



Surface Location: Greeley-Rothe Pad Sec.1-T5N-R67W

North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

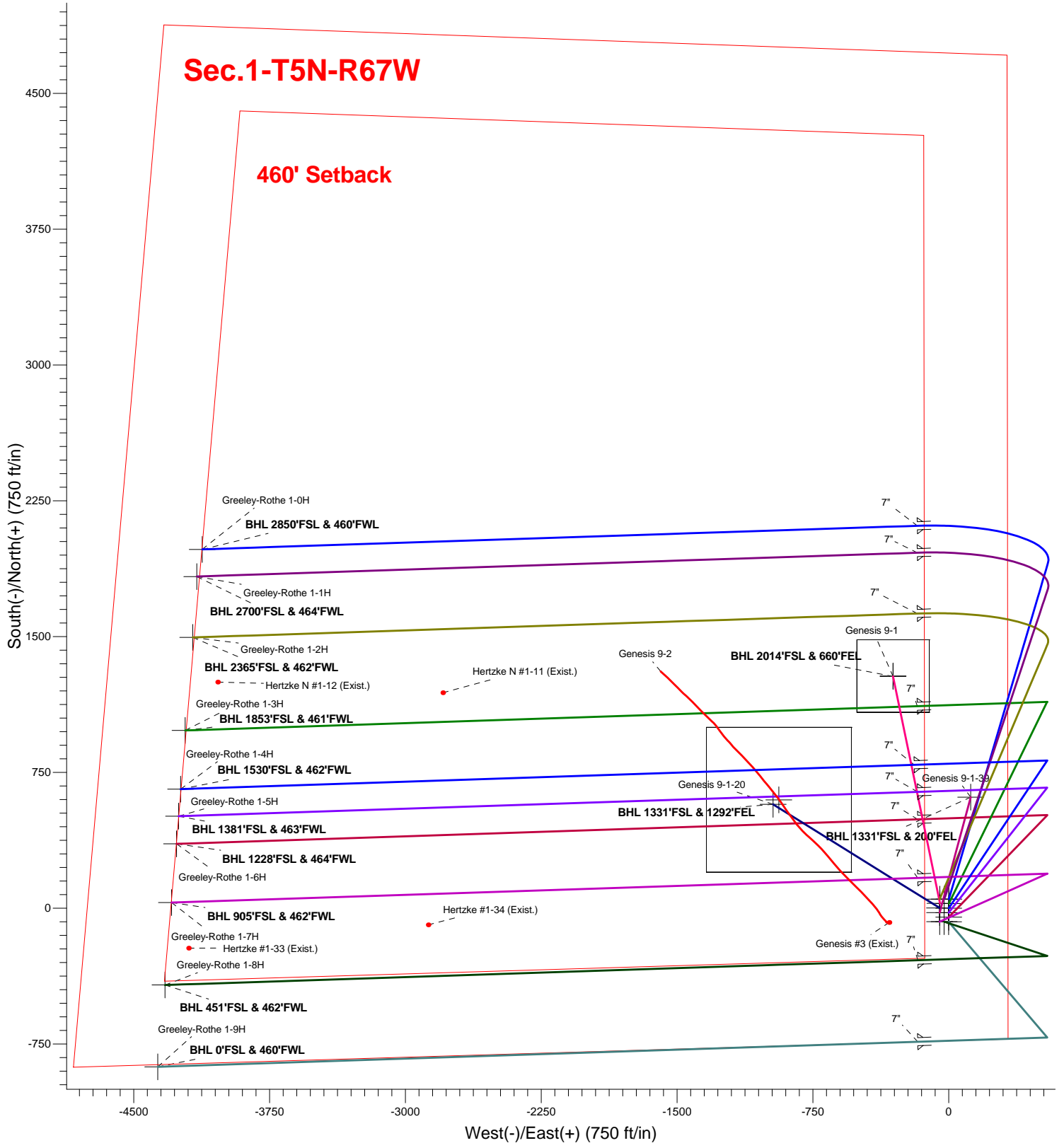
Ground Elevation: 4876.0

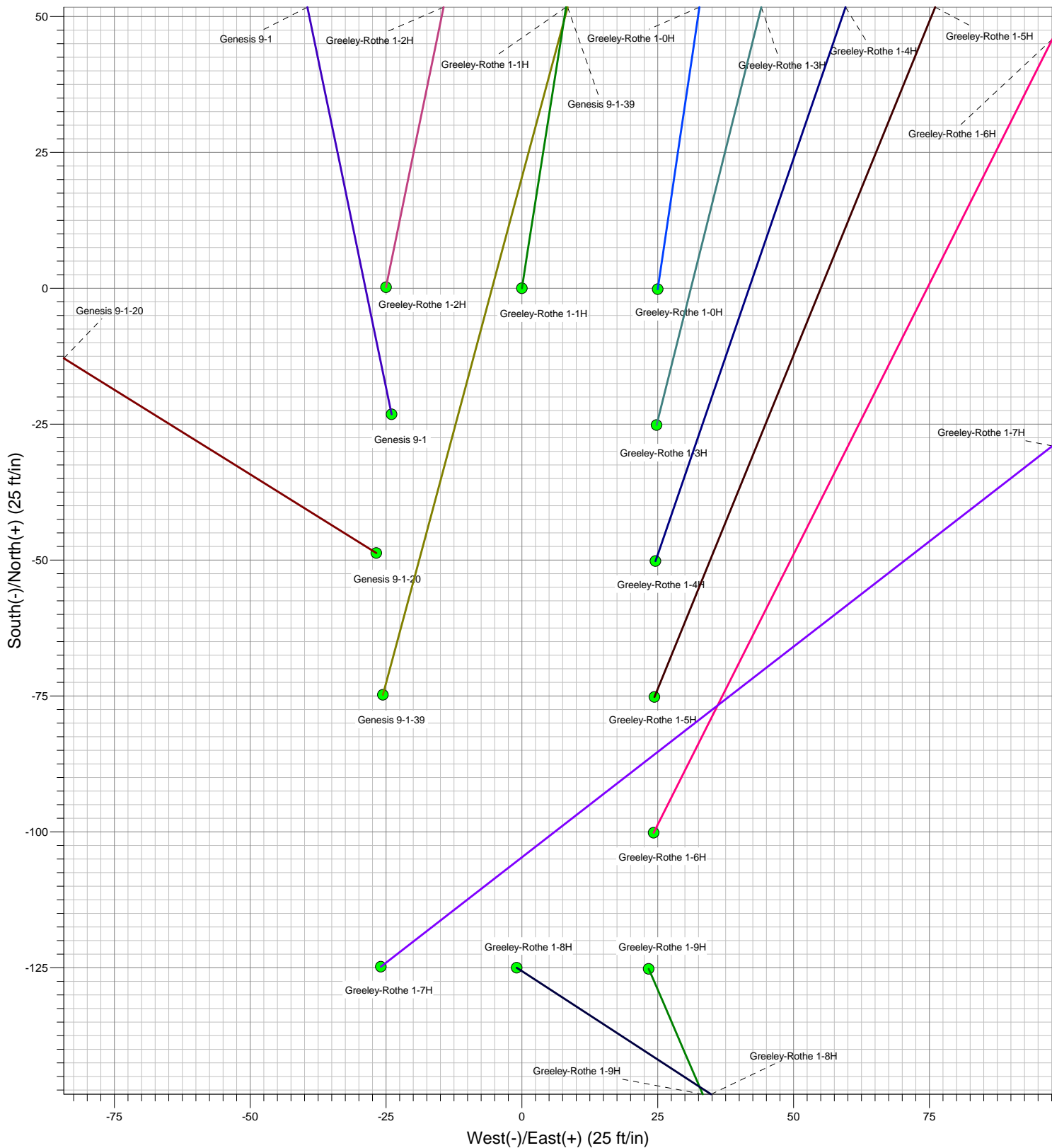
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1397831.58	3185528.81	40.423536	-104.833615	

Design Version: Plan #2 (6-05-14)

Sec.1-T5N-R67W

460' Setback



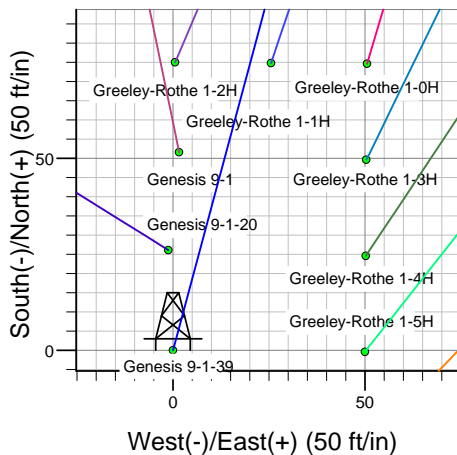
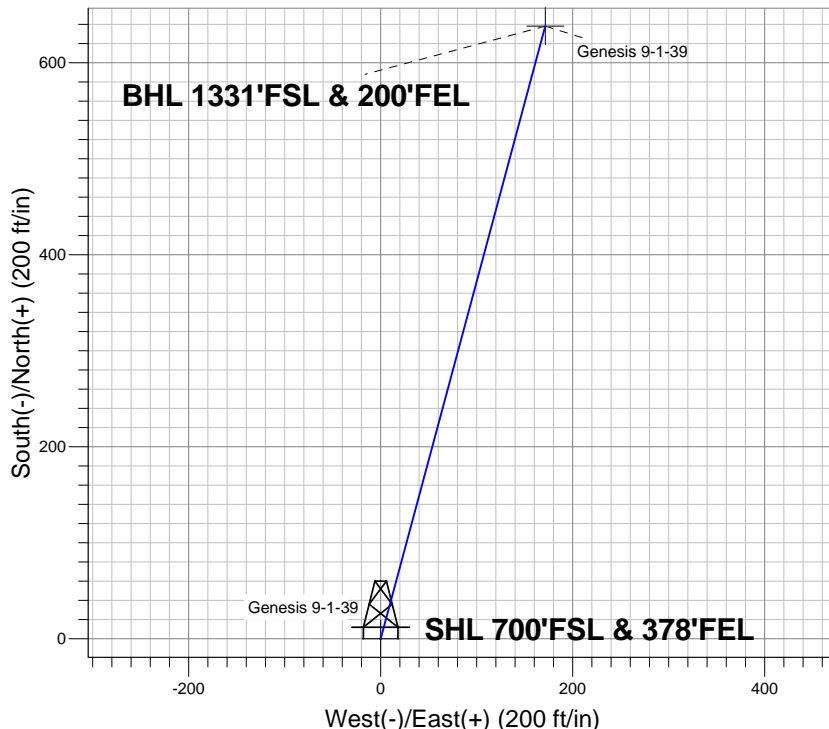
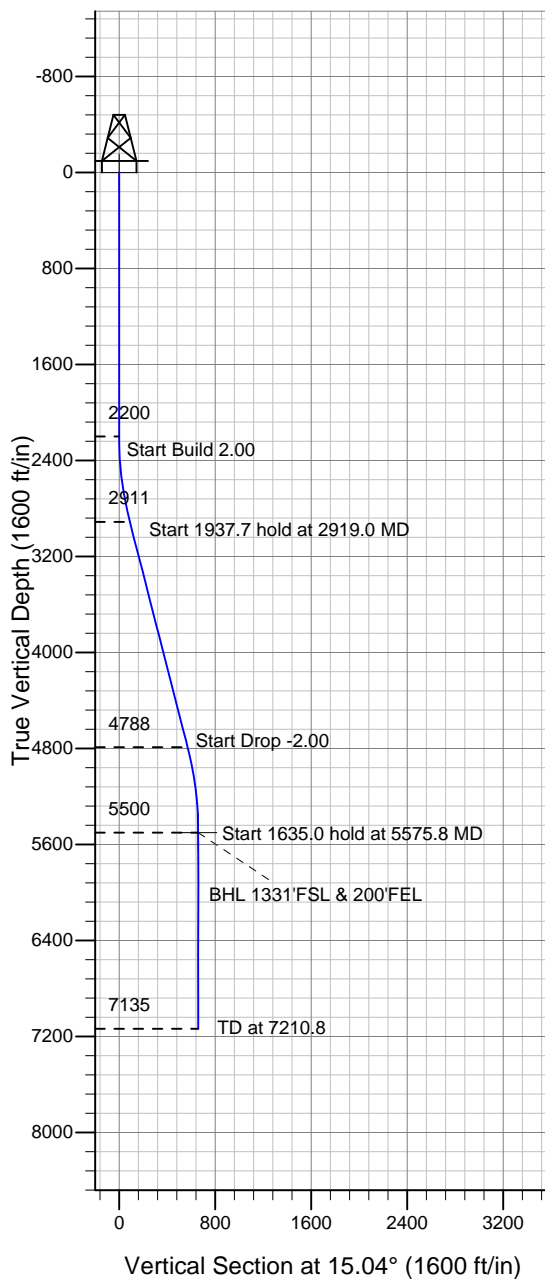


Well Name: **Genesis 9-1-39**

Surface Location: Greeley-Rothe Pad Sec.1-T5N-R67W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4876.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1397806.61	3185478.82	40.423468	-104.833796	
		RKB - 15'	WELL @ 4891.0ft (RKB - 15')			

KP KAUFFMAN



Genesis 9-1-39
 Plan #2 (6-05-14)
 15:44, June 06 2014



Azimuths to True North
 Magnetic North: 8.51°

Magnetic Field
 Strength: 52831.4snT
 Dip Angle: 66.96°
 Date: 5/6/2014
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
SHL 700'FSL & 378'FEL	1.0	0.0	0.0	40.423468	-104.833796	Point
BHL 1331'FSL & 200'FEL	5500.0	638.1	171.4	40.425220	-104.833180	Point

