

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Redwood Operating LLC P.O. Box 1370 Artesia, NM 88211-1370		² OGRID Number 330211	
		³ Reason for Filing Code/ Effective Date NW	
⁴ API Number 30 - 0 15-46817	⁵ Pool Name Red Lake; Glorieta-Yeso		⁶ Pool Code 51120
⁷ Property Code 327299	⁸ Property Name Hawk 9 Federal Com		⁹ Well Number 1H

II. ¹⁰ 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	8	18S	27E		347	North	373	East	Eddy

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	9	18S	27E		511	North	110	West	Eddy
¹² Lse Code F	¹³ Producing Method Code P	¹⁴ Gas Connection Date 7/27/2021	¹⁵ C-129 Permit Number		¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date		

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
278471	Holly Marketing & Refining Co. LLC P.O. Box 1600 Artesia, NM 88211-1600	O
036788	DCP Midstream 4001 Penbrook Odessa, TX 79762	G

IV. Well Completion Data

²¹ Spud Date 3/8/2021	²² Ready Date 7/19/2021	²³ TD 8320' / 3397' TVD	²⁴ PBDT 8293' / 3397' TVD	²⁵ Perforations 3502'-8205'/3092'-3397' TVD	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size	²⁹ Depth Set		³⁰ Sacks Cement
17 1/2"		13 3/8"	375'		629 sx
12 1/4"		9 5/8"	1225'		613 sx
8 3/4"		7" & 5 1/2"	8318'		1897 sx

V. Well Test Data

³¹ Date New Oil 7/28/2021	³² Gas Delivery Date 7/27/2021	³³ Test Date 7/28/2021	³⁴ Test Length 24 hr.	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil 66	³⁹ Water 4708	⁴⁰ Gas 76		⁴¹ Test Method Pumping
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Delilah Flores</i>			OIL CONSERVATION DIVISION		
Printed name: Delilah Flores			Approved by: Kurt Simmons		
Title: Regulatory Technician I			Title: NM OCD, Santa Fe		
E-mail Address: regulatory@redwoodoperating.com			Approval Date: 09/08/2021		
Date: 8/3/2021		Phone: 575-748-1288			

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,
2011Submit one copy to appropriate
District Office☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

¹ API Number 30-015-46817	² Pool Code 51120	³ Pool Name Red Lake; Glorieta-Yeso
⁴ Property Code 327299	⁵ Property Name HAWK 9 FEDERAL COM	⁶ Well Number 1H
⁷ OGRID No. 13837	⁸ Operator Name MACK ENERGY CORPORATION	⁹ Elevation 3477.3

¹⁰ 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	8	18 S	27 E		347	NORTH	373	EAST	EDDY

¹¹ 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
A	9	18 S	27 E		511	NORTH	110	EAST	EDDY

¹² Dedicated Acres 160	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.

AS-DRILLED BOTTOM OF HOLE NE CORNER SEC. 8 LAT. = 32.7695498°N LONG. = 104.3091295°W NMSP EAST (FT) N = 643695.09 E = 548777.05 NE CORNER SEC. 8 LAT. = 32.7695301°N LONG. = 104.2919694°W NMSP EAST (FT) N = 643689.57 E = 554051.59 NE CORNER SEC. 9 LAT. = 32.7695666°N LONG. = 104.2748572°W NMSP EAST (FT) N = 643705.32 E = 559311.36 AS-DRILLED FIRST TAKE POINT 488' FNL 451' FWL LAT. = 32.7681855°N LONG. = 104.2752243°W NMSP EAST (FT) N = 643202.80 E = 559198.80 NE CORNER SEC. 9 LAT. = 32.7695488°N LONG. = 104.2834167°W NMSP EAST (FT) N = 643697.50 E = 556680.44				17 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. <u>Delilah Flores</u> 8/3/2021 Signature Date Delilah Flores Printed Name regulatory@redwood operating.com E-mail Address			
SW CORNER SEC. 8 LAT. = 32.750456°N LONG. = 104.3091543°W NMSP EAST (FT) N = 638418.28 E = 548770.65 SE CORNER SEC. 8 LAT. = 32.7551007°N LONG. = 104.2920617°W NMSP EAST (FT) N = 638439.96 E = 554025.27 SW CORNER SEC. 9 LAT. = 32.7551009°N LONG. = 104.2749845°W NMSP EAST (FT) N = 638442.50 E = 559275.13 SE CORNER SEC. 9 LAT. = 32.7551020°N LONG. = 104.2835219°W NMSP EAST (FT) N = 638441.56 E = 556650.37				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 and correct to the best of my belief. JULY 19, 2021 Date of Survey <u>ELIMON F. JARAMILLO</u> Signature and Seal of Professional Surveyor Certificate Number: <u>ELIMON F. JARAMILLO</u> 12797 Professional Surveyor No. 7034C			

Intent ☐ As Drilled ☐API #

Operator Name:	Property Name:	Well Number
MACK ENERGY CORPORATION	HAWK 9 FEDERAL COM	1H

