

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

Lease Serial No.
NMNM40406

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

LEGACY RESERVES OPERATING LP-Mail: mdickson@legacylp.com

Contact: MATT DICKSON

8. Well Name and No.

HAMON FED COM A 6H

9. API Well No.

30-025-43214

3a. Address

303 W WALL ST STE 1800
MIDLAND, TX 79701

3b. Phone No. (include area code)

Ph: 432-689-5200 Ext: 5204

10. Field and Pool or Exploratory Area
TEAS; BONE SPRING, EAST

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 6 T20S R34E SWSE 579FSL 1956FEL

11. County or Parish, State

LEA CO COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Legacy Reserves Operating respectfully request to shift the proposed BHL of the subject well. The SHL will remain the same as originally permitted. Please see the attached C-102 and directional plan that reflect the revised plan.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #381730 verified by the BLM Well Information System
For LEGACY RESERVES OPERATING LP, sent to the Hobbs

Name (Printed/Typed) MATT DICKSON

Title DRILLING ENGINEER

Signature (Electronic Submission)

Date

THIS SPACE FOR FE

Denied BY NMCD
paul.kautz@state.nm.us
575-393-6161 ext. 104

See items circled on form.

Please attach denied copy to your re-submittal

SEE CIRCLED ITEMS
ON ATTACHED
C-102
Denied

Approved By

Conditions of approval, if any, are attached. Approval of this notice does not warrant that the applicant holds legal or equitable title to those rights in the subject land which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for anyone to knowingly make any false, fictitious or fraudulent statements or representations as to any material fact.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR**

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Frances Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name HAMON FED COM A	Well Number 6H
OGRID No.	Operator Name LEGACY RESERVES OPERATING LP	Elevation 3610'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	6	20 S	34 E		579	SOUTH	1956	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	7	20 S	34 E		330	SOUTH	1820	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

NOTE:

1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1983. Distances shown hereon are mean horizontal surface values.

T-20-S, R-33-E
T-20-S, R-34-E

6

#6H (SL & PP)
S 13°30'49" E-933'

(FTP)

330'

1956'

1740'

579'

330'

4,621'

S 00°44'03" W

Total Distance from (SL) to (BHL) equals 5,554'

330'

1820'

(BHL & LTP)

7

SURFACE LOCATION & PENETRATION POINT

Plane Coordinate
X = 767,999.33
Y = 581,517.45
Geodetic (D.D.)
LAT:32.59648825
LON:103.59734191

FIRST TAKE POINT

Plane Coordinate
X = 768,217.28
Y = 580,610.58
Geodetic (D.D.)
LAT:32.59399156
LON:103.59665466

LAST TAKE POINT & BOTTOM HOLE LOCATION

Plane Coordinate
X = 768,158.08
Y = 575,990.46
Geodetic (D.D.)
LAT:32.58129420
LON:103.59695070

Scale
1" = 2000'

OPERATOR CERTIFICATION

I hereby certify the information contained herein to be true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature _____ Date _____

Printed Name _____

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

June 29, 2015

Date of Survey _____

Signature & Seal of Professional Surveyor
LINDSAY GYGAX
NEW MEXICO
23263
PROFESSIONAL SURVEYOR

W.O. Num. 2015-049

Certificate No. LINDSAY GYGAX 23263



Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Plan: Plan #3 (Hamon Fed Com A #6H/Wellbore #1)
McVay 4



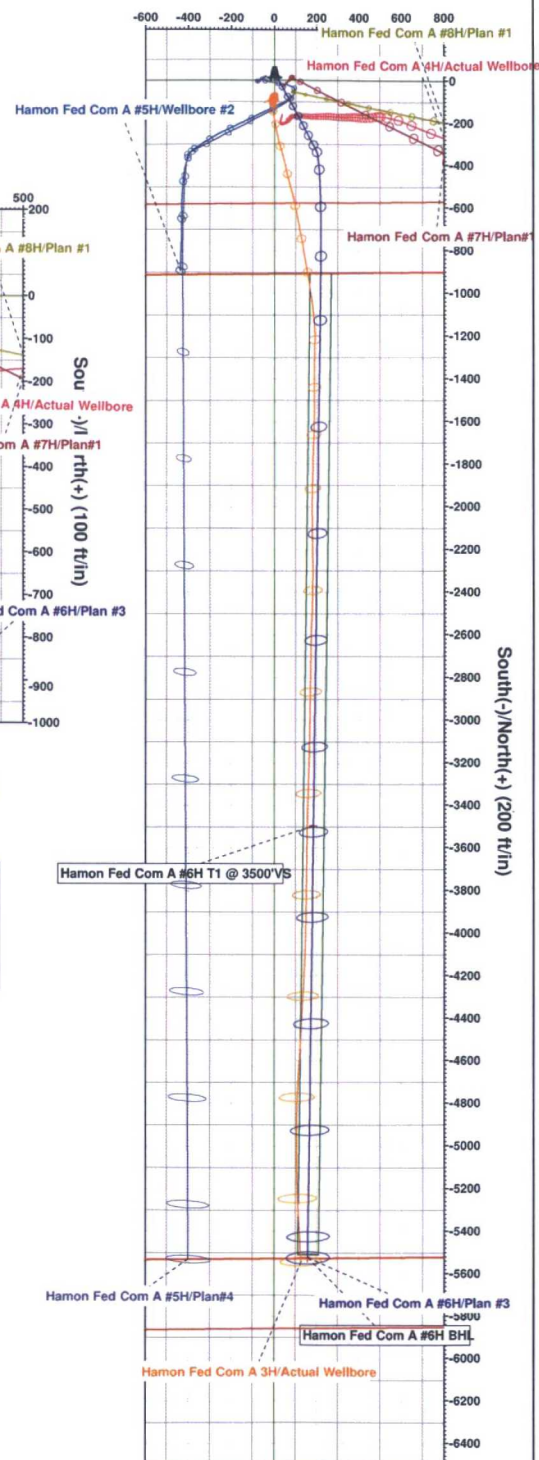
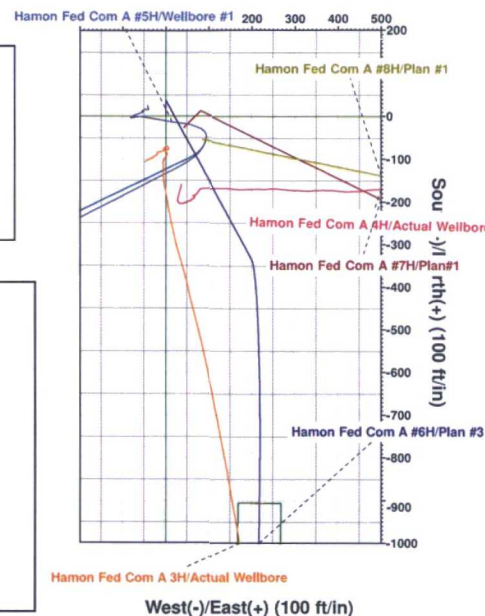
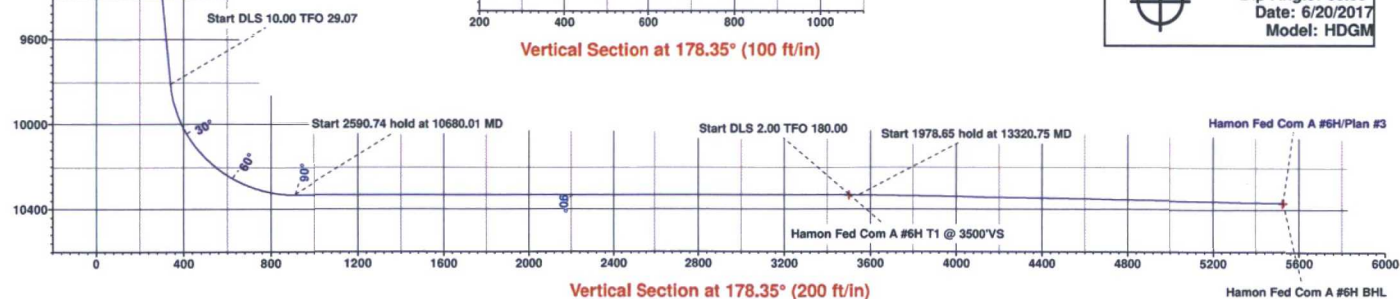
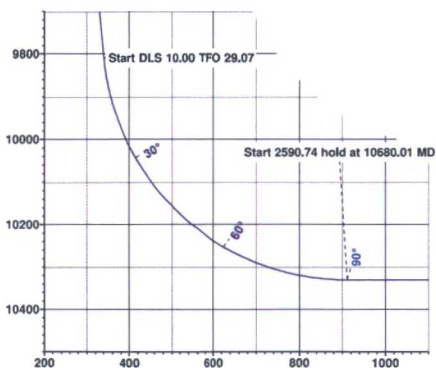
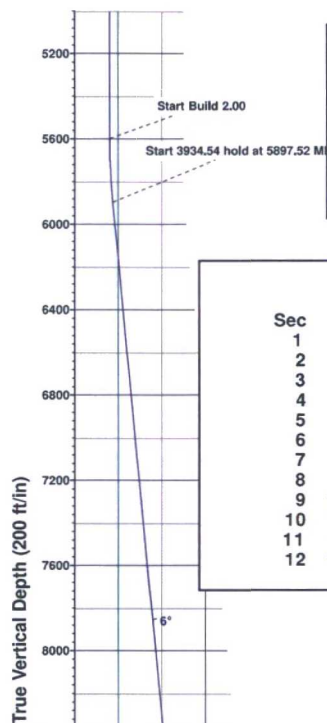
WELL DETAILS: Hamon Fed Com A #6H

Ground Elevation:: 3610.00
RKB Elevation: KB=18' @ 3628.00ft (McVay 4)
Rig Name: McVay 4

Northing 581454.7000 Easting 726818.7000 Latitude 32.5970279 Longitude -103.7310532

Planned Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1650.00	0.00	0.00	1650.00	0.00	0.00	0.00	0.00	0.00
3	1750.00	2.00	0.00	1749.98	1.75	0.00	2.00	0.00	-1.74
4	2750.00	2.00	0.00	2749.37	36.64	0.00	0.00	0.00	-36.63
5	2850.00	0.00	0.00	2849.35	38.39	0.00	2.00	180.00	-38.37
6	5600.00	0.00	0.00	5599.35	38.39	0.00	0.00	0.00	-38.37
7	5897.52	5.95	151.81	5896.34	24.79	7.29	2.00	151.81	-24.57
8	9832.06	5.95	151.81	9809.68	-334.71	200.00	0.00	0.00	340.32
9	10680.01	90.00	180.74	10330.00	-905.60	218.83	10.00	29.07	911.52
10	13270.75	90.00	180.74	10330.00	-3496.12	185.22	0.00	0.00	3500.00
11	13320.75	89.00	180.74	10330.43	-3546.11	184.57	2.00	180.00	3549.95
12	15299.41	89.00	180.74	10364.96	-5524.30	158.90	0.00	0.00	5526.58



PROJECT DETAILS: Lea County, NM
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

Azimuths to Grid North
True North: -0.32°
Magnetic North: 6.78°
Magnetic Field
Strength: 48416.2snT
Dip Angle: 60.55°
Date: 6/20/2017
Model: HDGM



Legacy Reserves Operating

Lea County, NM

Hamon Fed Pad

Hamon Fed Com A #6H

Wellbore #1

Plan: Plan #3

Standard Survey Report

13 July, 2017





Integrity Directional Services, LLC

Survey Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Project Lea County, NM

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site Hamon Fed Pad

Site Position: **Northing:** 580,846.2000 usft **Latitude:** 32.5954069
From: Map **Easting:** 723,480.4000 usft **Longitude:** -103.7419035
Position Uncertainty: 0.00 ft **Slot Radius:** 13-3/16 " **Grid Convergence:** 0.32 °

Well Hamon Fed Com A #6H

Well Position **+N/-S** 0.00 ft **Northing:** 581,454.7000 usft **Latitude:** 32.5970280
+E/-W 0.00 ft **Easting:** 726,818.7000 usft **Longitude:** -103.7310532
Position Uncertainty 0.00 ft **Wellhead Elevation:** 0.00 ft **Ground Level:** 3,610.00 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/20/2017	7.10	60.55	48,416

Design Plan #3

Audit Notes:

Version: **Phase:** PLAN **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	10,365.34	0.00	0.00	178.35

Survey Tool Program Date 7/13/2017

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	15,298.81	Plan #3 (Wellbore #1)	MWD	MWD - Standard

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A #6H Drilling Window									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00



Integrity Directional Services, LLC

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MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

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)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,650.00	0.00	0.00	1,650.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,700.00	1.00	0.00	1,700.00	0.44	0.00	-0.44	2.00	2.00	0.00
1,750.00	2.00	0.00	1,749.98	1.75	0.00	-1.74	2.00	2.00	0.00
Start 1000.00 hold at 1750.00 MD									
1,800.00	2.00	0.00	1,799.95	3.49	0.00	-3.49	0.00	0.00	0.00
1,900.00	2.00	0.00	1,899.89	6.98	0.00	-6.98	0.00	0.00	0.00
2,000.00	2.00	0.00	1,999.83	10.47	0.00	-10.47	0.00	0.00	0.00
2,100.00	2.00	0.00	2,099.77	13.96	0.00	-13.95	0.00	0.00	0.00
2,200.00	2.00	0.00	2,199.71	17.45	0.00	-17.44	0.00	0.00	0.00
2,300.00	2.00	0.00	2,299.64	20.94	0.00	-20.93	0.00	0.00	0.00
2,400.00	2.00	0.00	2,399.58	24.43	0.00	-24.42	0.00	0.00	0.00
2,500.00	2.00	0.00	2,499.52	27.92	0.00	-27.91	0.00	0.00	0.00
2,600.00	2.00	0.00	2,599.46	31.41	0.00	-31.40	0.00	0.00	0.00
2,700.00	2.00	0.00	2,699.40	34.90	0.00	-34.89	0.00	0.00	0.00
2,750.00	2.00	0.00	2,749.37	36.64	0.00	-36.63	0.00	0.00	0.00
Start Drop -2.00									
2,800.00	1.00	0.00	2,799.35	37.95	0.00	-37.94	2.00	-2.00	0.00
2,850.00	0.00	0.00	2,849.35	38.39	0.00	-38.37	2.00	-2.00	0.00
Start 2750.00 hold at 2850.00 MD									
2,900.00	0.00	0.00	2,899.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,000.00	0.00	0.00	2,999.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,100.00	0.00	0.00	3,099.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,200.00	0.00	0.00	3,199.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,300.00	0.00	0.00	3,299.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,400.00	0.00	0.00	3,399.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,500.00	0.00	0.00	3,499.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,600.00	0.00	0.00	3,599.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,700.00	0.00	0.00	3,699.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,800.00	0.00	0.00	3,799.35	38.39	0.00	-38.37	0.00	0.00	0.00
3,900.00	0.00	0.00	3,899.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,000.00	0.00	0.00	3,999.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,100.00	0.00	0.00	4,099.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,200.00	0.00	0.00	4,199.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,300.00	0.00	0.00	4,299.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,400.00	0.00	0.00	4,399.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,500.00	0.00	0.00	4,499.35	38.39	0.00	-38.37	0.00	0.00	0.00



Integrity Directional Services, LLC

Survey Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

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)
4,600.00	0.00	0.00	4,599.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,700.00	0.00	0.00	4,699.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,800.00	0.00	0.00	4,799.35	38.39	0.00	-38.37	0.00	0.00	0.00
4,900.00	0.00	0.00	4,899.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,000.00	0.00	0.00	4,999.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,100.00	0.00	0.00	5,099.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,200.00	0.00	0.00	5,199.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,300.00	0.00	0.00	5,299.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,400.00	0.00	0.00	5,399.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,500.00	0.00	0.00	5,499.35	38.39	0.00	-38.37	0.00	0.00	0.00
5,600.00	0.00	0.00	5,599.35	38.39	0.00	-38.37	0.00	0.00	0.00
Start Build 2.00									
5,700.00	2.00	151.81	5,699.33	36.85	0.82	-36.81	2.00	2.00	0.00
5,800.00	4.00	151.81	5,799.19	32.24	3.30	-32.13	2.00	2.00	0.00
5,897.52	5.95	151.81	5,896.34	24.79	7.29	-24.57	2.00	2.00	0.00
Start 3934.54 hold at 5897.52 MD									
5,900.00	5.95	151.81	5,898.80	24.56	7.41	-24.34	0.00	0.00	0.00
6,000.00	5.95	151.81	5,998.26	15.42	12.31	-15.06	0.00	0.00	0.00
6,100.00	5.95	151.81	6,097.72	6.29	17.21	-5.79	0.00	0.00	0.00
6,200.00	5.95	151.81	6,197.19	-2.85	22.11	3.49	0.00	0.00	0.00
6,300.00	5.95	151.81	6,296.65	-11.99	27.01	12.76	0.00	0.00	0.00
6,400.00	5.95	151.81	6,396.11	-21.13	31.90	22.03	0.00	0.00	0.00
6,500.00	5.95	151.81	6,495.57	-30.26	36.80	31.31	0.00	0.00	0.00
6,600.00	5.95	151.81	6,595.03	-39.40	41.70	40.58	0.00	0.00	0.00
6,700.00	5.95	151.81	6,694.49	-48.54	46.60	49.86	0.00	0.00	0.00
6,800.00	5.95	151.81	6,793.95	-57.67	51.49	59.13	0.00	0.00	0.00
6,900.00	5.95	151.81	6,893.41	-66.81	56.39	68.40	0.00	0.00	0.00
7,000.00	5.95	151.81	6,992.88	-75.95	61.29	77.68	0.00	0.00	0.00
7,100.00	5.95	151.81	7,092.34	-85.08	66.19	86.95	0.00	0.00	0.00
7,200.00	5.95	151.81	7,191.80	-94.22	71.09	96.23	0.00	0.00	0.00
7,300.00	5.95	151.81	7,291.26	-103.36	75.98	105.50	0.00	0.00	0.00
7,400.00	5.95	151.81	7,390.72	-112.49	80.88	114.77	0.00	0.00	0.00
7,500.00	5.95	151.81	7,490.18	-121.63	85.78	124.05	0.00	0.00	0.00
7,600.00	5.95	151.81	7,589.64	-130.77	90.68	133.32	0.00	0.00	0.00
7,700.00	5.95	151.81	7,689.10	-139.91	95.57	142.60	0.00	0.00	0.00
7,800.00	5.95	151.81	7,788.57	-149.04	100.47	151.87	0.00	0.00	0.00
7,900.00	5.95	151.81	7,888.03	-158.18	105.37	161.14	0.00	0.00	0.00
8,000.00	5.95	151.81	7,987.49	-167.32	110.27	170.42	0.00	0.00	0.00
8,100.00	5.95	151.81	8,086.95	-176.45	115.17	179.69	0.00	0.00	0.00
8,200.00	5.95	151.81	8,186.41	-185.59	120.06	188.97	0.00	0.00	0.00
8,300.00	5.95	151.81	8,285.87	-194.73	124.96	198.24	0.00	0.00	0.00
8,400.00	5.95	151.81	8,385.33	-203.86	129.86	207.51	0.00	0.00	0.00
8,500.00	5.95	151.81	8,484.79	-213.00	134.76	216.79	0.00	0.00	0.00



Integrity Directional Services, LLC

Survey Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

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)
8,600.00	5.95	151.81	8,584.25	-222.14	139.66	226.06	0.00	0.00	0.00
8,700.00	5.95	151.81	8,683.72	-231.27	144.55	235.33	0.00	0.00	0.00
8,800.00	5.95	151.81	8,783.18	-240.41	149.45	244.61	0.00	0.00	0.00
8,900.00	5.95	151.81	8,882.64	-249.55	154.35	253.88	0.00	0.00	0.00
9,000.00	5.95	151.81	8,982.10	-258.69	159.25	263.16	0.00	0.00	0.00
9,100.00	5.95	151.81	9,081.56	-267.82	164.14	272.43	0.00	0.00	0.00
9,200.00	5.95	151.81	9,181.02	-276.96	169.04	281.70	0.00	0.00	0.00
9,300.00	5.95	151.81	9,280.48	-286.10	173.94	290.98	0.00	0.00	0.00
9,400.00	5.95	151.81	9,379.94	-295.23	178.84	300.25	0.00	0.00	0.00
9,500.00	5.95	151.81	9,479.41	-304.37	183.74	309.53	0.00	0.00	0.00
9,600.00	5.95	151.81	9,578.87	-313.51	188.63	318.80	0.00	0.00	0.00
9,700.00	5.95	151.81	9,678.33	-322.64	193.53	328.07	0.00	0.00	0.00
9,800.00	5.95	151.81	9,777.79	-331.78	198.43	337.35	0.00	0.00	0.00
9,832.06	5.95	151.81	9,809.68	-334.71	200.00	340.32	0.00	0.00	0.00
Start DLS 10.00 TFO 29.07									
9,900.00	12.34	167.41	9,876.73	-344.91	203.25	350.61	10.00	9.40	22.97
10,000.00	22.18	173.64	9,972.12	-374.17	207.68	379.98	10.00	9.84	6.23
10,100.00	32.12	176.13	10,060.99	-419.56	211.57	425.47	10.00	9.94	2.50
10,200.00	42.08	177.54	10,140.65	-479.71	214.81	485.69	10.00	9.96	1.41
10,300.00	52.06	178.49	10,208.68	-552.79	217.29	558.81	10.00	9.98	0.95
10,400.00	62.04	179.21	10,263.01	-636.58	218.95	642.61	10.00	9.98	0.72
10,500.00	72.02	179.81	10,301.99	-728.53	219.72	734.55	10.00	9.98	0.60
10,600.00	82.01	180.34	10,324.43	-825.85	219.59	831.82	10.00	9.99	0.53
10,680.01	90.00	180.74	10,330.00	-905.60	218.83	911.52	10.00	9.99	0.51
Start 2590.74 hold at 10680.01 MD									
10,700.00	90.00	180.74	10,330.00	-925.58	218.58	931.49	0.00	0.00	0.00
10,800.00	90.00	180.74	10,330.00	-1,025.58	217.28	1,031.40	0.00	0.00	0.00
10,900.00	90.00	180.74	10,330.00	-1,125.57	215.98	1,131.31	0.00	0.00	0.00
11,000.00	90.00	180.74	10,330.00	-1,225.56	214.68	1,231.23	0.00	0.00	0.00
11,100.00	90.00	180.74	10,330.00	-1,325.55	213.38	1,331.14	0.00	0.00	0.00
11,200.00	90.00	180.74	10,330.00	-1,425.54	212.09	1,431.05	0.00	0.00	0.00
11,300.00	90.00	180.74	10,330.00	-1,525.53	210.79	1,530.96	0.00	0.00	0.00
11,400.00	90.00	180.74	10,330.00	-1,625.53	209.49	1,630.88	0.00	0.00	0.00
11,500.00	90.00	180.74	10,330.00	-1,725.52	208.19	1,730.79	0.00	0.00	0.00
11,600.00	90.00	180.74	10,330.00	-1,825.51	206.90	1,830.70	0.00	0.00	0.00
11,700.00	90.00	180.74	10,330.00	-1,925.50	205.60	1,930.62	0.00	0.00	0.00
11,800.00	90.00	180.74	10,330.00	-2,025.49	204.30	2,030.53	0.00	0.00	0.00
11,900.00	90.00	180.74	10,330.00	-2,125.48	203.00	2,130.44	0.00	0.00	0.00
12,000.00	90.00	180.74	10,330.00	-2,225.48	201.71	2,230.35	0.00	0.00	0.00
12,100.00	90.00	180.74	10,330.00	-2,325.47	200.41	2,330.27	0.00	0.00	0.00
12,200.00	90.00	180.74	10,330.00	-2,425.46	199.11	2,430.18	0.00	0.00	0.00
12,300.00	90.00	180.74	10,330.00	-2,525.45	197.81	2,530.09	0.00	0.00	0.00
12,400.00	90.00	180.74	10,330.00	-2,625.44	196.52	2,630.01	0.00	0.00	0.00
12,500.00	90.00	180.74	10,330.00	-2,725.43	195.22	2,729.92	0.00	0.00	0.00



Integrity Directional Services, LLC

Survey Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

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)
12,600.00	90.00	180.74	10,330.00	-2,825.42	193.92	2,829.83	0.00	0.00	0.00
12,700.00	90.00	180.74	10,330.00	-2,925.42	192.62	2,929.75	0.00	0.00	0.00
12,800.00	90.00	180.74	10,330.00	-3,025.41	191.33	3,029.66	0.00	0.00	0.00
12,900.00	90.00	180.74	10,330.00	-3,125.40	190.03	3,129.57	0.00	0.00	0.00
13,000.00	90.00	180.74	10,330.00	-3,225.39	188.73	3,229.48	0.00	0.00	0.00
13,100.00	90.00	180.74	10,330.00	-3,325.38	187.43	3,329.40	0.00	0.00	0.00
13,200.00	90.00	180.74	10,330.00	-3,425.37	186.14	3,429.31	0.00	0.00	0.00
13,270.75	90.00	180.74	10,330.00	-3,496.12	185.22	3,500.00	0.00	0.00	0.00
Start DLS 2.00 TFO 180.00 - Hamon Fed Com A #6H T1 @ 3500'VS									
13,300.00	89.42	180.74	10,330.15	-3,525.37	184.84	3,529.22	2.00	-2.00	0.00
13,320.75	89.00	180.74	10,330.43	-3,546.11	184.57	3,549.95	2.00	-2.00	0.00
Start 1978.65 hold at 13320.75 MD									
13,400.00	89.00	180.74	10,331.82	-3,625.34	183.54	3,629.12	0.00	0.00	0.00
13,500.00	89.00	180.74	10,333.56	-3,725.32	182.24	3,729.02	0.00	0.00	0.00
13,600.00	89.00	180.74	10,335.31	-3,825.30	180.95	3,828.92	0.00	0.00	0.00
13,700.00	89.00	180.74	10,337.05	-3,925.27	179.65	3,928.81	0.00	0.00	0.00
13,800.00	89.00	180.74	10,338.80	-4,025.25	178.35	4,028.71	0.00	0.00	0.00
13,900.00	89.00	180.74	10,340.54	-4,125.22	177.06	4,128.61	0.00	0.00	0.00
14,000.00	89.00	180.74	10,342.29	-4,225.20	175.76	4,228.51	0.00	0.00	0.00
14,100.00	89.00	180.74	10,344.03	-4,325.18	174.46	4,328.41	0.00	0.00	0.00
14,200.00	89.00	180.74	10,345.78	-4,425.15	173.16	4,428.30	0.00	0.00	0.00
14,300.00	89.00	180.74	10,347.52	-4,525.13	171.87	4,528.20	0.00	0.00	0.00
14,400.00	89.00	180.74	10,349.27	-4,625.11	170.57	4,628.10	0.00	0.00	0.00
14,500.00	89.00	180.74	10,351.01	-4,725.08	169.27	4,728.00	0.00	0.00	0.00
14,600.00	89.00	180.74	10,352.76	-4,825.06	167.97	4,827.89	0.00	0.00	0.00
14,700.00	89.00	180.74	10,354.50	-4,925.04	166.68	4,927.79	0.00	0.00	0.00
14,800.00	89.00	180.74	10,356.25	-5,025.01	165.38	5,027.69	0.00	0.00	0.00
14,900.00	89.00	180.74	10,357.99	-5,124.99	164.08	5,127.59	0.00	0.00	0.00
15,000.00	89.00	180.74	10,359.74	-5,224.96	162.78	5,227.48	0.00	0.00	0.00
15,100.00	89.00	180.74	10,361.48	-5,324.94	161.49	5,327.38	0.00	0.00	0.00
15,200.00	89.00	180.74	10,363.23	-5,424.92	160.19	5,427.28	0.00	0.00	0.00
15,299.41	89.00	180.74	10,364.96	-5,524.30	158.90	5,526.58	0.00	0.00	0.00

TD at 15299.41 - Hamon Fed Com A #6H BHL



Integrity Directional Services, LLC

Survey Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Site: Hamon Fed Pad
Well: Hamon Fed Com A #6H
Wellbore: Wellbore #1
Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
A #6H Drilling Window - plan misses target center by 931.66ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E) - Rectangle (sides W100.00 H4,604.17 D0.00)	0.00	180.74	0.00	-905.60	218.83	580,549.1018	727,037.5295	32.5945354	-103.7303593
Hamon Fed Com A #6 - plan misses target center by 0.01ft at 13270.75ft MD (10330.00 TVD, -3496.12 N, 185.22 E) - Point	0.00	0.00	10,330.0 0	-3,496.12	185.22	577,958.5870	727,003.9196	32.5874157	-103.7305161
Hamon Fed Com A #6 - plan misses target center by 0.38ft at 15299.41ft MD (10364.96 TVD, -5524.30 N, 158.90 E) - Point	0.00	0.00	10,365.3 4	-5,524.30	158.90	575,930.4111	726,977.5996	32.5818415	-103.7306389

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1650	1650	0	0	Start Build 2.00
1750	1750	2	0	Start 1000.00 hold at 1750.00 MD
2750	2749	37	0	Start Drop -2.00
2850	2849	38	0	Start 2750.00 hold at 2850.00 MD
5600	5599	38	0	Start Build 2.00
5898	5896	25	7	Start 3934.54 hold at 5897.52 MD
9832	9810	-335	200	Start DLS 10.00 TFO 29.07
10,680	10,330	-906	219	Start 2590.74 hold at 10680.01 MD
13,271	10,330	-3496	185	Start DLS 2.00 TFO 180.00
13,321	10,330	-3546	185	Start 1978.65 hold at 13320.75 MD
15,299	10,365	-5524	159	TD at 15299.41