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	2200.0	0.00	0.00	2200.0	0.0	0.0	0.00	0.00	0.0	
3	2919.0	14.38	15.04	2911.5	86.7	23.3	2.00	15.04	89.8	
4	4856.7	14.38	15.04	4788.5	551.5	148.1	0.00	0.00	571.0	
5	5575.8	0.00	0.00	5500.0	638.1	171.4	2.00	180.00	660.8	BHL 1331'FSL & 200'FEL
6	7210.8	0.00	0.00	7135.0	638.1	171.4	0.00	0.00	660.8	



KP KAUFFMAN

SEC.1-T5N-R67W

Greeley-Rothe Pad Sec.1-T5N-R67W

Genesis 9-1-39

Wellbore #1

Plan: Plan #2 (6-05-14)

Standard Planning Report

06 June, 2014

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,919.0	14.38	15.04	2,911.5	86.7	23.3	2.00	2.00	0.00	15.04	
4,856.7	14.38	15.04	4,788.5	551.5	148.1	0.00	0.00	0.00	0.00	
5,575.8	0.00	0.00	5,500.0	638.1	171.4	2.00	-2.00	0.00	180.00	BHL 1331'FSL & 20
7,210.8	0.00	0.00	7,135.0	638.1	171.4	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Genesis 9-1-39
Company:	KP KAUFFMAN	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Project:	SEC.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	North Reference:	True
Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-05-14)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 700'FSL & 378'FEL									
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
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	2.00	15.04	2,300.0	1.7	0.5	1.7	2.00	2.00	0.00
2,400.0	4.00	15.04	2,399.8	6.7	1.8	7.0	2.00	2.00	0.00
2,500.0	6.00	15.04	2,499.5	15.2	4.1	15.7	2.00	2.00	0.00
2,600.0	8.00	15.04	2,598.7	26.9	7.2	27.9	2.00	2.00	0.00
2,700.0	10.00	15.04	2,697.5	42.0	11.3	43.5	2.00	2.00	0.00
2,800.0	12.00	15.04	2,795.6	60.5	16.2	62.6	2.00	2.00	0.00
2,900.0	14.00	15.04	2,893.1	82.2	22.1	85.1	2.00	2.00	0.00
2,919.0	14.38	15.04	2,911.5	86.7	23.3	89.8	2.00	2.00	0.00
3,000.0	14.38	15.04	2,989.9	106.1	28.5	109.9	0.00	0.00	0.00
3,100.0	14.38	15.04	3,086.8	130.1	34.9	134.7	0.00	0.00	0.00
3,200.0	14.38	15.04	3,183.7	154.1	41.4	159.5	0.00	0.00	0.00
3,300.0	14.38	15.04	3,280.5	178.1	47.8	184.4	0.00	0.00	0.00
3,400.0	14.38	15.04	3,377.4	202.1	54.3	209.2	0.00	0.00	0.00
3,500.0	14.38	15.04	3,474.3	226.0	60.7	234.0	0.00	0.00	0.00
3,600.0	14.38	15.04	3,571.1	250.0	67.2	258.9	0.00	0.00	0.00
3,700.0	14.38	15.04	3,668.0	274.0	73.6	283.7	0.00	0.00	0.00
3,800.0	14.38	15.04	3,764.9	298.0	80.0	308.6	0.00	0.00	0.00
3,900.0	14.38	15.04	3,861.7	322.0	86.5	333.4	0.00	0.00	0.00
4,000.0	14.38	15.04	3,958.6	346.0	92.9	358.2	0.00	0.00	0.00
4,100.0	14.38	15.04	4,055.5	369.9	99.4	383.1	0.00	0.00	0.00
4,200.0	14.38	15.04	4,152.3	393.9	105.8	407.9	0.00	0.00	0.00
4,300.0	14.38	15.04	4,249.2	417.9	112.3	432.7	0.00	0.00	0.00
4,400.0	14.38	15.04	4,346.1	441.9	118.7	457.6	0.00	0.00	0.00
4,500.0	14.38	15.04	4,442.9	465.9	125.2	482.4	0.00	0.00	0.00
4,600.0	14.38	15.04	4,539.8	489.9	131.6	507.2	0.00	0.00	0.00
4,700.0	14.38	15.04	4,636.7	513.9	138.0	532.1	0.00	0.00	0.00
4,800.0	14.38	15.04	4,733.5	537.8	144.5	556.9	0.00	0.00	0.00
4,856.7	14.38	15.04	4,788.5	551.5	148.1	571.0	0.00	0.00	0.00
4,900.0	13.52	15.04	4,830.5	561.5	150.8	581.4	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Genesis 9-1-39
Company:	KP KAUFFMAN	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Project:	SEC.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	North Reference:	True
Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-05-14)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,000.0	11.52	15.04	4,928.1	582.5	156.5	603.1	2.00	-2.00	0.00	
5,100.0	9.52	15.04	5,026.4	600.1	161.2	621.3	2.00	-2.00	0.00	
5,200.0	7.52	15.04	5,125.3	614.4	165.0	636.2	2.00	-2.00	0.00	
5,300.0	5.52	15.04	5,224.7	625.3	168.0	647.5	2.00	-2.00	0.00	
5,400.0	3.52	15.04	5,324.3	632.9	170.0	655.4	2.00	-2.00	0.00	
5,500.0	1.52	15.04	5,424.2	637.2	171.2	659.8	2.00	-2.00	0.00	
5,575.8	0.00	0.00	5,500.0	638.1	171.4	660.8	2.00	-2.00	-19.85	
BHL 1331'FSL & 200'FEL										
5,600.0	0.00	0.00	5,524.2	638.1	171.4	660.8	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,624.2	638.1	171.4	660.8	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,724.2	638.1	171.4	660.8	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,824.2	638.1	171.4	660.8	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,924.2	638.1	171.4	660.8	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,024.2	638.1	171.4	660.8	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,124.2	638.1	171.4	660.8	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,224.2	638.1	171.4	660.8	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,324.2	638.1	171.4	660.8	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,424.2	638.1	171.4	660.8	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,524.2	638.1	171.4	660.8	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,624.2	638.1	171.4	660.8	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,724.2	638.1	171.4	660.8	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,824.2	638.1	171.4	660.8	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,924.2	638.1	171.4	660.8	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,024.2	638.1	171.4	660.8	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,124.2	638.1	171.4	660.8	0.00	0.00	0.00	
7,210.8	0.00	0.00	7,135.0	638.1	171.4	660.8	0.00	0.00	0.00	



KP KAUFFMAN

SEC.1-T5N-R67W

Greeley-Rothe Pad Sec.1-T5N-R67W

Genesis 9-1-39

Wellbore #1

Plan #2 (6-05-14)

Anticollision Report

06 June, 2014

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						
Greeley-Rothe Pad Sec.1-T5N-R67W						
Hertzke N #1-12 (Exist.) - Wellbore #1 - Wellbore #1						Out of range

Offset Design													Offset Site Error:	
Survey Program: 7800-UNKNOWN													Offset Well Error:	
Genesis 9-1 Pad Sec.1-T5N-R67W - Genesis #3 (Exist.) - Wellbore #1 - Wellbore #1													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	4.0	4.0	0.0	0.1	-100.98	-54.1	-278.5	283.7	283.6	0.08	3,537.332		
100.0	100.0	104.0	104.0	0.1	2.1	-100.98	-54.1	-278.5	283.7	281.5	2.19	129.388		
200.0	200.0	204.0	204.0	0.3	4.1	-100.98	-54.1	-278.5	283.7	279.3	4.42	64.223		
300.0	300.0	304.0	304.0	0.6	6.1	-100.98	-54.1	-278.5	283.7	277.1	6.64	42.711		
400.0	400.0	404.0	404.0	0.8	8.1	-100.98	-54.1	-278.5	283.7	274.8	8.87	31.995		
500.0	500.0	504.0	504.0	1.0	10.1	-100.98	-54.1	-278.5	283.7	272.6	11.09	25.577		
600.0	600.0	604.0	604.0	1.2	12.1	-100.98	-54.1	-278.5	283.7	270.4	13.32	21.304		
700.0	700.0	704.0	704.0	1.5	14.1	-100.98	-54.1	-278.5	283.7	268.2	15.54	18.254		
800.0	800.0	804.0	804.0	1.7	16.1	-100.98	-54.1	-278.5	283.7	265.9	17.77	15.968		
900.0	900.0	904.0	904.0	1.9	18.1	-100.98	-54.1	-278.5	283.7	263.7	19.99	14.191		
1,000.0	1,000.0	1,004.0	1,004.0	2.1	20.1	-100.98	-54.1	-278.5	283.7	261.5	22.22	12.770		
1,100.0	1,100.0	1,104.0	1,104.0	2.4	22.1	-100.98	-54.1	-278.5	283.7	259.3	24.44	11.608		
1,200.0	1,200.0	1,204.0	1,204.0	2.6	24.1	-100.98	-54.1	-278.5	283.7	257.0	26.66	10.639		
1,300.0	1,300.0	1,304.0	1,304.0	2.8	26.1	-100.98	-54.1	-278.5	283.7	254.8	28.89	9.820		
1,400.0	1,400.0	1,404.0	1,404.0	3.0	28.1	-100.98	-54.1	-278.5	283.7	252.6	31.11	9.118		
1,500.0	1,500.0	1,504.0	1,504.0	3.3	30.1	-100.98	-54.1	-278.5	283.7	250.4	33.34	8.509		
1,600.0	1,600.0	1,604.0	1,604.0	3.5	32.1	-100.98	-54.1	-278.5	283.7	248.1	35.56	7.977		
1,700.0	1,700.0	1,704.0	1,704.0	3.7	34.1	-100.98	-54.1	-278.5	283.7	245.9	37.79	7.507		
1,800.0	1,800.0	1,804.0	1,804.0	3.9	36.1	-100.98	-54.1	-278.5	283.7	243.7	40.01	7.090		
1,900.0	1,900.0	1,904.0	1,904.0	4.2	38.1	-100.98	-54.1	-278.5	283.7	241.5	42.24	6.716		
2,000.0	2,000.0	2,004.0	2,004.0	4.4	40.1	-100.98	-54.1	-278.5	283.7	239.2	44.46	6.380		
2,100.0	2,100.0	2,104.0	2,104.0	4.6	42.1	-100.98	-54.1	-278.5	283.7	237.0	46.69	6.076		
2,200.0	2,200.0	2,204.0	2,204.0	4.8	44.1	-100.98	-54.1	-278.5	283.7	234.8	48.91	5.800 CC		
2,300.0	2,300.0	2,304.0	2,304.0	5.1	46.1	-116.32	-54.1	-278.5	284.5	233.3	51.13	5.564 ES		
2,400.0	2,399.8	2,403.8	2,403.8	5.3	48.1	-117.22	-54.1	-278.5	286.8	233.5	53.33	5.379		
2,500.0	2,499.5	2,503.5	2,503.5	5.5	50.1	-118.67	-54.1	-278.5	290.9	235.4	55.50	5.242	</	

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design Genesis 9-1 Pad Sec.1-T5N-R67W - Genesis 9-2 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 78-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	2.1	2.1	0.0	0.0	-100.44	-54.1	-293.5	298.5					
100.0	100.0	103.5	103.5	0.1	0.1	-100.55	-54.6	-293.0	298.1	297.8	0.25	1,176.884		
165.0	165.0	167.0	167.0	0.3	0.3	-100.52	-54.4	-292.9	297.9	297.4	0.53	562.549 CC		
200.0	200.0	200.7	200.6	0.3	0.3	-100.43	-54.0	-293.0	298.0	297.3	0.68	438.660 ES		
300.0	300.0	295.6	295.6	0.6	0.6	-99.83	-51.0	-294.7	299.2	298.1	1.11	269.306		
400.0	400.0	389.3	389.0	0.8	0.8	-98.85	-46.5	-298.5	302.4	300.8	1.56	194.367		
500.0	500.0	483.0	482.3	1.0	1.0	-97.43	-39.7	-304.5	307.7	305.7	2.02	152.161		
600.0	600.0	579.7	578.3	1.2	1.3	-95.67	-31.0	-312.5	314.9	312.4	2.52	125.060		
700.0	700.0	679.2	676.9	1.5	1.6	-93.80	-21.3	-320.9	322.6	319.6	3.04	106.193		
800.0	800.0	777.9	774.4	1.7	1.9	-91.44	-8.3	-329.3	330.5	326.9	3.57	92.483		
900.0	900.0	866.9	861.7	1.9	2.3	-88.93	6.3	-338.1	340.6	336.5	4.13	82.545		
1,000.0	1,000.0	952.4	945.1	2.1	2.6	-86.39	22.0	-349.1	354.4	349.7	4.69	75.589		
1,100.0	1,100.0	1,036.6	1,026.5	2.4	3.0	-84.00	38.2	-363.0	372.7	367.5	5.26	70.875		
1,200.0	1,200.0	1,129.4	1,115.8	2.6	3.5	-81.49	56.9	-380.0	393.8	387.9	5.88	66.960		
1,300.0	1,300.0	1,226.2	1,208.7	2.8	4.0	-79.02	77.3	-398.1	416.1	409.6	6.49	64.119		
1,400.0	1,400.0	1,321.3	1,300.1	3.0	4.5	-76.88	96.8	-415.5	438.7	431.6	7.07	62.034		
1,500.0	1,500.0	1,412.0	1,387.1	3.3	5.0	-75.13	115.1	-433.4	462.9	455.3	7.63	60.695		
1,600.0	1,600.0	1,510.6	1,481.8	3.5	5.5	-73.48	134.4	-453.3	487.8	479.6	8.20	59.465 SF		