Kick Off Point (KOP)

UL A	Section 8	Township 18S	Range 27E	Lot	Feet 347	From N/S NORTH	Feet 373	From E/W EAST	County EDDY
Latitude 32.7685780					Longitude 104.2931884			NAD 83	

First Take Point (FTP)

UL D	Section 9	Township 18S	Range 27E	Lot	Feet 488	From N/S NORTH	Feet 451	From E/W WEST	County EDDY
Latitude 32.7681890					Longitude 104.2905101			NAD 83	

Last Take Point (LTP)

UL A	Section 9	Township 18S	Range 27E	Lot	Feet 501	From N/S NORTH	Feet 117	From E/W EAST	County EDDY
Latitude 32.7681853					Longitude 104.2752452			NAD 83	

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

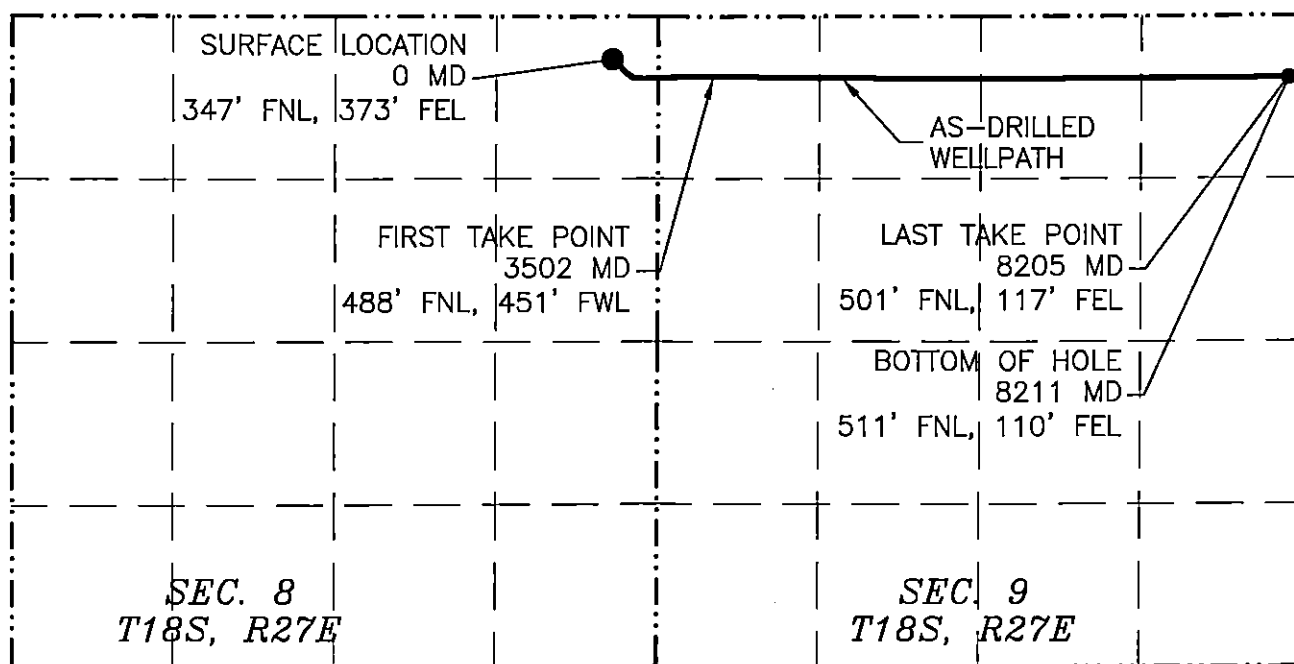
If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018