Checked By: _____ Approved By: _____ Date: _____



Legacy Reserves Operating

Lea County, NM

Hamon Fed Pad

Hamon Fed Com A #6H

Wellbore #1

Plan #3

Anticollision Report

13 July, 2017





Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Reference	Plan #3		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00 ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 7/13/2017			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	15,298.81	Plan #3 (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						
Hamon Fed Pad						
Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1	887.49	887.56	42.52	38.91	11.783	CC
Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1	5,250.67	5,255.29	48.12	25.58	2.135	ES, SF
Hamon Fed Com A #5H - Wellbore #2 - Plan#4	887.49	887.56	42.52	38.91	11.783	CC
Hamon Fed Com A #5H - Wellbore #2 - Plan#4	5,250.67	5,255.29	48.12	25.58	2.135	ES, SF
Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2	887.49	887.56	42.52	38.91	11.783	CC
Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2	5,250.67	5,255.29	48.12	25.58	2.135	ES, SF
Hamon Fed Com A #7H - Wellbore #1 - Plan#1	1,650.00	1,650.00	49.66	42.51	6.944	CC, ES
Hamon Fed Com A #7H - Wellbore #1 - Plan#1	5,700.00	5,697.43	85.80	60.69	3.418	SF
Hamon Fed Com A #8H - Wellbore #1 - Plan #1	1,650.00	1,651.00	99.91	92.76	13.966	CC, ES
Hamon Fed Com A #8H - Wellbore #1 - Plan #1	15,299.41	15,198.04	1,415.05	1,212.85	6.998	SF
Hamon Fed Com A 3H - Wellbore #1 - Actual Wellbore	6,660.11	6,660.66	46.43	19.19	1.705	CC, ES, SF
Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbo	0.00	5.95	163.23			
Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbo	7,300.00	7,291.77	188.00	157.95	6.256	ES
Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbo	7,400.00	7,388.44	189.60	159.09	6.215	SF

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1												
Survey Program: 100-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
0.00	0.00	0.00	0.00	0.00	0.00	-58.66	25.70	-42.20	49.41			
100.00	100.00	100.50	100.50	0.09	0.10	-59.41	24.88	-42.09	48.89	48.70	0.19	256.615
200.00	200.00	200.43	200.41	0.32	0.30	-60.85	23.36	-41.88	47.96	47.34	0.62	77.602
300.00	300.00	300.59	300.57	0.54	0.51	-61.96	22.05	-41.41	46.92	45.87	1.05	44.572
400.00	400.00	400.63	400.60	0.77	0.73	-62.83	20.85	-40.62	45.67	44.17	1.50	30.536
500.00	500.00	500.55	500.50	0.99	0.94	-63.65	19.73	-39.82	44.45	42.52	1.93	23.013
600.00	600.00	600.35	600.29	1.22	1.15	-64.44	18.79	-39.29	43.55	41.19	2.36	18.440
700.00	700.00	700.18	700.13	1.44	1.36	-65.34	17.96	-39.13	43.06	40.27	2.79	15.409
800.00	800.00	800.23	800.17	1.67	1.57	-66.30	17.16	-39.10	42.71	39.48	3.23	13.229
887.49	887.49	887.56	887.50	1.86	1.75	-67.06	16.57	-39.16	42.52	38.91	3.61	11.783 CC
900.00	900.00	900.00	899.94	1.89	1.78	-67.15	16.51	-39.18	42.52	38.86	3.66	11.608
1,000.00	1,000.00	999.91	999.85	2.12	1.99	-67.77	16.16	-39.54	42.72	38.62	4.10	10.413
1,100.00	1,100.00	1,099.88	1,099.81	2.34	2.20	-68.24	15.98	-40.04	43.12	38.57	4.54	9.491
1,200.00	1,200.00	1,199.50	1,199.43	2.56	2.42	-68.68	15.99	-40.97	43.98	39.00	4.98	8.827

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 ft	
Survey Program: 100-MWD													Offset Well Error: 0.00 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1,300.00	1,300.00	1,299.38	1,299.30	2.79	2.63	-69.22	16.11	-42.45	45.41	39.99	5.42	8.377		
1,400.00	1,400.00	1,399.24	1,399.14	3.01	2.84	-70.02	16.09	-44.25	47.09	41.24	5.86	8.039		
1,500.00	1,500.00	1,499.20	1,499.08	3.24	3.06	-70.90	16.01	-46.24	48.94	42.64	6.30	7.769		
1,600.00	1,600.00	1,599.23	1,599.09	3.46	3.27	-72.15	15.56	-48.32	50.77	44.03	6.74	7.537		
1,650.00	1,650.00	1,649.24	1,649.09	3.58	3.37	-72.98	15.12	-49.39	51.66	44.71	6.95	7.434		
1,700.00	1,700.00	1,699.25	1,699.08	3.69	3.47	-74.22	14.68	-50.43	52.41	45.25	7.16	7.319		
1,750.00	1,749.98	1,749.41	1,749.24	3.80	3.57	-76.26	14.29	-51.35	52.87	45.49	7.37	7.170		
1,800.00	1,799.95	1,799.59	1,799.41	3.91	3.68	-78.55	14.01	-52.04	53.09	45.51	7.59	6.999		
1,900.00	1,899.89	1,899.65	1,899.46	4.14	3.88	-82.94	13.54	-53.04	53.44	45.43	8.01	6.670		
2,000.00	1,999.83	1,999.61	1,999.42	4.36	4.09	-87.00	13.28	-53.85	53.92	45.48	8.44	6.386		
2,100.00	2,099.77	2,099.82	2,099.63	4.59	4.30	-90.82	13.17	-54.35	54.36	45.48	8.88	6.123		
2,200.00	2,199.71	2,199.71	2,199.52	4.81	4.50	-94.73	12.92	-54.64	54.82	45.52	9.31	5.889		
2,300.00	2,299.64	2,299.80	2,299.60	5.04	4.71	-98.40	12.84	-54.85	55.44	45.70	9.74	5.690		
2,400.00	2,399.58	2,399.80	2,399.61	5.27	4.92	-101.93	12.83	-54.86	56.07	45.89	10.18	5.508		
2,500.00	2,499.52	2,499.65	2,499.46	5.49	5.12	-105.65	12.55	-54.82	56.94	46.32	10.61	5.365		
2,600.00	2,599.46	2,599.68	2,599.48	5.72	5.33	-109.02	12.49	-54.86	58.03	46.98	11.05	5.252		
2,700.00	2,699.40	2,699.80	2,699.61	5.95	5.54	-112.66	12.14	-54.49	59.05	47.57	11.48	5.142		
2,750.00	2,749.37	2,749.71	2,749.51	6.06	5.65	-114.72	11.71	-54.14	59.61	47.91	11.70	5.093		
2,800.00	2,799.35	2,799.65	2,799.45	6.16	5.75	-116.21	11.42	-53.90	60.07	48.17	11.91	5.045		
2,850.00	2,849.35	2,849.87	2,849.67	6.25	5.86	-116.80	11.29	-53.64	60.10	47.99	12.10	4.965		
2,900.00	2,899.35	2,900.00	2,899.80	6.35	5.96	-116.91	11.36	-53.27	59.73	47.43	12.31	4.854		
2,979.12	2,978.47	2,978.67	2,978.47	6.52	6.13	-117.31	11.15	-52.75	59.37	46.72	12.65	4.694		
3,000.00	2,999.35	2,999.41	2,999.20	6.57	6.17	-117.51	10.95	-52.68	59.40	46.66	12.74	4.663		
3,100.00	3,099.35	3,100.30	3,100.09	6.79	6.38	-118.09	10.66	-51.96	58.90	45.73	13.17	4.471		
3,200.00	3,199.35	3,200.00	3,199.78	7.02	6.59	-118.12	11.12	-51.04	57.87	44.27	13.61	4.254		
3,300.00	3,299.35	3,299.58	3,299.36	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093		
3,300.43	3,299.78	3,300.00	3,299.78	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093		
3,400.00	3,399.35	3,395.78	3,395.49	7.46	7.00	-118.47	9.55	-53.18	60.62	46.15	14.46	4.191		
3,500.00	3,499.35	3,494.04	3,493.47	7.69	7.22	-117.73	6.77	-60.14	68.20	53.30	14.90	4.577		
3,600.00	3,599.35	3,592.96	3,591.97	7.91	7.44	-116.49	4.05	-68.89	77.33	61.99	15.34	5.042		
3,700.00	3,699.35	3,695.18	3,693.84	8.14	7.66	-116.04	0.95	-76.63	85.47	69.69	15.78	5.417		
3,800.00	3,799.35	3,798.89	3,797.44	8.36	7.88	-116.23	-1.29	-80.51	89.78	73.56	16.22	5.537		
3,900.00	3,899.35	3,900.73	3,899.28	8.58	8.09	-116.27	-1.83	-81.47	90.86	74.21	16.65	5.457		
4,000.00	3,999.35	4,000.93	3,999.48	8.81	8.30	-116.36	-1.94	-81.38	90.83	73.74	17.08	5.317		
4,032.68	4,032.03	4,033.48	4,032.03	8.88	8.37	-116.45	-2.05	-81.30	90.80	73.58	17.22	5.272		
4,100.00	4,099.35	4,100.55	4,099.10	9.03	8.51	-116.57	-2.27	-81.30	90.90	73.38	17.51	5.190		
4,200.00	4,199.35	4,200.72	4,199.26	9.26	8.71	-116.84	-2.73	-81.28	91.09	73.14	17.95	5.075		
4,300.00	4,299.35	4,301.61	4,300.14	9.48	8.92	-117.39	-3.34	-80.53	90.70	72.32	18.38	4.934		
4,400.00	4,399.35	4,402.81	4,401.33	9.70	9.13	-118.11	-3.61	-78.61	89.15	70.33	18.82	4.738		
4,500.00	4,499.35	4,503.67	4,502.14	9.93	9.34	-118.81	-3.24	-75.69	86.43	67.18	19.25	4.490		
4,600.00	4,599.35	4,604.46	4,602.86	10.15	9.55	-119.51	-2.30	-71.89	82.68	62.99	19.68	4.200		
4,700.00	4,699.35	4,704.84	4,703.12	10.38	9.75	-120.68	-1.44	-67.14	78.15	58.04	20.12	3.885		
4,800.00	4,799.35	4,805.56	4,803.65	10.60	9.96	-122.71	-0.86	-61.12	72.77	52.21	20.55	3.541		
4,900.00	4,899.35	4,905.70	4,903.49	10.83	10.16	-126.75	-1.42	-53.31	66.67	45.68	20.99	3.177		
5,000.00	4,999.35	5,005.94	5,003.21	11.05	10.37	-133.84	-3.30	-43.41	60.31	38.88	21.42	2.815		
5,100.00	5,099.35	5,106.25	5,102.79	11.27	10.59	-144.23	-5.14	-31.36	53.76	31.90	21.86	2.459		
5,200.00	5,199.35	5,205.28	5,200.73	11.50	10.81	-159.61	-7.41	-17.03	48.88	26.57	22.31	2.191		
5,250.67	5,250.02	5,255.29	5,250.02	11.61	10.93	-169.63	-8.95	-8.66	48.12	25.58	22.54	2.135 ES, SF		
5,300.00	5,299.35	5,303.67	5,297.54	11.72	11.05	-179.69	-10.58	0.26	49.00	26.23	22.77	2.152		
5,400.00	5,399.35	5,375.00	5,367.34	11.95	11.22	164.07	-13.20	14.73	62.47	39.31	23.17	2.697		
5,500.00	5,499.35	5,375.00	5,367.34	12.17	11.22	164.07	-13.20	14.73	142.50	119.10	23.39	6.092		
5,600.00	5,599.35	5,375.00	5,367.34	12.40	11.22	164.07	-13.20	14.73	238.13	214.52	23.61	10.084		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
 Project: Lea County, NM
 Reference Site: Hamon Fed Pad
 Site Error: 0.00 ft
 Reference Well: Hamon Fed Com A #6H
 Well Error: 0.00 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
 TVD Reference: KB=18' @ 3628.00ft (McVay 4)
 MD Reference: KB=18' @ 3628.00ft (McVay 4)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 100-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)					
5,700.00	5,699.33	5,375.00	5,367.34	12.59	11.22	10.38	-13.20	14.73	336.03	312.26	23.77	14.139			
5,800.00	5,799.19	5,375.00	5,367.34	12.77	11.22	8.59	-13.20	14.73	434.38	410.49	23.89	18.179			
5,897.52	5,896.34	5,375.00	5,367.34	12.94	11.22	7.09	-13.20	14.73	530.41	506.42	23.99	22.106			
5,900.00	5,898.80	5,375.00	5,367.34	12.94	11.22	7.09	-13.20	14.73	532.85	508.85	24.00	22.203			
6,000.00	5,998.26	5,375.00	5,367.34	13.12	11.22	7.09	-13.20	14.73	631.58	607.40	24.17	26.127			
6,100.00	6,097.72	5,375.00	5,367.34	13.30	11.22	7.09	-13.20	14.73	730.65	706.30	24.35	30.005			
6,200.00	6,197.19	5,375.00	5,367.34	13.48	11.22	7.09	-13.20	14.73	829.94	805.41	24.53	33.835			
6,300.00	6,296.65	5,375.00	5,367.34	13.66	11.22	7.09	-13.20	14.73	929.39	904.68	24.71	37.612			
6,400.00	6,396.11	5,375.00	5,367.34	13.85	11.22	7.09	-13.20	14.73	1,028.94	1,004.05	24.89	41.336			
6,500.00	6,495.57	5,375.00	5,367.34	14.04	11.22	7.09	-13.20	14.73	1,128.58	1,103.50	25.08	45.007			
6,600.00	6,595.03	5,375.00	5,367.34	14.23	11.22	7.09	-13.20	14.73	1,228.27	1,203.01	25.26	48.623			
6,700.00	6,694.49	5,375.00	5,367.34	14.43	11.22	7.09	-13.20	14.73	1,328.01	1,302.56	25.45	52.185			
6,800.00	6,793.95	5,375.00	5,367.34	14.63	11.22	7.09	-13.20	14.73	1,427.78	1,402.14	25.64	55.693			
6,900.00	6,893.41	5,375.00	5,367.34	14.84	11.22	7.09	-13.20	14.73	1,527.58	1,501.76	25.83	59.148			
7,000.00	6,992.88	5,375.00	5,367.34	15.05	11.22	7.09	-13.20	14.73	1,627.41	1,601.40	26.02	62.550			
7,100.00	7,092.34	5,375.00	5,367.34	15.26	11.22	7.09	-13.20	14.73	1,727.26	1,701.05	26.21	65.900			
7,200.00	7,191.80	5,375.00	5,367.34	15.47	11.22	7.09	-13.20	14.73	1,827.13	1,800.72	26.40	69.198			
7,300.00	7,291.26	5,375.00	5,367.34	15.69	11.22	7.09	-13.20	14.73	1,927.00	1,900.41	26.60	72.446			
7,400.00	7,390.72	5,375.00	5,367.34	15.91	11.22	7.09	-13.20	14.73	2,026.90	2,000.10	26.80	75.644			
7,500.00	7,490.18	5,375.00	5,367.34	16.13	11.22	7.09	-13.20	14.73	2,126.80	2,099.80	26.99	78.792			
7,600.00	7,589.64	5,375.00	5,367.34	16.35	11.22	7.09	-13.20	14.73	2,226.71	2,199.52	27.19	81.891			
7,700.00	7,689.10	5,375.00	5,367.34	16.58	11.22	7.09	-13.20	14.73	2,326.62	2,299.23	27.39	84.943			
7,800.00	7,788.57	5,375.00	5,367.34	16.81	11.22	7.09	-13.20	14.73	2,426.55	2,398.96	27.59	87.948			
7,900.00	7,888.03	5,375.00	5,367.34	17.04	11.22	7.09	-13.20	14.73	2,526.48	2,498.69	27.79	90.906			
8,000.00	7,987.49	5,375.00	5,367.34	17.27	11.22	7.09	-13.20	14.73	2,626.42	2,598.42	27.99	93.819			
8,100.00	8,086.95	5,375.00	5,367.34	17.51	11.22	7.09	-13.20	14.73	2,726.36	2,698.16	28.20	96.687			
8,200.00	8,186.41	5,375.00	5,367.34	17.74	11.22	7.09	-13.20	14.73	2,826.30	2,797.90	28.40	99.511			
8,300.00	8,285.87	5,375.00	5,367.34	17.98	11.22	7.09	-13.20	14.73	2,926.25	2,897.64	28.61	102.292			
8,400.00	8,385.33	5,375.00	5,367.34	18.22	11.22	7.09	-13.20	14.73	3,026.20	2,997.39	28.81	105.031			
8,500.00	8,484.79	5,375.00	5,367.34	18.46	11.22	7.09	-13.20	14.73	3,126.16	3,097.14	29.02	107.728			
8,600.00	8,584.25	5,375.00	5,367.34	18.71	11.22	7.09	-13.20	14.73	3,226.11	3,196.89	29.23	110.384			
8,700.00	8,683.72	5,375.00	5,367.34	18.95	11.22	7.09	-13.20	14.73	3,326.07	3,296.64	29.43	113.000			
8,800.00	8,783.18	5,375.00	5,367.34	19.20	11.22	7.09	-13.20	14.73	3,426.04	3,396.39	29.64	115.577			
8,900.00	8,882.64	5,375.00	5,367.34	19.44	11.22	7.09	-13.20	14.73	3,526.00	3,496.15	29.85	118.115			
9,000.00	8,982.10	5,375.00	5,367.34	19.69	11.22	7.09	-13.20	14.73	3,625.97	3,595.90	30.06	120.615			
9,100.00	9,081.56	5,375.00	5,367.34	19.94	11.22	7.09	-13.20	14.73	3,725.94	3,695.66	30.27	123.078			
9,200.00	9,181.02	5,375.00	5,367.34	20.20	11.22	7.09	-13.20	14.73	3,825.91	3,795.42	30.48	125.504			
9,300.00	9,280.48	5,375.00	5,367.34	20.45	11.22	7.09	-13.20	14.73	3,925.88	3,895.18	30.70	127.894			
9,400.00	9,379.94	5,375.00	5,367.34	20.70	11.22	7.09	-13.20	14.73	4,025.85	3,994.94	30.91	130.250			
9,500.00	9,479.41	5,375.00	5,367.34	20.96	11.22	7.09	-13.20	14.73	4,125.82	4,094.70	31.12	132.571			
9,600.00	9,578.87	5,375.00	5,367.34	21.21	11.22	7.09	-13.20	14.73	4,225.80	4,194.47	31.34	134.858			
9,700.00	9,678.33	5,375.00	5,367.34	21.47	11.22	7.09	-13.20	14.73	4,325.78	4,294.23	31.55	137.111			
9,800.00	9,777.79	5,375.00	5,367.34	21.73	11.22	7.09	-13.20	14.73	4,425.75	4,393.99	31.76	139.333			
9,832.06	9,809.68	5,375.00	5,367.34	21.81	11.22	7.09	-13.20	14.73	4,457.81	4,425.98	31.83	140.038			
9,850.00	9,827.49	5,375.00	5,367.34	21.86	11.22	13.76	-13.20	14.73	4,475.74	4,443.77	31.96	140.027			
9,900.00	9,876.73	5,375.00	5,367.34	22.00	11.22	10.43	-13.20	14.73	4,525.50	4,493.68	31.82	142.236			
9,950.00	9,925.06	5,375.00	5,367.34	22.17	11.22	7.82	-13.20	14.73	4,574.68	4,543.29	31.39	145.722			
10,000.00	9,972.12	5,375.00	5,367.34	22.36	11.22	6.25	-13.20	14.73	4,622.93	4,592.17	30.76	150.305			
10,050.00	10,017.54	5,375.00	5,367.34	22.57	11.22	5.22	-13.20	14.73	4,669.92	4,639.99	29.92	156.058			
10,100.00	10,060.99	5,375.00	5,367.34	22.80	11.22	4.51	-13.20	14.73	4,715.32	4,686.41	28.91	163.114			
10,150.00	10,102.13	5,375.00	5,367.34	23.06	11.22	4.00	-13.20	14.73	4,758.85	4,731.13	27.72	171.655			
10,200.00	10,140.65	5,375.00	5,367.34	23.35	11.22	3.62	-13.20	14.73	4,800.23	4,773.84	26.39	181.917			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
 Project: Lea County, NM
 Reference Site: Hamon Fed Pad
 Site Error: 0.00 ft
 Reference Well: Hamon Fed Com A #6H
 Well Error: 0.00 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
 TVD Reference: KB=18' @ 3628.00ft (McVay 4)
 MD Reference: KB=18' @ 3628.00ft (McVay 4)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 100-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)					
10,250.00	10,176.26	5,375.00	5,367.34	23.66	11.22	3.32	-13.20	14.73	4,839.20	4,814.28	24.92	194.191			
10,300.00	10,208.68	5,375.00	5,367.34	24.01	11.22	3.09	-13.20	14.73	4,875.53	4,852.18	23.35	208.826			
10,350.00	10,237.67	5,375.00	5,367.34	24.38	11.22	2.92	-13.20	14.73	4,909.00	4,887.30	21.70	226.212			
10,400.00	10,263.01	5,375.00	5,367.34	24.79	11.22	2.78	-13.20	14.73	4,939.42	4,919.40	20.02	246.736			
10,450.00	10,284.50	5,375.00	5,367.34	25.22	11.22	2.67	-13.20	14.73	4,966.62	4,948.27	18.35	270.647			
10,500.00	10,301.99	5,375.00	5,367.34	25.68	11.22	2.59	-13.20	14.73	4,990.44	4,973.68	16.76	297.760			
10,550.00	10,315.33	5,375.00	5,367.34	26.16	11.22	2.54	-13.20	14.73	5,010.74	4,995.41	15.33	326.855			
10,600.00	10,324.43	5,375.00	5,367.34	26.67	11.22	2.50	-13.20	14.73	5,027.43	5,013.26	14.17	354.702			
10,650.00	10,329.21	5,375.00	5,367.34	27.20	11.22	2.49	-13.20	14.73	5,040.41	5,026.98	13.43	375.300			
10,680.01	10,330.00	5,375.00	5,367.34	27.52	11.22	2.49	-13.20	14.73	5,046.38	5,033.14	13.24	381.157			
10,700.00	10,330.00	5,375.00	5,367.34	27.74	11.22	2.49	-13.20	14.73	5,049.95	5,036.66	13.29	379.943			
10,800.00	10,330.00	5,375.00	5,367.34	28.88	11.22	2.49	-13.20	14.73	5,068.91	5,055.34	13.58	373.369			
10,900.00	10,330.00	5,375.00	5,367.34	30.09	11.22	2.49	-13.20	14.73	5,089.78	5,075.87	13.90	366.106			
11,000.00	10,330.00	5,375.00	5,367.34	31.36	11.22	2.49	-13.20	14.73	5,112.51	5,098.24	14.27	358.351			
11,100.00	10,330.00	5,375.00	5,367.34	32.69	11.22	2.49	-13.20	14.73	5,137.09	5,122.42	14.67	350.283			
11,200.00	10,330.00	5,375.00	5,367.34	34.06	11.22	2.49	-13.20	14.73	5,163.49	5,148.39	15.10	342.056			
11,300.00	10,330.00	5,375.00	5,367.34	35.47	11.22	2.49	-13.20	14.73	5,191.68	5,176.13	15.55	333.798			
11,400.00	10,330.00	5,375.00	5,367.34	36.91	11.22	2.49	-13.20	14.73	5,221.64	5,205.60	16.04	325.612			
11,500.00	10,330.00	5,375.00	5,367.34	38.39	11.22	2.49	-13.20	14.73	5,253.33	5,236.78	16.54	317.578			
11,600.00	10,330.00	5,375.00	5,367.34	39.90	11.22	2.49	-13.20	14.73	5,286.72	5,269.65	17.07	309.754			
11,700.00	10,330.00	5,375.00	5,367.34	41.43	11.22	2.49	-13.20	14.73	5,321.78	5,304.16	17.61	302.185			
11,800.00	10,330.00	5,375.00	5,367.34	42.99	11.22	2.49	-13.20	14.73	5,358.47	5,340.30	18.17	294.898			
11,900.00	10,330.00	5,375.00	5,367.34	44.57	11.22	2.49	-13.20	14.73	5,396.77	5,378.03	18.74	287.911			
12,000.00	10,330.00	5,375.00	5,367.34	46.16	11.22	2.49	-13.20	14.73	5,436.64	5,417.31	19.33	281.232			
12,100.00	10,330.00	5,375.00	5,367.34	47.78	11.22	2.49	-13.20	14.73	5,478.05	5,458.12	19.93	274.865			
12,200.00	10,330.00	5,375.00	5,367.34	49.40	11.22	2.49	-13.20	14.73	5,520.96	5,500.42	20.54	268.806			
12,300.00	10,330.00	5,375.00	5,367.34	51.04	11.22	2.49	-13.20	14.73	5,565.33	5,544.17	21.16	263.049			
12,400.00	10,330.00	5,375.00	5,367.34	52.70	11.22	2.49	-13.20	14.73	5,611.13	5,589.35	21.78	257.585			
12,500.00	10,330.00	5,375.00	5,367.34	54.36	11.22	2.49	-13.20	14.73	5,658.34	5,635.92	22.42	252.402			
12,600.00	10,330.00	5,375.00	5,367.34	56.04	11.22	2.49	-13.20	14.73	5,706.90	5,683.84	23.06	247.489			
12,700.00	10,330.00	5,375.00	5,367.34	57.72	11.22	2.49	-13.20	14.73	5,756.79	5,733.08	23.71	242.834			
12,800.00	10,330.00	5,375.00	5,367.34	59.41	11.22	2.49	-13.20	14.73	5,807.97	5,783.61	24.36	238.423			
12,900.00	10,330.00	5,375.00	5,367.34	61.11	11.22	2.49	-13.20	14.73	5,860.42	5,835.40	25.02	234.244			
13,000.00	10,330.00	5,375.00	5,367.34	62.82	11.22	2.49	-13.20	14.73	5,914.09	5,888.41	25.68	230.284			
13,100.00	10,330.00	5,375.00	5,367.34	64.53	11.22	2.49	-13.20	14.73	5,968.95	5,942.60	26.35	226.531			
13,200.00	10,330.00	5,375.00	5,367.34	66.25	11.22	2.49	-13.20	14.73	6,024.97	5,997.95	27.02	222.974			
13,270.75	10,330.00	5,375.00	5,367.34	67.47	11.22	2.49	-13.20	14.73	6,065.29	6,037.79	27.50	220.569			
13,300.00	10,330.15	5,375.00	5,367.34	67.92	11.22	2.51	-13.20	14.73	6,082.25	6,054.51	27.74	219.267			
13,320.75	10,330.43	5,375.00	5,367.34	68.21	11.22	2.52	-13.20	14.73	6,094.48	6,066.56	27.91	218.345			
13,400.00	10,331.82	5,375.00	5,367.34	69.43	11.22	2.52	-13.20	14.73	6,141.83	6,113.38	28.45	215.879			
13,500.00	10,333.56	5,375.00	5,367.34	71.17	11.22	2.52	-13.20	14.73	6,202.52	6,173.39	29.13	212.902			
13,600.00	10,335.31	5,375.00	5,367.34	72.91	11.22	2.52	-13.20	14.73	6,264.22	6,234.40	29.82	210.076			
13,700.00	10,337.05	5,375.00	5,367.34	74.65	11.22	2.52	-13.20	14.73	6,326.89	6,296.38	30.51	207.390			
13,800.00	10,338.80	5,375.00	5,367.34	76.40	11.22	2.52	-13.20	14.73	6,390.52	6,359.32	31.20	204.838			
13,900.00	10,340.54	5,375.00	5,367.34	78.15	11.22	2.52	-13.20	14.73	6,455.06	6,423.17	31.89	202.411			
14,000.00	10,342.29	5,375.00	5,367.34	79.91	11.22	2.52	-13.20	14.73	6,520.51	6,487.92	32.59	200.101			
14,100.00	10,344.03	5,375.00	5,367.34	81.67	11.22	2.52	-13.20	14.73	6,586.82	6,553.53	33.28	197.903			
14,200.00	10,345.78	5,375.00	5,367.34	83.43	11.22	2.52	-13.20	14.73	6,653.97	6,619.99	33.98	195.809			
14,300.00	10,347.52	5,375.00	5,367.34	85.19	11.22	2.52	-13.20	14.73	6,721.94	6,687.26	34.68	193.813			
14,400.00	10,349.27	5,375.00	5,367.34	86.96	11.22	2.52	-13.20	14.73	6,790.70	6,755.32	35.38	191.910			
14,500.00	10,351.01	5,375.00	5,367.34	88.73	11.22	2.52	-13.20	14.73	6,860.23	6,824.14	36.09	190.095			
14,600.00	10,352.76	5,375.00	5,367.34	90.50	11.22	2.52	-13.20	14.73	6,930.51	6,893.71	36.79	188.362			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 ft
Survey Program: 100-MWD													Offset Well Error:	0.00 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		
14,700.00	10,354.50	5,375.00	5,367.34	92.27	11.22	2.52	-13.20	14.73	7,001.50	6,964.00	37.50	186.706		
14,800.00	10,356.25	5,375.00	5,367.34	94.05	11.22	2.52	-13.20	14.73	7,073.20	7,035.00	38.21	185.125		
14,900.00	10,357.99	5,375.00	5,367.34	95.82	11.22	2.52	-13.20	14.73	7,145.58	7,106.67	38.92	183.613		
15,000.00	10,359.74	5,375.00	5,367.34	97.60	11.22	2.52	-13.20	14.73	7,218.62	7,178.99	39.63	182.166		
15,100.00	10,361.48	5,375.00	5,367.34	99.38	11.22	2.52	-13.20	14.73	7,292.30	7,251.96	40.34	180.782		
15,200.00	10,363.23	5,375.00	5,367.34	101.17	11.22	2.52	-13.20	14.73	7,366.60	7,325.55	41.05	179.456		
15,299.41	10,364.96	5,375.00	5,367.34	102.63	11.22	2.52	-13.20	14.73	7,441.06	7,399.65	41.41	179.699		



