

BAKER HUGHES



Baker Atlas

FILE NO:

COMPANY

SIERRA GEOTHERMAL POWER, INC.

APN NO:

WELL

ALUM 25-29

27-008-80074

COUNTY

ESMERALDA

STATE NEVADA

Ver. 3.87

LOCATION:

TIGHT HOLE

SHL: 2235.18' FSL & 938.11' FNL
SW/C

OTHER SERVICES

SEC 29 TWP 1N RGE 38.5 E

PERMANENT DATUM

G.L. ELEVATION 4803.57 FT

LOG MEASURED FROM

K.B. 18.0 FT ABOVE P.D.

ELEVATIONS:
KB 4919.57 FT
DF
OL 4803.57 FT

DRILL MEAS. FROM

K.B.

DATE 25-NOV-2008

RUN TRIP

2 2

SERVICE ORDER

572896

DEPTH DRILLER

3314 FT

DEPTH LOGGER

3313 FT

BOTTOM LOGGED INTERVAL

3301 FT

TOP LOGGED INTERVAL

2100 FT

CASING DRILLER

10.75 IN 2250 FT

CASING LOGGER

2280 FT

BIT SIZE

9.875 IN

TYPE OF FLUID IN HOLE

LSND

DENSITY

8.8 LB/G 40 S

PH

9.7 8.03

SOURCE OF SAMPLE

FLOWLINE

RM AT MEAS. TEMP.

0.885 CHM 67.72 DEGF

RM AT MEAS. TEMP.

0.828 CHM 67.54 DEGF

RM AT MEAS. TEMP.

1.018 CHM 68.90 DEGF

SOURCE OF RMF

MEASURED MEASURED

RM AT BHT

0.286 CHM 218 DEGF

TIME SINCE CIRCULATION

14.5 HOURS

MAX. RECORDED TEMP.

216 DEGF

EQUIP. NO.

