7,024.0	6,976.1	-155.0	609.6	Start Build 11.00
7,844.0	7,496.9	367.7	613.4	Start 4262.6 hold at 7844.0 MD
12,106.5	7,482.0	4,630.1	644.1	TD at 12106.5



Directional

Verdad Oil & Gas Corporation

SEC.30-T1N-R65W

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

Johnson 01N-65W-30-9C

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-30-9C
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-30-9C	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	12,106.5	Plan #3 (4-22-16) (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Existing Wells Sec.30-T1N-R65W						
Gilmore 1-30 (P&A) - Wellbore #1 - Wellbore #1	11,412.9	7,463.4	660.7	433.9	2.914	CC, 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	120.5	120.0	229.438	CC
Johnson 01N-65W-30-1C - Wellbore #1 - Plan #2 (8-5-14	200.0	200.0	120.5	119.8	178.708	ES
Johnson 01N-65W-30-1C - Wellbore #1 - Plan #2 (8-5-14	1,500.0	1,459.5	309.1	301.1	38.833	SF
Johnson 01N-65W-30-2N - Wellbore #1 - Plan #3 (8-6-14	366.3	367.3	106.5	105.1	74.776	CC
Johnson 01N-65W-30-2N - Wellbore #1 - Plan #3 (8-6-14	400.0	400.0	106.5	104.9	67.693	ES
Johnson 01N-65W-30-2N - Wellbore #1 - Plan #3 (8-6-14	1,500.0	1,466.6	256.2	248.8	34.469	SF
Johnson 01N-65W-30-3N - Wellbore #1 - Plan #2 (8-5-14	566.3	567.3	89.7	87.4	38.611	CC
Johnson 01N-65W-30-3N - Wellbore #1 - Plan #2 (8-5-14	600.0	600.0	89.7	87.2	36.285	ES
Johnson 01N-65W-30-3N - Wellbore #1 - Plan #2 (8-5-14	1,500.0	1,479.8	189.4	182.5	27.485	SF
Johnson 01N-65W-30-4N - Wellbore #1 - Plan #2 (8-5-14	766.3	767.3	75.6	72.4	23.469	CC
Johnson 01N-65W-30-4N - Wellbore #1 - Plan #2 (8-5-14	800.0	800.0	75.6	72.3	22.433	ES
Johnson 01N-65W-30-4N - Wellbore #1 - Plan #2 (8-5-14	1,100.0	1,092.5	90.6	85.9	19.452	SF
Johnson 01N-65W-30-5C - Wellbore #1 - Plan #2 (8-5-14	1,166.3	1,167.3	58.8	53.8	11.716	CC
Johnson 01N-65W-30-5C - Wellbore #1 - Plan #2 (8-5-14	1,200.0	1,201.0	58.8	53.6	11.374	ES
Johnson 01N-65W-30-5C - Wellbore #1 - Plan #2 (8-5-14	1,300.0	1,300.0	60.5	54.9	10.799	SF
Johnson 01N-65W-30-6N - Wellbore #1 - Plan #2 (8-5-14	1,366.3	1,367.3	44.8	38.9	7.571	CC
Johnson 01N-65W-30-6N - Wellbore #1 - Plan #2 (8-5-14	1,400.0	1,401.0	44.8	38.7	7.382	ES
Johnson 01N-65W-30-6N - Wellbore #1 - Plan #2 (8-5-14	1,500.0	1,500.0	46.4	39.9	7.140	SF
Johnson 01N-65W-30-7N - Wellbore #1 - Plan #2 (8-5-14	1,500.0	1,500.0	30.8	24.3	4.727	CC, ES
Johnson 01N-65W-30-7N - Wellbore #1 - Plan #2 (8-5-14	1,600.0	1,600.0	32.1	25.1	4.617	SF
Johnson 01N-65W-30-8N - Wellbore #1 - Plan #3 (4-22-1	1,500.0	1,500.0	14.0	7.5	2.149	CC, ES
Johnson 01N-65W-30-8N - Wellbore #1 - Plan #3 (4-22-1	12,106.5	11,891.1	263.3	139.9	2.134	SF