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design													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	0.0	0.0	0.0	0.0	1.76	51.6	1.6	51.6					
100.0	100.0	100.0	100.0	0.1	0.1	1.76	51.6	1.6	51.6	51.4	0.22	229.622		
200.0	200.0	200.0	200.0	0.3	0.3	1.76	51.6	1.6	51.6	50.9	0.67	76.541		
300.0	300.0	300.0	300.0	0.6	0.6	1.76	51.6	1.6	51.6	50.5	1.12	45.924		
400.0	400.0	400.0	400.0	0.8	0.8	1.76	51.6	1.6	51.6	50.0	1.57	32.803		
500.0	500.0	500.0	500.0	1.0	1.0	1.76	51.6	1.6	51.6	49.6	2.02	25.514		
600.0	600.0	600.0	600.0	1.2	1.2	1.76	51.6	1.6	51.6	49.1	2.47	20.875		
700.0	700.0	700.0	700.0	1.5	1.5	1.76	51.6	1.6	51.6	48.7	2.92	17.663		
800.0	800.0	800.0	800.0	1.7	1.7	1.76	51.6	1.6	51.6	48.2	3.37	15.308 CC, ES		
900.0	900.0	898.2	898.2	1.9	1.9	1.34	53.2	1.2	53.3	49.5	3.82	13.957		
1,000.0	1,000.0	996.2	996.1	2.1	2.1	0.22	58.2	0.2	58.3	54.0	4.27	13.665 SF		
1,100.0	1,100.0	1,093.8	1,093.3	2.4	2.4	-1.26	66.3	-1.5	66.7	62.0	4.72	14.140		
1,200.0	1,200.0	1,190.7	1,189.5	2.6	2.6	-2.80	77.6	-3.8	78.4	73.3	5.17	15.180		
1,300.0	1,300.0	1,286.7	1,284.3	2.8	2.9	-4.20	92.0	-6.8	93.5	87.9	5.62	16.646		
1,400.0	1,400.0	1,381.5	1,377.6	3.0	3.2	-5.40	109.2	-10.3	112.0	105.9	6.07	18.430		
1,500.0	1,500.0	1,475.2	1,468.9	3.3	3.5	-6.38	129.1	-14.4	133.6	127.1	6.53	20.452		
1,600.0	1,600.0	1,567.3	1,558.2	3.5	3.9	-7.17	151.6	-19.1	158.4	151.4	6.99	22.651		
1,700.0	1,700.0	1,660.7	1,647.9	3.7	4.3	-7.82	176.9	-24.3	186.0	178.5	7.47	24.909		
1,800.0	1,800.0	1,756.7	1,740.1	3.9	4.7	-8.33	203.3	-29.8	214.0	206.1	7.94	26.941		
1,900.0	1,900.0	1,852.7	1,832.2	4.2	5.2	-8.71	229.6	-35.2	242.0	233.6	8.42	28.726		
2,000.0	2,000.0	1,948.7	1,924.4	4.4	5.7	-9.02	256.0	-40.6	270.0	261.1	8.91	30.299		
2,100.0	2,100.0	2,044.7	2,016.5	4.6	6.2	-9.27	282.4	-46.1	298.0	288.6	9.40	31.694		
2,200.0	2,200.0	2,140.7	2,108.6	4.8	6.7	-9.48	308.7	-51.5	326.1	316.2	9.90	32.939		
2,300.0	2,300.0	2,237.1	2,201.2	5.1	7.2	-24.58	335.2	-57.0	352.6	342.2	10.31	34.179		
2,400.0	2,399.8	2,334.2	2,294.4	5.3	7.7	-24.87	361.9	-62.5	376.0	365.2	10.81	34.792		
2,500.0	2,499.5	2,432.0	2,388.3	5.5	8.3	-25.34	388.7	-68.1	396.4	385.1	11.30	35.084		
2,600.0	2,598.7	2,530.4	2,482.7	5.7	8.8	-25.98	415.7	-73.6	413.7	402.0	11.79	35.097		
2,700.0	2,697.5	2,629.1	2,577.4	6.0	9.4	-26.80	442.9	-79.2	428.1	415.8	12.28	34.860		
2,800.0	2,795.6	2,728.1	2,672.5	6.2	9.9	-27.79	470.0	-84.9	439.5	426.7	12.78	34.397		
2,900.0	2,893.1	2,827.2	2,767.6	6.5	10.5	-28.96	497.3	-90.5	448.0	434.7	13.28	33.723		
3,000.0	2,989.9	2,926.4	2,862.9	6.9	11.0	-30.30	524.5	-96.1	454.7	440.9	13.84	32.845		
3,100.0	3,086.8	3,025.6	2,958.1	7.2	11.6	-31.62	551.8	-101.8	461.6	447.2	14.43	31.986		
3,200.0	3,183.7	3,124.8	3,053.3	7.6	12.1	-32.90	579.0	-107.4	468.7	453.7	15.04	31.168		
3,300.0	3,280.5	3,224.0	3,148.5	7.9	12.7	-34.14	606.3	-113.0	476.1	460.4	15.67	30.388		
3,400.0	3,377.4	3,323.2	3,243.7	8.3	13.2	-35.34	633.5	-118.6	483.6	467.3	16.32	29.644		
3,500.0	3,474.3	3,422.4	3,339.0	8.7	13.8	-36.50	660.7	-124.3	491.4	474.4	16.98	28.934		
3,600.0	3,571.1	3,521.6	3,434.2	9.2	14.3	-37.63	688.0	-129.9	499.4	481.7	17.67	28.257		

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design													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	0.0	0.0	0.0	0.0	-2.63	26.1	-1.2	26.1					
100.0	100.0	100.0	100.0	0.1	0.1	-2.63	26.1	-1.2	26.1	25.9	0.22	116.139		
200.0	200.0	200.0	200.0	0.3	0.3	-2.63	26.1	-1.2	26.1	25.4	0.67	38.713		
300.0	300.0	300.0	300.0	0.6	0.6	-2.63	26.1	-1.2	26.1	25.0	1.12	23.228		
400.0	400.0	400.0	400.0	0.8	0.8	-2.63	26.1	-1.2	26.1	24.5	1.57	16.591		
500.0	500.0	500.0	500.0	1.0	1.0	-2.63	26.1	-1.2	26.1	24.1	2.02	12.904		
600.0	600.0	600.0	600.0	1.2	1.2	-2.63	26.1	-1.2	26.1	23.6	2.47	10.558		
700.0	700.0	700.0	700.0	1.5	1.5	-2.63	26.1	-1.2	26.1	23.2	2.92	8.934		
800.0	800.0	800.0	800.0	1.7	1.7	-2.63	26.1	-1.2	26.1	22.7	3.37	7.743		
900.0	900.0	900.0	900.0	1.9	1.9	-2.63	26.1	-1.2	26.1	22.3	3.82	6.832		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-2.63	26.1	-1.2	26.1	21.8	4.27	6.113 CC, ES		
1,100.0	1,100.0	1,099.4	1,099.4	2.4	2.4	-5.63	27.0	-2.7	27.1	22.4	4.71	5.755 SF		
1,200.0	1,200.0	1,198.7	1,198.5	2.6	2.6	-13.33	29.7	-7.0	30.6	25.4	5.15	5.932		
1,300.0	1,300.0	1,297.4	1,296.9	2.8	2.8	-22.66	34.2	-14.3	37.2	31.6	5.60	6.648		
1,400.0	1,400.0	1,395.4	1,394.2	3.0	3.0	-31.01	40.5	-24.3	47.6	41.5	6.04	7.872		
1,500.0	1,500.0	1,492.5	1,490.1	3.3	3.3	-37.44	48.4	-37.1	61.8	55.3	6.49	9.515		
1,600.0	1,600.0	1,588.5	1,584.4	3.5	3.6	-42.10	57.9	-52.3	79.6	72.7	6.94	11.476		
1,700.0	1,700.0	1,683.2	1,676.7	3.7	3.9	-45.45	68.9	-70.0	101.0	93.6	7.39	13.671		
1,800.0	1,800.0	1,779.2	1,769.9	3.9	4.3	-47.87	81.3	-89.9	124.9	117.0	7.84	15.928		
1,900.0	1,900.0	1,876.2	1,863.9	4.2	4.7	-49.54	93.8	-110.0	149.0	140.7	8.30	17.960		
2,000.0	2,000.0	1,973.2	1,957.9	4.4	5.2	-50.75	106.4	-130.2	173.3	164.5	8.76	19.779		
2,100.0	2,100.0	2,070.1	2,051.9	4.6	5.6	-51.65	118.9	-150.3	197.6	188.4	9.23	21.408		
2,200.0	2,200.0	2,167.1	2,145.9	4.8	6.1	-52.36	131.5	-170.5	221.9	212.2	9.70	22.873		
2,300.0	2,300.0	2,264.1	2,240.1	5.1	6.5	-67.90	144.0	-190.6	245.7	235.5	10.18	24.124		
2,400.0	2,399.8	2,361.3	2,334.3	5.3	7.0	-68.97	156.6	-210.8	268.3	257.6	10.65	25.185		
2,500.0	2,499.5	2,458.5	2,428.5	5.5	7.5	-70.48	169.2	-231.0	289.8	278.7	11.12	26.067		
2,600.0	2,598.7	2,555.6	2,522.7	5.7	7.9	-72.34	181.7	-251.2	310.7	299.1	11.59	26.795		
2,700.0	2,697.5	2,652.5	2,616.6	6.0	8.4	-74.51	194.2	-271.3	331.0	318.9	12.09	27.387		
2,800.0	2,795.6	2,749.0	2,710.2	6.2	8.9	-76.91	206.7	-291.4	351.2	338.5	12.61	27.852		
2,900.0	2,893.1	2,845.1	2,803.3	6.5	9.4	-79.52	219.2	-311.3	371.4	358.3	13.17	28.198		
3,000.0	2,989.9	2,940.8	2,896.1	6.9	9.9	-82.47	231.5	-331.2	392.3	378.5	13.79	28.456		
3,100.0	3,086.8	3,036.5	2,988.9	7.2	10.4	-85.20	243.9	-351.1	414.2	399.7	14.44	28.676		
3,200.0	3,183.7	3,132.2	3,081.7	7.6	10.8	-87.67	256.3	-371.0	436.9	421.8	15.14	28.866		
3,300.0	3,280.5	3,227.9	3,174.5	7.9	11.3	-89.89	268.7	-390.8	460.3	444.5	15.86	29.030		
3,400.0	3,377.4	3,323.5	3,267.2	8.3	11.8	-91.90	281.0	-410.7	484.3	467.7	16.60	29.173		

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design		Greeley-Rothe Pad Sec.1-T5N-R67W - Greeley-Rothe 1-0H - Wellbore #1 - Plan #1 (6-5-14)											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	0.0	0.0	0.0	0.0	34.12	74.6	50.6	90.1					
100.0	100.0	99.0	99.0	0.1	0.1	34.12	74.6	50.6	90.1	89.9	0.22	403.005		
200.0	200.0	199.0	199.0	0.3	0.3	34.12	74.6	50.6	90.1	89.5	0.67	134.112 CC, ES		
300.0	300.0	296.1	296.1	0.6	0.6	33.82	76.2	51.0	91.7	90.6	1.12	82.085		
400.0	400.0	392.9	392.8	0.8	0.8	32.95	80.8	52.4	96.5	95.0	1.57	61.465		
500.0	500.0	489.3	488.8	1.0	1.0	31.68	88.6	54.7	104.6	102.6	2.03	51.625		
600.0	600.0	585.1	583.9	1.2	1.3	30.21	99.4	57.9	116.0	113.5	2.49	46.676		
700.0	700.0	679.9	677.7	1.5	1.6	28.70	113.1	61.9	130.7	127.7	2.95	44.343		
800.0	800.0	773.8	769.9	1.7	1.9	27.26	129.5	66.8	148.6	145.2	3.41	43.553 SF		
900.0	900.0	866.4	860.4	1.9	2.3	25.97	148.6	72.4	169.8	165.9	3.88	43.732		
1,000.0	1,000.0	957.6	948.8	2.1	2.7	24.83	170.1	78.7	194.1	189.7	4.36	44.547		
1,100.0	1,100.0	1,047.2	1,034.9	2.4	3.2	23.85	193.9	85.7	221.5	216.6	4.84	45.787		
1,200.0	1,200.0	1,138.8	1,122.2	2.6	3.7	22.99	220.5	93.6	251.6	246.2	5.33	47.167		
1,300.0	1,300.0	1,233.9	1,212.7	2.8	4.2	22.28	248.6	101.8	282.1	276.3	5.83	48.399		
1,400.0	1,400.0	1,329.1	1,303.3	3.0	4.8	21.71	276.6	110.1	312.7	306.4	6.33	49.387		
1,500.0	1,500.0	1,424.3	1,393.9	3.3	5.4	21.24	304.7	118.4	343.3	336.5	6.84	50.193		
1,600.0	1,600.0	1,519.4	1,484.4	3.5	5.9	20.84	332.7	126.7	374.0	366.6	7.35	50.858		
1,700.0	1,700.0	1,614.6	1,575.0	3.7	6.5	20.51	360.7	134.9	404.6	396.7	7.87	51.415		
1,800.0	1,800.0	1,709.8	1,665.5	3.9	7.1	20.22	388.8	143.2	435.3	426.9	8.39	51.887		
1,900.0	1,900.0	1,804.9	1,756.1	4.2	7.7	19.97	416.8	151.5	465.9	457.0	8.91	52.290		
2,000.0	2,000.0	1,900.1	1,846.7	4.4	8.2	19.75	444.9	159.7	496.6	487.2	9.43	52.638		

