

Well Name: DATA FEDERAL	Well Location: T17S / R30E / SEC 11 / NENE /	County or Parish/State:
Well Number: 1H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM2748	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001547952	Well Status: Approved Application for Permit to Drill	Operator: MR NM OPERATING LLC

Notice of Intent

Sundry ID: 2697343

Type of Submission: Notice of Intent	Type of Action: Other
Date Sundry Submitted: 10/10/2022	Time Sundry Submitted: 03:31
Date proposed operation will begin: 10/24/2022	

Procedure Description: Request to change the well name from Bones Federal 5H to Data Federal 1H and to move the Surface Hole Location from 1244 FNL & 503 FEL, Section 11, T. 17S, R. 30E, NENE to 1288 FNL & 651 FEL, Section 11, T. 17S, R. 30E, NENE and the Bottom Hole Location from 1312 FNL & 100 FWL, Section 11, T. 17S, R. 30E NWNW to 2100 FNL & 100 FWL, Section 11, T. 17S, R. 30E, SWNW. Please see attached directional plan, anticollision report, plat and drill plan for more detailed information.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Bones_5H_to_Data_1H_Sundry_Attachment_20221010152918.pdf

Well Name: DATA FEDERAL	Well Location: T17S / R30E / SEC 11 / NENE /	County or Parish/State:
Well Number: 1H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM2748	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001547952	Well Status: Approved Application for Permit to Drill	Operator: MR NM OPERATING LLC

Conditions of Approval

Additional

Data_Fed_1H_COA_20221130102902.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: BRIAN WOOD	Signed on: OCT 10, 2022 03:29 PM
Name: MR NM OPERATING LLC	
Title: President	
Street Address: 37 VERANO LOOP	
City: SANTA FE	State: NM
Phone: (505) 466-8120	
Email address: AFMSS@PERMITSWEST.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 12/05/2022
Signature: Chris Walls	

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

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, 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. Francis Dr.
Santa Fe, NM 87505

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

X AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-47952	² Pool Code 96718	³ Pool Name LOCO HILLS; GLORIETA-YESO
⁴ Property Code	⁵ Property Name DATA FEDERAL	
⁷ OGRID No. 330506	⁸ Operator Name MR NM OPERATING, LLC	⁶ Well Number 1H
		⁹ Elevation 3744'

¹⁰Surface Location

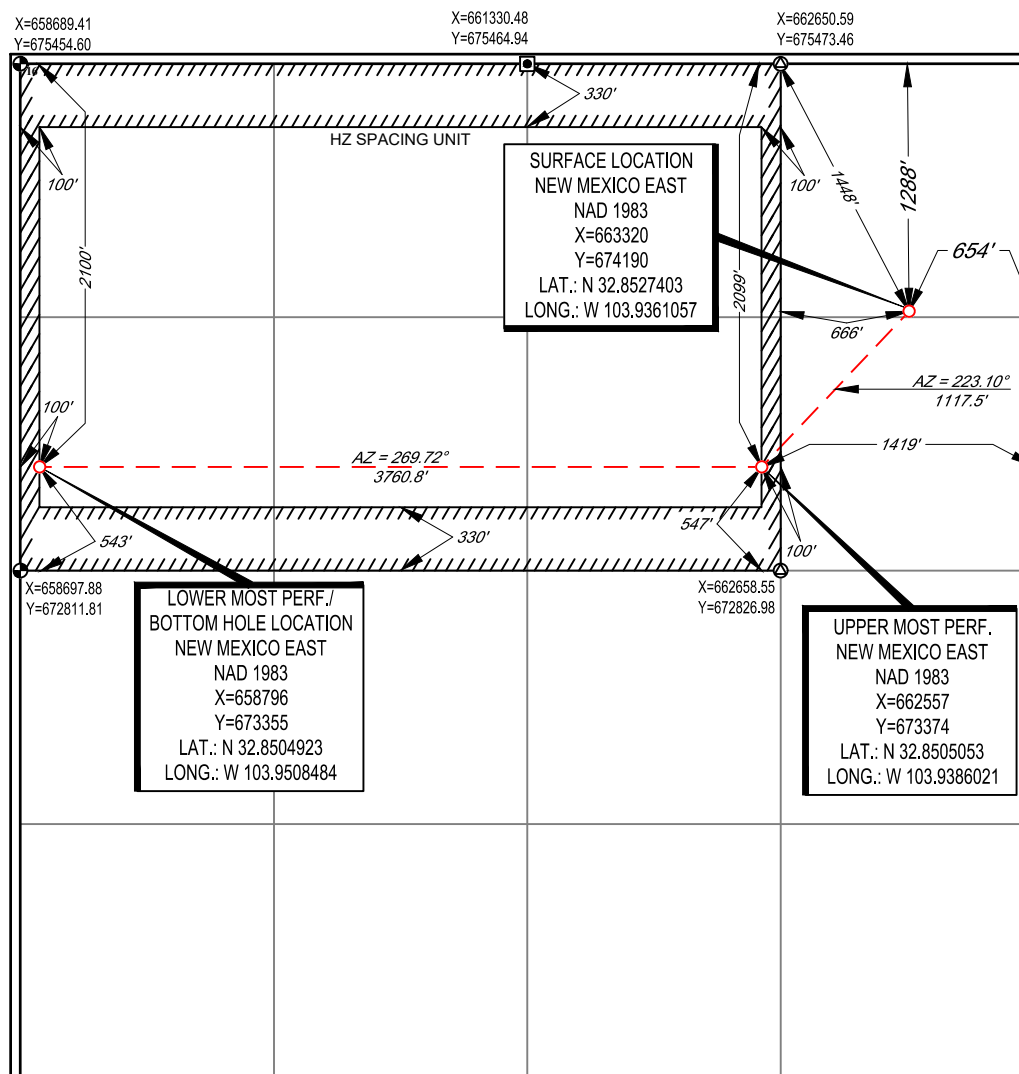
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	11	17-S	30-E	—	1288	NORTH	654	EAST	EDDY

¹¹Bottom 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
E	11	17-S	30-E	-	2100	NORTH	100	WEST	EDDY

¹² Dedicated Acres 240.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.



¹⁷OPERATOR 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.

Cory Walk
Signature

10/10/2022

Cory Walk

Printed Name _____

cory@permitswest.com

F-mail Address

18 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 to the best of my belief.

08/16/2018

Date of Survey
Signature and Seal of Professional Surveyor

Certificate Number

MR NM Operating, LLC

Eddy County (NAD83)

Data

Data Federal #1H

Lateral

Plan #1

Anticollision Report

31 December, 2018

Anticollision Report

Company:	MR NM Operating	Local Co-ordinate Reference:	Well Data Federal #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB @ 3762.000usft (Planning Rig)
Reference Site:	Data	MD Reference:	KB @ 3762.000usft (Planning Rig)
Site Error:	0.000 usft	North Reference:	Grid
Reference Well:	Data Federal #1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.000 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral	Database:	EDM 5000.14
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.980 usft	Error Surface:	Combined Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	11/26/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.000	9,145.119	Plan #1 (Lateral)	MWD	OWSG MWD - Standard	

Summary						
Site Name	Reference	Offset	Distance		Separation	Warning
	Measured	Measured	Between	Between		
Offset Well - Wellbore - Design	Depth	Depth	Centres	Ellipses	Factor	
	(usft)	(usft)	(usft)	(usft)		
Bones						
Bones Federal #4H - Lateral - Plan #1	3,585.345	3,596.871	141.592	123.919	8.012	CC
Bones Federal #4H - Lateral - Plan #1	3,800.000	3,813.712	142.270	123.456	7.562	ES
Bones Federal #4H - Lateral - Plan #1	4,564.956	4,589.215	159.952	135.997	6.677	SF

