

Well Name: KIMBETO WASH UNIT	Well Location: T23N / R9W / SEC 28 / NENW / 36.204663 / -107.79514	County or Parish/State: SAN JUAN / NM
Well Number: 774H	Type of Well: OIL WELL	Allottee or Tribe Name: EASTERN NAVAJO
Lease Number: NMNM136267	Unit or CA Name:	Unit or CA Number: NMNM135255A, NMNM135255X
US Well Number: 3004535823	Well Status: Approved Application for Permit to Drill	Operator: ENDURING RESOURCES LLC

Notice of Intent

Sundry ID: 2652118

Type of Submission: Notice of Intent	Type of Action: Drilling Operations
Date Sundry Submitted: 01/11/2022	Time Sundry Submitted: 03:21
Date proposed operation will begin: 01/24/2022	

Procedure Description: Enduring Resources requests to change the lateral of the Kimbeto Wash Unit 774H well per attached updated: C-102 Plat, Directional Plan, Wellbore Diagram, and Drill Plan.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

- Procedure Description
- KWU_774H_Directional_01042022_20220111152048.pdf
 - KWU_774H_Revised_C_102_12302021_20220111152048.pdf
 - KWU_774H_Drilling_Plan_01042022_20220111152048.pdf
 - KWU_774H_WBD_01042022_20220111152047.pdf

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US Well Number: 3004535823	Well Status: Approved Application for Permit to Drill	Operator: ENDURING RESOURCES LLC

Operator Certification

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 submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: KHEM SUTHIWAN	Signed on: JAN 11, 2022 03:20 PM
Name: ENDURING RESOURCES LLC	
Title: Project Regulatory Specialist	
Street Address: 6400 W 60TH AVE	
City: ARVADA	State: CO
Phone: (303) 962-5508	
Email address: KHEM.SUTHIWAN@WSP.COM	

Field Representative

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

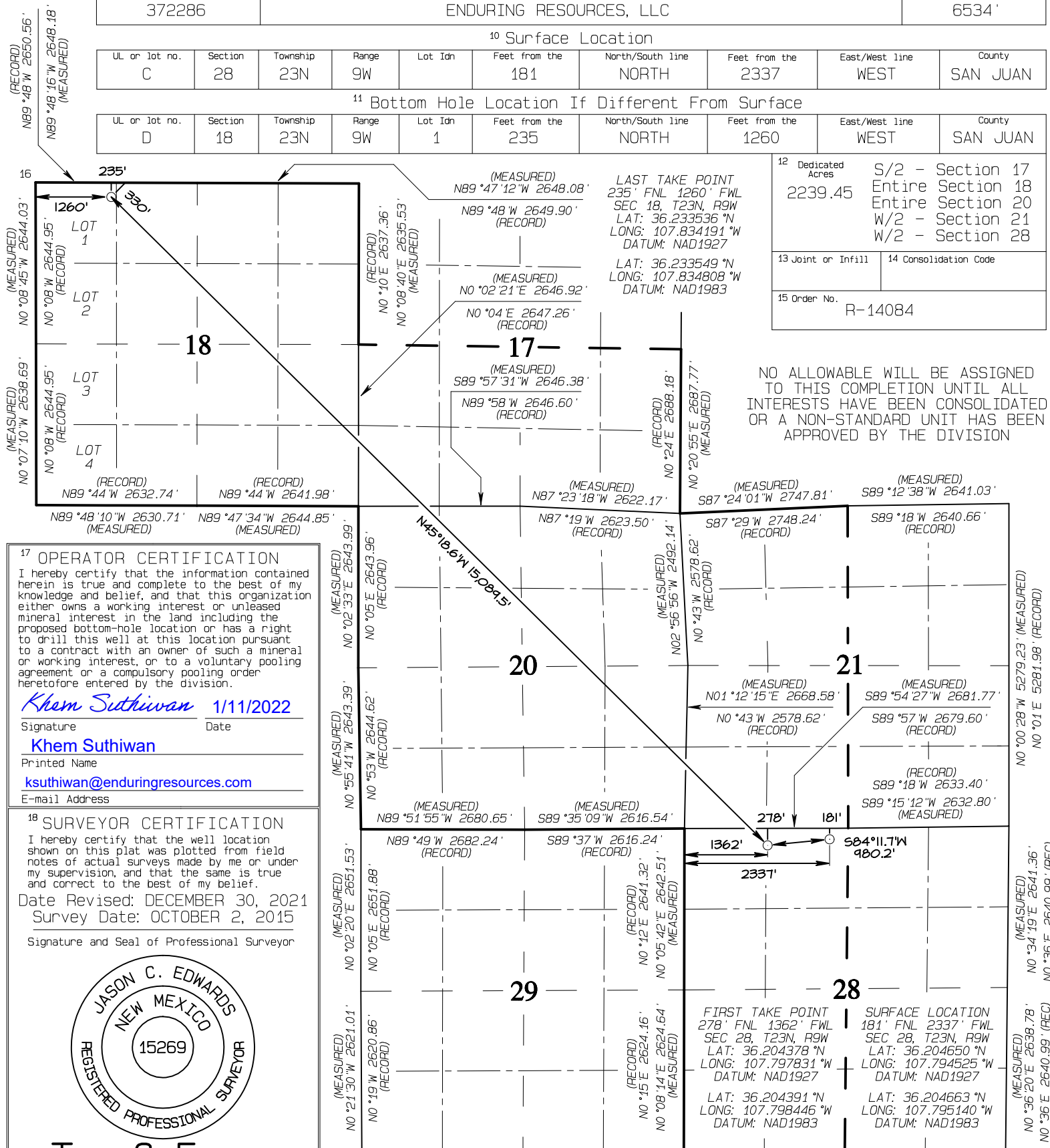
BLM Point of Contact

BLM POC Name: KENNETH G RENNICK	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5055647742	BLM POC Email Address: krennick@blm.gov
Disposition: Approved	Disposition Date: 01/14/2022
Signature: Kenneth Rennick	

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

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. D	Section 18	Township 23N	Range 9W	Lot Idn 1	Feet from the 235	North/South line NORTH	Feet from the 1260	East/West line WEST	County SAN JUAN

12	Dedicated Acres	S/2 - Section 17
2239.45	Entire Section 18	
	Entire Section 20	
	W/2 - Section 21	
	W/2 - Section 28	
13 Joint or Infill	14 Consolidation Code	
15 Order No.		
R-14084		



Released to Imaging: 5/19/2022 2:08:15 PM

S89°59'40"W 2638.31' (PFC) S89°36'53"W 2633.60' (PFC) S89°43'57"W 2635.90' (PFC) S89°42'15"W 2634.91' (PFC)
S89°59'W 2640.00' (PFC) S89°37'W 2633.40' (PFC) S89°44'W 2634.39' (PFC) S89°44'W 2634.39' (PFC)



Well: Kimbeto Wash Unit 774H
Site: Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Kimbeto 774 FTP 1246 FNL 2340 FWL	4399.00	-1065.12	1.30	1892731.968	2734360.815	36.201737000	-107.795137000
Kimbeto 774 LTP 235 FNL 1260 FWL	4504.00	10512.92	-11702.77	1904309.984	2722656.769	36.233549000	-107.834808000

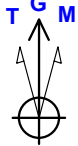
Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	KOP Begin 3°/100' build
2	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.000	0.00	Begin 13.38° tangent
3	1446.13	13.38	224.94	1442.09	-36.72	-36.64	3.00	224.937	0.22	Begin 10°/100' build/turn
4	3889.96	13.38	224.94	3819.54	-437.16	-436.20	0.00	0.000	2.66	Begin 60.00° tangent
5	4480.29	60.00	306.87	4297.30	-321.76	-713.97	10.00	89.833	281.30	Begin 10°/100' build/turn
6	4540.29	60.00	306.87	4327.30	-290.58	-755.54	0.00	0.000	332.77	Begin 89.63° lateral
7	4845.79	89.63	314.69	4406.55	-99.23	-975.19	10.00	15.526	623.50	PBHL/TD 19935.79 MD 4504.00 T
8	19935.79	89.63	314.69	4504.00	10512.92	-11702.77	0.00	0.00015713.18		

West(-)/East(+) (2400 ft/in)

CASING DETAILS

TVD	MD	Name
350.00	350.00	13 3/8" Casing
3372.00	3429.92	9 5/8" Casing



Azimuths to Grid North
 True North: -0.02°
 Magnetic North: 8.74°

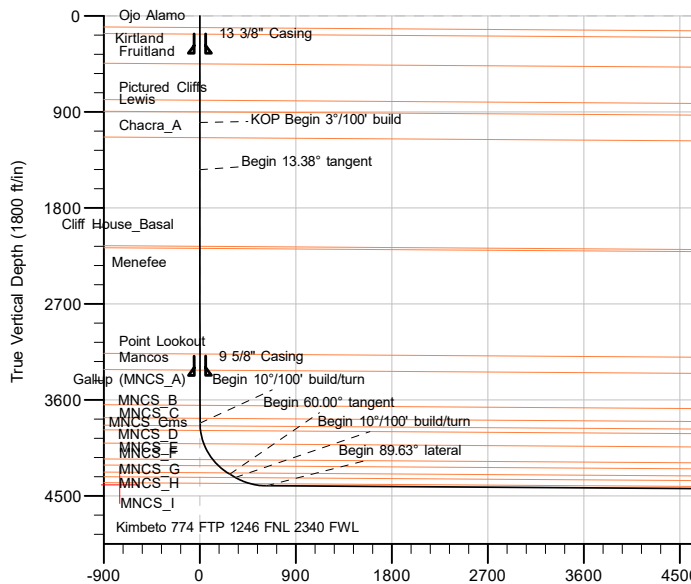
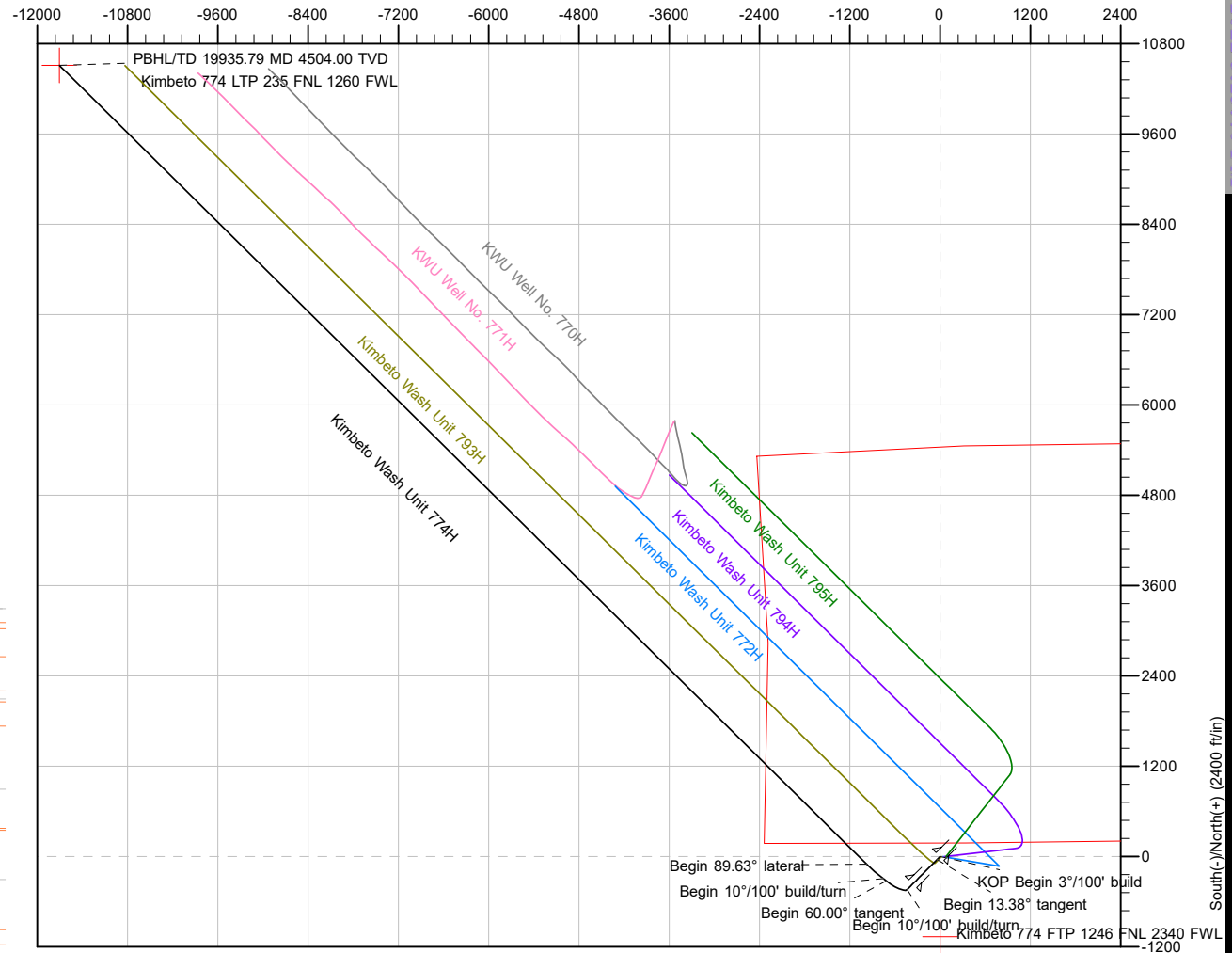
Magnetic Field
 Strength: 49235.7nT
 Dip Angle: 62.72°
 Date: 12/28/2021
 Model: IGRF2020



Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Western Zone
 System Datum: Mean Sea Level
 Depth Reference: RKB=6534+28 @ 6562.00ft
 Surface location:

Northing	Easting	Latitude	Longitude
1893797.089	2734359.511	36.204663000	-107.795140000

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.744°



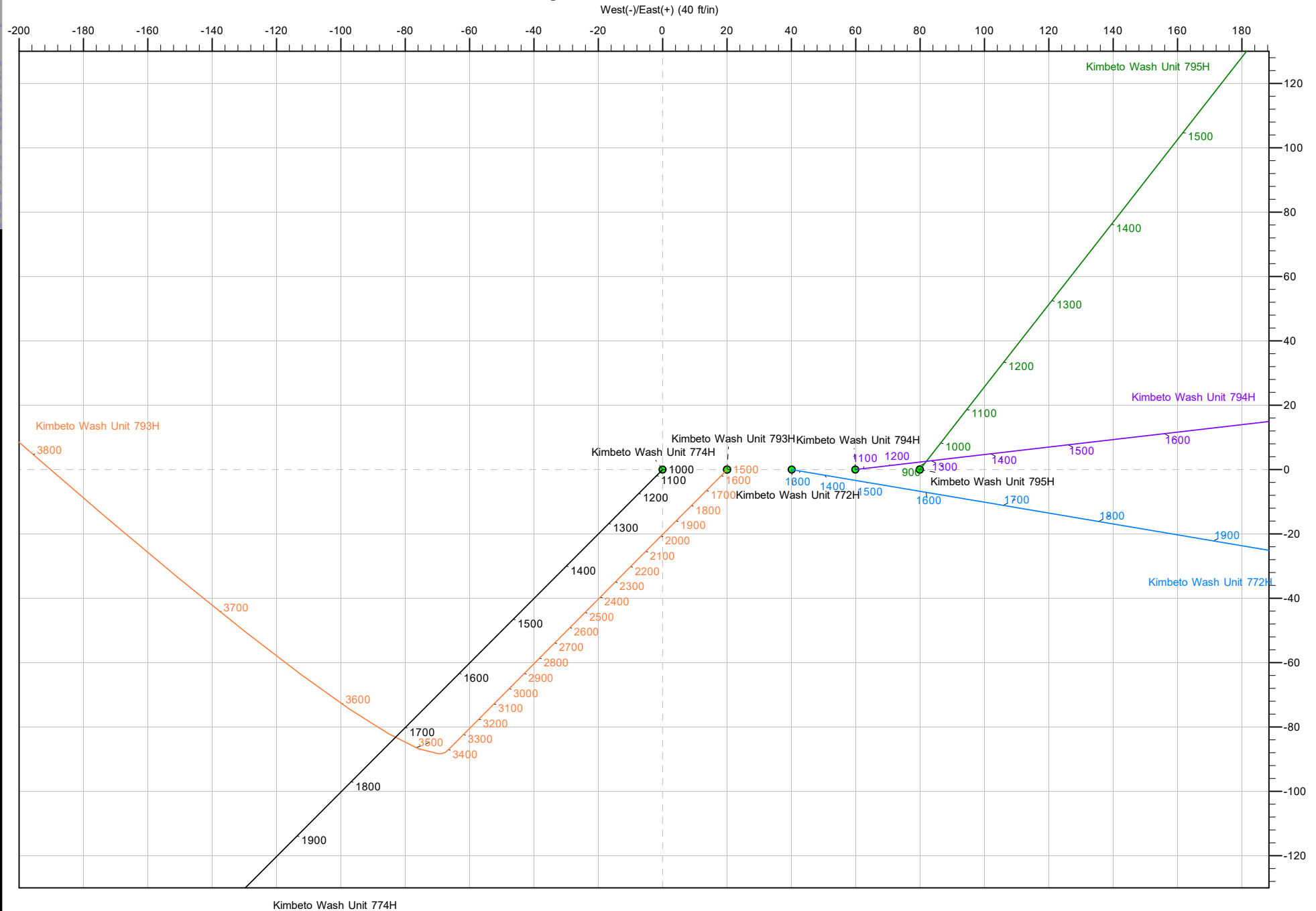
Vertical Section at 314.69° (1800 ft/in)

9:20, January 04 2022

South(+)/North(-) (2400 ft/in)



Well: Kimbeto Wash Unit 774H
Site: Kimbeto Wash Unit
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:





Planning Report

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project	San Juan County, New Mexico NAD83 NM W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)		
Site Position:		Northing:	1,893,797.104 usft
From:	Lat/Long	Easting:	2,734,399.634 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	36.204663000
		Longitude:	-107.795004000

Well	Kimbeto Wash Unit 774H, Surf loc: 181 FNL 2337 FWL Section 28-T23N-R09W			
Well Position	+N/-S	0.00 ft	Northing:	1,893,797.089 usft
	+E/-W	0.00 ft	Easting:	2,734,359.511 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft
Grid Convergence:		0.023 °	Ground Level:	6,534.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	12/28/2021	8.767	62.717	49,235.66460101

Design	rev0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	314.69

Plan Survey Tool Program	Date	1/4/2022		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,935.79 rev0 (Original Hole)	MWD	
			OWSG MWD - Standard	



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Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,446.13	13.38	224.94	1,442.09	-36.72	-36.64	3.00	3.00	0.00	224.937	
3,889.96	13.38	224.94	3,819.54	-437.16	-436.20	0.00	0.00	0.00	0.000	
4,480.29	60.00	306.87	4,297.30	-321.76	-713.97	10.00	7.90	13.88	89.833	
4,540.29	60.00	306.87	4,327.30	-290.58	-755.54	0.00	0.00	0.00	0.000	
4,845.79	89.63	314.69	4,406.55	-99.23	-975.19	10.00	9.70	2.56	15.526	
19,935.79	89.63	314.69	4,504.00	10,512.92	-11,702.77	0.00	0.00	0.00	0.000	Kimbeto 774 LTP 235



Planning Report

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Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
112.00	0.00	0.00	112.00	0.00	0.00	0.00	0.00	0.00	0.00	
Ojo Alamo										
172.00	0.00	0.00	172.00	0.00	0.00	0.00	0.00	0.00	0.00	
Kirtland										
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
452.00	0.00	0.00	452.00	0.00	0.00	0.00	0.00	0.00	0.00	
Fruitland										
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
792.00	0.00	0.00	792.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pictured Cliffs										
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
902.00	0.00	0.00	902.00	0.00	0.00	0.00	0.00	0.00	0.00	
Lewis										
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
KOP Begin 3°/100' build										
1,100.00	3.00	224.94	1,099.95	-1.85	-1.85	0.01	3.00	3.00	0.00	
1,142.13	4.26	224.94	1,142.00	-3.74	-3.73	0.02	3.00	3.00	0.00	
Chacra_A										
1,200.00	6.00	224.94	1,199.63	-7.41	-7.39	0.05	3.00	3.00	0.00	
1,300.00	9.00	224.94	1,298.77	-16.64	-16.61	0.10	3.00	3.00	0.00	
1,400.00	12.00	224.94	1,397.08	-29.54	-29.48	0.18	3.00	3.00	0.00	
1,446.13	13.38	224.94	1,442.09	-36.72	-36.64	0.22	3.00	3.00	0.00	
Begin 13.38° tangent										
1,500.00	13.38	224.94	1,494.49	-45.54	-45.45	0.28	0.00	0.00	0.00	
1,600.00	13.38	224.94	1,591.77	-61.93	-61.79	0.38	0.00	0.00	0.00	
1,700.00	13.38	224.94	1,689.06	-78.32	-78.14	0.48	0.00	0.00	0.00	
1,800.00	13.38	224.94	1,786.34	-94.70	-94.49	0.58	0.00	0.00	0.00	
1,900.00	13.38	224.94	1,883.63	-111.09	-110.84	0.68	0.00	0.00	0.00	
2,000.00	13.38	224.94	1,980.91	-127.47	-127.19	0.78	0.00	0.00	0.00	
2,100.00	13.38	224.94	2,078.20	-143.86	-143.54	0.88	0.00	0.00	0.00	
2,186.15	13.38	224.94	2,162.01	-157.98	-157.63	0.96	0.00	0.00	0.00	
Cliff House_Basal										
2,200.00	13.38	224.94	2,175.48	-160.24	-159.89	0.98	0.00	0.00	0.00	
2,206.71	13.38	224.94	2,182.01	-161.34	-160.99	0.98	0.00	0.00	0.00	
Menefee										
2,300.00	13.38	224.94	2,272.76	-176.63	-176.24	1.08	0.00	0.00	0.00	
2,400.00	13.38	224.94	2,370.05	-193.02	-192.59	1.18	0.00	0.00	0.00	
2,500.00	13.38	224.94	2,467.33	-209.40	-208.94	1.28	0.00	0.00	0.00	
2,600.00	13.38	224.94	2,564.62	-225.79	-225.29	1.38	0.00	0.00	0.00	
2,700.00	13.38	224.94	2,661.90	-242.17	-241.64	1.48	0.00	0.00	0.00	
2,800.00	13.38	224.94	2,759.18	-258.56	-257.99	1.58	0.00	0.00	0.00	
2,900.00	13.38	224.94	2,856.47	-274.95	-274.34	1.68	0.00	0.00	0.00	
3,000.00	13.38	224.94	2,953.75	-291.33	-290.69	1.78	0.00	0.00	0.00	
3,100.00	13.38	224.94	3,051.04	-307.72	-307.04	1.88	0.00	0.00	0.00	
3,200.00	13.38	224.94	3,148.32	-324.10	-323.39	1.98	0.00	0.00	0.00	



Planning Report

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Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
3,224.35	13.38	224.94	3,172.01	-328.09	-327.37	2.00	0.00	0.00	0.00	
Point Lookout										
3,300.00	13.38	224.94	3,245.60	-340.49	-339.74	2.08	0.00	0.00	0.00	
3,378.54	13.38	224.94	3,322.01	-353.36	-352.58	2.15	0.00	0.00	0.00	
Mancos										
3,400.00	13.38	224.94	3,342.89	-356.87	-356.09	2.17	0.00	0.00	0.00	
3,500.00	13.38	224.94	3,440.17	-373.26	-372.44	2.27	0.00	0.00	0.00	
3,600.00	13.38	224.94	3,537.46	-389.65	-388.79	2.37	0.00	0.00	0.00	
3,700.00	13.38	224.94	3,634.74	-406.03	-405.14	2.47	0.00	0.00	0.00	
3,717.76	13.38	224.94	3,652.02	-408.94	-408.04	2.49	0.00	0.00	0.00	
Gallup (MNCS_A)										
3,800.00	13.38	224.94	3,732.02	-422.42	-421.49	2.57	0.00	0.00	0.00	
3,844.19	13.38	224.94	3,775.02	-429.66	-428.72	2.62	0.00	0.00	0.00	
MNCS_B										
3,889.96	13.38	224.94	3,819.54	-437.16	-436.20	2.66	0.00	0.00	0.00	
Begin 10°/100' build/turn										
3,900.00	13.42	229.27	3,829.31	-438.74	-437.90	2.76	10.00	0.40	43.11	
3,915.13	13.62	235.68	3,844.02	-440.89	-440.71	3.24	10.00	1.31	42.42	
MNCS_C										
3,950.00	14.66	249.34	3,877.84	-444.76	-448.23	5.87	10.00	2.99	39.18	
3,959.52	15.07	252.69	3,887.04	-445.56	-450.54	6.95	10.00	4.30	35.19	
MNCS_Cms										
4,000.00	17.29	264.90	3,925.93	-447.66	-461.56	13.31	10.00	5.47	30.16	
4,050.00	20.78	275.93	3,973.20	-447.40	-477.79	25.03	10.00	6.98	22.06	
4,092.25	24.13	282.69	4,012.25	-444.73	-493.68	38.20	10.00	7.94	15.98	
MNCS_D										
4,100.00	24.78	283.73	4,019.31	-443.99	-496.80	40.94	10.00	8.29	13.51	
4,150.00	29.07	289.42	4,063.88	-437.47	-518.45	60.92	10.00	8.58	11.37	
4,200.00	33.54	293.73	4,106.60	-427.86	-542.56	84.82	10.00	8.95	8.62	
4,250.00	38.13	297.12	4,147.13	-415.26	-568.96	112.45	10.00	9.18	6.78	
4,270.19	40.01	298.30	4,162.80	-409.34	-580.23	124.62	10.00	9.30	5.83	
MNCS_E										
4,300.00	42.80	299.88	4,185.16	-399.75	-597.45	143.61	10.00	9.37	5.30	
4,346.64	47.21	302.04	4,218.13	-382.77	-625.71	175.64	10.00	9.45	4.64	
MNCS_F										
4,350.00	47.53	302.18	4,220.41	-381.46	-627.80	178.05	10.00	9.49	4.28	
4,400.00	52.29	304.17	4,252.60	-360.51	-659.79	215.52	10.00	9.53	3.96	
4,450.00	57.09	305.91	4,281.50	-337.08	-693.18	255.73	10.00	9.59	3.48	
4,457.80	57.84	306.16	4,285.69	-333.21	-698.50	262.24	10.00	9.62	3.26	
MNCS_G										
4,480.29	60.00	306.87	4,297.30	-321.76	-713.97	281.30	10.00	9.63	3.16	
Begin 60.00° tangent										
4,500.00	60.00	306.87	4,307.16	-311.51	-727.63	298.21	0.00	0.00	0.00	
4,540.29	60.00	306.87	4,327.30	-290.58	-755.54	332.77	0.00	0.00	0.00	
Begin 10°/100' build/turn										
4,544.05	60.36	306.99	4,329.17	-288.62	-758.15	336.01	10.00	9.64	3.08	
MNCS_H										
4,550.00	60.94	307.17	4,332.09	-285.49	-762.29	341.15	10.00	9.64	3.05	
4,600.00	65.76	308.62	4,354.51	-258.04	-797.53	385.51	10.00	9.66	2.91	
4,650.00	70.61	309.97	4,373.08	-228.65	-833.44	431.71	10.00	9.68	2.69	
4,689.83	74.47	310.98	4,385.03	-203.99	-862.33	469.59	10.00	9.70	2.55	