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Greeley-Rothe Pad Sec.1-T5N-R67W - Greeley-Rothe 1-1H - Wellbore #1 - Plan #2 (6-05-14)													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	18.87	74.8	25.6	79.0					
100.0	100.0	99.0	99.0	0.1	0.1	18.87	74.8	25.6	79.0	78.8	0.22	353.420		
200.0	200.0	199.0	199.0	0.3	0.3	18.87	74.8	25.6	79.0	78.4	0.67	117.611		
300.0	300.0	299.0	299.0	0.6	0.6	18.87	74.8	25.6	79.0	77.9	1.12	70.472		
400.0	400.0	399.0	399.0	0.8	0.8	18.87	74.8	25.6	79.0	77.5	1.57	50.308 CC, ES		
500.0	500.0	496.3	496.3	1.0	1.0	18.86	76.3	26.1	80.7	78.7	2.02	40.044		
600.0	600.0	593.4	593.2	1.2	1.2	18.84	81.0	27.6	85.8	83.3	2.46	34.794		
700.0	700.0	690.0	689.5	1.5	1.5	18.80	88.7	30.2	94.2	91.3	2.92	32.284		
800.0	800.0	785.9	784.8	1.7	1.7	18.77	99.4	33.8	106.0	102.6	3.37	31.406 SF		
900.0	900.0	881.0	878.8	1.9	2.0	18.73	113.0	38.3	121.0	117.2	3.83	31.565		
1,000.0	1,000.0	975.1	971.2	2.1	2.3	18.70	129.4	43.8	139.4	135.1	4.30	32.409		
1,100.0	1,100.0	1,067.9	1,061.8	2.4	2.7	18.67	148.3	50.1	160.9	156.1	4.77	33.719		
1,200.0	1,200.0	1,159.3	1,150.4	2.6	3.1	18.64	169.7	57.2	185.5	180.3	5.25	35.350		
1,300.0	1,300.0	1,249.1	1,236.7	2.8	3.5	18.62	193.3	65.1	213.2	207.5	5.73	37.202		
1,400.0	1,400.0	1,342.0	1,325.4	3.0	4.0	18.60	219.8	74.0	243.3	237.1	6.23	39.047		
1,500.0	1,500.0	1,437.3	1,416.2	3.3	4.5	18.59	247.2	83.1	273.6	266.9	6.73	40.641		
1,600.0	1,600.0	1,532.7	1,507.0	3.5	5.1	18.58	274.5	92.3	303.9	296.6	7.24	41.980		
1,700.0	1,700.0	1,628.0	1,597.9	3.7	5.6	18.57	301.9	101.4	334.1	326.4	7.75	43.118		
1,800.0	1,800.0	1,723.3	1,688.7	3.9	6.2	18.56	329.2	110.5	364.4	356.1	8.26	44.095		
1,900.0	1,900.0	1,818.6	1,779.5	4.2	6.7	18.55	356.6	119.7	394.7	385.9	8.78	44.943		
2,000.0	2,000.0	1,913.9	1,870.4	4.4	7.3	18.54	384.0	128.8	424.9	415.6	9.30	45.684		
2,100.0	2,100.0	2,009.2	1,961.2	4.6	7.9	18.54	411.3	137.9	455.2	445.4	9.82	46.337		
2,200.0	2,200.0	2,104.5	2,052.1	4.8	8.4	18.53	438.7	147.1	485.5	475.1	10.35	46.916		

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design													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	0.0	0.0	0.0	0.0	0.43	75.0	0.6	75.0					
100.0	100.0	99.0	99.0	0.1	0.1	0.43	75.0	0.6	75.0	74.8	0.22	335.255		
200.0	200.0	199.0	199.0	0.3	0.3	0.43	75.0	0.6	75.0	74.3	0.67	111.566		
300.0	300.0	299.0	299.0	0.6	0.6	0.43	75.0	0.6	75.0	73.9	1.12	66.850		
400.0	400.0	399.0	399.0	0.8	0.8	0.43	75.0	0.6	75.0	73.4	1.57	47.723		
500.0	500.0	499.0	499.0	1.0	1.0	0.43	75.0	0.6	75.0	73.0	2.02	37.106		
600.0	600.0	599.0	599.0	1.2	1.2	0.43	75.0	0.6	75.0	72.5	2.47	30.353 CC, ES		
700.0	700.0	696.6	696.6	1.5	1.5	0.89	76.5	1.2	76.5	73.6	2.91	26.260		
800.0	800.0	794.0	793.9	1.7	1.7	2.20	81.0	3.1	81.2	77.9	3.36	24.174		
900.0	900.0	890.9	890.4	1.9	1.9	4.07	88.6	6.3	89.2	85.4	3.81	23.398 SF		
1,000.0	1,000.0	987.2	986.0	2.1	2.1	6.18	99.0	10.7	100.5	96.2	4.27	23.525		
1,100.0	1,100.0	1,082.6	1,080.3	2.4	2.4	8.28	112.3	16.3	115.0	110.3	4.74	24.293		
1,200.0	1,200.0	1,176.9	1,173.0	2.6	2.7	10.21	128.3	23.1	132.9	127.7	5.21	25.527		
1,300.0	1,300.0	1,270.0	1,263.9	2.8	3.1	11.90	146.8	30.9	154.1	148.4	5.69	27.100		
1,400.0	1,400.0	1,361.7	1,352.7	3.0	3.4	13.34	167.7	39.8	178.4	172.3	6.17	28.920		
1,500.0	1,500.0	1,457.3	1,444.9	3.3	3.9	14.57	191.2	49.7	204.8	198.1	6.67	30.707		
1,600.0	1,600.0	1,553.7	1,537.8	3.5	4.3	15.53	214.8	59.7	231.2	224.0	7.17	32.260		
1,700.0	1,700.0	1,650.1	1,630.7	3.7	4.8	16.29	238.5	69.7	257.7	250.0	7.67	33.602		
1,800.0	1,800.0	1,746.5	1,723.6	3.9	5.3	16.91	262.2	79.7	284.2	276.0	8.17	34.772		
1,900.0	1,900.0	1,842.9	1,816.5	4.2	5.8	17.42	285.8	89.7	310.7	302.1	8.68	35.799		
2,000.0	2,000.0	1,939.2	1,909.4	4.4	6.3	17.86	309.5	99.7	337.3	328.1	9.19	36.706		
2,100.0	2,100.0	2,035.6	2,002.3	4.6	6.8	18.23	333.2	109.7	363.9	354.2	9.70	37.514		
2,200.0	2,200.0	2,132.0	2,095.2	4.8	7.3	18.55	356.8	119.7	390.4	380.2	10.21	38.238		
2,300.0	2,300.0	2,228.8	2,188.5	5.1	7.8	3.77	380.6	129.8	415.4	404.9	10.42	39.851		
2,400.0	2,399.8	2,326.4	2,282.6	5.3	8.3	4.04	404.6	139.9	436.9	426.0	10.92	40.001		
2,500.0	2,499.5	2,424.8	2,377.3	5.5	8.8	4.31	428.7	150.1	455.0	443.6	11.42	39.854		
2,600.0	2,598.7	2,523.6	2,472.6	5.7	9.4	4.60	453.0	160.4	469.7	457.8	11.91	39.450		
2,700.0	2,697.5	2,623.0	2,568.4	6.0	9.9	4.91	477.4	170.7	481.0	468.6	12.39	38.821		
2,800.0	2,795.6	2,722.6	2,664.4	6.2	10.4	5.25	501.9	181.0	488.8	476.0	12.87	37.993		
2,900.0	2,893.1	2,822.4	2,760.6	6.5	11.0	5.62	526.4	191.4	493.2	479.9	13.34	36.986		
3,000.0	2,989.9	2,922.4	2,856.9	6.9	11.5	6.02	550.9	201.8	495.3	481.4	13.85	35.769		
3,100.0	3,086.8	3,022.3	2,953.2	7.2	12.0	6.42	575.5	212.2	497.3	483.0	14.37	34.597		
3,200.0	3,183.7	3,122.2	3,049.5	7.6	12.6	6.82	600.0	222.5	499.4	484.5	14.91	33.500		

Greeley-Rothe Pad Sec.1-T5N-R67W - Greeley-Rothe 1-3H - Wellbore #1 - Plan #2 (6-05-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	45.43	49.6	50.4	70.7					
100.0	100.0	99.0	99.0	0.1	0.1	45.43	49.6	50.4	70.7	70.5	0.22	316.141		
200.0	200.0	199.0	199.0	0.3	0.3	45.43	49.6	50.4	70.7	70.0	0.67	105.205		
300.0	300.0	299.0	299.0	0.6	0.6	45.43	49.6	50.4	70.7	69.6	1.12	63.039		
400.0	400.0	399.0	399.0	0.8	0.8	45.43	49.6	50.4	70.7	69.1	1.57	45.002		
500.0	500.0	499.0	499.0	1.0	1.0	45.43	49.6	50.4	70.7	68.7	2.02	34.990		
600.0	600.0	599.0	599.0	1.2	1.2	45.43	49.6	50.4	70.7	68.2	2.47	28.623		
700.0	700.0	699.0	699.0	1.5	1.5	45.43	49.6	50.4	70.7	67.8	2.92	24.216		
800.0	800.0	799.0	799.0	1.7	1.7	45.43	49.6	50.4	70.7	67.3	3.37	20.985 CC, ES		
900.0	900.0	896.7	896.7	1.9	1.9	45.00	51.1	51.1	72.3	68.5	3.81	18.957		
1,000.0	1,000.0	994.2	994.0	2.1	2.1	43.80	55.5	53.2	77.1	72.8	4.26	18.104		
1,100.0	1,100.0	1,091.2	1,090.7	2.4	2.3	42.10	62.9	56.8	85.2	80.5	4.71	18.104		
1,200.0	1,200.0	1,187.5	1,186.4	2.6	2.6	40.21	73.1	61.8	96.6	91.5	5.16	18.740		
1,300.0	1,300.0	1,283.0	1,280.7	2.8	2.8	38.36	86.1	68.2	111.4	105.7	5.61	19.862		
1,400.0	1,400.0	1,377.4	1,373.5	3.0	3.1	36.68	101.8	75.8	129.4	123.3	6.06	21.354		
1,500.0	1,500.0	1,470.6	1,464.5	3.3	3.5	35.22	119.8	84.6	150.7	144.2	6.52	23.127		
1,600.0	1,600.0	1,565.4	1,556.4	3.5	3.8	33.97	140.5	94.7	174.7	167.7	6.98	25.023		
1,700.0	1,700.0	1,662.3	1,650.4	3.7	4.2	32.99	162.0	105.1	199.1	191.7	7.45	26.728		
1,800.0	1,800.0	1,759.2	1,744.3	3.9	4.7	32.22	183.4	115.6	223.6	215.6	7.92	28.218		
1,900.0	1,900.0	1,856.2	1,838.3	4.2	5.1	31.60	204.8	126.0	248.0	239.6	8.40	29.526		
2,000.0	2,000.0	1,953.1	1,932.2	4.4	5.5	31.10	226.3	136.5	272.5	263.6	8.88	30.682		
2,100.0	2,100.0	2,050.0	2,026.2	4.6	6.0	30.67	247.7	146.9	297.0	287.7	9.37	31.707		
2,200.0	2,200.0	2,146.9	2,120.1	4.8	6.5	30.32	269.1	157.4	321.6	311.7	9.86	32.623		
2,300.0	2,300.0	2,244.3	2,214.5	5.1	6.9	14.93	290.6	167.8	344.4	334.2	10.27	33.524		
2,400.0	2,399.8	2,342.3	2,309.5	5.3	7.4	14.77	312.3	178.4	364.0	353.3	10.76	33.835		
2,500.0	2,499.5	2,441.0	2,405.1	5.5	7.9	14.76	334.1	189.0	380.3	369.1	11.24	33.833		
2,600.0	2,598.7	2,540.1	2,501.2	5.7	8.4	14.91	356.0	199.7	393.3	381.6	11.72	33.557		
2,700.0	2,697.5	2,639.6	2,597.7	6.0	8.9	15.18	378.0	210.4	402.9	390.7	12.19	33.038		
2,800.0	2,795.6	2,739.4	2,694.4	6.2	9.3	15.59	400.1	221.2	409.1	396.5	12.67	32.301		
2,900.0	2,893.1	2,839.3	2,791.2	6.5	9.8	16.13	422.2	232.0	412.1	398.9	13.14	31.367		
3,000.0	2,989.9	2,939.1	2,888.0	6.9	10.3	16.78	444.2	242.7	412.8	399.1	13.66	30.225		
3,100.0	3,086.8	3,039.0	2,984.8	7.2	10.8	17.42	466.3	253.5	413.5	399.3	14.20	29.125		
3,200.0	3,183.7	3,138.9	3,081.6	7.6	11.3	18.07	488.4	264.2	414.3	399.5	14.75	28.091		
3,300.0	3,280.5	3,238.8	3,178.5	7.9	11.8	18.71	510.5	275.0	415.1	399.8	15.31	27.118		
3,400.0	3,377.4	3,338.7	3,275.3	8.3	12.3	19.35	532.6	285.8	416.0	400.1	15.88	26.201		
3,500.0	3,474.3	3,438.6	3,372.1	8.7	12.8	19.99	554.6	296.5	416.9	400.5	16.46	25.335		
3,600.0	3,571.1	3,538.5	3,468.9	9.2	13.3	20.62	576.7	307.3	417.9	400.9	17.04	24.518		
3,700.0	3,668.0	3,638.4	3,565.8	9.6	13.8	21.25	598.8	318.1	418.9	401.3	17.64	23.745		
3,800.0	3,764.9	3,738.3	3,662.6	10.0	14.3	21.88	620.9	328.8	420.0	401.8	18.25	23.014		
3,900.0	3,861.7	3,838.1	3,759.4	10.5	14.8	22.50	643.0	339.6	421.1	402.3	18.87	22.320		
4,000.0	3,958.6	3,938.0	3,856.2	10.9	15.3	23.12	665.1	350.4	422.3	402.8	19.50	21.662		
4,100.0	4,055.5	4,037.9	3,953.0	11.4	15.9	23.74	687.1	361.1	423.6	403.4	20.13	21.038		
4,200.0	4,152.3	4,137.8	4,049.9	11.8	16.4	24.35	709.2	371.9	424.8	404.1	20.78	20.444		
4,300.0	4,249.2	4,237.7	4,146.7	12.3	16.9	24.96	731.3	382.6	426.2	404.7	21.44	19.879		
4,400.0	4,346.1	4,337.6	4,243.5	12.7	17.4	25.57	753.4	393.4	427.5	405.4	22.10	19.342		
4,500.0	4,442.9	4,437.5	4,340.3	13.2	17.9	26.17	775.5	404.2	429.0	406.2	22.78	18.829		
4,600.0	4,539.8	4,537.4	4,437.1	13.7	18.4	26.76	797.5	414.9	430.4	407.0	23.47	18.341		
4,700.0	4,636.7	4,637.2	4,534.0	14.2	18.9	27.36	819.6	425.7	432.0	407.8	24.17	17.875		
4,800.0	4,733.5	4,737.1	4,630.8	14.6	19.4	27.95	841.7	436.5	433.5	408.6	24.87	17.430		
4,900.0	4,830.5	4,837.0	4,727.6	15.1	19.9	28.52	863.8	447.2	435.4	409.8	25.58	17.020		
5,000.0	4,928.1	4,936.9	4,824.4	15.4	20.4	28.94	885.9	458.0	439.9	413.7	26.22	16.777		
5,100.0	5,026.4	5,036.6	4,921.0	15.8	20.9	29.16	907.9	468.7	447.5	420.7	26.80	16.696 SF		