PLAN VIEW



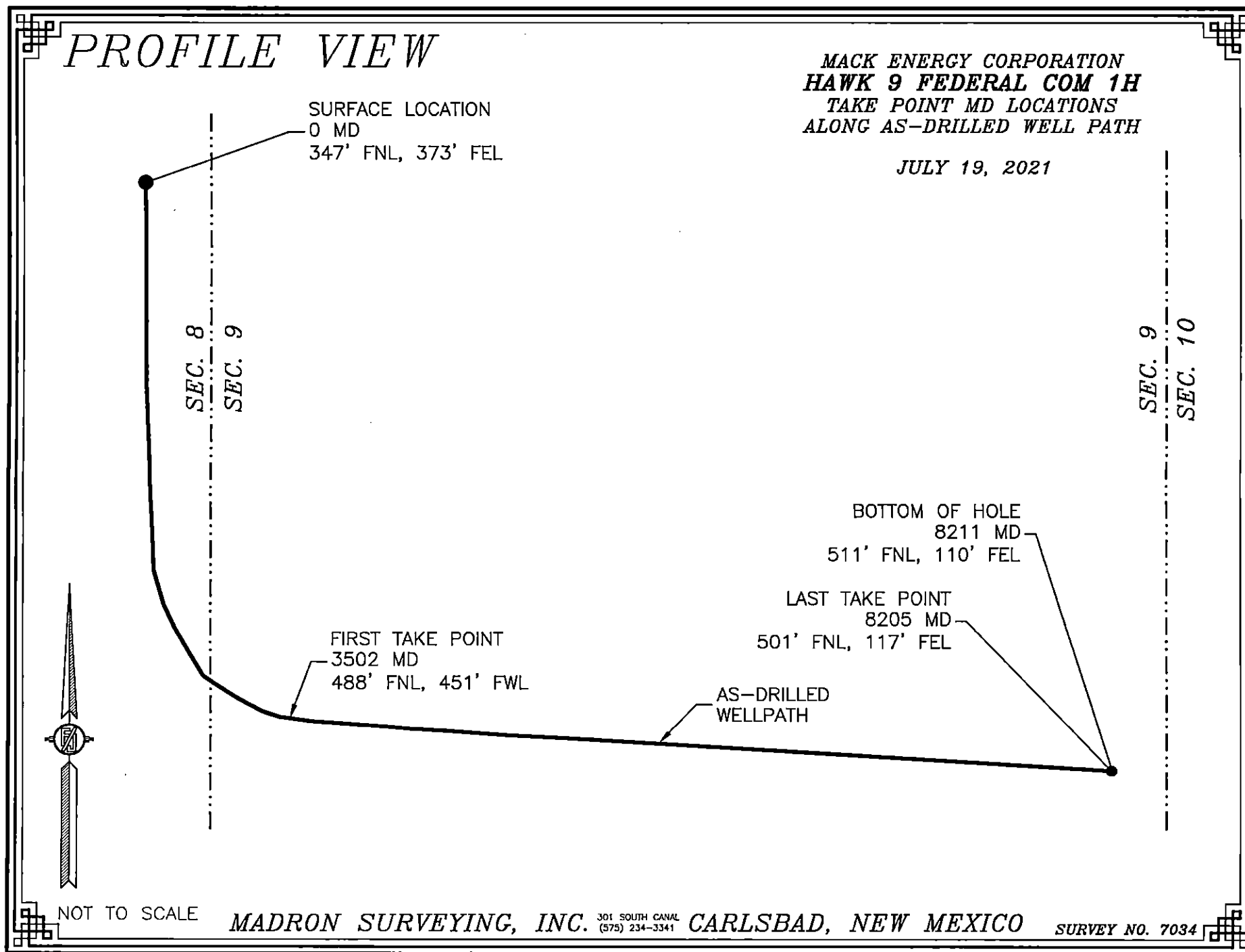
NOT TO SCALE

MACK ENERGY CORPORATION
HAWK 9 FEDERAL COM 1H
 TAKE POINT MD LOCATIONS
 ALONG AS-DRILLED WELL PATH

JULY 19, 2021

SURVEY NO. 7034

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 **CARLSBAD, NEW MEXICO**





Redwood Operating LLC

Eddy County, NM

Sec 8-T18S-R27E

Hawk 9 Federal Com #1H

Wellbore #1

Survey: Survey #2

Standard Survey Report

18 March, 2021



Microsoft Survey Report

Company:	Redwood Operating LLC	Local Co-ordinate Reference:	Well Hawk 9 Federal Com #1H
Project:	Eddy County, NM	TVD Reference:	3477.3+18 @ 3495.3usft
Site:	Sec 8-T18S-R27E	MD Reference:	3477.3+18 @ 3495.3usft
Well:	Hawk 9 Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

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

Site		Sec 8-T18S-R27E			
Site Position:		Northing:	643,343.04 usft	Latitude:	32° 46' 6.881 N
From:	Map	Easting:	553,677.02 usft	Longitude:	104° 17' 35.478 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.02 °

Well		Hawk 9 Federal Com #1H				
Well Position	+N/-S	0.0 usft	Northing:	643,343.04 usft	Latitude:	32° 46' 6.881 N
	+E/-W	0.0 usft	Easting:	553,677.02 usft	Longitude:	104° 17' 35.478 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,477.3 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	03/08/21	6.93	60.40	47,798.72456124

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	91.40	

Survey Program		Date	03/18/21		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
69.6	315.0	Survey #1 (Wellbore #1)	MWD	OWSG MWD - Standard	
412.0	8,320.0	Survey #2 (Wellbore #1)	MWD	OWSG MWD - Standard	

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)
315.0	0.80	168.97	315.0	-0.8	2.1	2.1	0.00	0.00	0.00
412.0	1.14	203.70	412.0	-2.3	1.8	1.9	0.68	0.35	35.80
1st MWD Survey									
475.0	1.10	190.69	474.9	-3.5	1.4	1.5	0.41	-0.06	-20.65
602.0	0.88	237.01	601.9	-5.2	0.4	0.5	0.63	-0.17	36.47
792.0	0.62	292.38	791.9	-5.6	-1.8	-1.6	0.39	-0.14	29.14
855.0	0.79	61.31	854.9	-5.3	-1.7	-1.6	2.02	0.27	204.65
919.0	1.10	79.16	918.9	-5.0	-0.7	-0.6	0.66	0.48	27.89
982.0	1.49	109.92	981.9	-5.1	0.6	0.8	1.24	0.62	48.83
1,046.0	1.89	124.86	1,045.9	-6.0	2.3	2.4	0.92	0.63	23.34



