

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 Brizos Rd., Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV

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

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35376	² Pool Code 32870	³ Pool Name HORSESHOE GALLUP
⁴ Property Code 39317	⁵ Property Name HORSESHOE GALLUP 19	
⁷ OGRID No. 150182	⁸ Operator Name ROBERT L. BAYLESS, PRODUCER LLC	⁶ Well Number 8H
		⁹ Elevation 5379

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
H	19	30 N	15 W		1500	North	555	East	San Juan

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
E 2	19	30 N	15 W	2	1653	North	1029	West	San Juan

¹² Dedicated Acres 160.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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RCVD DEC 11 '12
OIL CONS. DIV.
DIST. 3

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.

¹⁶ (20.07) N 89°40' W Lot 1 79.94 Ch. Bottom Hole 1720' FNL & 400' FWL Lot 2 1029 FWL 1653 FNL Sec. 19 Lot 3 Lot 4 (20.44) N 89°56' W (19.91) (19.87) 39.94 Ch. N 89°48' W 39.70 Ch. Lat. 36.80275° N Long. 108.45122° W Bottom Pilot Hole 1720' FNL & 557' FEL 1513 FNL 754 FEL (39.81) 80.16 Ch. 1500' 39.81 Ch. South, 220° 555' N 0°37' W 39.88 Ch. North				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 unless 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>[Signature]</i> Signature John D. Thomas Printed Name jthomas@rlbayless.com E-mail Address 12/11/12 Date	
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. Date of Survey Signature and Seal of Licensed Surveyor William E. Mahnke Certificate Number 08/03 NEW MEXICO 08/03					

N

12/06/2012

RCVD DEC 6 '12

OIL CONS. DIV.

DIST. 3

RE: Robert L Bayless Producer LLC
Horseshoe Gallup 19 8H
San Juan County, NM
Rig: D&J #1
API NO: 30-045-35376

We Hereby certify the enclosed Original Field Survey Data contained in this report represents to the best of our knowledge, a true and accurate survey of the well at the time the survey was run.

Directional Survey Data

1-Directional Survey Report



John D Thomas
Operations Engineer
Robert L Bayless, Producer LLC

State of New Mexico

County of San Juan

Signed before me on December 6, 2012
by John D. Thomas.





RCVD DEC 6 '12

OIL CONS. DIV.

DIST. 3

Robert L. Bayless, Producer LLC.

San Juan Co., NM

Sec 19 T30N R15W

Horseshoe Gallup 19-8H

ST01

Design: ST01

Standard Survey Report

17 September, 2012

PATHFINDER
A Schlumberger Company



Pathfinder Survey Report

PATHFINDER
A Schlumberger Company

Company: Robert L. Bayless, Producer LLC.
Project: San Juan Co., NM
Site: Sec 19 T30N R15W
Well: Horseshoe Gallup 19-8H
Wellbore: ST01
Design: ST01

Local Co-ordinate Reference: Well Horseshoe Gallup 19-8H
TVD Reference: WELL @ 5394.0usft (Original Well Elev)
MD Reference: WELL @ 5394.0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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

Site	Sec 19 T30N R15W				
Site Position:		Northing:	2,112,105.83 usft	Latitude:	36° 48' 9.900 N
From:	Lat/Long	Easting:	2,542,197.74 usft	Longitude:	108° 27' 4.392 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.37 °

Well	Horseshoe Gallup 19-8H					
Well Position	+N/-S	0.0 usft	Northing:	2,112,105.83 usft	Latitude:	36° 48' 9.900 N
	+E/-W	0.0 usft	Easting:	2,542,197.74 usft	Longitude:	108° 27' 4.392 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	5,379.0 usft

Wellbore	ST01				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	04/16/12	10.09	63.36	50,601

Design	ST01				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	3,726.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	267.09	

Survey Program	Date	09/17/12			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
424.0	3,726.0	Survey #4 (Pilot)	MWD	MWD - Standard	
3,795.0	7,543.0	Survey #2 (ST01)	MWD	MWD - Standard	