COMPASS 2003.21 Build 46

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design Greeley-Rothe Pad Sec.1-T5N-R67W - Greeley-Rothe 1-3H - Wellbore #1 - Plan #2 (6-05-14)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,125.3	5,136.0	5,017.4	16.1	21.4	29.19	929.9	479.4	458.1	430.8	27.32	16.769	
5,300.0	5,224.7	5,235.1	5,113.4	16.3	21.9	29.05	951.8	490.1	471.7	443.9	27.77	16.989	
5,400.0	5,324.3	5,333.6	5,208.9	16.5	22.4	28.75	973.6	500.7	488.4	460.2	28.15	17.348	

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
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	0.0	0.0	0.0	0.0	63.89	24.6	50.2	55.9					
100.0	100.0	100.0	100.0	0.1	0.1	63.89	24.6	50.2	55.9	55.6	0.22	248.590		
200.0	200.0	200.0	200.0	0.3	0.3	63.89	24.6	50.2	55.9	55.2	0.67	82.863		
300.0	300.0	300.0	300.0	0.6	0.6	63.89	24.6	50.2	55.9	54.8	1.12	49.718		
400.0	400.0	400.0	400.0	0.8	0.8	63.89	24.6	50.2	55.9	54.3	1.57	35.513		
500.0	500.0	500.0	500.0	1.0	1.0	63.89	24.6	50.2	55.9	53.9	2.02	27.621		
600.0	600.0	600.0	600.0	1.2	1.2	63.89	24.6	50.2	55.9	53.4	2.47	22.599		
700.0	700.0	700.0	700.0	1.5	1.5	63.89	24.6	50.2	55.9	53.0	2.92	19.122		
800.0	800.0	800.0	800.0	1.7	1.7	63.89	24.6	50.2	55.9	52.5	3.37	16.573		
900.0	900.0	900.0	900.0	1.9	1.9	63.89	24.6	50.2	55.9	52.1	3.82	14.623		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	63.89	24.6	50.2	55.9	51.6	4.27	13.084 CC, ES		
1,100.0	1,100.0	1,098.3	1,098.3	2.4	2.4	63.04	26.0	51.1	57.4	52.6	4.71	12.168		
1,200.0	1,200.0	1,196.4	1,196.2	2.6	2.6	60.75	30.2	53.9	61.9	56.7	5.16	12.000		
1,300.0	1,300.0	1,294.0	1,293.5	2.8	2.8	57.61	37.1	58.5	69.6	64.0	5.60	12.424		
1,400.0	1,400.0	1,390.9	1,389.7	3.0	3.0	54.25	46.7	64.9	80.7	74.6	6.05	13.332		
1,500.0	1,500.0	1,487.0	1,484.6	3.3	3.3	51.11	58.9	73.1	95.1	88.6	6.50	14.635		
1,600.0	1,600.0	1,581.9	1,577.9	3.5	3.6	48.38	73.6	82.8	113.0	106.0	6.95	16.254		
1,700.0	1,700.0	1,675.6	1,669.3	3.7	3.9	46.11	90.6	94.2	134.2	126.8	7.41	18.122		
1,800.0	1,800.0	1,769.9	1,760.7	3.9	4.3	44.24	109.9	107.1	158.4	150.5	7.87	20.136		
1,900.0	1,900.0	1,866.7	1,854.4	4.2	4.7	42.80	130.2	120.6	183.2	174.9	8.33	21.998		
2,000.0	2,000.0	1,963.4	1,948.0	4.4	5.1	41.70	150.5	134.1	208.2	199.4	8.80	23.661		
2,100.0	2,100.0	2,060.2	2,041.7	4.6	5.5	40.84	170.8	147.6	233.2	223.9	9.27	25.147		
2,200.0	2,200.0	2,157.0	2,135.3	4.8	6.0	40.15	191.1	161.2	258.2	248.5	9.75	26.480		
2,300.0	2,300.0	2,254.1	2,229.4	5.1	6.4	24.49	211.5	174.7	281.7	271.5	10.19	27.639		
2,400.0	2,399.8	2,352.0	2,324.1	5.3	6.9	24.23	232.0	188.4	302.2	291.5	10.67	28.321		
2,500.0	2,499.5	2,450.5	2,419.4	5.5	7.4	24.28	252.6	202.2	319.5	308.3	11.14	28.665		
2,600.0	2,598.7	2,549.5	2,515.1	5.7	7.8	24.59	273.4	216.0	333.6	322.0	11.62	28.712		
2,700.0	2,697.5	2,648.8	2,611.3	6.0	8.3	25.13	294.2	229.9	344.7	332.6	12.10	28.492		
2,800.0	2,795.6	2,748.3	2,707.6	6.2	8.8	25.90	315.1	243.8	352.7	340.1	12.58	28.032		
2,900.0	2,893.1	2,848.0	2,804.0	6.5	9.3	26.91	336.0	257.8	357.6	344.5	13.07	27.351		
3,000.0	2,989.9	2,947.7	2,900.5	6.9	9.8	28.11	356.9	271.7	360.6	347.0	13.62	26.466		
3,100.0	3,086.8	3,047.3	2,996.9	7.2	10.3	29.29	377.8	285.6	363.7	349.5	14.20	25.606		
3,200.0	3,183.7	3,147.0	3,093.4	7.6	10.8	30.46	398.7	299.6	366.9	352.1	14.80	24.792		
3,300.0	3,280.5	3,246.7	3,189.8	7.9	11.3	31.60	419.6	313.5	370.3	354.9	15.42	24.020		
3,400.0	3,377.4	3,346.3	3,286.3	8.3	11.8	32.72	440.5	327.4	373.8	357.8	16.05	23.289		
3,500.0	3,474.3	3,446.0	3,382.8	8.7	12.3	33.82	461.4	341.3	377.5	360.8	16.71	22.595		
3,600.0	3,571.1	3,545.7	3,479.2	9.2	12.8	34.90	482.3	355.3	381.3	363.9	17.38	21.938		
3,700.0	3,668.0	3,645.3	3,575.7	9.6	13.4	35.96	503.1	369.2	385.2	367.2	18.07	21.315		
3,800.0	3,764.9	3,745.0	3,672.1	10.0	13.9	36.99	524.0	383.1	389.3	370.5	18.79	20.724		
3,900.0	3,861.7	3,844.7	3,768.6	10.5	14.4	38.01	544.9	397.1	393.5	374.0	19.52	20.164		
4,000.0	3,958.6	3,944.4	3,865.0	10.9	14.9	39.00	565.8	411.0	397.8	377.6	20.26	19.633		
4,100.0	4,055.5	4,044.0	3,961.5	11.4	15.4	39.97	586.7	424.9	402.3	381.2	21.03	19.130		
4,200.0	4,152.3	4,143.7	4,057.9	11.8	15.9	40.92	607.6	438.9	406.8	385.0	21.81	18.653		
4,300.0	4,249.2	4,243.4	4,154.4	12.3	16.4	41.85	628.5	452.8	411.5	388.9	22.61	18.202		
4,400.0	4,346.1	4,343.0	4,250.8	12.7	16.9	42.76	649.4	466.7	416.2	392.8	23.42	17.774		
4,500.0	4,442.9	4,442.7	4,347.3	13.2	17.5	43.65	670.3	480.7	421.1	396.9	24.24	17.369		
4,600.0	4,539.8	4,542.4	4,443.7	13.7	18.0	44.51	691.2	494.6	426.1	401.0	25.09	16.985		
4,700.0	4,636.7	4,642.1	4,540.2	14.2	18.5	45.36	712.1	508.5	431.1	405.2	25.94	16.621		
4,800.0	4,733.5	4,741.7	4,636.7	14.6	19.0	46.19	733.0	522.5	436.3	409.5	26.80	16.277		
4,900.0	4,830.5	4,841.4	4,733.1	15.1	19.5	47.00	753.9	536.4	441.8	414.1	27.66	15.968		
5,000.0	4,928.1	4,949.4	4,837.8	15.4	20.0	47.66	776.0	551.1	448.8	420.4	28.41	15.794		
5,100.0	5,026.4	5,065.0	4,950.8	15.8	20.4	48.22	796.4	564.7	455.0	426.0	29.09	15.643		

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

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design Greeley-Rothe Pad Sec.1-T5N-R67W - Greeley-Rothe 1-4H - Wellbore #1 - Plan #2 (6-05-14)													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		
5,200.0	5,125.3	5,180.9	5,064.9	16.1	20.8	48.66	812.9	575.7	460.2	430.5	29.69	15.500		
5,300.0	5,224.7	5,296.9	5,180.0	16.3	21.1	48.99	825.7	584.2	464.1	433.9	30.21	15.364		
5,400.0	5,324.3	5,413.2	5,295.7	16.5	21.3	49.22	834.5	590.1	466.8	436.2	30.64	15.236		
5,500.0	5,424.2	5,529.5	5,411.9	16.7	21.5	49.35	839.5	593.4	468.4	437.4	30.99	15.114		
5,600.0	5,524.2	5,641.9	5,524.2	16.8	21.7	64.41	840.6	594.2	468.7	437.5	31.28	14.987		
5,700.0	5,624.2	5,741.9	5,624.2	17.0	21.8	64.41	840.6	594.2	468.7	437.1	31.60	14.834		
5,800.0	5,724.2	5,841.9	5,724.2	17.2	21.9	64.41	840.6	594.2	468.7	436.8	31.93	14.679		
5,900.0	5,824.2	5,941.9	5,824.2	17.3	22.0	64.41	840.6	594.2	468.7	436.5	32.27	14.527		
6,000.0	5,924.2	6,041.9	5,924.2	17.5	22.2	64.41	840.6	594.2	468.7	436.1	32.61	14.376		
6,100.0	6,024.2	6,141.9	6,024.2	17.6	22.3	64.41	840.6	594.2	468.7	435.8	32.95	14.227		
6,200.0	6,124.2	6,241.9	6,124.2	17.8	22.4	64.41	840.6	594.2	468.7	435.4	33.29	14.080		
6,300.0	6,224.2	6,341.9	6,224.2	18.0	22.5	64.41	840.6	594.2	468.7	435.1	33.64	13.936		
6,400.0	6,324.2	6,441.9	6,324.2	18.1	22.7	64.41	840.6	594.2	468.7	434.7	33.98	13.793		
6,500.0	6,424.2	6,541.9	6,424.2	18.3	22.8	64.41	840.6	594.2	468.7	434.4	34.33	13.652		
6,600.0	6,524.2	6,641.9	6,524.2	18.5	22.9	64.41	840.6	594.2	468.7	434.0	34.69	13.513		
6,700.0	6,624.2	6,827.3	6,708.7	18.6	23.1	63.68	840.1	579.8	463.3	428.3	35.05	13.219		
6,800.0	6,724.2	7,044.7	6,911.9	18.8	22.9	59.12	837.6	505.0	431.6	396.8	34.88	12.374		
6,900.0	6,824.2	7,208.5	7,045.1	19.0	22.6	50.58	834.5	410.3	380.0	345.8	34.22	11.105		
7,000.0	6,924.2	7,324.9	7,124.9	19.1	22.3	38.56	831.7	325.7	318.7	285.1	33.52	9.507		
7,100.0	7,024.2	7,407.9	7,172.9	19.3	22.2	24.39	829.5	258.2	257.3	223.9	33.47	7.688		
7,200.0	7,124.2	7,468.5	7,202.8	19.5	22.0	10.20	827.7	205.5	208.0	173.7	34.39	6.049		
7,210.8	7,135.0	7,474.0	7,205.3	19.5	22.0	8.76	827.6	200.6	204.2	169.6	34.53	5.912 SF		

