



Scientific
Drilling

Directional Survey Certification

FORM 11-01-03-04

RE: D.J. Simmons Operator
Simmons S1C Well Name & No.
Sec. 25, T29N, R9W Surface Hole Location
San Juan County, NM Location
41DEF1001263 SDI Job No.

I, Judi Moore, having personal knowledge of all the facts, hereby
 certify that the attached directional survey run from a measured depth of 267 feet to a
 measured depth of 5633 feet is true and correct as determined from all available records.

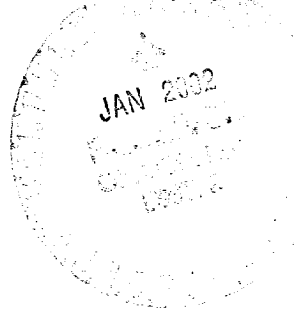
Judi Moore
 Signature

Well Planner
 Title

SDI
 Company

State of : Wyoming }
 County of : Natrona }

ss



On this 9th day of November, 2001, before me personally appeared
Judi Moore to me known as the person described in and who executed the foregoing
 instrument and acknowledged that (s)he executed the same as his/her free act and deed.

Seal

Summer J. Whitehouse
 Notary Public

Aug. 18, 2004
 My Commission Expires



BHL = 663' FSL; 1899' FEL



**Scientific
Drilling**

DIRECTIONAL SURVEY REPORT

Prepared For

**D.J. SIMMONS
Simmons S1C
San Juan County, NM**

***Prepared By:
Judi Moore - Well Planner
Scientific Drilling International
Rocky Mountain District***

Scientific Drilling International
7237 W. Barton Rd., Casper, WY 82604
P.O. Box 1600, Mills, WY 82644
(307) 472-6621
judimoore-sdi@touchtronics.net



Scientific Drilling CASPER, WY

Company: D.J. SIMMONS	Date: 11/8/2001	Time: 11:48:27	Page: 1
Field: San Juan County, NM	Co-ordinate(NE) Reference: Site: Simmons S1C, True North		
Site: Simmons S1C	Vertical (TVD) Reference: SITE 0.0		
Well: Simmons S1C	Section (VS) Reference: Well (0.00N,0.00E,246.93Azi)		
Wellpath: OH	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: Survey #1	Start Date: 10/31/2001
Company: Scientific Drilling	Engineer: Sears
Tool: MWD,E-Field	Tied-to: From Surface

Field: San Juan County, NM

Map System: US State Plane Coordinate System 1927	Map Zone: New Mexico, Western Zone
Geo Datum: NAD27 (Clarke 1866)	Coordinate System: Site Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: igrf2000

Site: Simmons S1C
SHL SEC.25,T29N,R9W 1050'FSL & 1080'FEL
PBHL 717'FSL & 1862'FEL

Site Position:	Northing: m	Latitude:
From: Lease Line	Easting: m	Longitude:
Position Uncertainty: 0.0 ft		North Reference: True
Ground Level: 0.0 ft		Grid Convergence: 0.05 deg

Well: Simmons S1C	Slot Name:
Well Position: +N/-S 0.0 ft	Latitude: 36 44 59.999 N
+E/-W 0.0 ft	Longitude: 107 45 0.000 W
Position Uncertainty: 0.0 ft	

Wellpath: OH	Drilled From: Surface
	Tie-on Depth: 0.0 ft
Current Datum: SITE	Above System Datum: Mean Sea Level
Magnetic Data: 7/10/2001	Declination: 11.15 deg
Field Strength: 51853 nT	Mag Dip Angle: 63.73 deg
Vertical Section: Depth From (TVD)	Direction
ft	deg
5400.0	0.0
0.0	246.93

