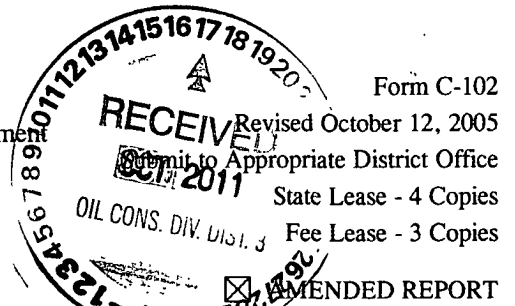


District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505



WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-27273		² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 30934	⁵ Property Name State Bancos		⁶ Well Number 100S
⁷ OGRID No. 162928	⁸ Operator Name ENERGEN RESOURCES CORPORATION		⁹ Elevation 6749

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
D	32	32N	05W		722	North	1183	West	Rio Arriba

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
B	32	32N	05W		760	North	1600	East	Rio Arriba

¹² Dedicated Acres 320 N/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order hereinafter entered by the division. <i>[Signature]</i> 10/14/11 Signature Date Andrew Soto Printed Name
	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. September 30, 2011 Date of Survey Original Survey Conducted and Recorded By: David R. Russell
	10201
	Certificate Number

AV

Energen Resources

Rio Arriba County

Sec32 T32N-R05W - 100S

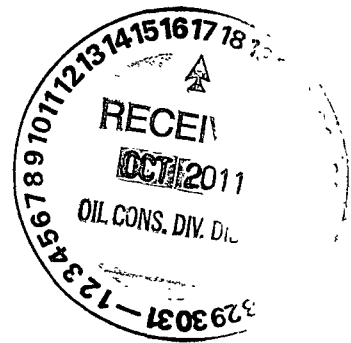
State Bancos #100S STK

STK

Design: STK

Standard Survey Report

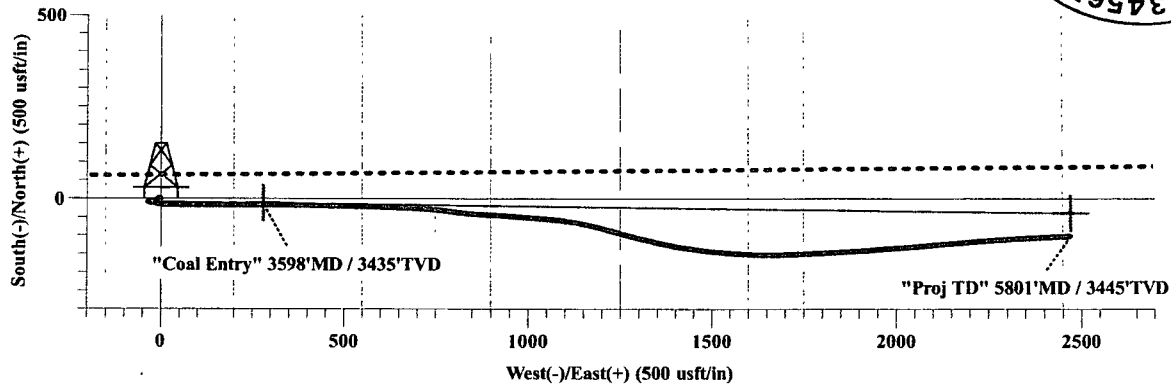
11 October, 2011



State Bancos #100S STK
Sec32 T32N-R05W - 100S
Rio Arriba Co. NM

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

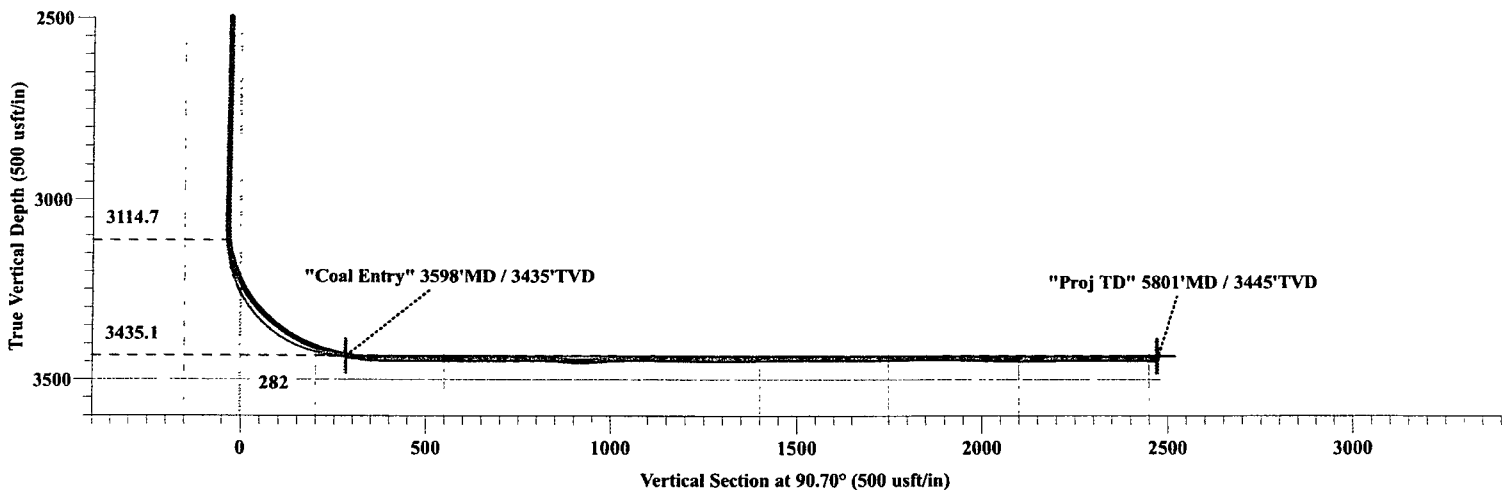
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
LAND-100S	3435.0	-13.1	281.9	2164180.79	1307351.54	Point
TD-100S	3435.0	-39.9	2472.5	2164127.73	1309541.70	Point



EOW
No Hardlines Crossed

WELL DETAILS: State Bancos #100S STK

Northing	Easting	Latitude	Longitude
2164197.26	1307069.81	36° 56' 31.416 N	107° 23' 26.520 W