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								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
10.700.0	7.486.9	7.465.9	7.465.9	64.9	149.3	-90.22	3.941.2	-21.6	971.9	758.4	213.57	4.551			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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		
10,800.0	7,486.6	7,465.6	7,465.6	66.7	149.3	-90.19	3,941.2	-21.6	901.2	685.7	215.42	4.183		
10,900.0	7,486.2	7,465.2	7,465.2	68.5	149.3	-90.16	3,941.2	-21.6	836.4	619.1	217.26	3.850		
11,000.0	7,485.9	7,464.9	7,464.9	70.4	149.3	-90.12	3,941.2	-21.6	779.1	560.0	219.11	3.556		
11,100.0	7,485.5	7,464.5	7,464.5	72.2	149.3	-90.09	3,941.2	-21.6	731.0	510.1	220.96	3.308		
11,200.0	7,485.2	7,464.2	7,464.2	74.1	149.3	-90.06	3,941.2	-21.6	694.1	471.3	222.81	3.115		
11,300.0	7,484.8	7,463.8	7,463.8	75.9	149.3	-90.03	3,941.2	-21.6	670.3	445.6	224.67	2.983		
11,400.0	7,484.5	7,463.5	7,463.5	77.8	149.3	-90.00	3,941.2	-21.6	660.8	434.3	226.53	2.917		
11,412.9	7,484.4	7,463.4	7,463.4	78.0	149.3	-90.00	3,941.2	-21.6	660.7	433.9	226.77	2.914	CC, ES, SF	
11,500.0	7,484.1	7,463.1	7,463.1	79.6	149.3	-89.97	3,941.2	-21.6	666.4	438.0	228.39	2.918		
11,600.0	7,483.8	7,462.8	7,462.8	81.5	149.3	-89.94	3,941.2	-21.6	686.7	456.4	230.25	2.982		
11,700.0	7,483.4	7,462.4	7,462.4	83.4	149.2	-89.91	3,941.2	-21.6	720.4	488.3	232.12	3.104		
11,800.0	7,483.1	7,462.1	7,462.1	85.2	149.2	-89.88	3,941.2	-21.6	765.8	531.8	233.98	3.273		
11,900.0	7,482.7	7,461.7	7,461.7	87.1	149.2	-89.85	3,941.2	-21.6	820.9	585.0	235.85	3.480		
12,000.0	7,482.4	7,461.4	7,461.4	89.0	149.2	-89.82	3,941.2	-21.6	883.9	646.2	237.72	3.718		
12,106.5	7,482.0	7,461.0	7,461.0	90.9	149.2	-89.79	3,941.2	-21.6	958.0	718.2	239.71	3.996		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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
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	-91.73	-3.6	-120.4	120.5	120.5	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-91.73	-3.6	-120.4	120.5	120.3	0.23	530.797		
166.3	166.3	167.3	167.3	0.3	0.3	-91.73	-3.6	-120.4	120.5	120.0	0.53	229.438 CC		
200.0	200.0	200.0	200.0	0.3	0.3	-91.73	-3.6	-120.4	120.5	119.8	0.67	178.708 ES		
300.0	300.0	296.9	296.9	0.6	0.5	-91.82	-3.9	-122.1	122.2	121.1	1.11	110.544		
400.0	400.0	392.6	392.5	0.8	0.8	-92.07	-4.6	-126.8	127.2	125.7	1.54	82.510		
500.0	500.0	488.0	487.5	1.0	1.0	-92.45	-5.8	-134.7	135.5	133.5	2.00	67.644		
600.0	600.0	582.6	581.5	1.2	1.3	-92.90	-7.4	-145.7	147.2	144.7	2.50	58.921		
700.0	700.0	676.5	674.3	1.5	1.6	-93.38	-9.4	-159.5	162.0	159.0	3.03	53.500		
800.0	800.0	771.6	767.8	1.7	1.9	-93.87	-11.9	-176.4	179.9	176.3	3.60	49.936		
900.0	900.0	869.9	864.4	1.9	2.3	-94.29	-14.6	-194.4	198.3	194.1	4.21	47.101		
1,000.0	1,000.0	968.1	961.0	2.1	2.7	-94.64	-17.2	-212.3	216.8	211.9	4.83	44.909		
1,100.0	1,100.0	1,066.4	1,057.6	2.4	3.1	-94.94	-19.9	-230.3	235.2	229.8	5.45	43.173		
1,200.0	1,200.0	1,164.7	1,154.2	2.6	3.5	-95.19	-22.5	-248.3	253.7	247.6	6.07	41.770		
1,300.0	1,300.0	1,263.0	1,250.8	2.8	3.9	-95.41	-25.2	-266.3	272.1	265.4	6.70	40.616		
1,400.0	1,400.0	1,361.2	1,347.3	3.0	4.3	-95.60	-27.9	-284.2	290.6	283.3	7.33	39.651		
1,500.0	1,500.0	1,459.5	1,443.9	3.3	4.7	-95.77	-30.5	-302.2	309.1	301.1	7.96	38.833 SF		
1,600.0	1,600.0	1,557.6	1,540.3	3.5	5.1	159.80	-33.2	-320.1	328.7	321.6	7.07	46.474		
1,700.0	1,699.9	1,655.1	1,636.1	3.7	5.6	159.77	-35.8	-338.0	350.8	343.3	7.50	46.778		
1,800.0	1,799.7	1,752.0	1,731.4	3.9	6.0	159.86	-38.4	-355.7	375.3	367.3	7.92	47.367		
1,900.0	1,899.3	1,848.3	1,826.1	4.1	6.4	160.04	-41.0	-373.3	402.1	393.8	8.34	48.201		
2,000.0	1,998.6	1,943.9	1,920.0	4.3	6.8	160.29	-43.6	-390.8	431.3	422.6	8.76	49.244		
2,100.0	2,097.5	2,038.7	2,013.2	4.6	7.2	160.59	-46.2	-408.1	462.9	453.8	9.17	50.468		
2,113.0	2,110.4	2,051.0	2,025.2	4.6	7.2	160.64	-46.5	-410.4	467.2	458.0	9.23	50.640		
2,200.0	2,196.3	2,133.0	2,105.8	4.8	7.6	161.04	-48.7	-425.4	496.0	486.4	9.62	51.560		
2,300.0	2,295.0	2,227.3	2,198.5	5.1	8.0	161.46	-51.3	-442.6	529.2	519.1	10.08	52.505		
2,400.0	2,393.7	2,321.6	2,291.2	5.4	8.4	161.82	-53.8	-459.8	562.3	551.8	10.54	53.347		
2,500.0	2,492.4	2,415.9	2,383.8	5.7	8.8	162.15	-56.4	-477.1	595.5	584.5	11.01	54.099		
2,600.0	2,591.1	2,510.2	2,476.5	6.0	9.2	162.44	-58.9	-494.3	628.7	617.2	11.48	54.776		
2,700.0	2,689.8	2,604.5	2,569.2	6.4	9.6	162.70	-61.5	-511.6	661.8	649.9	11.95	55.386		
2,800.0	2,788.5	2,698.8	2,661.8	6.7	10.0	162.94	-64.0	-528.8	695.1	682.6	12.43	55.939		
2,900.0	2,887.3	2,793.1	2,754.5	7.0	10.4	163.15	-66.6	-546.0	728.3	715.4	12.90	56.442		
3,000.0	2,986.0	2,887.3	2,847.2	7.4	10.8	163.35	-69.1	-563.3	761.5	748.1	13.38	56.901		
3,100.0	3,084.7	2,981.6	2,939.8	7.7	11.1	163.53	-71.7	-580.5	794.7	780.9	13.86	57.321		
3,200.0	3,183.4	3,075.9	3,032.5	8.1	11.5	163.70	-74.2	-597.8	828.0	813.6	14.35	57.707		
3,300.0	3,282.1	3,170.2	3,125.1	8.4	11.9	163.85	-76.8	-615.0	861.2	846.4	14.83	58.062		
3,400.0	3,380.8	3,264.5	3,217.8	8.8	12.3	163.99	-79.3	-632.2	894.5	879.1	15.32	58.391		
3,500.0	3,479.5	3,358.8	3,310.5	9.1	12.7	164.12	-81.9	-649.5	927.7	911.9	15.81	58.694		
3,600.0	3,578.3	3,453.1	3,403.1	9.5	13.1	164.24	-84.4	-666.7	961.0	944.7	16.29	58.977		
3,700.0	3,677.0	3,547.4	3,495.8	9.8	13.5	164.36	-87.0	-684.0	994.2	977.4	16.78	59.239		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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
Reference		Offset		Semi Major Axis			Distance								
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
0.0	0.0	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			
200.0	200.0	201.0	201.0	0.3	0.3	-91.96	-3.6	-106.4	106.5	105.8	0.68	157.418			
300.0	300.0	301.0	301.0	0.6	0.6	-91.96	-3.6	-106.4	106.5	105.4	1.13	94.576			
366.3	366.3	367.3	367.3	0.7	0.7	-91.96	-3.6	-106.4	106.5	105.1	1.42	74.776 CC			
400.0	400.0	400.0	400.0	0.8	0.8	-91.96	-3.6	-106.4	106.5	104.9	1.57	67.693 ES			
500.0	500.0	497.4	497.4	1.0	1.0	-92.08	-3.9	-108.1	108.2	106.2	2.00	54.011			
600.0	600.0	593.6	593.4	1.2	1.2	-92.40	-4.7	-112.9	113.2	110.8	2.43	46.580			
700.0	700.0	689.3	688.8	1.5	1.4	-92.87	-6.1	-120.8	121.6	118.7	2.88	42.225			
800.0	800.0	784.4	783.3	1.7	1.7	-93.43	-7.9	-131.8	133.3	129.9	3.36	39.694			
900.0	900.0	878.7	876.5	1.9	2.0	-94.02	-10.3	-145.8	148.2	144.3	3.87	38.296			
1,000.0	1,000.0	974.8	971.1	2.1	2.3	-94.60	-13.1	-162.6	165.9	161.5	4.42	37.493			
1,100.0	1,100.0	1,073.2	1,067.8	2.4	2.7	-95.09	-16.0	-180.2	183.9	178.9	5.01	36.717			
1,200.0	1,200.0	1,171.5	1,164.5	2.6	3.0	-95.49	-19.0	-197.8	202.0	196.4	5.61	36.032			
1,300.0	1,300.0	1,269.9	1,261.2	2.8	3.4	-95.82	-21.9	-215.3	220.1	213.9	6.21	35.435			
1,400.0	1,400.0	1,368.2	1,357.9	3.0	3.8	-96.10	-24.9	-232.9	238.2	231.3	6.82	34.918			
1,500.0	1,500.0	1,466.6	1,454.7	3.3	4.2	-96.35	-27.9	-250.5	256.2	248.8	7.43	34.469 SF			
1,600.0	1,600.0	1,564.7	1,551.2	3.5	4.6	159.17	-30.8	-268.0	275.5	268.6	6.96	39.598			
1,700.0	1,699.9	1,662.3	1,647.2	3.7	5.0	159.14	-33.7	-285.4	297.2	289.8	7.38	40.260			
1,800.0	1,799.7	1,759.3	1,742.6	3.9	5.4	159.25	-36.6	-302.8	321.3	313.5	7.80	41.166			
1,900.0	1,899.3	1,855.8	1,837.4	4.1	5.8	159.47	-39.5	-320.0	347.7	339.5	8.22	42.280			
2,000.0	1,998.6	1,951.5	1,931.6	4.3	6.2	159.78	-42.4	-337.1	376.5	367.9	8.64	43.574			
2,100.0	2,097.5	2,046.4	2,024.9	4.6	6.6	160.13	-45.3	-354.0	407.7	398.7	9.06	45.023			
2,113.0	2,110.4	2,058.7	2,037.0	4.6	6.6	160.18	-45.6	-356.2	412.0	402.8	9.11	45.222			
2,200.0	2,196.3	2,140.9	2,117.8	4.8	7.0	160.63	-48.1	-370.9	440.4	430.9	9.50	46.350			
2,300.0	2,295.0	2,235.3	2,210.7	5.1	7.3	161.08	-50.9	-387.8	473.1	463.2	9.96	47.514			
2,400.0	2,393.7	2,329.7	2,303.6	5.4	7.7	161.48	-53.8	-404.6	505.9	495.4	10.42	48.556			
2,500.0	2,492.4	2,424.2	2,396.4	5.7	8.1	161.82	-56.6	-421.5	538.6	527.7	10.88	49.492			
2,600.0	2,591.1	2,518.6	2,489.3	6.0	8.5	162.13	-59.4	-438.4	571.4	560.0	11.35	50.337			
2,700.0	2,689.8	2,613.0	2,582.2	6.4	8.9	162.40	-62.3	-455.2	604.2	592.4	11.82	51.102			
2,800.0	2,788.5	2,707.5	2,675.1	6.7	9.3	162.65	-65.1	-472.1	637.0	624.7	12.30	51.798			
2,900.0	2,887.3	2,801.9	2,767.9	7.0	9.7	162.87	-67.9	-489.0	669.8	657.0	12.77	52.433			
3,000.0	2,986.0	2,896.3	2,860.8	7.4	10.1	163.07	-70.8	-505.8	702.6	689.4	13.25	53.015			
3,100.0	3,084.7	2,990.8	2,953.7	7.7	10.5	163.25	-73.6	-522.7	735.4	721.7	13.73	53.548			
3,200.0	3,183.4	3,085.2	3,046.5	8.1	10.9	163.42	-76.5	-539.6	768.3	754.0	14.22	54.040			
3,300.0	3,282.1	3,179.6	3,139.4	8.4	11.3	163.57	-79.3	-556.4	801.1	786.4	14.70	54.494			
3,400.0	3,380.8	3,274.1	3,232.3	8.8	11.6	163.72	-82.1	-573.3	833.9	818.7	15.19	54.914			
3,500.0	3,479.5	3,368.5	3,325.2	9.1	12.0	163.85	-85.0	-590.2	866.8	851.1	15.67	55.304			
3,600.0	3,578.3	3,462.9	3,418.0	9.5	12.4	163.97	-87.8	-607.0	899.6	883.5	16.16	55.667			
3,700.0	3,677.0	3,557.4	3,510.9	9.8	12.8	164.08	-90.6	-623.9	932.5	915.8	16.65	56.005			
3,800.0	3,775.7	3,651.8	3,603.8	10.2	13.2	164.18	-93.5	-640.8	965.3	948.2	17.14	56.321			
3,900.0	3,874.4	3,746.2	3,696.7	10.6	13.6	164.28	-96.3	-657.6	998.2	980.6	17.63	56.616			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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	-92.33	-3.6	-89.6	89.7	89.7	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-92.33	-3.6	-89.6	89.7	89.5	0.23	395.156		
200.0	200.0	201.0	201.0	0.3	0.3	-92.33	-3.6	-89.6	89.7	89.0	0.68	132.594		
300.0	300.0	301.0	301.0	0.6	0.6	-92.33	-3.6	-89.6	89.7	88.6	1.13	79.662		
400.0	400.0	401.0	401.0	0.8	0.8	-92.33	-3.6	-89.6	89.7	88.1	1.58	56.934		
500.0	500.0	501.0	501.0	1.0	1.0	-92.33	-3.6	-89.6	89.7	87.7	2.03	44.296		
566.3	566.3	567.3	567.3	1.2	1.2	-92.33	-3.6	-89.6	89.7	87.4	2.32	38.611 CC		
600.0	600.0	600.0	600.0	1.2	1.2	-92.33	-3.6	-89.6	89.7	87.2	2.47	36.285 ES		
700.0	700.0	697.9	697.9	1.5	1.4	-92.51	-4.0	-91.3	91.4	88.5	2.90	31.495		
800.0	800.0	794.7	794.5	1.7	1.6	-93.00	-5.0	-96.1	96.4	93.1	3.33	29.002		
900.0	900.0	891.0	890.5	1.9	1.9	-93.70	-6.7	-104.1	104.8	101.0	3.77	27.829		
1,000.0	1,000.0	986.6	985.5	2.1	2.1	-94.52	-9.1	-115.1	116.5	112.3	4.23	27.525		
1,100.0	1,100.0	1,084.1	1,081.9	2.4	2.4	-95.34	-12.1	-128.9	130.9	126.1	4.73	27.648		
1,200.0	1,200.0	1,183.0	1,179.7	2.6	2.7	-96.03	-15.1	-143.1	145.5	140.2	5.26	27.670		
1,300.0	1,300.0	1,281.9	1,277.6	2.8	3.0	-96.58	-18.2	-157.3	160.1	154.3	5.79	27.633		
1,400.0	1,400.0	1,380.8	1,375.4	3.0	3.3	-97.05	-21.2	-171.5	174.7	168.4	6.34	27.566		
1,500.0	1,500.0	1,479.8	1,473.3	3.3	3.6	-97.44	-24.2	-185.8	189.4	182.5	6.89	27.485 SF		
1,600.0	1,600.0	1,578.5	1,570.9	3.5	4.0	158.01	-27.3	-199.9	205.2	198.4	6.87	29.893		
1,700.0	1,699.9	1,676.8	1,668.2	3.7	4.3	158.00	-30.3	-214.1	223.5	216.2	7.28	30.687		
1,800.0	1,799.7	1,774.6	1,764.9	3.9	4.6	158.19	-33.3	-228.1	244.1	236.4	7.70	31.707		
1,900.0	1,899.3	1,871.9	1,861.2	4.1	5.0	158.53	-36.3	-242.1	267.1	259.0	8.11	32.920		
2,000.0	1,998.6	1,968.6	1,956.8	4.3	5.3	158.97	-39.3	-256.0	292.5	284.0	8.53	34.299		
2,100.0	2,097.5	2,064.6	2,051.8	4.6	5.7	159.48	-42.3	-269.8	320.3	311.4	8.94	35.824		
2,113.0	2,110.4	2,077.0	2,064.0	4.6	5.7	159.55	-42.6	-271.6	324.1	315.1	8.99	36.032		
2,200.0	2,196.3	2,160.1	2,146.3	4.8	6.0	160.11	-45.2	-283.5	349.6	340.2	9.38	37.264		
2,300.0	2,295.0	2,255.7	2,240.8	5.1	6.3	160.67	-48.2	-297.3	378.9	369.1	9.83	38.543		
2,400.0	2,393.7	2,351.2	2,335.3	5.4	6.7	161.14	-51.1	-311.0	408.3	398.0	10.29	39.694		
2,500.0	2,492.4	2,446.8	2,429.8	5.7	7.0	161.55	-54.0	-324.7	437.7	427.0	10.75	40.733		
2,600.0	2,591.1	2,542.3	2,524.3	6.0	7.4	161.91	-57.0	-338.5	467.1	455.9	11.21	41.675		
2,700.0	2,689.8	2,637.8	2,618.8	6.4	7.7	162.23	-59.9	-352.2	496.6	484.9	11.67	42.532		
2,800.0	2,788.5	2,733.4	2,713.3	6.7	8.0	162.51	-62.9	-365.9	526.0	513.9	12.14	43.314		
2,900.0	2,887.3	2,828.9	2,807.8	7.0	8.4	162.76	-65.8	-379.7	555.4	542.8	12.61	44.031		
3,000.0	2,986.0	2,924.5	2,902.3	7.4	8.7	162.98	-68.8	-393.4	584.9	571.8	13.09	44.689		
3,100.0	3,084.7	3,020.0	2,996.8	7.7	9.1	163.19	-71.7	-407.1	614.4	600.8	13.56	45.295		
3,200.0	3,183.4	3,115.5	3,091.3	8.1	9.4	163.37	-74.6	-420.9	643.8	629.8	14.04	45.855		
3,300.0	3,282.1	3,211.1	3,185.8	8.4	9.7	163.54	-77.6	-434.6	673.3	658.8	14.52	46.373		
3,400.0	3,380.8	3,306.6	3,280.3	8.8	10.1	163.70	-80.5	-448.3	702.8	687.8	15.00	46.855		
3,500.0	3,479.5	3,402.1	3,374.8	9.1	10.4	163.84	-83.5	-462.0	732.3	716.8	15.48	47.302		
3,600.0	3,578.3	3,497.7	3,469.3	9.5	10.8	163.97	-86.4	-475.8	761.8	745.8	15.96	47.720		
3,700.0	3,677.0	3,593.2	3,563.8	9.8	11.1	164.09	-89.4	-489.5	791.3	774.8	16.45	48.110		
3,800.0	3,775.7	3,688.8	3,658.3	10.2	11.5	164.21	-92.3	-503.2	820.8	803.8	16.93	48.475		
3,900.0	3,874.4	3,784.3	3,752.8	10.6	11.8	164.31	-95.2	-517.0	850.3	832.9	17.42	48.817		
4,000.0	3,973.1	3,879.8	3,847.3	10.9	12.1	164.41	-98.2	-530.7	879.8	861.9	17.90	49.139		
4,100.0	4,071.8	3,975.4	3,941.8	11.3	12.5	164.50	-101.1	-544.4	909.3	890.9	18.39	49.442		
4,200.0	4,170.6	4,070.9	4,036.3	11.6	12.8	164.59	-104.1	-558.2	938.8	919.9	18.88	49.727		
4,300.0	4,269.3	4,166.5	4,130.8	12.0	13.2	164.67	-107.0	-571.9	968.3	948.9	19.37	49.996		
4,400.0	4,368.0	4,262.0	4,225.3	12.4	13.5	164.74	-110.0	-585.6	997.8	978.0	19.86	50.251		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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	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)				
0.0	0.0	1.0	1.0	0.0	0.0	-90.00	0.0	-75.6	75.6	75.6	0.00	N/A			
100.0	100.0	101.0	101.0	0.1	0.1	-90.00	0.0	-75.6	75.6	75.4	0.23	333.138			
200.0	200.0	201.0	201.0	0.3	0.3	-90.00	0.0	-75.6	75.6	75.0	0.68	111.784			
300.0	300.0	301.0	301.0	0.6	0.6	-90.00	0.0	-75.6	75.6	74.5	1.13	67.160			
400.0	400.0	401.0	401.0	0.8	0.8	-90.00	0.0	-75.6	75.6	74.1	1.58	47.999			
500.0	500.0	501.0	501.0	1.0	1.0	-90.00	0.0	-75.6	75.6	73.6	2.03	37.344			
600.0	600.0	601.0	601.0	1.2	1.2	-90.00	0.0	-75.6	75.6	73.2	2.47	30.560			
700.0	700.0	701.0	701.0	1.5	1.5	-90.00	0.0	-75.6	75.6	72.7	2.92	25.862			
766.3	766.3	767.3	767.3	1.6	1.6	-90.00	0.0	-75.6	75.6	72.4	3.22	23.469	CC		
800.0	800.0	800.0	800.0	1.7	1.7	-90.00	0.0	-75.6	75.6	72.3	3.37	22.433	ES		
900.0	900.0	898.4	898.4	1.9	1.9	-90.31	-0.4	-77.3	77.3	73.5	3.80	20.337			
1,000.0	1,000.0	995.7	995.5	2.1	2.1	-91.15	-1.7	-82.1	82.3	78.1	4.22	19.492			
1,100.0	1,100.0	1,092.5	1,092.0	2.4	2.3	-92.34	-3.7	-90.1	90.6	85.9	4.66	19.452	SF		
1,200.0	1,200.0	1,188.6	1,187.4	2.6	2.5	-93.68	-6.5	-101.1	102.2	97.1	5.12	19.984			
1,300.0	1,300.0	1,286.1	1,283.9	2.8	2.8	-94.98	-10.0	-114.9	116.6	111.0	5.61	20.803			
1,400.0	1,400.0	1,385.0	1,381.7	3.0	3.1	-96.03	-13.7	-129.2	131.3	125.2	6.12	21.458			
1,500.0	1,500.0	1,483.9	1,479.5	3.3	3.4	-96.87	-17.3	-143.4	146.0	139.4	6.65	21.974			
1,600.0	1,600.0	1,582.6	1,577.1	3.5	3.7	158.26	-20.9	-157.6	162.0	155.1	6.83	23.714			
1,700.0	1,699.9	1,680.9	1,674.3	3.7	4.0	158.06	-24.5	-171.7	180.3	173.1	7.24	24.899			
1,800.0	1,799.7	1,778.7	1,771.0	3.9	4.3	158.14	-28.1	-185.8	201.0	193.4	7.65	26.265			
1,900.0	1,899.3	1,876.0	1,867.2	4.1	4.7	158.43	-31.7	-199.8	224.1	216.1	8.07	27.787			
2,000.0	1,998.6	1,972.7	1,962.8	4.3	5.0	158.85	-35.2	-213.7	249.6	241.1	8.48	29.442			
2,100.0	2,097.5	2,068.7	2,057.8	4.6	5.3	159.35	-38.8	-227.6	277.5	268.6	8.89	31.214			
2,113.0	2,110.4	2,081.1	2,070.1	4.6	5.4	159.42	-39.2	-229.3	281.3	272.3	8.94	31.452			
2,200.0	2,196.3	2,164.2	2,152.3	4.8	5.7	159.98	-42.3	-241.3	306.8	297.5	9.33	32.897			
2,300.0	2,295.0	2,259.8	2,246.7	5.1	6.0	160.51	-45.8	-255.1	336.3	326.5	9.78	34.399			
2,400.0	2,393.7	2,355.3	2,341.2	5.4	6.3	160.96	-49.3	-268.8	365.7	355.5	10.23	35.752			
2,500.0	2,492.4	2,450.8	2,435.7	5.7	6.7	161.35	-52.8	-282.6	395.1	384.4	10.69	36.977			
2,600.0	2,591.1	2,546.4	2,530.2	6.0	7.0	161.67	-56.3	-296.3	424.6	413.4	11.15	38.088			
2,700.0	2,689.8	2,641.9	2,624.6	6.4	7.3	161.96	-59.8	-310.1	454.1	442.4	11.61	39.101			
2,800.0	2,788.5	2,737.4	2,719.1	6.7	7.7	162.21	-63.3	-323.8	483.5	471.5	12.08	40.025			
2,900.0	2,887.3	2,833.0	2,813.6	7.0	8.0	162.44	-66.8	-337.6	513.0	500.5	12.55	40.873			
3,000.0	2,986.0	2,928.5	2,908.1	7.4	8.4	162.63	-70.3	-351.3	542.5	529.5	13.03	41.651			
3,100.0	3,084.7	3,024.0	3,002.5	7.7	8.7	162.81	-73.8	-365.1	572.0	558.5	13.50	42.369			
3,200.0	3,183.4	3,119.6	3,097.0	8.1	9.0	162.97	-77.3	-378.8	601.5	587.6	13.98	43.032			
3,300.0	3,282.1	3,215.1	3,191.5	8.4	9.4	163.12	-80.8	-392.6	631.0	616.6	14.46	43.646			
3,400.0	3,380.8	3,310.7	3,286.0	8.8	9.7	163.25	-84.3	-406.3	660.6	645.6	14.94	44.217			
3,500.0	3,479.5	3,406.2	3,380.4	9.1	10.1	163.37	-87.9	-420.1	690.1	674.6	15.42	44.747			
3,600.0	3,578.3	3,501.7	3,474.9	9.5	10.4	163.48	-91.4	-433.8	719.6	703.7	15.91	45.242			
3,700.0	3,677.0	3,597.3	3,569.4	9.8	10.8	163.59	-94.9	-447.6	749.1	732.7	16.39	45.705			
3,800.0	3,775.7	3,692.8	3,663.9	10.2	11.1	163.68	-98.4	-461.3	778.6	761.7	16.88	46.138			
3,900.0	3,874.4	3,788.3	3,758.3	10.6	11.4	163.77	-101.9	-475.1	808.1	790.8	17.36	46.544			
4,000.0	3,973.1	3,883.9	3,852.8	10.9	11.8	163.85	-105.4	-488.8	837.7	819.8	17.85	46.926			
4,100.0	4,071.8	3,979.4	3,947.3	11.3	12.1	163.93	-108.9	-502.6	867.2	848.9	18.34	47.285			
4,200.0	4,170.6	4,074.9	4,041.8	11.6	12.5	164.00	-112.4	-516.3	896.7	877.9	18.83	47.623			
4,300.0	4,269.3	4,170.5	4,136.2	12.0	12.8	164.06	-115.9	-530.1	926.3	906.9	19.32	47.943			
4,400.0	4,368.0	4,266.0	4,230.7	12.4	13.2	164.13	-119.4	-543.8	955.8	936.0	19.81	48.245			
4,500.0	4,466.7	4,361.5	4,325.2	12.7	13.5	164.19	-122.9	-557.6	985.3	965.0	20.30	48.531			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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	-58.8	58.8	58.8	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-90.00	0.0	-58.8	58.8	58.6	0.23	259.107		
200.0	200.0	201.0	201.0	0.3	0.3	-90.00	0.0	-58.8	58.8	58.1	0.68	86.943		
300.0	300.0	301.0	301.0	0.6	0.6	-90.00	0.0	-58.8	58.8	57.7	1.13	52.235		
400.0	400.0	401.0	401.0	0.8	0.8	-90.00	0.0	-58.8	58.8	57.2	1.58	37.332		
500.0	500.0	501.0	501.0	1.0	1.0	-90.00	0.0	-58.8	58.8	56.8	2.03	29.045		
600.0	600.0	601.0	601.0	1.2	1.2	-90.00	0.0	-58.8	58.8	56.3	2.47	23.769		
700.0	700.0	701.0	701.0	1.5	1.5	-90.00	0.0	-58.8	58.8	55.9	2.92	20.115		
800.0	800.0	801.0	801.0	1.7	1.7	-90.00	0.0	-58.8	58.8	55.4	3.37	17.435		
900.0	900.0	901.0	901.0	1.9	1.9	-90.00	0.0	-58.8	58.8	55.0	3.82	15.385		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-90.00	0.0	-58.8	58.8	54.5	4.27	13.766		
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	-90.00	0.0	-58.8	58.8	54.1	4.72	12.456		
1,166.3	1,166.3	1,167.3	1,167.3	2.5	2.5	-90.00	0.0	-58.8	58.8	53.8	5.02	11.716 CC		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-90.00	0.0	-58.8	58.8	53.6	5.17	11.374 ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.53	-0.6	-60.5	60.5	54.9	5.60	10.799 SF		
1,400.0	1,400.0	1,396.9	1,396.7	3.0	3.0	-91.89	-2.1	-65.2	65.4	59.4	6.02	10.872		
1,500.0	1,500.0	1,494.2	1,493.7	3.3	3.2	-93.75	-4.8	-73.1	73.7	67.2	6.44	11.429		
1,600.0	1,600.0	1,590.7	1,589.5	3.5	3.4	160.22	-8.5	-84.0	86.5	79.6	6.84	12.639		
1,700.0	1,699.9	1,688.2	1,686.0	3.7	3.7	159.07	-12.9	-97.4	104.2	97.0	7.24	14.397		
1,800.0	1,799.7	1,786.1	1,782.9	3.9	3.9	158.65	-17.5	-111.0	124.5	116.9	7.64	16.312		
1,900.0	1,899.3	1,883.5	1,879.2	4.1	4.2	158.68	-22.0	-124.5	147.3	139.2	8.03	18.330		
2,000.0	1,998.6	1,980.3	1,975.0	4.3	4.5	158.98	-26.5	-137.9	172.3	163.9	8.43	20.435		
2,100.0	2,097.5	2,076.5	2,070.1	4.6	4.8	159.43	-31.0	-151.2	199.8	191.0	8.84	22.609		
2,113.0	2,110.4	2,088.9	2,082.4	4.6	4.8	159.49	-31.5	-153.0	203.5	194.6	8.89	22.898		
2,200.0	2,196.3	2,172.2	2,164.7	4.8	5.1	160.01	-35.4	-164.5	228.7	219.5	9.26	24.694		
2,300.0	2,295.0	2,267.8	2,259.4	5.1	5.4	160.48	-39.8	-177.8	257.7	248.0	9.70	26.569		
2,400.0	2,393.7	2,363.5	2,354.1	5.4	5.7	160.85	-44.3	-191.0	286.7	276.5	10.14	28.265		
2,500.0	2,492.4	2,459.2	2,448.7	5.7	6.0	161.16	-48.7	-204.3	315.7	305.1	10.59	29.803		
2,600.0	2,591.1	2,554.9	2,543.4	6.0	6.3	161.41	-53.2	-217.5	344.7	333.6	11.05	31.201		
2,700.0	2,689.8	2,650.6	2,638.0	6.4	6.6	161.63	-57.6	-230.8	373.7	362.2	11.51	32.477		
2,800.0	2,788.5	2,746.3	2,732.7	6.7	7.0	161.81	-62.1	-244.1	402.7	390.7	11.97	33.645		
2,900.0	2,887.3	2,842.0	2,827.4	7.0	7.3	161.97	-66.5	-257.3	431.7	419.3	12.44	34.715		
3,000.0	2,986.0	2,937.7	2,922.0	7.4	7.6	162.11	-70.9	-270.6	460.8	447.8	12.91	35.700		
3,100.0	3,084.7	3,033.4	3,016.7	7.7	7.9	162.23	-75.4	-283.9	489.8	476.4	13.38	36.608		
3,200.0	3,183.4	3,129.1	3,111.4	8.1	8.3	162.34	-79.8	-297.1	518.8	504.9	13.85	37.447		
3,300.0	3,282.1	3,224.8	3,206.0	8.4	8.6	162.44	-84.3	-310.4	547.8	533.5	14.33	38.224		
3,400.0	3,380.8	3,320.5	3,300.7	8.8	8.9	162.53	-88.7	-323.6	576.8	562.0	14.81	38.946		
3,500.0	3,479.5	3,416.1	3,395.3	9.1	9.3	162.61	-93.2	-336.9	605.9	590.6	15.29	39.618		
3,600.0	3,578.3	3,511.8	3,490.0	9.5	9.6	162.68	-97.6	-350.2	634.9	619.1	15.78	40.245		
3,700.0	3,677.0	3,607.5	3,584.7	9.8	9.9	162.74	-102.0	-363.4	663.9	647.7	16.26	40.830		
3,800.0	3,775.7	3,703.2	3,679.3	10.2	10.3	162.81	-106.5	-376.7	693.0	676.2	16.75	41.378		
3,900.0	3,874.4	3,798.9	3,774.0	10.6	10.6	162.86	-110.9	-389.9	722.0	704.8	17.23	41.892		
4,000.0	3,973.1	3,894.6	3,868.7	10.9	10.9	162.91	-115.4	-403.2	751.0	733.3	17.72	42.375		
4,100.0	4,071.8	3,990.3	3,963.3	11.3	11.3	162.96	-119.8	-416.5	780.1	761.8	18.21	42.829		
4,200.0	4,170.6	4,086.0	4,058.0	11.6	11.6	163.00	-124.3	-429.7	809.1	790.4	18.70	43.257		
4,300.0	4,269.3	4,181.7	4,152.7	12.0	11.9	163.04	-128.7	-443.0	838.1	818.9	19.20	43.661		
4,400.0	4,368.0	4,277.4	4,247.3	12.4	12.3	163.08	-133.2	-456.3	867.2	847.5	19.69	44.043		
4,500.0	4,466.7	4,373.1	4,342.0	12.7	12.6	163.12	-137.6	-469.5	896.2	876.0	20.18	44.404		
4,600.0	4,565.4	4,468.7	4,436.6	13.1	13.0	163.15	-142.0	-482.8	925.2	904.5	20.68	44.747		
4,700.0	4,664.1	4,564.4	4,531.3	13.5	13.3	163.18	-146.5	-496.0	954.3	933.1	21.17	45.072		
4,800.0	4,762.8	4,662.3	4,648.0	13.8	13.7	163.23	-151.7	-511.6	982.8	961.1	21.70	45.282		

