

Scientific Drilling

EOG

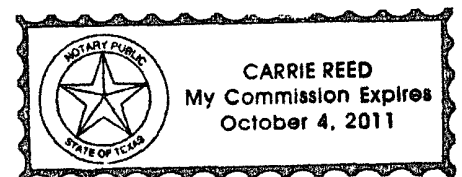
Field: Undesignated
Site: Eddy County, NM
Well: Tippecanoe B 7 Fee Com #2H
Wellpath: VH - Job #32K1108945
Survey: 11/28/08

This survey is correct to the best of my knowledge
and is supported by actual field data.

.....Fluhart..... Company Representative

Notorized this date 22nd of December, 2008.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International Survey Report

Company: EOG	Date: 12/17/2008	Time: 13:43:05	Page: 1
Field: Undesignated	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Tippecanoe B 7 Fee Com #2H	Section (VS) Reference:	Well (0.00N,0.00E,269.71Azi)	
Wellpath: VH - Job #32K1108945	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 11/28/08	Start Date: 11/28/2008
KSRG 0'-3878'	
Company: Scientific Drilling Internatio	Engineer: Madrid w/GeoGyro
Tool: Keeper;Keeper Surface Readout Gyro	Tied-to: From Surface

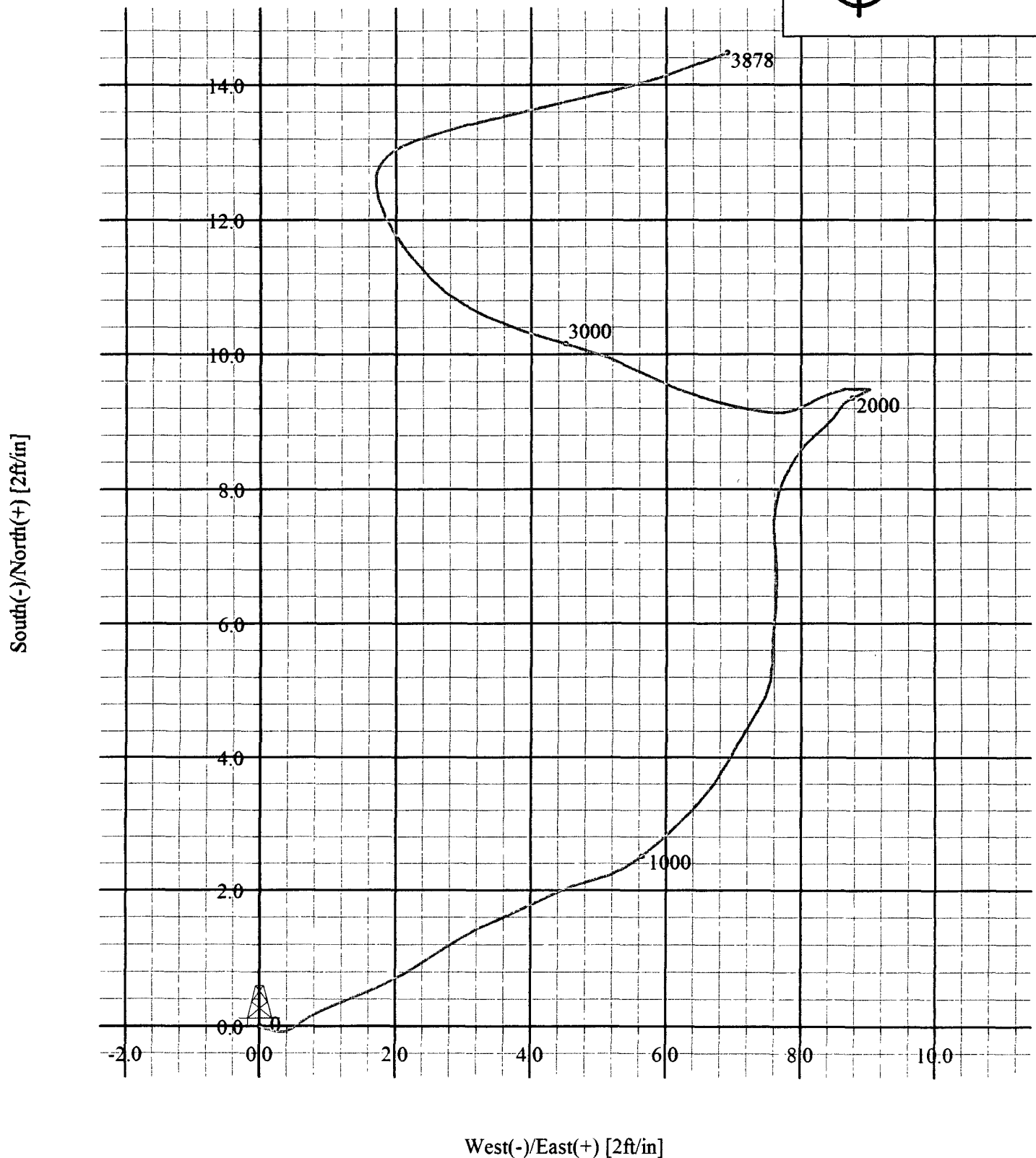
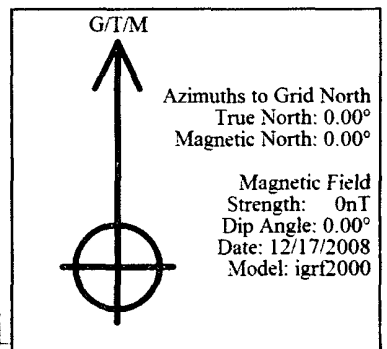
Survey