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
424.0	0.62	305.27	424.0	1.3	-1.9	1.8	0.15	0.15	0.00
484.0	0.70	306.19	484.0	1.7	-2.4	2.3	0.13	0.13	1.53
504.0	0.62	307.78	504.0	1.9	-2.6	2.5	0.41	-0.40	7.95
566.0	0.62	303.91	566.0	2.3	-3.2	3.0	0.07	0.00	-6.24
626.0	0.79	299.60	626.0	2.6	-3.8	3.7	0.30	0.28	-7.18
687.0	1.01	298.81	687.0	3.1	-4.6	4.5	0.36	0.36	-1.30
747.0	1.32	301.18	747.0	3.7	-5.7	5.5	0.52	0.52	3.95
809.0	1.58	297.01	808.9	4.5	-7.1	6.8	0.45	0.42	-6.73
872.0	1.80	294.28	871.9	5.3	-8.7	8.5	0.37	0.35	-4.33



Pathfinder Survey Report

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Survey Calculation Method: Minimum Curvature
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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)
934.0	2.02	292.39	933.9	6.1	-10.6	10.3	0.37	0.35	-3.05
965.0	2.11	292.31	964.9	6.5	-11.7	11.3	0.29	0.29	-0.26
1,027.0	2.02	292.49	1,026.8	7.4	-13.7	13.3	0.15	-0.15	0.29
1,090.0	1.89	291.69	1,089.8	8.2	-15.7	15.3	0.21	-0.21	-1.27
1,152.0	2.02	290.77	1,151.7	9.0	-17.7	17.2	0.22	0.21	-1.48
1,214.0	1.80	290.77	1,213.7	9.7	-19.6	19.1	0.35	-0.35	0.00
1,273.0	1.89	290.77	1,272.7	10.4	-21.4	20.8	0.15	0.15	0.00
1,345.0	1.80	289.41	1,344.6	11.2	-23.6	23.0	0.14	-0.13	-1.89
1,407.0	1.71	289.41	1,406.6	11.8	-25.4	24.7	0.15	-0.15	0.00
1,470.0	1.49	292.00	1,469.6	12.4	-27.0	26.3	0.37	-0.35	4.11
1,532.0	1.41	288.70	1,531.6	13.0	-28.5	27.8	0.19	-0.13	-5.32
1,591.0	1.41	289.67	1,590.5	13.4	-29.9	29.1	0.04	0.00	1.64
1,653.0	1.41	288.40	1,652.5	13.9	-31.3	30.5	0.05	0.00	-2.05
1,675.0	1.32	287.38	1,674.5	14.1	-31.8	31.0	0.42	-0.41	-4.64
1,734.0	1.19	291.91	1,733.5	14.5	-33.0	32.2	0.28	-0.22	7.68