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-30-9C
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-30-9C	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-30-9C
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-30-9C	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 (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			
1,200.0	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	8.665			
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-90.00	0.0	-44.8	44.8	39.2	5.62	7.972			
1,366.3	1,366.3	1,367.3	1,367.3	3.0	3.0	-90.00	0.0	-44.8	44.8	38.9	5.92	7.571 CC			
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-90.00	0.0	-44.8	44.8	38.7	6.07	7.382 ES			
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.2	-90.95	-0.8	-46.4	46.4	39.9	6.50	7.140 SF			
1,600.0	1,600.0	1,597.8	1,597.7	3.5	3.4	162.75	-3.0	-50.9	52.4	45.5	6.89	7.603			
1,700.0	1,699.9	1,695.3	1,694.8	3.7	3.6	160.73	-6.7	-58.5	64.1	56.8	7.27	8.809			
1,800.0	1,799.7	1,791.9	1,790.7	3.9	3.8	159.14	-11.8	-68.8	81.3	73.6	7.66	10.613			
1,900.0	1,899.3	1,889.7	1,887.7	4.1	4.1	158.38	-17.4	-80.3	102.1	94.0	8.05	12.676			
2,000.0	1,998.6	1,987.0	1,984.1	4.3	4.3	158.28	-23.1	-91.7	125.2	116.8	8.44	14.827			
2,100.0	2,097.5	2,083.7	2,080.0	4.6	4.6	158.54	-28.6	-103.0	150.7	141.9	8.84	17.048			
2,113.0	2,110.4	2,096.2	2,092.4	4.6	4.6	158.59	-29.4	-104.5	154.2	145.3	8.89	17.341			
2,200.0	2,196.3	2,180.0	2,175.4	4.8	4.8	159.00	-34.2	-114.3	177.7	168.4	9.26	19.185			
2,300.0	2,295.0	2,276.3	2,270.9	5.1	5.1	159.35	-39.8	-125.6	204.7	195.0	9.69	21.116			
2,400.0	2,393.7	2,372.5	2,366.3	5.4	5.4	159.63	-45.3	-136.9	231.7	221.5	10.13	22.865			
2,500.0	2,492.4	2,468.8	2,461.8	5.7	5.7	159.85	-50.9	-148.1	258.7	248.1	10.58	24.453			
2,600.0	2,591.1	2,565.1	2,557.3	6.0	5.9	160.02	-56.4	-159.4	285.7	274.6	11.03	25.899			
2,700.0	2,689.8	2,661.4	2,652.7	6.4	6.2	160.17	-62.0	-170.7	312.7	301.2	11.49	27.218			
2,800.0	2,788.5	2,757.7	2,748.2	6.7	6.5	160.29	-67.5	-182.0	339.7	327.7	11.95	28.426			
2,900.0	2,887.3	2,853.9	2,843.6	7.0	6.8	160.39	-73.1	-193.3	366.7	354.3	12.42	29.534			
3,000.0	2,986.0	2,950.2	2,939.1	7.4	7.1	160.48	-78.7	-204.6	393.7	380.8	12.89	30.552			
3,100.0	3,084.7	3,046.5	3,034.5	7.7	7.4	160.56	-84.2	-215.9	420.7	407.4	13.36	31.492			
3,200.0	3,183.4	3,142.8	3,130.0	8.1	7.7	160.63	-89.8	-227.1	447.7	433.9	13.84	32.360			
3,300.0	3,282.1	3,239.1	3,225.4	8.4	8.0	160.69	-95.3	-238.4	474.8	460.4	14.32	33.164			
3,400.0	3,380.8	3,335.3	3,320.9	8.8	8.3	160.75	-100.9	-249.7	501.8	487.0	14.80	33.911			
3,500.0	3,479.5	3,431.6	3,416.3	9.1	8.6	160.79	-106.5	-261.0	528.8	513.5	15.28	34.606			
3,600.0	3,578.3	3,527.9	3,511.8	9.5	9.0	160.84	-112.0	-272.3	555.8	540.0	15.77	35.253			
3,700.0	3,677.0	3,624.2	3,607.3	9.8	9.3	160.88	-117.6	-283.6	582.8	566.6	16.25	35.858			
3,800.0	3,775.7	3,720.5	3,702.7	10.2	9.6	160.91	-123.1	-294.9	609.8	593.1	16.74	36.424			
3,900.0	3,874.4	3,816.7	3,798.2	10.6	9.9	160.95	-128.7	-306.2	636.9	619.6	17.23	36.955			
4,000.0	3,973.1	3,913.0	3,893.6	10.9	10.2	160.98	-134.2	-317.4	663.9	646.2	17.73	37.453			
4,100.0	4,071.8	4,009.3	3,989.1	11.3	10.5	161.01	-139.8	-328.7	690.9	672.7	18.22	37.922			
4,200.0	4,170.6	4,105.6	4,084.5	11.6	10.8	161.03	-145.4	-340.0	717.9	699.2	18.71	38.363			
4,300.0	4,269.3	4,219.3	4,197.4	12.0	11.2	161.09	-151.5	-352.5	744.3	725.1	19.23	38.706			
4,400.0	4,368.0	4,348.1	4,325.8	12.4	11.4	161.29	-156.3	-362.2	767.0	747.3	19.74	38.863			
4,500.0	4,466.7	4,479.2	4,456.7	12.7	11.7	161.65	-158.5	-366.6	785.7	765.4	20.24	38.826			
4,600.0	4,565.4	4,588.9	4,566.4	13.1	11.9	162.04	-158.6	-366.9	801.1	780.4	20.70	38.705			
4,700.0	4,664.1	4,687.6	4,665.1	13.5	12.0	162.39	-158.6	-366.9	816.3	795.2	21.15	38.606			
4,800.0	4,762.8	4,786.3	4,763.8	13.8	12.2	162.72	-158.6	-366.9	831.6	810.0	21.59	38.511			