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
3115.0	0.72	287.35	3114.7	-10.4	-34.6	0.00	0.00	-34.5	
3616.1	90.00	90.70	3435.1	-13.1	281.9	18.10	163.35	282.1	
5806.8	90.00	90.70	3435.0	-39.9	2472.5	0.00	0.00	2472.8	TD-100S

Plan: Design #3 (State Bancos #100S STK/STK)

Created By: Frank C. Scardino

Date: 10/03/2011

Survey Report

Company: Energen Resources Project: Rio Arriba County Site: Sec32 T32N-R05W - 100S Well: State Bancos #100S STK Wellbore: STK Design: STK	Local Co-ordinate Reference: Well State Bancos #100S STK TVD Reference: WELL @ 6746.0usft (Original Well Elev) MD Reference: WELL @ 6746.0usft (Original Well Elev) North Reference: True Survey Calculation Method: Minimum Curvature Database: EDM 5000.1 Single User Db	
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Project	Rio Arriba County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site	Sec32 T32N-R05W - 100S		
Site Position:		Northing: 2,164,197.26 usft	Latitude: 36° 56' 31.416 N
From: Lat/Long		Easting: 1,307,069.81 usft	Longitude: 107° 23' 26.520 W
Position Uncertainty: 0.0 usft		Slot Radius: 13-3/16 "	Grid Convergence: -0.69 °

Well	State Bancos #100S STK		
Well Position +N/-S	0.0 usft	Northing: 2,164,197.26 usft	Latitude: 36° 56' 31.416 N
+E/-W	0.0 usft	Easting: 1,307,069.81 usft	Longitude: 107° 23' 26.520 W
Position Uncertainty 0.0 usft		Wellhead Elevation: usft	Ground Level: 6,731.0 usft

Wellbore	STK		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	09/28/11	9.73
			Dip Angle (°)
			63.70
			Field Strength (nT)
			50,869

Design	STK		
Audit Notes:			
Version: 1.0	Phase: ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			90.70

