

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**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.FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 20185. Lease Serial No.
NMNM06531

6. If Indian, Allottee or Tribe Name

7. Bond or CA/Agreement, Name and/or No.
89400455XWell Name and No.
LEA UNIT 103H

9. API Well No.

10. Field and Pool or Exploratory Area
LEA11. County or Parish, State
LEA COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

LEGACY RESERVES OPERATING LFE-Mail: smorrow@legacylp.com

Contact: SHERRY MORROW

3a. Address

303 W WALL SUITE 1600
MIDLAND, TX 79702

3b. Phone No. (include area code)

Ph: 432-221-6339

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

Sec 11 T20S R34E NENE 140FNL 1065FEL
32.594494 N Lat, 103.525787 W Lon

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	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

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 recompleat 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 recompleat 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 is proposing a revised First Take Point (FTP) and Bottom Hole Location (BHL). The revised FTP is located 330' FNL / 350' FEL of Section 11 and revised BHL is located 2535' FNL / 350' FEL of Section 14. Please see attached revised Form C-102 for details and updated Directional Plan with Anti-Collision Report to reflect new FTP and BHL.

Carlsbad Field Office
OCD Hobbs

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

**Electronic Submission #454359 verified by the BLM Well Information System
For LEGACY RESERVES OPERATING LP, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 02/14/2019 (19PP1027SE)**

Name (Printed/Typed) MATT DICKSON

Title DRILLING ENGINEER

Signature (Electronic Submission)

Date 02/12/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By LONG VO

Title PETROLEUM ENGINEER

Date 02/15/2019

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

Office Hobbs

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

KZ

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
611 S. First St., Artesia, NM 88210
Phone: (575) 746-1283 Fax: (575) 746-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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 August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45575	Pool Code 98247	Pool Name WC-025 G-08 5203435D, WC
Property Code 302802	Property Name LEA UNIT	Well Number 103H
OGRID No. 240974	Operator Name LEGACY RESERVES OPERATING LP	Elevation 3666'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	11	20 S	34 E		140	NORTH	1065	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
H	14	20 S	34 E		2535	NORTH	350	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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.

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased 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.

Sherry Morrow 2/12/2019
Signature Date

Sherry Morrow
Printed Name

smorrow@legacyreserves.com
E-mail Address

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.

December 20, 2017

Date of Survey

Signature & Seal of Lindsay Gygox Surveyor

11-05-18

NEW MEXICO
23263
PROFESSIONAL SURVEYOR

W.O. Num. 2017-08929 C

Certificate No. Lindsay Gygox 23263

Legacy Reserves

Lea County, NM (NAD83)

Lea

Lea Unit #103H

Original Wellbore

Plan 1

Anticollision Summary Report

24 October, 2018



Company:	Legacy Reserves	Local Co-ordinate Reference:	Well Lea Unit #103H
Project:	Lea County, NM (NAD83)	TVD Reference:	RKB @ 3693.0usft
Reference Site:	Lea	MD Reference:	RKB @ 3693.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Lea Unit #103H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Wellbore	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Reference	Plan 1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 100.0usft
Depth Range:	Unlimited
Results Limited by:	Maximum centre distance of 30,000.0usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date 10/24/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	18,632.8	Plan 1 (Original Wellbore)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Lea						
Lea Unit #100H - Original Wellbore - Original Wellbore	0.0	0.0	725.0			
Lea Unit #100H - Original Wellbore - Original Wellbore	400.0	384.6	726.5	724.1	301.654	ES
Lea Unit #100H - Original Wellbore - Original Wellbore	11,400.0	11,241.0	1,838.8	1,759.4	23.158	SF
Lea Unit #100H - Original Wellbore - Plan 1	1,000.0	990.0	724.9	718.2	108.285	CC, ES
Lea Unit #100H - Original Wellbore - Plan 1	18,633.8	18,672.8	1,864.4	1,598.0	6.999	SF
Lea Unit #101H - Original Wellbore - Plan 1	1,000.0	999.0	624.9	618.2	93.122	CC, ES
Lea Unit #101H - Original Wellbore - Plan 1	18,633.8	18,765.2	1,270.0	1,003.3	4.763	SF
Lea Unit #102H - Original Wellbore - Plan 1	1,000.0	1,000.0	150.0	143.3	22.341	CC, ES
Lea Unit #102H - Original Wellbore - Plan 1	18,633.8	18,784.7	650.0	382.7	2.432	SF
Lea Unit #200H - Original Wellbore - Plan 1	1,000.0	999.0	674.9	668.2	100.573	CC, ES
Lea Unit #200H - Original Wellbore - Plan 1	18,633.8	19,300.4	1,926.3	1,666.0	7.399	SF
Lea Unit #201H - Original Wellbore - Plan 1	1,000.0	999.0	574.8	568.1	85.656	CC, ES
Lea Unit #201H - Original Wellbore - Plan 1	18,633.8	19,373.6	1,365.3	1,112.5	5.400	SF
Lea Unit #202H - Original Wellbore - Plan 1	1,000.0	1,000.0	100.0	93.3	14.894	CC
Lea Unit #202H - Original Wellbore - Plan 1	1,200.0	1,204.5	100.6	92.5	12.393	ES
Lea Unit #202H - Original Wellbore - Plan 1	18,631.0	19,377.0	820.1	601.0	3.744	SF
Lea Unit #203H - Original Wellbore - Plan 1	1,000.0	1,000.0	49.9	43.2	7.432	CC, ES
Lea Unit #203H - Original Wellbore - Plan 1	10,876.0	10,879.5	187.5	107.4	2.340	SF
Lea Unit #54H - Original Wellbore - Original Wellbore	100.0	84.3	675.6	675.4	2,650.631	CC
Lea Unit #54H - Original Wellbore - Original Wellbore	1,000.0	983.1	677.7	671.1	102.768	ES
Lea Unit #54H - Original Wellbore - Original Wellbore	18,400.0	17,965.6	1,453.5	1,203.6	5.817	SF
Lea Unit #55H - Original Wellbore - Original Wellbore	100.0	86.5	625.7	625.4	2,202.114	CC
Lea Unit #55H - Original Wellbore - Original Wellbore	600.0	583.3	627.4	624.4	212.141	ES
Lea Unit #55H - Original Wellbore - Original Wellbore	18,500.0	17,602.0	1,794.4	1,565.8	7.850	SF
Lea Unit #56H - Original Wellbore - Original Wellbore	222.6	209.6	575.3	574.4	603.994	CC
Lea Unit #56H - Original Wellbore - Original Wellbore	1,000.0	983.5	577.5	571.0	89.739	ES
Lea Unit #56H - Original Wellbore - Original Wellbore	18,600.0	16,740.0	2,539.3	2,336.1	12.496	SF
Lea Unit #57H - Original Wellbore - Original Wellbore	1,156.1	1,148.0	82.6	74.8	10.614	CC, ES
Lea Unit #57H - Original Wellbore - Original Wellbore	18,405.2	17,641.0	919.2	785.0	6.849	SF
Lea Unit #58H - Original Wellbore - Original Wellbore	906.1	894.1	56.9	51.2	9.958	CC
Lea Unit #58H - Original Wellbore - Original Wellbore	1,000.0	987.9	57.0	50.7	8.934	ES
Lea Unit #58H - Original Wellbore - Original Wellbore	1,300.0	1,287.4	66.3	57.8	7.816	SF