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-30-9C
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-30-9C	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 (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	4,861.6	4,885.0	4,862.6	14.2	12.4	163.04	-158.6	-366.9	846.9	824.9	22.04	38.421		
5,000.0	4,960.3	4,983.8	4,961.3	14.6	12.6	163.35	-158.6	-366.9	862.2	839.7	22.49	38.334		
5,100.0	5,059.0	5,082.5	5,060.0	15.0	12.7	163.65	-158.6	-366.9	877.6	854.6	22.94	38.250		
5,200.0	5,157.7	5,181.2	5,158.7	15.3	12.9	163.94	-158.6	-366.9	892.9	869.5	23.39	38.170		
5,300.0	5,256.4	5,279.9	5,257.4	15.7	13.1	164.22	-158.6	-366.9	908.3	884.4	23.84	38.093		
5,400.0	5,355.1	5,378.6	5,356.1	16.1	13.3	164.49	-158.6	-366.9	923.7	899.4	24.30	38.019		
5,434.9	5,389.6	5,413.1	5,390.6	16.2	13.3	164.58	-158.6	-366.9	929.1	904.6	24.45	37.993		
5,500.0	5,453.9	5,477.4	5,454.9	16.4	13.4	164.77	-158.6	-366.9	938.6	913.8	24.77	37.890		
5,600.0	5,553.1	5,576.6	5,554.1	16.7	13.6	165.03	-158.6	-366.9	951.1	925.9	25.22	37.711		
5,700.0	5,652.5	5,676.0	5,653.5	16.9	13.8	165.23	-158.6	-366.9	961.2	935.5	25.65	37.467		
5,800.0	5,752.2	5,775.7	5,753.2	17.1	14.0	165.37	-158.6	-366.9	968.7	942.7	26.07	37.160		
5,900.0	5,852.1	5,875.6	5,853.1	17.3	14.2	165.47	-158.6	-366.9	973.7	947.3	26.46	36.794		
6,000.0	5,952.1	5,975.5	5,953.1	17.5	14.4	165.52	-158.6	-366.9	976.2	949.4	26.84	36.371		
6,047.9	6,000.0	6,023.5	6,001.0	17.5	14.5	-90.21	-158.6	-366.9	976.5	949.5	27.03	36.134		
6,100.0	6,052.1	6,075.5	6,053.1	17.6	14.6	-90.21	-158.6	-366.9	976.5	949.3	27.23	35.862		
6,200.0	6,152.1	6,175.5	6,153.1	17.8	14.8	-90.21	-158.6	-366.9	976.5	948.9	27.63	35.347		
6,300.0	6,252.1	6,275.5	6,253.1	17.9	15.0	-90.21	-158.6	-366.9	976.5	948.5	28.03	34.844		
6,400.0	6,352.1	6,375.5	6,353.1	18.1	15.1	-90.21	-158.6	-366.9	976.5	948.1	28.43	34.354		
6,500.0	6,452.1	6,475.5	6,453.1	18.2	15.3	-90.21	-158.6	-366.9	976.5	947.7	28.83	33.875		
6,600.0	6,552.1	6,575.5	6,553.1	18.4	15.5	-90.21	-158.6	-366.9	976.5	947.3	29.23	33.409		
6,700.0	6,652.1	6,675.5	6,653.1	18.6	15.7	-90.21	-158.6	-366.9	976.5	946.9	29.63	32.953		
6,800.0	6,752.1	6,775.5	6,753.1	18.7	15.9	-90.21	-158.6	-366.9	976.5	946.5	30.04	32.508		
6,900.0	6,852.1	6,876.0	6,853.3	18.9	16.1	-89.88	-153.0	-366.9	976.5	946.1	30.42	32.100		
6,909.5	6,861.6	6,885.4	6,862.6	18.9	16.1	-89.80	-151.6	-366.9	976.5	946.0	30.45	32.066		
7,000.0	6,952.1	6,971.4	6,945.9	19.1	16.2	-88.56	-130.5	-366.8	976.8	946.0	30.72	31.791		
7,024.0	6,976.0	6,992.9	6,966.0	19.1	16.3	-88.13	-123.2	-366.8	977.0	946.2	30.79	31.733		
7,050.0	7,002.0	7,015.6	6,987.0	19.1	16.3	-88.03	-114.5	-366.8	977.3	946.5	30.84	31.685		
7,100.0	7,051.8	7,058.5	7,025.5	19.2	16.3	-87.05	-95.6	-366.7	978.2	947.2	30.95	31.604		
7,150.0	7,100.8	7,100.0	7,061.2	19.3	16.4	-86.11	-74.4	-366.6	979.4	948.3	31.04	31.547		
7,200.0	7,148.7	7,141.2	7,094.7	19.3	16.4	-85.19	-50.6	-366.5	980.8	949.6	31.13	31.506		
7,250.0	7,195.0	7,181.3	7,125.6	19.4	16.4	-84.31	-25.0	-366.4	982.3	951.1	31.21	31.473		
7,300.0	7,239.3	7,220.7	7,153.8	19.4	16.5	-83.47	2.5	-366.3	984.1	952.8	31.30	31.440		
7,350.0	7,281.2	7,259.5	7,179.6	19.5	16.5	-82.68	31.5	-366.2	985.8	954.5	31.39	31.403		
7,400.0	7,320.2	7,300.0	7,204.1	19.5	16.5	-81.92	63.8	-366.1	987.7	956.2	31.52	31.337		
7,450.0	7,356.1	7,335.6	7,223.5	19.5	16.6	-81.27	93.6	-366.0	989.5	957.8	31.67	31.248		
7,500.0	7,388.5	7,373.1	7,241.6	19.6	16.6	-80.66	126.4	-365.9	991.2	959.4	31.85	31.125		
7,550.0	7,417.1	7,410.2	7,257.2	19.6	16.7	-80.11	160.0	-365.8	992.9	960.8	32.07	30.958		
7,600.0	7,441.6	7,450.0	7,271.3	19.7	16.8	-79.62	197.3	-365.7	994.4	962.0	32.36	30.729		
7,650.0	7,461.8	7,483.6	7,280.9	19.8	17.0	-79.25	229.5	-365.5	995.7	963.0	32.69	30.457		
7,700.0	7,477.6	7,520.0	7,288.9	19.9	17.1	-78.93	265.0	-365.4	996.8	963.7	33.10	30.117		
7,750.0	7,488.8	7,550.0	7,293.7	20.0	17.3	-78.70	294.6	-365.3	997.7	964.2	33.52	29.760		
7,800.0	7,495.2	7,592.5	7,297.5	20.2	17.6	-78.53	336.9	-365.2	998.3	964.2	34.11	29.266		
7,844.0	7,496.9	7,625.8	7,298.0	20.5	17.8	-78.46	370.2	-365.1	998.6	964.0	34.66	28.814		
7,900.0	7,496.7	7,681.8	7,297.8	20.8	18.3	-78.45	426.2	-364.9	998.8	963.2	35.59	28.063		
8,000.0	7,496.3	7,781.8	7,297.3	21.5	19.3	-78.45	526.2	-364.5	999.2	961.7	37.49	26.653		
8,100.0	7,496.0	7,881.8	7,296.8	22.5	20.4	-78.45	626.2	-364.1	999.6	960.0	39.65	25.210		
8,200.0	7,495.6	7,981.8	7,296.4	23.6	21.6	-78.45	726.2	-363.8	1,000.0	958.0	42.04	23.788		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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	-30.8	30.8					
100.0	100.0	100.0	100.0	0.1	0.1	-90.01	0.0	-30.8	30.8	30.6	0.22	137.080		
200.0	200.0	200.0	200.0	0.3	0.3	-90.01	0.0	-30.8	30.8	30.1	0.67	45.693		
300.0	300.0	300.0	300.0	0.6	0.6	-90.01	0.0	-30.8	30.8	29.7	1.12	27.416		
400.0	400.0	400.0	400.0	0.8	0.8	-90.01	0.0	-30.8	30.8	29.2	1.57	19.583		
500.0	500.0	500.0	500.0	1.0	1.0	-90.01	0.0	-30.8	30.8	28.8	2.02	15.231		
600.0	600.0	600.0	600.0	1.2	1.2	-90.01	0.0	-30.8	30.8	28.3	2.47	12.462		
700.0	700.0	700.0	700.0	1.5	1.5	-90.01	0.0	-30.8	30.8	27.9	2.92	10.545		
800.0	800.0	800.0	800.0	1.7	1.7	-90.01	0.0	-30.8	30.8	27.4	3.37	9.139		
900.0	900.0	900.0	900.0	1.9	1.9	-90.01	0.0	-30.8	30.8	27.0	3.82	8.064		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.01	0.0	-30.8	30.8	26.5	4.27	7.215		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-90.01	0.0	-30.8	30.8	26.1	4.72	6.528		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.01	0.0	-30.8	30.8	25.6	5.17	5.960		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.01	0.0	-30.8	30.8	25.2	5.62	5.483		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.01	0.0	-30.8	30.8	24.7	6.07	5.077		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-90.01	0.0	-30.8	30.8	24.3	6.52	4.727 CC, ES		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	166.30	0.0	-30.8	32.1	25.1	6.95	4.617 SF		
1,700.0	1,699.9	1,699.2	1,699.2	3.7	3.7	166.35	-0.9	-31.8	36.8	29.5	7.34	5.022		
1,800.0	1,799.7	1,798.0	1,797.9	3.9	3.9	164.94	-3.5	-34.6	46.0	38.3	7.70	5.977		
1,900.0	1,899.3	1,896.0	1,895.7	4.1	4.1	163.06	-7.7	-39.3	59.7	51.6	8.08	7.392		
2,000.0	1,998.6	1,993.0	1,992.3	4.3	4.2	161.27	-13.6	-45.7	77.9	69.4	8.46	9.203		
2,100.0	2,097.5	2,089.2	2,087.9	4.6	4.5	159.78	-21.0	-53.8	100.3	91.5	8.85	11.338		
2,113.0	2,110.4	2,101.8	2,100.4	4.6	4.5	159.64	-22.1	-55.0	103.5	94.6	8.90	11.628		
2,200.0	2,196.3	2,186.1	2,184.1	4.8	4.7	158.98	-28.9	-62.5	124.8	115.6	9.26	13.476		
2,300.0	2,295.0	2,283.1	2,280.3	5.1	4.9	158.46	-36.8	-71.1	149.3	139.7	9.69	15.413		
2,400.0	2,393.7	2,380.0	2,376.6	5.4	5.1	158.08	-44.7	-79.7	173.9	163.8	10.13	17.169		
2,500.0	2,492.4	2,476.9	2,472.8	5.7	5.4	157.80	-52.5	-88.3	198.4	187.8	10.57	18.765		
2,600.0	2,591.1	2,573.9	2,569.0	6.0	5.6	157.58	-60.4	-97.0	223.0	211.9	11.03	20.217		
2,700.0	2,689.8	2,670.8	2,665.2	6.4	5.9	157.40	-68.3	-105.6	247.5	236.0	11.49	21.542		
2,800.0	2,788.5	2,767.7	2,761.5	6.7	6.2	157.26	-76.2	-114.2	272.1	260.1	11.96	22.752		
2,900.0	2,887.3	2,864.7	2,857.7	7.0	6.4	157.14	-84.0	-122.8	296.6	284.2	12.43	23.861		
3,000.0	2,986.0	2,961.6	2,953.9	7.4	6.7	157.04	-91.9	-131.5	321.2	308.3	12.91	24.879		
3,100.0	3,084.7	3,058.6	3,050.2	7.7	7.0	156.95	-99.8	-140.1	345.7	332.3	13.39	25.816		
3,200.0	3,183.4	3,155.5	3,146.4	8.1	7.3	156.87	-107.7	-148.7	370.3	356.4	13.88	26.680		
3,300.0	3,282.1	3,252.4	3,242.6	8.4	7.6	156.81	-115.5	-157.3	394.8	380.5	14.37	27.478		
3,400.0	3,380.8	3,349.4	3,338.9	8.8	7.8	156.75	-123.4	-166.0	419.4	404.5	14.86	28.218		
3,500.0	3,479.5	3,446.3	3,435.1	9.1	8.1	156.70	-131.3	-174.6	443.9	428.6	15.36	28.905		
3,600.0	3,578.3	3,543.3	3,531.3	9.5	8.4	156.65	-139.2	-183.2	468.5	452.6	15.86	29.545		
3,700.0	3,677.0	3,650.8	3,638.2	9.8	8.7	156.69	-147.0	-191.8	492.1	475.7	16.36	30.083		
3,800.0	3,775.7	3,760.5	3,747.6	10.2	8.9	156.92	-153.0	-198.3	513.4	496.5	16.85	30.474		
3,900.0	3,874.4	3,871.1	3,858.1	10.6	9.2	157.33	-156.8	-202.6	532.4	515.0	17.33	30.721		
4,000.0	3,973.1	3,982.6	3,969.5	10.9	9.4	157.91	-158.5	-204.4	549.0	531.2	17.80	30.839		
4,100.0	4,071.8	4,084.9	4,071.8	11.3	9.6	158.53	-158.6	-204.5	563.9	545.7	18.25	30.893		
4,200.0	4,170.6	4,183.7	4,170.6	11.6	9.8	159.11	-158.6	-204.5	578.9	560.2	18.71	30.947		
4,300.0	4,269.3	4,282.4	4,269.3	12.0	10.0	159.66	-158.6	-204.5	593.9	574.7	19.16	31.001		
4,400.0	4,368.0	4,381.1	4,368.0	12.4	10.1	160.18	-158.6	-204.5	608.9	589.3	19.61	31.054		
4,500.0	4,466.7	4,479.8	4,466.7	12.7	10.3	160.68	-158.6	-204.5	624.0	603.9	20.06	31.107		
4,600.0	4,565.4	4,578.5	4,565.4	13.1	10.5	161.15	-158.6	-204.5	639.1	618.6	20.51	31.159		
4,700.0	4,664.1	4,677.2	4,664.1	13.5	10.7	161.60	-158.6	-204.5	654.2	633.3	20.96	31.210		
4,800.0	4,762.8	4,775.9	4,762.8	13.8	10.9	162.03	-158.6	-204.5	669.4	648.0	21.42	31.260		
4,900.0	4,861.6	4,874.7	4,861.6	14.2	11.1	162.44	-158.6	-204.5	684.7	662.8	21.87	31.309		