Planning Report

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
MNCS_I									
4,700.00	75.46	311.23	4,387.67	-197.53	-869.74	479.40	10.00	9.71	2.49
4,750.00	80.31	312.45	4,398.16	-164.93	-906.14	528.21	10.00	9.71	2.43
4,800.00	85.18	313.63	4,404.47	-131.09	-942.38	577.77	10.00	9.72	2.36
4,845.79	89.63	314.69	4,406.55	-99.23	-975.19	623.50	10.00	9.73	2.32
Begin 89.63° lateral									
4,900.00	89.63	314.69	4,406.90	-61.10	-1,013.73	677.71	0.00	0.00	0.00
5,000.00	89.63	314.69	4,407.54	9.22	-1,084.82	777.71	0.00	0.00	0.00
5,100.00	89.63	314.69	4,408.19	79.55	-1,155.91	877.70	0.00	0.00	0.00
5,200.00	89.63	314.69	4,408.84	149.87	-1,227.00	977.70	0.00	0.00	0.00
5,300.00	89.63	314.69	4,409.48	220.20	-1,298.09	1,077.70	0.00	0.00	0.00
5,400.00	89.63	314.69	4,410.13	290.52	-1,369.18	1,177.70	0.00	0.00	0.00
5,500.00	89.63	314.69	4,410.77	360.85	-1,440.27	1,277.70	0.00	0.00	0.00
5,600.00	89.63	314.69	4,411.42	431.17	-1,511.36	1,377.69	0.00	0.00	0.00
5,700.00	89.63	314.69	4,412.07	501.50	-1,582.45	1,477.69	0.00	0.00	0.00
5,800.00	89.63	314.69	4,412.71	571.83	-1,653.54	1,577.69	0.00	0.00	0.00
5,900.00	89.63	314.69	4,413.36	642.15	-1,724.64	1,677.69	0.00	0.00	0.00
6,000.00	89.63	314.69	4,414.00	712.48	-1,795.73	1,777.69	0.00	0.00	0.00
6,100.00	89.63	314.69	4,414.65	782.80	-1,866.82	1,877.68	0.00	0.00	0.00
6,200.00	89.63	314.69	4,415.29	853.13	-1,937.91	1,977.68	0.00	0.00	0.00
6,300.00	89.63	314.69	4,415.94	923.45	-2,009.00	2,077.68	0.00	0.00	0.00
6,400.00	89.63	314.69	4,416.59	993.78	-2,080.09	2,177.68	0.00	0.00	0.00
6,500.00	89.63	314.69	4,417.23	1,064.11	-2,151.18	2,277.68	0.00	0.00	0.00
6,600.00	89.63	314.69	4,417.88	1,134.43	-2,222.27	2,377.67	0.00	0.00	0.00
6,700.00	89.63	314.69	4,418.52	1,204.76	-2,293.36	2,477.67	0.00	0.00	0.00
6,800.00	89.63	314.69	4,419.17	1,275.08	-2,364.45	2,577.67	0.00	0.00	0.00
6,900.00	89.63	314.69	4,419.82	1,345.41	-2,435.54	2,677.67	0.00	0.00	0.00
7,000.00	89.63	314.69	4,420.46	1,415.73	-2,506.63	2,777.67	0.00	0.00	0.00
7,100.00	89.63	314.69	4,421.11	1,486.06	-2,577.72	2,877.66	0.00	0.00	0.00
7,200.00	89.63	314.69	4,421.75	1,556.39	-2,648.81	2,977.66	0.00	0.00	0.00
7,300.00	89.63	314.69	4,422.40	1,626.71	-2,719.90	3,077.66	0.00	0.00	0.00
7,400.00	89.63	314.69	4,423.04	1,697.04	-2,791.00	3,177.66	0.00	0.00	0.00
7,500.00	89.63	314.69	4,423.69	1,767.36	-2,862.09	3,277.65	0.00	0.00	0.00
7,600.00	89.63	314.69	4,424.34	1,837.69	-2,933.18	3,377.65	0.00	0.00	0.00
7,700.00	89.63	314.69	4,424.98	1,908.01	-3,004.27	3,477.65	0.00	0.00	0.00
7,800.00	89.63	314.69	4,425.63	1,978.34	-3,075.36	3,577.65	0.00	0.00	0.00
7,900.00	89.63	314.69	4,426.27	2,048.67	-3,146.45	3,677.65	0.00	0.00	0.00
8,000.00	89.63	314.69	4,426.92	2,118.99	-3,217.54	3,777.64	0.00	0.00	0.00
8,100.00	89.63	314.69	4,427.56	2,189.32	-3,288.63	3,877.64	0.00	0.00	0.00
8,200.00	89.63	314.69	4,428.21	2,259.64	-3,359.72	3,977.64	0.00	0.00	0.00
8,300.00	89.63	314.69	4,428.86	2,329.97	-3,430.81	4,077.64	0.00	0.00	0.00
8,400.00	89.63	314.69	4,429.50	2,400.29	-3,501.90	4,177.64	0.00	0.00	0.00
8,500.00	89.63	314.69	4,430.15	2,470.62	-3,572.99	4,277.63	0.00	0.00	0.00
8,600.00	89.63	314.69	4,430.79	2,540.95	-3,644.08	4,377.63	0.00	0.00	0.00
8,700.00	89.63	314.69	4,431.44	2,611.27	-3,715.17	4,477.63	0.00	0.00	0.00
8,800.00	89.63	314.69	4,432.09	2,681.60	-3,786.26	4,577.63	0.00	0.00	0.00
8,900.00	89.63	314.69	4,432.73	2,751.92	-3,857.35	4,677.63	0.00	0.00	0.00
9,000.00	89.63	314.69	4,433.38	2,822.25	-3,928.45	4,777.62	0.00	0.00	0.00
9,100.00	89.63	314.69	4,434.02	2,892.57	-3,999.54	4,877.62	0.00	0.00	0.00
9,200.00	89.63	314.69	4,434.67	2,962.90	-4,070.63	4,977.62	0.00	0.00	0.00
9,300.00	89.63	314.69	4,435.31	3,033.23	-4,141.72	5,077.62	0.00	0.00	0.00
9,400.00	89.63	314.69	4,435.96	3,103.55	-4,212.81	5,177.62	0.00	0.00	0.00
9,500.00	89.63	314.69	4,436.61	3,173.88	-4,283.90	5,277.61	0.00	0.00	0.00



Planning Report

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,600.00	89.63	314.69	4,437.25	3,244.20	-4,354.99	5,377.61	0.00	0.00	0.00
9,700.00	89.63	314.69	4,437.90	3,314.53	-4,426.08	5,477.61	0.00	0.00	0.00
9,800.00	89.63	314.69	4,438.54	3,384.85	-4,497.17	5,577.61	0.00	0.00	0.00
9,900.00	89.63	314.69	4,439.19	3,455.18	-4,568.26	5,677.60	0.00	0.00	0.00
10,000.00	89.63	314.69	4,439.83	3,525.51	-4,639.35	5,777.60	0.00	0.00	0.00
10,100.00	89.63	314.69	4,440.48	3,595.83	-4,710.44	5,877.60	0.00	0.00	0.00
10,200.00	89.63	314.69	4,441.13	3,666.16	-4,781.53	5,977.60	0.00	0.00	0.00
10,300.00	89.63	314.69	4,441.77	3,736.48	-4,852.62	6,077.60	0.00	0.00	0.00
10,400.00	89.63	314.69	4,442.42	3,806.81	-4,923.71	6,177.59	0.00	0.00	0.00
10,500.00	89.63	314.69	4,443.06	3,877.13	-4,994.80	6,277.59	0.00	0.00	0.00
10,600.00	89.63	314.69	4,443.71	3,947.46	-5,065.90	6,377.59	0.00	0.00	0.00
10,700.00	89.63	314.69	4,444.36	4,017.79	-5,136.99	6,477.59	0.00	0.00	0.00
10,800.00	89.63	314.69	4,445.00	4,088.11	-5,208.08	6,577.59	0.00	0.00	0.00
10,900.00	89.63	314.69	4,445.65	4,158.44	-5,279.17	6,677.58	0.00	0.00	0.00
11,000.00	89.63	314.69	4,446.29	4,228.76	-5,350.26	6,777.58	0.00	0.00	0.00
11,100.00	89.63	314.69	4,446.94	4,299.09	-5,421.35	6,877.58	0.00	0.00	0.00
11,200.00	89.63	314.69	4,447.58	4,369.41	-5,492.44	6,977.58	0.00	0.00	0.00
11,300.00	89.63	314.69	4,448.23	4,439.74	-5,563.53	7,077.58	0.00	0.00	0.00
11,400.00	89.63	314.69	4,448.88	4,510.07	-5,634.62	7,177.57	0.00	0.00	0.00
11,500.00	89.63	314.69	4,449.52	4,580.39	-5,705.71	7,277.57	0.00	0.00	0.00
11,600.00	89.63	314.69	4,450.17	4,650.72	-5,776.80	7,377.57	0.00	0.00	0.00
11,700.00	89.63	314.69	4,450.81	4,721.04	-5,847.89	7,477.57	0.00	0.00	0.00
11,800.00	89.63	314.69	4,451.46	4,791.37	-5,918.98	7,577.57	0.00	0.00	0.00
11,900.00	89.63	314.69	4,452.11	4,861.69	-5,990.07	7,677.56	0.00	0.00	0.00
12,000.00	89.63	314.69	4,452.75	4,932.02	-6,061.16	7,777.56	0.00	0.00	0.00
12,100.00	89.63	314.69	4,453.40	5,002.35	-6,132.26	7,877.56	0.00	0.00	0.00
12,200.00	89.63	314.69	4,454.04	5,072.67	-6,203.35	7,977.56	0.00	0.00	0.00
12,300.00	89.63	314.69	4,454.69	5,143.00	-6,274.44	8,077.55	0.00	0.00	0.00
12,400.00	89.63	314.69	4,455.33	5,213.32	-6,345.53	8,177.55	0.00	0.00	0.00
12,500.00	89.63	314.69	4,455.98	5,283.65	-6,416.62	8,277.55	0.00	0.00	0.00
12,600.00	89.63	314.69	4,456.63	5,353.97	-6,487.71	8,377.55	0.00	0.00	0.00
12,700.00	89.63	314.69	4,457.27	5,424.30	-6,558.80	8,477.55	0.00	0.00	0.00
12,800.00	89.63	314.69	4,457.92	5,494.63	-6,629.89	8,577.54	0.00	0.00	0.00
12,900.00	89.63	314.69	4,458.56	5,564.95	-6,700.98	8,677.54	0.00	0.00	0.00
13,000.00	89.63	314.69	4,459.21	5,635.28	-6,772.07	8,777.54	0.00	0.00	0.00
13,100.00	89.63	314.69	4,459.85	5,705.60	-6,843.16	8,877.54	0.00	0.00	0.00
13,200.00	89.63	314.69	4,460.50	5,775.93	-6,914.25	8,977.54	0.00	0.00	0.00
13,300.00	89.63	314.69	4,461.15	5,846.25	-6,985.34	9,077.53	0.00	0.00	0.00
13,400.00	89.63	314.69	4,461.79	5,916.58	-7,056.43	9,177.53	0.00	0.00	0.00
13,500.00	89.63	314.69	4,462.44	5,986.91	-7,127.52	9,277.53	0.00	0.00	0.00
13,600.00	89.63	314.69	4,463.08	6,057.23	-7,198.61	9,377.53	0.00	0.00	0.00
13,700.00	89.63	314.69	4,463.73	6,127.56	-7,269.71	9,477.53	0.00	0.00	0.00
13,800.00	89.63	314.69	4,464.38	6,197.88	-7,340.80	9,577.52	0.00	0.00	0.00
13,900.00	89.63	314.69	4,465.02	6,268.21	-7,411.89	9,677.52	0.00	0.00	0.00
14,000.00	89.63	314.69	4,465.67	6,338.53	-7,482.98	9,777.52	0.00	0.00	0.00
14,100.00	89.63	314.69	4,466.31	6,408.86	-7,554.07	9,877.52	0.00	0.00	0.00
14,200.00	89.63	314.69	4,466.96	6,479.19	-7,625.16	9,977.52	0.00	0.00	0.00
14,300.00	89.63	314.69	4,467.60	6,549.51	-7,696.25	10,077.51	0.00	0.00	0.00
14,400.00	89.63	314.69	4,468.25	6,619.84	-7,767.34	10,177.51	0.00	0.00	0.00
14,500.00	89.63	314.69	4,468.90	6,690.16	-7,838.43	10,277.51	0.00	0.00	0.00
14,600.00	89.63	314.69	4,469.54	6,760.49	-7,909.52	10,377.51	0.00	0.00	0.00
14,700.00	89.63	314.69	4,470.19	6,830.81	-7,980.61	10,477.50	0.00	0.00	0.00
14,800.00	89.63	314.69	4,470.83	6,901.14	-8,051.70	10,577.50	0.00	0.00	0.00