IN-4232 FALLON, NV

RECORDED BY

C. PEAVEY

WITNESSED BY

J. HANBLIN

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

REMARKS

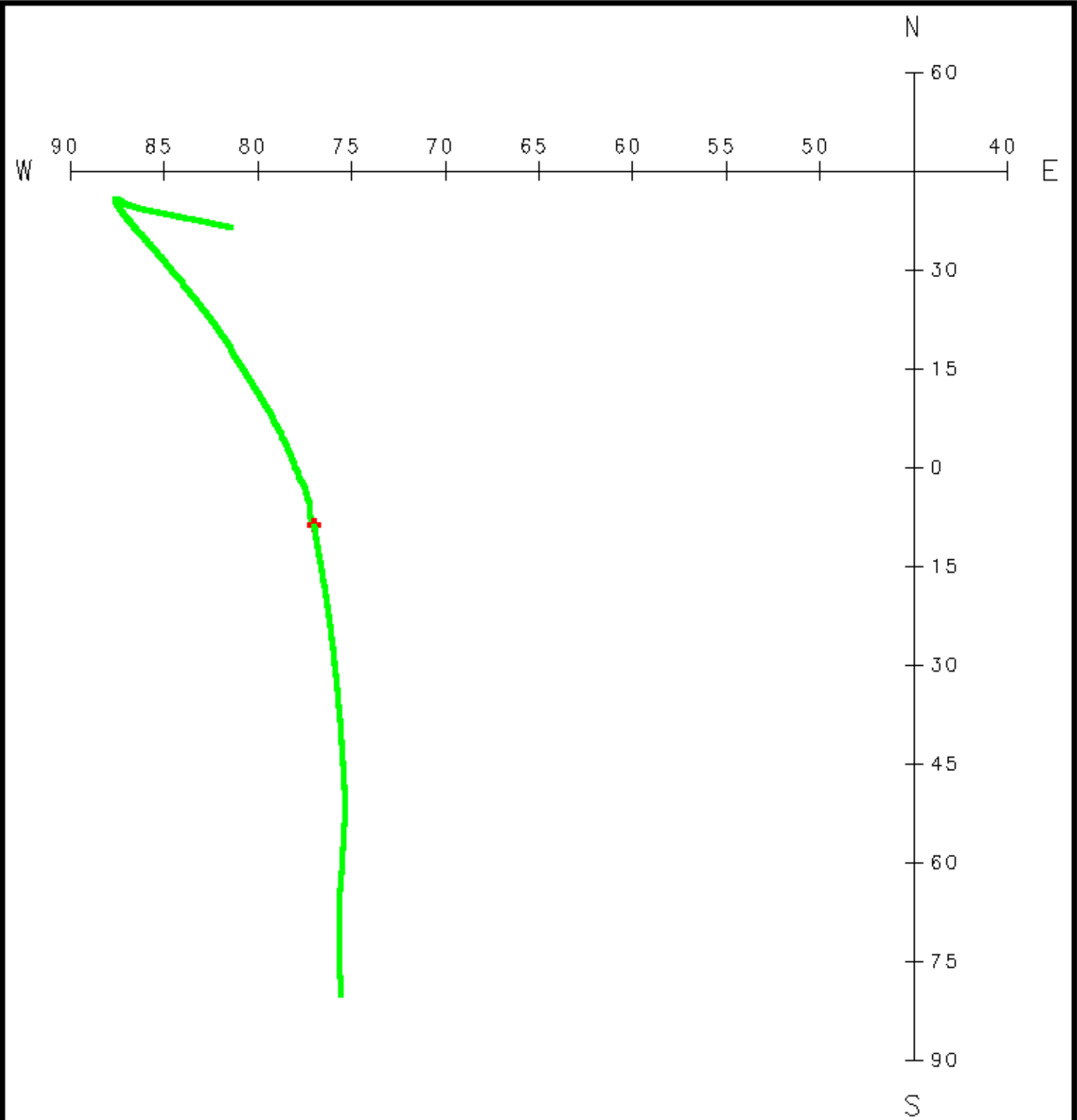
RUN 2 TRIP 2 : DIRECTIONAL DATA TIED IN WITH BAKER ATLAS RUN 1 DIRECTIONAL DATA AT:
MD: 2278.0' INCL: 3.0 TVD: 2275.80' N/S: 36.52 N E/W: 81.37 W
HOWEVER THIS POINT IS WELL WITHIN CASING, SO THE WELL BORE HAS TO BE ASSUMED TO BE VERTICAL FROM THERE TO THE ACTUAL TIE IN POINT THAT IS LOCATED IN OPEN HOLE.
THEREFORE THE NEW TIE IN POINT FOR THE DIRECTIONAL SURVEY IS:
MD: 2325.0' INCL: 3.0 TVD: 2322.80' N/S: 36.52 N E/W: 81.37 W
MAGNETIC DECLINATION: 13.50 DEGREES

THANK YOU FOR CHOOSING BAKER ATLAS!
CREW: R. DANKLEFSEN AND J. HAYCOCK
RIG: ENSIGN 581

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
2	2	SWL	3844KD	10165844	FREE
2	2	TRM	3881XA	10217216	FREE
2	2	WTS	3514XR	10200358	FREE