Offset Design		Bones - Bones Federal #4H - Lateral - Plan #1										Offset Site Error:		0.000 usft	
Survey Program:		0-MWD											Offset Well Error:		0.000 usft
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.000	0.000	1.000	1.000	0.000	0.001	87.71	6.000	150.000	150.120						
100.000	100.000	101.000	101.000	0.147	0.151	87.71	6.000	150.000	150.120	149.910	0.21	713.491			
200.000	200.000	201.000	201.000	0.505	0.509	87.71	6.000	150.000	150.120	149.403	0.72	209.271			
300.000	300.000	301.000	301.000	0.864	0.868	87.71	6.000	150.000	150.120	148.896	1.22	122.617			
400.000	400.000	401.000	401.000	1.222	1.226	87.71	6.000	150.000	150.120	148.389	1.73	86.712			
500.000	500.000	501.000	501.000	1.581	1.584	87.71	6.000	150.000	150.120	147.882	2.24	67.071			
600.000	600.000	601.000	601.000	1.939	1.943	87.71	6.000	150.000	150.120	147.375	2.75	54.685			
700.000	700.000	701.000	701.000	2.298	2.301	87.71	6.000	150.000	150.120	146.868	3.25	46.161			
800.000	800.000	801.000	801.000	2.656	2.660	87.71	6.000	150.000	150.120	146.361	3.76	39.935			
900.000	900.000	901.000	901.000	3.015	3.018	87.71	6.000	150.000	150.120	145.854	4.27	35.190			
1,000.000	1,000.000	1,001.000	1,001.000	3.373	3.377	87.71	6.000	150.000	150.120	145.347	4.77	31.452			
1,100.000	1,100.000	1,101.000	1,101.000	3.732	3.735	87.71	6.000	150.000	150.120	144.840	5.28	28.432			
1,200.000	1,200.000	1,201.000	1,201.000	4.090	4.094	87.71	6.000	150.000	150.120	144.333	5.79	25.941			
1,300.000	1,300.000	1,301.000	1,301.000	4.449	4.452	87.71	6.000	150.000	150.120	143.826	6.29	23.852			
1,400.000	1,400.000	1,401.000	1,401.000	4.807	4.811	87.71	6.000	150.000	150.120	143.319	6.80	22.074			
1,500.000	1,500.000	1,501.000	1,501.000	5.166	5.169	87.71	6.000	150.000	150.120	142.812	7.31	20.543			
1,600.000	1,600.000	1,601.000	1,601.000	5.524	5.528	87.71	6.000	150.000	150.120	142.305	7.81	19.210			
1,700.000	1,700.000	1,701.000	1,701.000	5.883	5.886	87.71	6.000	150.000	150.120	141.798	8.32	18.040			
1,800.000	1,800.000	1,801.000	1,801.000	6.241	6.245	87.71	6.000	150.000	150.120	141.291	8.83	17.004			
1,900.000	1,900.000	1,901.000	1,901.000	6.599	6.603	87.71	6.000	150.000	150.120	140.784	9.34	16.080			
2,000.000	2,000.000	2,001.000	2,001.000	6.958	6.962	87.71	6.000	150.000	150.120	140.277	9.84	15.252			
2,100.000	2,100.000	2,101.000	2,101.000	7.316	7.320	87.71	6.000	150.000	150.120	139.770	10.35	14.505			
2,200.000	2,200.000	2,201.000	2,201.000	7.675	7.678	87.71	6.000	150.000	150.120	139.263	10.86	13.828			
2,300.000	2,300.000	2,301.000	2,301.000	8.033	8.037	87.71	6.000	150.000	150.120	138.757	11.36	13.211			

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

Anticollision Report

Company:	MR NM Operating	Local Co-ordinate Reference:	Well Data Federal #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB @ 3762.000usft (Planning Rig)
Reference Site:	Data	MD Reference:	KB @ 3762.000usft (Planning Rig)
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Well Error:	0.000 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral	Database:	EDM 5000.14
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Bones - Bones Federal #4H - Lateral - Plan #1													Offset Site Error:	0.000 usft
Survey Program: 0-MWD													Offset Well Error:	0.000 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
2,400.000	2,400.000	2,401.000	2,401.000	8.392	8.395	87.71	6.000	150.000	150.120	138.250	11.87	12.647		
2,500.000	2,500.000	2,501.000	2,501.000	8.750	8.754	87.71	6.000	150.000	150.120	137.743	12.38	12.129		
2,600.000	2,600.000	2,601.000	2,601.000	9.109	9.112	87.71	6.000	150.000	150.120	137.236	12.88	11.651		
2,700.000	2,700.000	2,701.000	2,701.000	9.467	9.471	87.71	6.000	150.000	150.120	136.729	13.39	11.210		
2,800.000	2,800.000	2,801.000	2,801.000	9.826	9.829	87.71	6.000	150.000	150.120	136.222	13.90	10.801		
2,900.000	2,900.000	2,901.850	2,901.848	10.184	10.183	87.81	5.730	149.895	150.007	135.605	14.40	10.416		
3,000.000	3,000.000	3,003.872	3,003.813	10.543	10.514	88.97	2.686	148.711	148.762	133.876	14.89	9.993		
3,064.956	3,064.956	3,069.964	3,069.779	10.775	10.730	90.42	-1.092	147.242	147.296	132.095	15.20	9.690		
3,100.000	3,099.998	3,105.556	3,105.260	10.895	10.846	-110.67	-3.714	146.223	146.432	131.066	15.37	9.530		
3,200.000	3,199.911	3,207.010	3,206.170	11.219	11.179	-108.32	-13.438	142.441	144.439	128.613	15.83	9.126		
3,300.000	3,299.531	3,308.321	3,306.507	11.545	11.517	-106.31	-26.466	137.375	143.054	126.763	16.29	8.781		
3,400.000	3,398.644	3,409.517	3,406.174	11.873	11.861	-104.70	-42.772	131.034	142.173	125.410	16.76	8.481		
3,500.000	3,497.033	3,510.627	3,505.077	12.207	12.215	-103.51	-62.330	123.428	141.709	124.462	17.25	8.217		
3,585.345	3,580.272	3,596.871	3,588.809	12.501	12.529	-102.82	-81.574	115.944	141.592	123.919	17.67	8.012 CC		
3,600.000	3,594.487	3,611.678	3,603.121	12.552	12.585	-102.74	-85.114	114.568	141.595	123.848	17.75	7.978		
3,700.000	3,690.794	3,712.697	3,700.211	12.912	12.971	-102.41	-111.098	104.463	141.788	123.521	18.27	7.762		
3,800.000	3,785.746	3,813.712	3,796.254	13.292	13.378	-102.52	-140.255	93.125	142.270	123.456	18.81	7.562 ES		
3,900.000	3,879.136	3,914.749	3,891.155	13.699	13.810	-103.06	-172.557	80.563	143.046	123.656	19.39	7.377		
4,000.000	3,970.763	4,015.837	3,984.822	14.138	14.271	-104.03	-207.976	66.789	144.145	124.146	20.00	7.208		
4,100.000	4,060.429	4,117.003	4,077.161	14.615	14.765	-105.40	-246.483	51.815	145.622	124.980	20.64	7.055		
4,200.000	4,147.938	4,218.274	4,168.076	15.135	15.296	-107.14	-288.050	35.650	147.549	126.232	21.32	6.921		
4,300.000	4,233.102	4,319.679	4,257.476	15.704	15.867	-109.24	-332.646	18.308	150.017	127.995	22.02	6.812		
4,400.000	4,315.736	4,421.245	4,345.264	16.327	16.481	-111.63	-380.242	-0.201	153.127	130.381	22.75	6.732		
4,500.000	4,395.661	4,523.002	4,431.347	17.008	17.142	-114.29	-430.804	-19.864	156.989	133.508	23.48	6.686		
4,564.956	4,446.044	4,589.215	4,486.303	17.482	17.596	-116.12	-465.223	-33.248	159.952	135.997	23.95	6.677 SF		
4,600.000	4,472.544	4,624.937	4,515.593	17.751	17.852	-120.12	-484.280	-40.659	162.540	138.325	24.21	6.712		
4,650.000	4,509.047	4,675.695	4,556.769	18.157	18.224	-125.12	-511.941	-51.416	169.273	144.676	24.60	6.882		
4,700.000	4,543.811	4,725.994	4,597.047	18.589	18.605	-129.31	-540.019	-62.335	179.517	154.517	25.00	7.181		
4,750.000	4,576.623	4,775.598	4,636.245	19.048	18.992	-132.73	-568.350	-73.353	193.192	167.768	25.42	7.599		
4,800.000	4,607.279	4,824.267	4,674.187	19.537	19.382	-135.48	-596.758	-84.400	210.215	184.344	25.87	8.126		
4,850.000	4,635.591	4,875.618	4,713.685	20.057	19.806	-137.69	-627.280	-96.446	230.410	204.117	26.29	8.763		
4,890.237	4,656.554	4,928.081	4,753.988	20.501	20.254	-139.70	-657.196	-111.661	247.351	220.920	26.43	9.359		
4,900.000	4,661.435	4,941.074	4,763.967	20.613	20.366	-139.94	-664.286	-116.016	251.373	224.931	26.44	9.507		
4,965.237	4,694.054	5,031.753	4,833.129	21.378	21.161	-142.36	-709.906	-152.678	274.431	248.187	26.24	10.457		
4,975.000	4,698.890	5,045.754	4,843.678	21.498	21.285	-143.52	-716.313	-159.288	277.386	251.213	26.17	10.598		
5,000.000	4,710.848	5,081.749	4,870.560	21.810	21.605	-146.47	-731.954	-177.399	285.064	259.117	25.95	10.986		
5,025.000	4,722.168	5,117.945	4,897.178	22.131	21.928	-149.38	-746.436	-197.188	292.899	267.239	25.66	11.414		
5,050.000	4,732.818	5,154.346	4,923.441	22.460	22.256	-152.23	-759.691	-218.617	300.884	275.570	25.31	11.886		
5,075.000	4,742.771	5,190.955	4,949.255	22.797	22.584	-155.03	-771.656	-241.646	309.013	284.106	24.91	12.407		
5,100.000	4,751.998	5,227.777	4,974.528	23.142	22.917	-157.76	-782.269	-266.225	317.276	292.830	24.45	12.979		
5,125.000	4,760.474	5,264.820	4,999.167	23.494	23.255	-160.44	-791.470	-292.302	325.661	301.727	23.93	13.606		
5,150.000	4,768.176	5,302.094	5,023.081	23.854	23.599	-163.06	-799.204	-319.820	334.156	310.777	23.38	14.293		
5,175.000	4,775.082	5,339.608	5,046.177	24.221	23.947	-165.61	-805.417	-348.715	342.744	319.961	22.78	15.044		
5,200.000	4,781.175	5,377.375	5,068.361	24.594	24.302	-168.09	-810.059	-378.918	351.407	329.253	22.15	15.862		
5,225.000	4,786.437	5,415.407	5,089.541	24.973	24.668	-170.51	-813.080	-410.356	360.126	338.621	21.51	16.746		
5,250.000	4,790.853	5,453.718	5,109.621	25.358	25.046	-172.85	-814.436	-442.947	368.879	348.033	20.85	17.695		
5,275.000	4,794.412	5,479.779	5,122.680	25.747	25.309	-174.71	-814.581	-465.501	377.946	357.148	20.80	18.172		
5,300.000	4,797.104	5,502.495	5,134.038	26.140	25.543	-176.35	-814.677	-485.173	387.916	367.007	20.91	18.553		
5,325.000	4,798.922	5,524.926	5,145.253	26.536	25.783	-177.86	-814.772	-504.598	398.756	377.733	21.02	18.968		
5,350.000	4,799.860	5,550.000	5,175.325	26.933	24.006	-179.42	-815.059	-563.163	409.517	390.978	18.54	22.088		
5,364.085	4,800.000	5,564.085	5,205.226	27.158	24.037	-179.99	-815.529	-657.991	413.071	398.161	14.91	27.703		
5,400.000	4,800.000	5,812.624	5,214.966	27.739	30.091	-180.00	-816.138	-779.477	413.967	399.642	14.32	28.899		