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-30-9C
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-30-9C	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	4,960.3	4,973.4	4,960.3	14.6	11.3	162.84	-158.6	-204.5	700.0	677.6	22.32	31.357		
5,100.0	5,059.0	5,072.1	5,059.0	15.0	11.5	163.22	-158.6	-204.5	715.3	692.5	22.78	31.405		
5,200.0	5,157.7	5,170.8	5,157.7	15.3	11.7	163.58	-158.6	-204.5	730.6	707.4	23.23	31.451		
5,300.0	5,256.4	5,269.5	5,256.4	15.7	11.9	163.92	-158.6	-204.5	745.9	722.3	23.68	31.496		
5,400.0	5,355.1	5,368.2	5,355.1	16.1	12.1	164.26	-158.6	-204.5	761.3	737.2	24.14	31.540		
5,434.9	5,389.6	5,402.7	5,389.6	16.2	12.2	164.37	-158.6	-204.5	766.7	742.4	24.30	31.555		
5,500.0	5,453.9	5,467.0	5,453.9	16.4	12.3	164.60	-158.6	-204.5	776.2	751.6	24.61	31.539		
5,600.0	5,553.1	5,566.2	5,553.1	16.7	12.5	164.90	-158.6	-204.5	788.7	763.7	25.06	31.480		
5,700.0	5,652.5	5,665.6	5,652.5	16.9	12.7	165.14	-158.6	-204.5	798.8	773.3	25.48	31.345		
5,800.0	5,752.2	5,765.3	5,752.2	17.1	12.9	165.31	-158.6	-204.5	806.3	780.4	25.90	31.138		
5,900.0	5,852.1	5,865.2	5,852.1	17.3	13.1	165.42	-158.6	-204.5	811.3	785.1	26.29	30.863		
6,000.0	5,952.1	5,965.2	5,952.1	17.5	13.3	165.47	-158.6	-204.5	813.8	787.2	26.66	30.522		
6,047.9	6,000.0	6,013.1	6,000.0	17.5	13.4	-90.25	-158.6	-204.5	814.1	787.3	26.85	30.319		
6,100.0	6,052.1	6,065.2	6,052.1	17.6	13.5	-90.25	-158.6	-204.5	814.1	787.1	27.06	30.086		
6,200.0	6,152.1	6,165.2	6,152.1	17.8	13.7	-90.25	-158.6	-204.5	814.1	786.7	27.46	29.644		
6,300.0	6,252.1	6,265.2	6,252.1	17.9	13.9	-90.25	-158.6	-204.5	814.1	786.3	27.87	29.213		
6,400.0	6,352.1	6,365.2	6,352.1	18.1	14.2	-90.25	-158.6	-204.5	814.1	785.8	28.27	28.794		
6,500.0	6,452.1	6,465.2	6,452.1	18.2	14.4	-90.25	-158.6	-204.5	814.1	785.4	28.68	28.385		
6,600.0	6,552.1	6,565.2	6,552.1	18.4	14.6	-90.25	-158.6	-204.5	814.1	785.0	29.09	27.986		
6,700.0	6,652.1	6,665.2	6,652.1	18.6	14.8	-90.25	-158.6	-204.5	814.1	784.6	29.50	27.597		
6,800.0	6,752.1	6,765.2	6,752.1	18.7	15.0	-90.25	-158.6	-204.5	814.1	784.2	29.91	27.218		
6,900.0	6,852.1	6,865.6	6,852.3	18.9	15.2	-89.86	-153.0	-204.5	814.1	783.8	30.29	26.875		
6,909.0	6,861.0	6,874.5	6,861.0	18.9	15.2	-89.76	-151.6	-204.5	814.1	783.8	30.32	26.849		
7,000.0	6,952.1	6,961.0	6,944.8	19.1	15.3	-88.28	-130.5	-204.4	814.4	783.8	30.58	26.630		
7,024.0	6,976.0	6,982.4	6,965.0	19.1	15.4	-87.76	-123.2	-204.4	814.7	784.0	30.64	26.587		
7,050.0	7,002.0	7,005.2	6,986.0	19.1	15.4	-87.56	-114.5	-204.3	815.1	784.4	30.69	26.558		
7,100.0	7,051.8	7,050.0	7,026.2	19.2	15.4	-86.34	-94.7	-204.2	816.1	785.3	30.79	26.508		
7,150.0	7,100.8	7,089.8	7,060.3	19.3	15.5	-85.25	-74.3	-204.2	817.5	786.6	30.87	26.481		
7,200.0	7,148.7	7,130.7	7,093.7	19.3	15.5	-84.16	-50.6	-204.1	819.2	788.2	30.95	26.469		
7,250.0	7,195.0	7,170.9	7,124.5	19.4	15.6	-83.11	-25.0	-204.0	821.0	790.0	31.02	26.465		
7,300.0	7,239.3	7,210.3	7,152.8	19.4	15.6	-82.11	2.4	-203.8	823.1	792.0	31.10	26.464		
7,350.0	7,281.2	7,250.0	7,179.1	19.5	15.6	-81.16	32.2	-203.7	825.2	794.0	31.19	26.458		
7,400.0	7,320.2	7,287.4	7,201.8	19.5	15.7	-80.31	61.9	-203.6	827.3	796.0	31.29	26.436		
7,450.0	7,356.1	7,325.2	7,222.4	19.5	15.7	-79.51	93.6	-203.5	829.4	798.0	31.42	26.396		
7,500.0	7,388.5	7,362.6	7,240.6	19.6	15.8	-78.79	126.3	-203.3	831.4	799.9	31.58	26.329		
7,550.0	7,417.1	7,400.0	7,256.3	19.6	16.0	-78.15	160.2	-203.2	833.3	801.6	31.77	26.227		
7,600.0	7,441.6	7,436.5	7,269.3	19.7	16.1	-77.60	194.4	-203.1	835.1	803.0	32.03	26.074		
7,650.0	7,461.8	7,473.1	7,279.8	19.8	16.3	-77.14	229.4	-202.9	836.6	804.2	32.33	25.874		
7,700.0	7,477.6	7,509.6	7,287.9	19.9	16.6	-76.77	264.9	-202.8	837.8	805.1	32.70	25.621		
7,750.0	7,488.8	7,550.0	7,293.9	20.0	16.8	-76.47	304.9	-202.6	838.8	805.7	33.16	25.295		
7,800.0	7,495.2	7,582.0	7,296.5	20.2	17.1	-76.31	336.8	-202.5	839.5	805.8	33.65	24.948		
7,844.0	7,496.9	7,615.3	7,297.0	20.5	17.4	-76.23	370.1	-202.3	839.8	805.7	34.17	24.579		
7,900.0	7,496.7	7,671.4	7,296.8	20.8	17.9	-76.23	426.1	-202.1	840.0	804.9	35.10	23.931		
8,000.0	7,496.3	7,771.4	7,296.3	21.5	18.8	-76.23	526.1	-201.7	840.3	803.4	36.98	22.722		
8,100.0	7,496.0	7,871.4	7,295.8	22.5	20.0	-76.23	626.1	-201.3	840.7	801.5	39.13	21.483		
8,200.0	7,495.6	7,971.4	7,295.4	23.6	21.2	-76.22	726.1	-200.9	841.0	799.5	41.50	20.263		
8,300.0	7,495.3	8,071.4	7,294.9	24.7	22.5	-76.22	826.1	-200.5	841.3	797.3	44.06	19.093		
8,400.0	7,494.9	8,171.4	7,294.4	26.0	23.9	-76.22	926.1	-200.0	841.7	794.9	46.78	17.991		
8,500.0	7,494.6	8,271.4	7,293.9	27.4	25.4	-76.21	1,026.1	-199.6	842.0	792.4	49.63	16.964		
8,600.0	7,494.2	8,371.4	7,293.5	28.8	26.9	-76.21	1,126.1	-199.2	842.3	789.7	52.59	16.015		
8,700.0	7,493.9	8,471.4	7,293.0	30.3	28.5	-76.21	1,226.1	-198.8	842.7	787.0	55.65	15.143		