Planning Report

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
14,900.00	89.63	314.69	4,471.48	6,971.46	-8,122.79	10,677.50	0.00	0.00	0.00	
15,000.00	89.63	314.69	4,472.12	7,041.79	-8,193.88	10,777.50	0.00	0.00	0.00	
15,100.00	89.63	314.69	4,472.77	7,112.12	-8,264.97	10,877.50	0.00	0.00	0.00	
15,200.00	89.63	314.69	4,473.42	7,182.44	-8,336.07	10,977.49	0.00	0.00	0.00	
15,300.00	89.63	314.69	4,474.06	7,252.77	-8,407.16	11,077.49	0.00	0.00	0.00	
15,400.00	89.63	314.69	4,474.71	7,323.09	-8,478.25	11,177.49	0.00	0.00	0.00	
15,500.00	89.63	314.69	4,475.35	7,393.42	-8,549.34	11,277.49	0.00	0.00	0.00	
15,600.00	89.63	314.69	4,476.00	7,463.74	-8,620.43	11,377.49	0.00	0.00	0.00	
15,700.00	89.63	314.69	4,476.65	7,534.07	-8,691.52	11,477.48	0.00	0.00	0.00	
15,800.00	89.63	314.69	4,477.29	7,604.40	-8,762.61	11,577.48	0.00	0.00	0.00	
15,900.00	89.63	314.69	4,477.94	7,674.72	-8,833.70	11,677.48	0.00	0.00	0.00	
16,000.00	89.63	314.69	4,478.58	7,745.05	-8,904.79	11,777.48	0.00	0.00	0.00	
16,100.00	89.63	314.69	4,479.23	7,815.37	-8,975.88	11,877.48	0.00	0.00	0.00	
16,200.00	89.63	314.69	4,479.87	7,885.70	-9,046.97	11,977.47	0.00	0.00	0.00	
16,300.00	89.63	314.69	4,480.52	7,956.02	-9,118.06	12,077.47	0.00	0.00	0.00	
16,400.00	89.63	314.69	4,481.17	8,026.35	-9,189.15	12,177.47	0.00	0.00	0.00	
16,500.00	89.63	314.69	4,481.81	8,096.68	-9,260.24	12,277.47	0.00	0.00	0.00	
16,600.00	89.63	314.69	4,482.46	8,167.00	-9,331.33	12,377.47	0.00	0.00	0.00	
16,700.00	89.63	314.69	4,483.10	8,237.33	-9,402.42	12,477.46	0.00	0.00	0.00	
16,800.00	89.63	314.69	4,483.75	8,307.65	-9,473.52	12,577.46	0.00	0.00	0.00	
16,900.00	89.63	314.69	4,484.40	8,377.98	-9,544.61	12,677.46	0.00	0.00	0.00	
17,000.00	89.63	314.69	4,485.04	8,448.30	-9,615.70	12,777.46	0.00	0.00	0.00	
17,100.00	89.63	314.69	4,485.69	8,518.63	-9,686.79	12,877.45	0.00	0.00	0.00	
17,200.00	89.63	314.69	4,486.33	8,588.96	-9,757.88	12,977.45	0.00	0.00	0.00	
17,300.00	89.63	314.69	4,486.98	8,659.28	-9,828.97	13,077.45	0.00	0.00	0.00	
17,400.00	89.63	314.69	4,487.62	8,729.61	-9,900.06	13,177.45	0.00	0.00	0.00	
17,500.00	89.63	314.69	4,488.27	8,799.93	-9,971.15	13,277.45	0.00	0.00	0.00	
17,600.00	89.63	314.69	4,488.92	8,870.26	-10,042.24	13,377.44	0.00	0.00	0.00	
17,700.00	89.63	314.69	4,489.56	8,940.58	-10,113.33	13,477.44	0.00	0.00	0.00	
17,800.00	89.63	314.69	4,490.21	9,010.91	-10,184.42	13,577.44	0.00	0.00	0.00	
17,900.00	89.63	314.69	4,490.85	9,081.24	-10,255.51	13,677.44	0.00	0.00	0.00	
18,000.00	89.63	314.69	4,491.50	9,151.56	-10,326.60	13,777.44	0.00	0.00	0.00	
18,100.00	89.63	314.69	4,492.14	9,221.89	-10,397.69	13,877.43	0.00	0.00	0.00	
18,200.00	89.63	314.69	4,492.79	9,292.21	-10,468.78	13,977.43	0.00	0.00	0.00	
18,300.00	89.63	314.69	4,493.44	9,362.54	-10,539.88	14,077.43	0.00	0.00	0.00	
18,400.00	89.63	314.69	4,494.08	9,432.86	-10,610.97	14,177.43	0.00	0.00	0.00	
18,500.00	89.63	314.69	4,494.73	9,503.19	-10,682.06	14,277.43	0.00	0.00	0.00	
18,600.00	89.63	314.69	4,495.37	9,573.52	-10,753.15	14,377.42	0.00	0.00	0.00	
18,700.00	89.63	314.69	4,496.02	9,643.84	-10,824.24	14,477.42	0.00	0.00	0.00	
18,800.00	89.63	314.69	4,496.67	9,714.17	-10,895.33	14,577.42	0.00	0.00	0.00	
18,900.00	89.63	314.69	4,497.31	9,784.49	-10,966.42	14,677.42	0.00	0.00	0.00	
19,000.00	89.63	314.69	4,497.96	9,854.82	-11,037.51	14,777.42	0.00	0.00	0.00	
19,100.00	89.63	314.69	4,498.60	9,925.14	-11,108.60	14,877.41	0.00	0.00	0.00	
19,200.00	89.63	314.69	4,499.25	9,995.47	-11,179.69	14,977.41	0.00	0.00	0.00	
19,300.00	89.63	314.69	4,499.89	10,065.80	-11,250.78	15,077.41	0.00	0.00	0.00	
19,400.00	89.63	314.69	4,500.54	10,136.12	-11,321.87	15,177.41	0.00	0.00	0.00	
19,500.00	89.63	314.69	4,501.19	10,206.45	-11,392.96	15,277.40	0.00	0.00	0.00	
19,600.00	89.63	314.69	4,501.83	10,276.77	-11,464.05	15,377.40	0.00	0.00	0.00	
19,700.00	89.63	314.69	4,502.48	10,347.10	-11,535.14	15,477.40	0.00	0.00	0.00	
19,800.00	89.63	314.69	4,503.12	10,417.42	-11,606.23	15,577.40	0.00	0.00	0.00	
19,900.00	89.63	314.69	4,503.77	10,487.75	-11,677.33	15,677.40	0.00	0.00	0.00	
19,935.79	89.63	314.69	4,504.00	10,512.92	-11,702.77	15,713.18	0.00	0.00	0.00	
PBHL/TD 19935.79 MD 4504.00 TVD										



Planning Report

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Kimbeto 774 FTP 1246 I	0.00	0.00	4,399.00	-1,065.12	1.30	1,892,731.966	2,734,360.815	36.201737000	-107.795137000
- plan misses target center by 880.80ft at 4141.81ft MD (4056.70 TVD, -438.75 N, -514.73 E)									
- Point									
Kimbeto 774 LTP 235 F	0.00	0.01	4,504.00	10,512.92	-11,702.77	1,904,309.984	2,722,656.768	36.233549000	-107.834808000
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
350.00	350.00	13 3/8" Casing	13-5/8	17-1/2	
3,429.92	3,372.00	9 5/8" Casing	9-5/8	12-1/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
112.00	112.00	Ojo Alamo		0.370	314.69
172.00	172.00	Kirtland		0.370	314.69
452.00	452.00	Fruitland		0.370	314.69
792.00	792.00	Pictured Cliffs		0.370	314.69
902.00	902.00	Lewis		0.370	314.69
1,142.13	1,142.00	Chacra_A		0.370	314.69
2,186.15	2,162.01	Cliff House_Basal		0.370	314.69
2,206.71	2,182.01	Menefee		0.370	314.69
3,224.35	3,172.01	Point Lookout		0.370	314.69
3,378.54	3,322.01	Mancos		0.370	314.69
3,717.76	3,652.02	Gallup (MNCS_A)		0.370	314.69
3,844.19	3,775.02	MNCS_B		0.370	314.69
3,915.13	3,844.02	MNCS_C		0.370	314.69
3,959.52	3,887.04	MNCS_Cms		0.370	314.69
4,092.25	4,012.25	MNCS_D		0.370	314.69
4,270.19	4,162.80	MNCS_E		0.370	314.69
4,346.64	4,218.13	MNCS_F		0.370	314.69
4,457.80	4,285.69	MNCS_G		0.370	314.69
4,544.05	4,329.17	MNCS_H		0.370	314.69
4,689.83	4,385.03	MNCS_I		0.370	314.69



Planning Report

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.00	1,000.00	0.00	0.00	KOP Begin 3°/100' build
1,446.13	1,442.09	-36.72	-36.64	Begin 13.38° tangent
3,889.96	3,819.54	-437.16	-436.20	Begin 10°/100' build/turn
4,480.29	4,297.30	-321.76	-713.97	Begin 60.00° tangent
4,540.29	4,327.30	-290.58	-755.54	Begin 10°/100' build/turn
4,845.79	4,406.55	-99.23	-975.19	Begin 89.63° lateral
19,935.79	4,504.00	10,512.92	-11,702.77	PBHL/TD 19935.79 MD 4504.00 TVD



Planning Report - Geographic

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project	San Juan County, New Mexico NAD83 NM W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)				
Site Position:		Northing:	1,893,797.104 usft	Latitude:	36.204663000
From:	Lat/Long	Easting:	2,734,399.634 usft	Longitude:	-107.795004000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Kimbeto Wash Unit 774H, Surf loc: 181 FNL 2337 FWL Section 28-T23N-R09W					
Well Position	+N/-S	0.00 ft	Northing:	1,893,797.089 usft	Latitude:	36.204663000
	+E/-W	0.00 ft	Easting:	2,734,359.511 usft	Longitude:	-107.795140000
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,534.00 ft
Grid Convergence:						

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	12/28/2021	8.767	62.717	49,235.66460101

Design	rev0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	314.69

Plan Survey Tool Program	Date			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,935.79 rev0 (Original Hole)		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,446.13	13.38	224.94	1,442.09	-36.72	-36.64	3.00	3.00	0.00	224.937	
3,889.96	13.38	224.94	3,819.54	-437.16	-436.20	0.00	0.00	0.00	0.000	
4,480.29	60.00	306.87	4,297.30	-321.76	-713.97	10.00	7.90	13.88	89.833	
4,540.29	60.00	306.87	4,327.30	-290.58	-755.54	0.00	0.00	0.00	0.000	
4,845.79	89.63	314.69	4,406.55	-99.23	-975.19	10.00	9.70	2.56	15.526	
19,935.79	89.63	314.69	4,504.00	10,512.92	-11,702.77	0.00	0.00	0.00	0.000	Kimbeto 774 LTP 235



Planning Report - Geographic

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
100.00	0.00	0.00	100.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
112.00	0.00	0.00	112.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
Ojo Alamo										
172.00	0.00	0.00	172.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
Kirtland										
200.00	0.00	0.00	200.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
300.00	0.00	0.00	300.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
400.00	0.00	0.00	400.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
452.00	0.00	0.00	452.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
Fruitland										
500.00	0.00	0.00	500.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
600.00	0.00	0.00	600.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
700.00	0.00	0.00	700.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
792.00	0.00	0.00	792.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
Pictured Cliffs										
800.00	0.00	0.00	800.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
900.00	0.00	0.00	900.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
902.00	0.00	0.00	902.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
Lewis										
1,000.00	0.00	0.00	1,000.00	0.00	0.00	1,893,797.089	2,734,359.511	36.204663000	-107.795140000	
KOP Begin 3°/100' build										
1,100.00	3.00	224.94	1,099.95	-1.85	-1.85	1,893,795.236	2,734,357.662	36.204657912	-107.795146269	
1,142.13	4.26	224.94	1,142.00	-3.74	-3.73	1,893,793.347	2,734,355.777	36.204652724	-107.795152661	
Chacra_A										
1,200.00	6.00	224.94	1,199.63	-7.41	-7.39	1,893,789.682	2,734,352.121	36.204642663	-107.795165058	
1,300.00	9.00	224.94	1,298.77	-16.64	-16.61	1,893,780.444	2,734,342.903	36.204617293	-107.795196317	
1,400.00	12.00	224.94	1,397.08	-29.54	-29.48	1,893,767.545	2,734,330.032	36.204581873	-107.795239959	
1,446.13	13.38	224.94	1,442.09	-36.72	-36.64	1,893,760.371	2,734,322.873	36.204562171	-107.795264235	
Begin 13.38° tangent										
1,500.00	13.38	224.94	1,494.49	-45.54	-45.45	1,893,751.544	2,734,314.066	36.204537933	-107.795294100	
1,600.00	13.38	224.94	1,591.77	-61.93	-61.79	1,893,735.158	2,734,297.716	36.204492938	-107.795349540	
1,700.00	13.38	224.94	1,689.06	-78.32	-78.14	1,893,718.773	2,734,281.366	36.204447942	-107.795404981	
1,800.00	13.38	224.94	1,786.34	-94.70	-94.49	1,893,702.387	2,734,265.017	36.204402946	-107.795460422	
1,900.00	13.38	224.94	1,883.63	-111.09	-110.84	1,893,686.001	2,734,248.667	36.204357951	-107.795515862	
2,000.00	13.38	224.94	1,980.91	-127.47	-127.19	1,893,669.615	2,734,232.317	36.204312955	-107.795571303	
2,100.00	13.38	224.94	2,078.20	-143.86	-143.54	1,893,653.230	2,734,215.967	36.204267959	-107.795626743	
2,186.15	13.38	224.94	2,162.01	-157.98	-157.63	1,893,639.113	2,734,201.882	36.204229195	-107.795674506	
Cliff House_Basal										
2,200.00	13.38	224.94	2,175.48	-160.24	-159.89	1,893,636.844	2,734,199.617	36.204222964	-107.795682184	
2,206.71	13.38	224.94	2,182.01	-161.34	-160.99	1,893,635.745	2,734,198.520	36.204219945	-107.795685903	
Menefee										
2,300.00	13.38	224.94	2,272.76	-176.63	-176.24	1,893,620.458	2,734,183.268	36.204177968	-107.795737624	
2,400.00	13.38	224.94	2,370.05	-193.02	-192.59	1,893,604.073	2,734,166.918	36.204132972	-107.795793064	
2,500.00	13.38	224.94	2,467.33	-209.40	-208.94	1,893,587.687	2,734,150.568	36.204087976	-107.795848504	
2,600.00	13.38	224.94	2,564.62	-225.79	-225.29	1,893,571.301	2,734,134.218	36.204042980	-107.795903944	
2,700.00	13.38	224.94	2,661.90	-242.17	-241.64	1,893,554.916	2,734,117.868	36.203997985	-107.795959384	
2,800.00	13.38	224.94	2,759.18	-258.56	-257.99	1,893,538.530	2,734,101.518	36.203952989	-107.796014824	
2,900.00	13.38	224.94	2,856.47	-274.95	-274.34	1,893,522.144	2,734,085.169	36.203907993	-107.796070264	
3,000.00	13.38	224.94	2,953.75	-291.33	-290.69	1,893,505.758	2,734,068.819	36.203862997	-107.796125704	
3,100.00	13.38	224.94	3,051.04	-307.72	-307.04	1,893,489.373	2,734,052.469	36.203818001	-107.796181144	
3,200.00	13.38	224.94	3,148.32	-324.10	-323.39	1,893,472.987	2,734,036.119	36.203773005	-107.796236584	