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Anticollision Report

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Offset Design Bones - Bones Federal #4H - Lateral - Plan #1													Offset Site Error:	0.000 usft
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Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,500.000	4,800.000	5,912.624	5,214.834	29.503	32.031	-180.00	-816.642	-879.475	413.834	398.722	15.11	27.384		
5,600.000	4,800.000	6,012.624	5,214.701	31.457	34.136	-180.00	-817.146	-879.474	413.702	397.763	15.94	25.956		
5,700.000	4,800.000	6,112.624	5,214.568	33.574	36.376	-180.00	-817.649	-1,079.473	413.569	396.772	16.80	24.621		
5,800.000	4,800.000	6,212.624	5,214.436	35.823	38.727	-180.00	-818.153	-1,179.471	413.436	395.752	17.68	23.379		
5,900.000	4,800.000	6,312.624	5,214.303	38.181	41.168	-180.00	-818.657	-1,279.470	413.304	394.709	18.60	22.227		
6,000.000	4,800.000	6,412.624	5,214.170	40.628	43.682	-180.00	-819.161	-1,379.468	413.171	393.645	19.53	21.160		
6,100.000	4,800.000	6,512.624	5,214.038	43.149	46.257	-180.00	-819.664	-1,479.467	413.039	392.563	20.48	20.172		
6,200.000	4,800.000	6,612.623	5,213.905	45.730	48.883	-180.00	-820.168	-1,579.465	412.906	391.466	21.44	19.258		
6,300.000	4,800.000	6,712.623	5,213.773	48.362	51.551	-180.00	-820.672	-1,679.464	412.773	390.355	22.42	18.412		
6,400.000	4,800.000	6,812.623	5,213.640	51.035	54.255	-180.00	-821.175	-1,779.462	412.641	389.232	23.41	17.628		
6,500.000	4,800.000	6,912.623	5,213.507	53.745	56.989	-180.00	-821.679	-1,879.461	412.508	388.099	24.41	16.900		
6,600.000	4,800.000	7,012.623	5,213.375	56.484	59.749	-180.00	-822.183	-1,979.460	412.375	386.958	25.42	16.224		
6,700.000	4,800.000	7,112.623	5,213.242	59.249	62.531	-180.00	-822.686	-2,079.458	412.243	385.808	26.44	15.594		
6,800.000	4,800.000	7,212.623	5,213.109	62.036	65.333	-180.00	-823.190	-2,179.457	412.110	384.650	27.46	15.008		
6,900.000	4,800.000	7,312.623	5,212.977	64.842	68.152	-180.00	-823.694	-2,279.455	411.978	383.487	28.49	14.460		
7,000.000	4,800.000	7,412.623	5,212.844	67.665	70.986	-180.00	-824.198	-2,379.454	411.845	382.318	29.53	13.948		
7,100.000	4,800.000	7,512.623	5,212.711	70.503	73.832	-180.00	-824.701	-2,479.452	411.712	381.143	30.57	13.468		
7,200.000	4,800.000	7,612.623	5,212.579	73.353	76.680	-180.00	-825.205	-2,579.451	411.580	379.964	31.62	13.018		
7,300.000	4,800.000	7,712.622	5,212.446	76.215	79.558	-180.00	-825.709	-2,679.449	411.447	378.781	32.67	12.595		
7,400.000	4,800.000	7,812.622	5,212.314	79.087	82.436	-180.00	-826.212	-2,779.448	411.314	377.594	33.72	12.198		
7,500.000	4,800.000	7,912.622	5,212.181	81.968	85.322	-180.00	-826.716	-2,879.447	411.182	376.403	34.78	11.823		
7,600.000	4,800.000	8,012.622	5,212.048	84.856	88.215	-180.00	-827.220	-2,979.445	411.049	375.210	35.84	11.469		
7,700.000	4,800.000	8,112.622	5,211.916	87.752	91.114	-180.00	-827.724	-3,079.444	410.916	374.013	36.90	11.135		
7,800.000	4,800.000	8,212.622	5,211.783	90.655	94.020	-180.00	-828.227	-3,179.442	410.784	372.814	37.97	10.819		
7,900.000	4,800.000	8,312.622	5,211.650	93.563	96.931	-180.00	-828.731	-3,279.441	410.651	371.612	39.04	10.519		
8,000.000	4,800.000	8,412.622	5,211.518	96.477	99.847	-180.00	-829.235	-3,379.439	410.519	370.409	40.11	10.235		
8,100.000	4,800.000	8,512.622	5,211.385	99.395	102.767	-180.00	-829.738	-3,479.438	410.386	369.203	41.18	9.965		
8,200.000	4,800.000	8,612.622	5,211.253	102.318	105.692	-180.00	-830.242	-3,579.436	410.253	367.995	42.26	9.708		
8,300.000	4,800.000	8,712.622	5,211.120	105.245	108.621	-180.00	-830.746	-3,679.435	410.121	366.785	43.34	9.464		
8,400.000	4,800.000	8,812.621	5,210.987	108.176	111.553	-180.00	-831.249	-3,779.433	409.988	365.574	44.41	9.231		
8,500.000	4,800.000	8,912.621	5,210.855	111.110	114.488	-180.00	-831.753	-3,879.432	409.855	364.362	45.49	9.009		
8,600.000	4,800.000	9,012.621	5,210.722	114.047	117.426	-180.00	-832.257	-3,979.431	409.723	363.148	46.58	8.797		
8,700.000	4,800.000	9,112.621	5,210.589	116.987	120.367	-180.00	-832.761	-4,079.429	409.590	361.932	47.66	8.594		
8,800.000	4,800.000	9,212.621	5,210.457	119.930	123.311	-180.00	-833.264	-4,179.428	409.458	360.716	48.74	8.401		
8,900.000	4,800.000	9,312.621	5,210.324	122.875	126.256	-180.00	-833.768	-4,279.426	409.325	359.498	49.83	8.215		
9,000.000	4,800.000	9,412.621	5,210.192	125.823	129.204	-180.00	-834.272	-4,379.425	409.192	358.279	50.91	8.037		
9,100.000	4,800.000	9,512.621	5,210.059	128.773	132.155	-180.00	-834.775	-4,479.423	409.060	357.060	52.00	7.867		
9,145.119	4,800.000	9,557.740	5,209.999	130.104	133.486	180.00	-835.003	-4,524.542	409.000	356.509	52.49	7.792		