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design													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	0.0	0.0	0.0	0.0	90.46	-0.4	50.0	50.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.46	-0.4	50.0	50.0	49.8	0.22	222.360		
200.0	200.0	200.0	200.0	0.3	0.3	90.46	-0.4	50.0	50.0	49.3	0.67	74.120		
300.0	300.0	300.0	300.0	0.6	0.6	90.46	-0.4	50.0	50.0	48.9	1.12	44.472		
400.0	400.0	400.0	400.0	0.8	0.8	90.46	-0.4	50.0	50.0	48.4	1.57	31.766		
500.0	500.0	500.0	500.0	1.0	1.0	90.46	-0.4	50.0	50.0	48.0	2.02	24.707		
600.0	600.0	600.0	600.0	1.2	1.2	90.46	-0.4	50.0	50.0	47.5	2.47	20.215		
700.0	700.0	700.0	700.0	1.5	1.5	90.46	-0.4	50.0	50.0	47.1	2.92	17.105		
800.0	800.0	800.0	800.0	1.7	1.7	90.46	-0.4	50.0	50.0	46.6	3.37	14.824		
900.0	900.0	900.0	900.0	1.9	1.9	90.46	-0.4	50.0	50.0	46.2	3.82	13.080		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.46	-0.4	50.0	50.0	45.7	4.27	11.703		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	90.46	-0.4	50.0	50.0	45.3	4.72	10.589		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.46	-0.4	50.0	50.0	44.8	5.17	9.668 CC, ES		
1,300.0	1,300.0	1,298.9	1,298.9	2.8	2.8	88.94	0.9	51.0	51.1	45.4	5.61	9.095		
1,400.0	1,400.0	1,397.6	1,397.4	3.0	3.0	84.78	5.0	54.2	54.5	48.4	6.06	8.996		
1,500.0	1,500.0	1,495.8	1,495.2	3.3	3.2	78.97	11.6	59.4	60.7	54.2	6.50	9.341		
1,600.0	1,600.0	1,593.3	1,592.0	3.5	3.5	72.69	20.8	66.6	70.3	63.3	6.95	10.115		
1,700.0	1,700.0	1,689.9	1,687.5	3.7	3.7	66.84	32.4	75.8	83.4	76.0	7.39	11.280		
1,800.0	1,800.0	1,785.4	1,781.3	3.9	4.0	61.87	46.4	86.8	100.2	92.4	7.84	12.779		
1,900.0	1,900.0	1,881.8	1,875.5	4.2	4.3	57.84	62.6	99.6	120.1	111.8	8.30	14.480		
2,000.0	2,000.0	1,979.4	1,970.8	4.4	4.7	54.89	79.2	112.6	140.7	132.0	8.75	16.083		
2,100.0	2,100.0	2,077.0	2,066.1	4.6	5.0	52.70	95.8	125.7	161.6	152.4	9.21	17.551		
2,200.0	2,200.0	2,174.7	2,161.5	4.8	5.4	51.00	112.3	138.7	182.6	172.9	9.67	18.889		
2,300.0	2,300.0	2,272.6	2,257.1	5.1	5.8	34.67	129.0	151.8	202.4	192.2	10.14	19.956		
2,400.0	2,399.8	2,371.2	2,353.3	5.3	6.2	34.13	145.7	165.0	219.3	208.7	10.60	20.684		
2,500.0	2,499.5	2,470.2	2,450.0	5.5	6.6	34.15	162.5	178.2	233.4	222.4	11.07	21.091		
2,600.0	2,598.7	2,569.5	2,547.0	5.7	7.0	34.64	179.4	191.5	244.7	233.1	11.54	21.211		
2,700.0	2,697.5	2,669.0	2,644.2	6.0	7.4	35.57	196.3	204.8	253.1	241.1	12.01	21.073		
2,800.0	2,795.6	2,768.7	2,741.4	6.2	7.9	36.92	213.2	218.1	258.9	246.4	12.50	20.702		
2,900.0	2,893.1	2,868.3	2,838.7	6.5	8.3	38.70	230.1	231.4	262.0	249.0	13.02	20.119		
3,000.0	2,899.9	2,967.8	2,935.8	6.9	8.7	40.80	247.0	244.7	263.7	250.1	13.61	19.371		
3,100.0	3,086.8	3,067.3	3,033.0	7.2	9.2	42.89	263.9	258.0	265.6	251.4	14.24	18.654		
3,200.0	3,183.7	3,166.8	3,130.2	7.6	9.6	44.94	280.8	271.3	267.9	253.0	14.90	17.982		
3,300.0	3,280.5	3,266.3	3,227.3	7.9	10.0	46.95	297.7	284.6	270.6	255.0	15.59	17.351		
3,400.0	3,377.4	3,365.8	3,324.5	8.3	10.5	48.93	314.6	297.9	273.6	257.2	16.32	16.762		
3,500.0	3,474.3	3,465.3	3,421.6	8.7	10.9	50.86	331.5	311.2	276.9	259.8	17.08	16.211		
3,600.0	3,571.1	3,564.9	3,518.8	9.2	11.4	52.74	348.4	324.6	280.5	262.6	17.87	15.699		
3,700.0	3,668.0	3,664.4	3,616.0	9.6	11.8	54.57	365.3	337.9	284.4	265.7	18.68	15.223		
3,800.0	3,764.9	3,763.9	3,713.1	10.0	12.2	56.35	382.2	351.2	288.6	269.0	19.52	14.782		
3,900.0	3,861.7	3,863.4	3,810.3	10.5	12.7	58.08	399.1	364.5	293.0	272.6	20.39	14.374		
4,000.0	3,958.6	3,962.9	3,907.4	10.9	13.1	59.76	416.0	377.8	297.7	276.5	21.27	13.997		
4,100.0	4,055.5	4,062.4	4,004.6	11.4	13.6	61.38	432.8	391.1	302.7	280.5	22.18	13.650		
4,200.0	4,152.3	4,161.9	4,101.8	11.8	14.0	62.96	449.7	404.4	307.9	284.8	23.10	13.331		
4,300.0	4,249.2	4,261.4	4,198.9	12.3	14.5	64.47	466.6	417.7	313.3	289.3	24.03	13.037		
4,400.0	4,346.1	4,360.9	4,296.1	12.7	14.9	65.94	483.5	431.0	319.0	294.0	24.98	12.767		
4,500.0	4,442.9	4,460.5	4,393.2	13.2	15.4	67.35	500.4	444.3	324.8	298.9	25.94	12.519		
4,600.0	4,539.8	4,560.0	4,490.4	13.7	15.8	68.71	517.3	457.6	330.8	303.9	26.92	12.292		
4,700.0	4,636.7	4,659.5	4,587.6	14.2	16.3	70.03	534.2	470.9	337.1	309.2	27.89	12.083		
4,800.0	4,733.5	4,759.0	4,684.7	14.6	16.8	71.29	551.1	484.2	343.4	314.6	28.88	11.892		
4,900.0	4,830.5	4,858.5	4,781.9	15.1	17.2	72.52	568.0	497.5	350.1	320.2	29.85	11.730		
5,000.0	4,928.1	4,958.1	4,879.2	15.4	17.7	73.34	584.9	510.8	357.7	327.0	30.67	11.664		
5,100.0	5,026.4	5,057.8	4,976.4	15.8	18.1	73.63	601.9	524.1	366.3	334.9	31.40	11.669		

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

Greeley-Rothe Pad Sec.1-T5N-R67W - Greeley-Rothe 1-5H - Wellbore #1 - Plan #2 (6-05-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.0	5,125.3	5,157.3	5,073.6	16.1	18.6	73.42	618.7	537.4	376.0	343.9	32.03	11.740		
5,300.0	5,224.7	5,256.5	5,170.5	16.3	19.0	72.76	635.6	550.7	386.6	354.1	32.56	11.876		
5,400.0	5,324.3	5,364.4	5,276.1	16.5	19.4	71.72	652.6	564.1	397.5	364.6	32.95	12.064		
5,500.0	5,424.2	5,473.9	5,384.2	16.7	19.7	70.64	666.8	575.2	407.1	373.9	33.25	12.245		
5,600.0	5,524.2	5,584.1	5,493.4	16.8	20.0	84.52	677.7	583.8	415.4	382.0	33.46	12.414		
5,700.0	5,624.2	5,695.0	5,603.9	17.0	20.3	83.57	685.3	589.8	421.5	387.8	33.70	12.509		
5,800.0	5,724.2	5,806.5	5,715.3	17.2	20.5	83.04	689.6	593.2	425.0	391.0	33.97	12.513		
5,900.0	5,824.2	5,915.4	5,824.2	17.3	20.6	82.92	690.6	594.0	425.8	391.5	34.27	12.425		
6,000.0	5,924.2	6,015.4	5,924.2	17.5	20.7	82.92	690.6	594.0	425.8	391.2	34.59	12.311		
6,100.0	6,024.2	6,115.4	6,024.2	17.6	20.9	82.92	690.6	594.0	425.8	390.9	34.91	12.197		
6,200.0	6,124.2	6,215.4	6,124.2	17.8	21.0	82.92	690.6	594.0	425.8	390.6	35.23	12.085		
6,300.0	6,224.2	6,315.4	6,224.2	18.0	21.1	82.92	690.6	594.0	425.8	390.2	35.56	11.974		
6,400.0	6,324.2	6,415.4	6,324.2	18.1	21.3	82.92	690.6	594.0	425.8	389.9	35.89	11.864		
6,500.0	6,424.2	6,515.4	6,424.2	18.3	21.4	82.92	690.6	594.0	425.8	389.6	36.22	11.755		
6,600.0	6,524.2	6,615.4	6,524.2	18.5	21.6	82.92	690.6	594.0	425.8	389.2	36.56	11.647		
6,700.0	6,624.2	6,715.4	6,624.2	18.6	21.7	82.92	690.6	594.0	425.8	388.9	36.90	11.541		
6,800.0	6,724.2	6,881.9	6,790.2	18.8	21.9	82.81	690.3	585.1	422.1	384.8	37.30	11.316		
6,900.0	6,824.2	7,101.8	6,998.7	19.0	21.7	81.80	688.1	518.1	391.3	353.7	37.61	10.403		
7,000.0	6,924.2	7,270.9	7,139.6	19.1	21.4	79.53	685.1	425.3	336.2	298.5	37.69	8.921		
7,100.0	7,024.2	7,392.2	7,225.3	19.3	21.2	75.31	682.2	339.6	265.8	228.3	37.50	7.088		
7,200.0	7,124.2	7,479.0	7,277.1	19.5	21.0	67.04	679.9	270.1	186.7	149.8	36.88	5.062		
7,210.8	7,135.0	7,486.8	7,281.3	19.5	21.0	65.71	679.7	263.6	177.9	141.1	36.77	4.837 SF		

Greeley-Rothe Pad Sec.1-T5N-R67W - Greeley-Rothe 1-6H - Wellbore #1 - Plan #2 (6-05-14)													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	0.0	0.0	0.0	0.0	117.01	-25.4	49.8	55.9					
100.0	100.0	100.0	100.0	0.1	0.1	117.01	-25.4	49.8	55.9	55.7	0.22	248.745		
200.0	200.0	200.0	200.0	0.3	0.3	117.01	-25.4	49.8	55.9	55.2	0.67	82.915		
300.0	300.0	300.0	300.0	0.6	0.6	117.01	-25.4	49.8	55.9	54.8	1.12	49.749		
400.0	400.0	400.0	400.0	0.8	0.8	117.01	-25.4	49.8	55.9	54.3	1.57	35.535		
500.0	500.0	500.0	500.0	1.0	1.0	117.01	-25.4	49.8	55.9	53.9	2.02	27.638		
600.0	600.0	600.0	600.0	1.2	1.2	117.01	-25.4	49.8	55.9	53.4	2.47	22.613		
700.0	700.0	700.0	700.0	1.5	1.5	117.01	-25.4	49.8	55.9	53.0	2.92	19.134		
800.0	800.0	800.0	800.0	1.7	1.7	117.01	-25.4	49.8	55.9	52.5	3.37	16.583		
900.0	900.0	900.0	900.0	1.9	1.9	117.01	-25.4	49.8	55.9	52.1	3.82	14.632		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	117.01	-25.4	49.8	55.9	51.6	4.27	13.092		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	117.01	-25.4	49.8	55.9	51.2	4.72	11.845		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	117.01	-25.4	49.8	55.9	50.7	5.17	10.815		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	117.01	-25.4	49.8	55.9	50.3	5.62	9.950		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	117.01	-25.4	49.8	55.9	49.8	6.07	9.213		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	117.01	-25.4	49.8	55.9	49.4	6.52	8.577		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	117.01	-25.4	49.8	55.9	48.9	6.97	8.024 CC, ES		
1,700.0	1,700.0	1,699.4	1,699.4	3.7	3.7	115.34	-24.2	51.0	56.4	49.0	7.41	7.615		
1,800.0	1,800.0	1,798.5	1,798.4	3.9	3.9	110.53	-20.4	54.6	58.3	50.5	7.85	7.427		
1,900.0	1,900.0	1,897.2	1,896.7	4.2	4.1	103.31	-14.3	60.5	62.3	54.0	8.29	7.509		
2,000.0	2,000.0	1,995.2	1,994.0	4.4	4.4	94.84	-5.8	68.7	69.2	60.5	8.74	7.923		
2,100.0	2,100.0	2,092.3	2,089.8	4.6	4.6	86.42	4.9	79.1	79.9	70.7	9.18	8.703		
2,200.0	2,200.0	2,190.1	2,186.1	4.8	4.9	79.13	17.5	91.3	94.0	84.4	9.63	9.759		
2,300.0	2,300.0	2,288.7	2,283.1	5.1	5.2	59.20	30.3	103.6	108.4	98.3	10.10	10.738		
2,400.0	2,399.8	2,387.7	2,380.5	5.3	5.5	56.81	43.2	116.1	121.5	110.9	10.55	11.514		
2,500.0	2,499.5	2,487.1	2,478.2	5.5	5.8	56.11	56.0	128.5	132.7	121.7	11.01	12.053		
2,600.0	2,598.7	2,586.6	2,576.1	5.7	6.1	56.70	68.9	141.0	142.0	130.5	11.48	12.368		
2,700.0	2,697.5	2,686.2	2,674.1	6.0	6.5	58.35	81.9	153.4	149.5	137.5	11.98	12.480		
2,800.0	2,795.6	2,785.8	2,772.0	6.2	6.8	60.97	94.8	165.9	155.4	142.9	12.51	12.419		
2,900.0	2,893.1	2,885.2	2,869.8	6.5	7.2	64.50	107.6	178.4	160.1	147.0	13.10	12.217		
3,000.0	2,989.9	2,984.4	2,967.4	6.9	7.5	68.63	120.5	190.8	164.5	150.7	13.76	11.950		
3,100.0	3,086.8	3,083.6	3,064.9	7.2	7.9	72.56	133.4	203.2	169.7	155.3	14.47	11.727		
3,200.0	3,183.7	3,182.8	3,162.5	7.6	8.2	76.24	146.2	215.6	175.7	160.5	15.22	11.548		
3,300.0	3,280.5	3,282.0	3,260.1	7.9	8.6	79.67	159.1	228.1	182.4	166.4	15.99	11.408		
3,400.0	3,377.4	3,381.2	3,357.7	8.3	9.0	82.85	171.9	240.5	189.7	172.9	16.78	11.301		
3,500.0	3,474.3	3,480.4	3,455.2	8.7	9.3	85.79	184.8	252.9	197.5	179.9	17.60	11.224		
3,600.0	3,571.1	3,579.6	3,552.8	9.2	9.7	88.50	197.7	265.4	205.8	187.4	18.42	11.173		
3,700.0	3,668.0	3,678.8	3,650.4	9.6	10.1	90.99	210.5	277.8	214.5	195.3	19.25	11.143		
3,800.0	3,764.9	3,778.0	3,747.9	10.0	10.5	93.29	223.4	290.2	223.7	203.6	20.09	11.132		
3,900.0	3,861.7	3,877.2	3,845.5	10.5	10.9	95.40	236.2	302.6	233.1	212.2	20.93	11.136		
4,000.0	3,958.6	3,976.3	3,943.1	10.9	11.2	97.35	249.1	315.1	242.8	221.0	21.77	11.152		
4,100.0	4,055.5	4,075.5	4,040.7	11.4	11.6	99.15	262.0	327.5	252.8	230.2	22.62	11.178		
4,200.0	4,152.3	4,174.7	4,138.2	11.8	12.0	100.82	274.8	339.9	263.0	239.6	23.46	11.213		
4,300.0	4,249.2	4,273.9	4,235.8	12.3	12.4	102.35	287.7	352.3	273.5	249.2	24.30	11.254		
4,400.0	4,346.1	4,373.1	4,333.4	12.7	12.8	103.78	300.5	364.8	284.1	258.9	25.14	11.300		
4,500.0	4,442.9	4,472.3	4,430.9	13.2	13.2	105.10	313.4	377.2	294.8	268.9	25.97	11.351		
4,600.0	4,539.8	4,571.5	4,528.5	13.7	13.5	106.32	326.3	389.6	305.7	278.9	26.81	11.404		
4,700.0	4,636.7	4,670.7	4,626.1	14.2	13.9	107.47	339.1	402.0	316.8	289.1	27.64	11.460		
4,800.0	4,733.5	4,769.9	4,723.7	14.6	14.3	108.53	352.0	414.5	327.9	299.5	28.47	11.517		
4,900.0	4,830.5	4,869.1	4,821.3	15.1	14.7	109.57	364.8	426.9	339.1	309.8	29.29	11.578		
5,000.0	4,928.1	4,968.6	4,919.1	15.4	15.1	110.19	377.7	439.4	349.3	319.3	30.02	11.637		
5,100.0	5,026.4	5,068.2	5,017.0	15.8	15.5	110.24	390.6	451.8	358.4	327.6	30.73	11.662		