Planning Report - Geographic

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
3,224.35	13.38	224.94	3,172.01	-328.09	-327.37	1,893,468.996	2,734,032.137	36.203762046	-107.796250086	
Point Lookout										
3,300.00	13.38	224.94	3,245.60	-340.49	-339.74	1,893,456.601	2,734,019.769	36.203728009	-107.796292023	
3,378.54	13.38	224.94	3,322.01	-353.36	-352.58	1,893,443.731	2,734,006.928	36.203692668	-107.796335567	
Mancos										
3,400.00	13.38	224.94	3,342.89	-356.87	-356.09	1,893,440.216	2,734,003.420	36.203683013	-107.796347463	
3,500.00	13.38	224.94	3,440.17	-373.26	-372.44	1,893,423.830	2,733,987.070	36.203638017	-107.796402903	
3,600.00	13.38	224.94	3,537.46	-389.65	-388.79	1,893,407.444	2,733,970.720	36.203593021	-107.796458342	
3,700.00	13.38	224.94	3,634.74	-406.03	-405.14	1,893,391.059	2,733,954.370	36.203548025	-107.796513781	
3,717.76	13.38	224.94	3,652.02	-408.94	-408.04	1,893,388.149	2,733,951.467	36.203540034	-107.796523626	
Gallup (MNCS_A)										
3,800.00	13.38	224.94	3,732.02	-422.42	-421.49	1,893,374.673	2,733,938.020	36.203503028	-107.796569221	
3,844.19	13.38	224.94	3,775.02	-429.66	-428.72	1,893,367.432	2,733,930.795	36.203483143	-107.796593721	
MNCS_B										
3,889.96	13.38	224.94	3,819.54	-437.16	-436.20	1,893,359.932	2,733,923.312	36.203462549	-107.796619095	
Begin 10°/100' build/turn										
3,900.00	13.42	229.27	3,829.31	-438.74	-437.90	1,893,358.349	2,733,921.608	36.203458203	-107.796624871	
3,915.13	13.62	235.68	3,844.02	-440.89	-440.71	1,893,356.198	2,733,918.806	36.203452297	-107.796634374	
MNCS_C										
3,950.00	14.66	249.34	3,877.84	-444.76	-448.23	1,893,352.326	2,733,911.283	36.203441667	-107.796659878	
3,959.52	15.07	252.69	3,887.04	-445.56	-450.54	1,893,351.532	2,733,908.973	36.203439490	-107.796667708	
MNCS_Cms										
4,000.00	17.29	264.90	3,925.93	-447.66	-461.56	1,893,349.432	2,733,897.953	36.203433730	-107.796705062	
4,050.00	20.78	275.93	3,973.20	-447.40	-477.79	1,893,349.688	2,733,881.721	36.203434452	-107.796760081	
4,092.25	24.13	282.69	4,012.25	-444.73	-493.68	1,893,352.361	2,733,865.835	36.203441810	-107.796813924	
MNCS_D										
4,100.00	24.78	283.73	4,019.31	-443.99	-496.80	1,893,353.095	2,733,862.710	36.203443829	-107.796824514	
4,150.00	29.07	289.42	4,063.88	-437.47	-518.45	1,893,359.624	2,733,841.065	36.203461788	-107.796897873	
4,200.00	33.54	293.73	4,106.60	-427.86	-542.56	1,893,369.227	2,733,816.951	36.203488194	-107.796979598	
4,250.00	38.13	297.12	4,147.13	-415.26	-568.96	1,893,381.830	2,733,790.550	36.203522844	-107.797069068	
4,270.19	40.01	298.30	4,162.80	-409.34	-580.23	1,893,387.750	2,733,779.286	36.203539116	-107.797107241	
MNCS_E										
4,300.00	42.80	299.88	4,185.16	-399.75	-597.45	1,893,397.339	2,733,762.064	36.203565475	-107.797165601	
4,346.64	47.21	302.04	4,218.13	-382.77	-625.71	1,893,414.320	2,733,733.803	36.203612154	-107.797261374	
MNCS_F										
4,350.00	47.53	302.18	4,220.41	-381.46	-627.80	1,893,415.633	2,733,731.711	36.203615763	-107.797268464	
4,400.00	52.29	304.17	4,252.60	-360.51	-659.79	1,893,436.575	2,733,699.719	36.203673326	-107.797376873	
4,450.00	57.09	305.91	4,281.50	-337.08	-693.18	1,893,460.005	2,733,666.334	36.203737724	-107.797490003	
4,457.80	57.84	306.16	4,285.69	-333.21	-698.50	1,893,463.875	2,733,661.015	36.203748360	-107.797508030	
MNCS_G										
4,480.29	60.00	306.87	4,297.30	-321.76	-713.97	1,893,475.332	2,733,645.542	36.203779851	-107.797560463	
Begin 60.00° tangent										
4,500.00	60.00	306.87	4,307.16	-311.51	-727.63	1,893,485.576	2,733,631.883	36.203808005	-107.797606745	
4,540.29	60.00	306.87	4,327.30	-290.58	-755.54	1,893,506.509	2,733,603.972	36.203865539	-107.797701324	
Begin 10°/100' build/turn										
4,544.05	60.36	306.99	4,329.17	-288.62	-758.15	1,893,508.469	2,733,601.364	36.203870926	-107.797710162	
MNCS_H										
4,550.00	60.94	307.17	4,332.09	-285.49	-762.29	1,893,511.598	2,733,597.224	36.203879525	-107.797724191	
4,600.00	65.76	308.62	4,354.51	-258.04	-797.53	1,893,539.046	2,733,561.978	36.203954962	-107.797843628	
4,650.00	70.61	309.97	4,373.08	-228.65	-833.44	1,893,568.440	2,733,526.070	36.204035748	-107.797965301	
4,689.83	74.47	310.98	4,385.03	-203.99	-862.33	1,893,593.097	2,733,497.179	36.204103511	-107.798063199	
MNCS_I										



Planning Report - Geographic

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,700.00	75.46	311.23	4,387.67	-197.53	-869.74	1,893,599.557	2,733,489.776	36.204121266	-107.798088286
4,750.00	80.31	312.45	4,398.16	-164.93	-906.14	1,893,632.161	2,733,453.370	36.204210867	-107.798211646
4,800.00	85.18	313.63	4,404.47	-131.09	-942.38	1,893,666.002	2,733,417.130	36.204303868	-107.798334442
4,845.79	89.63	314.69	4,406.55	-99.23	-975.19	1,893,697.860	2,733,384.322	36.204391419	-107.798445606
Begin 89.63° lateral									
4,900.00	89.63	314.69	4,406.90	-61.10	-1,013.73	1,893,735.984	2,733,345.784	36.204496186	-107.798576188
5,000.00	89.63	314.69	4,407.54	9.22	-1,084.82	1,893,806.309	2,733,274.694	36.204689447	-107.798817070
5,100.00	89.63	314.69	4,408.19	79.55	-1,155.91	1,893,876.635	2,733,203.603	36.204882708	-107.799057954
5,200.00	89.63	314.69	4,408.84	149.87	-1,227.00	1,893,946.960	2,733,132.513	36.205075968	-107.799298838
5,300.00	89.63	314.69	4,409.48	220.20	-1,298.09	1,894,017.286	2,733,061.422	36.205269227	-107.799539724
5,400.00	89.63	314.69	4,410.13	290.52	-1,369.18	1,894,087.612	2,732,990.332	36.205462487	-107.799780610
5,500.00	89.63	314.69	4,410.77	360.85	-1,440.27	1,894,157.937	2,732,919.241	36.205655745	-107.800021498
5,600.00	89.63	314.69	4,411.42	431.17	-1,511.36	1,894,228.263	2,732,848.151	36.205849003	-107.800262388
5,700.00	89.63	314.69	4,412.07	501.50	-1,582.45	1,894,298.588	2,732,777.060	36.206042261	-107.800503278
5,800.00	89.63	314.69	4,412.71	571.83	-1,653.54	1,894,368.914	2,732,705.970	36.206235518	-107.800744169
5,900.00	89.63	314.69	4,413.36	642.15	-1,724.64	1,894,439.239	2,732,634.879	36.206428775	-107.800985062
6,000.00	89.63	314.69	4,414.00	712.48	-1,795.73	1,894,509.565	2,732,563.789	36.206622031	-107.801225956
6,100.00	89.63	314.69	4,414.65	782.80	-1,866.82	1,894,579.890	2,732,492.698	36.206815287	-107.801466851
6,200.00	89.63	314.69	4,415.29	853.13	-1,937.91	1,894,650.216	2,732,421.608	36.207008542	-107.801707747
6,300.00	89.63	314.69	4,415.94	923.45	-2,009.00	1,894,720.542	2,732,350.517	36.207201797	-107.801948645
6,400.00	89.63	314.69	4,416.59	993.78	-2,080.09	1,894,790.867	2,732,279.427	36.207395051	-107.802189543
6,500.00	89.63	314.69	4,417.23	1,064.11	-2,151.18	1,894,861.193	2,732,208.336	36.207588305	-107.802430443
6,600.00	89.63	314.69	4,417.88	1,134.43	-2,222.27	1,894,931.518	2,732,137.246	36.207781558	-107.802671344
6,700.00	89.63	314.69	4,418.52	1,204.76	-2,293.36	1,895,001.844	2,732,066.155	36.207974811	-107.802912246
6,800.00	89.63	314.69	4,419.17	1,275.08	-2,364.45	1,895,072.169	2,731,995.065	36.208168063	-107.803153150
6,900.00	89.63	314.69	4,419.82	1,345.41	-2,435.54	1,895,142.495	2,731,923.974	36.208361315	-107.803394054
7,000.00	89.63	314.69	4,420.46	1,415.73	-2,506.63	1,895,212.820	2,731,852.884	36.208554566	-107.803634960
7,100.00	89.63	314.69	4,421.11	1,486.06	-2,577.72	1,895,283.146	2,731,781.793	36.208747817	-107.803875867
7,200.00	89.63	314.69	4,421.75	1,556.39	-2,648.81	1,895,353.472	2,731,710.703	36.208941067	-107.804116775
7,300.00	89.63	314.69	4,422.40	1,626.71	-2,719.90	1,895,423.797	2,731,639.612	36.209134317	-107.804357684
7,400.00	89.63	314.69	4,423.04	1,697.04	-2,791.00	1,895,494.123	2,731,568.522	36.209327567	-107.804598595
7,500.00	89.63	314.69	4,423.69	1,767.36	-2,862.09	1,895,564.448	2,731,497.431	36.209520815	-107.804839506
7,600.00	89.63	314.69	4,424.34	1,837.69	-2,933.18	1,895,634.774	2,731,426.341	36.209714064	-107.805080419
7,700.00	89.63	314.69	4,424.98	1,908.01	-3,004.27	1,895,705.099	2,731,355.250	36.209907312	-107.805321333
7,800.00	89.63	314.69	4,425.63	1,978.34	-3,075.36	1,895,775.425	2,731,284.160	36.210100559	-107.805562248
7,900.00	89.63	314.69	4,426.27	2,048.67	-3,146.45	1,895,845.750	2,731,213.069	36.210293806	-107.805803165
8,000.00	89.63	314.69	4,426.92	2,118.99	-3,217.54	1,895,916.076	2,731,141.979	36.210487052	-107.806044082
8,100.00	89.63	314.69	4,427.56	2,189.32	-3,288.63	1,895,986.401	2,731,070.888	36.210680298	-107.806285001
8,200.00	89.63	314.69	4,428.21	2,259.64	-3,359.72	1,896,056.727	2,730,999.798	36.210873544	-107.806525921
8,300.00	89.63	314.69	4,428.86	2,329.97	-3,430.81	1,896,127.053	2,730,928.707	36.211066789	-107.806766842
8,400.00	89.63	314.69	4,429.50	2,400.29	-3,501.90	1,896,197.378	2,730,857.617	36.211260033	-107.807007764
8,500.00	89.63	314.69	4,430.15	2,470.62	-3,572.99	1,896,267.704	2,730,786.526	36.211453277	-107.807248688
8,600.00	89.63	314.69	4,430.79	2,540.95	-3,644.08	1,896,338.029	2,730,715.436	36.211646520	-107.807489613
8,700.00	89.63	314.69	4,431.44	2,611.27	-3,715.17	1,896,408.355	2,730,644.345	36.211839763	-107.807730539
8,800.00	89.63	314.69	4,432.09	2,681.60	-3,786.26	1,896,478.680	2,730,573.255	36.212033006	-107.807971466
8,900.00	89.63	314.69	4,432.73	2,751.92	-3,857.35	1,896,549.006	2,730,502.164	36.212226248	-107.808212394
9,000.00	89.63	314.69	4,433.38	2,822.25	-3,928.45	1,896,619.331	2,730,431.074	36.212419489	-107.808453323
9,100.00	89.63	314.69	4,434.02	2,892.57	-3,999.54	1,896,689.657	2,730,359.983	36.212612730	-107.808694254
9,200.00	89.63	314.69	4,434.67	2,962.90	-4,070.63	1,896,759.983	2,730,288.893	36.212805971	-107.808935186
9,300.00	89.63	314.69	4,435.31	3,033.23	-4,141.72	1,896,830.308	2,730,217.802	36.212999211	-107.809176119
9,400.00	89.63	314.69	4,435.96	3,103.55	-4,212.81	1,896,900.634	2,730,146.712	36.213192450	-107.809417053
9,500.00	89.63	314.69	4,436.61	3,173.88	-4,283.90	1,896,970.959	2,730,075.621	36.213385689	-107.809657988
9,600.00	89.63	314.69	4,437.25	3,244.20	-4,354.99	1,897,041.285	2,730,004.531	36.213578928	-107.809898925
9,700.00	89.63	314.69	4,437.90	3,314.53	-4,426.08	1,897,111.610	2,729,933.440	36.213772166	-107.810139862