Survey Program	Date 10/11/11		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
100.0	5,801.0	Survey #1 (STK)	MWD
			Description
			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
100.0	0.25	282.88	100.0	0.0	-0.2	-0.2	0.25	0.25	0.00
200.0	0.41	278.49	200.0	0.2	-0.8	-0.8	0.16	0.16	-4.39
300.0	0.73	285.78	300.0	0.4	-1.7	-1.8	0.33	0.32	7.29
400.0	0.42	295.49	400.0	0.7	-2.7	-2.7	0.32	-0.31	9.71
500.0	0.25	286.65	500.0	0.9	-3.2	-3.2	0.18	-0.17	-8.84
600.0	0.30	275.54	600.0	1.0	-3.7	-3.7	0.07	0.05	-11.11
700.0	0.50	232.26	700.0	0.8	-4.3	-4.3	0.35	0.20	-43.28
800.0	0.72	206.72	800.0	-0.1	-4.9	-4.9	0.34	0.22	-25.54
900.0	0.84	191.56	900.0	-1.3	-5.4	-5.3	0.24	0.12	-15.16

Survey Report

Company: Energen Resources
Project: Rio Arriba County
Site: Sec32 T32N-R05W - 100S
Well: State Bancos #100S STK
Wellbore: STK
Design: STK

Local Co-ordinate Reference: Well State Bancos #100S STK
TVD Reference: WELL @ 6746.0usft (Original Well Elev)
MD Reference: WELL @ 6746.0usft (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)
1,000.0	0.66	188.81	1,000.0	-2.6	-5.6	-5.6	0.18	-0.18	-2.75
1,100.0	0.89	237.16	1,100.0	-3.6	-6.3	-6.3	0.67	0.23	48.35
1,200.0	0.96	238.06	1,199.9	-4.5	-7.7	-7.6	0.07	0.07	0.90
1,300.0	0.95	238.44	1,299.9	-5.4	-9.1	-9.1	0.01	-0.01	0.38
1,400.0	0.78	261.09	1,399.9	-5.9	-10.5	-10.4	0.38	-0.17	22.65
1,500.0	1.01	274.55	1,499.9	-5.9	-12.0	-12.0	0.31	0.23	13.46
1,600.0	1.00	274.15	1,599.9	-5.8	-13.8	-13.7	0.01	-0.01	-0.40
1,700.0	1.08	265.39	1,699.9	-5.8	-15.6	-15.5	0.18	0.08	-8.76
1,800.0	0.96	252.04	1,799.9	-6.1	-17.3	-17.3	0.27	-0.12	-13.35
1,900.0	0.65	246.87	1,899.8	-6.6	-18.7	-18.6	0.32	-0.31	-5.17
2,000.0	0.69	234.03	1,999.8	-7.2	-19.7	-19.6	0.16	0.04	-12.84
2,100.0	0.61	238.74	2,099.8	-7.8	-20.6	-20.5	0.10	-0.08	4.71
2,200.0	0.91	236.63	2,199.8	-8.5	-21.7	-21.6	0.30	0.30	-2.11
2,300.0	0.95	248.96	2,299.8	-9.3	-23.2	-23.1	0.20	0.04	12.33