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Plan#4													Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD, 6254-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.00	0.00	0.00	0.00	0.00	0.00	-58.66	25.70	-42.20	49.41					
100.00	100.00	100.50	100.50	0.09	0.10	-59.41	24.88	-42.09	48.89	48.70	0.19	256.615		
200.00	200.00	200.43	200.41	0.32	0.30	-60.85	23.36	-41.88	47.96	47.34	0.62	77.602		
300.00	300.00	300.59	300.57	0.54	0.51	-61.96	22.05	-41.41	46.92	45.87	1.05	44.572		
400.00	400.00	400.63	400.60	0.77	0.73	-62.83	20.85	-40.62	45.67	44.17	1.50	30.536		
500.00	500.00	500.55	500.50	0.99	0.94	-63.65	19.73	-39.82	44.45	42.52	1.93	23.013		
600.00	600.00	600.35	600.29	1.22	1.15	-64.44	18.79	-39.29	43.55	41.19	2.36	18.440		
700.00	700.00	700.18	700.13	1.44	1.36	-65.34	17.96	-39.13	43.06	40.27	2.79	15.409		
800.00	800.00	800.23	800.17	1.67	1.57	-66.30	17.16	-39.10	42.71	39.48	3.23	13.229		
887.49	887.49	887.56	887.50	1.86	1.75	-67.06	16.57	-39.16	42.52	38.91	3.61	11.783 CC		
900.00	900.00	900.00	899.94	1.89	1.78	-67.15	16.51	-39.18	42.52	38.86	3.66	11.608		
1,000.00	1,000.00	999.91	999.85	2.12	1.99	-67.77	16.16	-39.54	42.72	38.62	4.10	10.413		
1,100.00	1,100.00	1,099.88	1,099.81	2.34	2.20	-68.24	15.98	-40.04	43.12	38.57	4.54	9.491		
1,200.00	1,200.00	1,199.50	1,199.43	2.56	2.42	-68.68	15.99	-40.97	43.98	39.00	4.98	8.827		
1,300.00	1,300.00	1,299.38	1,299.30	2.79	2.63	-69.22	16.11	-42.45	45.41	39.99	5.42	8.377		
1,400.00	1,400.00	1,399.24	1,399.14	3.01	2.84	-70.02	16.09	-44.25	47.09	41.24	5.86	8.039		
1,500.00	1,500.00	1,499.20	1,499.08	3.24	3.06	-70.90	16.01	-46.24	48.94	42.64	6.30	7.769		
1,600.00	1,600.00	1,599.23	1,599.09	3.46	3.27	-72.15	15.56	-48.32	50.77	44.03	6.74	7.537		
1,650.00	1,650.00	1,649.24	1,649.09	3.58	3.37	-72.98	15.12	-49.39	51.66	44.71	6.95	7.434		
1,700.00	1,700.00	1,699.25	1,699.08	3.69	3.47	-74.22	14.68	-50.43	52.41	45.25	7.16	7.319		
1,750.00	1,749.98	1,749.41	1,749.24	3.80	3.57	-76.26	14.29	-51.35	52.87	45.49	7.37	7.170		
1,800.00	1,799.95	1,799.59	1,799.41	3.91	3.68	-78.55	14.01	-52.04	53.09	45.51	7.59	6.999		
1,900.00	1,899.89	1,899.65	1,899.46	4.14	3.88	-82.94	13.54	-53.04	53.44	45.43	8.01	6.670		
2,000.00	1,999.83	1,999.61	1,999.42	4.36	4.09	-87.00	13.28	-53.85	53.92	45.48	8.44	6.386		
2,100.00	2,099.77	2,099.82	2,099.63	4.59	4.30	-90.82	13.17	-54.35	54.36	45.48	8.88	6.123		
2,200.00	2,199.71	2,199.71	2,199.52	4.81	4.50	-94.73	12.92	-54.64	54.82	45.52	9.31	5.889		
2,300.00	2,299.64	2,299.80	2,299.60	5.04	4.71	-98.40	12.84	-54.85	55.44	45.70	9.74	5.690		
2,400.00	2,399.58	2,399.80	2,399.61	5.27	4.92	-101.93	12.83	-54.86	56.07	45.89	10.18	5.508		
2,500.00	2,499.52	2,499.65	2,499.46	5.49	5.12	-105.65	12.55	-54.82	56.94	46.32	10.61	5.365		
2,600.00	2,599.46	2,599.68	2,599.48	5.72	5.33	-109.02	12.49	-54.86	58.03	46.98	11.05	5.252		
2,700.00	2,699.40	2,699.80	2,699.61	5.95	5.54	-112.66	12.14	-54.49	59.05	47.57	11.48	5.142		
2,750.00	2,749.37	2,749.71	2,749.51	6.06	5.65	-114.72	11.71	-54.14	59.61	47.91	11.70	5.093		
2,800.00	2,799.35	2,799.65	2,799.45	6.16	5.75	-116.21	11.42	-53.90	60.07	48.17	11.91	5.045		
2,850.00	2,849.35	2,849.87	2,849.67	6.25	5.86	-116.80	11.29	-53.64	60.10	47.99	12.10	4.965		
2,900.00	2,899.35	2,900.00	2,899.80	6.35	5.96	-116.91	11.36	-53.27	59.73	47.43	12.31	4.854		
2,979.12	2,978.47	2,978.67	2,978.47	6.52	6.13	-117.31	11.15	-52.75	59.37	46.72	12.65	4.694		
3,000.00	2,999.35	2,999.41	2,999.20	6.57	6.17	-117.51	10.95	-52.68	59.40	46.66	12.74	4.663		
3,100.00	3,099.35	3,100.30	3,100.09	6.79	6.38	-118.09	10.66	-51.96	58.90	45.73	13.17	4.471		
3,200.00	3,199.35	3,200.00	3,199.78	7.02	6.59	-118.12	11.12	-51.04	57.87	44.27	13.61	4.254		
3,300.00	3,299.35	3,299.58	3,299.36	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093		
3,300.43	3,299.78	3,300.00	3,299.78	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093		
3,400.00	3,399.35	3,395.78	3,395.49	7.46	7.00	-118.47	9.55	-53.18	60.62	46.15	14.46	4.191		
3,500.00	3,499.35	3,494.04	3,493.47	7.69	7.22	-117.73	6.77	-60.14	68.20	53.30	14.90	4.577		
3,600.00	3,599.35	3,592.96	3,591.97	7.91	7.44	-116.49	4.05	-68.89	77.33	61.99	15.34	5.042		
3,700.00	3,699.35	3,695.18	3,693.84	8.14	7.66	-116.04	0.95	-76.63	85.47	69.69	15.78	5.417		
3,800.00	3,799.35	3,798.89	3,797.44	8.36	7.88	-116.23	-1.29	-80.51	89.78	73.56	16.22	5.537		
3,900.00	3,899.35	3,900.73	3,899.28	8.58	8.09	-116.27	-1.83	-81.47	90.86	74.21	16.65	5.457		
4,000.00	3,999.35	4,000.93	3,999.48	8.81	8.30	-116.36	-1.94	-81.38	90.83	73.74	17.08	5.317		
4,032.68	4,032.03	4,033.48	4,032.03	8.88	8.37	-116.45	-2.05	-81.30	90.80	73.58	17.22	5.272		
4,100.00	4,099.35	4,100.55	4,099.10	9.03	8.51	-116.57	-2.27	-81.30	90.90	73.38	17.51	5.190		
4,200.00	4,199.35	4,200.72	4,199.26	9.26	8.71	-116.84	-2.73	-81.28	91.09	73.14	17.95	5.075		
4,300.00	4,299.35	4,301.61	4,300.14	9.48	8.92	-117.39	-3.34	-80.53	90.70	72.32	18.38	4.934		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Plan#4													Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD, 6254-MWD													Offset Well Error:	0.00 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 Tooface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,400.00	4,399.35	4,402.81	4,401.33	9.70	9.13	-118.11	-3.61	-78.61	89.15	70.33	18.82	4.738		
4,500.00	4,499.35	4,503.67	4,502.14	9.93	9.34	-118.81	-3.24	-75.69	86.43	67.18	19.25	4.490		
4,600.00	4,599.35	4,604.46	4,602.86	10.15	9.55	-119.51	-2.30	-71.89	82.68	62.99	19.68	4.200		
4,700.00	4,699.35	4,704.84	4,703.12	10.38	9.75	-120.68	-1.44	-67.14	78.15	58.04	20.12	3.885		
4,800.00	4,799.35	4,805.56	4,803.65	10.60	9.96	-122.71	-0.86	-61.12	72.77	52.21	20.55	3.541		
4,900.00	4,899.35	4,905.70	4,903.49	10.83	10.16	-126.75	-1.42	-53.31	66.67	45.68	20.99	3.177		
5,000.00	4,999.35	5,005.94	5,003.21	11.05	10.37	-133.84	-3.30	-43.41	60.31	38.88	21.42	2.815		
5,100.00	5,099.35	5,106.25	5,102.79	11.27	10.59	-144.23	-5.14	-31.36	53.76	31.90	21.86	2.459		
5,200.00	5,199.35	5,205.28	5,200.73	11.50	10.81	-159.61	-7.41	-17.03	48.88	26.57	22.31	2.191		
5,250.67	5,250.02	5,255.29	5,250.02	11.61	10.93	-169.63	-8.95	-8.66	48.12	25.58	22.54	2.135 ES, SF		
5,300.00	5,299.35	5,303.67	5,297.54	11.72	11.05	179.69	-10.58	0.26	49.00	26.23	22.77	2.152		
5,400.00	5,399.35	5,401.39	5,393.08	11.95	11.26	158.68	-14.09	20.48	56.68	33.48	23.20	2.443		
5,500.00	5,499.35	5,501.72	5,491.44	12.17	11.30	144.00	-16.65	39.99	68.50	45.06	23.44	2.922		
5,600.00	5,599.35	5,600.76	5,589.25	12.40	11.34	136.36	-19.52	55.22	80.65	56.97	23.68	3.406		
5,700.00	5,699.33	5,700.60	5,688.10	12.59	11.38	-20.07	-23.54	68.70	91.55	67.74	23.81	3.845		
5,800.00	5,799.19	5,802.47	5,789.26	12.77	11.43	-23.32	-28.23	79.65	97.90	73.95	23.96	4.086		
5,897.52	5,896.34	5,901.64	5,888.01	12.94	11.48	-25.94	-33.00	87.51	99.21	75.12	24.09	4.118		
5,900.00	5,898.80	5,904.14	5,890.50	12.94	11.48	-26.00	-33.13	87.67	99.19	75.09	24.09	4.117		
6,000.00	5,998.26	6,005.15	5,991.16	13.12	11.53	-27.34	-39.61	92.69	97.67	73.38	24.29	4.021		
6,100.00	6,097.72	6,106.65	6,092.19	13.30	11.58	-26.03	-49.25	94.37	95.23	70.74	24.49	3.888		
6,200.00	6,197.19	6,208.33	6,193.16	13.48	11.63	-21.96	-60.85	91.58	90.59	65.89	24.70	3.667		
6,300.00	6,296.65	6,309.48	6,293.44	13.66	11.67	-15.99	-72.96	86.21	85.04	60.13	24.92	3.413		
6,400.00	6,396.11	6,410.54	6,393.40	13.85	11.72	-7.38	-84.86	77.46	78.39	53.24	25.15	3.117		
6,500.00	6,495.57	6,510.52	6,491.98	14.04	11.76	4.84	-96.34	65.33	72.06	46.66	25.41	2.836		
6,600.00	6,595.03	6,609.21	6,588.83	14.23	11.80	21.16	-107.38	49.97	68.76	43.05	25.71	2.674		
6,609.80	6,604.77	6,618.80	6,598.21	14.25	11.81	22.95	-108.43	48.30	68.73	42.98	25.74	2.670		
6,700.00	6,694.49	6,706.40	6,683.67	14.43	11.85	39.97	-117.95	31.58	71.83	45.78	26.06	2.757		
6,800.00	6,793.95	6,803.09	6,777.71	14.63	11.92	56.79	-128.30	11.61	82.72	56.32	26.40	3.134		
6,900.00	6,893.41	6,899.79	6,871.75	14.84	12.00	69.08	-138.65	-8.36	99.12	72.40	26.72	3.710		
7,000.00	6,992.88	6,996.48	6,965.79	15.05	12.10	77.71	-149.01	-28.34	118.76	91.74	27.02	4.395		
7,100.00	7,092.34	7,093.18	7,059.84	15.26	12.22	83.84	-159.36	-48.32	140.30	112.98	27.33	5.134		
7,200.00	7,191.80	7,189.88	7,153.88	15.47	12.36	88.33	-169.72	-68.29	162.98	135.35	27.64	5.897		
7,300.00	7,291.26	7,286.58	7,247.92	15.69	12.52	91.72	-180.07	-88.27	186.39	158.43	27.95	6.668		
7,400.00	7,390.72	7,383.28	7,341.97	15.91	12.70	94.36	-190.43	-108.24	210.28	182.00	28.28	7.435		
7,500.00	7,490.18	7,479.97	7,436.01	16.13	12.90	96.45	-200.78	-128.22	234.51	205.89	28.62	8.194		
7,600.00	7,589.64	7,576.67	7,530.06	16.35	13.11	98.16	-211.14	-148.19	258.98	230.01	28.96	8.941		
7,700.00	7,689.10	7,673.37	7,624.10	16.58	13.33	99.57	-221.49	-168.17	283.62	254.31	29.32	9.674		
7,800.00	7,788.57	7,770.07	7,718.14	16.81	13.57	100.75	-231.85	-188.14	308.41	278.73	29.68	10.391		
7,900.00	7,888.03	7,866.77	7,812.19	17.04	13.81	101.76	-242.20	-208.12	333.30	303.25	30.05	11.091		
8,000.00	7,987.49	7,963.46	7,906.23	17.27	14.08	102.63	-252.55	-228.09	358.27	327.84	30.43	11.774		
8,100.00	8,086.95	8,060.16	8,000.28	17.51	14.35	103.39	-262.91	-248.07	383.31	352.50	30.81	12.440		
8,200.00	8,186.41	8,156.86	8,094.32	17.74	14.63	104.05	-273.26	-268.05	408.41	377.20	31.21	13.087		
8,300.00	8,285.87	8,253.56	8,188.36	17.98	14.92	104.64	-283.62	-288.02	433.55	401.94	31.61	13.717		
8,400.00	8,385.33	8,350.26	8,282.41	18.22	15.22	105.16	-293.97	-308.00	458.73	426.71	32.01	14.330		
8,500.00	8,484.79	8,446.95	8,376.45	18.46	15.53	105.63	-304.33	-327.97	483.94	451.51	32.43	14.925		
8,600.00	8,584.25	8,559.40	8,486.14	18.71	15.83	106.16	-315.73	-349.91	508.00	475.15	32.84	15.468		
8,700.00	8,683.72	8,677.85	8,602.62	18.95	16.08	106.80	-325.69	-368.90	528.32	495.07	33.26	15.887		
8,800.00	8,783.18	8,797.94	8,721.52	19.20	16.31	107.54	-333.60	-383.73	544.77	511.10	33.67	16.180		
8,900.00	8,882.64	8,919.29	8,842.28	19.44	16.50	108.39	-339.33	-394.18	557.29	523.21	34.08	16.352		
9,000.00	8,982.10	9,014.54	8,937.12	19.69	16.67	108.85	-345.27	-399.99	567.68	533.20	34.48	16.464		
9,100.00	9,081.56	9,100.00	9,020.57	19.94	16.90	108.05	-362.62	-404.97	580.17	545.27	34.90	16.624		
9,200.00	9,181.02	9,181.06	9,096.52	20.20	17.21	106.19	-390.39	-409.43	595.51	560.16	35.35	16.846		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Plan#4												Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD, 6254-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Between Centres (ft)	Between Ellipses (ft)					
9,300.00	9,280.48	9,250.00	9,157.50	20.45	17.52	103.88	-422.26	-412.95	614.90	579.11	35.79	17.182	
9,400.00	9,379.94	9,320.62	9,215.55	20.70	17.91	100.90	-462.27	-416.24	639.57	603.31	36.25	17.642	
9,500.00	9,479.41	9,377.85	9,258.71	20.96	18.28	98.12	-499.74	-418.64	670.62	633.94	36.68	18.282	
9,600.00	9,578.87	9,427.26	9,292.81	21.21	18.63	95.52	-535.43	-420.50	708.60	671.51	37.09	19.105	
9,700.00	9,678.33	9,469.75	9,319.60	21.47	18.97	93.18	-568.37	-421.93	753.57	716.09	37.47	20.109	
9,800.00	9,777.79	9,500.00	9,337.14	21.73	19.22	91.48	-592.99	-422.85	805.22	767.41	37.81	21.294	
9,832.06	9,809.68	9,516.92	9,346.38	21.81	19.37	90.51	-607.15	-423.32	823.05	785.10	37.95	21.689	
9,850.00	9,827.49	9,522.76	9,349.47	21.86	19.42	82.53	-612.11	-423.48	833.19	795.23	37.96	21.951	
9,900.00	9,876.73	9,550.00	9,363.22	22.00	19.67	69.45	-635.61	-424.17	861.31	823.32	37.99	22.674	
9,950.00	9,925.06	9,550.00	9,363.22	22.17	19.67	62.96	-635.61	-424.17	888.56	850.67	37.89	23.451	
10,000.00	9,972.12	9,574.39	9,374.58	22.36	19.91	57.45	-657.19	-424.73	914.93	877.15	37.78	24.220	
10,050.00	10,017.54	9,600.00	9,385.50	22.57	20.16	53.11	-680.34	-425.26	940.27	902.72	37.55	25.039	
10,100.00	10,060.99	9,600.00	9,385.50	22.80	20.16	50.25	-680.34	-425.26	964.28	927.12	37.17	25.945	
10,150.00	10,102.13	9,629.70	9,396.86	23.06	20.47	47.15	-707.77	-425.78	986.58	949.84	36.74	26.851	
10,200.00	10,140.65	9,650.00	9,403.80	23.35	20.69	44.75	-726.84	-426.09	1,007.36	971.15	36.21	27.823	
10,250.00	10,176.26	9,667.95	9,409.38	23.66	20.89	42.77	-743.90	-426.32	1,026.35	990.74	35.60	28.828	
10,300.00	10,208.68	9,700.00	9,417.99	24.01	21.25	40.91	-774.77	-426.66	1,043.62	1,008.62	35.00	29.818	
10,350.00	10,237.67	9,700.00	9,417.99	24.38	21.25	39.75	-774.77	-426.66	1,058.59	1,024.29	34.30	30.861	
10,400.00	10,263.01	9,726.69	9,423.84	24.79	21.56	38.52	-800.81	-426.85	1,071.56	1,037.82	33.73	31.765	
10,450.00	10,284.50	9,750.00	9,427.96	25.22	21.84	37.57	-823.75	-426.96	1,082.45	1,049.21	33.24	32.567	
10,500.00	10,301.99	9,766.46	9,430.30	25.68	22.04	36.87	-840.03	-427.01	1,091.11	1,058.27	32.84	33.226	
10,550.00	10,315.33	9,800.00	9,433.62	26.16	22.45	36.28	-873.41	-427.00	1,097.76	1,065.05	32.70	33.569	
10,600.00	10,324.43	9,800.00	9,433.62	26.67	22.45	36.01	-873.41	-427.00	1,101.76	1,069.20	32.55	33.843	
10,650.00	10,329.21	9,835.20	9,435.01	27.20	22.90	35.81	-908.58	-426.87	1,103.66	1,070.79	32.87	33.573	
10,680.01	10,330.00	9,843.66	9,435.08	27.52	23.01	35.80	-917.04	-426.82	1,103.57	1,070.49	33.09	33.352	
10,700.00	10,330.00	9,863.64	9,435.26	27.74	23.26	35.79	-937.02	-426.71	1,103.22	1,069.83	33.39	33.040	
10,800.00	10,330.00	9,963.62	9,436.13	28.88	24.60	35.74	-1,036.99	-426.15	1,101.42	1,066.47	34.95	31.511	
10,900.00	10,330.00	10,063.60	9,437.00	30.09	26.00	35.69	-1,136.97	-425.59	1,099.63	1,063.02	36.60	30.041	
11,000.00	10,330.00	10,163.58	9,437.87	31.36	27.45	35.63	-1,236.94	-425.03	1,097.83	1,059.50	38.33	28.641	
11,100.00	10,330.00	10,263.56	9,438.75	32.69	28.94	35.58	-1,336.91	-424.46	1,096.04	1,055.92	40.12	27.316	
11,200.00	10,330.00	10,363.54	9,439.62	34.06	30.47	35.53	-1,436.89	-423.90	1,094.25	1,052.27	41.98	26.068	
11,300.00	10,330.00	10,463.52	9,440.49	35.47	32.04	35.48	-1,536.86	-423.34	1,092.46	1,048.58	43.88	24.898	
11,400.00	10,330.00	10,563.50	9,441.36	36.91	33.63	35.42	-1,636.83	-422.78	1,090.67	1,044.85	45.82	23.803	
11,500.00	10,330.00	10,663.47	9,442.24	38.39	35.24	35.37	-1,736.81	-422.22	1,088.88	1,041.08	47.80	22.779	
11,600.00	10,330.00	10,763.45	9,443.11	39.90	36.88	35.32	-1,836.78	-421.66	1,087.10	1,037.28	49.82	21.822	
11,700.00	10,330.00	10,863.43	9,443.98	41.43	38.53	35.26	-1,936.75	-421.10	1,085.31	1,033.45	51.86	20.929	
11,800.00	10,330.00	10,963.41	9,444.85	42.99	40.20	35.21	-2,036.73	-420.53	1,083.52	1,029.60	53.92	20.094	
11,900.00	10,330.00	11,063.39	9,445.73	44.57	41.88	35.16	-2,136.70	-419.97	1,081.74	1,025.73	56.01	19.313	
12,000.00	10,330.00	11,163.37	9,446.60	46.16	43.58	35.10	-2,236.67	-419.41	1,079.96	1,021.84	58.11	18.583	
12,100.00	10,330.00	11,263.35	9,447.47	47.78	45.28	35.05	-2,336.65	-418.85	1,078.17	1,017.94	60.24	17.899	
12,200.00	10,330.00	11,363.33	9,448.34	49.40	47.00	34.99	-2,436.62	-418.29	1,076.39	1,014.02	62.37	17.258	
12,300.00	10,330.00	11,463.31	9,449.22	51.04	48.72	34.94	-2,536.59	-417.73	1,074.61	1,010.09	64.52	16.656	
12,400.00	10,330.00	11,563.28	9,450.09	52.70	50.45	34.88	-2,636.57	-417.16	1,072.83	1,006.16	66.67	16.091	
12,500.00	10,330.00	11,663.26	9,450.96	54.36	52.19	34.83	-2,736.54	-416.60	1,071.05	1,002.21	68.84	15.558	
12,600.00	10,330.00	11,763.24	9,451.83	56.04	53.93	34.77	-2,836.52	-416.04	1,069.27	998.26	71.01	15.057	
12,700.00	10,330.00	11,863.22	9,452.71	57.72	55.68	34.72	-2,936.49	-415.48	1,067.50	994.30	73.19	14.584	
12,800.00	10,330.00	11,963.20	9,453.58	59.41	57.44	34.66	-3,036.46	-414.92	1,065.72	990.34	75.38	14.138	
12,900.00	10,330.00	12,063.18	9,454.45	61.11	59.20	34.61	-3,136.44	-414.36	1,063.95	986.38	77.57	13.716	
13,000.00	10,330.00	12,163.16	9,455.32	62.82	60.96	34.55	-3,236.41	-413.79	1,062.17	982.41	79.76	13.316	
13,100.00	10,330.00	12,263.14	9,456.20	64.53	62.73	34.50	-3,336.38	-413.23	1,060.40	978.44	81.96	12.938	
13,200.00	10,330.00	12,363.12	9,457.07	66.25	64.50	34.44	-3,436.36	-412.67	1,058.63	974.47	84.16	12.579	
13,270.75	10,330.00	12,433.85	9,457.69	67.47	65.76	34.40	-3,507.09	-412.27	1,057.38	971.66	85.72	12.335	