Planning Report - Geographic

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,800.00	89.63	314.69	4,438.54	3,384.85	-4,497.17	1,897,181.936	2,729,862.350	36.213965403	-107.810380801
9,900.00	89.63	314.69	4,439.19	3,455.18	-4,568.26	1,897,252.261	2,729,791.259	36.214158641	-107.810621741
10,000.00	89.63	314.69	4,439.83	3,525.51	-4,639.35	1,897,322.587	2,729,720.169	36.214351877	-107.810862683
10,100.00	89.63	314.69	4,440.48	3,595.83	-4,710.44	1,897,392.913	2,729,649.078	36.214545113	-107.811103625
10,200.00	89.63	314.69	4,441.13	3,666.16	-4,781.53	1,897,463.238	2,729,577.988	36.214738349	-107.811344569
10,300.00	89.63	314.69	4,441.77	3,736.48	-4,852.62	1,897,533.564	2,729,506.897	36.214931584	-107.811585513
10,400.00	89.63	314.69	4,442.42	3,806.81	-4,923.71	1,897,603.889	2,729,435.807	36.215124819	-107.811826459
10,500.00	89.63	314.69	4,443.06	3,877.13	-4,994.80	1,897,674.215	2,729,364.716	36.215318053	-107.812067407
10,600.00	89.63	314.69	4,443.71	3,947.46	-5,065.90	1,897,744.540	2,729,293.626	36.215511286	-107.812308355
10,700.00	89.63	314.69	4,444.36	4,017.79	-5,136.99	1,897,814.866	2,729,222.535	36.215704519	-107.812549305
10,800.00	89.63	314.69	4,445.00	4,088.11	-5,208.08	1,897,885.191	2,729,151.445	36.215897752	-107.812790255
10,900.00	89.63	314.69	4,445.65	4,158.44	-5,279.17	1,897,955.517	2,729,080.354	36.216090984	-107.813031207
11,000.00	89.63	314.69	4,446.29	4,228.76	-5,350.26	1,898,025.843	2,729,009.264	36.216284216	-107.813272160
11,100.00	89.63	314.69	4,446.94	4,299.09	-5,421.35	1,898,096.168	2,728,938.173	36.216477447	-107.813513115
11,200.00	89.63	314.69	4,447.58	4,369.41	-5,492.44	1,898,166.494	2,728,867.083	36.216670678	-107.813754070
11,300.00	89.63	314.69	4,448.23	4,439.74	-5,563.53	1,898,236.819	2,728,795.992	36.216863908	-107.813995027
11,400.00	89.63	314.69	4,448.88	4,510.07	-5,634.62	1,898,307.145	2,728,724.902	36.217057138	-107.814235985
11,500.00	89.63	314.69	4,449.52	4,580.39	-5,705.71	1,898,377.470	2,728,653.811	36.217250367	-107.814476944
11,600.00	89.63	314.69	4,450.17	4,650.72	-5,776.80	1,898,447.796	2,728,582.721	36.217443596	-107.814717904
11,700.00	89.63	314.69	4,450.81	4,721.04	-5,847.89	1,898,518.121	2,728,511.630	36.217636824	-107.814958865
11,800.00	89.63	314.69	4,451.46	4,791.37	-5,918.98	1,898,588.447	2,728,440.540	36.217830052	-107.815199828
11,900.00	89.63	314.69	4,452.11	4,861.69	-5,990.07	1,898,658.773	2,728,369.449	36.218023279	-107.815440792
12,000.00	89.63	314.69	4,452.75	4,932.02	-6,061.16	1,898,729.098	2,728,298.359	36.218216506	-107.815681757
12,100.00	89.63	314.69	4,453.40	5,002.35	-6,132.26	1,898,799.424	2,728,227.268	36.218409732	-107.815922723
12,200.00	89.63	314.69	4,454.04	5,072.67	-6,203.35	1,898,869.749	2,728,156.178	36.218602958	-107.816163690
12,300.00	89.63	314.69	4,454.69	5,143.00	-6,274.44	1,898,940.075	2,728,085.087	36.218796183	-107.816404659
12,400.00	89.63	314.69	4,455.33	5,213.32	-6,345.53	1,899,010.400	2,728,013.997	36.218989408	-107.816645628
12,500.00	89.63	314.69	4,455.98	5,283.65	-6,416.62	1,899,080.726	2,727,942.906	36.219182632	-107.816886599
12,600.00	89.63	314.69	4,456.63	5,353.97	-6,487.71	1,899,151.051	2,727,871.816	36.219375856	-107.817127571
12,700.00	89.63	314.69	4,457.27	5,424.30	-6,558.80	1,899,221.377	2,727,800.725	36.219569079	-107.817368545
12,800.00	89.63	314.69	4,457.92	5,494.63	-6,629.89	1,899,291.702	2,727,729.635	36.219762302	-107.817609519
12,900.00	89.63	314.69	4,458.56	5,564.95	-6,700.98	1,899,362.028	2,727,658.544	36.219955524	-107.817850495
13,000.00	89.63	314.69	4,459.21	5,635.28	-6,772.07	1,899,432.354	2,727,587.454	36.220148746	-107.818091472
13,100.00	89.63	314.69	4,459.85	5,705.60	-6,843.16	1,899,502.679	2,727,516.363	36.220341967	-107.818332450
13,200.00	89.63	314.69	4,460.50	5,775.93	-6,914.25	1,899,573.005	2,727,445.273	36.220535188	-107.818573429
13,300.00	89.63	314.69	4,461.15	5,846.25	-6,985.34	1,899,643.330	2,727,374.182	36.220728409	-107.818814409
13,400.00	89.63	314.69	4,461.79	5,916.58	-7,056.43	1,899,713.656	2,727,303.092	36.220921629	-107.819055391
13,500.00	89.63	314.69	4,462.44	5,986.91	-7,127.52	1,899,783.981	2,727,232.001	36.221114848	-107.819296374
13,600.00	89.63	314.69	4,463.08	6,057.23	-7,198.61	1,899,854.307	2,727,160.911	36.221308067	-107.819537357
13,700.00	89.63	314.69	4,463.73	6,127.56	-7,269.71	1,899,924.632	2,727,089.820	36.221501285	-107.819778343
13,800.00	89.63	314.69	4,464.38	6,197.88	-7,340.80	1,899,994.958	2,727,018.730	36.221694503	-107.820019329
13,900.00	89.63	314.69	4,465.02	6,268.21	-7,411.89	1,900,065.284	2,726,947.639	36.221887721	-107.820260316
14,000.00	89.63	314.69	4,465.67	6,338.53	-7,482.98	1,900,135.609	2,726,876.549	36.222080938	-107.820501305
14,100.00	89.63	314.69	4,466.31	6,408.86	-7,554.07	1,900,205.935	2,726,805.459	36.222274154	-107.820742295
14,200.00	89.63	314.69	4,466.96	6,479.19	-7,625.16	1,900,276.260	2,726,734.368	36.222467370	-107.820983286
14,300.00	89.63	314.69	4,467.60	6,549.51	-7,696.25	1,900,346.586	2,726,663.278	36.222660585	-107.821224278
14,400.00	89.63	314.69	4,468.25	6,619.84	-7,767.34	1,900,416.911	2,726,592.187	36.222853800	-107.821465272
14,500.00	89.63	314.69	4,468.90	6,690.16	-7,838.43	1,900,487.237	2,726,521.097	36.223047015	-107.821706266
14,600.00	89.63	314.69	4,469.54	6,760.49	-7,909.52	1,900,557.562	2,726,450.005	36.223240229	-107.821947262
14,700.00	89.63	314.69	4,470.19	6,830.81	-7,980.61	1,900,627.888	2,726,378.915	36.223433442	-107.822188259
14,800.00	89.63	314.69	4,470.83	6,901.14	-8,051.70	1,900,698.214	2,726,307.824	36.223626655	-107.822429257
14,900.00	89.63	314.69	4,471.48	6,971.46	-8,122.79	1,900,768.539	2,726,236.734	36.223819868	-107.822670256
15,000.00	89.63	314.69	4,472.12	7,041.79	-8,193.88	1,900,838.865	2,726,165.643	36.224013080	-107.822911257
15,100.00	89.63	314.69	4,472.77	7,112.12	-8,264.97	1,900,909.190	2,726,094.553	36.224206291	-107.823152259