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-30-9C
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-30-9C	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	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)				
8,800.0	7,493.5	8,571.4	7,292.5	31.8	30.1	-76.20	1,326.1	-198.4	843.0	784.2	58.78	14.341			
8,900.0	7,493.2	8,671.3	7,292.1	33.4	31.8	-76.20	1,426.1	-198.0	843.3	781.3	61.98	13.607			
9,000.0	7,492.8	8,771.3	7,291.6	35.0	33.5	-76.20	1,526.1	-197.6	843.6	778.4	65.23	12.933			
9,100.0	7,492.5	8,871.3	7,291.1	36.6	35.2	-76.20	1,626.1	-197.2	844.0	775.4	68.54	12.314			
9,200.0	7,492.1	8,971.3	7,290.7	38.3	36.9	-76.19	1,726.1	-196.8	844.3	772.4	71.88	11.746			
9,300.0	7,491.8	9,071.3	7,290.2	40.0	38.6	-76.19	1,826.1	-196.3	844.6	769.4	75.26	11.222			
9,400.0	7,491.4	9,171.3	7,289.7	41.7	40.4	-76.19	1,926.1	-195.9	845.0	766.3	78.68	10.740			
9,500.0	7,491.1	9,271.3	7,289.2	43.4	42.1	-76.18	2,026.1	-195.5	845.3	763.2	82.12	10.294			
9,600.0	7,490.7	9,371.3	7,288.8	45.1	43.9	-76.18	2,126.1	-195.1	845.6	760.0	85.58	9.881			
9,700.0	7,490.4	9,471.3	7,288.3	46.9	45.7	-76.18	2,226.1	-194.7	846.0	756.9	89.07	9.498			
9,800.0	7,490.1	9,571.3	7,287.8	48.6	47.5	-76.17	2,326.1	-194.3	846.3	753.7	92.57	9.142			
9,900.0	7,489.7	9,671.3	7,287.4	50.4	49.3	-76.17	2,426.1	-193.9	846.6	750.5	96.09	8.810			
10,000.0	7,489.4	9,771.3	7,286.9	52.2	51.2	-76.17	2,526.1	-193.5	846.9	747.3	99.63	8.501			
10,100.0	7,489.0	9,871.3	7,286.4	54.0	53.0	-76.16	2,626.1	-193.0	847.3	744.1	103.18	8.212			
10,200.0	7,488.7	9,971.3	7,285.9	55.8	54.8	-76.16	2,726.1	-192.6	847.6	740.9	106.74	7.941			
10,300.0	7,488.3	10,071.3	7,285.5	57.6	56.6	-76.16	2,826.1	-192.2	847.9	737.6	110.32	7.686			
10,400.0	7,488.0	10,171.3	7,285.0	59.4	58.5	-76.16	2,926.1	-191.8	848.3	734.4	113.90	7.447			
10,500.0	7,487.6	10,271.3	7,284.5	61.2	60.3	-76.15	3,026.1	-191.4	848.6	731.1	117.49	7.222			
10,600.0	7,487.3	10,371.3	7,284.1	63.0	62.2	-76.15	3,126.1	-191.0	848.9	727.8	121.09	7.010			
10,700.0	7,486.9	10,471.3	7,283.6	64.9	64.0	-76.15	3,226.1	-190.6	849.2	724.5	124.70	6.810			
10,800.0	7,486.6	10,571.3	7,283.1	66.7	65.9	-76.14	3,326.1	-190.2	849.6	721.3	128.32	6.621			
10,900.0	7,486.2	10,671.3	7,282.6	68.5	67.7	-76.14	3,426.1	-189.8	849.9	718.0	131.94	6.442			
11,000.0	7,485.9	10,771.3	7,282.2	70.4	69.6	-76.14	3,526.1	-189.3	850.2	714.7	135.57	6.272			
11,100.0	7,485.5	10,871.3	7,281.7	72.2	71.5	-76.13	3,626.1	-188.9	850.6	711.4	139.20	6.110			
11,200.0	7,485.2	10,971.3	7,281.2	74.1	73.3	-76.13	3,726.1	-188.5	850.9	708.1	142.84	5.957			
11,300.0	7,484.8	11,071.3	7,280.8	75.9	75.2	-76.13	3,826.1	-188.1	851.2	704.7	146.48	5.811			
11,400.0	7,484.5	11,171.3	7,280.3	77.8	77.1	-76.13	3,926.0	-187.7	851.6	701.4	150.12	5.672			
11,500.0	7,484.1	11,271.3	7,279.8	79.6	79.0	-76.12	4,026.0	-187.3	851.9	698.1	153.77	5.540			
11,600.0	7,483.8	11,371.3	7,279.3	81.5	80.8	-76.12	4,126.0	-186.9	852.2	694.8	157.43	5.413			
11,700.0	7,483.4	11,471.3	7,278.9	83.4	82.7	-76.12	4,226.0	-186.5	852.5	691.5	161.09	5.293			
11,800.0	7,483.1	11,571.3	7,278.4	85.2	84.6	-76.11	4,326.0	-186.1	852.9	688.1	164.75	5.177			
11,900.0	7,482.7	11,671.3	7,277.9	87.1	86.5	-76.11	4,426.0	-185.6	853.2	684.8	168.41	5.066			
12,000.0	7,482.4	11,771.3	7,277.5	89.0	88.4	-76.11	4,526.0	-185.2	853.5	681.5	172.07	4.960			
12,106.5	7,482.0	11,868.1	7,277.0	90.9	89.9	-76.11	4,622.8	-184.8	853.9	678.4	175.56	4.864			