1,794.0	1.19	282.29	1,793.5	14.9	-34.2	33.4	0.33	0.00	-16.03
1,857.0	1.19	281.19	1,856.5	15.1	-35.5	34.7	0.04	0.00	-1.75
1,919.0	1.19	277.89	1,918.5	15.4	-36.7	35.9	0.11	0.00	-5.32
1,981.0	1.19	285.80	1,980.5	15.6	-38.0	37.2	0.26	0.00	12.76
2,013.0	0.88	286.37	2,012.5	15.8	-38.6	37.7	0.97	-0.97	1.78
2,106.0	0.88	285.28	2,105.4	16.2	-39.9	39.1	0.02	0.00	-1.17
2,168.0	0.88	282.38	2,167.4	16.4	-40.9	40.0	0.07	0.00	-4.68
2,230.0	1.01	285.58	2,229.4	16.7	-41.8	41.0	0.23	0.21	5.16
2,280.0	0.88	281.19	2,279.4	16.8	-42.7	41.7	0.30	-0.26	-8.78
2,331.0	0.88	270.51	2,330.4	16.9	-43.4	42.5	0.32	0.00	-20.94
2,393.0	1.10	265.37	2,392.4	16.9	-44.5	43.6	0.38	0.35	-8.29
2,456.0	1.01	266.29	2,455.4	16.8	-45.7	44.7	0.15	-0.14	1.46
2,518.0	1.01	265.59	2,517.4	16.7	-46.7	45.8	0.02	0.00	-1.13
2,580.0	1.01	271.70	2,579.4	16.7	-47.8	46.9	0.17	0.00	9.85
2,643.0	0.88	273.41	2,642.4	16.7	-48.9	48.0	0.21	-0.21	2.71
2,706.0	1.01	272.40	2,705.4	16.8	-49.9	49.0	0.21	0.21	-1.60
2,769.0	1.10	272.18	2,768.3	16.8	-51.1	50.1	0.14	0.14	-0.35
2,830.0	1.19	266.38	2,829.3	16.8	-52.3	51.4	0.24	0.15	-9.51
2,894.0	1.41	262.07	2,893.3	16.7	-53.7	52.8	0.38	0.34	-6.73
2,956.0	1.58	258.21	2,955.3	16.4	-55.3	54.4	0.32	0.27	-6.23
2,991.0	1.71	256.97	2,990.3	16.2	-56.3	55.4	0.39	0.37	-3.54
3,082.0	2.11	249.68	3,081.2	15.3	-59.2	58.3	0.51	0.44	-8.01
3,144.0	2.42	245.59	3,143.2	14.3	-61.5	60.7	0.56	0.50	-6.60
3,206.0	2.68	241.29	3,205.1	13.1	-63.9	63.2	0.52	0.42	-6.94
3,230.0	2.99	238.08	3,229.1	12.5	-64.9	64.2	1.45	1.29	-13.38
3,291.0	3.21	236.67	3,290.0	10.7	-67.7	67.1	0.38	0.36	-2.31
3,354.0	3.60	231.67	3,352.9	8.5	-70.7	70.2	0.78	0.62	-7.94
3,415.0	3.91	229.07	3,413.8	6.0	-73.8	73.4	0.58	0.51	-4.26