Planning Report - Geographic

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,200.00	89.63	314.69	4,473.42	7,182.44	-8,336.07	1,900,979.516	2,726,023.462	36.224399502	-107.823393262
15,300.00	89.63	314.69	4,474.06	7,252.77	-8,407.16	1,901,049.841	2,725,952.372	36.224592712	-107.823634266
15,400.00	89.63	314.69	4,474.71	7,323.09	-8,478.25	1,901,120.167	2,725,881.281	36.224785922	-107.823875271
15,500.00	89.63	314.69	4,475.35	7,393.42	-8,549.34	1,901,190.492	2,725,810.191	36.224979132	-107.824116277
15,600.00	89.63	314.69	4,476.00	7,463.74	-8,620.43	1,901,260.818	2,725,739.100	36.225172341	-107.824357285
15,700.00	89.63	314.69	4,476.65	7,534.07	-8,691.52	1,901,331.144	2,725,668.010	36.225365549	-107.824598294
15,800.00	89.63	314.69	4,477.29	7,604.40	-8,762.61	1,901,401.469	2,725,596.919	36.225558757	-107.824839304
15,900.00	89.63	314.69	4,477.94	7,674.72	-8,833.70	1,901,471.795	2,725,525.829	36.225751965	-107.825080314
16,000.00	89.63	314.69	4,478.58	7,745.05	-8,904.79	1,901,542.120	2,725,454.738	36.225945172	-107.825321326
16,100.00	89.63	314.69	4,479.23	7,815.37	-8,975.88	1,901,612.446	2,725,383.648	36.226138379	-107.825562340
16,200.00	89.63	314.69	4,479.87	7,885.70	-9,046.97	1,901,682.771	2,725,312.557	36.226331585	-107.825803355
16,300.00	89.63	314.69	4,480.52	7,956.02	-9,118.06	1,901,753.097	2,725,241.467	36.226524790	-107.826044371
16,400.00	89.63	314.69	4,481.17	8,026.35	-9,189.15	1,901,823.422	2,725,170.376	36.226717996	-107.826285388
16,500.00	89.63	314.69	4,481.81	8,096.68	-9,260.24	1,901,893.748	2,725,099.286	36.226911200	-107.826526406
16,600.00	89.63	314.69	4,482.46	8,167.00	-9,331.33	1,901,964.074	2,725,028.195	36.227104404	-107.826767426
16,700.00	89.63	314.69	4,483.10	8,237.33	-9,402.42	1,902,034.399	2,724,957.105	36.227297608	-107.827008446
16,800.00	89.63	314.69	4,483.75	8,307.65	-9,473.52	1,902,104.725	2,724,886.014	36.227490811	-107.827249468
16,900.00	89.63	314.69	4,484.40	8,377.98	-9,544.61	1,902,175.050	2,724,814.924	36.227684014	-107.827490491
17,000.00	89.63	314.69	4,485.04	8,448.30	-9,615.70	1,902,245.376	2,724,743.833	36.227877216	-107.827731515
17,100.00	89.63	314.69	4,485.69	8,518.63	-9,686.79	1,902,315.701	2,724,672.743	36.228070418	-107.827972541
17,200.00	89.63	314.69	4,486.33	8,588.96	-9,757.88	1,902,386.027	2,724,601.652	36.228263619	-107.828213567
17,300.00	89.63	314.69	4,486.98	8,659.28	-9,828.97	1,902,456.352	2,724,530.562	36.228456820	-107.828454595
17,400.00	89.63	314.69	4,487.62	8,729.61	-9,900.06	1,902,526.678	2,724,459.471	36.228650020	-107.828695624
17,500.00	89.63	314.69	4,488.27	8,799.93	-9,971.15	1,902,597.004	2,724,388.381	36.228843220	-107.828936654
17,600.00	89.63	314.69	4,488.92	8,870.26	-10,042.24	1,902,667.329	2,724,317.290	36.229036419	-107.829177686
17,700.00	89.63	314.69	4,489.56	8,940.58	-10,113.33	1,902,737.655	2,724,246.200	36.229229618	-107.829418718
17,800.00	89.63	314.69	4,490.21	9,010.91	-10,184.42	1,902,807.980	2,724,175.109	36.229422816	-107.829659752
17,900.00	89.63	314.69	4,490.85	9,081.24	-10,255.51	1,902,878.306	2,724,104.019	36.229616014	-107.829900787
18,000.00	89.63	314.69	4,491.50	9,151.56	-10,326.60	1,902,948.631	2,724,032.928	36.229809211	-107.830141823
18,100.00	89.63	314.69	4,492.14	9,221.89	-10,397.69	1,903,018.957	2,723,961.838	36.230002408	-107.830382860
18,200.00	89.63	314.69	4,492.79	9,292.21	-10,468.78	1,903,089.282	2,723,890.747	36.230195604	-107.830623899
18,300.00	89.63	314.69	4,493.44	9,362.54	-10,539.88	1,903,159.608	2,723,819.657	36.230388800	-107.830864938
18,400.00	89.63	314.69	4,494.08	9,432.86	-10,610.97	1,903,229.933	2,723,748.566	36.230581995	-107.831105979
18,500.00	89.63	314.69	4,494.73	9,503.19	-10,682.06	1,903,300.259	2,723,677.476	36.230775190	-107.831347021
18,600.00	89.63	314.69	4,495.37	9,573.52	-10,753.15	1,903,370.585	2,723,606.385	36.230968384	-107.831588064
18,700.00	89.63	314.69	4,496.02	9,643.84	-10,824.24	1,903,440.910	2,723,535.295	36.231161578	-107.831829109
18,800.00	89.63	314.69	4,496.67	9,714.17	-10,895.33	1,903,511.236	2,723,464.204	36.231354771	-107.832070154
18,900.00	89.63	314.69	4,497.31	9,784.49	-10,966.42	1,903,581.561	2,723,393.114	36.231547964	-107.832311201
19,000.00	89.63	314.69	4,497.96	9,854.82	-11,037.51	1,903,651.887	2,723,322.023	36.231741156	-107.832552249
19,100.00	89.63	314.69	4,498.60	9,925.14	-11,108.60	1,903,722.212	2,723,250.933	36.231934348	-107.832793298
19,200.00	89.63	314.69	4,499.25	9,995.47	-11,179.69	1,903,792.538	2,723,179.842	36.232127540	-107.833034349
19,300.00	89.63	314.69	4,499.89	10,065.80	-11,250.78	1,903,862.863	2,723,108.752	36.232320731	-107.833275400
19,400.00	89.63	314.69	4,500.54	10,136.12	-11,321.87	1,903,933.189	2,723,037.661	36.232513921	-107.833516453
19,500.00	89.63	314.69	4,501.19	10,206.45	-11,392.96	1,904,003.515	2,722,966.571	36.232707111	-107.833757507
19,600.00	89.63	314.69	4,501.83	10,276.77	-11,464.05	1,904,073.840	2,722,895.480	36.232900300	-107.833998562
19,700.00	89.63	314.69	4,502.48	10,347.10	-11,535.14	1,904,144.166	2,722,824.390	36.233093489	-107.834239618
19,800.00	89.63	314.69	4,503.12	10,417.42	-11,606.23	1,904,214.491	2,722,753.299	36.233286678	-107.834480675
19,900.00	89.63	314.69	4,503.77	10,487.75	-11,677.33	1,904,284.817	2,722,682.209	36.233479866	-107.834721734
19,935.79	89.63	314.69	4,504.00	10,512.92	-11,702.77	1,904,309.984	2,722,656.768	36.233549000	-107.834808000
PBHL/TD 19935.79 MD 4504.00 TVD									



Planning Report - Geographic

Database:	DB_Dec2220_v16	Local Co-ordinate Reference:	Well Kimbeto Wash Unit 774H
Company:	Enduring Resources LLC	TVD Reference:	RKB=6534+28 @ 6562.00ft
Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
Kimbeto 774 FTP 1246 I	0.00	0.00	4,399.00	-1,065.12	1.30	1,892,731.966	2,734,360.815	36.201737000	-107.795137000
- plan misses target center by 880.80ft at 4141.81ft MD (4056.70 TVD, -438.75 N, -514.73 E)									
- Point									
Kimbeto 774 LTP 235 Ft	0.00	0.01	4,504.00	10,512.92	-11,702.77	1,904,309.984	2,722,656.768	36.233549000	-107.834808000
- plan hits target center									
- Point									

Casing Points				
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(ft)	(ft)		(")	(")
350.00	350.00	13 3/8" Casing	13-5/8	17-1/2
3,429.92	3,372.00	9 5/8" Casing	9-5/8	12-1/4

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
112.00	112.00	Ojo Alamo		0.370	314.69
172.00	172.00	Kirtland		0.370	314.69
452.00	452.00	Fruitland		0.370	314.69
792.00	792.00	Pictured Cliffs		0.370	314.69
902.00	902.00	Lewis		0.370	314.69
1,142.13	1,142.00	Chacra_A		0.370	314.69
2,186.15	2,162.01	Cliff House_Basal		0.370	314.69
2,206.71	2,182.01	Menefee		0.370	314.69
3,224.35	3,172.01	Point Lookout		0.370	314.69
3,378.54	3,322.01	Mancos		0.370	314.69
3,717.76	3,652.02	Gallup (MNCS_A)		0.370	314.69
3,844.19	3,775.02	MNCS_B		0.370	314.69
3,915.13	3,844.02	MNCS_C		0.370	314.69
3,959.52	3,887.04	MNCS_Cms		0.370	314.69
4,092.25	4,012.25	MNCS_D		0.370	314.69
4,270.19	4,162.80	MNCS_E		0.370	314.69
4,346.64	4,218.13	MNCS_F		0.370	314.69
4,457.80	4,285.69	MNCS_G		0.370	314.69
4,544.05	4,329.17	MNCS_H		0.370	314.69
4,689.83	4,385.03	MNCS_I		0.370	314.69



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Project:	San Juan County, New Mexico NAD83 NM W	MD Reference:	RKB=6534+28 @ 6562.00ft
Site:	Kimbeto Wash 772 Pad (772, 774, 793, 794 & 795)	North Reference:	Grid
Well:	Kimbeto Wash Unit 774H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.00	1,000.00	0.00	0.00	KOP Begin 3°/100' build
1,446.13	1,442.09	-36.72	-36.64	Begin 13.38° tangent
3,889.96	3,819.54	-437.16	-436.20	Begin 10°/100' build/turn
4,480.29	4,297.30	-321.76	-713.97	Begin 60.00° tangent
4,540.29	4,327.30	-290.58	-755.54	Begin 10°/100' build/turn
4,845.79	4,406.55	-99.23	-975.19	Begin 89.63° lateral
19,935.79	4,504.00	10,512.92	-11,702.77	PBHL/TD 19935.79 MD 4504.00 TVD



ENDURING RESOURCES IV, LLC
6300 S SYRACUSE WAY, SUITE 525
CENTENNIAL, COLORADO 80211

DRILLING PLAN: *Drill, complete, and equip single lateral in the Mancos-I formation.*

WELL INFORMATION:

Name: KIMBETO WASH UNIT 774H

API Number: 30-045-35823

State: New Mexico

County: San Juan

Surface Elevation: 6,534 ft ASL (GL) 6,562 ft ASL (KB)

Surface Location: 28-23N-09W Sec-Twn-Rng 181 ft FNL 2,337 ft FWL
 36.204663 ° N latitude 107.79514 ° W longitude (NAD 83)

BH Location: 18-23N-09W Sec-Twn-Rng 236 ft FNL 1,260 ft FWL
 36.233549 ° N latitude 107.834808 ° W longitude (NAD 83)

Driving Directions: FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM: South on US Hwy 550 for 37.8 miles to MM 113.4; Right (SW) on CR 7890 for 0.8 miles to fork; Left (S) remaining on 7890 for 1.3 miles to 4-way intersection; Left (SE) on 7890 for 0.6 miles to fork; Right (SW) remaining on 7890 for 0.5 miles; Right (W) on access road for W Lybrook Unit 720H location for 0.6 miles to fork; Left (W) on access road for W Lybrook Unit 726H location for 0.7 miles to fork; Left (W) on access road for W Lybrook Unit 730H location for 1.9 miles; Right (N) on access road for 0.4 miles to Kimbeto Wash Unit 736H Pad (Wells: KWU 772H, 774H, 793H, 794H, 795H).

GEOLOGIC AND RESERVOIR INFORMATION:

<i>Prognosis:</i>	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	6,450	112	112	W	normal
	Kirtland	6,390	172	172	W	normal
	Fruitland	6,110	452	452	G, W	sub
	Pictured Cliffs	5,770	792	792	G, W	sub
	Lewis	5,660	902	902	G, W	normal
	Chacra	5,420	1,142	1,142	G, W	normal
	Cliff House	4,400	2,162	2,186	G, W	sub
	Menefee	4,380	2,182	2,207	G, W	normal
	Point Lookout	3,390	3,172	3,224	G, W	normal
	Mancos	3,240	3,322	3,379	O,G	sub (~0.38)
	Gallup (MNCS_A)	2,910	3,652	3,718	O,G	sub (~0.38)
	MNCS_B	2,787	3,775	3,844	O,G	sub (~0.38)
	MNCS_C	2,718	3,844	3,915	O,G	sub (~0.38)
	MNCS_Cms	2,675	3,887	3,959	O,G	sub (~0.38)
	MNCS_D	2,550	4,012	4,092	O,G	sub (~0.38)
	MNCS_E	2,399	4,163	4,270	O,G	sub (~0.38)
	MNCS_F	2,344	4,218	4,347	O,G	sub (~0.38)
	MNCS_G	2,276	4,286	4,458	O,G	sub (~0.38)
	MNCS_H	2,233	4,329	4,544	O,G	sub (~0.38)
	MNCS_I	2,177	4,385	4,690	O,G	sub (~0.38)
	FTP TARGET	2,155	4,407	4,846	O,G	sub (~0.38)
	PROJECTED LTP	2,058	4,504	19,936	O,G	sub (~0.38)

Surface: Naciminto

Oil & Gas Zones: Several gas bearing zones will be encountered; target formation is the Gallup

Pressure: Normal (0.43 psi/ft) or sub-normal pressure gradients anticipated in all formations

Max. pressure gradient: 0.43 psi/ft Evacuated hole gradient: 0.22 psi/ft

Maximum anticipated BH pressure, assuming maximum pressure gradient: 1,940 psi

Maximum anticipated surface pressure, assuming partially evacuated hole: 950 psi

Temperature: Maximum anticipated BHT is 125° F or less

H₂S INFORMATION:

H₂S Zones: Encountering hydrogen-sulfide bearing zones is **NOT** anticipated.

Safety: Sensors and alarms will be placed in the substructure, on the rig floor, above the pits, and at the shakers.

LOGGING, CORING, AND TESTING:

Mud Logs: None planned; gas detection from drill out of 13-3/8" casing to TD; remote geo-steering from drill out of 9-5/8" casing to TD.

MWD / LWD: MWD surveys with inclination and azimuth in 100' stations (minimum) from drill out of 13-3/8" casing to TD; Gamma Ray from drill out of 9-5/8" casing to TD; Gamma Ray optional in 12-1/4" intermediate hole

Open Hole Logs: None planned

Testing: None planned

Coring: None planned

Cased Hole Logs: CBL on 5-1/2" casing from deepest free-fall depth to surface

DRILLING RIG INFORMATION:

Contractor: Ensign

Rig No.: 773

Draw Works: Pacific Rim 1500AC

Mast: ADR 1500S Cantilever Triple (142 ft, 800,000 lbs, 12 lines)

Top Drive: Tesco 500-ESI-1350 (500 ton, 1,350 hp)

Prime Movers: 3 - CAT 3512 (1,475 hp)

Pumps: 3 - Gardner-Denver PZ11 (7,500 psi)

BOPE 1: Cameron single gate ram & double gate ram (13-5/8", 10,000 psi)

BOPE 2: Cameron annular (13-5/8", 5,000 psi)

Choke 3", 10,000 psi

KB-GL (ft): 28

Note: Actual drilling rig may vary depending on availability at time the well is scheduled to be drilled.

BOPE REQUIREMENTS:

See attached diagram for details regarding BOPE specifications and configuration.