Microsoft
Survey Report

Company:	Redwood Operating LLC	Local Co-ordinate Reference:	Well Hawk 9 Federal Com #1H
Project:	Eddy County, NM	TVD Reference:	3477.3+18 @ 3495.3usft
Site:	Sec 8-T18S-R27E	MD Reference:	3477.3+18 @ 3495.3usft
Well:	Hawk 9 Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

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)
1,109.0	2.42	129.78	1,108.8	-7.5	4.2	4.3	0.89	0.84	7.81
1,172.0	2.86	127.23	1,171.7	-9.3	6.4	6.7	0.72	0.70	-4.05
1,233.0	2.99	128.37	1,232.7	-11.2	8.9	9.2	0.23	0.21	1.87
1,312.0	4.35	140.42	1,311.5	-14.8	12.4	12.8	1.97	1.72	15.25
1,375.0	5.19	147.62	1,374.3	-19.0	15.5	15.9	1.63	1.33	11.43
1,502.0	6.86	153.34	1,500.6	-30.7	21.9	22.7	1.40	1.31	4.50
1,609.0	6.95	154.48	1,606.8	-42.2	27.6	28.6	0.15	0.08	1.07
1,735.0	7.25	156.68	1,731.8	-56.4	34.0	35.4	0.32	0.24	1.75
1,862.0	7.69	158.96	1,857.8	-71.7	40.3	42.0	0.42	0.35	1.80
1,989.0	7.52	162.92	1,983.6	-87.5	45.7	47.9	0.43	-0.13	3.12
2,116.0	6.51	168.10	2,109.7	-102.5	49.7	52.2	0.94	-0.80	4.08
2,243.0	4.00	182.90	2,236.2	-114.0	50.9	53.7	2.23	-1.98	11.65
2,306.0	4.40	174.69	2,299.0	-118.6	51.0	53.9	1.14	0.63	-13.03
2,369.0	7.60	149.64	2,361.6	-124.6	53.4	56.4	6.45	5.08	-39.76
2,433.0	12.31	133.91	2,424.7	-133.0	60.4	63.7	8.43	7.36	-24.58
2,496.0	18.02	118.79	2,485.5	-142.4	73.8	77.3	10.95	9.06	-24.00
2,559.0	22.64	105.52	2,544.6	-150.3	94.1	97.7	10.32	7.33	-21.06
2,623.0	26.77	96.12	2,602.7	-155.1	120.3	124.1	8.89	6.45	-14.69
2,686.0	32.75	92.87	2,657.4	-157.5	151.5	155.3	9.83	9.49	-5.16
2,749.0	38.81	90.32	2,708.5	-158.5	188.3	192.1	9.90	9.62	-4.05
2,812.0	44.75	88.65	2,755.4	-158.1	230.2	234.0	9.59	9.43	-2.65
2,875.0	49.05	88.56	2,798.5	-156.9	276.2	279.9	6.83	6.83	-0.14
2,939.0	53.71	87.77	2,838.4	-155.3	326.1	329.8	7.34	7.28	-1.23
2,945.0	53.89	88.21	2,842.0	-155.2	331.0	334.7	6.63	3.00	7.33
2,952.0	54.15	88.21	2,846.1	-155.0	336.6	340.3	3.71	3.71	0.00
2,962.0	54.42	88.21	2,851.9	-154.7	344.8	348.4	2.70	2.70	0.00
2,972.0	54.73	88.21	2,857.7	-154.5	352.9	356.6	3.10	3.10	0.00
2,982.0	55.03	88.12	2,863.5	-154.2	361.1	364.7	3.09	3.00	-0.90
2,992.0	55.34	88.03	2,869.2	-153.9	369.3	372.9	3.19	3.10	-0.90
3,002.0	55.60	87.68	2,874.8	-153.6	377.5	381.2	3.88	2.60	-3.50
3,008.0	55.69	88.21	2,878.2	-153.5	382.5	386.1	7.45	1.50	8.83
3,015.0	55.87	88.03	2,882.2	-153.3	388.3	391.9	3.34	2.57	-2.57
3,025.0	56.13	88.03	2,887.7	-153.0	396.5	400.2	2.60	2.60	0.00
3,035.0	56.40	88.03	2,893.3	-152.7	404.8	408.5	2.70	2.70	0.00
3,045.0	56.62	88.12	2,898.8	-152.4	413.2	416.8	2.32	2.20	0.90
3,055.0	56.92	88.03	2,904.3	-152.1	421.5	425.1	3.09	3.00	-0.90
3,065.0	57.14	87.95	2,909.7	-151.8	429.9	433.5	2.30	2.20	-0.80
3,072.0	57.36	87.59	2,913.5	-151.6	435.8	439.4	5.35	3.14	-5.14
3,079.0	57.49	87.51	2,917.3	-151.4	441.7	445.3	2.09	1.86	-1.14
3,089.0	57.71	87.51	2,922.7	-151.0	450.1	453.7	2.20	2.20	0.00
3,099.0	57.93	87.51	2,928.0	-150.6	458.6	462.1	2.20	2.20	0.00
3,109.0	58.20	87.33	2,933.3	-150.2	467.1	470.6	3.10	2.70	-1.80
3,119.0	58.42	87.33	2,938.5	-149.8	475.6	479.1	2.20	2.20	0.00