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

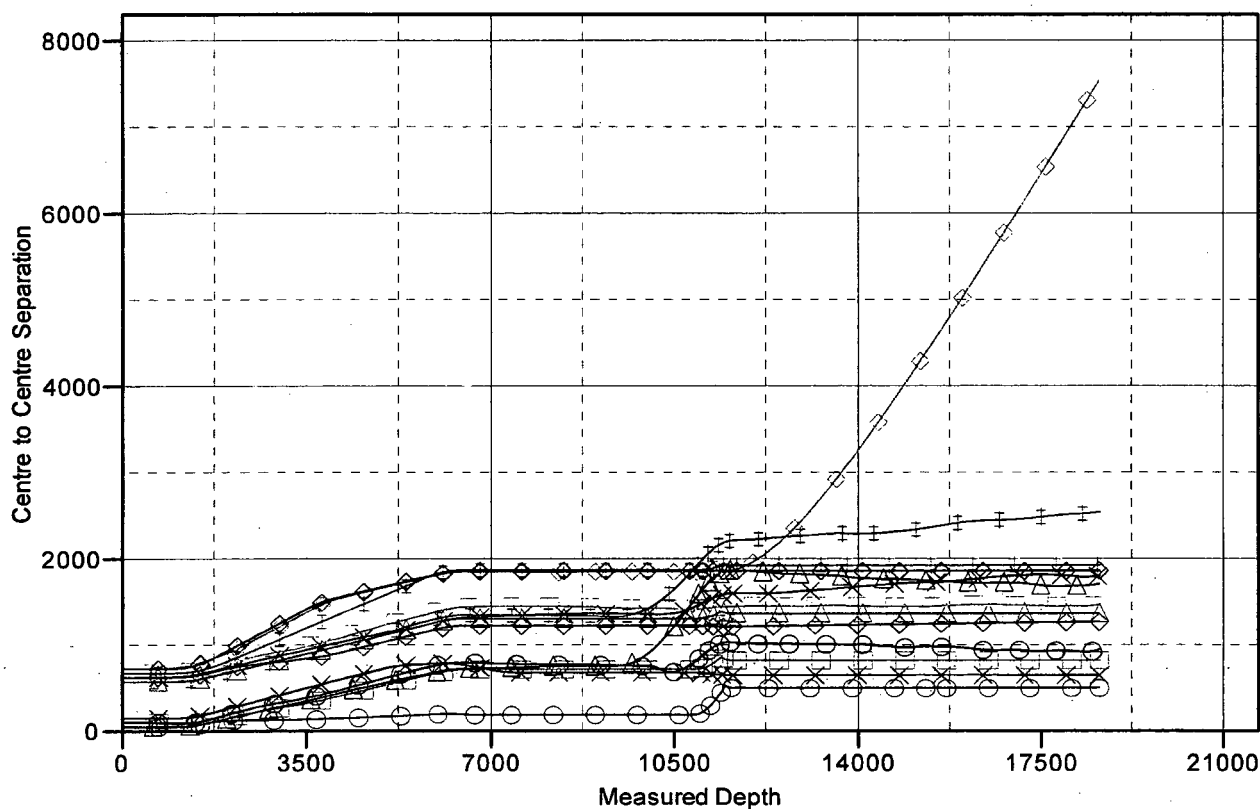
Company: Legacy Reserves
Project: Lea County, NM (NAD83)
Reference Site: Lea
Site Error: 0.0 usft
Reference Well: Lea Unit #103H
Well Error: 0.0 usft
Reference Wellbore: Original Wellbore
Reference Design: Plan 1

Local Co-ordinate Reference:
TVD Reference: RKB @ 3693.0usft
MD Reference: RKB @ 3693.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Reference Datum

Reference Depths are relative to RKB @ 3693.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Lea Unit #103H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.44°

Ladder Plot



LEGEND

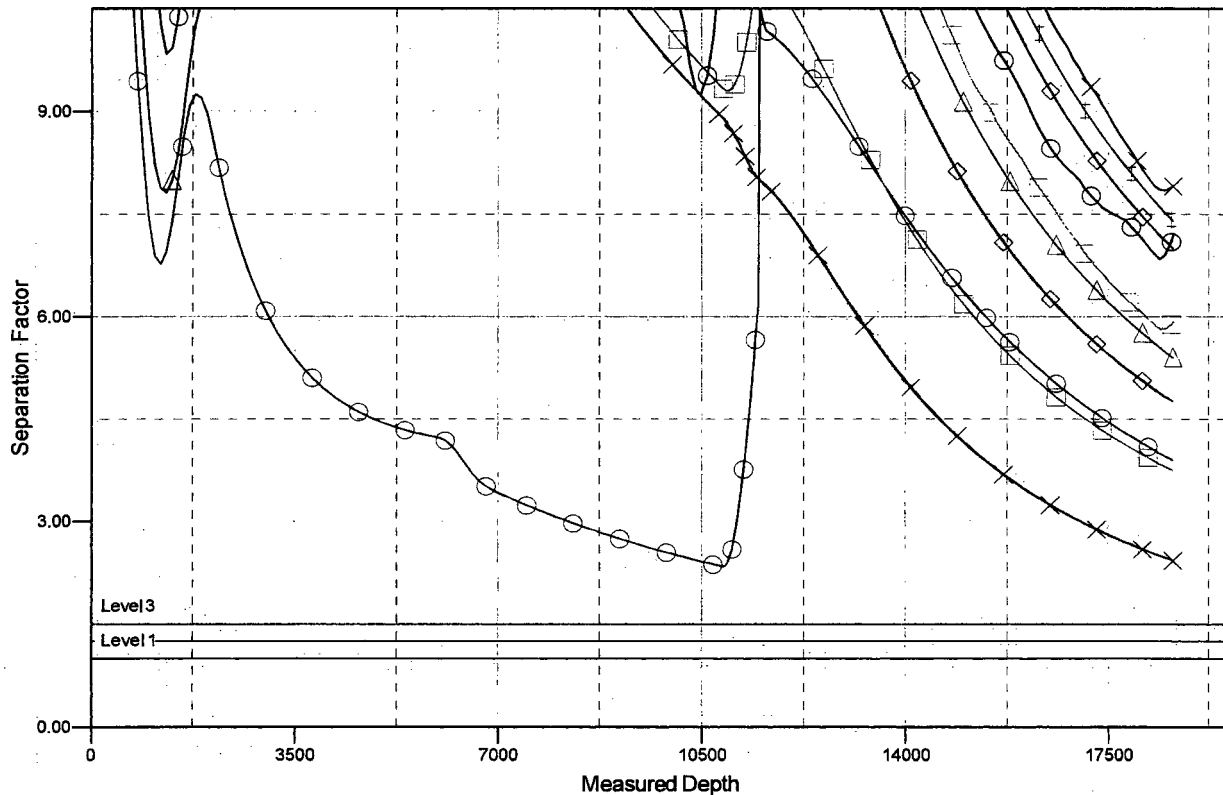
- | | | |
|--|--|---|
| Lea Unit #54H, Original Wellbore, Original Wellbore V0 | Lea Unit #55H, Original Wellbore, Original Wellbore V0 | Lea Unit #200H, Original Wellbore, Plan 1 V0 |
| Lea Unit #203H, Original Wellbore, Plan 1 V0 | Lea Unit #56H, Original Wellbore, Original Wellbore V0 | Lea Unit #57H, Original Wellbore, Original Wellbore V0 |
| Lea Unit #101H, Original Wellbore, Plan 1 V0 | Lea Unit #58H, Original Wellbore, Original Wellbore V0 | Lea Unit #100H, Original Wellbore, Original Wellbore V0 |
| Lea Unit #102H, Original Wellbore, Plan 1 V0 | Lea Unit #201H, Original Wellbore, Plan 1 V0 | |
| Lea Unit #100H, Original Wellbore, Plan 1 V0 | Lea Unit #202H, Original Wellbore, Plan 1 V0 | |

Company:	Legacy Reserves	Local Co-ordinate Reference:	Well Lea Unit #103H
Project:	Lea County, NM (NAD83)	TVD Reference:	RKB @ 3693.0usft
Reference Site:	Lea	MD Reference:	RKB @ 3693.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Lea Unit #103H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Wellbore	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to RKB @ 3693.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Lea Unit #103H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.44°