Survey

Meas Depth ft	Inclination deg	Azimuth deg	TVD ft	Vert Sect ft	N/S ft	E/W ft	DLS deg/100ft	CLen ft	CLSD ft	CLSA deg
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.00
267.0	0.00	0.00	267.0	0.0	0.0	0.0	0.00	267.0	0.0	0.00
500.0	1.10	262.10	500.0	2.2	-0.3	-2.2	0.47	233.0	2.2	262.10
1000.0	0.80	244.60	999.9	10.3	-2.5	-10.1	0.08	500.0	10.4	256.32
1500.0	2.20	238.70	1499.7	23.3	-8.9	-21.5	0.28	500.0	23.3	247.38
1977.0	2.30	258.60	1976.4	41.7	-15.6	-38.7	0.16	477.0	41.7	248.04
2008.0	3.10	261.40	2007.3	43.1	-15.8	-40.1	2.61	31.0	43.1	248.45
2040.0	4.90	262.50	2039.3	45.3	-16.2	-42.3	5.63	32.0	45.3	249.11
2071.0	6.90	260.00	2070.1	48.4	-16.6	-45.5	6.50	31.0	48.4	249.89
2103.0	9.00	257.80	2101.8	52.7	-17.5	-49.8	6.63	32.0	52.8	250.63
2135.0	11.20	256.00	2133.3	58.2	-18.8	-55.3	6.94	32.0	58.4	251.23
2166.0	13.20	253.30	2163.6	64.7	-20.5	-61.6	6.71	31.0	64.9	251.56
2197.0	15.30	250.80	2193.6	72.3	-22.9	-68.8	7.06	31.0	72.6	251.60
2228.0	16.90	246.10	2223.4	80.9	-26.1	-76.8	6.65	31.0	81.1	251.26
2259.0	19.00	246.00	2252.9	90.5	-29.9	-85.6	6.77	31.0	90.7	250.71
2290.0	20.60	246.20	2282.1	101.0	-34.2	-95.2	5.17	31.0	101.1	250.23
2322.0	22.30	247.10	2311.9	112.7	-38.8	-105.9	5.41	32.0	112.8	249.86
2353.0	23.30	246.80	2340.4	124.7	-43.5	-117.0	3.25	31.0	124.8	249.58
2384.0	24.70	247.90	2368.7	137.3	-48.4	-128.6	4.74	31.0	137.4	249.38
2415.0	25.20	248.90	2396.9	150.3	-53.2	-140.8	2.11	31.0	150.5	249.29
2446.0	26.20	248.60	2424.8	163.8	-58.1	-153.3	3.25	31.0	163.9	249.25
2477.0	27.50	248.80	2452.4	177.8	-63.2	-166.3	4.20	31.0	177.9	249.21
2508.0	29.40	248.20	2479.7	192.5	-68.6	-180.1	6.20	31.0	192.7	249.15
2540.0	31.70	247.50	2507.3	208.8	-74.7	-195.1	7.27	32.0	208.9	249.05



Scientific Drilling CASPER, WY

Company: D.J. SIMMONS
Field: San Juan County, NM
Site: Simmons S1C
Well: Simmons S1C
Wellpath: OH

Date: 11/8/2001 Time: 11:48:27 Page: 2
Co-ordinate(NE) Reference: Site: Simmons S1C, True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,246.93Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