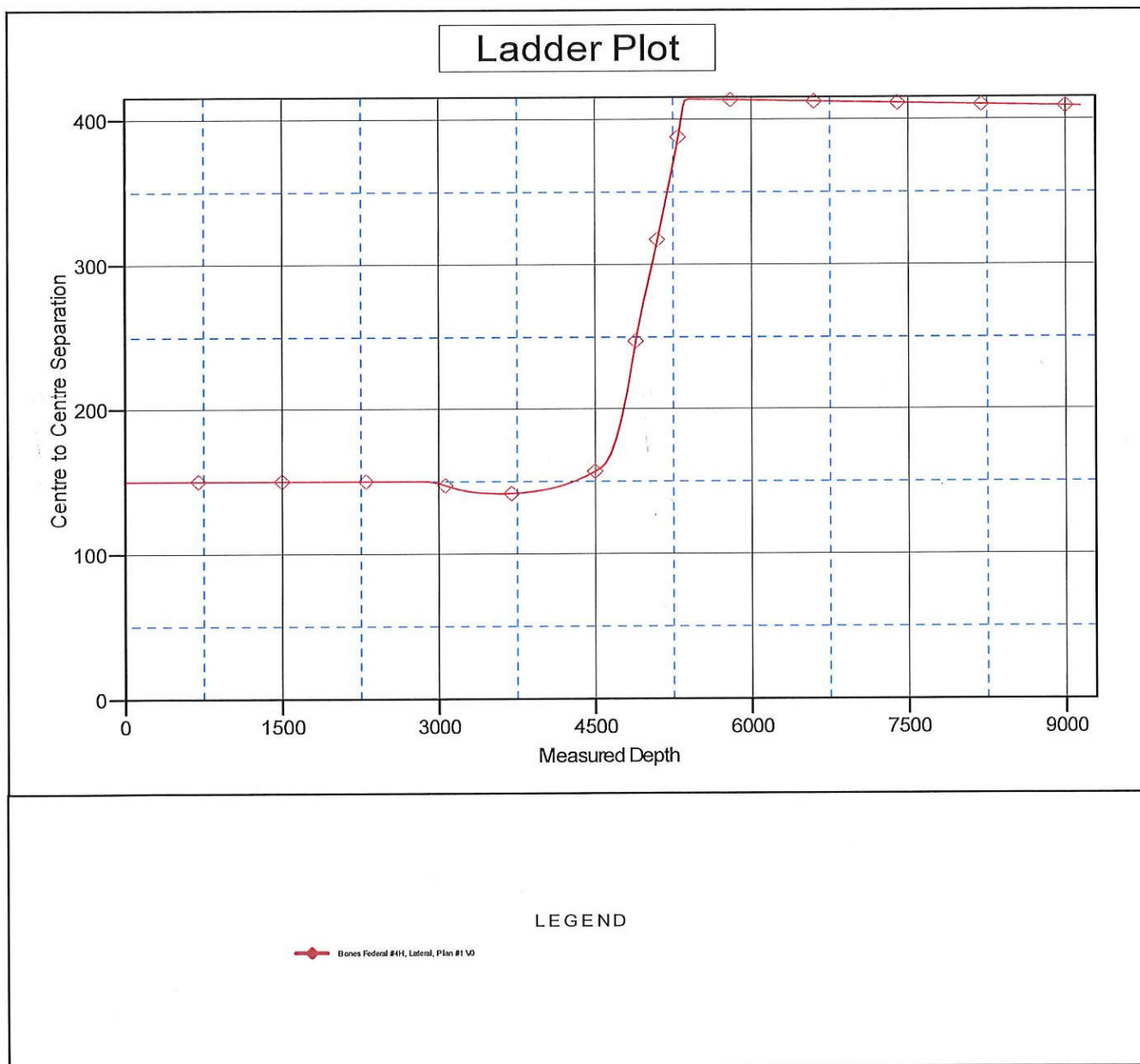
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	MR NM Operating	Local Co-ordinate Reference:	Well Data Federal #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB @ 3762.000usft (Planning Rig)
Reference Site:	Data	MD Reference:	KB @ 3762.000usft (Planning Rig)
Site Error:	0.000 usft	North Reference:	Grid
Reference Well:	Data Federal #1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.000 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral	Database:	EDM 5000.14
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3762.000usft (Planning Rig)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Data Federal #1H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.22°



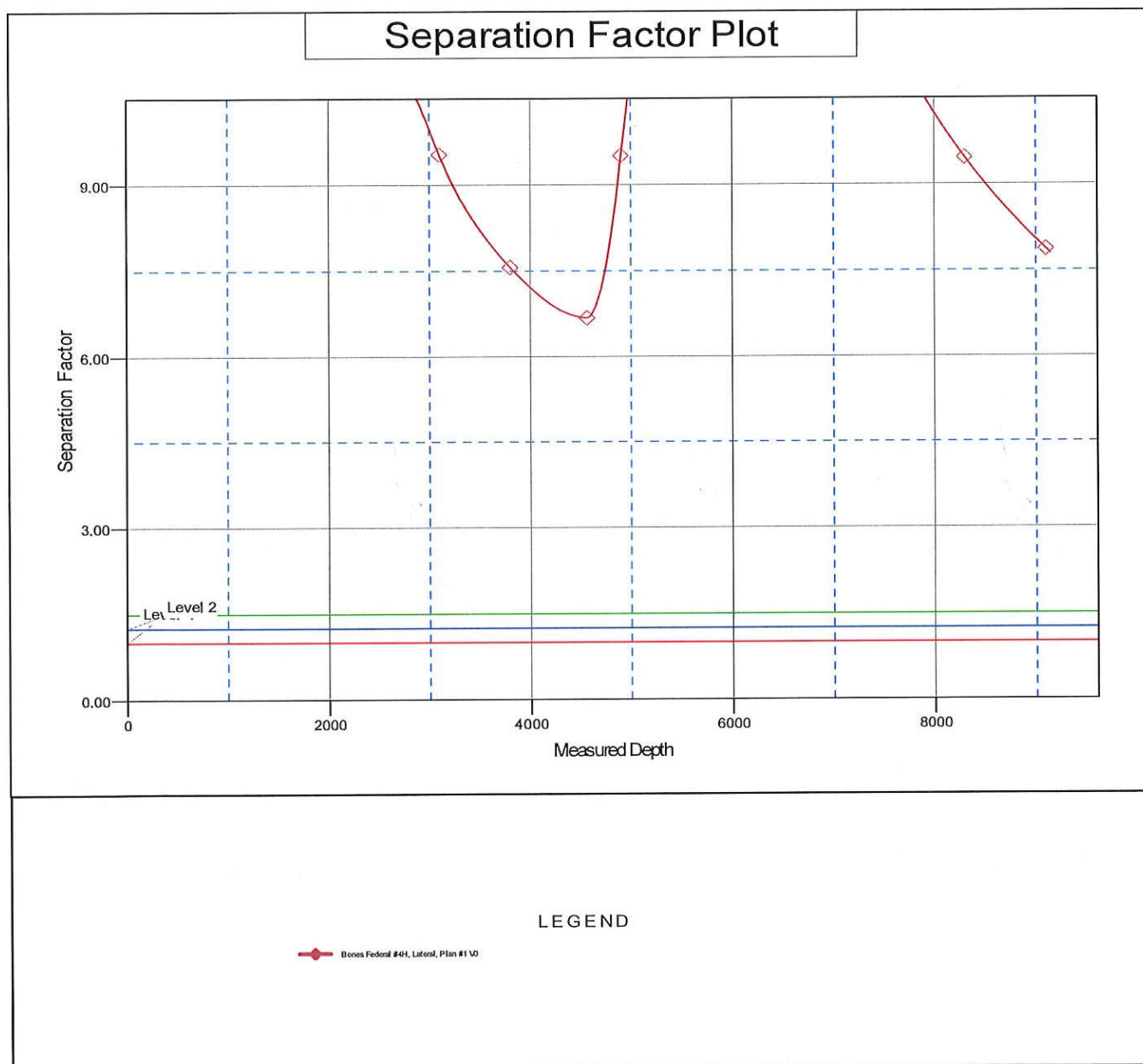
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	MR NM Operating	Local Co-ordinate Reference:	Well Data Federal #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB @ 3762.000usft (Planning Rig)
Reference Site:	Data	MD Reference:	KB @ 3762.000usft (Planning Rig)
Site Error:	0.000 usft	North Reference:	Grid
Reference Well:	Data Federal #1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.000 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral	Database:	EDM 5000.14
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3762.000usft (Planning Rig)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Data Federal #1H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.22°