Microsoft
Survey Report

Company:	Redwood Operating LLC	Local Co-ordinate Reference:	Well Hawk 9 Federal Com #1H
Project:	Eddy County, NM	TVD Reference:	3477.3+18 @ 3495.3usft
Site:	Sec 8-T18S-R27E	MD Reference:	3477.3+18 @ 3495.3usft
Well:	Hawk 9 Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

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)
3,129.0	58.55	87.24	2,943.7	-149.4	484.1	487.6	1.51	1.30	-0.90
3,135.0	58.68	87.24	2,946.9	-149.2	489.2	492.7	2.17	2.17	0.00
3,142.0	58.81	87.24	2,950.5	-148.9	495.2	498.7	1.86	1.86	0.00
3,152.0	59.03	87.24	2,955.7	-148.5	503.7	507.2	2.20	2.20	0.00
3,162.0	59.25	87.24	2,960.8	-148.1	512.3	515.8	2.20	2.20	0.00
3,172.0	59.47	87.15	2,965.9	-147.7	520.9	524.4	2.33	2.20	-0.90
3,182.0	59.74	87.24	2,971.0	-147.2	529.5	533.0	2.81	2.70	0.90
3,192.0	59.91	87.15	2,976.0	-146.8	538.2	541.6	1.87	1.70	-0.90
3,198.0	60.09	86.71	2,979.0	-146.5	543.3	546.8	7.02	3.00	-7.33
3,205.0	60.22	86.71	2,982.5	-146.2	549.4	552.8	1.86	1.86	0.00
3,215.0	60.44	86.63	2,987.4	-145.7	558.1	561.5	2.31	2.20	-0.80
3,225.0	60.66	86.54	2,992.3	-145.2	566.8	570.1	2.34	2.20	-0.90
3,235.0	60.88	86.54	2,997.2	-144.6	575.5	578.8	2.20	2.20	0.00
3,245.0	61.10	86.54	3,002.1	-144.1	584.2	587.6	2.20	2.20	0.00
3,255.0	61.27	86.36	3,006.9	-143.6	593.0	596.3	2.32	1.70	-1.80
3,263.0	61.45	86.89	3,010.7	-143.2	600.0	603.3	6.23	2.25	6.63
3,273.0	61.67	86.80	3,015.5	-142.7	608.7	612.0	2.34	2.20	-0.90
3,283.0	61.80	86.98	3,020.2	-142.2	617.5	620.8	2.05	1.30	1.80
3,293.0	61.98	86.98	3,024.9	-141.7	626.3	629.6	1.80	1.80	0.00
3,303.0	62.37	87.15	3,029.6	-141.3	635.2	638.4	4.18	3.90	1.70
3,313.0	63.08	87.51	3,034.2	-140.9	644.1	647.3	7.79	7.10	3.60
3,319.0	63.30	87.68	3,036.9	-140.6	649.4	652.7	4.45	3.67	2.83
3,350.0	66.64	89.44	3,050.0	-139.9	677.5	680.7	11.94	10.77	5.68
3,382.0	70.37	90.67	3,061.7	-140.0	707.3	710.5	12.19	11.66	3.84
3,445.0	76.04	90.58	3,079.9	-140.6	767.5	770.7	9.00	9.00	-0.14
3,508.0	80.70	90.32	3,092.6	-141.1	829.2	832.4	7.41	7.40	-0.41
3,571.0	84.26	90.58	3,100.9	-141.6	891.7	894.9	5.67	5.65	0.41
3,634.0	86.33	90.49	3,106.0	-142.2	954.5	957.6	3.29	3.29	-0.14
3,734.0	86.59	91.20	3,112.2	-143.7	1,054.2	1,057.4	0.75	0.26	0.71
3,798.0	85.36	91.02	3,116.7	-144.9	1,118.1	1,121.3	1.94	-1.92	-0.28
3,861.0	85.67	90.76	3,121.6	-145.9	1,180.9	1,184.1	0.64	0.49	-0.41
3,924.0	86.15	90.58	3,126.1	-146.6	1,243.7	1,246.9	0.81	0.76	-0.29
3,988.0	85.98	90.67	3,130.5	-147.3	1,307.6	1,310.8	0.30	-0.27	0.14
4,051.0	84.70	89.88	3,135.6	-147.6	1,370.3	1,373.5	2.39	-2.03	-1.25
4,114.0	85.27	90.14	3,141.1	-147.6	1,433.1	1,436.3	0.99	0.90	0.41
4,177.0	85.93	90.32	3,146.0	-147.9	1,495.9	1,499.1	1.09	1.05	0.29
4,240.0	86.73	90.14	3,150.0	-148.1	1,558.8	1,561.9	1.30	1.27	-0.29
4,304.0	86.99	90.41	3,153.5	-148.4	1,622.7	1,625.8	0.59	0.41	0.42
4,367.0	86.07	91.02	3,157.3	-149.2	1,685.6	1,688.7	1.75	-1.46	0.97
4,431.0	86.42	91.11	3,161.5	-150.4	1,749.4	1,752.6	0.56	0.55	0.14
4,494.0	86.20	91.29	3,165.6	-151.7	1,812.3	1,815.4	0.45	-0.35	0.29
4,557.0	85.05	90.76	3,170.4	-152.8	1,875.1	1,878.3	2.01	-1.83	-0.84
4,621.0	85.36	90.23	3,175.7	-153.4	1,938.9	1,942.0	0.96	0.48	-0.83