Separation Factor Plot



LEGEND

Lea Unit #54H, Original Wellbore, Original Wellbore V0	Lea Unit #55H, Original Wellbore, Original Wellbore V0	Lea Unit #200H, Original Wellbore, Plan 1 V0
Lea Unit #203H, Original Wellbore, Plan 1 V0	Lea Unit #56H, Original Wellbore, Original Wellbore V0	Lea Unit #57H, Original Wellbore, Original Wellbore V0
Lea Unit #101H, Original Wellbore, Plan 1 V0	Lea Unit #58H, Original Wellbore, Original Wellbore V0	Lea Unit #100H, Original Wellbore, Original Wellbore V0
Lea Unit #102H, Original Wellbore, Plan 1 V0	Lea Unit #201H, Original Wellbore, Plan 1 V0	
Lea Unit #100H, Original Wellbore, Plan 1 V0	Lea Unit #202H, Original Wellbore, Plan 1 V0	

Legacy Reserves
Lea Unit #103H - Plan 1

Lea County, NM (NAD83)
Lea
Your Ref:

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Vertical Eastings (ft)	Dogleg Section Rate (dega/100ft)		
0.00		0.000	0.000	0.00	0.00	0.00	0.00	0.00
100.00		0.000	0.000	100.00	0.00	0.00	0.00	0.00
200.00		0.000	0.000	200.00	0.00	0.00	0.00	0.00
300.00		0.000	0.000	300.00	0.00	0.00	0.00	0.00
400.00		0.000	0.000	400.00	0.00	0.00	0.00	0.00
500.00		0.000	0.000	500.00	0.00	0.00	0.00	0.00
600.00		0.000	0.000	600.00	0.00	0.00	0.00	0.00
700.00		0.000	0.000	700.00	0.00	0.00	0.00	0.00
800.00		0.000	0.000	800.00	0.00	0.00	0.00	0.00
900.00		0.000	0.000	900.00	0.00	0.00	0.00	0.00
1000.00		0.000	0.000	1000.00	0.00	0.00	0.00	0.00
1100.00		1.500	104.650	1099.99	-0.33	1.27	0.46	1.50
1200.00		3.000	104.650	1199.91	-1.32	5.06	1.83	1.50
1300.00		4.500	104.650	1299.69	-2.98	11.39	4.11	1.50
1400.00		6.000	104.650	1399.27	-5.29	20.24	7.30	1.50
1500.00		7.500	104.650	1498.57	-8.27	31.62	11.40	1.50
1570.94		8.564	104.650	1568.81	-10.77	41.21	14.86	1.50
1600.00		8.564	104.650	1597.55	-11.87	45.39	16.37	0.00
1700.00		8.564	104.650	1696.44	-15.63	59.80	21.56	0.00
1800.00		8.564	104.650	1795.32	-19.40	74.21	26.76	0.00
1900.00		8.564	104.650	1894.21	-23.17	88.61	31.95	0.00
2000.00		8.564	104.650	1993.09	-26.93	103.02	37.15	0.00
2100.00		8.564	104.650	2091.98	-30.70	117.43	42.34	0.00
2200.00		8.564	104.650	2190.86	-34.46	131.84	47.54	0.00
2300.00		8.564	104.650	2289.75	-38.23	146.24	52.73	0.00
2400.00		8.564	104.650	2388.63	-42.00	160.65	57.93	0.00
2500.00		8.564	104.650	2487.52	-45.76	175.06	63.12	0.00
2600.00		8.564	104.650	2586.40	-49.53	189.47	68.32	0.00
2700.00		8.564	104.650	2685.29	-53.30	203.87	73.51	0.00
2800.00		8.564	104.650	2784.17	-57.06	218.28	78.71	0.00
2900.00		8.564	104.650	2883.06	-60.83	232.69	83.91	0.00
3000.00		8.564	104.650	2981.94	-64.60	247.10	89.10	0.00
3100.00		8.564	104.650	3080.83	-68.36	261.50	94.30	0.00
3200.00		8.564	104.650	3179.71	-72.13	275.91	99.49	0.00
3300.00		8.564	104.650	3278.60	-75.90	290.32	104.69	0.00
3400.00		8.564	104.650	3377.48	-79.66	304.73	109.88	0.00
3500.00		8.564	104.650	3476.37	-83.43	319.13	115.08	0.00
3600.00		8.564	104.650	3575.25	-87.19	333.54	120.27	0.00
3700.00		8.564	104.650	3674.14	-90.96	347.95	125.47	0.00
3800.00		8.564	104.650	3773.02	-94.73	362.36	130.66	0.00
3900.00		8.564	104.650	3871.91	-98.49	376.76	135.86	0.00
4000.00		8.564	104.650	3970.79	-102.26	391.17	141.05	0.00
4100.00		8.564	104.650	4069.68	-106.03	405.58	146.25	0.00
4200.00		8.564	104.650	4168.56	-109.79	419.98	151.44	0.00
4300.00		8.564	104.650	4267.45	-113.56	434.39	156.64	0.00
4400.00		8.564	104.650	4366.33	-117.33	448.80	161.83	0.00
4500.00		8.564	104.650	4465.22	-121.09	463.21	167.03	0.00
4600.00		8.564	104.650	4564.10	-124.86	477.61	172.22	0.00
4700.00		8.564	104.650	4662.99	-128.62	492.02	177.42	0.00
4800.00		8.564	104.650	4761.87	-132.39	506.43	182.61	0.00
4900.00		8.564	104.650	4860.76	-136.16	520.84	187.81	0.00
5000.00		8.564	104.650	4959.64	-139.92	535.24	193.00	0.00
5100.00		8.564	104.650	5058.53	-143.69	549.65	198.20	0.00
5200.00		8.564	104.650	5157.41	-147.46	564.06	203.39	0.00
5300.00		8.564	104.650	5256.30	-151.22	578.47	208.59	0.00
5400.00		8.564	104.650	5355.18	-154.99	592.87	213.78	0.00
5500.00		8.564	104.650	5454.07	-158.76	607.28	218.98	0.00
5600.00		8.564	104.650	5552.95	-162.52	621.69	224.17	0.00