MD ft	Incl deg	Azlm deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.10	113.88	100.00	-0.08	-0.04	0.08	0.10	0.09	113.88
200.00	0.14	99.28	200.00	-0.28	-0.09	0.28	0.05	0.29	107.88
300.00	0.30	51.24	300.00	-0.61	0.05	0.60	0.23	0.61	84.91
400.00	0.59	69.81	400.00	-1.29	0.40	1.29	0.32	1.35	72.99
500.00	0.46	60.29	499.99	-2.13	0.77	2.12	0.16	2.26	70.02
600.00	0.49	55.40	599.99	-2.83	1.21	2.82	0.05	3.07	66.75
700.00	0.44	70.86	699.99	-3.55	1.58	3.54	0.13	3.88	65.91
800.00	0.43	60.27	799.98	-4.24	1.89	4.23	0.08	4.63	65.86
900.00	0.43	77.93	899.98	-4.93	2.16	4.92	0.13	5.37	66.31
1000.00	0.51	52.10	999.98	-5.65	2.51	5.64	0.22	6.17	66.00
1100.00	0.62	43.05	1099.97	-6.38	3.18	6.36	0.14	7.11	63.44
1200.00	0.53	27.35	1199.97	-6.96	3.99	6.94	0.18	8.00	60.13
1300.00	0.43	33.00	1299.96	-7.38	4.71	7.36	0.11	8.74	57.37
1400.00	0.42	359.81	1399.96	-7.59	5.39	7.56	0.24	9.29	54.50
1500.00	0.55	6.37	1499.96	-7.64	6.24	7.61	0.14	9.84	50.68
1600.00	0.59	352.89	1599.95	-7.64	7.22	7.60	0.14	10.49	46.46
1700.00	0.57	25.71	1699.95	-7.80	8.18	7.75	0.33	11.27	43.46
1800.00	0.37	52.71	1799.94	-8.27	8.83	8.23	0.29	12.07	42.99
1900.00	0.17	26.71	1899.94	-8.60	9.16	8.55	0.23	12.53	43.05
2000.00	0.19	64.71	1999.94	-8.82	9.36	8.77	0.12	12.82	43.13
2100.00	0.12	70.89	2099.94	-9.06	9.46	9.02	0.07	13.07	43.61
2200.00	0.09	259.99	2199.94	-9.09	9.48	9.04	0.21	13.10	43.62
2300.00	0.14	278.70	2299.94	-8.89	9.49	8.84	0.06	12.97	42.97
2400.00	0.08	249.96	2399.94	-8.70	9.48	8.65	0.08	12.84	42.38
2500.00	0.16	257.11	2499.94	-8.50	9.43	8.45	0.08	12.66	41.87
2600.00	0.33	240.02	2599.94	-8.11	9.25	8.07	0.18	12.28	41.08
2700.00	0.33	276.26	2699.94	-7.58	9.14	7.53	0.21	11.84	39.48
2800.00	0.62	284.25	2799.93	-6.77	9.31	6.72	0.30	11.48	35.84
2900.00	0.68	297.36	2899.93	-5.72	9.71	5.67	0.16	11.24	30.27
3000.00	0.76	285.18	2999.92	-4.55	10.16	4.50	0.17	11.11	23.90
3100.00	0.66	294.22	3099.91	-3.39	10.57	3.34	0.15	11.08	17.52
3200.00	0.53	316.58	3199.91	-2.55	11.14	2.49	0.26	11.42	12.62
3300.00	0.50	328.68	3299.90	-2.01	11.85	1.95	0.11	12.01	9.34
3400.00	0.36	356.40	3399.90	-1.77	12.53	1.70	0.25	12.65	7.73
3500.00	0.41	57.28	3499.90	-2.05	13.04	1.98	0.39	13.19	8.65
3600.00	1.13	76.92	3599.89	-3.31	13.46	3.24	0.76	13.84	13.56
3700.00	0.85	76.87	3699.87	-5.00	13.85	4.93	0.28	14.70	19.58
3800.00	0.55	70.45	3799.87	-6.17	14.18	6.10	0.31	15.44	23.29
3878.00	0.71	68.34	3877.86	-6.98	14.48	6.90	0.21	16.04	25.49