2,400.0	0.70	259.94	2,399.8	-9.7	-24.5	-24.4	0.29	-0.25	10.98
2,500.0	0.79	257.90	2,499.8	-9.9	-25.8	-25.7	0.09	0.09	-2.04
2,600.0	0.91	262.28	2,599.8	-10.2	-27.3	-27.2	0.14	0.12	4.38
2,700.0	0.77	252.65	2,699.8	-10.5	-28.7	-28.6	0.20	-0.14	-9.63
2,800.0	0.97	283.55	2,799.8	-10.5	-30.2	-30.0	0.50	0.20	30.90
2,900.0	0.86	258.93	2,899.7	-10.4	-31.7	-31.6	0.40	-0.11	-24.62
3,000.0	0.78	268.45	2,999.7	-10.6	-33.1	-33.0	0.16	-0.08	9.52
3,081.0	0.73	283.55	3,080.7	-10.5	-34.2	-34.1	0.25	-0.06	18.64
3,119.3	6.24	107.58	3,118.9	-11.1	-32.5	-32.3	18.21	14.40	-459.93
3,150.9	13.19	91.35	3,150.1	-11.7	-27.2	-27.1	23.41	21.98	-51.33
3,182.6	16.44	104.36	3,180.7	-12.9	-19.2	-19.1	14.61	10.25	41.04
3,214.4	21.54	100.83	3,210.8	-15.1	-9.1	-8.9	16.41	16.01	-11.08
3,246.3	26.91	95.40	3,239.9	-16.9	3.8	4.0	18.23	16.85	-17.04
3,275.9	32.71	91.66	3,265.5	-17.7	18.5	18.7	20.59	19.61	-12.65
3,306.6	38.16	90.50	3,290.6	-18.1	36.3	36.5	17.87	17.74	-3.77
3,337.4	43.00	90.20	3,313.9	-18.2	56.3	56.5	15.74	15.72	-0.97
3,368.1	47.84	89.78	3,335.5	-18.2	78.2	78.4	15.77	15.74	-1.37
3,399.0	52.14	90.38	3,355.4	-18.2	101.8	102.1	14.00	13.92	1.94
3,429.2	56.45	90.40	3,373.0	-18.4	126.4	126.6	14.26	14.26	0.07
3,459.5	60.94	89.93	3,388.7	-18.4	152.3	152.5	14.88	14.82	-1.55
3,490.3	65.33	90.03	3,402.6	-18.4	179.7	179.9	14.27	14.27	0.33
3,520.8	69.56	89.97	3,414.3	-18.4	207.9	208.1	13.87	13.87	-0.20
3,551.6	74.04	89.87	3,423.9	-18.4	237.1	237.3	14.56	14.55	-0.32
3,582.6	77.12	90.20	3,431.7	-18.4	267.1	267.3	9.99	9.94	1.06
3,598.0	78.94	90.13	3,434.9	-18.5	282.2	282.4	11.83	11.82	-0.43
"Coal Entry" 3598'MD / 3435'TVD									
3,613.0	80.72	90.07	3,437.5	-18.5	297.0	297.2	11.83	11.82	-0.42
3,642.0	84.06	89.52	3,441.3	-18.4	325.7	325.9	11.68	11.53	-1.90
3,673.0	87.14	90.67	3,443.7	-18.4	356.6	356.8	10.60	9.94	3.71
3,704.0	89.43	91.55	3,444.6	-19.0	387.6	387.8	7.91	7.39	2.84