5700.00	8.564	104.650	5651.84	-166.29	636.10	229.37	0.00
5800.00	8.564	104.650	5750.72	-170.05	650.50	234.57	0.00
5900.00	8.564	104.650	5849.61	-173.82	664.91	239.76	0.00
5982.48	8.564	104.650	5931.17	-176.93	676.79	244.05	0.00
6000.00	8.301	104.650	5948.50	-177.58	679.28	244.94	1.50
6100.00	6.801	104.650	6047.63	-180.90	691.99	249.53	1.50
6200.00	5.301	104.650	6147.07	-183.57	702.19	253.20	1.50
6300.00	3.801	104.650	6246.75	-185.57	709.87	255.97	1.50
6400.00	2.301	104.650	6346.60	-186.92	715.02	257.83	1.50
6500.00	0.801	104.650	6446.57	-187.61	717.64	258.77	1.50
6553.42	0.000	0.000	6499.99	-187.70	718.00	258.90	1.50
6600.00	0.000	0.000	6546.56	-187.70	718.00	258.90	0.00
6700.00	0.000	0.000	6646.56	-187.70	718.00	258.90	0.00
6800.00	0.000	0.000	6746.56	-187.70	718.00	258.90	0.00
6900.00	0.000	0.000	6846.56	-187.70	718.00	258.90	0.00
7000.00	0.000	0.000	6946.56	-187.70	718.00	258.90	0.00
7100.00	0.000	0.000	7046.56	-187.70	718.00	258.90	0.00
7200.00	0.000	0.000	7146.56	-187.70	718.00	258.90	0.00
7300.00	0.000	0.000	7246.56	-187.70	718.00	258.90	0.00
7400.00	0.000	0.000	7346.56	-187.70	718.00	258.90	0.00
7500.00	0.000	0.000	7446.56	-187.70	718.00	258.90	0.00
7600.00	0.000	0.000	7546.56	-187.70	718.00	258.90	0.00
7700.00	0.000	0.000	7646.56	-187.70	718.00	258.90	0.00
7800.00	0.000	0.000	7746.56	-187.70	718.00	258.90	0.00
7900.00	0.000	0.000	7846.56	-187.70	718.00	258.90	0.00
8000.00	0.000	0.000	7946.56	-187.70	718.00	258.90	0.00
8100.00	0.000	0.000	8046.56	-187.70	718.00	258.90	0.00
8200.00	0.000	0.000	8146.56	-187.70	718.00	258.90	0.00
8300.00	0.000	0.000	8246.56	-187.70	718.00	258.90	0.00
8400.00	0.000	0.000	8346.56	-187.70	718.00	258.90	0.00
8500.00	0.000	0.000	8446.56	-187.70	718.00	258.90	0.00
8600.00	0.000	0.000	8546.56	-187.70	718.00	258.90	0.00
8700.00	0.000	0.000	8646.56	-187.70	718.00	258.90	0.00
8800.00	0.000	0.000	8746.56	-187.70	718.00	258.90	0.00
8900.00	0.000	0.000	8846.56	-187.70	718.00	258.90	0.00
9000.00	0.000	0.000	8946.56	-187.70	718.00	258.90	0.00
9100.00	0.000	0.000	9046.56	-187.70	718.00	258.90	0.00
9200.00	0.000	0.000	9146.56	-187.70	718.00	258.90	0.00
9300.00	0.000	0.000	9246.56	-187.70	718.00	258.90	0.00
9400.00	0.000	0.000	9346.56	-187.70	718.00	258.90	0.00
9500.00	0.000	0.000	9446.56	-187.70	718.00	258.90	0.00
9600.00	0.000	0.000	9546.56	-187.70	718.00	258.90	0.00
9700.00	0.000	0.000	9646.56	-187.70	718.00	258.90	0.00
9800.00	0.000	0.000	9746.56	-187.70	718.00	258.90	0.00
9900.00	0.000	0.000	9846.56	-187.70	718.00	258.90	0.00
10000.00	0.000	0.000	9946.56	-187.70	718.00	258.90	0.00
10100.00	0.000	0.000	10046.56	-187.70	718.00	258.90	0.00
10200.00	0.000	0.000	10146.56	-187.70	718.00	258.90	0.00
10300.00	0.000	0.000	10246.56	-187.70	718.00	258.90	0.00
10400.00	0.000	0.000	10346.56	-187.70	718.00	258.90	0.00
10500.00	0.000	0.000	10446.56	-187.70	718.00	258.90	0.00
10600.00	0.000	0.000	10546.56	-187.70	718.00	258.90	0.00
10700.00	0.000	0.000	10646.56	-187.70	718.00	258.90	0.00
10800.00	0.000	0.000	10746.56	-187.70	718.00	258.90	0.00
10876.01	0.000	0.000	10822.58	-187.70	718.00	258.90	0.00
10900.00	2.878	179.570	10846.55	-188.30	718.00	259.50	12.00
10925.00	5.878	179.570	10871.48	-190.21	718.02	261.40	12.00
10950.00	8.878	179.570	10896.27	-193.42	718.04	264.60	12.00
10975.00	11.878	179.570	10920.86	-197.92	718.08	269.08	12.00
11000.00	14.878	179.570	10945.17	-203.71	718.12	274.84	12.00
11025.00	17.878	179.570	10969.16	-210.76	718.17	281.86	12.00
11050.00	20.878	179.570	10992.74	-219.05	718.24	290.12	12.00
11075.00	23.878	179.570	11015.85	-228.57	718.31	299.59	12.00
11100.00	26.878	179.570	11038.44	-239.28	718.39	310.26	12.00
11125.00	29.878	179.570	11060.43	-251.16	718.48	322.09	12.00
11150.00	32.878	179.570	11081.77	-264.18	718.57	335.05	12.00
11175.00	35.878	179.570	11102.40	-278.29	718.68	349.10	12.00
11200.00	38.878	179.570	11122.27	-293.46	718.79	364.21	12.00
11225.00	41.878	179.570	11141.31	-309.66	718.92	380.34	12.00
11250.00	44.878	179.570	11159.48	-326.83	719.04	397.43	12.00
11275.00	47.878	179.570	11176.72	-344.92	719.18	415.45	12.00
11300.00	50.878	179.570	11193.00	-363.89	719.32	434.34	12.00
11325.00	53.878	179.570	11208.26	-383.69	719.47	454.05	12.00

11350.00	56.878	179.570	11222.46	-404.26	719.63	474.53	12.00
11375.00	59.878	179.570	11235.57	-425.55	719.79	495.73	12.00
11400.00	62.878	179.570	11247.54	-447.49	719.95	517.57	12.00
11425.00	65.878	179.570	11258.35	-470.03	720.12	540.02	12.00
11450.00	68.878	179.570	11267.97	-493.10	720.29	562.99	12.00
11475.00	71.878	179.570	11276.36	-516.65	720.47	586.43	12.00
11500.00	74.878	179.570	11283.51	-540.60	720.65	610.28	12.00
11525.00	77.878	179.570	11289.40	-564.89	720.83	634.47	12.00
11550.00	80.878	179.570	11294.00	-589.46	721.02	658.93	12.00
11575.00	83.878	179.570	11297.32	-614.24	721.20	683.60	12.00
11600.00	86.878	179.570	11299.33	-639.15	721.39	708.41	12.00
11626.01	90.000	179.570	11300.04	-665.15	721.58	734.30	12.00
11700.00	90.000	179.570	11300.04	-739.13	722.14	807.96	0.00
11800.00	90.000	179.570	11300.04	-839.13	722.89	907.53	0.00
11900.00	90.000	179.569	11300.04	-939.13	723.64	1007.10	0.00
12000.00	90.000	179.569	11300.04	-1039.13	724.39	1106.66	0.00
12100.00	90.000	179.569	11300.04	-1139.12	725.14	1206.23	0.00
12200.00	90.000	179.569	11300.04	-1239.12	725.90	1305.80	0.00
12300.00	90.000	179.569	11300.04	-1339.12	726.65	1405.36	0.00
12400.00	90.000	179.569	11300.04	-1439.11	727.40	1504.93	0.00
12500.00	90.000	179.568	11300.04	-1539.11	728.15	1604.50	0.00
12600.00	90.000	179.568	11300.04	-1639.11	728.91	1704.06	0.00
12700.00	90.000	179.568	11300.04	-1739.11	729.66	1803.63	0.00
12800.00	90.000	179.568	11300.04	-1839.10	730.42	1903.20	0.00
12900.00	90.000	179.568	11300.04	-1939.10	731.17	2002.76	0.00
13000.00	90.000	179.567	11300.04	-2039.10	731.93	2102.33	0.00
13100.00	90.000	179.567	11300.04	-2139.09	732.68	2201.90	0.00
13200.00	90.000	179.567	11300.04	-2239.09	733.44	2301.46	0.00
13300.00	90.000	179.567	11300.04	-2339.09	734.19	2401.03	0.00
13400.00	90.000	179.567	11300.04	-2439.09	734.95	2500.60	0.00
13500.00	90.000	179.566	11300.04	-2539.08	735.70	2600.16	0.00
13600.00	90.000	179.566	11300.04	-2639.08	736.46	2699.73	0.00
13700.00	90.000	179.566	11300.04	-2739.08	737.22	2799.30	0.00
13800.00	90.000	179.566	11300.04	-2839.07	737.98	2898.86	0.00
13900.00	90.000	179.566	11300.04	-2939.07	738.73	2998.43	0.00
14000.00	90.000	179.566	11300.04	-3039.07	739.49	3098.00	0.00
14100.00	90.000	179.565	11300.03	-3139.07	740.25	3197.57	0.00
14200.00	90.000	179.565	11300.03	-3239.06	741.01	3297.13	0.00
14300.00	90.000	179.565	11300.03	-3339.06	741.77	3396.70	0.00
14400.00	90.000	179.565	11300.03	-3439.06	742.53	3496.27	0.00
14500.00	90.000	179.565	11300.03	-3539.05	743.29	3595.83	0.00
14600.00	90.000	179.564	11300.03	-3639.05	744.05	3695.40	0.00
14700.00	90.000	179.564	11300.03	-3739.05	744.81	3794.97	0.00
14800.00	90.000	179.564	11300.03	-3839.05	745.57	3894.54	0.00
14900.00	90.001	179.564	11300.03	-3939.04	746.33	3994.10	0.00
15000.00	90.001	179.564	11300.03	-4039.04	747.09	4093.67	0.00
15100.00	90.001	179.563	11300.03	-4139.04	747.85	4193.24	0.00
15200.00	90.001	179.563	11300.03	-4239.03	748.61	4292.81	0.00
15300.00	90.001	179.563	11300.03	-4339.03	749.38	4392.37	0.00
15400.00	90.001	179.563	11300.02	-4439.03	750.14	4491.94	0.00
15500.00	90.001	179.563	11300.02	-4539.03	750.90	4591.51	0.00
15600.00	90.001	179.563	11300.02	-4639.02	751.67	4691.08	0.00
15700.00	90.001	179.562	11300.02	-4739.02	752.43	4790.64	0.00
15800.00	90.001	179.562	11300.02	-4839.02	753.19	4890.21	0.00
15900.00	90.001	179.562	11300.02	-4939.01	753.96	4989.78	0.00
16000.00	90.001	179.562	11300.02	-5039.01	754.72	5089.35	0.00
16100.00	90.001	179.562	11300.02	-5139.01	755.49	5188.91	0.00
16200.00	90.001	179.561	11300.02	-5239.01	756.25	5288.48	0.00
16300.00	90.001	179.561	11300.01	-5339.00	757.02	5388.05	0.00
16400.00	90.001	179.561	11300.01	-5439.00	757.78	5487.62	0.00
16500.00	90.001	179.561	11300.01	-5539.00	758.55	5587.19	0.00
16600.00	90.001	179.561	11300.01	-5638.99	759.32	5686.75	0.00
16700.00	90.001	179.561	11300.01	-5738.99	760.08	5786.32	0.00
16800.00	90.001	179.560	11300.01	-5838.99	760.85	5885.89	0.00
16900.00	90.001	179.560	11300.01	-5938.98	761.62	5985.46	0.00
17000.00	90.001	179.560	11300.00	-6038.98	762.39	6085.03	0.00
17100.00	90.001	179.560	11300.00	-6138.98	763.15	6184.59	0.00
17200.00	90.001	179.560	11300.00	-6238.98	763.92	6284.16	0.00
17300.00	90.001	179.559	11300.00	-6338.97	764.69	6383.73	0.00
17400.00	90.001	179.559	11300.00	-6438.97	765.46	6483.30	0.00
17500.00	90.001	179.559	11300.00	-6538.97	766.23	6582.87	0.00
17600.00	90.001	179.559	11300.00	-6638.96	767.00	6682.43	0.00
17700.00	90.001	179.559	11299.99	-6738.96	767.77	6782.00	0.00