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Plan#4													Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD, 6254-MWD													Offset Well Error:	0.00 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)			
13,300.00	10,330.15	12,463.10	9,457.94	67.92	66.27	34.38	-3,536.33	-412.11	1,056.98	970.64	86.34	12.242		
13,320.75	10,330.43	12,483.84	9,458.12	68.21	66.64	34.35	-3,557.08	-411.99	1,056.85	970.10	86.75	12.182		
13,400.00	10,331.82	12,563.07	9,458.81	69.43	68.05	34.27	-3,636.30	-411.55	1,056.59	968.23	88.36	11.957		
13,500.00	10,333.56	12,663.05	9,459.69	71.17	69.83	34.16	-3,736.28	-410.99	1,056.27	965.78	90.49	11.673		
13,600.00	10,335.31	12,763.03	9,460.56	72.91	71.62	34.05	-3,836.25	-410.42	1,055.95	963.34	92.60	11.403		
13,700.00	10,337.05	12,863.01	9,461.43	74.65	73.40	33.94	-3,936.23	-409.86	1,055.63	960.91	94.72	11.145		
13,800.00	10,338.80	12,962.99	9,462.30	76.40	75.19	33.83	-4,036.20	-409.30	1,055.32	958.49	96.83	10.899		
13,900.00	10,340.54	13,062.97	9,463.18	78.15	76.98	33.72	-4,136.17	-408.74	1,055.01	956.08	98.93	10.664		
14,000.00	10,342.29	13,162.95	9,464.05	79.91	78.77	33.61	-4,236.15	-408.18	1,054.71	953.67	101.03	10.439		
14,100.00	10,344.03	13,262.93	9,464.92	81.67	80.57	33.49	-4,336.12	-407.62	1,054.41	951.27	103.13	10.224		
14,200.00	10,345.78	13,362.91	9,465.79	83.43	82.36	33.38	-4,436.09	-407.05	1,054.11	948.89	105.22	10.018		
14,300.00	10,347.52	13,462.89	9,466.67	85.19	84.16	33.27	-4,536.07	-406.49	1,053.82	946.51	107.31	9.821		
14,400.00	10,349.27	13,562.86	9,467.54	86.96	85.96	33.16	-4,636.04	-405.93	1,053.53	944.14	109.39	9.631		
14,500.00	10,351.01	13,662.84	9,468.41	88.73	87.76	33.05	-4,736.01	-405.37	1,053.24	941.78	111.46	9.449		
14,600.00	10,352.76	13,762.82	9,469.28	90.50	89.56	32.94	-4,835.99	-404.81	1,052.96	939.43	113.53	9.275		
14,700.00	10,354.50	13,862.80	9,470.15	92.27	91.36	32.83	-4,935.96	-404.25	1,052.68	937.09	115.59	9.107		
14,800.00	10,356.25	13,962.78	9,471.03	94.05	93.16	32.72	-5,035.93	-403.69	1,052.41	934.76	117.65	8.945		
14,900.00	10,357.99	14,062.76	9,471.90	95.82	94.97	32.61	-5,135.91	-403.12	1,052.14	932.45	119.70	8.790		
15,000.00	10,359.74	14,162.74	9,472.77	97.60	96.78	32.50	-5,235.88	-402.56	1,051.88	930.14	121.74	8.640		
15,100.00	10,361.48	14,262.72	9,473.64	99.38	98.58	32.39	-5,335.85	-402.00	1,051.62	927.84	123.77	8.496		
15,200.00	10,363.23	14,362.70	9,474.52	101.17	100.39	32.28	-5,435.83	-401.44	1,051.36	925.55	125.80	8.357		
15,297.84	10,364.94	14,458.57	9,475.35	102.60	102.12	32.17	-5,531.70	-400.90	1,051.11	923.64	127.47	8.246		
15,299.41	10,364.96	14,458.57	9,475.35	102.63	102.12	32.17	-5,531.70	-400.90	1,051.11	923.63	127.49	8.245		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
 Project: Lea County, NM
 Reference Site: Hamon Fed Pad
 Site Error: 0.00 ft
 Reference Well: Hamon Fed Com A #6H
 Well Error: 0.00 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
 TVD Reference: KB=18' @ 3628.00ft (McVay 4)
 MD Reference: KB=18' @ 3628.00ft (McVay 4)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2													Offset Site Error: 0.00 ft
Survey Program: 100-MWD, 5405-MWD													Offset Well Error: 0.00 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	
0.00	0.00	0.00	0.00	0.00	0.00	-58.66	25.70	-42.20	49.41				
100.00	100.00	100.50	100.50	0.09	0.10	-59.41	24.88	-42.09	48.89	48.70	0.19	256.615	
200.00	200.00	200.43	200.41	0.32	0.30	-60.85	23.36	-41.88	47.96	47.34	0.62	77.602	
300.00	300.00	300.59	300.57	0.54	0.51	-61.96	22.05	-41.41	46.92	45.87	1.05	44.572	
400.00	400.00	400.63	400.60	0.77	0.73	-62.83	20.85	-40.62	45.67	44.17	1.50	30.536	
500.00	500.00	500.55	500.50	0.99	0.94	-63.65	19.73	-39.82	44.45	42.52	1.93	23.013	
600.00	600.00	600.35	600.29	1.22	1.15	-64.44	18.79	-39.29	43.55	41.19	2.36	18.440	
700.00	700.00	700.18	700.13	1.44	1.36	-65.34	17.96	-39.13	43.06	40.27	2.79	15.409	
800.00	800.00	800.23	800.17	1.67	1.57	-66.30	17.16	-39.10	42.71	39.48	3.23	13.229	
887.49	887.49	887.56	887.50	1.86	1.75	-67.06	16.57	-39.16	42.52	38.91	3.61	11.783 CC	
900.00	900.00	900.00	899.94	1.89	1.78	-67.15	16.51	-39.18	42.52	38.86	3.66	11.608	
1,000.00	1,000.00	999.91	999.85	2.12	1.99	-67.77	16.16	-39.54	42.72	38.62	4.10	10.413	
1,100.00	1,100.00	1,099.88	1,099.81	2.34	2.20	-68.24	15.98	-40.04	43.12	38.57	4.54	9.491	
1,200.00	1,200.00	1,199.50	1,199.43	2.56	2.42	-68.68	15.99	-40.97	43.98	39.00	4.98	8.827	
1,300.00	1,300.00	1,299.38	1,299.30	2.79	2.63	-69.22	16.11	-42.45	45.41	39.99	5.42	8.377	
1,400.00	1,400.00	1,399.24	1,399.14	3.01	2.84	-70.02	16.09	-44.25	47.09	41.24	5.86	8.039	
1,500.00	1,500.00	1,499.20	1,499.08	3.24	3.06	-70.90	16.01	-46.24	48.94	42.64	6.30	7.769	
1,600.00	1,600.00	1,599.23	1,599.09	3.46	3.27	-72.15	15.56	-48.32	50.77	44.03	6.74	7.537	
1,650.00	1,650.00	1,649.24	1,649.09	3.58	3.37	-72.98	15.12	-49.39	51.66	44.71	6.95	7.434	
1,700.00	1,700.00	1,699.25	1,699.08	3.69	3.47	-74.22	14.68	-50.43	52.41	45.25	7.16	7.319	
1,750.00	1,749.98	1,749.41	1,749.24	3.80	3.57	-76.26	14.29	-51.35	52.87	45.49	7.37	7.170	
1,800.00	1,799.95	1,799.59	1,799.41	3.91	3.68	-78.55	14.01	-52.04	53.09	45.51	7.59	6.999	
1,900.00	1,899.89	1,899.65	1,899.46	4.14	3.88	-82.94	13.54	-53.04	53.44	45.43	8.01	6.670	
2,000.00	1,999.83	1,999.61	1,999.42	4.36	4.09	-87.00	13.28	-53.85	53.92	45.48	8.44	6.386	
2,100.00	2,099.77	2,099.82	2,099.63	4.59	4.30	-90.82	13.17	-54.35	54.36	45.48	8.88	6.123	
2,200.00	2,199.71	2,199.71	2,199.52	4.81	4.50	-94.73	12.92	-54.64	54.82	45.52	9.31	5.889	
2,300.00	2,299.64	2,299.80	2,299.60	5.04	4.71	-98.40	12.84	-54.85	55.44	45.70	9.74	5.690	
2,400.00	2,399.58	2,399.80	2,399.61	5.27	4.92	-101.93	12.83	-54.86	56.07	45.89	10.18	5.508	
2,500.00	2,499.52	2,499.65	2,499.46	5.49	5.12	-105.65	12.55	-54.82	56.94	46.32	10.61	5.365	
2,600.00	2,599.46	2,599.68	2,599.48	5.72	5.33	-109.02	12.49	-54.86	58.03	46.98	11.05	5.252	
2,700.00	2,699.40	2,699.80	2,699.61	5.95	5.54	-112.66	12.14	-54.49	59.05	47.57	11.48	5.142	
2,750.00	2,749.37	2,749.71	2,749.51	6.06	5.65	-114.72	11.71	-54.14	59.61	47.91	11.70	5.093	
2,800.00	2,799.35	2,799.65	2,799.45	6.16	5.75	-116.21	11.42	-53.90	60.07	48.17	11.91	5.045	
2,850.00	2,849.35	2,849.87	2,849.67	6.25	5.86	-116.80	11.29	-53.64	60.10	47.99	12.10	4.965	
2,900.00	2,899.35	2,900.00	2,899.80	6.35	5.96	-116.91	11.36	-53.27	59.73	47.43	12.31	4.854	
2,979.12	2,978.47	2,978.67	2,978.47	6.52	6.13	-117.31	11.15	-52.75	59.37	46.72	12.65	4.694	
3,000.00	2,999.35	2,999.41	2,999.20	6.57	6.17	-117.51	10.95	-52.68	59.40	46.66	12.74	4.663	
3,100.00	3,099.35	3,100.30	3,100.09	6.79	6.38	-118.09	10.66	-51.96	58.90	45.73	13.17	4.471	
3,200.00	3,199.35	3,200.00	3,199.78	7.02	6.59	-118.12	11.12	-51.04	57.87	44.27	13.61	4.254	
3,300.00	3,299.35	3,299.58	3,299.36	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093	
3,300.43	3,299.78	3,300.00	3,299.78	7.24	6.80	-118.32	11.13	-50.58	57.46	43.42	14.04	4.093	
3,400.00	3,399.35	3,395.78	3,395.49	7.46	7.00	-118.47	9.55	-53.18	60.62	46.15	14.46	4.191	
3,500.00	3,499.35	3,494.04	3,493.47	7.69	7.22	-117.73	6.77	-60.14	68.20	53.30	14.90	4.577	
3,600.00	3,599.35	3,592.96	3,591.97	7.91	7.44	-116.49	4.05	-68.89	77.33	61.99	15.34	5.042	
3,700.00	3,699.35	3,695.18	3,693.84	8.14	7.66	-116.04	0.95	-76.63	85.47	69.69	15.78	5.417	
3,800.00	3,799.35	3,798.89	3,797.44	8.36	7.88	-116.23	-1.29	-80.51	89.78	73.56	16.22	5.537	
3,900.00	3,899.35	3,900.73	3,899.28	8.58	8.09	-116.27	-1.83	-81.47	90.86	74.21	16.65	5.457	
4,000.00	3,999.35	4,000.93	3,999.48	8.81	8.30	-116.36	-1.94	-81.38	90.83	73.74	17.08	5.317	
4,032.68	4,032.03	4,033.48	4,032.03	8.88	8.37	-116.45	-2.05	-81.30	90.80	73.58	17.22	5.272	
4,100.00	4,099.35	4,100.55	4,099.10	9.03	8.51	-116.57	-2.27	-81.30	90.90	73.38	17.51	5.190	
4,200.00	4,199.35	4,200.72	4,199.26	9.26	8.71	-116.84	-2.73	-81.28	91.09	73.14	17.95	5.075	
4,300.00	4,299.35	4,301.61	4,300.14	9.48	8.92	-117.39	-3.34	-80.53	90.70	72.32	18.38	4.934	

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2														Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD														Offset Well Error:	0.00 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		
4,400.00	4,399.35	4,402.81	4,401.33	9.70	9.13	-118.11	-3.61	-78.61	89.15	70.33	18.82	4.738			
4,500.00	4,499.35	4,503.67	4,502.14	9.93	9.34	-118.81	-3.24	-75.69	86.43	67.18	19.25	4.490			
4,600.00	4,599.35	4,604.46	4,602.86	10.15	9.55	-119.51	-2.30	-71.89	82.68	62.99	19.68	4.200			
4,700.00	4,699.35	4,704.84	4,703.12	10.38	9.75	-120.68	-1.44	-67.14	78.15	58.04	20.12	3.885			
4,800.00	4,799.35	4,805.56	4,803.65	10.60	9.96	-122.71	-0.86	-61.12	72.77	52.21	20.55	3.541			
4,900.00	4,899.35	4,905.70	4,903.49	10.83	10.16	-126.75	-1.42	-53.31	66.67	45.68	20.99	3.177			
5,000.00	4,999.35	5,005.94	5,003.21	11.05	10.37	-133.84	-3.30	-43.41	60.31	38.88	21.42	2.815			
5,100.00	5,099.35	5,106.25	5,102.79	11.27	10.59	-144.23	-5.14	-31.36	53.76	31.90	21.86	2.459			
5,200.00	5,199.35	5,205.28	5,200.73	11.50	10.81	-159.61	-7.41	-17.03	48.88	26.57	22.31	2.191			
5,250.67	5,250.02	5,255.29	5,250.02	11.61	10.93	-169.63	-8.95	-8.66	48.12	25.58	22.54	2.135 ES, SF			
5,300.00	5,299.35	5,303.67	5,297.54	11.72	11.05	179.69	-10.58	0.26	49.00	26.23	22.77	2.152			
5,400.00	5,399.35	5,401.39	5,393.08	11.95	11.26	158.68	-14.09	20.48	56.68	33.48	23.20	2.443			
5,500.00	5,499.35	5,501.72	5,491.44	12.17	11.30	144.00	-16.65	39.99	68.50	45.06	23.44	2.922			
5,600.00	5,599.35	5,600.76	5,589.25	12.40	11.34	136.36	-19.52	55.22	80.65	56.97	23.68	3.406			
5,700.00	5,699.33	5,700.60	5,688.10	12.59	11.38	-20.07	-23.54	68.70	91.55	67.74	23.81	3.845			
5,800.00	5,799.19	5,802.47	5,789.26	12.77	11.43	-23.32	-28.23	79.65	97.90	73.95	23.96	4.086			
5,897.52	5,896.34	5,901.64	5,888.01	12.94	11.48	-25.94	-33.00	87.51	99.21	75.12	24.09	4.118			
5,900.00	5,898.80	5,904.14	5,890.50	12.94	11.48	-26.00	-33.13	87.67	99.19	75.09	24.09	4.117			
6,000.00	5,998.26	6,005.15	5,991.16	13.12	11.53	-27.34	-39.61	92.69	97.67	73.38	24.29	4.021			
6,100.00	6,097.72	6,106.65	6,092.19	13.30	11.58	-26.03	-49.25	94.37	95.23	70.74	24.49	3.888			
6,200.00	6,197.19	6,208.33	6,193.16	13.48	11.63	-21.96	-60.85	91.58	90.59	65.89	24.70	3.667			
6,300.00	6,296.65	6,310.82	6,294.80	13.66	11.67	-16.03	-72.66	85.96	84.62	59.70	24.92	3.396			
6,400.00	6,396.11	6,411.26	6,394.35	13.85	11.71	-8.09	-82.53	76.94	76.17	51.03	25.15	3.029			
6,500.00	6,495.57	6,512.24	6,494.21	14.04	11.75	3.31	-92.05	65.48	68.14	42.73	25.40	2.682			
6,600.00	6,595.03	6,611.10	6,591.58	14.23	11.78	20.02	-100.00	50.39	61.31	35.61	25.70	2.386			
6,640.80	6,635.61	6,650.43	6,630.11	14.32	11.80	28.52	-103.29	43.22	60.41	34.57	25.84	2.338			
6,700.00	6,694.49	6,706.81	6,685.09	14.43	11.82	41.46	-108.61	31.94	62.55	36.49	26.06	2.400			
6,800.00	6,793.95	6,803.21	6,778.78	14.63	11.87	60.58	-118.53	11.47	74.41	48.01	26.40	2.818			
6,900.00	6,893.41	6,900.50	6,873.42	14.84	11.93	73.53	-128.51	-8.70	91.89	65.19	26.70	3.441			
7,000.00	6,992.88	6,995.67	6,965.95	15.05	12.01	82.04	-138.34	-28.67	112.74	85.75	26.99	4.178			
7,100.00	7,092.34	7,093.00	7,060.47	15.26	12.11	88.06	-148.46	-49.57	135.76	108.49	27.28	4.977			
7,200.00	7,191.80	7,191.92	7,156.81	15.47	12.22	92.42	-158.17	-69.82	158.65	131.08	27.57	5.755			
7,300.00	7,291.26	7,286.56	7,248.97	15.69	12.34	95.50	-167.57	-89.17	182.18	154.31	27.87	6.537			
7,400.00	7,390.72	7,384.59	7,344.38	15.91	12.49	97.89	-177.60	-109.32	206.31	178.13	28.18	7.321			
7,500.00	7,490.18	7,481.12	7,438.42	16.13	12.65	99.81	-187.18	-128.89	230.35	201.85	28.50	8.083			
7,600.00	7,589.64	7,573.91	7,528.58	16.35	12.83	101.25	-196.87	-148.56	255.61	226.78	28.82	8.868			
7,700.00	7,689.10	7,672.18	7,623.97	16.58	13.02	102.52	-207.18	-169.81	281.42	252.25	29.17	9.649			
7,800.00	7,788.57	7,772.38	7,721.56	16.81	13.23	103.68	-216.91	-190.32	306.03	276.52	29.51	10.370			
7,900.00	7,888.03	7,864.84	7,811.49	17.04	13.43	104.55	-226.27	-209.67	331.28	301.42	29.86	11.095			
8,000.00	7,987.49	7,963.89	7,907.78	17.27	13.67	105.32	-236.51	-230.54	356.78	326.56	30.22	11.805			
8,100.00	8,086.95	8,062.79	8,004.13	17.51	13.90	106.01	-246.38	-250.53	381.43	350.84	30.59	12.469			
8,200.00	8,186.41	8,157.33	8,096.07	17.74	14.14	106.42	-257.00	-269.79	406.51	375.55	30.96	13.129			
8,300.00	8,285.87	8,257.06	8,193.06	17.98	14.41	106.71	-268.88	-289.72	431.36	400.01	31.35	13.760			
8,400.00	8,385.33	8,358.97	8,292.34	18.22	14.69	106.96	-280.95	-309.35	455.52	423.77	31.74	14.350			
8,500.00	8,484.79	8,464.84	8,395.87	18.46	14.97	107.30	-292.37	-328.25	478.10	445.96	32.15	14.871			
8,600.00	8,584.25	8,579.32	8,508.33	18.71	15.26	107.67	-303.97	-346.18	498.50	465.93	32.57	15.305			
8,700.00	8,683.72	8,689.57	8,617.24	18.95	15.52	108.03	-314.22	-359.95	515.58	482.59	32.99	15.630			
8,800.00	8,783.18	8,796.25	8,722.95	19.20	15.75	108.48	-322.65	-371.61	530.94	497.54	33.40	15.897			
8,900.00	8,882.64	8,894.90	8,820.78	19.44	15.96	108.92	-330.04	-381.81	545.68	511.88	33.80	16.143			
9,000.00	8,982.10	8,978.00	8,902.97	19.69	16.15	109.05	-338.36	-390.45	561.05	526.86	34.19	16.409			
9,100.00	9,081.56	9,046.67	8,968.59	19.94	16.40	108.06	-356.26	-399.20	581.33	546.73	34.60	16.801			
9,200.00	9,181.02	9,141.36	9,055.48	20.20	16.81	105.70	-391.82	-411.29	604.76	569.66	35.10	17.231			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2													Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,300.00	9,280.48	9,234.28	9,137.27	20.45	17.26	102.69	-434.96	-419.82	628.67	593.06	35.61	17.653		
9,400.00	9,379.94	9,308.00	9,197.62	20.70	17.68	99.68	-476.95	-424.64	656.09	620.00	36.09	18.180		
9,500.00	9,479.41	9,365.45	9,241.38	20.96	18.05	97.06	-514.00	-427.97	689.05	652.52	36.53	18.862		
9,600.00	9,578.87	9,423.74	9,282.41	21.21	18.47	94.18	-555.30	-430.38	727.69	690.72	36.97	19.681		
9,700.00	9,678.33	9,470.44	9,312.16	21.47	18.84	91.71	-591.26	-431.41	772.52	735.14	37.38	20.667		
9,800.00	9,777.79	9,509.68	9,335.13	21.73	19.17	89.58	-623.07	-431.86	823.45	785.69	37.76	21.810		
9,832.06	9,809.68	9,519.89	9,340.74	21.81	19.26	89.02	-631.60	-431.94	841.07	803.20	37.87	22.209		
9,850.00	9,827.49	9,525.50	9,343.75	21.86	19.31	81.10	-636.33	-431.97	851.07	813.19	37.88	22.467		
9,900.00	9,876.73	9,544.00	9,353.31	22.00	19.47	68.58	-652.17	-432.06	878.63	840.74	37.89	23.187		
9,950.00	9,925.06	9,544.00	9,353.31	22.17	19.47	62.14	-652.17	-432.06	905.68	867.89	37.80	23.963		
10,000.00	9,972.12	9,570.31	9,365.88	22.36	19.73	56.66	-675.28	-432.23	931.50	893.81	37.69	24.717		
10,050.00	10,017.54	9,591.00	9,374.86	22.57	19.93	52.56	-693.92	-432.50	956.49	919.03	37.45	25.538		
10,100.00	10,060.99	9,591.00	9,374.86	22.80	19.93	49.74	-693.92	-432.50	980.25	943.19	37.06	26.451		
10,150.00	10,102.13	9,617.63	9,385.31	23.06	20.21	46.78	-718.40	-433.00	1,002.34	965.71	36.63	27.363		
10,200.00	10,140.65	9,638.00	9,392.50	23.35	20.42	44.44	-737.45	-433.49	1,022.97	986.87	36.10	28.340		
10,250.00	10,176.26	9,638.00	9,392.50	23.66	20.42	42.76	-737.45	-433.49	1,042.07	1,006.64	35.44	29.407		
10,300.00	10,208.68	9,667.66	9,401.58	24.01	20.76	40.96	-765.68	-434.31	1,058.93	1,024.09	34.83	30.401		
10,350.00	10,237.67	9,685.00	9,406.08	24.38	20.95	39.61	-782.41	-434.83	1,074.11	1,039.93	34.18	31.421		
10,400.00	10,263.01	9,703.73	9,410.29	24.79	21.18	38.48	-800.65	-435.36	1,087.27	1,053.69	33.59	32.373		
10,450.00	10,284.50	9,733.00	9,415.60	25.22	21.53	37.51	-829.42	-436.02	1,098.38	1,065.26	33.12	33.166		
10,500.00	10,301.99	9,754.28	9,418.81	25.68	21.79	36.82	-850.46	-436.37	1,106.94	1,074.19	32.75	33.801		
10,550.00	10,315.33	9,799.00	9,425.02	26.16	22.34	36.28	-894.74	-436.76	1,112.48	1,079.76	32.71	34.005		
10,600.00	10,324.43	9,799.00	9,425.02	26.67	22.34	36.06	-894.74	-436.76	1,115.56	1,082.98	32.58	34.239		
10,650.00	10,329.21	9,799.00	9,425.02	27.20	22.34	35.95	-894.74	-436.76	1,117.23	1,084.59	32.63	34.237		
10,680.01	10,330.00	9,799.00	9,425.02	27.52	22.34	35.92	-894.74	-436.76	1,117.54	1,084.79	32.76	34.117		
10,700.00	10,330.00	9,799.00	9,425.02	27.74	22.34	35.92	-894.74	-436.76	1,117.77	1,084.88	32.89	33.988		
10,800.00	10,330.00	9,799.00	9,425.02	28.88	22.34	35.92	-894.74	-436.76	1,124.22	1,090.64	33.57	33.484		
10,900.00	10,330.00	9,799.00	9,425.02	30.09	22.34	35.92	-894.74	-436.76	1,139.44	1,105.13	34.32	33.204		
11,000.00	10,330.00	9,799.00	9,425.02	31.36	22.34	35.92	-894.74	-436.76	1,163.10	1,127.99	35.11	33.132		
11,100.00	10,330.00	9,799.00	9,425.02	32.69	22.34	35.92	-894.74	-436.76	1,194.68	1,158.75	35.94	33.244		
11,200.00	10,330.00	9,799.00	9,425.02	34.06	22.34	35.92	-894.74	-436.76	1,233.59	1,196.78	36.80	33.517		
11,300.00	10,330.00	9,799.00	9,425.02	35.47	22.34	35.92	-894.74	-436.76	1,279.14	1,241.44	37.71	33.924		
11,400.00	10,330.00	9,799.00	9,425.02	36.91	22.34	35.92	-894.74	-436.76	1,330.67	1,292.03	38.64	34.441		
11,500.00	10,330.00	9,799.00	9,425.02	38.39	22.34	35.92	-894.74	-436.76	1,387.49	1,347.90	39.59	35.044		
11,600.00	10,330.00	9,799.00	9,425.02	39.90	22.34	35.92	-894.74	-436.76	1,449.00	1,408.43	40.57	35.714		
11,700.00	10,330.00	9,799.00	9,425.02	41.43	22.34	35.92	-894.74	-436.76	1,514.62	1,473.05	41.57	36.434		
11,800.00	10,330.00	9,799.00	9,425.02	42.99	22.34	35.92	-894.74	-436.76	1,583.84	1,541.25	42.59	37.188		
11,900.00	10,330.00	9,799.00	9,425.02	44.57	22.34	35.92	-894.74	-436.76	1,656.20	1,612.58	43.62	37.965		
12,000.00	10,330.00	9,799.00	9,425.02	46.16	22.34	35.92	-894.74	-436.76	1,731.32	1,686.65	44.67	38.756		
12,100.00	10,330.00	9,799.00	9,425.02	47.78	22.34	35.92	-894.74	-436.76	1,808.85	1,763.12	45.73	39.551		
12,200.00	10,330.00	9,799.00	9,425.02	49.40	22.34	35.92	-894.74	-436.76	1,888.49	1,841.69	46.81	40.345		
12,300.00	10,330.00	9,799.00	9,425.02	51.04	22.34	35.92	-894.74	-436.76	1,969.99	1,922.10	47.89	41.134		
12,400.00	10,330.00	9,799.00	9,425.02	52.70	22.34	35.92	-894.74	-436.76	2,053.13	2,004.14	48.99	41.912		
12,500.00	10,330.00	9,799.00	9,425.02	54.36	22.34	35.92	-894.74	-436.76	2,137.71	2,087.62	50.09	42.679		
12,600.00	10,330.00	9,799.00	9,425.02	56.04	22.34	35.92	-894.74	-436.76	2,223.57	2,172.37	51.20	43.430		
12,700.00	10,330.00	9,799.00	9,425.02	57.72	22.34	35.92	-894.74	-436.76	2,310.57	2,258.26	52.32	44.165		
12,800.00	10,330.00	9,799.00	9,425.02	59.41	22.34	35.92	-894.74	-436.76	2,398.59	2,345.15	53.44	44.883		
12,900.00	10,330.00	9,799.00	9,425.02	61.11	22.34	35.92	-894.74	-436.76	2,487.51	2,432.93	54.57	45.583		
13,000.00	10,330.00	9,799.00	9,425.02	62.82	22.34	35.92	-894.74	-436.76	2,577.24	2,521.53	55.71	46.265		
13,100.00	10,330.00	9,799.00	9,425.02	64.53	22.34	35.92	-894.74	-436.76	2,667.70	2,610.85	56.85	46.928		
13,200.00	10,330.00	9,799.00	9,425.02	66.25	22.34	35.92	-894.74	-436.76	2,758.82	2,700.83	57.99	47.572		
13,270.75	10,330.00	9,799.00	9,425.02	67.47	22.34	35.92	-894.74	-436.76	2,823.65	2,764.85	58.81	48.017		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #5H - Wellbore #2 - Wellbore #2												Offset Site Error:	0.00 ft
Survey Program: 100-MWD, 5405-MWD												Offset Well Error:	0.00 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
13,300.00	10,330.15	9,799.00	9,425.02	67.92	22.34	36.74	-894.74	-436.76	2,850.58	2,790.67	59.91	47.577	
13,320.75	10,330.43	9,799.00	9,425.02	68.21	22.34	37.35	-894.74	-436.76	2,869.77	2,809.06	60.71	47.271	
13,400.00	10,331.82	9,799.00	9,425.02	69.43	22.34	37.35	-894.74	-436.76	2,943.34	2,881.77	61.56	47.809	
13,500.00	10,333.56	9,799.00	9,425.02	71.17	22.34	37.35	-894.74	-436.76	3,036.57	2,973.83	62.75	48.393	
13,600.00	10,335.31	9,799.00	9,425.02	72.91	22.34	37.35	-894.74	-436.76	3,130.23	3,066.29	63.94	48.959	
13,700.00	10,337.05	9,799.00	9,425.02	74.65	22.34	37.35	-894.74	-436.76	3,224.26	3,159.14	65.13	49.508	
13,800.00	10,338.80	9,799.00	9,425.02	76.40	22.34	37.35	-894.74	-436.76	3,318.65	3,252.33	66.32	50.040	
13,900.00	10,340.54	9,799.00	9,425.02	78.15	22.34	37.35	-894.74	-436.76	3,413.35	3,345.84	67.52	50.556	
14,000.00	10,342.29	9,799.00	9,425.02	79.91	22.34	37.35	-894.74	-436.76	3,508.35	3,439.64	68.71	51.057	
14,100.00	10,344.03	9,799.00	9,425.02	81.67	22.34	37.35	-894.74	-436.76	3,603.62	3,533.70	69.92	51.543	
14,200.00	10,345.78	9,799.00	9,425.02	83.43	22.34	37.35	-894.74	-436.76	3,699.14	3,628.02	71.12	52.014	
14,300.00	10,347.52	9,799.00	9,425.02	85.19	22.34	37.35	-894.74	-436.76	3,794.89	3,722.56	72.32	52.471	
14,400.00	10,349.27	9,799.00	9,425.02	86.96	22.34	37.35	-894.74	-436.76	3,890.85	3,817.32	73.53	52.914	
14,500.00	10,351.01	9,799.00	9,425.02	88.73	22.34	37.35	-894.74	-436.76	3,987.01	3,912.27	74.74	53.345	
14,600.00	10,352.76	9,799.00	9,425.02	90.50	22.34	37.35	-894.74	-436.76	4,083.36	4,007.40	75.95	53.763	
14,700.00	10,354.50	9,799.00	9,425.02	92.27	22.34	37.35	-894.74	-436.76	4,179.87	4,102.71	77.16	54.168	
14,800.00	10,356.25	9,799.00	9,425.02	94.05	22.34	37.35	-894.74	-436.76	4,276.55	4,198.17	78.38	54.563	
14,900.00	10,357.99	9,799.00	9,425.02	95.82	22.34	37.35	-894.74	-436.76	4,373.38	4,293.78	79.59	54.946	
15,000.00	10,359.74	9,799.00	9,425.02	97.60	22.34	37.35	-894.74	-436.76	4,470.34	4,389.53	80.81	55.319	
15,100.00	10,361.48	9,799.00	9,425.02	99.38	22.34	37.35	-894.74	-436.76	4,567.44	4,485.41	82.03	55.681	
15,200.00	10,363.23	9,799.00	9,425.02	101.17	22.34	37.35	-894.74	-436.76	4,664.66	4,581.41	83.25	56.033	
15,299.41	10,364.96	9,799.00	9,425.02	102.63	22.34	37.35	-894.74	-436.76	4,761.42	4,677.25	84.17	56.571	