**Scientific
Drilling**

Field: Undesignated
Site: Eddy County, NM
Well: Tippecanoe B 7 Fee Com #2H
Wellpath: VH - Job #32K1108945
Survey: 11/28/08



Tippecanoe B 7 Fee #2H ST Final Surveys.txt

~Version Information

VERS. 2.00: PATHFINDER ENERGY SERVICES LAS - Version 2.00
 WRAP. NO: One line per depth step

~Well Information

STRT.FT 0.0000:
 STOP.FT 8300.0000:
 STEP.FT 0.0000:
 NULL. -999.25:
 COMP. EOG RESOURCES INC.: COMPANY
 WELL. TIPPECANOE B7 #2H ST01: WELL
 "FLD. COLLINS RANCH, WC. (G): FLD"
 SRVC. Pathfinder Energy Services: SERVICE COMPANY
 LOC. : LOCATION
 DATE. 05-Dec-08: LOG DATE
 UWI. 30-015-36754: API NUMBER
 APD .FT 18.00: ELEVATION ABOVE PERMANENT DATUM
 CNTY. EDDY: COUNTY
 CTRY. USA: COUNTRY
 DMF . ROTARY TABLE: DRILLING-LOG MEASURED FROM
 EPD .FT 3827.10: ELEVATION OF PERMANENT DATUM
 FL1 . 760' FSL 660' FEL: WELL LOCATION 1
 PDAM. GROUND LEVEL - MEAN SEA LEVEL: ELEVATION OF PERMANENT DATUM REF
 PDAT. GROUND LEVEL: PERMANENT DATUM
 RANG. 24 EAST: RANGE
 SECT. 7: SECTION
 STAT. NM: STATE
 TOWN. 17 SOUTH: TOWNSHIP