Microsoft Survey Report

Company: Redwood Operating LLC
Project: Eddy County, NM
Site: Sec 8-T18S-R27E
Well: Hawk 9 Federal Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

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

Well Hawk 9 Federal Com #1H
3477.3+18 @ 3495.3usft
3477.3+18 @ 3495.3usft
Grid
Minimum Curvature
EDM 5000 15 Single User Db

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)
	4.684.0	85.58	89.35	3.180.7	-153.2	2.001.7	2.004.8	1.44	0.35	-1.40
	4.747.0	85.76	89.53	3.185.4	-152.5	2.064.5	2.067.6	0.40	0.29	0.29
	4.811.0	86.42	89.88	3.189.8	-152.2	2.128.3	2.131.4	1.17	1.03	0.55
	4.874.0	86.77	91.02	3.193.6	-152.7	2.191.2	2.194.3	1.89	0.56	1.81
	4.938.0	87.52	91.37	3.196.7	-154.0	2.255.1	2.258.2	1.29	1.17	0.55
	5.001.0	88.04	91.64	3.199.2	-155.7	2.318.0	2.321.2	0.93	0.83	0.43
	5.064.0	87.47	91.46	3.201.7	-157.4	2.381.0	2.384.1	0.95	-0.90	-0.29
	5.128.0	87.25	91.46	3.204.6	-159.0	2.444.9	2.448.0	0.34	-0.34	0.00
	5.255.0	87.03	90.76	3.210.9	-161.5	2.571.7	2.574.9	0.58	-0.17	-0.55
	5.381.0	86.51	89.62	3.218.0	-161.9	2.697.5	2.700.7	0.99	-0.41	-0.90
	5.445.0	86.42	88.82	3.222.0	-161.0	2.761.4	2.764.5	1.26	-0.14	-1.25
	5.508.0	86.86	87.07	3.225.7	-158.8	2.824.2	2.827.3	2.86	0.70	-2.78
	5.571.0	87.16	87.51	3.229.0	-155.8	2.887.1	2.890.0	0.84	0.48	0.70
	5.634.0	87.60	86.80	3.231.8	-152.7	2.949.9	2.952.8	1.32	0.70	-1.13
	5.761.0	85.63	85.84	3.239.3	-144.5	3.076.4	3.079.0	1.72	-1.55	-0.76
	5.887.0	85.67	88.91	3.248.9	-138.8	3.201.9	3.204.4	2.43	0.03	2.44
	5.951.0	86.37	89.53	3.253.3	-137.9	3.265.8	3.268.2	1.46	1.09	0.97
	6.014.0	86.90	90.05	3.257.0	-137.7	3.328.6	3.331.0	1.18	0.84	0.83
	6.077.0	87.38	89.44	3.260.2	-137.4	3.391.6	3.393.9	1.23	0.76	-0.97
	6.141.0	87.21	89.53	3.263.2	-136.8	3.455.5	3.457.8	0.30	-0.27	0.14
	6.204.0	85.98	89.35	3.266.9	-136.2	3.518.4	3.520.7	1.97	-1.95	-0.29
	6.267.0	86.15	89.09	3.271.3	-135.4	3.581.2	3.583.5	0.49	0.27	-0.41
	6.330.0	86.51	89.53	3.275.3	-134.6	3.644.1	3.646.3	0.90	0.57	0.70
	6.393.0	86.81	89.26	3.279.0	-133.9	3.707.0	3.709.1	0.64	0.46	-0.43
	6.457.0	85.05	89.79	3.283.5	-133.4	3.770.8	3.772.9	2.87	-2.75	0.83
	6.520.0	85.45	89.44	3.288.7	-133.0	3.833.6	3.835.7	0.84	0.63	-0.56
	6.583.0	85.93	89.97	3.293.5	-132.7	3.896.4	3.898.5	1.13	0.76	0.84
	6.646.0	86.24	89.88	3.297.8	-132.6	3.959.3	3.961.3	0.51	0.49	-0.14
	6.710.0	86.59	90.49	3.301.8	-132.8	4.023.1	4.025.2	1.10	0.55	0.95
	6.765.0	86.90	90.05	3.304.9	-133.1	4.078.1	4.080.1	0.98	0.56	-0.80
	6.828.0	87.08	90.67	3.308.2	-133.5	4.141.0	4.143.0	1.02	0.29	0.98
	6.891.0	87.38	90.85	3.311.2	-134.3	4.203.9	4.205.9	0.56	0.48	0.29
	6.955.0	87.47	91.46	3.314.1	-135.6	4.267.8	4.269.8	0.96	0.14	0.95
	7.018.0	87.43	91.55	3.316.9	-137.2	4.330.7	4.332.8	0.16	-0.06	0.14
	7.145.0	86.11	90.67	3.324.1	-139.7	4.457.5	4.459.6	1.25	-1.04	-0.69
	7.208.0	86.42	91.29	3.328.2	-140.8	4.520.4	4.522.4	1.10	0.49	0.98
	7.335.0	85.49	90.05	3.337.1	-142.2	4.647.0	4.649.1	1.22	-0.73	-0.98
	7.398.0	85.76	90.23	3.341.9	-142.4	4.709.8	4.711.9	0.51	0.43	0.29
	7.461.0	86.02	90.32	3.346.5	-142.7	4.772.7	4.774.7	0.44	0.41	0.14
	7.525.0	86.15	89.44	3.350.8	-142.6	4.836.5	4.838.6	1.39	0.20	-1.38
	7.588.0	86.15	89.62	3.355.1	-142.0	4.899.4	4.901.4	0.29	0.00	0.29
	7.651.0	86.15	89.88	3.359.3	-141.8	4.962.2	4.964.2	0.41	0.00	0.41
	7.714.0	86.20	90.14	3.363.5	-141.8	5.025.1	5.027.1	0.42	0.08	0.41
	7.777.0	86.42	90.76	3.367.5	-142.3	5.088.0	5.089.9	1.04	0.35	0.98