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #7H - Wellbore #1 - Plan#1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Tooface (")	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.00	0.00	0.00	0.00	0.00	0.00	122.25	-26.50	42.00	49.66					
100.00	100.00	100.00	100.00	0.09	0.09	122.25	-26.50	42.00	49.66	49.48	0.18	269.448		
200.00	200.00	200.00	200.00	0.32	0.32	122.25	-26.50	42.00	49.66	49.03	0.63	78.350		
300.00	300.00	300.00	300.00	0.54	0.54	122.25	-26.50	42.00	49.66	48.58	1.08	45.840		
400.00	400.00	400.00	400.00	0.77	0.77	122.25	-26.50	42.00	49.66	48.13	1.53	32.397		
500.00	500.00	500.00	500.00	0.99	0.99	122.25	-26.50	42.00	49.66	47.68	1.98	25.051		
600.00	600.00	600.00	600.00	1.22	1.22	122.25	-26.50	42.00	49.66	47.23	2.43	20.420		
700.00	700.00	700.00	700.00	1.44	1.44	122.25	-26.50	42.00	49.66	46.78	2.88	17.235		
800.00	800.00	800.00	800.00	1.67	1.67	122.25	-26.50	42.00	49.66	46.33	3.33	14.909		
900.00	900.00	900.00	900.00	1.89	1.89	122.25	-26.50	42.00	49.66	45.88	3.78	13.136		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	122.25	-26.50	42.00	49.66	45.43	4.23	11.740		
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	122.25	-26.50	42.00	49.66	44.98	4.68	10.612		
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	122.25	-26.50	42.00	49.66	44.53	5.13	9.682		
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	122.25	-26.50	42.00	49.66	44.08	5.58	8.902		
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	122.25	-26.50	42.00	49.66	43.63	6.03	8.238		
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	122.25	-26.50	42.00	49.66	43.18	6.48	7.666		
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	122.25	-26.50	42.00	49.66	42.73	6.93	7.169		
1,650.00	1,650.00	1,650.00	1,650.00	3.58	3.58	122.25	-26.50	42.00	49.66	42.51	7.15	6.944 CC, ES		
1,700.00	1,700.00	1,699.81	1,699.80	3.69	3.69	122.18	-26.19	42.31	49.99	42.62	7.37	6.779		
1,750.00	1,749.98	1,749.60	1,749.58	3.80	3.79	121.98	-25.28	43.22	50.98	43.38	7.59	6.714		
1,800.00	1,799.95	1,799.58	1,799.53	3.91	3.90	121.74	-24.04	44.46	52.29	44.48	7.81	6.693		
1,900.00	1,899.89	1,899.55	1,899.43	4.14	4.12	121.29	-21.58	46.92	54.93	46.68	8.26	6.654		
2,000.00	1,999.83	1,999.51	1,999.34	4.36	4.34	120.89	-19.11	49.39	57.57	48.87	8.70	6.618		
2,100.00	2,099.77	2,099.47	2,099.24	4.59	4.56	120.51	-16.64	51.86	60.22	51.07	9.15	6.584		
2,200.00	2,199.71	2,199.44	2,199.15	4.81	4.79	120.17	-14.17	54.33	62.86	53.27	9.59	6.553		
2,300.00	2,299.64	2,299.40	2,299.05	5.04	5.01	119.86	-11.71	56.79	65.51	55.47	10.04	6.524		
2,400.00	2,399.58	2,399.37	2,398.95	5.27	5.23	119.57	-9.24	59.26	68.16	57.67	10.49	6.497		
2,500.00	2,499.52	2,499.33	2,498.86	5.49	5.46	119.31	-6.77	61.73	70.81	59.87	10.94	6.471		
2,600.00	2,599.46	2,599.30	2,598.76	5.72	5.68	119.06	-4.31	64.19	73.46	62.07	11.39	6.448		
2,700.00	2,699.40	2,699.26	2,698.66	5.95	5.91	118.83	-1.84	66.66	76.12	64.27	11.85	6.426		
2,750.00	2,749.37	2,749.24	2,748.61	6.06	6.02	118.72	-0.61	67.89	77.45	65.37	12.07	6.415		
2,800.00	2,799.35	2,799.23	2,798.57	6.16	6.13	118.36	0.63	69.13	78.56	66.28	12.29	6.395		
2,850.00	2,849.35	2,849.21	2,848.52	6.25	6.25	117.44	1.86	70.36	79.28	66.80	12.49	6.350		
2,900.00	2,899.35	2,899.17	2,898.45	6.35	6.36	116.24	3.09	71.59	79.83	67.13	12.70	6.287		
3,000.00	2,999.35	2,999.11	2,998.33	6.57	6.59	113.91	5.56	74.06	81.02	67.87	13.15	6.162		
3,100.00	3,099.35	3,099.05	3,098.21	6.79	6.82	111.64	8.03	76.53	82.34	68.74	13.60	6.054		
3,200.00	3,199.35	3,198.99	3,198.09	7.02	7.04	109.45	10.49	78.99	83.78	69.73	14.05	5.963		
3,300.00	3,299.35	3,299.61	3,298.66	7.24	7.26	107.58	12.67	81.17	85.15	70.66	14.49	5.876		
3,400.00	3,399.35	3,400.30	3,399.35	7.46	7.45	107.32	12.98	81.48	85.35	70.45	14.90	5.728		
3,500.00	3,499.35	3,500.30	3,499.35	7.69	7.67	107.32	12.98	81.48	85.35	70.01	15.35	5.562		
3,600.00	3,599.35	3,600.30	3,599.35	7.91	7.89	107.32	12.98	81.48	85.35	69.56	15.79	5.405		
3,700.00	3,699.35	3,700.30	3,699.35	8.14	8.11	107.32	12.98	81.48	85.35	69.12	16.24	5.257		
3,800.00	3,799.35	3,800.30	3,799.35	8.36	8.33	107.32	12.98	81.48	85.35	68.67	16.68	5.116		
3,900.00	3,899.35	3,900.30	3,899.35	8.58	8.55	107.32	12.98	81.48	85.35	68.22	17.13	4.983		
4,000.00	3,999.35	4,000.30	3,999.35	8.81	8.77	107.32	12.98	81.48	85.35	67.78	17.58	4.856		
4,100.00	4,099.35	4,100.30	4,099.35	9.03	9.00	107.32	12.98	81.48	85.35	67.33	18.02	4.736		
4,200.00	4,199.35	4,200.30	4,199.35	9.26	9.22	107.32	12.98	81.48	85.35	66.89	18.47	4.622		
4,300.00	4,299.35	4,300.30	4,299.35	9.48	9.44	107.32	12.98	81.48	85.35	66.44	18.91	4.513		
4,400.00	4,399.35	4,400.30	4,399.35	9.70	9.66	107.32	12.98	81.48	85.35	65.99	19.36	4.408		
4,500.00	4,499.35	4,500.30	4,499.35	9.93	9.89	107.32	12.98	81.48	85.35	65.54	19.81	4.309		
4,600.00	4,599.35	4,600.30	4,599.35	10.15	10.11	107.32	12.98	81.48	85.35	65.10	20.26	4.214		
4,700.00	4,699.35	4,700.30	4,699.35	10.38	10.33	107.32	12.98	81.48	85.35	64.65	20.70	4.123		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #7H - Wellbore #1 - Plan#1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 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		
4,800.00	4,799.35	4,800.30	4,799.35	10.60	10.55	107.32	12.98	81.48	85.35	64.20	21.15	4.036		
4,900.00	4,899.35	4,900.30	4,899.35	10.83	10.78	107.32	12.98	81.48	85.35	63.76	21.60	3.952		
5,000.00	4,999.35	5,000.30	4,999.35	11.05	11.00	107.32	12.98	81.48	85.35	63.31	22.04	3.872		
5,100.00	5,099.35	5,100.30	5,099.35	11.27	11.22	107.32	12.98	81.48	85.35	62.86	22.49	3.795		
5,200.00	5,199.35	5,200.30	5,199.35	11.50	11.45	107.32	12.98	81.48	85.35	62.41	22.94	3.721		
5,300.00	5,299.35	5,300.30	5,299.35	11.72	11.67	107.32	12.98	81.48	85.35	61.97	23.39	3.650		
5,400.00	5,399.35	5,400.30	5,399.35	11.95	11.89	107.32	12.98	81.48	85.35	61.52	23.83	3.581		
5,500.00	5,499.35	5,500.30	5,499.35	12.17	12.12	107.32	12.98	81.48	85.35	61.07	24.28	3.515		
5,566.57	5,565.92	5,566.87	5,565.92	12.32	12.26	107.32	12.98	81.48	85.35	60.77	24.58	3.472		
5,600.00	5,599.35	5,600.00	5,599.05	12.40	12.34	107.32	12.98	81.48	85.35	60.62	24.73	3.451		
5,700.00	5,699.33	5,697.43	5,696.45	12.59	12.54	-45.11	12.25	82.97	85.80	60.69	25.10	3.418 SF		
5,800.00	5,799.19	5,794.50	5,793.39	12.77	12.73	-46.91	10.07	87.40	87.17	61.74	25.44	3.427		
5,897.52	5,896.34	5,889.04	5,887.60	12.94	12.92	-49.71	6.55	94.55	89.57	63.82	25.75	3.478		
5,900.00	5,898.80	5,891.44	5,889.99	12.94	12.93	-49.79	6.44	94.77	89.65	63.89	25.76	3.480		
6,000.00	5,998.26	5,988.22	5,986.08	13.12	13.13	-52.73	1.38	105.04	94.58	68.46	26.12	3.621		
6,100.00	6,097.72	6,084.66	6,081.40	13.30	13.34	-54.74	-5.09	118.17	102.91	76.42	26.48	3.885		
6,200.00	6,197.19	6,180.55	6,175.63	13.48	13.56	-55.86	-12.92	134.07	114.46	87.61	26.85	4.263		
6,300.00	6,296.65	6,275.69	6,268.49	13.66	13.80	-56.25	-22.07	152.63	129.14	101.92	27.22	4.744		
6,400.00	6,396.11	6,371.54	6,361.35	13.85	14.05	-56.14	-32.56	173.92	146.66	119.06	27.59	5.315		
6,500.00	6,495.57	6,469.88	6,456.48	14.04	14.33	-55.97	-43.59	196.31	164.77	136.79	27.98	5.889		
6,600.00	6,595.03	6,568.23	6,551.60	14.23	14.61	-55.83	-54.62	218.70	182.89	154.52	28.37	6.446		
6,700.00	6,694.49	6,666.57	6,646.72	14.43	14.92	-55.72	-65.65	241.10	201.01	172.24	28.77	6.986		
6,800.00	6,793.95	6,764.92	6,741.85	14.63	15.23	-55.62	-76.68	263.49	219.13	189.95	29.18	7.510		
6,900.00	6,893.41	6,863.26	6,836.97	14.84	15.55	-55.54	-87.71	285.88	237.25	207.66	29.59	8.017		
7,000.00	6,992.88	6,961.60	6,932.09	15.05	15.89	-55.47	-98.74	308.27	255.37	225.36	30.01	8.509		
7,100.00	7,092.34	7,059.95	7,027.22	15.26	16.23	-55.41	-109.78	330.66	273.49	243.05	30.44	8.985		
7,200.00	7,191.80	7,158.29	7,122.34	15.47	16.59	-55.36	-120.81	353.05	291.61	260.74	30.87	9.447		
7,300.00	7,291.26	7,256.64	7,217.46	15.69	16.95	-55.32	-131.84	375.45	309.73	278.43	31.31	9.894		
7,400.00	7,390.72	7,354.98	7,312.59	15.91	17.32	-55.27	-142.87	397.84	327.86	296.11	31.75	10.327		
7,500.00	7,490.18	7,453.33	7,407.71	16.13	17.70	-55.24	-153.90	420.23	345.98	313.78	32.19	10.746		
7,600.00	7,589.64	7,551.67	7,502.83	16.35	18.09	-55.21	-164.93	442.62	364.10	331.45	32.65	11.153		
7,700.00	7,689.10	7,650.01	7,597.96	16.58	18.48	-55.18	-175.97	465.01	382.22	349.12	33.10	11.546		
7,800.00	7,788.57	7,748.36	7,693.08	16.81	18.88	-55.15	-187.00	487.40	400.34	366.78	33.56	11.928		
7,900.00	7,888.03	7,846.70	7,788.20	17.04	19.28	-55.12	-198.03	509.80	418.46	384.43	34.03	12.297		
8,000.00	7,987.49	7,945.05	7,883.33	17.27	19.70	-55.10	-209.06	532.19	436.59	402.09	34.50	12.655		
8,100.00	8,086.95	8,043.39	7,978.45	17.51	20.11	-55.08	-220.09	554.58	454.71	419.74	34.97	13.002		
8,200.00	8,186.41	8,141.73	8,073.58	17.74	20.53	-55.06	-231.12	576.97	472.83	437.38	35.45	13.338		
8,300.00	8,285.87	8,240.08	8,168.70	17.98	20.96	-55.04	-242.15	599.36	490.95	455.02	35.93	13.664		
8,400.00	8,385.33	8,338.42	8,263.82	18.22	21.39	-55.03	-253.19	621.76	509.08	472.66	36.42	13.980		
8,500.00	8,484.79	8,436.77	8,358.95	18.46	21.82	-55.01	-264.22	644.15	527.20	490.30	36.90	14.286		
8,600.00	8,584.25	8,535.11	8,454.07	18.71	22.26	-55.00	-275.25	666.54	545.32	507.93	37.39	14.583		
8,700.00	8,683.72	8,633.45	8,549.19	18.95	22.70	-54.98	-286.28	688.93	563.44	525.56	37.89	14.871		
8,800.00	8,783.18	8,731.80	8,644.32	19.20	23.14	-54.97	-297.31	711.32	581.57	543.18	38.38	15.151		
8,900.00	8,882.64	8,830.14	8,739.44	19.44	23.59	-54.96	-308.34	733.71	599.69	560.80	38.88	15.422		
9,000.00	8,982.10	8,928.49	8,834.56	19.69	24.04	-54.95	-319.38	756.11	617.81	578.42	39.39	15.686		
9,100.00	9,081.56	9,026.83	8,929.69	19.94	24.49	-54.94	-330.41	778.50	635.93	596.04	39.89	15.941		
9,200.00	9,181.02	9,115.48	9,014.63	20.20	24.90	-54.46	-345.55	798.51	654.69	614.35	40.35	16.227		
9,300.00	9,280.48	9,200.00	9,092.59	20.45	25.32	-52.95	-372.24	816.94	675.41	634.65	40.75	16.574		
9,400.00	9,379.94	9,275.67	9,158.47	20.70	25.74	-50.81	-405.92	832.56	699.03	657.92	41.12	17.002		
9,500.00	9,479.41	9,343.88	9,213.68	20.96	26.15	-48.33	-443.67	845.68	726.77	685.33	41.44	17.538		
9,600.00	9,578.87	9,400.00	9,255.58	21.21	26.52	-45.96	-479.62	855.67	759.64	717.91	41.73	18.203		
9,700.00	9,678.33	9,450.00	9,289.86	21.47	26.85	-43.65	-515.06	863.87	798.31	756.30	42.01	19.004		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
 Project: Lea County, NM
 Reference Site: Hamon Fed Pad
 Site Error: 0.00 ft
 Reference Well: Hamon Fed Com A #6H
 Well Error: 0.00 ft
 Reference Wellbore: Wellbore #1
 Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
 TVD Reference: KB=18' @ 3628.00ft (McVay 4)
 MD Reference: KB=18' @ 3628.00ft (McVay 4)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #7H - Wellbore #1 - Plan#1													Offset Site Error: 0.00 ft
Survey Program: 0-MWD													Offset Well Error: 0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)					
9,800.00	9,777.79	9,500.00	9,321.00	21.73	27.21	-41.20	-553.44	871.35	842.98	800.71	42.27	19.943	
9,832.06	9,809.68	9,511.34	9,327.60	21.81	27.29	-40.63	-562.53	872.94	858.57	816.22	42.35	20.273	
9,850.00	9,827.49	9,518.32	9,331.57	21.86	27.34	-45.91	-568.18	873.89	867.47	825.15	42.33	20.494	
9,900.00	9,876.73	9,538.06	9,342.45	22.00	27.49	-51.23	-584.44	876.52	892.26	849.99	42.26	21.111	
9,950.00	9,925.06	9,550.00	9,348.76	22.17	27.58	-52.06	-594.46	878.04	916.83	874.67	42.16	21.746	
10,000.00	9,972.12	9,578.62	9,363.05	22.36	27.80	-50.78	-619.02	881.50	940.72	898.72	42.00	22.397	
10,050.00	10,017.54	9,600.00	9,372.93	22.57	27.97	-49.26	-637.82	883.90	963.88	922.16	41.73	23.100	
10,100.00	10,060.99	9,620.34	9,381.69	22.80	28.13	-47.62	-656.05	886.03	986.04	944.71	41.33	23.857	
10,150.00	10,102.13	9,650.00	9,393.33	23.06	28.38	-45.79	-683.18	888.88	1,007.07	966.26	40.81	24.678	
10,200.00	10,140.65	9,662.92	9,397.97	23.35	28.49	-44.42	-695.19	890.02	1,026.60	986.43	40.18	25.552	
10,250.00	10,176.26	9,684.48	9,405.12	23.66	28.67	-43.00	-715.44	891.78	1,044.71	1,005.24	39.46	26.474	
10,300.00	10,208.68	9,700.00	9,409.80	24.01	28.80	-41.81	-730.20	892.95	1,061.22	1,022.52	38.70	27.421	
10,350.00	10,237.67	9,728.00	9,417.26	24.38	29.04	-40.63	-757.11	894.81	1,075.92	1,037.95	37.97	28.340	
10,400.00	10,263.01	9,750.00	9,422.22	24.79	29.24	-39.69	-778.51	896.07	1,088.83	1,051.53	37.30	29.193	
10,450.00	10,284.50	9,771.94	9,426.37	25.22	29.43	-38.90	-800.03	897.13	1,099.84	1,063.07	36.77	29.908	
10,500.00	10,301.99	9,800.00	9,430.50	25.68	29.68	-38.25	-827.76	898.21	1,108.92	1,072.44	36.48	30.399	
10,550.00	10,315.33	9,816.17	9,432.27	26.16	29.83	-37.80	-843.82	898.70	1,115.90	1,079.49	36.41	30.649	
10,600.00	10,324.43	9,850.00	9,434.56	26.67	30.14	-37.45	-877.57	899.37	1,121.00	1,084.26	36.75	30.508	
10,650.00	10,329.21	9,860.57	9,434.87	27.20	30.24	-37.29	-888.13	899.49	1,123.75	1,086.47	37.29	30.138	
10,680.01	10,330.00	9,875.21	9,435.00	27.52	30.38	-37.25	-902.77	899.58	1,124.48	1,086.64	37.83	29.722	
10,700.00	10,330.00	9,895.19	9,435.00	27.74	30.57	-37.27	-922.75	899.67	1,124.68	1,086.54	38.14	29.489	
10,800.00	10,330.00	9,995.18	9,435.00	28.88	31.57	-37.34	-1,022.73	900.08	1,125.72	1,085.98	39.74	28.329	
10,900.00	10,330.00	10,095.16	9,435.00	30.09	32.65	-37.41	-1,122.72	900.50	1,126.76	1,085.33	41.43	27.195	
11,000.00	10,330.00	10,195.15	9,435.00	31.36	33.79	-37.48	-1,222.70	900.92	1,127.80	1,084.59	43.21	26.098	
11,100.00	10,330.00	10,295.13	9,435.00	32.69	35.00	-37.54	-1,322.69	901.33	1,128.85	1,083.77	45.07	25.045	
11,200.00	10,330.00	10,395.12	9,435.00	34.06	36.25	-37.61	-1,422.67	901.75	1,129.89	1,082.89	47.00	24.040	
11,300.00	10,330.00	10,495.10	9,435.00	35.47	37.55	-37.68	-1,522.66	902.16	1,130.94	1,081.95	48.99	23.085	
11,400.00	10,330.00	10,595.09	9,435.00	36.91	38.90	-37.75	-1,622.64	902.58	1,131.99	1,080.95	51.03	22.181	
11,500.00	10,330.00	10,695.07	9,435.00	38.39	40.29	-37.82	-1,722.63	903.00	1,133.04	1,079.91	53.13	21.327	
11,600.00	10,330.00	10,795.06	9,435.00	39.90	41.70	-37.89	-1,822.61	903.41	1,134.09	1,078.82	55.27	20.521	
11,700.00	10,330.00	10,895.05	9,435.00	41.43	43.16	-37.96	-1,922.59	903.83	1,135.14	1,077.70	57.44	19.761	
11,800.00	10,330.00	10,995.03	9,435.00	42.99	44.63	-38.02	-2,022.58	904.24	1,136.20	1,076.54	59.66	19.045	
11,900.00	10,330.00	11,095.02	9,435.00	44.57	46.14	-38.09	-2,122.56	904.66	1,137.25	1,075.35	61.91	18.371	
12,000.00	10,330.00	11,195.00	9,435.00	46.16	47.67	-38.16	-2,222.55	905.08	1,138.31	1,074.13	64.18	17.735	
12,100.00	10,330.00	11,294.99	9,435.00	47.78	49.21	-38.23	-2,322.53	905.49	1,139.37	1,072.88	66.49	17.136	
12,200.00	10,330.00	11,394.97	9,435.00	49.40	50.78	-38.30	-2,422.52	905.91	1,140.43	1,071.61	68.82	16.571	
12,300.00	10,330.00	11,494.96	9,435.00	51.04	52.37	-38.36	-2,522.50	906.32	1,141.50	1,070.32	71.18	16.038	
12,400.00	10,330.00	11,594.94	9,435.00	52.70	53.97	-38.43	-2,622.49	906.74	1,142.56	1,069.01	73.55	15.534	
12,500.00	10,330.00	11,694.93	9,435.00	54.36	55.58	-38.50	-2,722.47	907.16	1,143.63	1,067.68	75.95	15.058	
12,600.00	10,330.00	11,794.91	9,435.00	56.04	57.21	-38.56	-2,822.45	907.57	1,144.69	1,066.33	78.36	14.608	
12,700.00	10,330.00	11,894.90	9,435.00	57.72	58.85	-38.63	-2,922.44	907.99	1,145.76	1,064.97	80.80	14.181	
12,800.00	10,330.00	11,994.88	9,435.00	59.41	60.50	-38.70	-3,022.42	908.41	1,146.83	1,063.59	83.25	13.777	
12,900.00	10,330.00	12,094.87	9,435.00	61.11	62.16	-38.76	-3,122.41	908.82	1,147.91	1,062.20	85.71	13.393	
13,000.00	10,330.00	12,194.85	9,435.00	62.82	63.83	-38.83	-3,222.39	909.24	1,148.98	1,060.79	88.19	13.029	
13,100.00	10,330.00	12,294.84	9,435.00	64.53	65.51	-38.90	-3,322.38	909.65	1,150.05	1,059.37	90.68	12.682	
13,200.00	10,330.00	12,394.83	9,435.00	66.25	67.19	-38.96	-3,422.36	910.07	1,151.13	1,057.94	93.19	12.353	
13,270.75	10,330.00	12,465.57	9,435.00	67.47	68.39	-39.01	-3,493.10	910.36	1,151.89	1,056.93	94.97	12.129	
13,300.00	10,330.15	12,494.81	9,435.00	67.92	68.89	-39.03	-3,522.35	910.49	1,152.33	1,056.76	95.56	12.058	
13,320.75	10,330.43	12,515.56	9,435.00	68.21	69.24	-39.04	-3,543.09	910.57	1,152.77	1,056.81	95.96	12.013	
13,400.00	10,331.82	12,594.78	9,435.00	69.43	70.59	-39.05	-3,622.32	910.90	1,154.70	1,056.88	97.82	11.804	
13,500.00	10,333.56	12,694.75	9,435.00	71.17	72.30	-39.06	-3,722.29	911.32	1,157.14	1,056.86	100.28	11.539	
13,600.00	10,335.31	12,794.72	9,435.00	72.91	74.01	-39.07	-3,822.25	911.73	1,159.57	1,056.83	102.74	11.286	

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #7H - Wellbore #1 - Plan#1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 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		
13,700.00	10,337.05	12,894.69	9,435.00	74.65	75.73	-39.09	-3,922.22	912.15	1,162.01	1,056.79	105.22	11.044		
13,800.00	10,338.80	12,994.66	9,435.00	76.40	77.45	-39.10	-4,022.19	912.57	1,164.44	1,056.75	107.69	10.813		
13,900.00	10,340.54	13,094.63	9,435.00	78.15	79.18	-39.11	-4,122.16	912.98	1,166.88	1,056.70	110.18	10.591		
14,000.00	10,342.29	13,194.60	9,435.00	79.91	80.91	-39.12	-4,222.13	913.40	1,169.31	1,056.64	112.67	10.378		
14,100.00	10,344.03	13,294.57	9,435.00	81.67	82.65	-39.13	-4,322.10	913.81	1,171.75	1,056.58	115.16	10.175		
14,200.00	10,345.78	13,394.54	9,435.00	83.43	84.39	-39.14	-4,422.07	914.23	1,174.18	1,056.52	117.66	9.979		
14,300.00	10,347.52	13,494.51	9,435.00	85.19	86.14	-39.15	-4,522.04	914.65	1,176.62	1,056.45	120.17	9.791		
14,400.00	10,349.27	13,594.48	9,435.00	86.96	87.89	-39.16	-4,622.01	915.06	1,179.05	1,056.38	122.68	9.611		
14,500.00	10,351.01	13,694.45	9,435.00	88.73	89.64	-39.17	-4,721.98	915.48	1,181.49	1,056.30	125.19	9.438		
14,600.00	10,352.76	13,794.42	9,435.00	90.50	91.39	-39.19	-4,821.95	915.89	1,183.92	1,056.22	127.71	9.271		
14,700.00	10,354.50	13,894.39	9,435.00	92.27	93.15	-39.20	-4,921.92	916.31	1,186.36	1,056.13	130.23	9.110		
14,800.00	10,356.25	13,994.36	9,435.00	94.05	94.91	-39.21	-5,021.88	916.73	1,188.79	1,056.04	132.75	8.955		
14,900.00	10,357.99	14,094.33	9,435.00	95.82	96.68	-39.22	-5,121.85	917.14	1,191.23	1,055.95	135.28	8.806		
15,000.00	10,359.74	14,194.30	9,435.00	97.60	98.44	-39.23	-5,221.82	917.56	1,193.66	1,055.85	137.81	8.662		
15,100.00	10,361.48	14,294.27	9,435.00	99.38	100.21	-39.24	-5,321.79	917.97	1,196.10	1,055.75	140.35	8.522		
15,200.00	10,363.23	14,394.24	9,435.00	101.17	101.98	-39.25	-5,421.76	918.39	1,198.54	1,055.65	142.88	8.388		
15,299.41	10,364.96	14,492.78	9,435.00	102.63	103.48	-39.26	-5,520.30	918.80	1,200.96	1,056.12	144.83	8.292		