COMPASS 2003.21 Build 46

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design		Greeley-Rothe Pad Sec.1-T5N-R67W - Greeley-Rothe 1-6H - Wellbore #1 - Plan #2 (6-05-14)										Offset Site Error:		0.0 ft			
Survey Program: 0-MWD														Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance										
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)						
5,200.0	5,125.3	5,167.8	5,115.0	16.1	15.9	109.77	403.6	464.3	366.2	334.8	31.41	11.657					
5,300.0	5,224.7	5,267.3	5,212.9	16.3	16.3	108.79	416.5	476.8	373.0	340.9	32.07	11.630					
5,400.0	5,324.3	5,366.6	5,310.5	16.5	16.7	107.34	429.3	489.2	378.9	346.2	32.69	11.590					
5,500.0	5,424.2	5,465.5	5,407.9	16.7	17.1	105.44	442.2	501.6	384.1	350.8	33.26	11.548					
5,600.0	5,524.2	5,564.0	5,504.8	16.8	17.5	118.14	454.9	514.0	388.9	355.2	33.77	11.518					
5,700.0	5,624.2	5,662.4	5,601.5	17.0	17.9	115.66	467.7	526.3	394.3	360.1	34.26	11.511					
5,800.0	5,724.2	5,760.8	5,698.3	17.2	18.2	113.24	480.4	538.6	400.5	365.7	34.72	11.535					
5,900.0	5,824.2	5,859.1	5,795.0	17.3	18.6	110.91	493.2	550.9	407.3	372.1	35.15	11.587					
6,000.0	5,924.2	5,958.0	5,892.3	17.5	19.0	108.63	506.0	563.3	414.8	379.2	35.56	11.665					
6,100.0	6,024.2	6,063.7	5,996.6	17.6	19.3	106.57	518.1	575.0	421.9	386.0	35.90	11.754					
6,200.0	6,124.2	6,170.5	6,102.6	17.8	19.6	105.01	527.5	584.1	427.8	391.5	36.21	11.812					
6,300.0	6,224.2	6,278.1	6,209.8	18.0	19.8	103.95	534.1	590.4	432.0	395.4	36.52	11.827					
6,400.0	6,324.2	6,386.3	6,317.9	18.1	20.0	103.36	537.8	594.0	434.4	397.5	36.83	11.793					
6,500.0	6,424.2	6,492.7	6,424.2	18.3	20.2	103.23	538.6	594.8	434.9	397.8	37.15	11.708					
6,600.0	6,524.2	6,592.7	6,524.2	18.5	20.3	103.23	538.6	594.8	434.9	397.5	37.48	11.606					
6,700.0	6,624.2	6,773.7	6,704.4	18.6	20.5	103.71	538.2	581.3	429.4	391.5	37.90	11.330					
6,800.0	6,724.2	6,985.9	6,903.5	18.8	20.3	106.80	535.8	510.2	396.7	358.4	38.32	10.353					
6,900.0	6,824.2	7,147.9	7,036.5	19.0	20.0	113.10	532.8	418.5	342.4	303.8	38.60	8.869					
7,000.0	6,924.2	7,264.5	7,117.8	19.1	19.8	123.45	530.0	335.1	275.6	237.0	38.61	7.138					
7,100.0	7,024.2	7,348.3	7,167.3	19.3	19.7	138.93	527.8	267.6	204.7	166.6	38.01	5.385					
7,200.0	7,124.2	7,409.8	7,198.4	19.5	19.7	158.97	526.1	214.5	141.2	104.5	36.65	3.852					
7,210.8	7,135.0	7,415.5	7,201.1	19.5	19.7	161.24	525.9	209.5	135.7	99.2	36.49	3.720 SF					

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design													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	0.0	0.0	0.0	0.0	-179.55	-50.0	-0.4	50.0					
100.0	100.0	100.0	100.0	0.1	0.1	-179.55	-50.0	-0.4	50.0	49.8	0.22	222.550		
200.0	200.0	200.0	200.0	0.3	0.3	-179.55	-50.0	-0.4	50.0	49.3	0.67	74.183		
300.0	300.0	300.0	300.0	0.6	0.6	-179.55	-50.0	-0.4	50.0	48.9	1.12	44.510		
400.0	400.0	400.0	400.0	0.8	0.8	-179.55	-50.0	-0.4	50.0	48.4	1.57	31.793		
500.0	500.0	500.0	500.0	1.0	1.0	-179.55	-50.0	-0.4	50.0	48.0	2.02	24.728		
600.0	600.0	600.0	600.0	1.2	1.2	-179.55	-50.0	-0.4	50.0	47.5	2.47	20.232		
700.0	700.0	700.0	700.0	1.5	1.5	-179.55	-50.0	-0.4	50.0	47.1	2.92	17.119		
800.0	800.0	800.0	800.0	1.7	1.7	-179.55	-50.0	-0.4	50.0	46.7	3.37	14.837		
900.0	900.0	900.0	900.0	1.9	1.9	-179.55	-50.0	-0.4	50.0	46.2	3.82	13.091		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.55	-50.0	-0.4	50.0	45.8	4.27	11.713		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-179.55	-50.0	-0.4	50.0	45.3	4.72	10.598		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-179.55	-50.0	-0.4	50.0	44.9	5.17	9.676		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-179.55	-50.0	-0.4	50.0	44.4	5.62	8.902		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-179.55	-50.0	-0.4	50.0	44.0	6.07	8.243		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-179.55	-50.0	-0.4	50.0	43.5	6.52	7.674		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-179.55	-50.0	-0.4	50.0	43.1	6.97	7.179		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-179.55	-50.0	-0.4	50.0	42.6	7.42	6.744		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-179.55	-50.0	-0.4	50.0	42.2	7.87	6.359		
1,900.0	1,900.0	1,900.7	1,900.7	4.2	4.2	178.58	-49.3	1.2	49.3	41.0	8.31	5.935		
2,000.0	2,000.0	2,001.1	2,001.0	4.4	4.4	172.68	-47.1	6.1	47.5	38.8	8.75	5.435		
2,100.0	2,100.0	2,101.1	2,100.5	4.6	4.6	162.14	-43.6	14.0	45.8	36.6	9.19	4.983		
2,143.8	2,143.8	2,144.6	2,143.8	4.7	4.7	155.99	-41.6	18.5	45.5	36.1	9.39	4.851 CC, ES		
2,200.0	2,200.0	2,200.3	2,199.0	4.8	4.8	146.99	-38.7	25.1	46.1	36.5	9.64	4.785 SF		
2,300.0	2,300.0	2,298.7	2,296.2	5.1	5.1	116.19	-32.4	39.2	51.7	41.6	10.10	5.121		
2,400.0	2,399.8	2,396.4	2,392.1	5.3	5.3	104.64	-24.9	56.1	63.3	52.7	10.56	5.995		
2,500.0	2,499.5	2,495.0	2,488.6	5.5	5.6	98.34	-16.6	74.6	78.1	67.1	11.03	7.084		
2,600.0	2,598.7	2,593.8	2,585.3	5.7	6.0	96.09	-8.4	93.1	93.8	82.3	11.51	8.148		
2,700.0	2,697.5	2,692.4	2,681.8	6.0	6.3	96.22	-0.1	111.6	109.9	97.9	12.03	9.137		
2,800.0	2,795.6	2,791.0	2,778.3	6.2	6.6	97.82	8.1	130.1	126.5	113.9	12.59	10.048		
2,900.0	2,893.1	2,889.2	2,874.5	6.5	7.0	100.34	16.3	148.5	143.8	130.6	13.20	10.897		
3,000.0	2,989.9	2,987.3	2,970.4	6.9	7.4	103.34	24.5	166.9	161.9	148.0	13.85	11.688		
3,100.0	3,086.8	3,085.3	3,066.3	7.2	7.7	105.81	32.7	185.3	180.3	165.8	14.53	12.409		
3,200.0	3,183.7	3,183.3	3,162.2	7.6	8.1	107.82	40.9	203.7	199.0	183.8	15.24	13.063		
3,300.0	3,280.5	3,281.3	3,258.2	7.9	8.5	109.48	49.0	222.0	217.9	202.0	15.96	13.656		
3,400.0	3,377.4	3,379.3	3,354.1	8.3	8.9	110.88	57.2	240.4	237.0	220.3	16.70	14.193		
3,500.0	3,474.3	3,477.3	3,450.0	8.7	9.3	112.07	65.4	258.8	256.2	238.7	17.45	14.679		
3,600.0	3,571.1	3,575.4	3,546.0	9.2	9.7	113.10	73.6	277.2	275.4	257.2	18.22	15.121		
3,700.0	3,668.0	3,673.4	3,641.9	9.6	10.1	113.99	81.8	295.6	294.8	275.8	18.99	15.523		
3,800.0	3,764.9	3,771.4	3,737.8	10.0	10.5	114.77	90.0	313.9	314.2	294.4	19.77	15.889		
3,900.0	3,861.7	3,869.4	3,833.7	10.5	10.9	115.46	98.2	332.3	333.6	313.1	20.56	16.224		
4,000.0	3,958.6	3,967.4	3,929.7	10.9	11.3	116.07	106.3	350.7	353.1	331.8	21.36	16.532		
4,100.0	4,055.5	4,065.4	4,025.6	11.4	11.7	116.62	114.5	369.1	372.6	350.5	22.16	16.814		
4,200.0	4,152.3	4,163.5	4,121.5	11.8	12.2	117.11	122.7	387.4	392.2	369.2	22.97	17.073		
4,300.0	4,249.2	4,261.5	4,217.5	12.3	12.6	117.56	130.9	405.8	411.8	388.0	23.78	17.313		
4,400.0	4,346.1	4,359.5	4,313.4	12.7	13.0	117.97	139.1	424.2	431.4	406.8	24.60	17.535		
4,500.0	4,442.9	4,457.5	4,409.3	13.2	13.4	118.34	147.3	442.6	451.0	425.6	25.42	17.741		
4,600.0	4,539.8	4,555.5	4,505.2	13.7	13.8	118.68	155.5	461.0	470.7	444.4	26.25	17.932		
4,700.0	4,636.7	4,653.5	4,601.2	14.2	14.3	119.00	163.6	479.3	490.3	463.2	27.07	18.110		
7,100.0	7,024.2	7,331.3	7,160.8	19.3	18.6	166.28	204.5	277.3	466.8	431.4	35.37	13.198		
7,200.0	7,124.2	7,394.0	7,193.3	19.5	18.8	173.14	202.8	223.8	443.9	408.5	35.39	12.543		
7,210.8	7,135.0	7,399.7	7,196.1	19.5	18.9	173.80	202.6	218.8	442.3	406.9	35.40	12.496		