Microsoft Survey Report

Company:	Redwood Operating LLC	Local Co-ordinate Reference:	Well Hawk 9 Federal Com #1H
Project:	Eddy County, NM	TVD Reference:	3477.3+18 @ 3495.3usft
Site:	Sec 8-T18S-R27E	MD Reference:	3477.3+18 @ 3495.3usft
Well:	Hawk 9 Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

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)
7,904.0	86.99	90.32	3,374.8	-143.5	5,214.7	5,216.7	0.57	0.45	-0.35
7,966.0	87.03	89.53	3,378.1	-143.4	5,276.7	5,278.6	1.27	0.06	-1.27
8,029.0	87.08	88.65	3,381.3	-142.4	5,339.6	5,341.5	1.40	0.08	-1.40
8,093.0	87.21	89.62	3,384.5	-141.4	5,403.5	5,405.3	1.53	0.20	1.52
8,156.0	87.38	89.70	3,387.5	-141.1	5,466.4	5,468.2	0.30	0.27	0.13
8,219.0	86.24	88.47	3,391.0	-140.0	5,529.3	5,531.1	2.66	-1.81	-1.95
8,253.0	86.42	88.30	3,393.2	-139.1	5,563.2	5,565.0	0.73	0.53	-0.50
Last MWD Survey 8253 MD/3393.2 TVD -139.1 S 5563.2 E N: 643203.9 E: 559240.2									
8,320.0	86.42	88.30	3,397.3	-137.1	5,630.1	5,631.7	0.00	0.00	0.00
PTB 8320 MD/3397.3 TVD -137.1 S 5630.1 E N: 643205.9 E: 559307.0									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
412.0	412.0	-2.3	1.8	1st MWD Survey
8,253.0	3,393.2	-139.1	5,563.2	Last MWD Survey 8253 MD/3393.2 TVD -139.1 S 5563.2 E N: 643203.9 E: 559240.2
8,320.0	3,397.3	-137.1	5,630.1	PTB 8320 MD/3397.3 TVD -137.1 S 5630.1 E N: 643205.9 E: 559307.0

Checked By: _____ Approved By: _____ Date: _____

Submit a Copy To Appropriate District Office
District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-46817
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☐ FEE ☐
2. Name of Operator Redwood Operating LLC		6. State Oil & Gas Lease No.
3. Address of Operator PO Box 1370 Artesia, NM 88211-1370		7. Lease Name or Unit Agreement Name Hawk 9 Federal Com
4. Well Location Unit Letter <u>A</u> : <u>347</u> feet from the <u>North</u> line and <u>373</u> feet from the <u>East</u> line Section <u>8</u> Township <u>18S</u> Range <u>27E</u> NMPM County <u>Eddy</u>		8. Well Number <u>1H</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3477'		9. OGRID Number 330211
		10. Pool name or Wildcat Red Lake; Glorieta-Yeso

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK ☐	REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐	ALTERING CASING ☐
PULL OR ALTER CASING ☐	COMMENCE DRILLING OPNS. ☐
DOWNHOLE COMMINGLE ☐	P AND A ☐
CLOSED-LOOP SYSTEM ☐	CASING/CEMENT JOB ☐
OTHER: ☐	OTHER: Completion ☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

6/7/21-7/19/21 Perforated 3502'-8205', .42, 966 holes. Frac w/ 939 bbls 15% Acid HCL, 324,311 bbls SW, 4,058,510# 100 Mesh, 3,352,170# 40/70 WI, 678,391# 40/70 RC. RIH w/ 97 jts 2 7/8" J-55 tbg @ 3206'. Pump 513 SG 5500 685 1514AR @3228'.