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

MR NM Operating, LLC

Eddy County (NAD83)

Data

Data Federal #1H

Lateral

Plan: Plan #1

Standard Planning Report

31 December, 2018

Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well Data Federal #1H
Company:	MR NM Operating	TVD Reference:	KB @ 3762.000usft (Planning Rig)
Project:	Eddy County (NAD83)	MD Reference:	KB @ 3762.000usft (Planning Rig)
Site:	Data	North Reference:	Grid
Well:	Data Federal #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

Project	Eddy County (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	Data					
Site Position:		Northing:	674,190.00 usft	Latitude:	32° 51' 9.869 N	
From:	Map	Easting:	663,320.00 usft	Longitude:	103° 56' 9.986 W	
Position Uncertainty:		0.000 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.22 °

Well	Data Federal #1H					
Well Position	+N/-S	0.000 usft	Northing:	674,190.00 usft	Latitude:	32° 51' 9.869 N
	+E/-W	0.000 usft	Easting:	663,320.00 usft	Longitude:	103° 56' 9.986 W
Position Uncertainty		0.000 usft	Wellhead Elevation:	3,762.000 usft	Ground Level:	3,744.000 usft

Wellbore	Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/26/2018	7.02	60.56	48,119.93185787

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.000
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.000	0.000	0.000	259.543

Plan Survey Tool Program	Date	11/26/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.000	9,145.119 Plan #1 (Lateral)	MWD	
			OWSG 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
0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00	
400.000	0.00	0.000	400.000	0.000	0.000	0.00	0.00	0.00	0.00	
3,064.956	0.00	0.000	3,064.956	0.000	0.000	0.00	0.00	0.00	0.00	
4,564.956	40.00	202.000	4,446.044	-466.072	-188.305	2.67	2.67	0.00	202.00	
4,890.237	60.00	230.490	4,656.554	-656.781	-339.439	9.00	6.15	8.76	57.65	
4,965.237	60.00	230.490	4,694.054	-698.105	-389.550	0.00	0.00	0.00	0.00	
5,364.085	90.00	269.711	4,800.000	-815.921	-743.014	12.00	7.52	9.83	58.51	[DF#1H]BHL1
9,145.119	90.00	269.711	4,800.000	-835.000	-4,524.000	0.00	0.00	0.00	0.00	[DF#1H]BHL1

Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well Data Federal #1H
Company:	MR NM Operating	TVD Reference:	KB @ 3762.000usft (Planning Rig)
Project:	Eddy County (NAD83)	MD Reference:	KB @ 3762.000usft (Planning Rig)
Site:	Data	North Reference:	Grid
Well:	Data Federal #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

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)
0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00
100.000	0.00	0.000	100.000	0.000	0.000	0.000	0.00	0.00	0.00
200.000	0.00	0.000	200.000	0.000	0.000	0.000	0.00	0.00	0.00
300.000	0.00	0.000	300.000	0.000	0.000	0.000	0.00	0.00	0.00
400.000	0.00	0.000	400.000	0.000	0.000	0.000	0.00	0.00	0.00
500.000	0.00	0.000	500.000	0.000	0.000	0.000	0.00	0.00	0.00
600.000	0.00	0.000	600.000	0.000	0.000	0.000	0.00	0.00	0.00
700.000	0.00	0.000	700.000	0.000	0.000	0.000	0.00	0.00	0.00
800.000	0.00	0.000	800.000	0.000	0.000	0.000	0.00	0.00	0.00
900.000	0.00	0.000	900.000	0.000	0.000	0.000	0.00	0.00	0.00
1,000.000	0.00	0.000	1,000.000	0.000	0.000	0.000	0.00	0.00	0.00
1,100.000	0.00	0.000	1,100.000	0.000	0.000	0.000	0.00	0.00	0.00
1,200.000	0.00	0.000	1,200.000	0.000	0.000	0.000	0.00	0.00	0.00
1,300.000	0.00	0.000	1,300.000	0.000	0.000	0.000	0.00	0.00	0.00
1,400.000	0.00	0.000	1,400.000	0.000	0.000	0.000	0.00	0.00	0.00
1,500.000	0.00	0.000	1,500.000	0.000	0.000	0.000	0.00	0.00	0.00
1,600.000	0.00	0.000	1,600.000	0.000	0.000	0.000	0.00	0.00	0.00
1,700.000	0.00	0.000	1,700.000	0.000	0.000	0.000	0.00	0.00	0.00
1,800.000	0.00	0.000	1,800.000	0.000	0.000	0.000	0.00	0.00	0.00
1,900.000	0.00	0.000	1,900.000	0.000	0.000	0.000	0.00	0.00	0.00
2,000.000	0.00	0.000	2,000.000	0.000	0.000	0.000	0.00	0.00	0.00
2,100.000	0.00	0.000	2,100.000	0.000	0.000	0.000	0.00	0.00	0.00
2,200.000	0.00	0.000	2,200.000	0.000	0.000	0.000	0.00	0.00	0.00
2,300.000	0.00	0.000	2,300.000	0.000	0.000	0.000	0.00	0.00	0.00
2,400.000	0.00	0.000	2,400.000	0.000	0.000	0.000	0.00	0.00	0.00
2,500.000	0.00	0.000	2,500.000	0.000	0.000	0.000	0.00	0.00	0.00
2,600.000	0.00	0.000	2,600.000	0.000	0.000	0.000	0.00	0.00	0.00
2,700.000	0.00	0.000	2,700.000	0.000	0.000	0.000	0.00	0.00	0.00
2,800.000	0.00	0.000	2,800.000	0.000	0.000	0.000	0.00	0.00	0.00
2,900.000	0.00	0.000	2,900.000	0.000	0.000	0.000	0.00	0.00	0.00
3,000.000	0.00	0.000	3,000.000	0.000	0.000	0.000	0.00	0.00	0.00
3,064.956	0.00	0.000	3,064.956	0.000	0.000	0.000	0.00	0.00	0.00
START NUDGE									
3,100.000	0.93	202.000	3,099.998	-0.265	-0.107	0.153	2.67	2.67	0.00
3,200.000	3.60	202.000	3,199.911	-3.934	-1.589	2.277	2.67	2.67	0.00
3,300.000	6.27	202.000	3,299.531	-11.908	-4.811	6.893	2.67	2.67	0.00
3,400.000	8.93	202.000	3,398.644	-24.172	-9.766	13.991	2.67	2.67	0.00
3,500.000	11.60	202.000	3,497.033	-40.697	-16.443	23.556	2.67	2.67	0.00
3,600.000	14.27	202.000	3,594.487	-61.449	-24.827	35.568	2.67	2.67	0.00
3,700.000	16.93	202.000	3,690.794	-86.382	-34.901	50.000	2.67	2.67	0.00
3,800.000	19.60	202.000	3,785.746	-115.443	-46.642	66.821	2.67	2.67	0.00
3,900.000	22.27	202.000	3,879.136	-148.569	-60.026	85.995	2.67	2.67	0.00
4,000.000	24.93	202.000	3,970.763	-185.687	-75.022	107.479	2.67	2.67	0.00
4,100.000	27.60	202.000	4,060.429	-226.717	-91.600	131.229	2.67	2.67	0.00
4,200.000	30.27	202.000	4,147.938	-271.571	-109.722	157.191	2.67	2.67	0.00
4,300.000	32.93	202.000	4,233.102	-320.152	-129.350	185.310	2.67	2.67	0.00
4,400.000	35.60	202.000	4,315.736	-372.353	-150.440	215.526	2.67	2.67	0.00
4,500.000	38.27	202.000	4,395.661	-428.063	-172.949	247.772	2.67	2.67	0.00
4,564.956	40.00	202.000	4,446.044	-466.072	-188.305	269.772	2.67	2.67	0.00
BEGIN 9°/100' BR									
4,600.000	41.76	206.002	4,472.544	-487.009	-197.643	282.755	9.00	5.02	11.42
4,650.000	44.49	211.240	4,509.047	-516.967	-214.036	304.313	9.00	5.46	10.48
4,700.000	47.43	215.975	4,543.811	-546.862	-233.948	329.320	9.00	5.89	9.47

Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well Data Federal #1H
Company:	MR NM Operating	TVD Reference:	KB @ 3762.000usft (Planning Rig)
Project:	Eddy County (NAD83)	MD Reference:	KB @ 3762.000usft (Planning Rig)
Site:	Data	North Reference:	Grid
Well:	Data Federal #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

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)
4,750.000	50.56	220.271	4,576.623	-576.508	-257.255	357.621	9.00	6.25	8.59
4,800.000	53.82	224.190	4,607.279	-605.723	-283.814	389.042	9.00	6.53	7.84
4,850.000	57.21	227.790	4,635.591	-634.326	-313.461	423.388	9.00	6.77	7.20
4,890.237	60.00	230.490	4,656.554	-656.781	-339.439	453.010	9.00	6.94	6.71
START 60° TANGENT									
4,900.000	60.00	230.490	4,661.435	-662.160	-345.962	460.401	0.00	0.00	0.00
4,965.237	60.00	230.490	4,694.054	-698.105	-389.550	509.789	0.00	0.00	0.00
END TANGENT/BEGIN 12° BR									
4,975.000	60.62	231.636	4,698.890	-703.434	-396.147	517.244	12.00	6.32	11.74
5,000.000	62.24	234.510	4,710.848	-716.619	-413.697	536.896	12.00	6.49	11.49
5,025.000	63.92	237.297	4,722.168	-729.110	-432.156	557.315	12.00	6.72	11.15
5,050.000	65.65	240.004	4,732.818	-740.872	-451.471	578.444	12.00	6.93	10.83
5,075.000	67.43	242.637	4,742.771	-751.874	-471.589	600.226	12.00	7.12	10.53
5,100.000	69.25	245.202	4,751.998	-762.084	-492.457	622.600	12.00	7.29	10.26
5,125.000	71.11	247.705	4,760.474	-771.476	-514.017	645.506	12.00	7.43	10.01
5,150.000	73.00	250.153	4,768.176	-780.023	-536.209	668.881	12.00	7.56	9.79
5,175.000	74.92	252.552	4,775.082	-787.702	-558.972	692.660	12.00	7.68	9.60
5,200.000	76.87	254.908	4,781.175	-794.492	-582.245	716.779	12.00	7.78	9.42
5,225.000	78.83	257.226	4,786.437	-800.375	-605.964	741.171	12.00	7.86	9.27
5,250.000	80.82	259.513	4,790.853	-805.333	-630.063	765.770	12.00	7.93	9.15
5,275.000	82.81	261.775	4,794.412	-809.355	-654.477	790.508	12.00	7.99	9.05
5,300.000	84.82	264.016	4,797.104	-812.427	-679.138	815.317	12.00	8.03	8.97
5,325.000	86.84	266.244	4,798.922	-814.543	-703.979	840.130	12.00	8.07	8.91
5,350.000	88.86	268.463	4,799.860	-815.696	-728.932	864.877	12.00	8.08	8.88
5,364.085	90.00	269.711	4,800.000	-815.921	-743.014	878.766	12.00	8.09	8.86
[DF#1H]EOC1 5364' MD (4800' TVD)									
5,386.072	90.00	269.711	4,800.000	-816.032	-765.000	900.408	0.00	0.00	0.00
[DF#1H]JUMP1 5386' MD (4800' TVD)									
5,400.000	90.00	269.711	4,800.000	-816.102	-778.928	914.117	0.00	0.00	0.00
5,500.000	90.00	269.711	4,800.000	-816.607	-878.927	1,012.546	0.00	0.00	0.00
5,600.000	90.00	269.711	4,800.000	-817.111	-978.926	1,110.976	0.00	0.00	0.00
5,700.000	90.00	269.711	4,800.000	-817.616	-1,078.924	1,209.405	0.00	0.00	0.00
5,800.000	90.00	269.711	4,800.000	-818.120	-1,178.923	1,307.834	0.00	0.00	0.00
5,900.000	90.00	269.711	4,800.000	-818.625	-1,278.922	1,406.264	0.00	0.00	0.00
6,000.000	90.00	269.711	4,800.000	-819.130	-1,378.920	1,504.693	0.00	0.00	0.00
6,100.000	90.00	269.711	4,800.000	-819.634	-1,478.919	1,603.122	0.00	0.00	0.00
6,200.000	90.00	269.711	4,800.000	-820.139	-1,578.918	1,701.552	0.00	0.00	0.00
6,300.000	90.00	269.711	4,800.000	-820.643	-1,678.917	1,799.981	0.00	0.00	0.00
6,400.000	90.00	269.711	4,800.000	-821.148	-1,778.915	1,898.410	0.00	0.00	0.00
6,500.000	90.00	269.711	4,800.000	-821.653	-1,878.914	1,996.840	0.00	0.00	0.00
6,600.000	90.00	269.711	4,800.000	-822.157	-1,978.913	2,095.269	0.00	0.00	0.00
6,700.000	90.00	269.711	4,800.000	-822.662	-2,078.911	2,193.698	0.00	0.00	0.00
6,800.000	90.00	269.711	4,800.000	-823.166	-2,178.910	2,292.128	0.00	0.00	0.00
6,900.000	90.00	269.711	4,800.000	-823.671	-2,278.909	2,390.557	0.00	0.00	0.00
7,000.000	90.00	269.711	4,800.000	-824.176	-2,378.908	2,488.986	0.00	0.00	0.00
7,100.000	90.00	269.711	4,800.000	-824.680	-2,478.906	2,587.416	0.00	0.00	0.00
7,200.000	90.00	269.711	4,800.000	-825.185	-2,578.905	2,685.845	0.00	0.00	0.00
7,300.000	90.00	269.711	4,800.000	-825.689	-2,678.904	2,784.274	0.00	0.00	0.00
7,400.000	90.00	269.711	4,800.000	-826.194	-2,778.903	2,882.704	0.00	0.00	0.00
7,500.000	90.00	269.711	4,800.000	-826.699	-2,878.901	2,981.133	0.00	0.00	0.00
7,600.000	90.00	269.711	4,800.000	-827.203	-2,978.900	3,079.562	0.00	0.00	0.00
7,700.000	90.00	269.711	4,800.000	-827.708	-3,078.899	3,177.991	0.00	0.00	0.00
7,800.000	90.00	269.711	4,800.000	-828.212	-3,178.897	3,276.421	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well Data Federal #1H
Company:	MR NM Operating	TVD Reference:	KB @ 3762.000usft (Planning Rig)
Project:	Eddy County (NAD83)	MD Reference:	KB @ 3762.000usft (Planning Rig)
Site:	Data	North Reference:	Grid
Well:	Data Federal #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