17800.00	90.001	179.558	11299.99	-6838.96	768.54	6881.57	0.00
17900.00	90.001	179.558	11299.99	-6938.96	769.31	6981.14	0.00
18000.00	90.001	179.558	11299.99	-7038.95	770.08	7080.71	0.00
18100.00	90.001	179.558	11299.99	-7138.95	770.85	7180.28	0.00
18200.00	90.001	179.558	11299.99	-7238.95	771.63	7279.84	0.00
18300.00	90.001	179.558	11299.98	-7338.94	772.40	7379.41	0.00
18400.00	90.001	179.557	11299.98	-7438.94	773.17	7478.98	0.00
18500.00	90.001	179.557	11299.98	-7538.94	773.94	7578.55	0.00
18600.00	90.001	179.557	11299.98	-7638.93	774.72	7678.12	0.00
18632.82	90.001	179.557	11299.98	-7671.75	774.97	7710.79	0.00

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North. Vertical depths are relative to RKB. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Slot and calculated along an Azimuth of 174.232° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.

Central meridian is -104.333°.

Grid Convergence at Surface is 0.435°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 18632.82ft., the Bottom Hole Displacement is 7710.79ft., in the Direction of 174.232° (Grid).

Legacy Reserves

Lea County, NM (NAD83)

Lea

Lea Unit #103H

Original Wellbore

Plan: Plan 1

Standard Planning Report

24 October, 2018



Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD83)
Site: Lea
Well: Lea Unit #103H
Wellbore: Original Wellbore
Design: Plan 1

Local Co-ordinate Reference: Well Lea Unit #103H
TVD Reference: RKB @ 3693.0usft
MD Reference: RKB @ 3693.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Lea		
Site Position:		Northing:	567,587.00 usft
From:	Map	Easting:	797,256.10 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 33' 27.391 N
		Longitude:	103° 30' 9.733 W
		Grid Convergence:	0.45 °

Well	Lea Unit #103H		
Well Position	+N/-S	13,364.5 usft	Northing: 580,951.50 usft
	+E/-W	-7,214.2 usft	Easting: 790,041.90 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,693.0 usft
		Latitude:	32° 35' 40.175 N
		Longitude:	103° 31' 32.835 W
		Ground Level:	3,666.0 usft

Wellbore	Original Wellbore		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2000	2/27/2018	6.73
			Dip Angle (°)
			60.58
			Field Strength (nT)
			48,249.80000000

Design	Plan 1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			174.23

Plan Survey Tool Program	Date	10/24/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,632.8	Plan 1 (Original Wellbore)	MWD
				MWD - Standard

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,570.9	8.56	104.65	1,568.8	-10.8	41.2	1.50	1.50	0.00	104.65	
5,982.5	8.56	104.65	5,931.2	-176.9	676.8	0.00	0.00	0.00	0.00	
6,553.4	0.00	0.00	6,500.0	-187.7	718.0	1.50	-1.50	0.00	180.00	
10,876.0	0.00	0.00	10,822.6	-187.7	718.0	0.00	0.00	0.00	0.00	
11,626.0	90.00	179.57	11,300.0	-665.2	721.6	12.00	12.00	0.00	179.57	
18,632.8	90.00	179.56	11,300.0	-7,671.7	775.0	0.00	0.00	0.00	-85.31	BHL-103H

Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD83)
Site: Lea
Well: Lea Unit #103H
Wellbore: Original Wellbore
Design: Plan 1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Lea Unit #103H
RKB @ 3693.0usft
RKB @ 3693.0usft
Grid
Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	1.50	104.65	1,100.0	-0.3	1.3	0.5	1.50	1.50	0.00
1,200.0	3.00	104.65	1,199.9	-1.3	5.1	1.8	1.50	1.50	0.00
1,300.0	4.50	104.65	1,299.7	-3.0	11.4	4.1	1.50	1.50	0.00
1,400.0	6.00	104.65	1,399.3	-5.3	20.2	7.3	1.50	1.50	0.00
1,500.0	7.50	104.65	1,498.6	-8.3	31.6	11.4	1.50	1.50	0.00
1,570.9	8.56	104.65	1,568.8	-10.8	41.2	14.9	1.50	1.50	0.00
1,600.0	8.56	104.65	1,597.6	-11.9	45.4	16.4	0.00	0.00	0.00
1,700.0	8.56	104.65	1,696.4	-15.6	59.8	21.6	0.00	0.00	0.00
1,800.0	8.56	104.65	1,795.3	-19.4	74.2	26.8	0.00	0.00	0.00
1,900.0	8.56	104.65	1,894.2	-23.2	88.6	32.0	0.00	0.00	0.00
2,000.0	8.56	104.65	1,993.1	-26.9	103.0	37.1	0.00	0.00	0.00
2,100.0	8.56	104.65	2,092.0	-30.7	117.4	42.3	0.00	0.00	0.00
2,200.0	8.56	104.65	2,190.9	-34.5	131.8	47.5	0.00	0.00	0.00
2,300.0	8.56	104.65	2,289.7	-38.2	146.2	52.7	0.00	0.00	0.00
2,400.0	8.56	104.65	2,388.6	-42.0	160.7	57.9	0.00	0.00	0.00
2,500.0	8.56	104.65	2,487.5	-45.8	175.1	63.1	0.00	0.00	0.00
2,600.0	8.56	104.65	2,586.4	-49.5	189.5	68.3	0.00	0.00	0.00
2,700.0	8.56	104.65	2,685.3	-53.3	203.9	73.5	0.00	0.00	0.00
2,800.0	8.56	104.65	2,784.2	-57.1	218.3	78.7	0.00	0.00	0.00
2,900.0	8.56	104.65	2,883.1	-60.8	232.7	83.9	0.00	0.00	0.00
3,000.0	8.56	104.65	2,981.9	-64.6	247.1	89.1	0.00	0.00	0.00
3,100.0	8.56	104.65	3,080.8	-68.4	261.5	94.3	0.00	0.00	0.00
3,200.0	8.56	104.65	3,179.7	-72.1	275.9	99.5	0.00	0.00	0.00
3,300.0	8.56	104.65	3,278.6	-75.9	290.3	104.7	0.00	0.00	0.00
3,400.0	8.56	104.65	3,377.5	-79.7	304.7	109.9	0.00	0.00	0.00
3,500.0	8.56	104.65	3,476.4	-83.4	319.1	115.1	0.00	0.00	0.00
3,600.0	8.56	104.65	3,575.3	-87.2	333.5	120.3	0.00	0.00	0.00
3,700.0	8.56	104.65	3,674.1	-91.0	347.9	125.5	0.00	0.00	0.00
3,800.0	8.56	104.65	3,773.0	-94.7	362.4	130.7	0.00	0.00	0.00
3,900.0	8.56	104.65	3,871.9	-98.5	376.8	135.9	0.00	0.00	0.00
4,000.0	8.56	104.65	3,970.8	-102.3	391.2	141.1	0.00	0.00	0.00
4,100.0	8.56	104.65	4,069.7	-106.0	405.6	146.2	0.00	0.00	0.00
4,200.0	8.56	104.65	4,168.6	-109.8	420.0	151.4	0.00	0.00	0.00
4,300.0	8.56	104.65	4,267.4	-113.6	434.4	156.6	0.00	0.00	0.00
4,400.0	8.56	104.65	4,366.3	-117.3	448.8	161.8	0.00	0.00	0.00
4,500.0	8.56	104.65	4,465.2	-121.1	463.2	167.0	0.00	0.00	0.00
4,600.0	8.56	104.65	4,564.1	-124.9	477.6	172.2	0.00	0.00	0.00
4,700.0	8.56	104.65	4,663.0	-128.6	492.0	177.4	0.00	0.00	0.00
4,800.0	8.56	104.65	4,761.9	-132.4	506.4	182.6	0.00	0.00	0.00
4,900.0	8.56	104.65	4,860.8	-136.2	520.8	187.8	0.00	0.00	0.00
5,000.0	8.56	104.65	4,959.6	-139.9	535.2	193.0	0.00	0.00	0.00
5,100.0	8.56	104.65	5,058.5	-143.7	549.7	198.2	0.00	0.00	0.00
5,200.0	8.56	104.65	5,157.4	-147.5	564.1	203.4	0.00	0.00	0.00

Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD83)
Site: Lea
Well: Lea Unit #103H
Wellbore: Original Wellbore
Design: Plan 1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Lea Unit #103H
RKB @ 3693.0usft
RKB @ 3693.0usft
Grid
Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	8.56	104.65	5,256.3	-151.2	578.5	208.6	0.00	0.00	0.00
5,400.0	8.56	104.65	5,355.2	-155.0	592.9	213.8	0.00	0.00	0.00
5,500.0	8.56	104.65	5,454.1	-158.8	607.3	219.0	0.00	0.00	0.00
5,600.0	8.56	104.65	5,553.0	-162.5	621.7	224.2	0.00	0.00	0.00
5,700.0	8.56	104.65	5,651.8	-166.3	636.1	229.4	0.00	0.00	0.00
5,800.0	8.56	104.65	5,750.7	-170.1	650.5	234.6	0.00	0.00	0.00
5,900.0	8.56	104.65	5,849.6	-173.8	664.9	239.8	0.00	0.00	0.00
5,982.5	8.56	104.65	5,931.2	-176.9	676.8	244.0	0.00	0.00	0.00
6,000.0	8.30	104.65	5,948.5	-177.6	679.3	244.9	1.50	-1.50	0.00
6,100.0	6.80	104.65	6,047.6	-180.9	692.0	249.5	1.50	-1.50	0.00
6,200.0	5.30	104.65	6,147.1	-183.6	702.2	253.2	1.50	-1.50	0.00
6,300.0	3.80	104.65	6,246.7	-185.6	709.9	256.0	1.50	-1.50	0.00
6,400.0	2.30	104.65	6,346.6	-186.9	715.0	257.8	1.50	-1.50	0.00
6,500.0	0.80	104.65	6,446.6	-187.6	717.6	258.8	1.50	-1.50	0.00
6,553.4	0.00	0.00	6,500.0	-187.7	718.0	258.9	1.50	-1.50	0.00
6,600.0	0.00	0.00	6,546.6	-187.7	718.0	258.9	0.00	0.00	0.00
6,700.0	0.00	0.00	6,646.6	-187.7	718.0	258.9	0.00	0.00	0.00
6,800.0	0.00	0.00	6,746.6	-187.7	718.0	258.9	0.00	0.00	0.00
6,900.0	0.00	0.00	6,846.6	-187.7	718.0	258.9	0.00	0.00	0.00
7,000.0	0.00	0.00	6,946.6	-187.7	718.0	258.9	0.00	0.00	0.00
7,100.0	0.00	0.00	7,046.6	-187.7	718.0	258.9	0.00	0.00	0.00
7,200.0	0.00	0.00	7,146.6	-187.7	718.0	258.9	0.00	0.00	0.00
7,300.0	0.00	0.00	7,246.6	-187.7	718.0	258.9	0.00	0.00	0.00
7,400.0	0.00	0.00	7,346.6	-187.7	718.0	258.9	0.00	0.00	0.00
7,500.0	0.00	0.00	7,446.6	-187.7	718.0	258.9	0.00	0.00	0.00
7,600.0	0.00	0.00	7,546.6	-187.7	718.0	258.9	0.00	0.00	0.00
7,700.0	0.00	0.00	7,646.6	-187.7	718.0	258.9	0.00	0.00	0.00
7,800.0	0.00	0.00	7,746.6	-187.7	718.0	258.9	0.00	0.00	0.00
7,900.0	0.00	0.00	7,846.6	-187.7	718.0	258.9	0.00	0.00	0.00
8,000.0	0.00	0.00	7,946.6	-187.7	718.0	258.9	0.00	0.00	0.00
8,100.0	0.00	0.00	8,046.6	-187.7	718.0	258.9	0.00	0.00	0.00
8,200.0	0.00	0.00	8,146.6	-187.7	718.0	258.9	0.00	0.00	0.00
8,300.0	0.00	0.00	8,246.6	-187.7	718.0	258.9	0.00	0.00	0.00
8,400.0	0.00	0.00	8,346.6	-187.7	718.0	258.9	0.00	0.00	0.00
8,500.0	0.00	0.00	8,446.6	-187.7	718.0	258.9	0.00	0.00	0.00
8,600.0	0.00	0.00	8,546.6	-187.7	718.0	258.9	0.00	0.00	0.00
8,700.0	0.00	0.00	8,646.6	-187.7	718.0	258.9	0.00	0.00	0.00
8,800.0	0.00	0.00	8,746.6	-187.7	718.0	258.9	0.00	0.00	0.00
8,900.0	0.00	0.00	8,846.6	-187.7	718.0	258.9	0.00	0.00	0.00
9,000.0	0.00	0.00	8,946.6	-187.7	718.0	258.9	0.00	0.00	0.00
9,100.0	0.00	0.00	9,046.6	-187.7	718.0	258.9	0.00	0.00	0.00
9,200.0	0.00	0.00	9,146.6	-187.7	718.0	258.9	0.00	0.00	0.00
9,300.0	0.00	0.00	9,246.6	-187.7	718.0	258.9	0.00	0.00	0.00
9,400.0	0.00	0.00	9,346.6	-187.7	718.0	258.9	0.00	0.00	0.00
9,500.0	0.00	0.00	9,446.6	-187.7	718.0	258.9	0.00	0.00	0.00
9,600.0	0.00	0.00	9,546.6	-187.7	718.0	258.9	0.00	0.00	0.00
9,700.0	0.00	0.00	9,646.6	-187.7	718.0	258.9	0.00	0.00	0.00
9,800.0	0.00	0.00	9,746.6	-187.7	718.0	258.9	0.00	0.00	0.00
9,900.0	0.00	0.00	9,846.6	-187.7	718.0	258.9	0.00	0.00	0.00
10,000.0	0.00	0.00	9,946.6	-187.7	718.0	258.9	0.00	0.00	0.00
10,100.0	0.00	0.00	10,046.6	-187.7	718.0	258.9	0.00	0.00	0.00
10,200.0	0.00	0.00	10,146.6	-187.7	718.0	258.9	0.00	0.00	0.00
10,300.0	0.00	0.00	10,246.6	-187.7	718.0	258.9	0.00	0.00	0.00
10,400.0	0.00	0.00	10,346.6	-187.7	718.0	258.9	0.00	0.00	0.00