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #8H - Wellbore #1 - Plan #1													Offset Site Error: 0.00 ft	
Survey Program: 0-MWD													Offset Well Error: 0.00 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		
0.00	0.00	1.00	1.00	0.00	0.00	122.78	-54.10	84.00	99.91					
100.00	100.00	101.00	101.00	0.09	0.09	122.78	-54.10	84.00	99.91	99.73	0.19	535.572		
200.00	200.00	201.00	201.00	0.32	0.32	122.78	-54.10	84.00	99.91	99.28	0.64	157.076		
300.00	300.00	301.00	301.00	0.54	0.54	122.78	-54.10	84.00	99.91	98.83	1.09	92.034		
400.00	400.00	401.00	401.00	0.77	0.77	122.78	-54.10	84.00	99.91	98.38	1.54	65.084		
500.00	500.00	501.00	501.00	0.99	0.99	122.78	-54.10	84.00	99.91	97.93	1.98	50.343		
600.00	600.00	601.00	601.00	1.22	1.22	122.78	-54.10	84.00	99.91	97.48	2.43	41.046		
700.00	700.00	701.00	701.00	1.44	1.44	122.78	-54.10	84.00	99.91	97.03	2.88	34.647		
800.00	800.00	801.00	801.00	1.67	1.67	122.78	-54.10	84.00	99.91	96.58	3.33	29.975		
900.00	900.00	901.00	901.00	1.89	1.89	122.78	-54.10	84.00	99.91	96.13	3.78	26.413		
1,000.00	1,000.00	1,001.00	1,001.00	2.12	2.12	122.78	-54.10	84.00	99.91	95.68	4.23	23.607		
1,100.00	1,100.00	1,101.00	1,101.00	2.34	2.34	122.78	-54.10	84.00	99.91	95.23	4.68	21.341		
1,200.00	1,200.00	1,201.00	1,201.00	2.56	2.57	122.78	-54.10	84.00	99.91	94.78	5.13	19.471		
1,300.00	1,300.00	1,301.00	1,301.00	2.79	2.79	122.78	-54.10	84.00	99.91	94.33	5.58	17.903		
1,400.00	1,400.00	1,401.00	1,401.00	3.01	3.02	122.78	-54.10	84.00	99.91	93.88	6.03	16.568		
1,500.00	1,500.00	1,501.00	1,501.00	3.24	3.24	122.78	-54.10	84.00	99.91	93.43	6.48	15.419		
1,600.00	1,600.00	1,601.00	1,601.00	3.46	3.47	122.78	-54.10	84.00	99.91	92.98	6.93	14.419		
1,650.00	1,650.00	1,651.00	1,651.00	3.58	3.58	122.78	-54.10	84.00	99.91	92.76	7.15	13.966 CC, ES		
1,700.00	1,700.00	1,701.00	1,701.00	3.69	3.69	122.99	-54.10	84.00	100.15	92.77	7.38	13.573		
1,750.00	1,749.98	1,750.98	1,750.98	3.80	3.80	123.60	-54.10	84.00	100.87	93.27	7.60	13.268		
1,800.00	1,799.95	1,800.95	1,800.95	3.91	3.92	124.42	-54.10	84.00	101.85	94.02	7.83	13.013		
1,900.00	1,899.89	1,900.89	1,900.89	4.14	4.14	126.01	-54.10	84.00	103.86	95.58	8.28	12.551		
2,000.00	1,999.83	2,000.83	2,000.83	4.36	4.36	127.53	-54.10	84.00	105.95	97.23	8.72	12.144		
2,100.00	2,099.77	2,100.77	2,100.77	4.59	4.59	129.00	-54.10	84.00	108.11	98.94	9.17	11.784		
2,200.00	2,199.71	2,200.71	2,200.71	4.81	4.81	130.41	-54.10	84.00	110.34	100.72	9.62	11.465		
2,300.00	2,299.64	2,300.64	2,300.64	5.04	5.04	131.76	-54.10	84.00	112.64	102.56	10.08	11.180		
2,400.00	2,399.58	2,400.58	2,400.58	5.27	5.26	133.05	-54.10	84.00	114.99	104.47	10.53	10.925		
2,500.00	2,499.52	2,500.52	2,500.52	5.49	5.49	134.30	-54.10	84.00	117.40	106.43	10.98	10.696		
2,600.00	2,599.46	2,600.46	2,600.46	5.72	5.71	135.49	-54.10	84.00	119.87	108.44	11.43	10.489		
2,700.00	2,699.40	2,700.40	2,700.40	5.95	5.94	136.64	-54.10	84.00	122.38	110.50	11.88	10.303		
2,750.00	2,749.37	2,750.37	2,750.37	6.06	6.05	137.19	-54.10	84.00	123.66	111.55	12.10	10.216		
2,800.00	2,799.35	2,800.00	2,800.00	6.16	6.16	137.61	-54.10	84.00	124.62	112.30	12.32	10.118		
2,850.00	2,849.35	2,848.64	2,848.64	6.25	6.26	137.64	-54.18	84.40	125.29	112.79	12.50	10.026		
2,900.00	2,899.35	2,896.91	2,896.89	6.35	6.36	137.31	-54.42	85.61	126.31	113.62	12.70	9.950		
3,000.00	2,999.35	2,993.26	2,993.11	6.57	6.55	136.05	-55.39	90.39	130.45	117.34	13.11	9.952		
3,100.00	3,099.35	3,089.17	3,088.68	6.79	6.74	134.13	-56.98	98.30	137.45	123.93	13.52	10.164		
3,200.00	3,199.35	3,184.44	3,183.29	7.02	6.94	131.77	-59.18	109.25	147.47	133.52	13.95	10.574		
3,300.00	3,299.35	3,278.87	3,276.64	7.24	7.16	129.18	-61.98	123.14	160.63	146.25	14.37	11.174		
3,400.00	3,399.35	3,372.25	3,368.45	7.46	7.38	126.57	-65.34	139.84	177.01	162.20	14.81	11.951		
3,500.00	3,499.35	3,468.89	3,463.04	7.69	7.64	124.05	-69.25	159.27	195.82	180.55	15.26	12.828		
3,600.00	3,599.35	3,566.75	3,558.80	7.91	7.91	121.94	-73.23	179.02	215.01	199.29	15.73	13.673		
3,700.00	3,699.35	3,664.61	3,654.56	8.14	8.20	120.18	-77.20	198.76	234.45	218.25	16.19	14.480		
3,800.00	3,799.35	3,762.46	3,750.33	8.36	8.50	118.69	-81.18	218.51	254.06	237.40	16.66	15.248		
3,900.00	3,899.35	3,860.32	3,846.09	8.58	8.81	117.41	-85.15	238.26	273.81	256.68	17.14	15.978		
4,000.00	3,999.35	3,958.18	3,941.85	8.81	9.13	116.30	-89.13	258.01	293.68	276.07	17.61	16.673		
4,100.00	4,099.35	4,056.04	4,037.61	9.03	9.46	115.33	-93.10	277.76	313.65	295.55	18.10	17.333		
4,200.00	4,199.35	4,153.90	4,133.38	9.26	9.80	114.48	-97.08	297.50	333.68	315.11	18.58	17.960		
4,300.00	4,299.35	4,251.76	4,229.14	9.48	10.15	113.73	-101.05	317.25	353.79	334.72	19.07	18.556		
4,400.00	4,399.35	4,349.61	4,324.90	9.70	10.50	113.05	-105.03	337.00	373.94	354.38	19.55	19.123		
4,500.00	4,499.35	4,447.47	4,420.66	9.93	10.86	112.45	-109.01	356.75	394.14	374.09	20.05	19.662		
4,600.00	4,599.35	4,545.33	4,516.43	10.15	11.22	111.90	-112.98	376.49	414.37	393.83	20.54	20.175		
4,700.00	4,699.35	4,643.19	4,612.19	10.38	11.59	111.41	-116.96	396.24	434.64	413.61	21.03	20.664		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #8H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 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	
4,800.00	4,799.35	4,741.05	4,707.95	10.60	11.96	110.96	-120.93	415.99	454.94	433.41	21.53	21.130		
4,900.00	4,899.35	4,838.91	4,803.71	10.83	12.34	110.54	-124.91	435.74	475.26	453.23	22.03	21.575		
5,000.00	4,999.35	4,936.76	4,899.48	11.05	12.72	110.17	-128.88	455.49	495.60	473.08	22.53	22.000		
5,100.00	5,099.35	5,034.62	4,995.24	11.27	13.11	109.82	-132.86	475.23	515.97	492.94	23.03	22.405		
5,200.00	5,199.35	5,132.48	5,091.00	11.50	13.49	109.49	-136.83	494.98	536.35	512.82	23.53	22.793		
5,300.00	5,299.35	5,230.34	5,186.76	11.72	13.88	109.20	-140.81	514.73	556.74	532.71	24.03	23.165		
5,400.00	5,399.35	5,328.20	5,282.53	11.95	14.28	108.92	-144.78	534.48	577.15	552.61	24.54	23.520		
5,500.00	5,499.35	5,426.06	5,378.29	12.17	14.67	108.66	-148.76	554.23	597.57	572.53	25.04	23.861		
5,600.00	5,599.35	5,523.91	5,474.05	12.40	15.07	108.42	-152.73	573.97	618.00	592.45	25.55	24.187		
5,700.00	5,699.33	5,621.98	5,570.02	12.59	15.47	-43.46	-156.72	593.76	637.20	612.16	25.04	25.443		
5,800.00	5,799.19	5,720.39	5,666.32	12.77	15.87	-43.75	-160.72	613.62	653.95	628.49	25.46	25.689		
5,897.52	5,896.34	5,816.57	5,760.44	12.94	16.27	-44.25	-164.62	633.03	667.96	642.12	25.84	25.847		
5,900.00	5,898.80	5,819.01	5,762.83	12.94	16.28	-44.27	-164.72	633.53	668.29	642.43	25.85	25.849		
6,000.00	5,998.26	5,917.70	5,859.41	13.12	16.69	-45.05	-168.73	653.44	681.56	655.30	26.26	25.954		
6,100.00	6,097.72	6,016.39	5,955.98	13.30	17.10	-45.80	-172.74	673.36	694.95	668.28	26.67	26.055		
6,200.00	6,197.19	6,115.08	6,052.56	13.48	17.51	-46.53	-176.75	693.27	708.46	681.37	27.09	26.152		
6,300.00	6,296.65	6,213.77	6,149.14	13.66	17.92	-47.22	-180.76	713.19	722.07	694.56	27.51	26.246		
6,400.00	6,396.11	6,312.46	6,245.71	13.85	18.33	-47.89	-184.77	733.11	735.79	707.85	27.94	26.336		
6,500.00	6,495.57	6,411.16	6,342.29	14.04	18.75	-48.54	-188.78	753.02	749.60	721.23	28.37	26.422		
6,600.00	6,595.03	6,509.85	6,438.87	14.23	19.16	-49.16	-192.79	772.94	763.50	734.70	28.81	26.505		
6,700.00	6,694.49	6,608.54	6,535.45	14.43	19.58	-49.77	-196.80	792.85	777.49	748.25	29.25	26.584		
6,800.00	6,793.95	6,707.23	6,632.02	14.63	20.00	-50.35	-200.81	812.77	791.56	761.87	29.69	26.659		
6,900.00	6,893.41	6,805.92	6,728.60	14.84	20.42	-50.91	-204.81	832.69	805.71	775.57	30.14	26.730		
7,000.00	6,992.88	6,904.61	6,825.18	15.05	20.84	-51.45	-208.82	852.60	819.93	789.34	30.60	26.798		
7,100.00	7,092.34	7,003.30	6,921.75	15.26	21.26	-51.97	-212.83	872.52	834.22	803.17	31.06	26.862		
7,200.00	7,191.80	7,101.99	7,018.33	15.47	21.68	-52.47	-216.84	892.43	848.58	817.06	31.52	26.923		
7,300.00	7,291.26	7,200.68	7,114.91	15.69	22.10	-52.96	-220.85	912.35	863.00	831.01	31.99	26.981		
7,400.00	7,390.72	7,299.37	7,211.49	15.91	22.52	-53.43	-224.86	932.26	877.48	845.02	32.46	27.036		
7,500.00	7,490.18	7,398.06	7,308.06	16.13	22.94	-53.89	-228.87	952.18	892.01	859.08	32.93	27.087		
7,600.00	7,589.64	7,496.75	7,404.64	16.35	23.37	-54.33	-232.88	972.10	906.60	873.19	33.41	27.136		
7,700.00	7,689.10	7,595.44	7,501.22	16.58	23.79	-54.76	-236.89	992.01	921.24	887.35	33.89	27.181		
7,800.00	7,788.57	7,694.13	7,597.79	16.81	24.21	-55.17	-240.90	1,011.93	935.93	901.55	34.38	27.224		
7,900.00	7,888.03	7,792.82	7,694.37	17.04	24.64	-55.57	-244.91	1,031.84	950.67	915.80	34.87	27.265		
8,000.00	7,987.49	7,891.52	7,790.95	17.27	25.07	-55.96	-248.92	1,051.76	965.45	930.09	35.36	27.303		
8,100.00	8,086.95	7,990.21	7,887.52	17.51	25.49	-56.34	-252.92	1,071.68	980.27	944.41	35.86	27.339		
8,200.00	8,186.41	8,088.90	7,984.10	17.74	25.92	-56.71	-256.93	1,091.59	995.13	958.78	36.36	27.372		
8,300.00	8,285.87	8,187.59	8,080.68	17.98	26.34	-57.06	-260.94	1,111.51	1,010.04	973.18	36.86	27.403		
8,400.00	8,385.33	8,286.28	8,177.26	18.22	26.77	-57.41	-264.95	1,131.42	1,024.98	987.61	37.36	27.432		
8,500.00	8,484.79	8,384.97	8,273.83	18.46	27.20	-57.75	-268.96	1,151.34	1,039.95	1,002.08	37.87	27.460		
8,600.00	8,584.25	8,483.66	8,370.41	18.71	27.63	-58.07	-272.97	1,171.26	1,054.96	1,016.58	38.38	27.485		
8,700.00	8,683.72	8,582.35	8,466.99	18.95	28.05	-58.39	-276.98	1,191.17	1,070.00	1,031.11	38.90	27.509		
8,800.00	8,783.18	8,681.04	8,563.56	19.20	28.48	-58.70	-280.99	1,211.09	1,085.08	1,045.66	39.41	27.531		
8,900.00	8,882.64	8,779.73	8,660.14	19.44	28.91	-59.00	-285.00	1,231.00	1,100.18	1,060.25	39.93	27.551		
9,000.00	8,982.10	8,878.42	8,756.72	19.69	29.34	-59.29	-289.01	1,250.92	1,115.31	1,074.86	40.45	27.570		
9,100.00	9,081.56	8,977.11	8,853.29	19.94	29.77	-59.57	-293.02	1,270.84	1,130.47	1,089.49	40.98	27.587		
9,200.00	9,181.02	9,075.80	8,949.87	20.20	30.20	-59.85	-297.03	1,290.75	1,145.66	1,104.15	41.50	27.604		
9,300.00	9,280.48	9,174.49	9,046.45	20.45	30.63	-60.12	-301.03	1,310.67	1,160.87	1,118.84	42.03	27.619		
9,400.00	9,379.94	9,273.18	9,143.03	20.70	31.06	-60.38	-305.04	1,330.58	1,176.10	1,133.54	42.56	27.632		
9,500.00	9,479.41	9,371.87	9,239.60	20.96	31.49	-60.64	-309.05	1,350.50	1,191.36	1,148.27	43.10	27.645		
9,600.00	9,578.87	9,470.57	9,336.18	21.21	31.92	-60.89	-313.06	1,370.42	1,206.64	1,163.01	43.63	27.656		
9,700.00	9,678.33	9,569.26	9,432.76	21.47	32.35	-61.13	-317.07	1,390.33	1,221.95	1,177.78	44.17	27.667		
9,800.00	9,777.79	9,667.95	9,529.33	21.73	32.78	-61.37	-321.08	1,410.25	1,237.27	1,192.57	44.71	27.676		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #8H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 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 +N/-S (ft)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,832.06	9,809.68	9,699.59	9,560.30	21.81	32.92	-61.44	-322.37	1,416.63	1,242.19	1,197.31	44.88	27.679		
9,850.00	9,827.49	9,717.51	9,577.83	21.86	33.00	-67.79	-323.32	1,420.25	1,244.94	1,200.00	44.95	27.697		
9,900.00	9,876.73	9,767.71	9,626.66	22.00	33.21	-75.99	-328.96	1,430.33	1,252.61	1,207.44	45.16	27.735		
9,950.00	9,925.06	9,818.16	9,675.06	22.17	33.43	-79.19	-338.99	1,440.35	1,260.21	1,214.79	45.42	27.748		
10,000.00	9,972.12	9,868.88	9,722.65	22.36	33.66	-80.68	-353.43	1,450.21	1,267.69	1,221.98	45.71	27.734		
10,050.00	10,017.54	9,919.88	9,769.06	22.57	33.90	-81.40	-372.22	1,459.85	1,275.00	1,228.96	46.04	27.692		
10,100.00	10,060.99	9,971.16	9,813.88	22.80	34.16	-81.70	-395.28	1,469.18	1,282.07	1,235.65	46.42	27.619		
10,150.00	10,102.13	10,022.74	9,856.74	23.06	34.42	-81.78	-422.52	1,478.12	1,288.86	1,242.02	46.84	27.514		
10,200.00	10,140.65	10,074.61	9,897.25	23.35	34.69	-81.72	-453.76	1,486.59	1,295.31	1,247.99	47.32	27.373		
10,250.00	10,176.26	10,126.77	9,935.01	23.66	34.97	-81.58	-488.82	1,494.51	1,301.37	1,253.51	47.85	27.195		
10,300.00	10,208.68	10,179.20	9,969.67	24.01	35.27	-81.39	-527.45	1,501.81	1,306.99	1,258.54	48.45	26.975		
10,350.00	10,237.67	10,231.89	10,000.87	24.38	35.57	-81.18	-569.37	1,508.41	1,312.13	1,263.01	49.12	26.713		
10,400.00	10,263.01	10,284.81	10,028.28	24.79	35.89	-80.96	-614.25	1,514.23	1,316.75	1,266.89	49.87	26.406		
10,450.00	10,284.50	10,337.94	10,051.59	25.22	36.22	-80.74	-661.71	1,519.23	1,320.81	1,270.12	50.69	26.055		
10,500.00	10,301.99	10,391.24	10,070.56	25.68	36.56	-80.54	-711.33	1,523.33	1,324.29	1,272.68	51.60	25.663		
10,550.00	10,315.33	10,444.68	10,084.95	26.16	36.91	-80.36	-762.68	1,526.51	1,327.14	1,274.54	52.60	25.233		
10,600.00	10,324.43	10,498.22	10,094.61	26.67	37.27	-80.20	-815.27	1,528.71	1,329.35	1,275.69	53.67	24.770		
10,650.00	10,329.21	10,551.80	10,099.43	27.20	37.65	-80.07	-868.60	1,529.92	1,330.91	1,276.10	54.81	24.283		
10,680.01	10,330.00	10,583.54	10,100.00	27.52	37.87	-80.01	-900.33	1,530.16	1,331.53	1,276.01	55.52	23.983		
10,700.00	10,330.00	10,603.52	10,100.00	27.74	38.02	-80.01	-920.31	1,530.24	1,331.86	1,275.93	55.93	23.811		
10,800.00	10,330.00	10,703.51	10,100.00	28.88	38.79	-80.02	-1,020.30	1,530.64	1,333.54	1,275.44	58.10	22.953		
10,900.00	10,330.00	10,803.49	10,100.00	30.09	39.64	-80.04	-1,120.28	1,531.04	1,335.21	1,274.81	60.40	22.105		
11,000.00	10,330.00	10,903.48	10,100.00	31.36	40.55	-80.05	-1,220.27	1,531.45	1,336.88	1,274.05	62.83	21.278		
11,100.00	10,330.00	11,003.46	10,100.00	32.69	41.52	-80.06	-1,320.25	1,531.85	1,338.56	1,273.19	65.36	20.478		
11,200.00	10,330.00	11,103.45	10,100.00	34.06	42.55	-80.07	-1,420.24	1,532.25	1,340.23	1,272.23	68.00	19.710		
11,300.00	10,330.00	11,203.44	10,100.00	35.47	43.63	-80.09	-1,520.22	1,532.65	1,341.90	1,271.18	70.72	18.975		
11,400.00	10,330.00	11,303.42	10,100.00	36.91	44.76	-80.10	-1,620.21	1,533.05	1,343.58	1,270.06	73.52	18.276		
11,500.00	10,330.00	11,403.41	10,100.00	38.39	45.94	-80.11	-1,720.19	1,533.45	1,345.25	1,268.87	76.38	17.612		
11,600.00	10,330.00	11,503.39	10,100.00	39.90	47.16	-80.12	-1,820.18	1,533.86	1,346.93	1,267.62	79.31	16.983		
11,700.00	10,330.00	11,603.38	10,100.00	41.43	48.42	-80.14	-1,920.16	1,534.26	1,348.60	1,266.31	82.29	16.388		
11,800.00	10,330.00	11,703.36	10,100.00	42.99	49.72	-80.15	-2,020.15	1,534.66	1,350.27	1,264.95	85.32	15.825		
11,900.00	10,330.00	11,803.35	10,100.00	44.57	51.04	-80.16	-2,120.13	1,535.06	1,351.95	1,263.55	88.40	15.294		
12,000.00	10,330.00	11,903.33	10,100.00	46.16	52.40	-80.17	-2,220.12	1,535.46	1,353.62	1,262.11	91.51	14.792		
12,100.00	10,330.00	12,003.32	10,100.00	47.78	53.79	-80.19	-2,320.10	1,535.86	1,355.30	1,260.63	94.66	14.317		
12,200.00	10,330.00	12,103.31	10,100.00	49.40	55.20	-80.20	-2,420.09	1,536.27	1,356.97	1,259.12	97.85	13.868		
12,300.00	10,330.00	12,203.29	10,100.00	51.04	56.64	-80.21	-2,520.07	1,536.67	1,358.65	1,257.59	101.06	13.444		
12,400.00	10,330.00	12,303.28	10,100.00	52.70	58.10	-80.22	-2,620.06	1,537.07	1,360.32	1,256.02	104.30	13.043		
12,500.00	10,330.00	12,403.26	10,100.00	54.36	59.58	-80.23	-2,720.04	1,537.47	1,361.99	1,254.43	107.56	12.662		
12,600.00	10,330.00	12,503.25	10,100.00	56.04	61.08	-80.25	-2,820.03	1,537.87	1,363.67	1,252.82	110.85	12.302		
12,700.00	10,330.00	12,603.23	10,100.00	57.72	62.60	-80.26	-2,920.01	1,538.28	1,365.34	1,251.19	114.15	11.961		
12,800.00	10,330.00	12,703.22	10,100.00	59.41	64.14	-80.27	-3,019.99	1,538.68	1,367.02	1,249.54	117.48	11.637		
12,900.00	10,330.00	12,803.20	10,100.00	61.11	65.69	-80.28	-3,119.98	1,539.08	1,368.69	1,247.88	120.82	11.329		
13,000.00	10,330.00	12,903.19	10,100.00	62.82	67.25	-80.29	-3,219.96	1,539.48	1,370.37	1,246.19	124.17	11.036		
13,100.00	10,330.00	13,003.18	10,100.00	64.53	68.83	-80.31	-3,319.95	1,539.88	1,372.04	1,244.50	127.55	10.757		
13,200.00	10,330.00	13,103.16	10,100.00	66.25	70.42	-80.32	-3,419.93	1,540.28	1,373.72	1,242.79	130.93	10.492		
13,270.75	10,330.00	13,173.90	10,100.00	67.47	71.55	-80.33	-3,490.67	1,540.57	1,374.90	1,241.57	133.33	10.312		
13,300.00	10,330.15	13,203.15	10,100.00	67.92	72.02	-80.33	-3,519.92	1,540.69	1,375.42	1,241.19	134.23	10.247		
13,320.75	10,330.43	13,223.89	10,100.00	68.21	72.35	-80.33	-3,540.66	1,540.77	1,375.81	1,240.99	134.83	10.204		
13,400.00	10,331.82	13,303.12	10,100.00	69.43	73.63	-80.29	-3,619.89	1,541.09	1,377.38	1,240.00	137.37	10.027		
13,500.00	10,333.56	13,403.09	10,100.00	71.17	75.25	-80.23	-3,719.86	1,541.49	1,379.35	1,238.58	140.77	9.799		
13,600.00	10,335.31	13,503.06	10,100.00	72.91	76.88	-80.17	-3,819.83	1,541.89	1,381.32	1,237.14	144.18	9.581		
13,700.00	10,337.05	13,603.03	10,100.00	74.65	78.52	-80.11	-3,919.80	1,542.29	1,383.29	1,235.70	147.59	9.372		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
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Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A #8H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 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		
13,800.00	10,338.80	13,703.00	10,100.00	76.40	80.17	-80.05	-4,019.77	1,542.69	1,385.27	1,234.25	151.01	9.173		
13,900.00	10,340.54	13,802.97	10,100.00	78.15	81.83	-79.99	-4,119.74	1,543.10	1,387.24	1,232.80	154.44	8.982		
14,000.00	10,342.29	13,902.94	10,100.00	79.91	83.49	-79.93	-4,219.71	1,543.50	1,389.22	1,231.34	157.88	8.799		
14,100.00	10,344.03	14,002.91	10,100.00	81.67	85.16	-79.87	-4,319.68	1,543.90	1,391.20	1,229.88	161.32	8.624		
14,200.00	10,345.78	14,102.88	10,100.00	83.43	86.84	-79.81	-4,419.64	1,544.30	1,393.18	1,228.41	164.77	8.455		
14,300.00	10,347.52	14,202.85	10,100.00	85.19	88.53	-79.76	-4,519.61	1,544.70	1,395.16	1,226.94	168.22	8.294		
14,400.00	10,349.27	14,302.82	10,100.00	86.96	90.21	-79.70	-4,619.58	1,545.10	1,397.14	1,225.47	171.67	8.138		
14,500.00	10,351.01	14,402.79	10,100.00	88.73	91.91	-79.64	-4,719.55	1,545.51	1,399.13	1,224.00	175.13	7.989		
14,600.00	10,352.76	14,502.76	10,100.00	90.50	93.61	-79.58	-4,819.52	1,545.91	1,401.12	1,222.52	178.60	7.845		
14,700.00	10,354.50	14,602.73	10,100.00	92.27	95.31	-79.52	-4,919.49	1,546.31	1,403.10	1,221.04	182.06	7.707		
14,800.00	10,356.25	14,702.70	10,100.00	94.05	97.02	-79.47	-5,019.46	1,546.71	1,405.09	1,219.56	185.54	7.573		
14,900.00	10,357.99	14,802.67	10,100.00	95.82	98.74	-79.41	-5,119.43	1,547.11	1,407.08	1,218.07	189.01	7.445		
15,000.00	10,359.74	14,902.64	10,100.00	97.60	100.46	-79.35	-5,219.40	1,547.51	1,409.07	1,216.59	192.49	7.320		
15,100.00	10,361.48	15,002.61	10,100.00	99.38	102.18	-79.30	-5,319.37	1,547.92	1,411.07	1,215.10	195.96	7.201		
15,200.00	10,363.23	15,102.58	10,100.00	101.17	103.90	-79.24	-5,419.34	1,548.32	1,413.06	1,213.62	199.44	7.085		
15,299.41	10,364.96	15,198.04	10,100.00	102.63	105.40	-79.19	-5,514.80	1,548.70	1,415.05	1,212.85	202.20	6.998 SF		



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 3H - Wellbore #1 - Actual Wellbore													Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 10100-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis (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
0.00	0.00	5.06	5.06	0.00	0.01	-155.71		-105.90	-47.80	116.19				
100.00	100.00	106.28	106.28	0.09	0.12	-155.79		-105.41	-47.39	115.58	115.37	0.21	544.745	
200.00	200.00	205.96	205.95	0.32	0.38	-156.04		-104.68	-46.52	114.56	113.86	0.70	164.218	
300.00	300.00	306.27	306.25	0.54	0.64	-156.43		-104.09	-45.41	113.57	112.39	1.18	96.022	
400.00	400.00	406.56	406.53	0.77	0.91	-157.02		-103.20	-43.77	112.11	110.44	1.67	67.054	
500.00	500.00	507.80	507.73	0.99	1.17	-157.81		-101.82	-41.52	109.99	107.83	2.16	50.810	
600.00	600.00	607.83	607.69	1.22	1.44	-158.96		-100.05	-38.48	107.23	104.58	2.65	40.396	
700.00	700.00	708.54	708.32	1.44	1.71	-160.56		-98.33	-34.71	104.33	101.19	3.15	33.163	
800.00	800.00	808.77	808.46	1.67	1.97	-162.18		-96.14	-30.91	101.04	97.41	3.64	27.779	
900.00	900.00	908.43	908.04	1.89	2.24	-163.53		-93.83	-27.74	97.89	93.76	4.13	23.729	
1,000.00	1,000.00	1,008.02	1,007.54	2.12	2.50	-165.30		-91.82	-24.09	94.96	90.35	4.62	20.575	
1,100.00	1,100.00	1,107.65	1,107.10	2.34	2.77	-166.90		-89.96	-20.93	92.39	87.28	5.11	18.096	
1,200.00	1,200.00	1,206.61	1,206.03	2.56	3.00	-167.37		-88.14	-19.74	90.33	84.77	5.56	16.249	
1,300.00	1,300.00	1,306.70	1,306.11	2.79	3.18	-167.44		-87.54	-19.51	89.69	83.73	5.96	15.045	
1,400.00	1,400.00	1,406.18	1,405.59	3.01	3.35	-167.45		-87.15	-19.41	89.28	82.92	6.36	14.033	
1,435.28	1,435.28	1,440.88	1,440.29	3.09	3.41	-167.51		-87.22	-19.32	89.34	82.84	6.50	13.749	
1,500.00	1,500.00	1,505.42	1,504.83	3.24	3.52	-167.57		-87.22	-19.23	89.31	82.56	6.75	13.232	
1,600.00	1,600.00	1,606.12	1,605.53	3.46	3.67	-167.40		-86.79	-19.40	88.94	81.81	7.13	12.477	
1,631.13	1,631.13	1,636.72	1,636.13	3.53	3.71	-167.30		-86.63	-19.52	88.80	81.57	7.23	12.274	
1,650.00	1,650.00	1,655.44	1,654.85	3.58	3.72	-167.26		-86.67	-19.59	88.86	81.57	7.29	12.185	
1,678.69	1,678.69	1,685.15	1,684.55	3.64	3.77	-167.26		-86.44	-19.59	88.78	81.38	7.40	11.995	
1,700.00	1,700.00	1,706.10	1,705.51	3.69	3.81	-167.27		-86.29	-19.60	88.92	81.42	7.49	11.865	
1,750.00	1,749.98	1,756.28	1,755.69	3.80	3.92	-167.44		-85.91	-19.53	89.81	82.09	7.72	11.639	
1,800.00	1,799.95	1,805.99	1,805.39	3.91	4.00	-167.49		-85.62	-19.76	91.27	83.37	7.90	11.547	
1,900.00	1,899.89	1,906.31	1,905.71	4.14	4.13	-167.84		-85.38	-19.90	94.49	86.22	8.27	11.430	
2,000.00	1,999.83	2,005.86	2,005.26	4.36	4.34	-168.23		-84.96	-19.87	97.48	88.78	8.69	11.213	
2,100.00	2,099.77	2,105.62	2,105.02	4.59	4.52	-168.40		-84.33	-20.16	100.33	91.23	9.10	11.023	
2,200.00	2,199.71	2,204.91	2,204.31	4.81	4.67	-168.77		-84.30	-20.18	103.74	94.26	9.48	10.944	
2,300.00	2,299.64	2,304.99	2,304.39	5.04	4.77	-169.00		-84.30	-20.44	107.21	97.41	9.80	10.937	
2,400.00	2,399.58	2,405.14	2,404.54	5.27	4.95	-169.43		-84.17	-20.25	110.47	100.26	10.21	10.824	
2,500.00	2,499.52	2,505.56	2,504.96	5.49	5.14	-169.67		-83.83	-20.35	113.59	102.96	10.62	10.692	
2,600.00	2,599.46	2,606.44	2,605.83	5.72	5.33	-170.37		-83.58	-19.50	116.64	105.59	11.04	10.563	
2,700.00	2,699.40	2,705.55	2,704.90	5.95	5.56	-171.79		-83.25	-17.04	119.38	107.88	11.49	10.388	
2,750.00	2,749.37	2,755.81	2,755.14	6.06	5.67	-172.65		-83.08	-15.45	120.72	109.00	11.72	10.302	
2,800.00	2,799.35	2,806.30	2,805.60	6.16	5.79	-173.40		-82.79	-13.98	121.56	109.62	11.94	10.183	
2,850.00	2,849.35	2,856.75	2,856.04	6.25	5.91	-174.13		-82.38	-12.42	121.42	109.28	12.14	9.999	
2,900.00	2,899.35	2,906.36	2,905.62	6.35	6.03	-174.81		-81.97	-10.94	120.86	108.50	12.36	9.777	
3,000.00	2,999.35	3,006.68	3,005.88	6.57	6.28	-176.20		-80.49	-7.90	119.15	106.32	12.83	9.285	
3,100.00	3,099.35	3,106.70	3,105.84	6.79	6.53	-177.64		-79.01	-4.84	117.51	104.20	13.31	8.829	
3,200.00	3,199.35	3,207.01	3,206.12	7.02	6.75	-178.38		-77.97	-3.29	116.42	102.67	13.75	8.467	
3,300.00	3,299.35	3,306.24	3,305.33	7.24	6.98	-178.79		-76.60	-2.43	115.02	100.82	14.20	8.098	
3,391.98	3,391.33	3,397.26	3,396.33	7.45	7.21	-179.57		-75.97	-0.86	114.36	99.73	14.64	7.814	
3,400.00	3,399.35	3,405.20	3,404.27	7.46	7.23	-179.65		-75.98	-0.70	114.37	99.70	14.67	7.795	
3,500.00	3,499.35	3,504.54	3,503.60	7.69	7.44	-179.48		-76.24	1.04	114.64	99.53	15.11	7.587	
3,600.00	3,599.35	3,604.32	3,603.37	7.91	7.64	-178.71		-76.75	2.60	115.18	99.65	15.53	7.415	
3,700.00	3,699.35	3,704.59	3,703.62	8.14	7.78	-178.34		-77.50	3.36	115.94	100.03	15.91	7.289	
3,800.00	3,799.35	3,804.84	3,803.87	8.36	7.95	-177.98		-78.02	4.11	116.49	100.20	16.29	7.150	
3,900.00	3,899.35	3,905.82	3,904.84	8.58	8.11	-177.80		-78.39	4.49	116.87	100.19	16.68	7.007	
4,000.00	3,999.35	4,006.02	4,005.04	8.81	8.33	-177.50		-77.80	5.07	116.30	99.17	17.13	6.790	
4,100.00	4,099.35	4,106.19	4,105.19	9.03	8.57	-177.15		-77.22	5.76	115.76	98.17	17.59	6.582	
4,200.00	4,199.35	4,205.67	4,204.68	9.26	8.73	-177.19		-76.82	5.65	115.35	97.37	17.98	6.416	
4,236.50	4,235.85	4,241.87	4,240.88	9.34	8.79	-177.21		-76.76	5.61	115.28	97.17	18.11	6.364	