Survey Report

Company: Energen Resources
 Project: Rio Arriba County
 Site: Sec32 T32N-R05W - 100S
 Well: State Bancos #100S STK
 Wellbore: STK
 Design: STK

Local Co-ordinate Reference: Well State Bancos #100S STK
 TVD Reference: WELL @ 6746.0usft (Original Well Elev)
 MD Reference: WELL @ 6746.0usft (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)
3,766.0	89.69	91.28	3,445.1	-20.6	449.6	449.8	0.60	0.42	-0.44
3,827.0	90.04	90.93	3,445.3	-21.7	510.6	510.8	0.81	0.57	-0.57
3,888.0	89.60	91.02	3,445.5	-22.8	571.5	571.8	0.74	-0.72	0.15
3,949.0	90.22	92.51	3,445.6	-24.7	632.5	632.8	2.65	1.02	2.44
4,011.0	89.78	92.78	3,445.6	-27.5	694.4	694.7	0.83	-0.71	0.44
4,071.0	91.98	95.76	3,444.6	-32.0	754.3	754.6	6.17	3.67	4.97
4,133.0	88.37	97.17	3,444.4	-39.0	815.9	816.3	6.25	-5.82	2.27
4,194.0	83.80	93.30	3,448.6	-44.5	876.4	876.9	9.81	-7.49	-6.34
4,255.0	92.95	93.74	3,450.3	-48.3	937.2	937.7	15.02	15.00	0.72
4,316.0	94.97	94.80	3,446.1	-52.8	997.9	998.5	3.74	3.31	1.74
4,377.0	90.40	94.80	3,443.3	-57.9	1,058.6	1,059.2	7.49	-7.49	0.00
4,439.0	88.55	99.02	3,443.8	-65.3	1,120.1	1,120.9	7.43	-2.98	6.81
4,500.0	89.78	103.68	3,444.7	-77.3	1,179.9	1,180.8	7.90	2.02	7.64
4,561.0	88.11	105.87	3,445.8	-92.9	1,238.9	1,239.9	4.51	-2.74	3.59
4,623.0	90.66	103.99	3,446.5	-108.9	1,298.8	1,300.0	5.11	4.11	-3.03
4,684.0	91.28	102.12	3,445.5	-122.6	1,358.2	1,359.6	3.23	1.02	-3.07
4,745.0	91.01	99.42	3,444.3	-134.0	1,418.1	1,419.6	4.45	-0.44	-4.43
4,807.0	89.69	96.89	3,443.9	-142.8	1,479.5	1,481.1	4.60	-2.13	-4.08
4,868.0	90.57	94.82	3,443.7	-149.1	1,540.2	1,541.9	3.69	1.44	-3.39
4,928.0	89.25	92.54	3,443.8	-152.9	1,600.0	1,601.8	4.39	-2.20	-3.80
4,990.0	89.87	90.02	3,444.3	-154.3	1,662.0	1,663.8	4.19	1.00	-4.06
5,052.0	91.63	88.30	3,443.5	-153.4	1,724.0	1,725.7	3.97	2.84	-2.77
5,115.0	90.84	86.27	3,442.1	-150.4	1,786.9	1,788.6	3.46	-1.25	-3.22
5,178.0	90.48	86.85	3,441.4	-146.6	1,849.8	1,851.4	1.08	-0.57	0.92
5,242.0	88.90	86.08	3,441.8	-142.7	1,913.7	1,915.3	2.75	-2.47	-1.20
5,305.0	88.46	85.26	3,443.2	-137.9	1,976.5	1,978.0	1.48	-0.70	-1.30
5,368.0	88.37	85.86	3,445.0	-133.0	2,039.2	2,040.7	0.96	-0.14	0.95
5,432.0	89.52	84.44	3,446.1	-127.6	2,103.0	2,104.4	2.85	1.80	-2.22
5,495.0	91.19	84.96	3,445.7	-121.8	2,165.7	2,167.1	2.78	2.65	0.83
5,559.0	91.10	86.09	3,444.5	-116.8	2,229.5	2,230.8	1.77	-0.14	1.77
5,622.0	90.04	85.97	3,443.8	-112.5	2,292.4	2,293.6	1.69	-1.68	-0.19
5,686.0	89.52	86.84	3,444.1	-108.4	2,356.2	2,357.4	1.58	-0.81	1.36
5,717.0	89.43	87.39	3,444.4	-106.9	2,387.2	2,388.3	1.80	-0.29	1.77
5,801.0	89.43	87.39	3,445.2	-103.1	2,471.1	2,472.2	0.00	0.00	0.00

"Proj TD" 5801'MD / 3445'TVD

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
3,598.0	3,434.9	-18.5	282.2	"Coal Entry" 3598'MD / 3435'TVD
5,801.0	3,445.2	-103.1	2,471.1	"Proj TD" 5801'MD / 3445'TVD

Survey Report

Company: Energen Resources
Project: Rio Arriba County
Site: Sec32 T32N-R05W - 100S
Well: State Bancos #100S STK
Wellbore: STK
Design: STK