~Parameter Information

BHB1.IN 12 1/4: BOREHOLE REC; BIT 1
 BHF1.FT 0: BOREHOLE REC; FROM 1
 BHO1.FT 1035: BOREHOLE REC; TO 1
 BHB2.IN 7 7/8: BOREHOLE REC; BIT 2
 BHF2.FT 1035: BOREHOLE REC; FROM 2
 BHO2.FT 8275: BOREHOLE REC; TO 2
 CTS1.IN 8 5/8: CASING & TUBING REC; SIZE 1
 CTF1.FT 0: CASING & TUBING REC; FROM 1
 CTO1.FT 1035: CASING & TUBING REC; TO 1
 DCOM. PES: DRILLING COMPANY
 RIG . MCVAY 4: DRILLING RIG
 LUN . TRAILER: LOGGING UNIT NUMBER
 DIST. WEST TEXAS: DISTRICT
 SPUD. 25-NOV-08: SPUD DATE
 STDT. 30-NOV-08: START DATE
 SDEP.FT 4118: DEPTH IN
 ENDT. 05-DEC-08: LWD END DATE
 EDEP.FT 8275: DEPTH OUT
 TDEP.FT 8275: TOTAL DEPTH
 "R010. RUN #3; 6 1/4"" HDS-1R / GAMMA LOGGING RUN.: Remarks - Line 010 "

Tippecanoe B 7 Fee #2H ST Final Surveys.txt

R012. REMARK #1; SIDETRACK 01 DEPARTS ORIGINAL WELLBORE AT 6330'MD (4616' TVD).: Remarks - Line 012
R002. EOG RESOURCES INC.: Remarks - Line 002
R003. PATHFINDER ENERGY SERVICES TRACKING #; 101008070 WT-WT.: Remarks - Line 003
R005. ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.: Remarks - Line 005
R006. ALL LOGGING DATA ARE TRANSMITTED ONLY UNLESS STATED OTHERWISE.: Remarks - Line 006
"R008. RUN #1; 6 1/4"" HDS-1R / GAMMA LOGGING RUN.: Remarks - Line 008 "
"R009. RUN #2; 6 1/4"" HDS-1R / GAMMA LOGGING RUN.: Remarks - Line 009 "
RA01. RUN #1: RUN NUMBER 01
RB01. 30-NOV-08: START DATE - RUN 01
RC01. 13;30: START TIME - RUN 01
RD01. 02-DEC-08: END DATE - RUN 01
RE01. 01;00: END TIME - RUN 01
RF01.FT 4118: DEPTH IN - RUN 01
RG01.FT 4707: DEPTH OUT - RUN 01
RH01.FT 4066: LOG TOP - RUN 01
RI01.FT 4655: LOG BOTTOM - RUN 01
RJ01.IN 7 7/8: HOLE SIZE - RUN 01
RU01. N.A.TVRDY: ENGINEER #1 - RUN 01
RV01. N.S.TVRDY: ENGINEER #2 - RUN 01
MB01.FT 4111: MUD DEPTH - RUN 01
MD01. WATER BASED: MUD TYPE - RUN 01
ME01.LB/GAL 8.70: DENSITY - RUN 01
MF01.S/QT 31: VISCOSITY - RUN 01
MG01. 10.0: PH - RUN 01
MM01.CM3/30 0.0: FLUID LOSS - RUN 01
MH01.PPM 40000: SALINITY - RUN 01
MK01.DEGF 101: MAX REC TEMP - RUN 01
RA02. RUN #2: RUN NUMBER 02
RB02. 02-DEC-08: START DATE - RUN 02
RC02. 03;00: START TIME - RUN 02
RD02. 03-DEC-08: END DATE - RUN 02
RE02. 20;00: END TIME - RUN 02
RF02.FT 4707: DEPTH IN - RUN 02
RG02.FT 6756: DEPTH OUT - RUN 02
RH02.FT 4655: LOG TOP - RUN 02
RI02.FT 6698: LOG BOTTOM - RUN 02
RJ02.IN 7 7/8: HOLE SIZE - RUN 02
RU02. N.A.TVRDY: ENGINEER #1 - RUN 02
RV02. N.S.TVRDY: ENGINEER #2 - RUN 02
MB02.FT 4111: MUD DEPTH - RUN 02
MD02. WATER BASED: MUD TYPE - RUN 02
ME02.LB/GAL 8.70: DENSITY - RUN 02
MF02.S/QT 31: VISCOSITY - RUN 02
MG02. 10.0: PH - RUN 02
MM02.CM3/30 0.0: FLUID LOSS - RUN 02
MH02.PPM 40000: SALINITY - RUN 02
MK02.DEGF 108: MAX REC TEMP - RUN 02
RA03. RUN #3: RUN NUMBER 03