Database: EDM 5000.1 Single User Db
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Wellbore: Original Wellbore
Design: Plan 1

Local Co-ordinate Reference: Well Lea Unit #103H
TVD Reference: RKB @ 3693.0usft
MD Reference: RKB @ 3693.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	0.00	0.00	10,446.6	-187.7	718.0	258.9	0.00	0.00	0.00
10,600.0	0.00	0.00	10,546.6	-187.7	718.0	258.9	0.00	0.00	0.00
10,700.0	0.00	0.00	10,646.6	-187.7	718.0	258.9	0.00	0.00	0.00
10,800.0	0.00	0.00	10,746.6	-187.7	718.0	258.9	0.00	0.00	0.00
10,876.0	0.00	0.00	10,822.6	-187.7	718.0	258.9	0.00	0.00	0.00
10,900.0	2.88	179.57	10,846.6	-188.3	718.0	259.5	12.00	12.00	0.00
10,925.0	5.88	179.57	10,871.5	-190.2	718.0	261.4	12.00	12.00	0.00
10,950.0	8.88	179.57	10,896.3	-193.4	718.0	264.6	12.00	12.00	0.00
10,975.0	11.88	179.57	10,920.9	-197.9	718.1	269.1	12.00	12.00	0.00
11,000.0	14.88	179.57	10,945.2	-203.7	718.1	274.8	12.00	12.00	0.00
11,025.0	17.88	179.57	10,969.2	-210.8	718.2	281.9	12.00	12.00	0.00
11,050.0	20.88	179.57	10,992.7	-219.0	718.2	290.1	12.00	12.00	0.00
11,075.0	23.88	179.57	11,015.9	-228.6	718.3	299.6	12.00	12.00	0.00
11,100.0	26.88	179.57	11,038.4	-239.3	718.4	310.3	12.00	12.00	0.00
11,125.0	29.88	179.57	11,060.4	-251.2	718.5	322.1	12.00	12.00	0.00
11,150.0	32.88	179.57	11,081.8	-264.2	718.6	335.0	12.00	12.00	0.00
11,175.0	35.88	179.57	11,102.4	-278.3	718.7	349.1	12.00	12.00	0.00
11,200.0	38.88	179.57	11,122.3	-293.5	718.8	364.2	12.00	12.00	0.00
11,225.0	41.88	179.57	11,141.3	-309.7	718.9	380.3	12.00	12.00	0.00
11,250.0	44.88	179.57	11,159.5	-326.8	719.0	397.4	12.00	12.00	0.00
11,275.0	47.88	179.57	11,176.7	-344.9	719.2	415.4	12.00	12.00	0.00
11,300.0	50.88	179.57	11,193.0	-363.9	719.3	434.3	12.00	12.00	0.00
11,325.0	53.88	179.57	11,208.3	-383.7	719.5	454.1	12.00	12.00	0.00
11,350.0	56.88	179.57	11,222.5	-404.3	719.6	474.5	12.00	12.00	0.00
11,375.0	59.88	179.57	11,235.6	-425.5	719.8	495.7	12.00	12.00	0.00
11,400.0	62.88	179.57	11,247.5	-447.5	719.9	517.6	12.00	12.00	0.00
11,425.0	65.88	179.57	11,258.4	-470.0	720.1	540.0	12.00	12.00	0.00
11,450.0	68.88	179.57	11,268.0	-493.1	720.3	563.0	12.00	12.00	0.00
11,475.0	71.88	179.57	11,276.4	-516.6	720.5	586.4	12.00	12.00	0.00
11,500.0	74.88	179.57	11,283.5	-540.6	720.6	610.3	12.00	12.00	0.00
11,525.0	77.88	179.57	11,289.4	-564.9	720.8	634.5	12.00	12.00	0.00
11,550.0	80.88	179.57	11,294.0	-589.5	721.0	658.9	12.00	12.00	0.00
11,575.0	83.88	179.57	11,297.3	-614.2	721.2	683.6	12.00	12.00	0.00
11,600.0	86.88	179.57	11,299.3	-639.2	721.4	708.4	12.00	12.00	0.00
11,626.0	90.00	179.57	11,300.0	-665.2	721.6	734.3	12.00	12.00	0.00
11,700.0	90.00	179.57	11,300.0	-739.1	722.1	808.0	0.00	0.00	0.00
11,800.0	90.00	179.57	11,300.0	-839.1	722.9	907.5	0.00	0.00	0.00
11,900.0	90.00	179.57	11,300.0	-939.1	723.6	1,007.1	0.00	0.00	0.00
12,000.0	90.00	179.57	11,300.0	-1,039.1	724.4	1,106.7	0.00	0.00	0.00
12,100.0	90.00	179.57	11,300.0	-1,139.1	725.1	1,206.2	0.00	0.00	0.00
12,200.0	90.00	179.57	11,300.0	-1,239.1	725.9	1,305.8	0.00	0.00	0.00
12,300.0	90.00	179.57	11,300.0	-1,339.1	726.6	1,405.4	0.00	0.00	0.00
12,400.0	90.00	179.57	11,300.0	-1,439.1	727.4	1,504.9	0.00	0.00	0.00
12,500.0	90.00	179.57	11,300.0	-1,539.1	728.2	1,604.5	0.00	0.00	0.00
12,600.0	90.00	179.57	11,300.0	-1,639.1	728.9	1,704.1	0.00	0.00	0.00
12,700.0	90.00	179.57	11,300.0	-1,739.1	729.7	1,803.6	0.00	0.00	0.00
12,800.0	90.00	179.57	11,300.0	-1,839.1	730.4	1,903.2	0.00	0.00	0.00
12,900.0	90.00	179.57	11,300.0	-1,939.1	731.2	2,002.8	0.00	0.00	0.00
13,000.0	90.00	179.57	11,300.0	-2,039.1	731.9	2,102.3	0.00	0.00	0.00
13,100.0	90.00	179.57	11,300.0	-2,139.1	732.7	2,201.9	0.00	0.00	0.00
13,200.0	90.00	179.57	11,300.0	-2,239.1	733.4	2,301.5	0.00	0.00	0.00
13,300.0	90.00	179.57	11,300.0	-2,339.1	734.2	2,401.0	0.00	0.00	0.00
13,400.0	90.00	179.57	11,300.0	-2,439.1	734.9	2,500.6	0.00	0.00	0.00
13,500.0	90.00	179.57	11,300.0	-2,539.1	735.7	2,600.2	0.00	0.00	0.00