- 1) Rig will be equipped with upper and lower kelly cocks with handles available.
- 2) Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well.
- 2) BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above precharge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. There will be two additional sources of power for the closing pumps (electric and air). Sufficient nitrogen bottles will be available and will be recharged when pressure falls below manufacturer's recommended minimum.
- 3) BOP testing shall be conducted (a) when initially installed, (b) whenever any seal is broken or repaired, (c) if the time since the previous test exceeds 30 days. Tests will be conducted using a test plug. BOP ram preventers will be tested to 3,000 psig for 10 minutes, and the annular preventer will be tested to 1,500 psi for 10 minutes. Ram and annular preventers will be tested to 250 psi for 5 minutes. Additionally, BOP and casing strings will be tested to .22 psi/ft or 1,500 psi, whichever is greater but not exceeding 70% of yield strength of the casing, for 30 minutes, prior to drilling out 13-3/8" and 9-5/8" casing. Rams and hydraulically operated remote choke line valve will be function tested daily at a minimum.
- 4) Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams.
- 5) Manual locking devices (hand wheels) shall be installed on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when there is no power to the accumulator.

FLUIDS AND SOLIDS CONTROL PROGRAM:

- Fluid Measurement:** Pumps shall be equipped with stroke counters with displays in the dog-house. Slow pump speed shall be recorded daily and after mudding up, at a minimum, on the drilling report. A Pit Volume Totalizer will be installed and the readout will be displayed in the dog-house. Gas-detecting equipment will be installed at the shakers, and readouts will be available in the dog-house and the in the geologist's work-station (if geologist or mud-logger is on-site).
- Closed-Loop System:** A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimize the amount of fluids and solids that require disposal.
- Fluid Disposal:** Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).
- Solids Disposal:** Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).
- Fluid Program:** See "Detailed Drilling Plan" section for additional details. Sufficient barite will be on location to weight up mud system to balance maximum anticipated pressure gradient.

DETAILED DRILLING PLAN:

SURFACE: *Drill vertically to casing setting depth (plus necessary rathole), run casing, cement casing to surface.*

0 ft (MD)	to	350 ft (MD)	Hole Section Length:	350 ft
0 ft (TVD)	to	350 ft (TVD)	Casing Required:	350 ft

Note: Surface hole may be drilled, cased, and cemented with a smaller rig in advance of the drilling rig.

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments
	Fresh Water	8.4	N/C	2 - 8	2 - 12	9.0	Spud mud

Hole Size: 17-1/2"

Bit / Motor: Mill Tooth or PDC, no motor

MWD / Survey: No MWD, deviation survey

Logging: None

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	728	116,634	116,634
Min. S.F.					7.39	3.75	7.31	7.79

Assumptions: Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient

Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling intermediate hole and 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): Minimum: N/A Optimum: N/A Maximum: N/A

Make-up as per API Buttress Connection running procedure.

Casing Details: Float shoe, 1 jt casing, float collar, casing to surface

Centralizers: 2 centralizers per jt stop-banded 10' from each collar on bottom 3 jts, 1 centralizer per 2 jts to surface

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
	TYPE III	14.6	1.39	6.686	0.6946	100%	0	350

Calculated cement volumes assume gauge hole and the excess noted in table

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

INTERMEDIATE: *Drill as per directional plan to casing setting depth, run casing, cement casing to surface.*

350 ft (MD)	to	3,430 ft (MD)	Hole Section Length:	3,080 ft
350 ft (TVD)	to	3,372 ft (TVD)	Casing Required:	3,430 ft

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (KCI)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	No OBM

Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

MWD / Survey: MWD surveys with inclination and azimuth in 100' stations (minimum), GR optional

Logging: None

Pressure Test: NU BOPE and test (as noted above); pressure test 13-3/8" casing to 1,500 psi for 30 minutes.

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,473	1,143	207,681	207,681
Min. S.F.					1.37	3.08	2.72	2.18

Assumptions: Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient

Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling production hole and 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): Minimum: 3,900 Optimum: 5,200 Maximum: 6,500

Casing Point: Target casing point is 50' TVD below the Mancos top

Casing Details: Float shoe, 1 jt casing, float collar, casing to surface

Centralizers: 1 per joint in non-vertical hole; 1 per 2-joints in vertical hole

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	III:POZ Blend	12.5	2.140	12.05	70%	0	729
Tail	Type III	14.6	1.380	6.64	20%	2,930	136

Annular Capacity 0.3627 cuft/ft 9-5/8" casing x 13-3/8" casing annulus

0.3132 cuft/ft 9-5/8" casing x 12-1/4" hole annulus

Calculated cement volumes assume gauge hole and the excess noted in table

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

PRODUCTION: Drill to TD following directional plan, run casing, cement casing to surface.

3,430 ft (MD)	to	19,936 ft (MD)	Hole Section Length:	16,506 ft
3,372 ft (TVD)	to	4,504 ft (TVD)	Casing Required:	19,936 ft

Estimated KOP:	3,890 ft (MD)	3,819 ft (TVD)
Estimated Landing Point (FTP):	4,846 ft (MD)	4,407 ft (TVD)
Estimated Lateral Length:	15,090 ft (MD)	

Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (FW)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	OBM as contingency

Hole Size: 8-1/2"

Bit / Motor: PDC bit w/mud motor

MWD / Survey: MWD surveys with inclination and azimuth in 100' stations (minimum) before KOP, every joint from KOP to Landing point, every 100' (minimum) from landing point to TD; Gamma Ray from drill out of 9-5/8" shoe to TD

Logging: MWD Gamma Ray for entire section, no mud-log or cuttings sampling, no OH WL logs

Pressure Test: NU BOPE and test (as noted above); pressure test 9-5/8" casing to 1,500 psi for 30 minutes.

Casing Specs:	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	5.500	17.0	P-110	BTC	7,460	10,640	546,000	568,000
Loading					2,225	8,922	442,450	442,450
Min. S.F.					3.35	1.19	1.23	1.28

Assumptions: Collapse: fully evacuated casing with 9.5 ppg fluid in the annulus (floating casing during running)

Burst: 8,500 psi maximum surface treating pressure with 10.2 ppg equivalent mud weight sand laden fluid with 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 9.0 ppg fluid with 150,000 lbs over-pull

MU Torque (ft lbs): Minimum: N/A Optimum: N/A Maximum: N/A

Make-up as per API Buttress Connection running procedure.

Casing Details: Float shoe, float collar, 2 jts casing, float collar, 20' marker jt, toe-initiation sleeve #1, 20' marker joint, toe-initiation sleeve #2, casing to KOP with 20' marker joints spaced evenly in lateral every 2,000', floatation sub at KOP, casing to surface. The toe-initiation sleeve #1 (last-take-point) cannot be placed closer than 330' to the unit boundary when measured perpendicular to the well path.

Centralizers: Centralizer count and placement may be adjusted based on well conditions and as-drilled surveys.

Lateral: 1 centralizer per joint

Landing point to 9-5/8" shoe: 1 centralizer per joint

9-5/8" shoe to surface: 1 centralizer per 2 joints

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Lead	Type III	12.4	2.360	13.40	50%	0	492
Tail	G:POZ blend	13.3	1.560	7.70	10%	3,379	2,675

Annular Capacity 0.2691 cuft/ft 5-1/2" casing x 9-5/8" casing annulus

0.2291 cuft/ft 5-1/2" casing x 8-1/2" hole annulus

Calculated cement volumes assume gauge hole and the excess noted in table

Notify NMOCD & BLM if cement is not circulated to surface.

Note: This well will not be considered an unorthodox well location as defined by NMAC19.15.16.15.C.5. As defined in NMAC 19.15.16.15.C.1.a and 19.15.16.15.C.1.b, no point in the completed interval shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth well. The boundaries of the completed interval, as defined by NMAC 19.15.16.7.B, are the last take point and first take point, as defined by NMAC 19.15.16.7.E and NMAC 19.15.16.7.J, respectively. In the case of this well, the last take point will be the bottom toe-initiation sleeve, and the first take point will be the top perforation. **Neither the toe-initiation sleeve nor the top perforation shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth of the well.**

FINISH WELL: ND BOP. RDMO Drilling Rig.

COMPLETION AND PRODUCTION PLAN:

Frac: 65 plug-and-perf stages with 455,000 bbls slickwater fluid and 28,000,000 lbs of proppant (estimated)

Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assistance)

Production: Produce through production tubing via gas-lift into permanent production and storage facilities

ESTIMATED START DATES:

Drilling: 4/1/2022

Completion: 6/1/2022

Production: 7/15/2022

Prepared by: Alec Bridge 5/6/2019

Updated by: Alec Bridge 1/4/2022 - updated drilling prog & directional plan for new well dimensions & development plan

WELL NAME: KIMBETO WASH UNIT 774H
OBJECTIVE: Drill, complete, and equip single lateral in the Mancos-I formation

API Number: 30-045-35823

State: New Mexico

County: San Juan

Surface Elev.: 6,534 ft ASL (GL) 6,562 ft ASL (KB)

Surface Location: 28-23N-09W Sec-Twn- Rng 181 ft FNL 2,337 ft FWL

BH Location: 18-23N-09W Sec-Twn- Rng 236 ft FNL 1260 ft FWL

Driving Directions: FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM: South on US Hwy 550 for 37.8 miles to MM 113.4; Right (SW) on CR 7890 for 0.8 miles to fork; Left (S) remaining on 7890 for 1.3 miles to 4-way intersection; Left (SE) on 7890 for 0.6 miles to fork; Right (SW) remaining on 7890 for 0.5 miles; Right (W) on access road for W Lybrook Unit 720H location for 0.6 miles to fork; Left (W) on access road for W Lybrook Unit 726H location for 0.7 miles to fork; Left (W) on access road for W Lybrook Unit 730H location for 1.9 miles; Right (N) on access road for 0.4 miles to Kimbeto Wash Unit 736H Pad (Wells: KWU 772H, 774H, 793H, 794H, 795H).

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	3,430 ft
KOP (MD)	3,890 ft
KOP (TVD)	3,819 ft
Target (TVD)	4,407 ft
Curve BUR	10 °/100 ft
POE (MD)	4,846 ft
TD (MD)	19,936 ft
Lat Len (ft)	15,090 ft

WELL CONSTRUCTION SUMMARY:

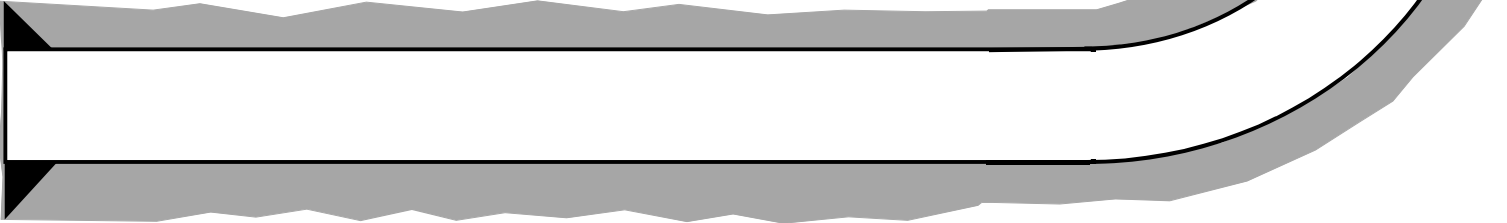
	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	350	13.375	54.5	J-55	BTC	0	350
Intermediate	12.250	3,430	9.625	36.0	J-55	LTC	0	3,430
Production	8.500	19,936	5.500	17.0	P-110	BTC	0	19,936

CEMENT PROPERTIES SUMMARY:

	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	TYPE III	14.6	1.39	6.686	0.6946	100%	0	350
Inter. (Lead)	III:POZ Blend	12.5	2.14	12.05	0.3627	70%	0	729
Inter. (Tail)	Type III	14.6	1.38	6.64	0.3132	20%	2,930	136
Prod. (Lead)	Type III	12.4	2.360	13.40	0.2691	50%	0	492
Prod. (Tail)	G:POZ blend	13.3	1.560	7.70	0.2291	10%	3,379	2,675

COMPLETION / PRODUCTION SUMMARY:

Frac: 65 plug-and-perf stages with 455,000 bbls slickwater fluid and 28,000,000 lbs of proppant (estimated)
Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assistance)
Production: Produce through production tubing via gas-lift into permanent production and storage facilities



	Tops	TVD (ft KB)	MD (ft KB)
	Ojo Alamo	112	112
	Kirtland	172	172
	Fruitland	452	452
	Pictured Cliffs	792	792
	Lewis	902	902
	Chacra	1,142	1,142
	Cliff House	2,162	2,186
	Menefee	2,182	2,207
	Point Lookout	3,172	3,224
	Mancos	3,322	3,379
	Gallup (MNCS_A)	3,652	3,718
	MNCS_B	3,775	3,844
	MNCS_C	3,844	3,915
	MNCS_Cms	3,887	3,959
	MNCS_D	4,012	4,092
	MNCS_E	4,163	4,270
	MNCS_F	4,218	4,347
	MNCS_G	4,286	4,458
	MNCS_H	4,329	4,544
	MNCS_I	4,385	4,690
	FTP TARGET	4,407	4,846
	PROJECTED LTP	4,504	19,936

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District IV
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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

COMMENTS

Action 72950

COMMENTS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 72950
	Action Type: [C-103] NOI Change of Plans (C-103A)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO review 1/20/2022	1/21/2022

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CONDITIONS

Action 72950

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CONDITIONS

Created By	Condition	Condition Date
jagarcia	None	5/19/2022