Local Co-ordinate Reference: Well State Bancos #100S STK
TVD Reference: WELL @ 6746.0usft (Original Well Elev)
MD Reference: WELL @ 6746.0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Checked By: _____	Approved By: _____	Date: _____
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MD	INC	AZI	Course Length	TVD	Subsea Depth	N/-S	E/-W	X
0	0	0	0	0	6746	0	0	1307070
100	0.25	282.88	100	99.9997	6646	0.0486	-0.2127	1307070
200	0.41	278.49	100	199.998	6546.002	0.1501	-0.7792	1307069
300	0.73	285.78	100	299.9929	6446.007	0.3761	-1.7461	1307068
400	0.42	295.49	100	399.9878	6346.012	0.7071	-2.69	1307067
500	0.25	286.65	100	499.9861	6246.014	0.9274	-3.2298	1307067
600	0.3	275.54	100	599.9849	6146.015	1.0151	-3.6994	1307066
700	0.5	232.26	100	699.9826	6046.017	0.7733	-4.3051	1307066
800	0.72	206.72	100	799.9771	5946.023	-0.0549	-4.9326	1307065
900	0.84	191.56	100	899.9679	5846.032	-1.3343	-5.362	1307064
1000	0.66	188.81	100	999.9593	5746.041	-2.6216	-5.5971	1307064
1100	0.89	237.16	100	1099.951	5646.049	-3.6119	-6.3378	1307063
1200	0.96	238.06	100	1199.938	5546.062	-4.4763	-7.7013	1307062
1300	0.95	238.44	100	1299.924	5446.076	-5.3533	-9.1185	1307061
1400	0.78	261.09	100	1399.913	5346.087	-5.8926	-10.4974	1307059
1500	1.01	274.55	100	1499.901	5246.099	-5.9281	-12.0484	1307058
1600	1	274.15	100	1599.886	5146.115	-5.7951	-13.7973	1307056
1700	1.08	265.39	100	1699.869	5046.131	-5.8077	-15.607	1307054
1800	0.96	252.04	100	1799.853	4946.147	-6.1417	-17.3433	1307052
1900	0.65	246.87	100	1899.843	4846.157	-6.6229	-18.6618	1307051
2000	0.69	234.03	100	1999.837	4746.163	-7.1993	-19.6707	1307050
2100	0.61	238.74	100	2099.83	4646.17	-7.8292	-20.6131	1307049
2200	0.91	236.63	100	2199.821	4546.179	-8.5423	-21.7313	1307048
2300	0.95	248.96	100	2299.808	4446.192	-9.2767	-23.1682	1307047
2400	0.7	259.94	100	2399.798	4346.202	-9.681	-24.5434	1307045
2500	0.79	257.9	100	2499.789	4246.211	-9.9322	-25.8189	1307044
2600	0.91	262.28	100	2599.778	4146.222	-10.1834	-27.2799	1307042
2700	0.77	252.65	100	2699.768	4046.232	-10.4904	-28.7081	1307041
2800	0.97	283.55	100	2799.757	3946.244	-10.4925	-30.1724	1307040
2900	0.86	258.93	100	2899.744	3846.256	-10.4383	-31.7318	1307038
3000	0.78	268.45	100	2999.734	3746.266	-10.6008	-33.1487	1307037
3081	0.73	283.55	81	3080.727	3665.273	-10.4948	-34.2014	1307035
3119.26	6.24	107.58	38.26	3118.919	3627.081	-11.0664	-32.454	1307037
3150.88	13.19	91.35	31.62	3150.072	3595.928	-11.6713	-27.202	1307042
3182.58	16.44	104.36	31.7	3180.722	3565.278	-12.8697	-19.2364	1307050
3214.43	21.54	100.83	31.85	3210.83	3535.17	-15.0876	-9.1205	1307061
3246.3	26.91	95.4	31.87	3239.887	3506.114	-16.8671	3.8169	1307073
3275.87	32.71	91.66	29.57	3265.535	3480.465	-17.7291	18.4788	1307088
3306.6	38.16	90.5	30.73	3290.564	3455.436	-18.0527	36.2851	1307106
3337.38	43	90.2	30.78	3313.934	3432.066	-18.1724	56.3014	1307126
3368.12	47.84	89.78	30.74	3335.505	3410.496	-18.1653	78.19	1307148
3399	52.14	90.38	30.88	3355.353	3390.647	-18.2022	101.8362	1307171
3429.23	56.45	90.4	30.23	3372.992	3373.008	-18.3693	126.3776	1307196
3459.53	60.94	89.93	30.3	3388.732	3357.269	-18.4413	152.2595	1307222