Pathfinder Survey Report

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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)
3,477.0	4.22	226.78	3,475.6	3.0	-77.1	76.8	0.56	0.50	-3.69
3,540.0	3.91	227.09	3,538.4	0.0	-80.3	80.2	0.49	-0.49	0.49
3,601.0	3.91	225.69	3,599.3	-2.9	-83.4	83.4	0.16	0.00	-2.30
3,663.0	3.60	225.07	3,661.2	-5.7	-86.2	86.4	0.50	-0.50	-1.00
3,726.0	3.78	224.50	3,724.0	-8.6	-89.1	89.4	0.29	0.29	-0.90
Tie-In to Pilot Hole @ 3726' MD									
3,795.0	3.82	262.73	3,792.9	-10.5	-93.0	93.4	3.60	0.06	55.41
Interpolated Survey at Top of Whipstock @ 3795' MD									
3,885.0	19.17	272.94	3,880.8	-10.1	-110.8	111.2	17.14	17.06	11.34
3,917.0	23.65	266.21	3,910.6	-10.3	-122.5	122.8	15.95	14.00	-21.03
3,948.0	28.05	265.79	3,938.5	-11.2	-136.0	136.3	14.21	14.19	-1.35
3,980.0	33.24	268.38	3,966.0	-12.0	-152.2	152.7	16.73	16.22	8.09
4,012.0	40.19	268.70	3,991.7	-12.5	-171.3	171.8	21.73	21.72	1.00
4,043.0	47.84	268.82	4,014.0	-13.0	-192.9	193.3	24.68	24.68	0.39
4,075.0	55.84	269.18	4,033.7	-13.4	-218.0	218.4	25.02	25.00	1.13
4,107.0	63.84	269.02	4,049.8	-13.9	-245.6	246.0	25.00	25.00	-0.50
4,138.0	72.46	268.70	4,061.3	-14.4	-274.4	274.8	27.82	27.81	-1.03
4,179.0	82.83	266.27	4,070.1	-16.2	-314.3	314.8	25.94	25.29	-5.93
4,210.0	88.81	264.92	4,072.3	-18.6	-345.2	345.7	19.77	19.29	-4.35
4,242.0	90.57	264.55	4,072.5	-21.5	-377.0	377.6	5.62	5.50	-1.16
4,273.0	92.15	264.56	4,071.8	-24.5	-407.9	408.6	5.10	5.10	0.03
4,305.0	92.33	264.64	4,070.5	-27.5	-439.7	440.5	0.62	0.56	0.25
4,337.0	93.30	265.26	4,068.9	-30.3	-471.5	472.5	3.60	3.03	1.94
4,369.0	93.12	265.58	4,067.1	-32.8	-503.4	504.4	1.15	-0.56	1.00
4,400.0	91.89	266.11	4,065.8	-35.1	-534.3	535.4	4.32	-3.97	1.71
4,432.0	92.15	266.66	4,064.7	-37.1	-566.2	567.3	1.90	0.81	1.72
4,464.0	91.71	266.06	4,063.6	-39.1	-598.1	599.3	2.32	-1.38	-1.88
4,496.0	91.19	265.63	4,062.8	-41.4	-630.0	631.3	2.11	-1.63	-1.34
4,528.0	91.01	265.21	4,062.2	-44.0	-661.9	663.3	1.43	-0.56	-1.31
4,559.0	91.63	264.81	4,061.4	-46.7	-692.8	694.3	2.38	2.00	-1.29
4,591.0	91.01	264.62	4,060.7	-49.6	-724.6	726.2	2.03	-1.94	-0.59
4,623.0	90.75	264.68	4,060.2	-52.6	-756.5	758.2	0.83	-0.81	0.19
4,654.0	91.01	264.97	4,059.7	-55.4	-787.4	789.2	1.26	0.84	0.94
4,686.0	90.31	264.04	4,059.4	-58.5	-819.2	821.1	3.64	-2.19	-2.91
4,718.0	90.92	264.10	4,059.0	-61.8	-851.0	853.1	1.92	1.91	0.19
4,750.0	91.45	264.46	4,058.4	-65.0	-882.9	885.0	2.00	1.66	1.13
4,781.0	91.28	265.68	4,057.6	-67.6	-913.7	916.0	3.97	-0.55	3.94
4,813.0	91.19	265.88	4,056.9	-70.0	-945.7	948.0	0.69	-0.28	0.63
4,845.0	91.36	265.89	4,056.2	-72.3	-977.6	980.0	0.53	0.53	0.03
4,877.0	91.36	266.01	4,055.5	-74.6	-1,009.5	1,012.0	0.37	0.00	0.38
4,909.0	91.54	265.88	4,054.7	-76.8	-1,041.4	1,043.9	0.69	0.56	-0.41
4,940.0	91.54	265.98	4,053.8	-79.0	-1,072.3	1,074.9	0.32	0.00	0.32
4,972.0	90.84	265.60	4,053.2	-81.4	-1,104.2	1,106.9	2.49	-2.19	-1.19
5,004.0	91.01	265.70	4,052.6	-83.8	-1,136.1	1,138.9	0.62	0.53	0.31