Meas Depth ft	Inclination deg	Azimuth deg	TVD ft	Vert Sect ft	N/S ft	E/W ft	DLS deg/100ft	CLen ft	CLSD ft	CLSA deg
2572.0	33.80	246.10	2534.2	226.1	-81.5	-211.0	6.98	32.0	226.2	248.87
2603.0	35.70	244.30	2559.6	243.8	-89.0	-227.1	6.96	31.0	243.9	248.61
2632.0	37.00	242.90	2583.0	260.9	-96.6	-242.5	5.32	29.0	261.0	248.28
2663.0	38.10	244.50	2607.6	279.8	-105.0	-259.4	4.74	31.0	279.8	247.97
2694.0	37.80	243.50	2632.0	298.8	-113.3	-276.5	2.21	31.0	298.9	247.72
2726.0	37.00	244.90	2657.4	318.2	-121.8	-294.0	3.65	32.0	318.3	247.50
2756.0	36.90	247.80	2681.4	336.3	-129.0	-310.5	5.82	30.0	336.3	247.44
2787.0	36.10	249.70	2706.3	354.7	-135.7	-327.7	4.47	31.0	354.7	247.51
2819.0	35.90	249.90	2732.2	373.5	-142.2	-345.4	0.72	32.0	373.5	247.62
2848.0	36.30	250.20	2755.7	390.5	-148.0	-361.4	1.51	29.0	390.6	247.73
2879.0	37.70	251.80	2780.4	409.2	-154.1	-379.1	5.48	31.0	409.2	247.88
2911.0	39.30	251.00	2805.5	429.0	-160.5	-398.0	5.24	32.0	429.1	248.04
2942.0	40.70	250.50	2829.2	448.9	-167.0	-416.8	4.63	31.0	449.0	248.16
2973.0	41.00	249.50	2852.7	469.1	-174.0	-435.8	2.32	31.0	469.3	248.24
3019.0	40.70	249.30	2887.5	499.2	-184.5	-464.0	0.71	46.0	499.3	248.31
3050.0	39.50	249.30	2911.2	519.1	-191.6	-482.7	3.87	31.0	519.3	248.35
3081.0	39.00	248.40	2935.2	538.8	-198.7	-501.0	2.44	31.0	538.9	248.37
3112.0	37.60	247.80	2959.5	558.0	-205.8	-518.8	4.67	31.0	558.1	248.36
3137.0	36.90	251.10	2979.4	573.1	-211.2	-533.0	8.47	25.0	573.3	248.39
3166.0	35.80	247.30	3002.8	590.2	-217.3	-549.0	8.64	29.0	590.4	248.41
3199.0	34.80	245.10	3029.7	609.3	-224.9	-566.5	4.90	33.0	609.5	248.34
3230.0	34.00	248.90	3055.3	626.8	-231.8	-582.6	7.39	31.0	627.0	248.30
3263.0	33.10	246.80	3082.8	645.0	-238.7	-599.5	4.45	33.0	645.2	248.29
3326.0	30.10	246.30	3136.4	678.0	-251.8	-629.7	4.78	63.0	678.2	248.21
3388.0	27.40	244.10	3190.8	707.9	-264.3	-656.8	4.68	62.0	708.0	248.08
3449.0	25.70	243.40	3245.3	735.1	-276.3	-681.3	2.83	61.0	735.2	247.92
3511.0	23.70	238.30	3301.7	760.8	-288.9	-703.9	4.71	62.0	760.9	247.69
3572.0	21.40	236.10	3358.0	783.9	-301.5	-723.6	4.02	61.0	783.9	247.38
3635.0	18.60	240.30	3417.2	805.1	-312.9	-741.8	4.99	63.0	805.1	247.13
3717.0	17.00	247.00	3495.3	830.1	-324.1	-764.2	3.17	82.0	830.1	247.02
3843.0	15.50	232.00	3616.3	864.8	-341.7	-794.5	3.53	126.0	864.8	246.73
3905.0	12.50	247.00	3676.5	879.6	-349.4	-807.2	7.56	62.0	879.6	246.59
3998.0	5.10	267.00	3768.3	893.5	-353.6	-820.6	8.49	93.0	893.5	246.69
4092.0	1.20	270.00	3862.2	898.4	-353.8	-825.8	4.15	94.0	898.4	246.81
4218.0	2.50	276.00	3988.1	902.0	-353.5	-829.8	1.04	126.0	902.0	246.93
4280.0	4.50	306.00	4050.0	904.4	-351.9	-833.1	4.27	62.0	904.4	247.10
4373.0	3.20	286.00	4142.8	908.3	-349.1	-838.6	1.99	93.0	908.3	247.40
4467.0	3.00	301.00	4236.7	911.8	-347.1	-843.2	0.89	94.0	911.8	247.63
4558.0	4.00	280.00	4327.5	915.8	-345.3	-848.4	1.77	91.0	915.9	247.85
4649.0	1.25	260.00	4418.4	919.5	-344.9	-852.5	3.14	91.0	919.6	247.97
4742.0	0.00	260.00	4511.4	920.4	-345.1	-853.5	1.34	93.0	920.6	247.99
4804.0	0.10	260.00	4573.4	920.5	-345.1	-853.5	0.16	62.0	920.7	247.99
4899.0	3.40	141.00	4668.3	919.8	-347.3	-851.8	3.63	95.0	919.9	247.82
4989.0	4.00	141.00	4758.1	918.2	-351.8	-848.2	0.67	90.0	918.3	247.47
5082.0	3.25	151.00	4850.9	917.0	-356.6	-844.9	1.05	93.0	917.1	247.11
5205.0	3.90	136.00	4973.7	915.2	-362.7	-840.3	0.92	123.0	915.2	246.65
5328.0	4.50	139.00	5096.4	912.2	-369.3	-834.2	0.52	123.0	912.3	246.12
5633.0	4.50	139.00	5400.4	904.8	-387.4	-818.5	0.00	305.0	905.6	244.67

BHL = 663' FSL
1899' FEL



Scientific Drilling

CASPER, WY

Company: D.J. SIMMONS
Field: San Juan County, NM
Site: Simmons S1C
Well: Simmons S1C
Wellpath: OH

Date: 11/8/2001 **Time:** 11:48:27 **Page:** 3
Co-ordinate(NE) Reference: Site: Simmons S1C, True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,246.93Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Annotation