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 3H - Wellbore #1 - Actual Wellbore													Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 10100-MWD													Offset Well Error:	0.00 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		
4,300.00	4,299.35	4,305.12	4,304.13	9.48	8.88	177.11	-76.87	5.81	115.40	97.05	18.35	6.288		
4,400.00	4,399.35	4,405.62	4,404.62	9.70	9.00	177.17	-76.92	5.71	115.45	96.76	18.69	6.177		
4,500.00	4,499.35	4,506.00	4,505.00	9.93	9.21	177.09	-76.56	5.83	115.10	95.97	19.13	6.017		
4,559.13	4,558.48	4,564.38	4,563.39	10.06	9.31	177.10	-76.47	5.82	115.01	95.65	19.36	5.941		
4,600.00	4,599.35	4,605.33	4,604.33	10.15	9.40	176.97	-76.42	6.08	114.97	95.43	19.54	5.884		
4,700.00	4,699.35	4,704.47	4,703.47	10.38	9.60	176.60	-76.68	6.84	115.28	95.31	19.97	5.773		
4,800.00	4,799.35	4,805.52	4,804.51	10.60	9.81	176.51	-76.32	6.99	114.92	94.52	20.40	5.634		
4,804.67	4,804.02	4,810.03	4,809.02	10.61	9.82	176.50	-76.31	7.01	114.92	94.50	20.42	5.628		
4,900.00	4,899.35	4,905.74	4,904.74	10.83	9.96	176.39	-76.40	7.24	115.01	94.24	20.78	5.535		
5,000.00	4,999.35	5,005.73	5,004.72	11.05	10.20	176.03	-76.20	7.95	114.87	93.63	21.24	5.409		
5,100.00	5,099.35	5,105.45	5,104.44	11.27	10.36	176.00	-75.99	7.99	114.66	93.04	21.63	5.302		
5,200.00	5,199.35	5,205.66	5,204.65	11.50	10.53	176.00	-75.80	7.99	114.47	92.45	22.02	5.198		
5,259.34	5,258.69	5,264.79	5,263.78	11.63	10.58	176.08	-75.76	7.83	114.42	92.22	22.20	5.153		
5,300.00	5,299.35	5,305.32	5,304.31	11.72	10.64	176.09	-75.76	7.80	114.42	92.07	22.35	5.119		
5,400.00	5,399.35	5,405.39	5,404.38	11.95	10.77	176.11	-75.83	7.77	114.48	91.78	22.71	5.042		
5,483.33	5,482.68	5,488.70	5,487.69	12.14	10.90	176.12	-75.78	7.74	114.43	91.41	23.02	4.970		
5,500.00	5,499.35	5,505.21	5,504.19	12.17	10.93	176.09	-75.79	7.80	114.44	91.35	23.09	4.955		
5,600.00	5,599.35	5,605.30	5,604.29	12.40	11.06	176.08	-75.95	7.84	114.61	91.16	23.45	4.887		
5,700.00	5,699.33	5,705.99	5,704.98	12.59	11.20	24.58	-75.98	7.99	113.06	89.28	23.78	4.755		
5,800.00	5,799.19	5,805.86	5,804.85	12.77	11.37	25.85	-75.62	7.83	107.95	83.87	24.08	4.483		
5,897.52	5,896.34	5,903.08	5,902.07	12.94	11.52	28.31	-74.97	7.35	99.76	75.42	24.34	4.099		
5,900.00	5,898.80	5,905.63	5,904.61	12.94	11.52	28.39	-74.95	7.33	99.51	75.17	24.35	4.088		
6,000.00	5,998.26	6,005.32	6,004.30	13.12	11.71	31.86	-73.63	6.88	89.23	64.52	24.71	3.611		
6,100.00	6,097.72	6,104.64	6,103.61	13.30	11.84	36.48	-72.93	5.93	80.02	54.99	25.03	3.197		
6,200.00	6,197.19	6,204.01	6,202.97	13.48	12.03	41.91	-71.76	5.54	70.88	45.47	25.42	2.789		
6,300.00	6,296.65	6,303.15	6,302.10	13.66	12.25	48.44	-70.72	5.56	62.53	36.70	25.83	2.421		
6,400.00	6,396.11	6,401.89	6,400.83	13.85	12.42	56.82	-70.08	5.31	55.71	29.50	26.21	2.126		
6,500.00	6,495.57	6,501.93	6,500.87	14.04	12.63	67.15	-69.43	5.30	50.27	23.64	26.62	1.888		
6,600.00	6,595.03	6,601.12	6,600.06	14.23	12.80	79.67	-68.79	4.86	47.13	20.12	27.01	1.745		
6,660.11	6,654.81	6,660.66	6,659.59	14.35	12.90	87.58	-68.52	4.68	46.43	19.19	27.23	1.705 CC, ES, SF		
6,700.00	6,694.49	6,700.30	6,699.24	14.43	12.94	92.66	-68.62	4.47	46.67	19.32	27.35	1.707		
6,800.00	6,793.95	6,799.66	6,798.59	14.63	13.04	104.85	-68.82	4.03	48.75	21.12	27.63	1.765		
6,900.00	6,893.41	6,899.07	6,898.00	14.84	13.16	115.83	-68.85	3.33	53.11	25.19	27.92	1.902		
7,000.00	6,992.88	6,998.84	6,997.77	15.05	13.27	124.84	-68.96	2.67	59.03	30.84	28.19	2.094		
7,100.00	7,092.34	7,098.06	7,096.98	15.26	13.37	131.62	-69.62	2.33	65.70	37.23	28.47	2.308		
7,200.00	7,191.80	7,197.31	7,196.23	15.47	13.48	137.28	-70.01	1.84	73.36	44.59	28.76	2.550		
7,300.00	7,291.26	7,296.74	7,295.65	15.69	13.61	142.05	-69.92	1.00	82.10	53.02	29.07	2.824		
7,400.00	7,390.72	7,396.00	7,394.91	15.91	13.72	145.66	-70.28	0.25	91.02	61.66	29.36	3.100		
7,500.00	7,490.18	7,496.94	7,495.84	16.13	13.83	148.64	-70.85	-0.21	99.87	70.21	29.66	3.367		
7,600.00	7,589.64	7,595.62	7,594.52	16.35	13.95	151.22	-71.10	-0.63	109.07	79.10	29.97	3.639		
7,700.00	7,689.10	7,695.41	7,694.31	16.58	14.05	153.32	-71.69	-0.98	118.23	87.96	30.27	3.906		
7,800.00	7,788.57	7,794.23	7,793.13	16.81	14.18	155.16	-71.94	-1.51	127.85	97.26	30.59	4.179		
7,900.00	7,888.03	7,893.37	7,892.27	17.04	14.31	156.70	-72.45	-1.89	137.31	106.40	30.91	4.442		
8,000.00	7,987.49	7,992.47	7,991.36	17.27	14.46	158.18	-72.34	-2.46	147.41	116.15	31.26	4.716		
8,100.00	8,086.95	8,092.95	8,091.84	17.51	14.58	159.33	-72.97	-2.89	156.99	125.40	31.58	4.970		
8,200.00	8,186.41	8,192.88	8,191.76	17.74	14.70	160.28	-73.60	-3.54	166.79	134.89	31.90	5.228		
8,300.00	8,285.87	8,291.29	8,290.17	17.98	14.82	161.09	-74.51	-3.95	176.27	144.04	32.23	5.469		
8,400.00	8,385.33	8,392.40	8,391.28	18.22	14.95	161.88	-75.24	-4.41	185.94	153.37	32.57	5.710		
8,500.00	8,484.79	8,493.56	8,492.43	18.46	15.08	162.52	-76.46	-4.71	195.19	162.29	32.90	5.933		
8,600.00	8,584.25	8,593.52	8,592.38	18.71	15.23	163.19	-78.02	-4.18	203.63	170.39	33.25	6.125		
8,700.00	8,683.72	8,693.09	8,691.93	18.95	15.38	163.86	-79.47	-3.44	212.03	178.43	33.60	6.310		
8,800.00	8,783.18	8,794.46	8,793.29	19.20	15.55	164.67	-80.25	-2.46	220.80	186.82	33.98	6.497		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 3H - Wellbore #1 - Actual Wellbore													Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 10100-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		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		
8,900.00	8,882.64	8,894.30	8,893.10	19.44	15.72	165.45	-81.53	-0.73	228.71	194.35	34.36	6.656		
9,000.00	8,982.10	8,993.18	8,991.96	19.69	15.89	166.12	-83.14	1.00	236.39	201.66	34.74	6.805		
9,100.00	9,081.56	9,093.69	9,092.43	19.94	16.07	166.78	-84.68	2.79	244.15	209.03	35.12	6.952		
9,200.00	9,181.02	9,192.77	9,191.48	20.20	16.23	167.26	-86.56	4.13	251.95	216.46	35.50	7.098		
9,300.00	9,280.48	9,289.30	9,287.99	20.45	16.38	167.43	-88.74	4.15	260.35	224.50	35.85	7.262		
9,400.00	9,379.94	9,387.18	9,385.84	20.70	16.51	167.37	-90.85	2.67	269.83	233.63	36.20	7.453		
9,500.00	9,479.41	9,486.37	9,484.98	20.96	16.65	167.25	-93.02	0.78	279.53	242.98	36.56	7.646		
9,600.00	9,578.87	9,587.10	9,585.67	21.21	16.80	167.12	-95.33	-1.13	289.16	252.24	36.92	7.833		
9,700.00	9,678.33	9,687.09	9,685.62	21.47	16.95	167.07	-97.73	-2.41	298.30	261.02	37.28	8.001		
9,800.00	9,777.79	9,787.45	9,785.94	21.73	17.10	167.04	-100.02	-3.78	307.58	269.93	37.65	8.170		
9,832.06	9,809.68	9,819.04	9,817.52	21.81	17.15	167.00	-100.85	-4.26	310.52	272.75	37.77	8.222		
9,850.00	9,827.49	9,837.65	9,836.12	21.86	17.17	160.32	-101.32	-4.52	312.36	274.60	37.76	8.271		
9,900.00	9,876.73	9,886.46	9,884.92	22.00	17.25	151.43	-102.49	-4.98	319.59	281.93	37.66	8.486		
9,950.00	9,925.06	9,935.10	9,933.55	22.17	17.33	147.81	-103.51	-5.47	330.18	292.75	37.42	8.823		
10,000.00	9,972.12	9,983.01	9,981.44	22.36	17.40	146.15	-104.50	-5.75	343.93	306.89	37.05	9.283		
10,050.00	10,017.54	10,029.08	10,027.50	22.57	17.46	145.36	-105.47	-6.02	361.03	324.45	36.58	9.870		
10,100.00	10,060.99	10,073.31	10,071.72	22.80	17.49	145.00	-106.36	-6.17	381.50	345.39	36.11	10.565		
10,150.00	10,102.13	10,115.16	10,113.56	23.06	17.52	144.79	-107.17	-6.21	405.35	369.77	35.59	11.390		
10,200.00	10,140.65	10,154.26	10,152.66	23.35	17.52	144.52	-107.89	-6.19	432.59	397.69	34.90	12.395		
10,250.00	10,176.26	10,190.46	10,188.85	23.66	17.52	144.04	-108.54	-6.12	463.13	428.88	34.25	13.523		
10,300.00	10,208.68	10,226.44	10,224.78	24.01	17.52	144.79	-110.58	-6.12	496.42	463.03	33.39	14.866		
10,350.00	10,237.67	10,331.87	10,329.51	24.38	17.53	147.12	-121.22	-5.86	529.91	497.74	32.17	16.471		
10,400.00	10,263.01	10,395.37	10,393.01	24.79	19.36	165.23	-526.79	82.65	548.15	520.22	27.93	19.627		
10,450.00	10,284.50	11,072.01	10,805.01	25.22	20.00	166.72	-599.54	99.10	535.71	509.09	26.62	20.126		
10,500.00	10,301.99	11,152.83	10,818.66	25.68	20.76	168.20	-677.67	114.58	524.84	499.38	25.46	20.615		
10,550.00	10,315.33	11,219.70	10,826.41	26.16	21.46	169.53	-742.85	127.28	515.58	491.08	24.50	21.043		
10,600.00	10,324.43	11,294.02	10,831.75	26.67	22.30	171.03	-815.70	140.94	508.55	484.75	23.80	21.371		
10,650.00	10,329.21	11,365.70	10,833.43	27.20	23.17	172.51	-886.22	153.62	503.62	480.21	23.41	21.512		
10,680.01	10,330.00	11,398.67	10,833.33	27.52	23.58	173.20	-918.71	159.23	502.06	478.70	23.36	21.490		
10,700.00	10,330.00	11,419.42	10,833.19	27.74	23.85	173.63	-939.16	162.75	501.50	478.09	23.40	21.427		
10,800.00	10,330.00	11,517.19	10,832.01	28.88	25.09	175.55	-1,035.66	178.44	498.63	474.92	23.71	21.030		
10,840.24	10,330.00	11,547.16	10,832.01	29.37	25.46	176.04	-1,065.37	182.32	498.21	474.33	23.88	20.860		
10,900.00	10,330.00	11,597.19	10,833.03	30.09	26.07	176.68	-1,115.14	187.23	498.97	474.79	24.18	20.632		
11,000.00	10,330.00	11,695.36	10,835.72	31.36	27.30	177.37	-1,213.14	191.83	501.39	476.53	24.86	20.166		
11,100.00	10,330.00	11,803.11	10,837.41	32.69	28.72	177.34	-1,320.85	190.12	502.97	477.24	25.73	19.544		
11,200.00	10,330.00	11,890.16	10,838.91	34.06	29.84	177.40	-1,407.89	189.44	504.74	478.18	26.56	19.006		
11,300.00	10,330.00	11,994.52	10,842.40	35.47	31.23	177.58	-1,512.19	189.54	508.02	480.53	27.49	18.478		
11,400.00	10,330.00	12,091.04	10,844.59	36.91	32.60	177.69	-1,608.67	189.12	510.28	481.83	28.45	17.938		
11,500.00	10,330.00	12,195.27	10,847.98	38.39	34.12	177.49	-1,712.80	185.84	513.63	484.10	29.52	17.398		
11,600.00	10,330.00	12,308.33	10,848.90	39.90	35.82	177.34	-1,825.81	183.00	514.46	483.78	30.68	16.770		
11,602.14	10,330.00	12,309.86	10,848.90	39.93	35.84	177.34	-1,827.34	182.98	514.46	483.76	30.70	16.759		
11,700.00	10,330.00	12,382.43	10,850.73	41.43	36.85	177.27	-1,899.86	181.32	516.94	485.29	31.64	16.336		
11,800.00	10,330.00	12,486.55	10,855.92	42.99	38.36	177.25	-2,003.83	179.55	521.97	489.17	32.80	15.915		
11,900.00	10,330.00	12,600.86	10,859.04	44.57	40.15	177.54	-2,118.08	180.62	524.57	490.59	33.98	15.437		
12,000.00	10,330.00	12,703.28	10,860.29	46.16	41.80	177.91	-2,220.48	182.62	525.67	490.56	35.11	14.972		
12,100.00	10,330.00	12,803.89	10,861.22	47.78	43.40	178.16	-2,321.08	183.58	526.51	490.24	36.27	14.516		
12,200.00	10,330.00	12,906.63	10,861.90	49.40	45.02	178.09	-2,423.80	181.59	527.20	489.69	37.51	14.054		
12,282.31	10,330.00	12,990.39	10,861.67	50.75	46.35	177.93	-2,507.51	179.02	527.02	488.46	38.56	13.667		
12,300.00	10,330.00	13,005.70	10,861.69	51.04	46.59	177.90	-2,522.81	178.53	527.06	488.29	38.77	13.595		
12,400.00	10,330.00	13,093.28	10,863.12	52.70	47.92	177.71	-2,610.33	175.60	528.76	488.78	39.98	13.227		
12,500.00	10,330.00	13,186.40	10,866.53	54.36	49.32	177.63	-2,703.37	173.52	532.44	491.22	41.21	12.919		
12,600.00	10,330.00	13,291.81	10,870.52	56.04	50.98	177.70	-2,808.70	172.66	536.21	493.70	42.51	12.613		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 3H - Wellbore #1 - Actual Wellbore													Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 10100-MWD													Offset Well Error:	0.00 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		
12,700.00	10,330.00	13,393.92	10,872.98	57.72	52.62	177.68	-2,910.76	170.98	538.62	494.80	43.82	12.291		
12,800.00	10,330.00	13,490.35	10,876.09	59.41	54.15	177.64	-3,007.13	169.28	541.85	496.75	45.11	12.013		
12,900.00	10,330.00	13,592.11	10,879.29	61.11	55.78	177.67	-3,108.83	168.13	544.98	498.56	46.42	11.739		
13,000.00	10,330.00	13,698.44	10,881.97	62.82	57.52	177.48	-3,215.07	164.80	547.59	499.76	47.83	11.449		
13,100.00	10,330.00	13,798.53	10,883.44	64.53	59.16	177.33	-3,315.11	161.95	549.14	499.94	49.20	11.161		
13,200.00	10,330.00	13,900.79	10,885.18	66.25	60.82	177.15	-3,417.30	158.84	550.92	500.32	50.60	10.887		
13,270.75	10,330.00	13,966.10	10,886.24	67.47	61.88	177.14	-3,482.59	157.82	552.09	500.57	51.52	10.716		
13,300.00	10,330.15	13,991.60	10,886.93	67.92	62.29	177.12	-3,508.08	157.27	552.74	500.82	51.92	10.647		
13,320.75	10,330.43	14,009.69	10,887.51	68.21	62.59	177.10	-3,526.16	156.81	553.14	500.94	52.20	10.597		
13,400.00	10,331.82	14,095.58	10,890.14	69.43	63.99	177.05	-3,611.99	155.16	554.22	500.88	53.33	10.392		
13,500.00	10,333.56	14,191.86	10,892.53	71.17	65.59	177.06	-3,708.23	153.97	554.96	500.29	54.67	10.152		
13,600.00	10,335.31	14,301.47	10,895.07	72.91	67.42	176.96	-3,817.78	151.56	555.59	499.46	56.13	9.898		
13,700.00	10,337.05	14,411.97	10,895.25	74.65	69.31	176.94	-3,928.27	150.08	554.00	496.41	57.58	9.621		
13,800.00	10,338.80	14,509.74	10,894.99	76.40	70.94	176.92	-4,026.03	148.72	551.99	493.04	58.95	9.364		
13,900.00	10,340.54	14,610.89	10,894.10	78.15	72.61	176.62	-4,127.09	144.68	549.52	489.07	60.45	9.091		
14,000.00	10,342.29	14,699.68	10,894.69	79.91	74.06	176.21	-4,215.73	139.66	548.67	486.76	61.92	8.862		
14,100.00	10,344.03	14,802.74	10,895.50	81.67	75.76	175.77	-4,318.64	134.14	547.99	484.46	63.53	8.626		
14,126.18	10,344.49	14,826.44	10,895.74	82.13	76.15	175.67	-4,342.30	132.86	547.88	483.95	63.93	8.571		
14,200.00	10,345.78	14,901.71	10,896.95	83.43	77.41	175.32	-4,417.44	128.51	548.05	482.90	65.15	8.412		
14,300.00	10,347.52	15,013.38	10,896.00	85.19	79.27	174.77	-4,528.92	122.10	545.76	478.83	66.94	8.153		
14,400.00	10,349.27	15,104.08	10,895.46	86.96	80.76	174.28	-4,619.44	116.41	543.93	475.33	68.60	7.929		
14,434.89	10,349.88	15,134.52	10,895.72	87.57	81.25	174.12	-4,649.82	114.53	543.78	474.62	69.16	7.862		
14,500.00	10,351.01	15,192.34	10,896.87	88.73	82.18	173.85	-4,707.53	111.17	544.25	474.02	70.23	7.750		
14,600.00	10,352.76	15,287.99	10,900.23	90.50	83.72	173.54	-4,803.02	106.79	546.36	474.51	71.85	7.604		
14,700.00	10,354.50	15,396.12	10,903.66	92.27	85.52	173.56	-4,911.07	105.39	547.77	474.43	73.35	7.468		
14,800.00	10,356.25	15,497.15	10,905.87	94.05	87.24	173.71	-5,012.08	105.48	548.06	473.37	74.69	7.338		
14,900.00	10,357.99	15,600.70	10,908.41	95.82	88.99	173.93	-5,115.60	106.23	548.56	472.56	76.00	7.218		
15,000.00	10,359.74	15,710.78	10,909.61	97.60	90.88	174.41	-5,225.62	109.43	547.48	470.30	77.18	7.094		
15,100.00	10,361.48	15,820.47	10,908.97	99.38	92.80	175.05	-5,335.20	114.44	544.62	466.36	78.26	6.959		
15,200.00	10,363.23	15,931.75	10,906.20	101.17	94.76	175.82	-5,446.27	120.60	539.85	460.52	79.33	6.805		
15,299.41	10,364.96	16,028.00	10,902.32	102.63	96.47	176.61	-5,542.21	127.18	533.60	453.64	79.97	6.673		



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbore														Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 9928-MWD														Offset Well Error:	0.00 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			
0.00	0.00	5.95	5.95	0.00	0.01	166.93	-159.00	36.90	163.23						
100.00	100.00	105.21	105.21	0.09	0.12	166.93	-159.29	36.98	163.52	163.32	0.21	784.667			
200.00	200.00	205.36	205.36	0.32	0.35	167.03	-159.58	36.75	163.76	163.09	0.67	245.980			
300.00	300.00	304.98	304.97	0.54	0.61	167.15	-160.27	36.56	164.38	163.23	1.15	142.909			
400.00	400.00	404.99	404.99	0.77	0.87	167.25	-160.85	36.39	164.91	163.27	1.64	100.650			
500.00	500.00	504.37	504.36	0.99	1.13	167.41	-161.82	36.15	165.82	163.69	2.13	78.000			
600.00	600.00	603.97	603.95	1.22	1.40	167.51	-162.95	36.11	166.92	164.31	2.61	63.920			
700.00	700.00	702.66	702.62	1.44	1.66	167.70	-164.55	35.88	168.45	165.35	3.10	54.387			
800.00	800.00	801.73	801.67	1.67	1.92	168.05	-166.94	35.34	170.70	167.11	3.59	47.614			
900.00	900.00	900.78	900.67	1.89	2.18	168.52	-169.92	34.52	173.48	169.40	4.07	42.595			
1,000.00	1,000.00	998.95	998.76	2.12	2.44	169.14	-173.80	33.35	177.12	172.56	4.56	38.857			
1,100.00	1,100.00	1,097.63	1,097.31	2.34	2.71	169.85	-178.51	31.96	181.55	176.51	5.04	35.987			
1,200.00	1,200.00	1,196.90	1,196.42	2.56	2.97	170.58	-183.91	30.50	186.66	181.13	5.53	33.733			
1,300.00	1,300.00	1,298.67	1,298.07	2.79	3.25	171.19	-188.92	29.29	191.34	185.31	6.03	31.740			
1,400.00	1,400.00	1,399.39	1,398.70	3.01	3.52	171.60	-192.85	28.48	195.08	188.56	6.52	29.918			
1,500.00	1,500.00	1,501.93	1,501.19	3.24	3.79	171.82	-196.08	28.18	198.16	191.14	7.02	28.245			
1,600.00	1,600.00	1,602.90	1,602.13	3.46	4.05	171.88	-198.36	28.32	200.41	192.91	7.50	26.715			
1,650.00	1,650.00	1,653.66	1,652.89	3.58	4.18	171.84	-199.23	28.56	201.29	193.55	7.74	26.006			
1,700.00	1,700.00	1,704.41	1,703.63	3.69	4.29	171.76	-199.84	28.98	202.37	194.41	7.96	25.418			
1,750.00	1,749.98	1,754.93	1,754.15	3.80	4.39	171.72	-200.32	29.39	204.19	196.02	8.18	24.974			
1,800.00	1,799.95	1,805.16	1,804.38	3.91	4.49	171.68	-200.66	29.82	206.32	197.93	8.39	24.606			
1,900.00	1,899.89	1,905.05	1,904.26	4.14	4.70	171.70	-201.23	30.36	210.42	201.60	8.82	23.850			
2,000.00	1,999.83	2,006.05	2,005.26	4.36	4.86	171.67	-201.50	31.00	214.22	205.02	9.21	23.272			
2,100.00	2,099.77	2,104.58	2,103.79	4.59	5.05	171.74	-201.91	31.32	218.14	208.51	9.62	22.667			
2,200.00	2,199.71	2,205.16	2,204.36	4.81	5.30	171.78	-202.74	31.77	222.48	212.38	10.09	22.045			
2,300.00	2,299.64	2,304.31	2,303.50	5.04	5.54	171.81	-203.56	32.27	226.81	216.26	10.56	21.481			
2,400.00	2,399.58	2,404.77	2,403.96	5.27	5.76	171.78	-204.13	32.98	230.93	219.93	11.00	20.995			
2,500.00	2,499.52	2,505.16	2,504.34	5.49	5.97	171.70	-204.79	33.92	235.17	223.73	11.44	20.554			
2,600.00	2,599.46	2,605.45	2,604.62	5.72	6.13	171.40	-204.98	35.74	239.07	227.25	11.83	20.213			
2,700.00	2,699.40	2,705.88	2,705.00	5.95	6.27	170.85	-204.56	38.54	242.54	230.36	12.19	19.901			
2,750.00	2,749.37	2,756.65	2,755.74	6.06	6.34	170.50	-204.33	40.29	244.32	231.94	12.37	19.749			
2,800.00	2,799.35	2,807.34	2,806.41	6.16	6.40	170.17	-203.91	41.91	245.47	232.93	12.54	19.573			
2,850.00	2,849.35	2,858.54	2,857.57	6.25	6.47	169.72	-203.22	43.80	245.56	232.87	12.69	19.345			
2,900.00	2,899.35	2,907.93	2,906.92	6.35	6.53	169.28	-202.50	45.62	245.18	232.33	12.85	19.077			
3,000.00	2,999.35	3,008.53	3,007.42	6.57	6.65	168.30	-200.89	49.55	244.36	231.16	13.20	18.507			
3,100.00	3,099.35	3,109.09	3,107.91	6.79	6.79	167.34	-199.23	53.37	243.56	229.99	13.56	17.959			
3,200.00	3,199.35	3,208.61	3,207.35	7.02	6.92	166.51	-197.58	56.60	242.67	228.75	13.92	17.436			
3,300.00	3,299.35	3,308.29	3,306.99	7.24	7.05	165.81	-196.12	59.28	241.89	227.61	14.28	16.941			
3,400.00	3,399.35	3,408.86	3,407.52	7.46	7.19	165.13	-194.54	61.83	241.00	226.36	14.64	16.462			
3,500.00	3,499.35	3,508.99	3,507.61	7.69	7.33	164.55	-193.02	63.95	240.09	225.09	15.00	16.004			
3,600.00	3,599.35	3,609.34	3,607.94	7.91	7.46	164.05	-191.45	65.70	239.06	223.70	15.36	15.564			
3,700.00	3,699.35	3,708.95	3,707.52	8.14	7.59	163.62	-190.01	67.12	238.06	222.35	15.71	15.150			
3,800.00	3,799.35	3,810.54	3,809.10	8.36	7.68	163.40	-188.43	67.61	236.71	220.68	16.03	14.766			
3,900.00	3,899.35	3,910.51	3,909.05	8.58	7.75	163.33	-186.74	67.42	235.04	218.71	16.32	14.398			
4,000.00	3,999.35	4,009.74	4,008.27	8.81	7.81	163.54	-185.77	66.25	233.77	217.16	16.61	14.077			
4,100.00	4,099.35	4,108.23	4,106.75	9.03	7.88	163.80	-185.23	64.96	232.87	215.97	16.90	13.777			
4,200.00	4,199.35	4,207.72	4,206.24	9.26	7.97	164.07	-185.08	63.79	232.39	215.17	17.22	13.496			
4,300.00	4,299.35	4,306.85	4,305.36	9.48	8.09	164.24	-185.14	63.07	232.26	214.69	17.57	13.220			
4,300.14	4,299.49	4,306.98	4,305.49	9.48	8.09	164.24	-185.14	63.06	232.26	214.69	17.57	13.220			
4,400.00	4,399.35	4,403.76	4,402.27	9.70	8.30	164.26	-186.06	63.26	233.21	215.22	18.00	12.959			
4,500.00	4,499.35	4,506.58	4,505.07	9.93	8.52	164.09	-186.71	64.17	234.07	215.62	18.45	12.687			
4,600.00	4,599.35	4,607.46	4,605.94	10.15	8.71	163.70	-186.15	65.68	233.95	215.09	18.86	12.405			