Pathfinder

Survey Report

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5,036.0	90.22	265.51	4,052.3	-86.2	-1,168.0	1,170.9	2.54	-2.47	-0.59
5,068.0	90.66	266.24	4,052.1	-88.5	-1,199.9	1,202.9	2.66	1.38	2.28
5,099.0	90.75	266.10	4,051.7	-90.6	-1,230.9	1,233.9	0.54	0.29	-0.45
5,131.0	92.24	267.03	4,050.8	-92.5	-1,262.8	1,265.9	5.49	4.66	2.91
5,163.0	91.80	266.83	4,049.7	-94.2	-1,294.7	1,297.8	1.51	-1.38	-0.63
5,195.0	92.24	267.37	4,048.6	-95.9	-1,326.7	1,329.8	2.18	1.38	1.69
5,225.0	92.07	267.39	4,047.5	-97.2	-1,356.6	1,359.8	0.57	-0.57	0.07
5,257.0	92.15	267.55	4,046.3	-98.6	-1,388.5	1,391.8	0.56	0.25	0.50
5,289.0	91.71	267.56	4,045.2	-100.0	-1,420.5	1,423.7	1.38	-1.38	0.03
5,321.0	91.71	267.42	4,044.2	-101.4	-1,452.5	1,455.7	0.44	0.00	-0.44
5,353.0	91.36	267.75	4,043.4	-102.8	-1,484.4	1,487.7	1.50	-1.09	1.03
5,384.0	91.71	267.59	4,042.6	-104.0	-1,515.4	1,518.7	1.24	1.13	-0.52
5,416.0	92.24	267.62	4,041.4	-105.4	-1,547.3	1,550.7	1.66	1.66	0.09
5,448.0	92.51	267.79	4,040.1	-106.6	-1,579.3	1,582.7	1.00	0.84	0.53
5,480.0	92.59	268.11	4,038.7	-107.8	-1,611.2	1,614.6	1.03	0.25	1.00
5,512.0	92.33	267.71	4,037.3	-108.9	-1,643.2	1,646.6	1.49	-0.81	-1.25
5,543.0	91.28	267.41	4,036.3	-110.3	-1,674.1	1,677.6	3.52	-3.39	-0.97
5,575.0	91.36	267.94	4,035.6	-111.6	-1,706.1	1,709.6	1.67	0.25	1.66
5,607.0	91.45	267.66	4,034.8	-112.8	-1,738.1	1,741.5	0.92	0.28	-0.88
5,639.0	91.28	268.05	4,034.1	-114.0	-1,770.0	1,773.5	1.33	-0.53	1.22
5,671.0	91.54	267.76	4,033.3	-115.2	-1,802.0	1,805.5	1.22	0.81	-0.91
5,703.0	91.71	267.99	4,032.4	-116.3	-1,834.0	1,837.5	0.89	0.53	0.72
5,734.0	91.71	267.99	4,031.4	-117.4	-1,864.9	1,868.5	0.00	0.00	0.00
5,766.0	91.71	268.23	4,030.5	-118.5	-1,896.9	1,900.5	0.75	0.00	0.75
5,798.0	91.10	267.87	4,029.7	-119.6	-1,928.9	1,932.5	2.21	-1.91	-1.13
5,830.0	91.01	267.86	4,029.1	-120.8	-1,960.8	1,964.4	0.28	-0.28	-0.03
5,861.0	91.19	267.99	4,028.5	-121.9	-1,991.8	1,995.4	0.72	0.58	0.42
5,893.0	91.28	268.20	4,027.8	-122.9	-2,023.8	2,027.4	0.71	0.28	0.66
5,925.0	91.10	267.96	4,027.2	-124.0	-2,055.8	2,059.4	0.94	-0.56	-0.75
5,956.0	91.28	268.09	4,026.5	-125.1	-2,086.7	2,090.4	0.72	0.58	0.42
5,988.0	92.07	268.17	4,025.6	-126.1	-2,118.7	2,122.4	2.48	2.47	0.25
6,020.0	91.80	268.36	4,024.5	-127.1	-2,150.7	2,154.4	1.03	-0.84	0.59
6,052.0	92.07	268.53	4,023.4	-128.0	-2,182.7	2,186.3	1.00	0.84	0.53
6,083.0	92.51	268.28	4,022.2	-128.8	-2,213.6	2,217.3	1.63	1.42	-0.81
6,115.0	92.59	268.64	4,020.8	-129.7	-2,245.6	2,249.3	1.15	0.25	1.13
6,146.0	91.98	268.79	4,019.5	-130.4	-2,276.5	2,280.2	2.03	-1.97	0.48
6,178.0	91.63	268.88	4,018.5	-131.0	-2,308.5	2,312.2	1.13	-1.09	0.28
6,210.0	92.51	269.21	4,017.4	-131.6	-2,340.5	2,344.2	2.94	2.75	1.03
6,242.0	92.24	268.98	4,016.0	-132.1	-2,372.5	2,376.1	1.11	-0.84	-0.72
6,274.0	91.71	268.82	4,014.9	-132.7	-2,404.4	2,408.1	1.73	-1.66	-0.50
6,306.0	90.75	268.21	4,014.2	-133.5	-2,436.4	2,440.1	3.55	-3.00	-1.91
6,337.0	91.10	268.52	4,013.7	-134.4	-2,467.4	2,471.0	1.51	1.13	1.00
6,369.0	90.84	268.43	4,013.2	-135.3	-2,499.4	2,503.0	0.86	-0.81	-0.28



Pathfinder
Survey Report

PATHFINDER
A Schlumberger Company

Company: Robert L. Bayless, Producer LLC.
Project: San Juan Co., NM
Site: Sec 19 T30N R15W
Well: Horseshoe Gallup 19-8H
Wellbore: ST01
Design: ST01