3490.29	65.33	90.03	30.76	3402.628	3343.372	-18.4322	179.693	1307249
3520.79	69.56	89.97	30.5	3414.325	3331.676	-18.432	207.8537	1307277
3551.57	74.04	89.87	30.78	3423.936	3322.064	-18.3909	237.0863	1307307
3582.57	77.12	90.2	31	3431.655	3314.345	-18.4098	267.1061	1307337
3613.02	80.72	90.07	30.45	3437.506	3308.494	-18.48	296.9835	1307367
3642	84.06	89.52	28.98	3441.343	3304.657	-18.3767	325.7039	1307395
3673	87.14	90.67	31	3443.721	3302.279	-18.4286	356.6082	1307426
3704	89.43	91.55	31	3444.649	3301.351	-19.0289	387.5861	1307457
3766	89.69	91.28	62	3445.125	3300.875	-20.5599	449.5653	1307519
3827	90.04	90.93	61	3445.269	3300.732	-21.7363	510.5536	1307580
3888	89.6	91.02	61	3445.46	3300.54	-22.7742	571.5443	1307641
3949	90.22	92.51	61	3445.556	3300.444	-24.653	632.5133	1307702
4011	89.78	92.78	62	3445.556	3300.444	-27.5141	694.447	1307764
4071	91.98	95.76	60	3444.634	3301.366	-31.9798	754.263	1307824
4133	88.37	97.17	62	3444.445	3301.555	-38.9594	815.8567	1307885
4194	83.8	93.3	61	3448.61	3297.39	-44.5152	876.4323	1307946
4255	92.95	93.74	61	3450.338	3295.662	-48.2554	937.2279	1308006
4316	94.97	94.8	61	3446.126	3299.874	-52.7855	997.9094	1308067
4377	90.4	94.8	61	3443.269	3302.731	-57.8829	1058.613	1308128
4439	88.55	99.02	62	3443.837	3302.163	-65.3394	1120.143	1308189
4500	89.78	103.68	61	3444.727	3301.273	-77.3399	1179.926	1308249
4561	88.11	105.87	61	3445.85	3300.15	-92.8919	1238.894	1308308
4623	90.66	103.99	62	3446.515	3299.485	-108.862	1298.79	1308367
4684	91.28	102.12	61	3445.483	3300.517	-122.639	1358.201	1308426
4745	91.01	99.42	61	3444.264	3301.737	-134.034	1418.109	1308486
4807	89.69	96.89	62	3443.885	3302.115	-142.828	1479.475	1308547
4868	90.57	94.82	61	3443.746	3302.254	-149.05	1540.153	1308608
4928	89.25	92.54	60	3443.841	3302.159	-152.901	1600.024	1308668
4990	89.87	90.02	62	3444.317	3301.683	-154.286	1662.001	1308730
5052	91.63	88.3	62	3443.505	3302.495	-153.377	1723.984	1308792
5115	90.84	86.27	63	3442.147	3303.853	-150.394	1786.895	1308855
5178	90.48	86.85	63	3441.422	3304.579	-146.614	1849.777	1308918
5242	88.9	86.08	64	3441.768	3304.232	-142.668	1913.652	1308982
5305	88.46	85.26	63	3443.219	3302.781	-137.913	1976.455	1309044
5368	88.37	85.86	63	3444.962	3301.038	-133.037	2039.241	1309107
5432	89.52	84.44	64	3446.14	3299.86	-127.627	2102.999	1309171
5495	91.19	84.96	63	3445.75	3300.25	-121.808	2165.726	1309234
5559	91.1	86.09	64	3444.471	3301.529	-116.816	2229.517	1309298
5622	90.04	85.97	63	3443.844	3302.156	-112.454	2292.362	1309361
5686	89.52	86.84	64	3444.09	3301.91	-108.441	2356.234	1309425
5717	89.43	87.39	31	3444.374	3301.626	-106.881	2387.194	1309456
5801	89.43	87.39	84	3445.21	3300.79	-103.056	2471.102	1309540