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RB03.      03-DEC-08: START DATE - RUN 03
RC03.      21:45: START TIME - RUN 03
RD03.      06-DEC-08: END DATE - RUN 03
RE03.      04:00: END TIME - RUN 03
RF03.FT    6330: DEPTH IN - RUN 03
RG03.FT    8275: DEPTH OUT - RUN 03
RH03.FT    6272: LOG TOP - RUN 03
RI03.FT    8217: LOG BOTTOM - RUN 03
RJ03.IN    7 7/8: HOLE SIZE - RUN 03
RU03.      N.A.TVRDY: ENGINEER #1 - RUN 03
RV03.      N.S.TVRDY: ENGINEER #2 - RUN 03
MB03.FT    4111: MUD DEPTH - RUN 03
MD03.      WATER BASED: MUD TYPE - RUN 03
ME03.LB/GAL 8.70: DENSITY - RUN 03
MF03.S/QT   31: VISCOSITY - RUN 03
MG03.      10.0: PH - RUN 03
MM03.CM3/30 0.0: FLUID LOSS - RUN 03
MH03.PPM   40000: SALINITY - RUN 03
MK03.DEGF   116: MAX REC TEMP - RUN 03
TTL1.      GAMMA-RAY: HEADER TITLE LINE 1
TTL2.      : HEADER TITLE LINE 2
TTL3.      : HEADER TITLE LINE 3
SC1.       : LOG SCALE 1
"SC2.      5'" = 100': LOG SCALE 2"

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DEPT.FT	: MWD Tool Measurement Depth
MTVD.FT	: MWD Tool Measurement TVD
INC .DEG	: Inclination
AZI .DEG	: Azimuth
SECT.FT	: Section
RCN .FT	: Rectangular Co-ordinates North
RCE .FT	: Rectangular Co-ordinates East
DLSEV.DG/HFT	: Dog-leg Severity

~ASCII Data

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Tippecanoe B 7 Fee #2H ST Final Surveys.txt