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbore													Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 9928-MWD													Offset Well Error:	0.00 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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,700.00	4,699.35	4,707.37	4,705.84	10.38	8.89	163.24	-185.34	67.38	233.66	214.39	19.27	12.128		
4,800.00	4,799.35	4,808.46	4,806.90	10.60	9.08	162.72	-184.44	69.34	233.37	213.69	19.68	11.859		
4,900.00	4,899.35	4,909.30	4,907.72	10.83	9.24	162.24	-182.86	70.86	232.34	212.27	20.07	11.578		
5,000.00	4,999.35	5,010.09	5,008.48	11.05	9.41	161.70	-180.95	72.55	231.05	210.59	20.46	11.295		
5,100.00	5,099.35	5,110.24	5,108.59	11.27	9.57	161.11	-178.85	74.34	229.63	208.79	20.85	11.016		
5,200.00	5,199.35	5,210.78	5,209.10	11.50	9.74	160.58	-176.75	75.83	228.14	206.91	21.23	10.744		
5,300.00	5,299.35	5,310.86	5,309.14	11.72	9.90	160.07	-174.44	77.15	226.42	204.79	21.62	10.472		
5,400.00	5,399.35	5,409.71	5,407.96	11.95	10.07	159.55	-172.47	78.61	225.05	203.03	22.02	10.222		
5,500.00	5,499.35	5,507.86	5,506.07	12.17	10.25	158.94	-170.58	80.48	223.93	201.51	22.42	9.986		
5,524.36	5,523.71	5,531.51	5,529.71	12.23	10.30	158.70	-170.20	81.31	223.88	201.35	22.53	9.937		
5,600.00	5,599.35	5,603.76	5,601.85	12.40	10.46	157.71	-169.29	85.13	224.48	201.62	22.86	9.820		
5,700.00	5,699.33	5,700.00	5,697.78	12.59	10.69	4.12	-168.58	92.58	225.12	201.86	23.27	9.676		
5,800.00	5,799.19	5,798.15	5,795.41	12.77	10.92	1.81	-168.26	102.74	224.02	200.39	23.63	9.481		
5,897.52	5,896.34	5,894.53	5,891.25	12.94	11.15	-0.52	-168.10	112.96	220.21	196.25	23.96	9.190		
5,900.00	5,898.80	5,896.99	5,893.69	12.94	11.16	-0.58	-168.10	113.22	220.08	196.11	23.97	9.181		
6,000.00	5,998.26	5,997.13	5,993.29	13.12	11.40	-3.04	-167.95	123.51	214.73	190.35	24.38	8.806		
6,100.00	6,097.72	6,096.42	6,092.07	13.30	11.64	-5.56	-167.88	133.61	209.80	185.00	24.80	8.460		
6,200.00	6,197.19	6,193.71	6,188.84	13.48	11.88	-8.14	-168.09	143.72	205.66	180.45	25.21	8.157		
6,300.00	6,296.65	6,293.22	6,287.80	13.66	12.12	-10.73	-169.16	154.06	202.65	177.01	25.64	7.905		
6,400.00	6,396.11	6,392.90	6,386.93	13.85	12.37	-13.44	-170.11	164.50	200.02	173.96	26.06	7.675		
6,500.00	6,495.57	6,492.90	6,486.38	14.04	12.62	-16.29	-170.76	175.01	197.67	171.17	26.49	7.461		
6,600.00	6,595.03	6,593.74	6,586.65	14.23	12.87	-19.44	-170.47	185.66	195.22	168.29	26.93	7.250		
6,700.00	6,694.49	6,693.63	6,686.01	14.43	13.12	-22.60	-170.04	195.88	193.03	165.67	27.36	7.055		
6,800.00	6,793.95	6,793.07	6,784.96	14.63	13.37	-25.74	-169.67	205.75	191.21	163.42	27.80	6.879		
6,900.00	6,893.41	6,892.72	6,884.15	14.84	13.62	-28.83	-169.52	215.33	189.85	161.61	28.24	6.723		
7,000.00	6,992.88	6,992.93	6,983.93	15.05	13.87	-31.80	-169.81	224.56	188.92	160.24	28.68	6.586		
7,100.00	7,092.34	7,093.22	7,083.81	15.26	14.13	-34.89	-169.65	233.63	188.14	159.00	29.14	6.457		
7,191.46	7,183.31	7,183.73	7,173.95	15.45	14.36	-37.88	-168.88	241.87	187.71	158.16	29.55	6.352		
7,200.00	7,191.80	7,191.99	7,182.16	15.47	14.38	-38.15	-168.82	242.64	187.72	158.13	29.59	6.344		
7,300.00	7,291.26	7,291.77	7,281.53	15.69	14.63	-41.30	-168.44	251.65	188.00	157.95	30.05	6.256 ES		
7,400.00	7,390.72	7,388.44	7,377.76	15.91	14.88	-44.14	-168.92	260.90	189.60	159.09	30.51	6.215 SF		
7,500.00	7,490.18	7,487.62	7,476.40	16.13	15.14	-46.92	-169.89	271.19	192.61	161.63	30.98	6.217		
7,600.00	7,589.64	7,587.84	7,576.09	16.35	15.40	-49.60	-170.97	281.39	195.88	164.43	31.46	6.227		
7,700.00	7,689.10	7,687.03	7,674.78	16.58	15.65	-52.19	-171.90	291.36	199.42	167.48	31.94	6.244		
7,800.00	7,788.57	7,787.57	7,774.79	16.81	15.92	-54.88	-172.31	301.56	203.39	170.97	32.43	6.273		
7,900.00	7,888.03	7,887.24	7,874.01	17.04	16.18	-57.46	-172.57	311.04	207.14	174.22	32.92	6.293		
8,000.00	7,987.49	7,985.51	7,971.79	17.27	16.43	-59.83	-173.13	320.89	211.81	178.41	33.41	6.341		
8,100.00	8,086.95	8,084.71	8,070.44	17.51	16.69	-62.15	-173.57	331.28	217.31	183.40	33.90	6.410		
8,200.00	8,186.41	8,185.76	8,170.98	17.74	16.96	-64.68	-172.93	341.40	222.73	188.32	34.41	6.474		
8,300.00	8,285.87	8,286.50	8,271.29	17.98	17.22	-67.10	-172.25	350.75	227.84	192.93	34.91	6.526		
8,400.00	8,385.33	8,385.73	8,370.11	18.22	17.48	-69.28	-172.04	359.73	233.03	197.62	35.42	6.580		
8,500.00	8,484.79	8,485.00	8,468.94	18.46	17.74	-71.31	-171.99	368.96	238.77	202.85	35.93	6.646		
8,600.00	8,584.25	8,586.24	8,569.76	18.71	18.00	-73.18	-172.44	378.23	244.55	208.11	36.44	6.711		
8,700.00	8,683.72	8,688.45	8,671.67	18.95	18.27	-75.13	-172.55	386.13	249.27	212.31	36.96	6.744		
8,800.00	8,783.18	8,782.48	8,765.35	19.20	18.52	-76.75	-172.93	394.11	254.91	217.45	37.46	6.805		
8,900.00	8,882.64	8,882.24	8,864.57	19.44	18.78	-78.08	-174.29	404.37	262.21	224.24	37.97	6.905		
9,000.00	8,982.10	8,979.51	8,961.33	19.69	19.04	-79.44	-175.00	414.27	269.74	231.25	38.48	7.009		
9,100.00	9,081.56	9,082.00	9,063.33	19.94	19.31	-80.94	-175.18	424.34	277.25	238.24	39.01	7.107		
9,200.00	9,181.02	9,177.65	9,158.56	20.20	19.57	-82.38	-174.86	433.30	284.73	245.21	39.52	7.205		
9,300.00	9,280.48	9,273.25	9,253.48	20.45	19.82	-83.53	-174.81	444.56	294.46	254.44	40.03	7.357		
9,400.00	9,379.94	9,373.36	9,352.94	20.70	20.09	-84.81	-174.07	455.87	304.17	263.62	40.55	7.502		
9,500.00	9,479.41	9,469.74	9,448.68	20.96	20.34	-86.25	-171.66	466.74	314.73	273.68	41.05	7.666		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbore													Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 9928-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Semi Major Axis (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
9,600.00	9,578.87	9,567.62	9,545.76	21.21	20.60	-87.30	-170.53	479.15	326.14	284.57	41.57	7.846		
9,700.00	9,678.33	9,679.19	9,656.68	21.47	20.90	-88.51	-169.78	491.11	335.68	293.56	42.12	7.970		
9,800.00	9,777.79	9,783.55	9,760.65	21.73	21.18	-89.67	-169.56	500.15	343.35	300.69	42.66	8.049		
9,832.06	9,809.68	9,818.75	9,795.74	21.81	21.27	-90.03	-169.82	502.76	345.33	302.49	42.83	8.062		
9,850.00	9,827.49	9,836.28	9,813.22	21.86	21.30	-96.72	-170.09	504.05	346.50	303.61	42.89	8.079		
9,900.00	9,876.73	9,882.75	9,859.56	22.00	21.36	-106.05	-170.62	507.66	351.54	308.54	43.00	8.176		
9,950.00	9,925.06	9,928.25	9,904.89	22.17	21.42	-110.68	-170.86	511.46	359.31	316.25	43.06	8.345		
10,000.00	9,972.12	9,970.81	9,947.27	22.36	21.43	-113.65	-170.95	515.46	370.10	327.11	42.99	8.609		
10,050.00	10,017.54	10,011.88	9,988.09	22.57	21.43	-115.79	-171.14	519.97	384.19	341.32	42.86	8.963		
10,100.00	10,060.99	10,050.83	10,026.69	22.80	21.43	-117.30	-171.73	525.10	401.67	358.99	42.68	9.410		
10,150.00	10,102.13	10,079.21	10,054.59	23.06	21.43	-117.60	-172.96	530.14	422.91	380.36	42.55	9.938		
10,200.00	10,140.65	10,104.21	10,078.88	23.35	21.44	-117.10	-174.20	535.91	448.37	405.86	42.51	10.548		
10,250.00	10,176.26	10,130.05	10,103.66	23.66	21.44	-116.10	-175.69	543.07	477.52	434.94	42.58	11.216		
10,300.00	10,208.68	10,154.00	10,126.34	24.01	21.45	-114.40	-177.51	550.55	509.61	466.78	42.83	11.899		
10,350.00	10,237.67	10,179.23	10,149.91	24.38	21.46	-112.23	-179.72	559.26	544.34	501.08	43.26	12.583		
10,400.00	10,263.01	10,200.02	10,169.10	24.79	21.47	-109.12	-181.59	567.04	581.52	537.57	43.95	13.230		
10,450.00	10,284.50	10,219.66	10,187.09	25.22	21.48	-105.26	-183.41	574.72	620.65	575.81	44.85	13.840		
10,500.00	10,301.99	10,240.12	10,205.68	25.68	21.49	-100.84	-185.45	583.00	661.34	615.52	45.82	14.434		
10,550.00	10,315.33	10,269.24	10,232.03	26.16	21.51	-96.89	-188.69	594.96	703.21	656.53	46.68	15.065		
10,600.00	10,324.43	10,328.22	10,286.38	26.67	21.55	-96.41	-196.67	616.38	745.15	697.94	47.20	15.786		
10,650.00	10,329.21	10,339.25	10,296.56	27.20	21.56	-89.57	-198.40	620.26	788.01	739.93	48.08	16.390		
10,680.01	10,330.00	10,345.00	10,301.85	27.52	21.56	-85.05	-199.32	622.32	814.13	765.77	48.36	16.835		
10,700.00	10,330.00	10,345.00	10,301.85	27.74	21.56	-85.05	-199.32	622.32	831.65	783.07	48.58	17.119		
10,800.00	10,330.00	10,356.95	10,312.77	28.88	21.57	-86.67	-201.26	626.77	920.72	870.93	49.78	18.495		
10,900.00	10,330.00	10,367.84	10,322.61	30.09	21.58	-88.10	-203.08	631.06	1,011.66	960.64	51.02	19.829		
11,000.00	10,330.00	10,380.02	10,333.50	31.36	21.60	-89.65	-205.16	636.11	1,104.00	1,051.71	52.29	21.112		
11,100.00	10,330.00	11,898.57	10,855.27	32.69	33.90	-116.87	-1,266.85	1,239.17	1,151.23	1,094.99	56.24	20.469		
11,200.00	10,330.00	11,994.40	10,857.97	34.06	34.95	-116.86	-1,362.54	1,243.53	1,157.72	1,099.19	58.53	19.782		
11,300.00	10,330.00	12,098.73	10,859.42	35.47	36.18	-116.77	-1,466.71	1,249.14	1,164.31	1,103.26	61.05	19.071		
11,400.00	10,330.00	12,200.10	10,858.73	36.91	37.43	-116.58	-1,567.89	1,255.12	1,170.43	1,106.76	63.68	18.380		
11,500.00	10,330.00	12,309.79	10,856.98	38.39	38.81	-116.33	-1,677.39	1,261.54	1,176.13	1,109.64	66.49	17.690		
11,600.00	10,330.00	12,413.93	10,856.97	39.90	40.11	-116.19	-1,781.40	1,266.56	1,181.63	1,112.42	69.20	17.075		
11,700.00	10,330.00	12,524.05	10,857.55	41.43	41.56	-116.11	-1,891.45	1,270.26	1,186.03	1,113.96	72.07	16.456		
11,800.00	10,330.00	12,627.43	10,857.28	42.99	42.97	-116.00	-1,994.78	1,273.58	1,189.98	1,115.04	74.94	15.880		
11,900.00	10,330.00	12,728.09	10,857.92	44.57	44.32	-115.95	-2,095.41	1,275.89	1,193.48	1,115.75	77.72	15.355		
12,000.00	10,330.00	12,815.40	10,860.42	46.16	45.47	-116.00	-2,182.66	1,277.68	1,197.74	1,117.45	80.28	14.919		
12,100.00	10,330.00	12,913.08	10,864.69	47.78	46.78	-116.11	-2,280.22	1,279.79	1,202.76	1,119.79	82.97	14.497		
12,200.00	10,330.00	13,022.09	10,869.87	49.40	48.30	-116.28	-2,389.11	1,281.06	1,207.04	1,121.21	85.84	14.062		
12,300.00	10,330.00	13,114.13	10,873.33	51.04	49.64	-116.36	-2,481.06	1,282.74	1,211.51	1,122.95	88.56	13.680		
12,400.00	10,330.00	13,203.12	10,875.34	52.70	50.95	-116.36	-2,569.98	1,285.80	1,216.76	1,125.43	91.33	13.323		
12,500.00	10,330.00	13,290.46	10,878.08	54.36	52.24	-116.38	-2,657.20	1,289.40	1,223.00	1,128.94	94.06	13.002		
12,600.00	10,330.00	13,379.29	10,881.11	56.04	53.57	-116.39	-2,745.87	1,293.86	1,230.18	1,133.35	96.84	12.704		
12,700.00	10,330.00	13,467.38	10,883.38	57.72	54.95	-116.34	-2,833.74	1,299.55	1,238.28	1,138.59	99.69	12.421		
12,800.00	10,330.00	13,556.00	10,886.15	59.41	56.32	-116.30	-2,922.08	1,305.97	1,247.31	1,144.75	102.55	12.163		
12,900.00	10,330.00	13,674.71	10,891.23	61.11	58.16	-116.33	-3,040.46	1,313.32	1,255.90	1,150.09	105.81	11.870		
13,000.00	10,330.00	13,791.47	10,894.80	62.82	60.02	-116.31	-3,156.97	1,319.84	1,263.47	1,154.35	109.12	11.579		
13,100.00	10,330.00	13,924.72	10,898.14	64.53	62.11	-116.33	-3,290.11	1,324.13	1,268.59	1,155.95	112.64	11.262		
13,200.00	10,330.00	14,093.78	10,899.90	66.25	64.73	-116.37	-3,459.13	1,323.48	1,269.91	1,153.24	116.67	10.884		
13,270.75	10,330.00	14,175.93	10,901.02	67.47	65.99	-116.46	-3,541.19	1,319.74	1,268.24	1,149.33	118.91	10.666		
13,300.00	10,330.15	14,203.71	10,901.22	67.92	66.41	-116.47	-3,568.94	1,318.56	1,267.49	1,147.68	119.81	10.579		
13,320.75	10,330.43	14,223.00	10,901.29	68.21	66.71	-116.46	-3,588.22	1,317.79	1,266.90	1,146.47	120.43	10.520		
13,400.00	10,331.82	14,296.54	10,900.73	69.43	67.86	-116.41	-3,661.72	1,315.51	1,264.73	1,142.04	122.69	10.309		

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



Integrity Directional Services, LLC

Anticollision Report



Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Hamon Fed Pad - Hamon Fed Com A 4H - Actual Wellbore - Actual Wellbore												Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS, 9928-MWD												Offset Well Error:	0.00 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
13,500.00	10,333.56	14,398.86	10,899.23	71.17	69.45	-116.31	-3,764.00	1,312.97	1,262.25	1,136.36	125.89	10.027	
13,600.00	10,335.31	14,510.00	10,900.04	72.91	71.16	-116.33	-3,875.03	1,308.19	1,259.10	1,130.01	129.08	9.754	
13,700.00	10,337.05	14,605.00	10,900.46	74.65	72.65	-116.34	-3,969.93	1,303.96	1,255.70	1,123.61	132.08	9.507	
13,800.00	10,338.80	14,717.54	10,900.30	76.40	74.41	-116.33	-4,082.34	1,298.69	1,251.80	1,116.43	135.36	9.248	
13,900.00	10,340.54	14,801.10	10,901.49	78.15	75.69	-116.38	-4,165.78	1,294.48	1,248.30	1,110.17	138.13	9.037	
14,000.00	10,342.29	14,893.60	10,902.20	79.91	77.13	-116.39	-4,258.21	1,291.09	1,245.74	1,104.65	141.09	8.830	
14,100.00	10,344.03	14,986.00	10,902.12	81.67	78.60	-116.35	-4,350.58	1,288.51	1,243.61	1,099.49	144.12	8.629	
14,200.00	10,345.78	15,070.37	10,903.31	83.43	79.91	-116.35	-4,434.91	1,286.41	1,242.42	1,095.46	146.95	8.454	
14,270.20	10,347.00	15,136.03	10,904.83	84.66	80.96	-116.38	-4,500.54	1,285.27	1,242.32	1,093.28	149.05	8.335	
14,300.00	10,347.52	15,164.91	10,905.15	85.19	81.43	-116.37	-4,529.42	1,285.00	1,242.32	1,092.35	149.97	8.284	
14,400.00	10,349.27	15,288.20	10,905.40	86.96	83.43	-116.29	-4,652.69	1,283.20	1,241.51	1,087.97	153.54	8.086	
14,500.00	10,351.01	15,395.28	10,906.78	88.73	85.15	-116.32	-4,759.68	1,279.23	1,239.13	1,082.39	156.74	7.906	
14,600.00	10,352.76	15,485.03	10,909.55	90.50	86.58	-116.43	-4,849.32	1,275.57	1,237.23	1,077.64	159.59	7.753	
14,700.00	10,354.50	15,583.42	10,911.63	92.27	88.18	-116.48	-4,947.63	1,272.41	1,235.67	1,073.04	162.64	7.598	
14,800.00	10,356.25	15,676.34	10,911.96	94.05	89.71	-116.44	-5,040.53	1,270.60	1,234.47	1,068.74	165.73	7.449	
14,896.32	10,357.93	15,761.89	10,912.82	95.76	91.10	-116.41	-5,126.07	1,269.36	1,234.04	1,065.42	168.62	7.318	
14,900.00	10,357.99	15,765.06	10,912.88	95.82	91.15	-116.41	-5,129.24	1,269.33	1,234.04	1,065.31	168.73	7.314	
15,000.00	10,359.74	15,846.00	10,914.31	97.60	92.46	-116.41	-5,210.17	1,268.77	1,234.65	1,063.07	171.58	7.196	
15,100.00	10,361.48	15,941.00	10,915.72	99.38	94.02	-116.35	-5,305.15	1,269.77	1,236.62	1,061.90	174.72	7.078	
15,200.00	10,363.23	16,037.51	10,916.05	101.17	95.65	-116.22	-5,401.63	1,271.96	1,239.19	1,061.17	178.01	6.961	
15,299.41	10,364.96	16,140.55	10,915.11	102.63	97.40	-116.03	-5,504.64	1,274.30	1,241.21	1,060.03	181.18	6.851	



Integrity Directional Services, LLC

Anticollision Report



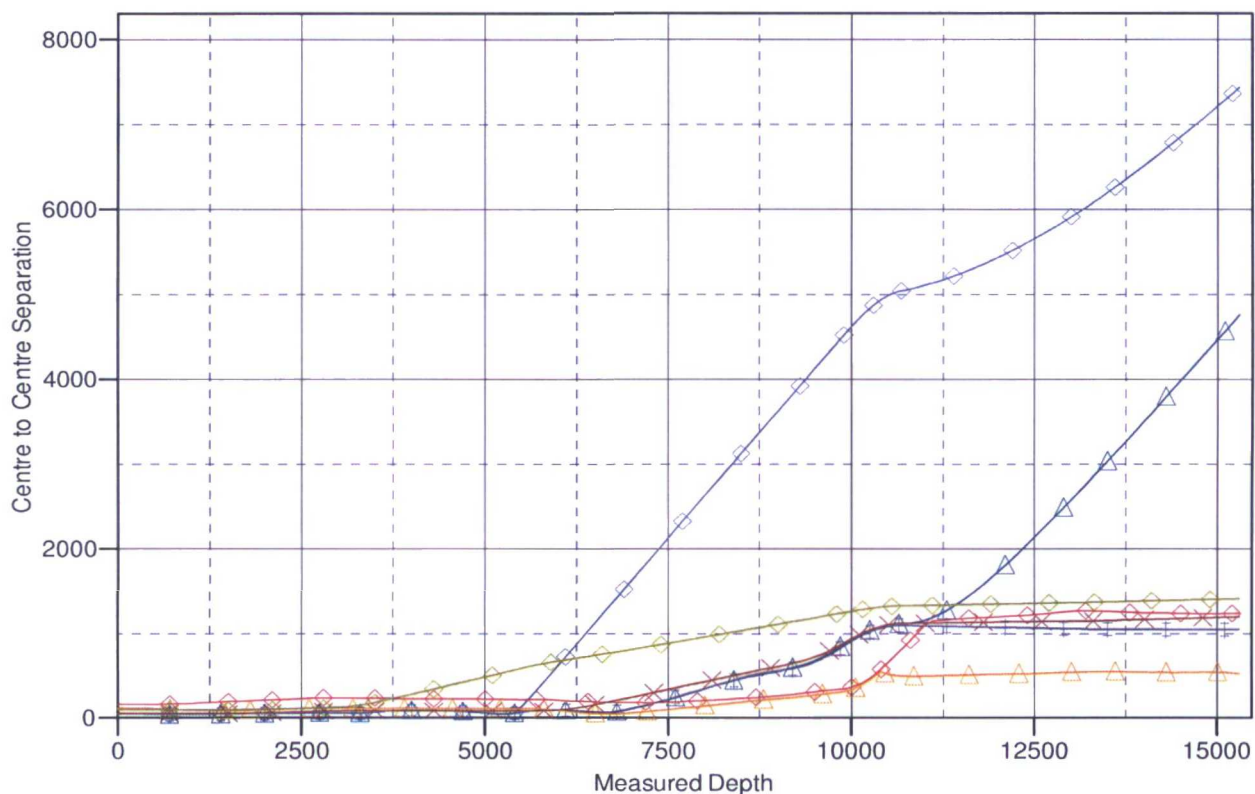
Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB=18' @ 3628.00ft (McVay 4)
Offset Depths are relative to Offset Datum
Central Meridian is -104.333333

Coordinates are relative to: Hamon Fed Com A #6H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.32°

Ladder Plot



LEGEND

Ham A #5H, Wellbore #2, Wellbore #2 V0	Hamon Fed Com A #3H, Wellbore #1, Actual Wellbore V0	Hamon Fed Com A #8H, Wellbore #1, Actual Wellbore V0
Ham A #5H, Wellbore #1, Wellbore #1 V0	Hamon Fed Com A #4H, Actual Wellbore, Actual Wellbore V0	
Ham A #5H, Wellbore #2, Plan#4 V0	Hamon Fed Com A #7H, Wellbore #1, Plan#1 V0	



Integrity Directional Services, LLC

Anticollision Report



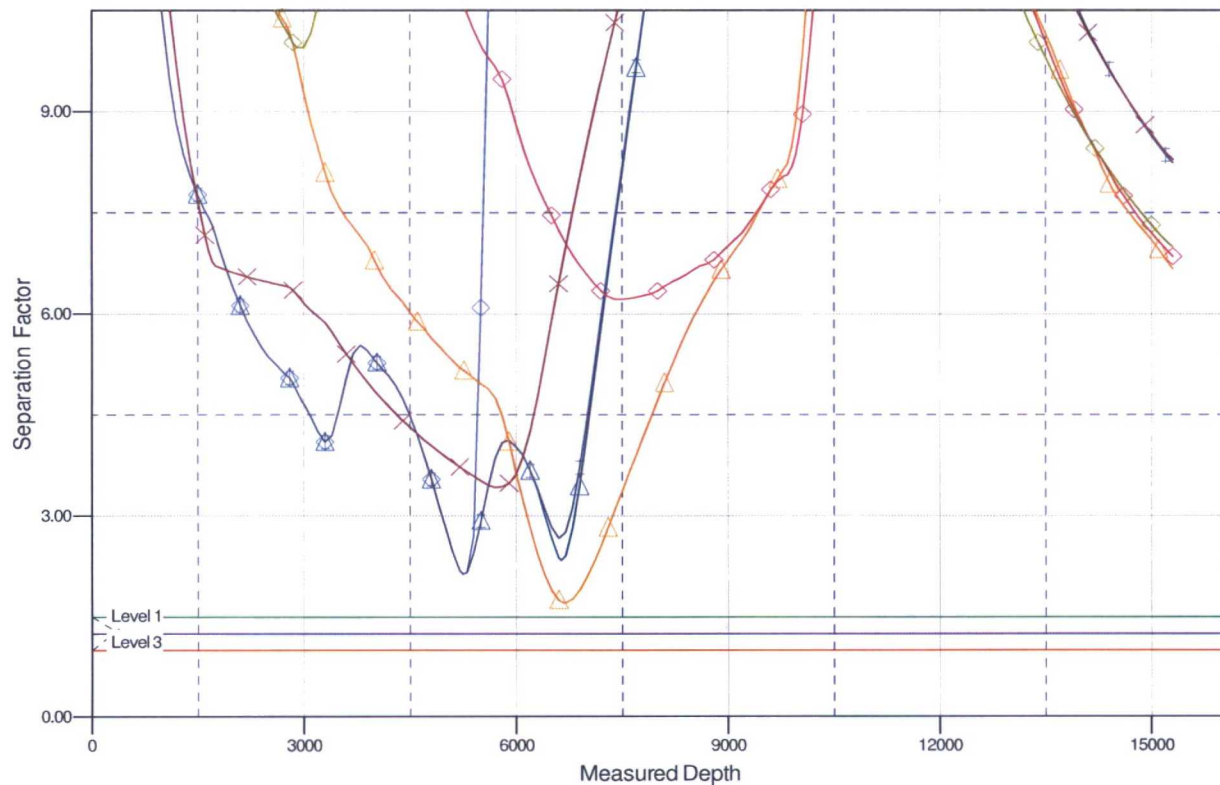
Company: Legacy Reserves Operating
Project: Lea County, NM
Reference Site: Hamon Fed Pad
Site Error: 0.00 ft
Reference Well: Hamon Fed Com A #6H
Well Error: 0.00 ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #3

Local Co-ordinate Reference: Well Hamon Fed Com A #6H
TVD Reference: KB=18' @ 3628.00ft (McVay 4)
MD Reference: KB=18' @ 3628.00ft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB=18' @ 3628.00ft (McVay 4)
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333

Coordinates are relative to: Hamon Fed Com A #6H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.32°

Separation Factor Plot



LEGEND

A#5H, Wellbore #2, Wellbore #2 V0	Hamon Fed Com A3H, Wellbore #1, Actual Wellbore V0	Hamon Fed Com A#8H, Wellbore #1, Actual Wellbore V0
A#5H, Wellbore #1, Wellbore #1 V0	Hamon Fed Com A4H, Actual Wellbore, Actual Wellbore V0	
A#5H, Wellbore #2, Plan#4 V0	Hamon Fed Com A#7H, Wellbore #1, Plan#1 V0	