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

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Greeley-Rothe Pad Sec.1-T5N-R67W - Greeley-Rothe 1-8H - Wellbore #1 - Plan #2 (6-05-14)												Offset Well Error:	0.0 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	153.88	-50.2	24.6	55.9	55.9	0.00	N/A	
100.0	100.0	101.0	101.0	0.1	0.1	153.88	-50.2	24.6	55.9	55.7	0.23	246.290	
200.0	200.0	201.0	201.0	0.3	0.3	153.88	-50.2	24.6	55.9	55.2	0.68	82.642	
300.0	300.0	301.0	301.0	0.6	0.6	153.88	-50.2	24.6	55.9	54.8	1.13	49.651	
400.0	400.0	401.0	401.0	0.8	0.8	153.88	-50.2	24.6	55.9	54.3	1.58	35.485	
500.0	500.0	501.0	501.0	1.0	1.0	153.88	-50.2	24.6	55.9	53.9	2.03	27.609	
600.0	600.0	601.0	601.0	1.2	1.2	153.88	-50.2	24.6	55.9	53.4	2.47	22.593	
700.0	700.0	701.0	701.0	1.5	1.5	153.88	-50.2	24.6	55.9	53.0	2.92	19.120	
800.0	800.0	801.0	801.0	1.7	1.7	153.88	-50.2	24.6	55.9	52.5	3.37	16.573	
900.0	900.0	901.0	901.0	1.9	1.9	153.88	-50.2	24.6	55.9	52.1	3.82	14.624	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	153.88	-50.2	24.6	55.9	51.6	4.27	13.085	
1,100.0	1,100.0	1,101.0	1,101.0	2.4	2.4	153.88	-50.2	24.6	55.9	51.2	4.72	11.840	
1,166.3	1,166.3	1,167.3	1,167.3	2.5	2.5	153.88	-50.2	24.6	55.9	50.9	5.02	11.137 CC	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	153.88	-50.2	24.6	55.9	50.7	5.17	10.811 ES	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	152.63	-50.8	26.3	57.2	51.6	5.60	10.204	
1,400.0	1,400.0	1,398.0	1,397.8	3.0	3.0	149.29	-52.4	31.1	61.0	55.0	6.02	10.134 SF	
1,500.0	1,500.0	1,495.9	1,495.4	3.3	3.2	144.59	-55.0	39.1	67.7	61.3	6.44	10.517	
1,600.0	1,600.0	1,593.1	1,591.9	3.5	3.4	139.47	-58.7	50.2	77.7	70.9	6.87	11.323	
1,700.0	1,700.0	1,690.0	1,687.6	3.7	3.7	134.60	-63.3	64.2	91.2	83.9	7.30	12.497	
1,800.0	1,800.0	1,788.6	1,784.9	3.9	3.9	130.71	-68.4	79.5	106.1	98.4	7.73	13.730	
1,900.0	1,900.0	1,887.3	1,882.3	4.2	4.2	127.78	-73.5	94.8	121.4	113.2	8.16	14.872	
2,000.0	2,000.0	1,986.0	1,979.6	4.4	4.5	125.51	-78.5	110.1	136.9	128.3	8.60	15.920	
2,100.0	2,100.0	2,084.6	2,077.0	4.6	4.9	123.70	-83.6	125.4	152.6	143.6	9.04	16.876	
2,200.0	2,200.0	2,183.3	2,174.3	4.8	5.2	122.23	-88.7	140.7	168.4	158.9	9.49	17.749	
2,300.0	2,300.0	2,281.9	2,271.6	5.1	5.5	106.18	-93.7	155.9	184.8	174.8	9.96	18.549	
2,400.0	2,399.8	2,380.4	2,368.7	5.3	5.9	106.23	-98.8	171.2	202.1	191.7	10.41	19.416	
2,500.0	2,499.5	2,478.6	2,465.6	5.5	6.2	107.09	-103.9	186.4	220.5	209.6	10.87	20.292	
2,600.0	2,598.7	2,576.4	2,562.1	5.7	6.5	108.53	-108.9	201.6	240.0	228.7	11.33	21.181	
2,700.0	2,697.5	2,673.7	2,658.1	6.0	6.9	110.40	-113.9	216.6	261.0	249.2	11.81	22.089	
2,800.0	2,795.6	2,770.3	2,753.5	6.2	7.2	112.56	-118.8	231.6	283.6	271.2	12.32	23.024	
2,900.0	2,893.1	2,866.2	2,848.1	6.5	7.6	114.90	-123.8	246.5	308.0	295.2	12.84	23.994	
3,000.0	2,989.9	2,961.6	2,942.2	6.9	7.9	117.55	-128.7	261.3	334.2	320.8	13.41	24.926	
3,100.0	3,086.8	3,056.9	3,036.2	7.2	8.3	119.91	-133.6	276.0	361.0	347.0	14.00	25.784	
3,200.0	3,183.7	3,152.3	3,130.3	7.6	8.6	121.94	-138.5	290.8	388.3	373.7	14.61	26.579	
3,300.0	3,280.5	3,247.6	3,224.3	7.9	9.0	123.71	-143.4	305.6	416.0	400.7	15.23	27.318	
3,400.0	3,377.4	3,342.9	3,318.4	8.3	9.3	125.26	-148.3	320.4	444.0	428.1	15.85	28.004	
3,500.0	3,474.3	3,438.3	3,412.4	8.7	9.7	126.63	-153.2	335.1	472.3	455.8	16.49	28.641	

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Offset Design													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	135.87	-50.4	48.9	70.3	70.3	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	135.87	-50.4	48.9	70.3	70.0	0.23	309.476		
200.0	200.0	201.0	201.0	0.3	0.3	135.87	-50.4	48.9	70.3	69.6	0.68	103.844		
300.0	300.0	301.0	301.0	0.6	0.6	135.87	-50.4	48.9	70.3	69.1	1.13	62.389		
400.0	400.0	401.0	401.0	0.8	0.8	135.87	-50.4	48.9	70.3	68.7	1.58	44.589		
500.0	500.0	501.0	501.0	1.0	1.0	135.87	-50.4	48.9	70.3	68.2	2.03	34.691		
600.0	600.0	601.0	601.0	1.2	1.2	135.87	-50.4	48.9	70.3	67.8	2.47	28.390		
700.0	700.0	701.0	701.0	1.5	1.5	135.87	-50.4	48.9	70.3	67.3	2.92	24.025		
800.0	800.0	801.0	801.0	1.7	1.7	135.87	-50.4	48.9	70.3	66.9	3.37	20.824		
900.0	900.0	901.0	901.0	1.9	1.9	135.87	-50.4	48.9	70.3	66.4	3.82	18.376		
966.3	966.3	967.3	967.3	2.1	2.1	135.87	-50.4	48.9	70.3	66.1	4.12	17.046 CC		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	135.87	-50.4	48.9	70.3	66.0	4.27	16.453 ES		
1,100.0	1,100.0	1,098.5	1,098.5	2.4	2.3	135.95	-51.7	50.0	72.0	67.3	4.69	15.341		
1,200.0	1,200.0	1,195.9	1,195.7	2.6	2.5	136.19	-55.5	53.3	77.1	72.0	5.10	15.132 SF		
1,300.0	1,300.0	1,292.8	1,292.3	2.8	2.7	136.51	-61.8	58.6	85.6	80.1	5.51	15.545		
1,400.0	1,400.0	1,389.0	1,387.8	3.0	2.9	136.87	-70.5	66.0	97.5	91.6	5.93	16.446		
1,500.0	1,500.0	1,484.4	1,482.1	3.3	3.2	137.22	-81.5	75.4	112.7	106.3	6.35	17.729		
1,600.0	1,600.0	1,580.8	1,576.9	3.5	3.4	137.53	-94.8	86.7	130.7	123.9	6.79	19.243		
1,700.0	1,700.0	1,679.0	1,673.4	3.7	3.8	137.78	-108.6	98.5	149.2	141.9	7.23	20.619		
1,800.0	1,800.0	1,777.3	1,770.0	3.9	4.1	137.97	-122.4	110.3	167.7	160.0	7.68	21.821		
1,900.0	1,900.0	1,875.6	1,866.6	4.2	4.4	138.13	-136.2	122.1	186.1	178.0	8.14	22.875		
2,000.0	2,000.0	1,973.9	1,963.2	4.4	4.8	138.26	-150.0	133.9	204.6	196.0	8.60	23.804		
2,100.0	2,100.0	2,072.1	2,059.8	4.6	5.2	138.36	-163.9	145.7	223.1	214.0	9.06	24.628		
2,200.0	2,200.0	2,170.4	2,156.4	4.8	5.5	138.45	-177.7	157.4	241.6	232.0	9.52	25.364		
2,300.0	2,300.0	2,268.5	2,252.7	5.1	5.9	123.49	-191.5	169.2	261.0	251.1	9.90	26.373		
2,400.0	2,399.8	2,366.1	2,348.7	5.3	6.3	124.07	-205.2	180.9	282.3	272.0	10.34	27.309		
2,500.0	2,499.5	2,463.1	2,444.0	5.5	6.7	125.04	-218.8	192.5	305.7	294.9	10.78	28.368		
2,600.0	2,598.7	2,559.3	2,538.6	5.7	7.1	126.27	-232.4	204.1	331.2	320.0	11.21	29.541		
2,700.0	2,697.5	2,654.8	2,632.4	6.0	7.5	127.69	-245.8	215.5	359.1	347.4	11.65	30.822		
2,800.0	2,795.6	2,749.2	2,725.2	6.2	7.8	129.20	-259.1	226.9	389.3	377.2	12.09	32.205		
2,900.0	2,893.1	2,842.6	2,817.0	6.5	8.2	130.76	-272.2	238.1	422.1	409.6	12.53	33.680		
3,000.0	2,989.9	2,935.2	2,908.0	6.9	8.6	132.67	-285.2	249.2	456.9	443.8	13.03	35.070		
3,100.0	3,086.8	3,027.8	2,999.0	7.2	9.0	134.41	-298.2	260.3	492.1	478.5	13.55	36.327		

Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4891.0ft (RKB - 15')

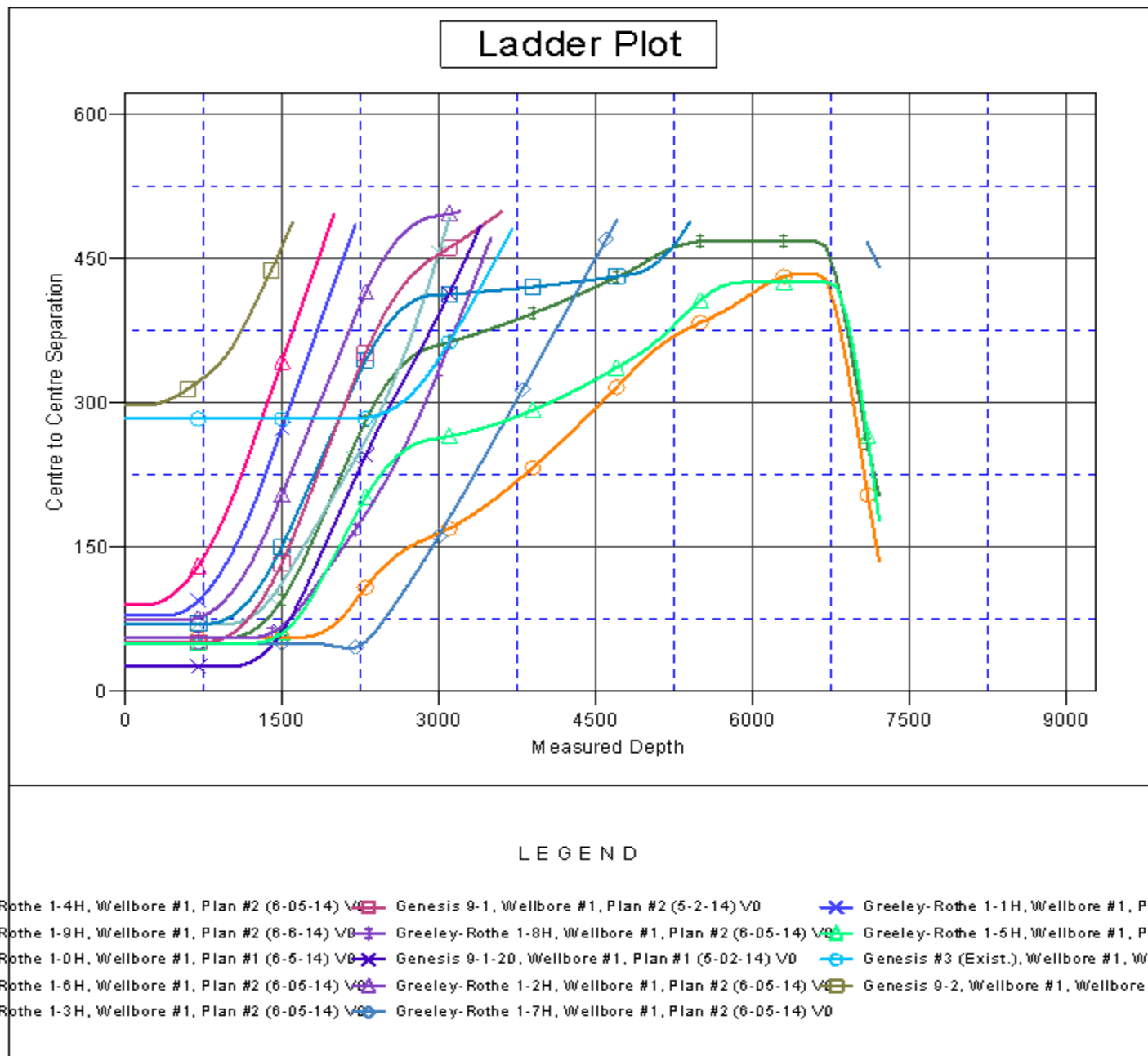
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Genesis 9-1-39

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.43°



Company:	KP KAUFFMAN	Local Co-ordinate Reference:	Well Genesis 9-1-39
Project:	SEC.1-T5N-R67W	TVD Reference:	WELL @ 4891.0ft (RKB - 15')
Reference Site:	Greeley-Rothe Pad Sec.1-T5N-R67W	MD Reference:	WELL @ 4891.0ft (RKB - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Genesis 9-1-39	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (6-05-14)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4891.0ft (RKB - 15')

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Genesis 9-1-39

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.43°