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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-30-8N - Wellbore #1 - Plan #3 (4													Offset Site Error:	0.0 ft
Survey Program: O-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	-90.00	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	1,600.0	1,600.0	3.5	3.5	166.94	0.0	-14.0	15.3	8.3	6.95	2.198		
1,700.0	1,699.9	1,699.9	1,699.9	3.7	3.7	169.59	0.0	-14.0	19.1	11.8	7.36	2.597		
1,800.0	1,799.7	1,799.7	1,799.7	3.9	3.9	172.22	0.0	-14.0	25.6	17.8	7.77	3.291		
1,900.0	1,899.3	1,899.3	1,899.3	4.1	4.2	174.26	0.0	-14.0	34.7	26.5	8.18	4.236		
2,000.0	1,998.6	1,998.6	1,998.6	4.3	4.4	175.70	0.0	-14.0	46.4	37.8	8.59	5.397		
2,100.0	2,097.5	2,099.1	2,099.1	4.6	4.6	176.55	-0.4	-12.8	59.4	50.5	8.98	6.618		
2,113.0	2,110.4	2,112.2	2,112.2	4.6	4.6	176.62	-0.5	-12.4	61.1	52.1	9.03	6.771		
2,200.0	2,196.3	2,200.1	2,200.0	4.8	4.8	176.90	-1.7	-9.0	71.5	62.2	9.38	7.630		
2,300.0	2,295.0	2,301.6	2,301.3	5.1	5.0	176.92	-3.8	-2.7	81.0	71.3	9.78	8.283		
2,400.0	2,393.7	2,403.6	2,402.9	5.4	5.2	176.70	-6.8	6.2	87.9	77.7	10.20	8.618		
2,500.0	2,492.4	2,505.9	2,504.4	5.7	5.4	176.29	-10.6	17.7	92.1	81.5	10.63	8.670		
2,600.0	2,591.1	2,606.5	2,604.1	6.0	5.7	175.75	-15.1	30.9	94.4	83.4	11.06	8.539		
2,700.0	2,689.8	2,706.5	2,703.1	6.4	5.9	175.23	-19.5	44.1	96.6	85.1	11.49	8.407		
2,800.0	2,788.5	2,806.5	2,802.1	6.7	6.2	174.73	-23.9	57.3	98.8	86.9	11.94	8.280		
2,900.0	2,887.3	2,906.5	2,901.1	7.0	6.4	174.25	-28.4	70.4	101.0	88.7	12.38	8.160		
3,000.0	2,986.0	3,006.4	3,000.1	7.4	6.7	173.79	-32.8	83.6	103.3	90.4	12.84	8.045		
3,100.0	3,084.7	3,106.4	3,099.1	7.7	7.0	173.35	-37.2	96.8	105.5	92.2	13.30	7.935		
3,200.0	3,183.4	3,206.4	3,198.1	8.1	7.3	172.94	-41.6	110.0	107.7	94.0	13.76	7.831		
3,300.0	3,282.1	3,306.4	3,297.1	8.4	7.6	172.53	-46.1	123.2	110.0	95.8	14.23	7.731		
3,400.0	3,380.8	3,406.3	3,396.1	8.8	7.9	172.15	-50.5	136.4	112.2	97.5	14.70	7.637		
3,500.0	3,479.5	3,506.3	3,495.1	9.1	8.2	171.78	-54.9	149.6	114.5	99.3	15.17	7.546		
3,600.0	3,578.3	3,606.3	3,594.1	9.5	8.5	171.42	-59.3	162.7	116.8	101.1	15.65	7.460		
3,700.0	3,677.0	3,706.2	3,693.1	9.8	8.8	171.08	-63.8	175.9	119.0	102.9	16.13	7.377		
3,800.0	3,775.7	3,806.2	3,792.1	10.2	9.1	170.75	-68.2	189.1	121.3	104.7	16.62	7.298		
3,900.0	3,874.4	3,906.2	3,891.1	10.6	9.4	170.43	-72.6	202.3	123.6	106.4	17.11	7.223		
4,000.0	3,973.1	4,006.2	3,990.1	10.9	9.7	170.12	-77.1	215.5	125.8	108.2	17.60	7.151		
4,100.0	4,071.8	4,106.1	4,089.1	11.3	10.1	169.83	-81.5	228.7	128.1	110.0	18.09	7.082		
4,200.0	4,170.6	4,206.1	4,188.1	11.6	10.4	169.54	-85.9	241.8	130.4	111.8	18.59	7.015		
4,300.0	4,269.3	4,306.1	4,287.1	12.0	10.7	169.26	-90.3	255.0	132.7	113.6	19.08	6.952		
4,400.0	4,368.0	4,406.0	4,386.1	12.4	11.0	169.00	-94.8	268.2	135.0	115.4	19.59	6.891		
4,500.0	4,466.7	4,506.0	4,485.1	12.7	11.3	168.74	-99.2	281.4	137.3	117.2	20.09	6.833		
4,600.0	4,565.4	4,606.0	4,584.1	13.1	11.7	168.49	-103.6	294.6	139.5	119.0	20.59	6.776		
4,700.0	4,664.1	4,706.0	4,683.1	13.5	12.0	168.25	-108.0	307.8	141.8	120.7	21.10	6.722		
4,800.0	4,762.8	4,805.9	4,782.1	13.8	12.3	168.02	-112.5	321.0	144.1	122.5	21.61	6.671		
4,900.0	4,861.6	4,905.9	4,881.1	14.2	12.7	167.79	-116.9	334.1	146.4	124.3	22.12	6.621		

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-30-9C
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-30-9C	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-30-8N - Wellbore #1 - Plan #3 (4													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	
5,000.0	4,960.3	5,005.9	4,980.1	14.6	13.0	167.57	-121.3	347.3	148.7	126.1	22.63	6.573		
5,100.0	5,059.0	5,105.8	5,079.1	15.0	13.3	167.36	-125.8	360.5	151.0	127.9	23.14	6.526		
5,200.0	5,157.7	5,205.8	5,178.1	15.3	13.7	167.16	-130.2	373.7	153.4	129.7	23.66	6.482		
5,300.0	5,256.4	5,305.8	5,277.1	15.7	14.0	166.96	-134.6	386.9	155.7	131.5	24.18	6.439		
5,400.0	5,355.1	5,405.8	5,376.1	16.1	14.3	166.76	-139.0	400.1	158.0	133.3	24.69	6.397		
5,434.9	5,389.6	5,440.7	5,410.7	16.2	14.4	166.70	-140.6	404.7	158.8	133.9	24.88	6.383		
5,500.0	5,453.9	5,505.5	5,474.9	16.4	14.7	166.53	-143.5	413.2	159.8	134.5	25.22	6.335		
5,600.0	5,553.1	5,600.0	5,568.6	16.7	14.9	166.27	-147.2	424.4	160.5	134.8	25.67	6.252		
5,700.0	5,652.5	5,697.8	5,665.9	16.9	15.2	166.05	-150.3	433.7	161.1	135.0	26.08	6.176		
5,800.0	5,752.2	5,793.9	5,761.8	17.1	15.4	165.90	-152.6	440.5	161.5	135.1	26.46	6.105		
5,900.0	5,852.1	5,890.1	5,857.8	17.3	15.5	165.79	-154.2	445.1	161.8	135.0	26.81	6.037		
6,000.0	5,952.1	5,986.2	5,953.9	17.5	15.7	165.74	-154.9	447.3	162.0	134.9	27.12	5.973		
6,047.9	6,000.0	6,032.3	6,000.0	17.5	15.8	-90.00	-155.0	447.6	162.0	134.7	27.29	5.936		
6,100.0	6,052.1	6,084.4	6,052.1	17.6	15.9	-90.00	-155.0	447.6	162.0	134.5	27.49	5.893		
6,200.0	6,152.1	6,184.4	6,152.1	17.8	16.0	-90.00	-155.0	447.6	162.0	134.1	27.88	5.811		
6,300.0	6,252.1	6,284.4	6,252.1	17.9	16.2	-90.00	-155.0	447.6	162.0	133.7	28.27	5.730		
6,400.0	6,352.1	6,384.4	6,352.1	18.1	16.4	-90.00	-155.0	447.6	162.0	133.3	28.66	5.652		
6,500.0	6,452.1	6,484.4	6,452.1	18.2	16.6	-90.00	-155.0	447.6	162.0	132.9	29.06	5.575		
6,600.0	6,552.1	6,584.4	6,552.1	18.4	16.8	-90.00	-155.0	447.6	162.0	132.5	29.46	5.500		
6,700.0	6,652.1	6,684.4	6,652.1	18.6	16.9	-90.00	-155.0	447.6	162.0	132.2	29.85	5.427		
6,800.0	6,752.1	6,784.4	6,752.1	18.7	17.1	-90.00	-155.0	447.6	162.0	131.8	30.25	5.355		
6,857.4	6,809.4	6,841.7	6,809.4	18.8	17.2	-89.63	-153.9	447.6	162.0	131.5	30.45	5.320		
6,900.0	6,852.1	6,884.0	6,851.4	18.9	17.3	-88.07	-149.5	447.6	162.1	131.5	30.51	5.311		
7,000.0	6,952.1	6,978.4	6,943.1	19.1	17.4	-80.37	-127.5	447.8	164.4	133.9	30.52	5.385		
7,024.0	6,976.0	7,000.0	6,963.4	19.1	17.4	-77.86	-120.2	447.8	166.0	135.4	30.55	5.432		
7,050.0	7,002.0	7,022.2	6,984.0	19.1	17.4	-75.38	-111.8	447.9	168.2	137.6	30.58	5.501		
7,100.0	7,051.8	7,064.7	7,022.2	19.2	17.5	-70.07	-93.2	448.0	173.7	143.0	30.69	5.659		
7,150.0	7,100.8	7,106.3	7,058.0	19.3	17.5	-65.23	-72.2	448.1	180.3	149.5	30.79	5.856		
7,200.0	7,148.7	7,150.0	7,093.8	19.3	17.6	-60.63	-47.0	448.3	187.8	157.0	30.83	6.093		
7,250.0	7,195.0	7,186.8	7,122.1	19.4	17.6	-57.06	-23.6	448.5	195.7	165.0	30.68	6.380		
7,300.0	7,239.3	7,226.0	7,150.4	19.4	17.6	-53.70	3.6	448.6	203.9	173.5	30.35	6.718		
7,350.0	7,281.2	7,264.7	7,176.3	19.5	17.6	-50.79	32.3	448.8	212.0	182.2	29.80	7.112		
7,400.0	7,320.2	7,300.0	7,197.9	19.5	17.7	-48.41	60.2	449.0	219.8	190.8	29.01	7.575		
7,450.0	7,356.1	7,340.5	7,220.4	19.5	17.7	-46.16	93.9	449.2	227.1	199.1	28.04	8.102		
7,500.0	7,388.5	7,377.9	7,238.8	19.6	17.8	-44.36	126.4	449.4	233.9	207.0	26.94	8.682		
7,550.0	7,417.1	7,414.9	7,254.6	19.6	17.8	-42.87	159.8	449.7	240.0	214.2	25.74	9.324		
7,600.0	7,441.6	7,450.0	7,267.4	19.7	17.9	-41.69	192.5	449.9	245.3	220.8	24.50	10.010		
7,650.0	7,461.8	7,488.2	7,278.8	19.8	18.0	-40.69	229.0	450.1	249.6	226.3	23.32	10.706		
7,700.0	7,477.6	7,524.6	7,287.1	19.9	18.2	-39.97	264.4	450.3	253.1	230.8	22.27	11.364		
7,750.0	7,488.8	7,560.8	7,292.9	20.0	18.3	-39.47	300.2	450.6	255.5	234.1	21.45	11.913		
7,800.0	7,495.2	7,600.0	7,296.4	20.2	18.5	-39.17	339.2	450.8	257.0	236.1	20.96	12.264		
7,844.0	7,496.9	7,629.2	7,297.1	20.5	18.7	-39.10	368.3	451.0	257.4	236.6	20.81	12.368		
7,844.2	7,496.9	7,629.2	7,297.1	20.5	18.7	-39.10	368.3	451.0	257.4	236.6	20.81	12.368		
7,900.0	7,496.7	7,684.7	7,296.8	20.8	19.1	-39.09	423.8	451.4	257.5	236.0	21.48	11.986		
8,000.0	7,496.3	7,784.7	7,296.4	21.5	20.0	-39.09	523.8	452.0	257.7	234.8	22.87	11.264		
8,100.0	7,496.0	7,884.7	7,295.9	22.5	21.1	-39.08	623.8	452.7	257.8	233.3	24.47	10.534		
8,200.0	7,495.6	7,984.7	7,295.4	23.6	22.3	-39.08	723.8	453.3	257.9	231.7	26.25	9.828		
8,300.0	7,495.3	8,084.7	7,294.9	24.7	23.5	-39.07	823.8	454.0	258.1	229.9	28.16	9.165		
8,400.0	7,494.9	8,184.7	7,294.5	26.0	24.9	-39.07	923.8	454.6	258.2	228.0	30.18	8.554		
8,500.0	7,494.6	8,284.7	7,294.0	27.4	26.3	-39.06	1,023.8	455.3	258.3	226.0	32.30	7.997		
8,600.0	7,494.2	8,384.7	7,293.5	28.8	27.8	-39.06	1,123.8	456.0	258.5	224.0	34.50	7.493		