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)
7,900.000	90.00	269.711	4,800.000	-828.717	-3,278.896	3,374.850	0.00	0.00	0.00
8,000.000	90.00	269.711	4,800.000	-829.222	-3,378.895	3,473.279	0.00	0.00	0.00
8,100.000	90.00	269.711	4,800.000	-829.726	-3,478.894	3,571.709	0.00	0.00	0.00
8,200.000	90.00	269.711	4,800.000	-830.231	-3,578.892	3,670.138	0.00	0.00	0.00
8,300.000	90.00	269.711	4,800.000	-830.735	-3,678.891	3,768.567	0.00	0.00	0.00
8,400.000	90.00	269.711	4,800.000	-831.240	-3,778.890	3,866.997	0.00	0.00	0.00
8,500.000	90.00	269.711	4,800.000	-831.745	-3,878.888	3,965.426	0.00	0.00	0.00
8,600.000	90.00	269.711	4,800.000	-832.249	-3,978.887	4,063.855	0.00	0.00	0.00
8,700.000	90.00	269.711	4,800.000	-832.754	-4,078.886	4,162.285	0.00	0.00	0.00
8,800.000	90.00	269.711	4,800.000	-833.258	-4,178.885	4,260.714	0.00	0.00	0.00
8,900.000	90.00	269.711	4,800.000	-833.763	-4,278.883	4,359.143	0.00	0.00	0.00
9,000.000	90.00	269.711	4,800.000	-834.268	-4,378.882	4,457.573	0.00	0.00	0.00
9,100.000	90.00	269.711	4,800.000	-834.772	-4,478.881	4,556.002	0.00	0.00	0.00
9,145.119	90.00	269.711	4,800.000	-835.000	-4,524.000	4,600.413	0.00	0.00	0.00
[DF#1H]BHL1 9145' MD (4800' TVD)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
[DF#1H]BHL1 - plan hits target center - Point	0.00	0.000	4,800.000	-835.000	-4,524.000	673,355.00	658,796.00	32° 51' 1.772 N	103° 57' 3.056 W
(DF#1H)UMP1 - plan misses target center by 0.032usft at 5386.072usft MD (4800.000 TVD, -816.032 N, -765.000 E) - Point	0.00	0.000	4,800.000	-816.000	-765.000	673,374.00	662,555.00	32° 51' 1.823 N	103° 56' 18.990 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
3,064.956	3,064.956	0.000	0.000	START NUDGE
4,564.956	4,446.044	-466.072	-188.305	BEGIN 9°/100' BR
4,890.237	4,656.554	-656.781	-339.439	START 60° TANGENT
4,965.237	4,694.054	-698.105	-389.550	END TANGENT/BEGIN 12° BR
5,364.085	4,800.000	-815.921	-743.014	[DF#1H]EOC1 5364' MD (4800' TVD)
5,386.072	4,800.000	-816.032	-765.000	[DF#1H]UMP1 5386' MD (4800' TVD)
9,145.119	4,800.000	-835.000	-4,524.000	[DF#1H]BHL1 9145' MD (4800' TVD)

Project: Eddy County (NAD83)
 Site: Data
 Well: Data Federal #1H
 Wellbore: Lateral
 Design: Plan #1
 Ground Elevation 3744.000
 Northing 674190.00
 Easting 663320.00
 KB @ 3762.000usft (Planning Rig)

PROJECT DETAILS: Eddy County (NAD83)
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level

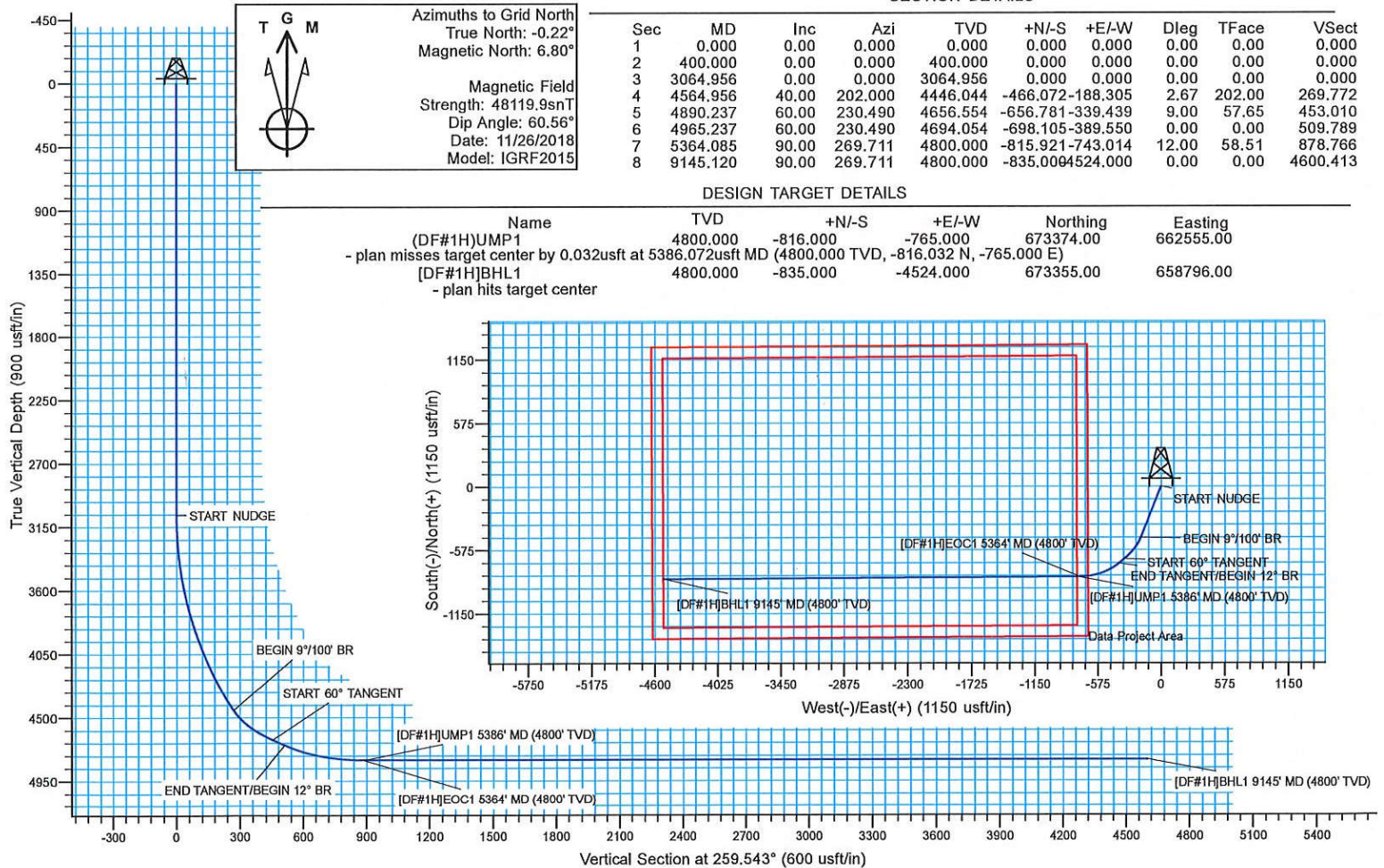
SECTION DETAILS

Azimuths to Grid North
 True North: -0.22°
 Magnetic North: 6.80°
 Magnetic Field
 Strength: 48119.9snT
 Dip Angle: 60.56°
 Date: 11/26/2018
 Model: IGRF2015

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
1	0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.000
2	400.000	0.00	0.000	400.000	0.000	0.000	0.00	0.00	0.000
3	3064.956	0.00	0.000	3064.956	0.000	0.000	0.00	0.00	0.000
4	4564.956	40.00	202.000	4446.044	-466.072	-188.305	2.67	202.00	269.772
5	4890.237	60.00	230.490	4656.554	-656.781	-339.439	9.00	57.65	453.010
6	4965.237	60.00	230.490	4694.054	-698.105	-389.550	0.00	0.00	509.789
7	5364.085	90.00	269.711	4800.000	-815.921	-743.014	12.00	58.51	878.766
8	9145.120	90.00	269.711	4800.000	-835.009	-4524.000	0.00	0.00	4600.413

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
(DF#1H)UMP1	4800.000	-816.000	-765.000	673374.00	662555.00
- plan misses target center by 0.032usft at 5386.072usft MD (4800.000 TVD, -816.032 N, -765.000 E)					
(DF#1H)BHL1	4800.000	-835.000	-4524.000	673355.00	658796.00
- plan hits target center					



DATA FEDERAL NO. 1H**1. GEOLOGIC NAME OF SURFACE FORMATION:**

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	436'
Tansill	1,292'
Yates	1,465'
Seven Rivers	1,720'
Queen	2,329'
Grayburg	2,737'
San Andres	3,052'
Glorieta	4,492'
Yeso	4,599'
TD	9,145'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Rustler	436'	Fresh Water, Oil
Grayburg	2,737'	Oil
San Andres	3,052'	Oil
Glorieta	4,492'	Oil
Yeso	4,599'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities.
 Surface fresh water sands will be protected by setting 13.375" casing at 400' and circulating cement back to surface.