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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,600.0	90.00	179.57	11,300.0	-2,639.1	736.5	2,699.7	0.00	0.00	0.00
13,700.0	90.00	179.57	11,300.0	-2,739.1	737.2	2,799.3	0.00	0.00	0.00
13,800.0	90.00	179.57	11,300.0	-2,839.1	738.0	2,898.9	0.00	0.00	0.00
13,900.0	90.00	179.57	11,300.0	-2,939.1	738.7	2,998.4	0.00	0.00	0.00
14,000.0	90.00	179.57	11,300.0	-3,039.1	739.5	3,098.0	0.00	0.00	0.00
14,100.0	90.00	179.57	11,300.0	-3,139.1	740.3	3,197.6	0.00	0.00	0.00
14,200.0	90.00	179.57	11,300.0	-3,239.1	741.0	3,297.1	0.00	0.00	0.00
14,300.0	90.00	179.57	11,300.0	-3,339.1	741.8	3,396.7	0.00	0.00	0.00
14,400.0	90.00	179.56	11,300.0	-3,439.1	742.5	3,496.3	0.00	0.00	0.00
14,500.0	90.00	179.56	11,300.0	-3,539.1	743.3	3,595.8	0.00	0.00	0.00
14,600.0	90.00	179.56	11,300.0	-3,639.1	744.0	3,695.4	0.00	0.00	0.00
14,700.0	90.00	179.56	11,300.0	-3,739.0	744.8	3,795.0	0.00	0.00	0.00
14,800.0	90.00	179.56	11,300.0	-3,839.0	745.6	3,894.5	0.00	0.00	0.00
14,900.0	90.00	179.56	11,300.0	-3,939.0	746.3	3,994.1	0.00	0.00	0.00
15,000.0	90.00	179.56	11,300.0	-4,039.0	747.1	4,093.7	0.00	0.00	0.00
15,100.0	90.00	179.56	11,300.0	-4,139.0	747.9	4,193.2	0.00	0.00	0.00
15,200.0	90.00	179.56	11,300.0	-4,239.0	748.6	4,292.8	0.00	0.00	0.00
15,300.0	90.00	179.56	11,300.0	-4,339.0	749.4	4,392.4	0.00	0.00	0.00
15,400.0	90.00	179.56	11,300.0	-4,439.0	750.1	4,491.9	0.00	0.00	0.00
15,500.0	90.00	179.56	11,300.0	-4,539.0	750.9	4,591.5	0.00	0.00	0.00
15,600.0	90.00	179.56	11,300.0	-4,639.0	751.7	4,691.1	0.00	0.00	0.00
15,700.0	90.00	179.56	11,300.0	-4,739.0	752.4	4,790.6	0.00	0.00	0.00
15,800.0	90.00	179.56	11,300.0	-4,839.0	753.2	4,890.2	0.00	0.00	0.00
15,900.0	90.00	179.56	11,300.0	-4,939.0	754.0	4,989.8	0.00	0.00	0.00
16,000.0	90.00	179.56	11,300.0	-5,039.0	754.7	5,089.3	0.00	0.00	0.00
16,100.0	90.00	179.56	11,300.0	-5,139.0	755.5	5,188.9	0.00	0.00	0.00
16,200.0	90.00	179.56	11,300.0	-5,239.0	756.3	5,288.5	0.00	0.00	0.00
16,300.0	90.00	179.56	11,300.0	-5,339.0	757.0	5,388.0	0.00	0.00	0.00
16,400.0	90.00	179.56	11,300.0	-5,439.0	757.8	5,487.6	0.00	0.00	0.00
16,500.0	90.00	179.56	11,300.0	-5,539.0	758.5	5,587.2	0.00	0.00	0.00
16,600.0	90.00	179.56	11,300.0	-5,639.0	759.3	5,686.8	0.00	0.00	0.00
16,700.0	90.00	179.56	11,300.0	-5,739.0	760.1	5,786.3	0.00	0.00	0.00
16,800.0	90.00	179.56	11,300.0	-5,839.0	760.9	5,885.9	0.00	0.00	0.00
16,900.0	90.00	179.56	11,300.0	-5,939.0	761.6	5,985.5	0.00	0.00	0.00
17,000.0	90.00	179.56	11,300.0	-6,039.0	762.4	6,085.0	0.00	0.00	0.00
17,100.0	90.00	179.56	11,300.0	-6,139.0	763.2	6,184.6	0.00	0.00	0.00
17,200.0	90.00	179.56	11,300.0	-6,239.0	763.9	6,284.2	0.00	0.00	0.00
17,300.0	90.00	179.56	11,300.0	-6,339.0	764.7	6,383.7	0.00	0.00	0.00
17,400.0	90.00	179.56	11,300.0	-6,439.0	765.5	6,483.3	0.00	0.00	0.00
17,500.0	90.00	179.56	11,300.0	-6,539.0	766.2	6,582.9	0.00	0.00	0.00
17,600.0	90.00	179.56	11,300.0	-6,639.0	767.0	6,682.4	0.00	0.00	0.00
17,700.0	90.00	179.56	11,300.0	-6,739.0	767.8	6,782.0	0.00	0.00	0.00
17,800.0	90.00	179.56	11,300.0	-6,839.0	768.5	6,881.6	0.00	0.00	0.00
17,900.0	90.00	179.56	11,300.0	-6,939.0	769.3	6,981.1	0.00	0.00	0.00
18,000.0	90.00	179.56	11,300.0	-7,039.0	770.1	7,080.7	0.00	0.00	0.00
18,100.0	90.00	179.56	11,300.0	-7,138.9	770.9	7,180.3	0.00	0.00	0.00
18,200.0	90.00	179.56	11,300.0	-7,238.9	771.6	7,279.8	0.00	0.00	0.00
18,300.0	90.00	179.56	11,300.0	-7,338.9	772.4	7,379.4	0.00	0.00	0.00
18,400.0	90.00	179.56	11,300.0	-7,438.9	773.2	7,479.0	0.00	0.00	0.00
18,500.0	90.00	179.56	11,300.0	-7,538.9	773.9	7,578.5	0.00	0.00	0.00
18,600.0	90.00	179.56	11,300.0	-7,638.9	774.7	7,678.1	0.00	0.00	0.00
18,632.8	90.00	179.56	11,300.0	-7,671.7	775.0	7,710.8	0.00	0.00	0.00

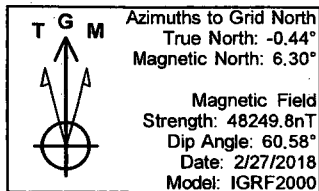
Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD83)
Site: Lea
Well: Lea Unit #103H
Wellbore: Original Wellbore
Design: Plan 1

Local Co-ordinate Reference: Well Lea Unit #103H
TVD Reference: RKB @ 3693.0usft
MD Reference: RKB @ 3693.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
FTP-103H	0.00	0.01	10,880.0	-187.4	716.6	580,764.11	790,758.46	32° 35' 38.267 N	103° 31' 24.476 W
- plan misses target center by 4.0usft at 10933.1usft MD (10879.5 TVD, -191.1 N, 718.0 E)									
- Point									
BHL-103H	0.00	0.01	11,300.0	-7,671.7	775.0	573,279.75	790,816.87	32° 34' 24.209 N	103° 31' 24.460 W
- plan hits target center									
- Point									

Project: Lea County, NM
 Site: Lea
 Well: Lea Unit #103H
 Geodetic Datum: NAD 1983
 Design: Plan 1



DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP-103H	10880.0	-187.4	716.6	580764.11	790758.46
BHL-103H	11300.0	-7671.8	775.0	573279.75	790816.87

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1570.9	8.56	104.65	1568.8	-10.8	41.2	1.50	104.65	14.9	
4	5982.5	8.56	104.65	5931.2	-176.9	676.8	0.00	0.00	244.0	
5	6553.4	0.00	0.00	6500.0	-187.7	718.0	1.50	180.00	258.9	
6	10876.0	0.00	0.00	10822.6	-187.7	718.0	0.00	0.00	258.9	
7	11626.0	90.00	179.57	11300.0	-665.2	721.6	12.00	179.57	734.3	
8	18632.8	90.00	179.56	11300.0	-7671.8	775.0	0.00	-85.31	7710.8	BHL-103H