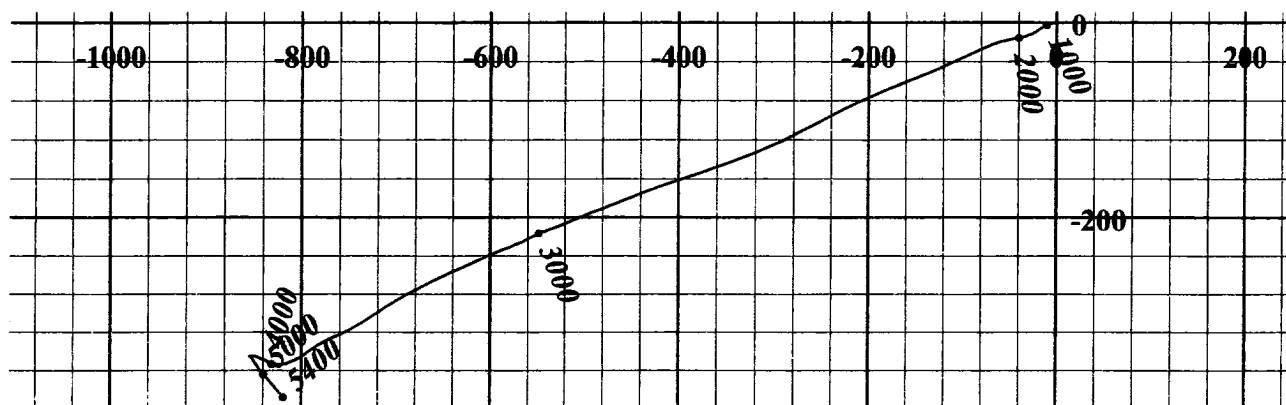
MD ft	TVD ft	
5633.0	5400.4	Survey is a projection



Scientific
Drilling

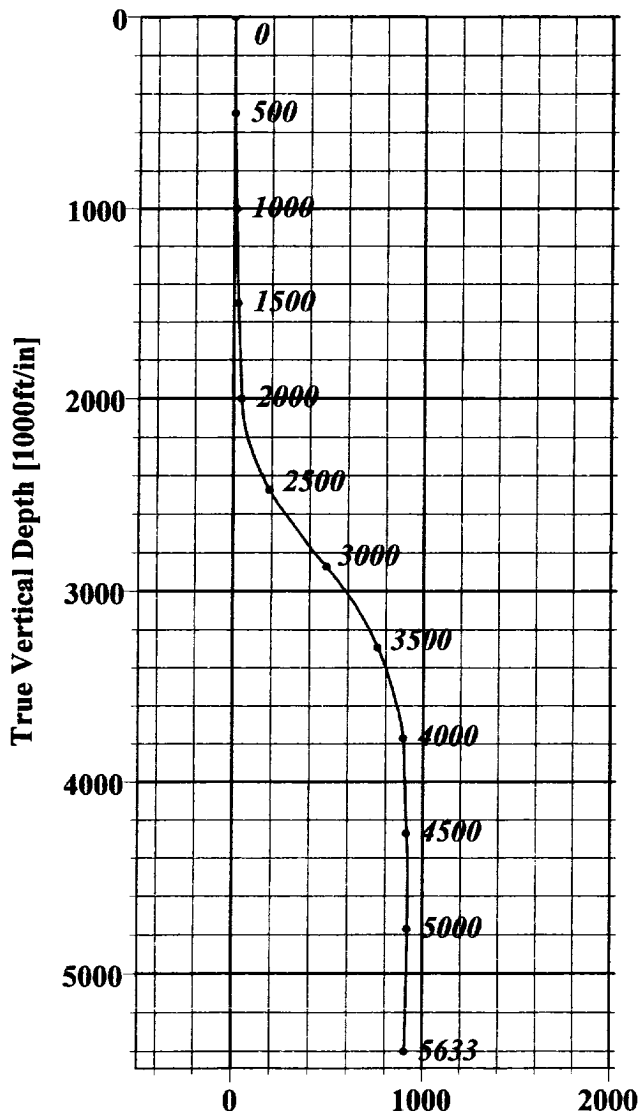
D.J. SIMMONS

Field: San Juan County, NM
Site: Simmons S1C
Well: Simmons S1C
Wellpath: OH
Survey: Survey #1



West(-)/East(+) [200ft/in]

South(-)/North(+) [200ft/in]



Vertical Section at 246.93° [1000ft/in]

BOTTOM HOLE CLOSURE

905.6 ft. 244.67° Azimuth

FINAL STATION

(Survey @ 5633' MD is a projection)

5633.0' MD 5400.4' TVD
4.5° Angle 139.0° Azimuth
South 387.4 ft. West 818.5 ft.
904.8' Vert. Sec.

Survey: Survey #1 (Simmons S1C/OH)

Created By: Judi Moore

Date: 11/8/2001