4325.00	4321.35	21.10	273.13	12.41	20.81	-12.51	14.37
4356.00	4349.85	25.15	270.72	24.57	21.20	-24.68	13.41
4386.00	4376.52	29.37	269.44	38.30	21.21	-38.41	14.20
4418.00	4403.83	33.41	269.01	54.97	20.98	-55.07	12.64
4449.00	4429.09	37.37	270.12	72.92	20.85	-73.02	12.94
4480.00	4453.00	41.68	270.88	92.64	21.03	-92.75	13.99
4511.00	4475.37	45.90	270.44	114.08	21.27	-114.19	13.65
4541.00	4495.44	50.12	270.11	136.38	21.38	-136.49	14.09
4572.00	4514.69	53.11	269.22	160.67	21.23	-160.78	9.90
4603.00	4532.76	55.57	269.45	185.86	20.94	-185.96	7.96
4634.00	4549.75	57.95	269.20	211.78	20.63	-211.89	7.71
4664.00	4564.82	61.73	269.40	237.71	20.32	-237.82	12.61
4695.00	4578.50	65.86	268.95	265.52	19.92	-265.63	13.39
4726.00	4590.26	69.56	267.92	294.19	19.13	-294.29	12.32
4757.00	4600.08	73.51	267.13	323.57	17.86	-323.66	12.97
4788.00	4607.84	77.47	267.01	353.54	16.32	-353.63	12.78
4819.00	4614.01	79.58	266.72	383.88	14.66	-383.96	6.87
4850.00	4619.80	78.88	266.21	414.29	12.78	-414.36	2.78
4880.00	4625.50	79.23	267.23	443.70	11.10	-443.76	3.54
4911.00	4630.87	80.81	267.50	474.21	9.70	-474.26	5.17
4942.00	4635.23	83.01	268.77	504.88	8.70	-504.93	8.17
4973.00	4638.46	85.03	269.63	535.71	8.27	-535.76	7.08
5066.00	4642.82	89.60	271.96	628.56	9.56	-628.62	5.52
5159.00	4639.75	94.18	272.17	721.41	12.91	-721.48	4.93
5251.00	4632.98	94.26	272.60	813.06	16.73	-813.15	0.48
5344.00	4631.13	88.02	269.11	905.96	18.11	-906.06	7.69
5437.00	4632.77	89.96	270.31	998.94	17.64	-999.04	2.45
5530.00	4632.98	89.78	271.65	1091.92	19.23	-1092.03	1.45
5623.00	4630.27	93.56	272.24	1184.79	22.38	-1184.92	4.11
5715.00	4627.03	90.48	271.80	1276.64	25.62	-1276.79	3.38
5808.00	4625.75	91.10	270.09	1369.61	27.16	-1369.77	1.96
5902.00	4623.73	91.36	269.63	1463.59	26.93	-1463.74	0.56
5996.00	4621.86	90.92	268.37	1557.56	25.29	-1557.71	1.42
6089.00	4619.73	91.71	267.66	1650.49	22.07	-1650.63	1.14
6182.00	4617.30	91.28	267.75	1743.40	18.34	-1743.52	0.47
6275.00	4615.44	91.01	268.32	1836.35	15.16	-1836.45	0.68
6337.00	4615.68	88.55	268.95	1898.33	13.68	-1898.42	4.10
6368.00	4616.63	87.93	268.58	1929.31	13.01	-1929.40	2.33
6461.00	4619.41	88.64	269.18	2022.26	11.19	-2022.34	1.00
6555.00	4621.28	89.08	268.46	2116.23	9.26	-2116.30	0.90
6649.00	4622.01	90.04	268.50	2210.20	6.77	-2210.26	1.02
6744.00	4620.91	91.28	269.00	2305.18	4.69	-2305.23	1.41
6837.00	4616.84	93.74	269.00	2398.08	3.07	-2398.12	2.65
6930.00	4612.70	91.36	268.09	2490.96	0.71	-2490.99	2.74
7024.00	4607.37	95.14	270.67	2584.78	-0.31	-2584.81	4.87
7117.00	4598.90	95.32	270.56	2677.38	0.69	-2677.42	0.23
7211.00	4591.91	93.21	270.94	2771.10	1.91	-2771.15	2.28
7305.00	4586.21	93.74	270.90	2864.91	3.42	-2864.96	0.57

Tippecanoe B 7 Fee #2H ST Final Surveys.txt							
7399.00	4580.00	93.83	270.95	2958.68	4.94	-2958.74	0.11
7492.00	4575.36	91.89	271.00	3051.54	6.52	-3051.61	2.09
7586.00	4570.97	93.47	273.54	3145.33	10.23	-3145.42	3.18
7679.00	4567.11	91.28	271.75	3238.12	14.52	-3238.23	3.04
7772.00	4564.61	91.80	272.42	3331.00	17.90	-3331.14	0.91
7866.00	4561.59	91.89	272.63	3424.84	22.04	-3425.00	0.24
7959.00	4558.45	91.98	272.26	3517.68	26.01	-3517.86	0.41
8084.00	4556.33	89.96	272.06	3642.54	30.72	-3642.75	1.62
8197.00	4553.73	92.68	273.69	3755.33	36.38	-3755.56	2.81
8275.00	4550.08	92.68	273.69	3833.05	41.40	-3833.31	0.00