Local Co-ordinate Reference: Well Horseshoe Gallup 19-8H
TVD Reference: WELL @ 5394.0usft (Original Well Elev)
MD Reference: WELL @ 5394.0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 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)
6,401.0	91.71	268.71	4,012.5	-136.0	-2,531.4	2,535.0	2.86	2.72	0.88
6,433.0	91.89	268.55	4,011.5	-136.8	-2,563.3	2,567.0	0.75	0.56	-0.50
6,465.0	91.10	268.45	4,010.7	-137.7	-2,595.3	2,599.0	2.49	-2.47	-0.31
6,496.0	90.48	268.47	4,010.2	-138.5	-2,626.3	2,629.9	2.00	-2.00	0.06
6,528.0	90.04	268.36	4,010.1	-139.4	-2,658.3	2,661.9	1.42	-1.38	-0.34
6,560.0	90.22	268.64	4,010.0	-140.2	-2,690.3	2,693.9	1.04	0.56	0.88
6,592.0	90.04	268.49	4,009.9	-141.0	-2,722.3	2,725.9	0.73	-0.56	-0.47
6,655.0	91.71	269.25	4,009.0	-142.3	-2,785.2	2,788.9	2.91	2.65	1.21
6,687.0	91.63	269.19	4,008.0	-142.7	-2,817.2	2,820.8	0.31	-0.25	-0.19
6,719.0	91.01	269.01	4,007.3	-143.2	-2,849.2	2,852.8	2.02	-1.94	-0.56
6,751.0	90.40	268.65	4,006.9	-143.8	-2,881.2	2,884.8	2.21	-1.91	-1.13
6,782.0	91.01	268.80	4,006.5	-144.5	-2,912.2	2,915.8	2.03	1.97	0.48
6,814.0	93.12	269.15	4,005.4	-145.1	-2,944.2	2,947.7	6.68	6.59	1.09
6,846.0	92.42	269.66	4,003.8	-145.4	-2,976.1	2,979.7	2.71	-2.19	1.59
6,878.0	91.71	269.22	4,002.7	-145.7	-3,008.1	3,011.6	2.61	-2.22	-1.38
6,909.0	91.89	269.42	4,001.7	-146.1	-3,039.1	3,042.6	0.87	0.58	0.65
6,941.0	92.95	269.58	4,000.4	-146.4	-3,071.1	3,074.5	3.35	3.31	0.50
6,973.0	93.21	269.48	3,998.6	-146.7	-3,103.0	3,106.5	0.87	0.81	-0.31
7,005.0	93.30	269.63	3,996.8	-146.9	-3,135.0	3,138.4	0.55	0.28	0.47
7,036.0	92.77	269.09	3,995.2	-147.3	-3,165.9	3,169.3	2.44	-1.71	-1.74
7,068.0	91.98	268.90	3,993.8	-147.8	-3,197.9	3,201.3	2.54	-2.47	-0.59
7,100.0	92.24	269.01	3,992.7	-148.4	-3,229.9	3,233.2	0.88	0.81	0.34
7,131.0	93.03	269.22	3,991.2	-148.9	-3,260.8	3,264.2	2.64	2.55	0.68
7,163.0	92.24	268.88	3,989.8	-149.4	-3,292.8	3,296.1	2.69	-2.47	-1.06
7,195.0	90.92	268.63	3,988.9	-150.1	-3,324.8	3,328.1	4.20	-4.13	-0.78
7,227.0	91.89	268.92	3,988.1	-150.8	-3,356.7	3,360.1	3.16	3.03	0.91
7,259.0	92.86	269.34	3,986.8	-151.3	-3,388.7	3,392.0	3.30	3.03	1.31
7,291.0	92.95	269.43	3,985.2	-151.6	-3,420.7	3,424.0	0.40	0.28	0.28
7,322.0	92.24	269.24	3,983.8	-152.0	-3,451.6	3,454.9	2.37	-2.29	-0.61
7,354.0	93.30	269.64	3,982.2	-152.3	-3,483.6	3,486.8	3.54	3.31	1.25
7,386.0	93.03	269.69	3,980.4	-152.5	-3,515.5	3,518.8	0.86	-0.84	0.16
7,418.0	92.33	269.85	3,978.9	-152.6	-3,547.5	3,550.7	2.24	-2.19	0.50
7,450.0	92.42	269.75	3,977.6	-152.7	-3,579.5	3,582.6	0.42	0.28	-0.31
7,481.0	92.24	269.79	3,976.4	-152.8	-3,610.5	3,613.6	0.59	-0.58	0.13
7,543.0	92.24	269.79	3,973.9	-153.1	-3,672.4	3,675.4	0.00	0.00	0.00

Straight Line Projection to Bit Depth @ 7543' MD



Pathfinder
Survey Report

PATHFINDER
A Schlumberger Company

Company: Robert L. Bayless, Producer LLC.
Project: San Juan Co., NM
Site: Sec 19 T30N R15W
Well: Horseshoe Gallup 19-8H
Wellbore: ST01
Design: ST01

Local Co-ordinate Reference: Well Horseshoe Gallup 19-8H
TVD Reference: WELL @ 5394.0usft (Original Well Elev)
MD Reference: WELL @ 5394.0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,726.0	3,724.0	-8.6	-89.1	Tie-In to Pilot Hole @ 3726' MD
3,795.0	3,792.9	-10.5	-93.0	Interpolated Survey at Top of Whipstock @ 3795' MD
7,543.0	3,973.9	-153.1	-3,672.4	Straight Line Projection to Bit Depth @ 7543' MD

Checked By: _____ Approved By: _____ Date: _____