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-30-9C
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-30-9C	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-30-8N - Wellbore #1 - Plan #3 (4													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	
8,700.0	7,493.9	8,484.7	7,293.1	30.3	29.3	-39.05	1,223.8	456.6	258.6	221.9	36.75	7.037		
8,800.0	7,493.5	8,584.7	7,292.6	31.8	30.9	-39.04	1,323.8	457.3	258.8	219.7	39.06	6.625		
8,900.0	7,493.2	8,684.7	7,292.1	33.4	32.5	-39.04	1,423.8	457.9	258.9	217.5	41.41	6.252		
9,000.0	7,492.8	8,784.7	7,291.6	35.0	34.2	-39.03	1,523.8	458.6	259.0	215.2	43.79	5.915		
9,100.0	7,492.5	8,884.7	7,291.2	36.6	35.8	-39.03	1,623.8	459.2	259.2	213.0	46.20	5.609		
9,200.0	7,492.1	8,984.7	7,290.7	38.3	37.5	-39.02	1,723.8	459.9	259.3	210.7	48.64	5.331		
9,300.0	7,491.8	9,084.7	7,290.2	40.0	39.3	-39.02	1,823.8	460.5	259.4	208.3	51.10	5.077		
9,400.0	7,491.4	9,184.7	7,289.8	41.7	41.0	-39.01	1,923.8	461.2	259.6	206.0	53.58	4.845		
9,500.0	7,491.1	9,284.7	7,289.3	43.4	42.7	-39.01	2,023.8	461.8	259.7	203.6	56.08	4.632		
9,600.0	7,490.7	9,384.7	7,288.8	45.1	44.5	-39.00	2,123.8	462.5	259.9	201.3	58.58	4.436		
9,700.0	7,490.4	9,484.7	7,288.3	46.9	46.3	-39.00	2,223.8	463.1	260.0	198.9	61.11	4.255		
9,800.0	7,490.1	9,584.7	7,287.9	48.6	48.0	-38.99	2,323.8	463.8	260.1	196.5	63.64	4.088		
9,900.0	7,489.7	9,684.7	7,287.4	50.4	49.8	-38.99	2,423.8	464.5	260.3	194.1	66.18	3.933		
10,000.0	7,489.4	9,784.7	7,286.9	52.2	51.6	-38.98	2,523.8	465.1	260.4	191.7	68.73	3.789		
10,100.0	7,489.0	9,884.7	7,286.5	54.0	53.4	-38.97	2,623.8	465.8	260.5	189.3	71.28	3.655		
10,200.0	7,488.7	9,984.7	7,286.0	55.8	55.3	-38.97	2,723.8	466.4	260.7	186.8	73.85	3.530		
10,300.0	7,488.3	10,084.7	7,285.5	57.6	57.1	-38.96	2,823.8	467.1	260.8	184.4	76.42	3.413		
10,400.0	7,488.0	10,184.7	7,285.0	59.4	58.9	-38.96	2,923.8	467.7	261.0	182.0	78.99	3.304		
10,500.0	7,487.6	10,284.7	7,284.6	61.2	60.7	-38.95	3,023.8	468.4	261.1	179.5	81.57	3.201		
10,600.0	7,487.3	10,384.7	7,284.1	63.0	62.6	-38.95	3,123.7	469.0	261.2	177.1	84.15	3.104		
10,700.0	7,486.9	10,484.7	7,283.6	64.9	64.4	-38.94	3,223.7	469.7	261.4	174.6	86.74	3.013		
10,800.0	7,486.6	10,584.7	7,283.2	66.7	66.3	-38.94	3,323.7	470.3	261.5	172.2	89.33	2.927		
10,900.0	7,486.2	10,684.7	7,282.7	68.5	68.1	-38.93	3,423.7	471.0	261.6	169.7	91.92	2.846		
11,000.0	7,485.9	10,784.7	7,282.2	70.4	70.0	-38.93	3,523.7	471.6	261.8	167.3	94.52	2.770		
11,100.0	7,485.5	10,884.7	7,281.7	72.2	71.8	-38.92	3,623.7	472.3	261.9	164.8	97.12	2.697		
11,200.0	7,485.2	10,984.7	7,281.3	74.1	73.7	-38.92	3,723.7	473.0	262.1	162.3	99.72	2.628		
11,300.0	7,484.8	11,084.7	7,280.8	75.9	75.5	-38.91	3,823.7	473.6	262.2	159.9	102.32	2.562		
11,400.0	7,484.5	11,184.7	7,280.3	77.8	77.4	-38.90	3,923.7	474.3	262.3	157.4	104.93	2.500		
11,500.0	7,484.1	11,284.7	7,279.9	79.6	79.3	-38.90	4,023.7	474.9	262.5	154.9	107.54	2.441		
11,600.0	7,483.8	11,384.7	7,279.4	81.5	81.1	-38.89	4,123.7	475.6	262.6	152.5	110.14	2.384		
11,700.0	7,483.4	11,484.7	7,278.9	83.4	83.0	-38.89	4,223.7	476.2	262.7	150.0	112.75	2.330		
11,800.0	7,483.1	11,584.7	7,278.4	85.2	84.9	-38.88	4,323.7	476.9	262.9	147.5	115.37	2.279		
11,900.0	7,482.7	11,684.7	7,278.0	87.1	86.7	-38.88	4,423.7	477.5	263.0	145.0	117.98	2.229		
12,000.0	7,482.4	11,784.7	7,277.5	89.0	88.6	-38.87	4,523.7	478.2	263.2	142.6	120.59	2.182		
12,106.5	7,482.0	11,891.1	7,277.0	90.9	90.6	-38.87	4,630.1	478.9	263.3	139.9	123.38	2.134 SF		

Company:	Verdad Oil & Gas Corporation	Local Co-ordinate Reference:	Well Johnson 01N-65W-30-9C
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-30-9C	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)

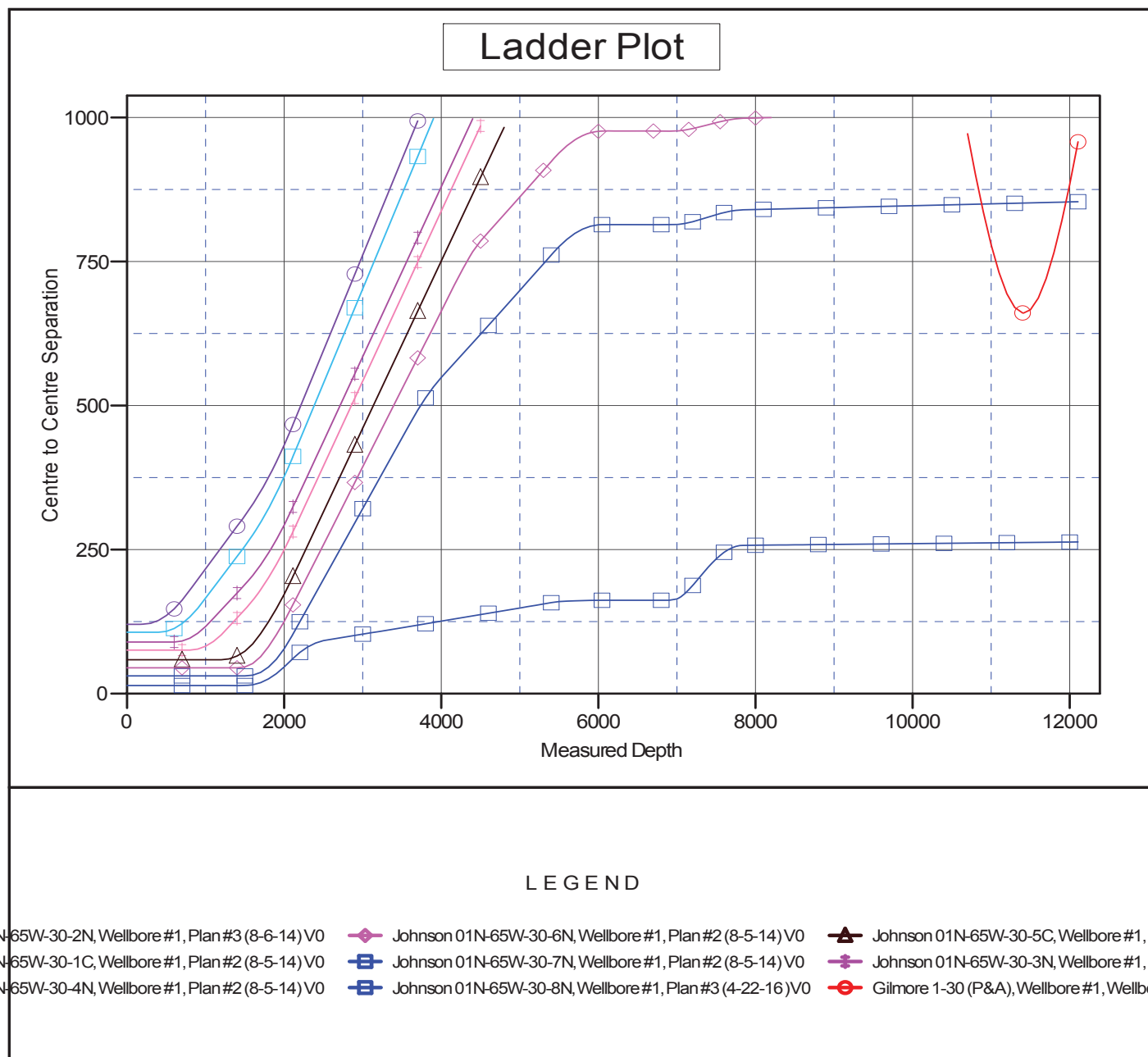
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: Johnson 01N-65W-30-9C

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.51°



Reference Depths are relative to WELL @ 5012.0ft (Original Well Elev)	Coordinates are relative to: Johnson 01N-65W-30-9C
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000	Grid Convergence at Surface is: 0.51°