Spud Date:

3/8/2021

Rig Release Date:

3/19/2021

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Delilah Flores TITLE Regulatory Technician I DATE 8/3/2021

Type or print name Delilah Flores E-mail address: regulatory@redwoodoperating.com PHONE: 575-748-1288

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

Submit To Appropriate District Office Two Copies <u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505		State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505			Form C-105 Revised April 3, 2017					
WELL COMPLETION OR RECOMPLETION REPORT AND LOG								1. WELL API NO. 30-015-46817		
4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)								5. Lease Name or Unit Agreement Name Hawk 9 Federal Com		
								6. Well Number: 1H		
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER _____										
8. Name of Operator Redwood Operating LLC						9. OGRID 330211				
10. Address of Operator P.O. Box 1370 Artesia, NM 88211-1370						11. Pool name or Wildcat Red Lake; Glorieta-Yeso				
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	A	8	18S	27E		347	North	373	East	Eddy
BH:	A	9	18S	27E		511	North	110	East	Eddy
13. Date Spudded 3/8/2021	14. Date T.D. Reached 3/16/2021		15. Date Rig Released 3/19/2021			16. Date Completed (Ready to Produce) 7/19/2021		17. Elevations (DF and RKB, RT, GR, etc.) 3477'		
18. Total Measured Depth of Well 8320' / 3502' TVD			19. Plug Back Measured Depth 8293' / 3502' TVD			20. Was Directional Survey Made? Yes		21. Type Electric and Other Logs Run Submitted		
22. Producing Interval(s), of this completion - Top, Bottom, Name 3502'-8205' Red Lake; Glorieta-Yeso										
23. CASING RECORD (Report all strings set in well)										
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED
13 3/8"		48#		375'		17 1/2"		629 sx		
9 5/8"		36#		1225'		12 1/4"		613 sx		
7" & 5 1/2"		26# & 17#		8318'		8 3/4"		1897 sx		
24. LINER RECORD						25. TUBING RECORD				
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET			
26. Perforation record (interval, size, and number) 3502'-8205', .42, 966						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.				
						DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED		
						3502'-8205'		939 bbls 15% Acid, 324311 bbls SW, 4058510# 100 Mesh,		
								3352170# 40/70 WI, 678391# 40/70 RC		
28. PRODUCTION										
Date First Production 07/28/2021		Production Method (Flowing, gas lift, pumping - Size and type pump) Pump - 513 SG 5500 6851514AR				Well Status (Prod. or Shut-in) Producing				
Date of Test 7/28/2021	Hours Tested 24 hrs.	Choke Size	Prod'n For Test Period	Oil - Bbl 66	Gas - MCF 76	Water - Bbl. 4708	Gas - Oil Ratio 5016			
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl. 66	Gas - MCF 76	Water - Bbl. 4708	Oil Gravity - API - (Corr.) 36.2				
29. Disposition of Gas (Sold, used for fuel, vented, etc.) Sold							30. Test Witnessed By Robert Chase			
31. List Attachments										
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.							33. Rig Release Date:			
34. If an on-site burial was used at the well, report the exact location of the on-site burial:										
Latitude _____ Longitude _____ NAD83										
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief										
Signature <i>Delilah Flores</i>			Printed Name Delilah Flores		Title Regulatory Technician I			Date		
E-mail Address regulatory@redwoodoperating.com							8/3/2021			

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers 126	T. Devonian	T. Cliff House	T. Leadville
T. Queen 690	T. Silurian	T. Menefee	T. Madison
T. Grayburg 1038	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres 1346	T. Simpson	T. Mancos	T. McCracken
T. Glorieta 2725	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock 2815	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs	T. Todilto	
T. Abo	T.	T. Entrada	
T. Wolfcamp	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

No. 1, from.....to.....
No. 2, from.....to.....
No. 3, from.....to.....
No. 4, from.....to.....

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

From	To	Thickness In Feet	Lithology

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 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) 476-3470 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

ACKNOWLEDGMENTS

Action 39898

ACKNOWLEDGMENTS

Operator: Redwood Operating LLC PO Box 1370 Artesia, NM 88211370	OGRID: 330211
	Action Number: 39898
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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

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Phone:(505) 334-6178 Fax:(505) 334-6170

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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 39898

CONDITIONS

Operator: Redwood Operating LLC PO Box 1370 Artesia, NM 88211370	OGRID: 330211
	Action Number: 39898
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
ksimmons	None	9/8/2021