4. CASING PROGRAM - NEW**Hole & Casing String:**

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0'-400'	13.375"	48#	H-40/ J-55	STC	1.125	1.25	1.60
12.25"	0' -100'	9.625	40#	J-55	LTC	1.125	1.25	1.60
12.25"	100' - 3,300'	9.625	36#	J-55	LTC	1.125	1.25	1.60
12.25"	3,300' - 3,500'	9.625	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' - 4,965'	7"	29#	L-80	BTC	1.125	1.25	1.60
8.75"	4,965'-9,145'	5 1/2"	17#	L-80	BTC	1.125	1.25	1.60

DATA FEDERAL NO. 1H**Cementing Program:**

Note: Cement volumes based on bit size plus at least 100% excess on surface, 100% excess in Contingency Intermediate and 35% excess in production string.

Cement Design:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Volume Ft ³	Slurry Description
400'	415	14.8	1.34	95	Tail: Class 'C' + 2%PF1(Calcium Chloride) (100% excess)
3500'*	1075	12.8	1.79	343	Lead: 35:65 Poz C + .02 gal/sk Anti Foam + 1% Extender + .13 lb/sk Lost Circulation (TOC @ Surface)
	200	14.8	1.33	47	Tail: Class C + 0.13% Anti Foam
9145'	165	11.9	2.47	73	Lead: Class 50/50 PozC + 5%PF44(BWOW)(Salt) + 10% PF20(Bentonite Gel) +.2%PF153(Anti Settling Agent(+ 3#/sk OF42(Kolseal) + 0.125#/sk PF29 (celloflake) + 0.4#/sk PF45 (Defoamer) (TOC @ 500' into previous casing string) 35% Excess
	965	13	1.48	254	Tail: Class PVL + 1.3% PF44(BWOW)(Salt) + 5% PF174 (Expanding Cement) + 0.5% PF606 (Fluid Loss) + 0.1% PF153 (Anti Settling Agent) + 0.4#/sk PF45 (Defoamer) 35% Excess
*Cement will be done in 2 stages if water flow is encountered. DV Tool placement will be placed above water flow depth. Cement volumes will be adjusted accordingly.					

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

A variance is requested to use a co-flex line between the BOP and choke manifold, dependent on rig selection (instead of using a steel line). Certification and specs are attached.

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a double rams with blind rams & pipe rams preventer (3,000 psi WP) and an annular preventer (3,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 3,000/ 250 psig and the annular preventer to 1,500/ 250 psig. The surface casing will be tested to 1200 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the surface casing shoe.

DATA FEDERAL NO. 1H**6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:**

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 400'	Fresh Water	8.6-8.8	28-32	N/c
400' – 3,500' Vertical	Brine	9.2-10.2	32-34	N/c
3,500' – 9,145' Vertical/Curve/Lateral	Cut Brine	8.8-9.4	30-34	N/c

The highest mud weight needed to balance formation is expected to be 10.2 ppg. In order to maintain hole stability, mud weights up to 10.2 ppg may be utilized.

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR–Directional surveys will be run in open hole during drilling phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 110 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 2546 psig (based on 10.2 ppg MW). Hydrogen sulfide has been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from spud to surface casing point.

DATA FEDERAL NO. 1H**10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:**

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

- (A) MRNM Operating requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that MRNM Operating would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13 3/8" BOP/BOPE system with a minimum working pressure of 3,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 3,000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Stream Flo HES Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

Change of Plans

Well Name

From: Bones Federal 5H

To: Data Federal 1H

Surface Hole Location

From: 1244 FNL & 503 FEL, Section 11, T. 17S, R. 30E (32.8528662, -103.9356228)

To: 1288 FNL & 654 FEL, Section 11, T. 17S, R. 30E (32.8527403, -103.9361057)

First Take Point

From: 1313 FNL & 1419 FEL, Section 11, T. 17S, R. 30E (32.8526698, -103.9386068)

To: 2100 FNL & 1419 FEL, Section 11, T. 17S, R. 30E (32.8505053, -103.9386021)

Bottom Hole Location

From: 1312 FNL & 100 FWL, Section 11, T. 17S, R. 30E (32.8526570, -103.9508475)

To: 2100 FNL & 100 FWL, Section 11, T. 17S, R. 30E (32.8504923, -103.9508484)

Casing/Cement/Mud programs will change accordingly (see below).

a

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: MR NM OPERATING

OGRID: 330506

Date: 2-20-23

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Data Federal 1H		A-11-17S-30E	1288 FNL & 654 FEL	375	500	2,500

IV. Central Delivery Point Name: DCP Midstream, LLC in E-12-17S-30E [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Data Federal 1H		3-15-23	5-1-23	5-15-23	6-1-23	6-5-23

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☒ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☒ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☒ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

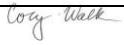
(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:



Printed Name: Cory Walk

Title: Consultant

E-mail Address: cory@permitswest.com

Date: 2-23-23

Phone: 505 466-8120

OIL CONSERVATION DIVISION**(Only applicable when submitted as a standalone form)**

Approved By:

Title:

Approval Date:

Conditions of Approval:

MR NM Operating, LLC Natural Gas Management Plan

VI. Separation Equipment

Separation equipment will be built on the Data pad. The anticipated production rates from the Data 1H will be accounted for during design/construction to ensure sufficient capacity exists at the surface to capture all produced fluids.

VII. Operational Practices

MR NM Operating, LLC will take the following actions outlined below to comply with 19.15.27.8 NMAC

- A. MR NM Operating, LLC plans to maximize recovery of natural gas and minimize waste thru venting/flaring
- B. MR NM Operating, LLC plans to flare during drilling operations from a location exceeding 100' away from the SHL. The flare will be used to combust natural gas brought to the surface during normal drilling operations. Safety will remain priority #1, and MR NM Operating, LLC will account and report appropriately pertaining to any potential emergency.
- C. MR NM Operating, LLC plans flare any natural gas brought to the surface during normal completions operations. During flowback, fluids will immediately flow thru a separator on location. Gas will not be flared/vented unless there's a safety concern with pressures at the surface. Gas is expected to meet pipeline standards; if not, MR NM Operating, LLC will flare for the allowed 60 days or less until the gas meets quality specifications. MR NM Operating, LLC plans to sample the produced gas at a reasonable frequency or upon request from regulatory bodies.
- D. MR NM Operating, LLC does not plan to flare or vent natural gas except during the situations outlined in 19.15.27.8 D. (1-4).
- E. MR NM Operating, LLC will comply with standards outlined in 19.15.27.8 E. (1-8). EOG Resources, Inc. will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
- F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, EOG Resources, Inc. will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. Best Management Practices

Pressure maintenance at surface is vital to maintain safe working conditions; venting will be utilized only to depressurize our surface equipment. When maintaining surface or downhole equipment associated with the current production, the well will be shut-in to eliminate venting. If maintenance work takes place on the gas gathering side, gas will route to the flare to eliminate venting.

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1625 N. French Dr., Hobbs, NM 88240
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District II
811 S. First St., Artesia, NM 88210
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District III
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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 190444

CONDITIONS

Operator: MR NM Operating LLC 5950 Berkshire Lane Dallas, TX 75225	OGRID: 330506
	Action Number: 190444
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	3/6/2023