Y	Lat	Long	Dogleg Severity
2164197	36° 56' 31.4	107° 23' 26	0
2164197	36° 56' 31.4	107° 23' 26	0.25
2164197	36° 56' 31.4	107° 23' 26	0.16
2164198	36° 56' 31.4	107° 23' 26	0.33
2164198	36° 56' 31.4	107° 23' 26	0.32
2164198	36° 56' 31.4	107° 23' 26	0.18
2164198	36° 56' 31.4	107° 23' 26	0.07
2164198	36° 56' 31.4	107° 23' 26	0.35
2164197	36° 56' 31.4	107° 23' 26	0.34
2164196	36° 56' 31.4	107° 23' 26	0.24
2164195	36° 56' 31.1	107° 23' 26	0.18
2164194	36° 56' 31.1	107° 23' 26	0.67
2164193	36° 56' 31.1	107° 23' 26	0.07
2164192	36° 56' 31.1	107° 23' 26	0.01
2164191	36° 56' 31.1	107° 23' 26	0.38
2164191	36° 56' 31.1	107° 23' 26	0.31
2164192	36° 56' 31.1	107° 23' 26	0.01
2164192	36° 56' 31.1	107° 23' 26	0.18
2164191	36° 56' 31.1	107° 23' 26	0.27
2164191	36° 56' 31.1	107° 23' 26	0.32
2164190	36° 56' 31.1	107° 23' 26	0.16
2164190	36° 56' 31.1	107° 23' 26	0.1
2164189	36° 56' 31.1	107° 23' 26	0.3
2164188	36° 56' 31.1	107° 23' 26	0.2
2164188	36° 56' 31.1	107° 23' 26	0.29
2164188	36° 56' 31.1	107° 23' 26	0.09
2164187	36° 56' 31.1	107° 23' 26	0.14
2164187	36° 56' 31.1	107° 23' 26	0.2
2164187	36° 56' 31.1	107° 23' 26	0.5
2164187	36° 56' 31.1	107° 23' 26	0.4
2164187	36° 56' 31.1	107° 23' 26	0.16
2164187	36° 56' 31.1	107° 23' 26	0.25
2164187	36° 56' 31.1	107° 23' 26	18.21
2164186	36° 56' 31.1	107° 23' 26	23.41
2164185	36° 56' 31.1	107° 23' 26	14.61
2164182	36° 56' 31.1	107° 23' 26	16.41
2164180	36° 56' 31.1	107° 23' 26	18.23
2164179	36° 56' 31.1	107° 23' 26	20.59
2164179	36° 56' 31.1	107° 23' 26	17.87
2164178	36° 56' 31.1	107° 23' 25	15.74
2164178	36° 56' 31.1	107° 23' 25	15.77
2164178	36° 56' 31.1	107° 23' 25	14
2164177	36° 56' 31.1	107° 23' 24	14.26
2164177	36° 56' 31.1	107° 23' 24	14.88

2164177 36° 56' 31.1 107° 23' 24	14.27
2164176 36° 56' 31.1 107° 23' 23	13.87
2164176 36° 56' 31.1 107° 23' 23	14.56
2164176 36° 56' 31.1 107° 23' 23	9.99
2164175 36° 56' 31.1 107° 23' 22	11.83
2164175 36° 56' 31.1 107° 23' 22	11.68
2164175 36° 56' 31.1 107° 23' 22	10.6
2164174 36° 56' 31.1 107° 23' 21	7.91
2164171 36° 56' 31.1 107° 23' 20	0.6
2164169 36° 56' 31.1 107° 23' 20	0.81
2164168 36° 56' 31.1 107° 23' 19	0.74
2164165 36° 56' 31.1 107° 23' 18	2.65
2164161 36° 56' 31.1 107° 23' 17	0.83
2164156 36° 56' 31.1 107° 23' 17	6.17
2164149 36° 56' 31.1 107° 23' 16	6.25
2164142 36° 56' 30.9 107° 23' 15	9.81
2164138 36° 56' 30.9 107° 23' 14	15.02
2164133 36° 56' 30.8 107° 23' 14	3.74
2164127 36° 56' 30.8 107° 23' 13	7.49
2164119 36° 56' 30.7 107° 23' 12	7.43
2164106 36° 56' 30.6 107° 23' 11	7.9
2164090 36° 56' 30.4 107° 23' 11	4.51
2164073 36° 56' 30.3 107° 23' 10	5.11
2164058 36° 56' 30.1 107° 23' 9.	3.23
2164046 36° 56' 30.1 107° 23' 9.1	4.45
2164037 36° 56' 30.1 107° 23' 8.1	4.6
2164030 36° 56' 29.9 107° 23' 7.1	3.69
2164025 36° 56' 29.9 107° 23' 6.1	4.39
2164023 36° 56' 29.8 107° 23' 6.1	4.19
2164023 36° 56' 29.8 107° 23' 5.1	3.97
2164025 36° 56' 29.9 107° 23' 4.1	3.46
2164029 36° 56' 29.9 107° 23' 3.1	1.08
2164032 36° 56' 30.1 107° 23' 2.1	2.75
2164036 36° 56' 30.1 107° 23' 2.1	1.48
2164040 36° 56' 30.1 107° 23' 1.1	0.96
2164044 36° 56' 30.1 107° 23' 0.1	2.85
2164050 36° 56' 30.1 107° 22' 59	2.78
2164054 36° 56' 30.1 107° 22' 59	1.77
2164057 36° 56' 30.1 107° 22' 58	1.69
2164061 36° 56' 30.1 107° 22' 57	1.58
2164062 36° 56' 30.1 107° 22' 57	1.8
2164065 36° 56' 30.1 107° 22' 56	0