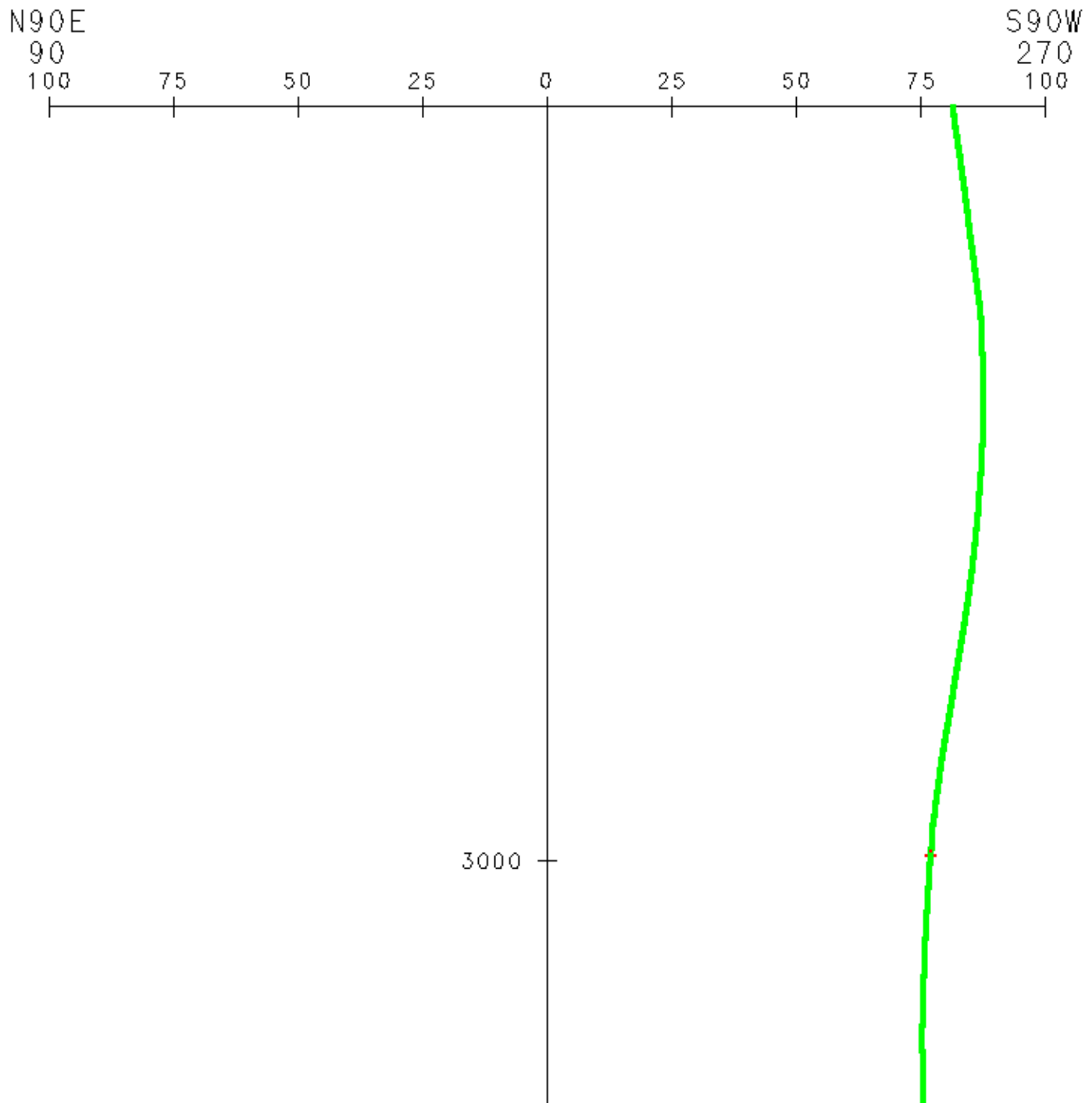
2	2	BSL	1320XA	10203000	FREE
2	2	HDL	1515EA/VA	10088826/10088832	STAND-OFF
2	2	CENT	4341XA	10211527	FREE
2	2	ORT	4401KB	10165246	CENTRALIZED
2	2	XMAC	1677EA/1678MC	10337574/370238	CENTRALIZED
2	2	ISO	1678PB	10215112	CENTRALIZED
2	2	XMAC XTR	1678EA/1678FA	370234/10199868	CENTRALIZED
2	2	CENT	4341XA	10162851	FREE



PLAN VIEW

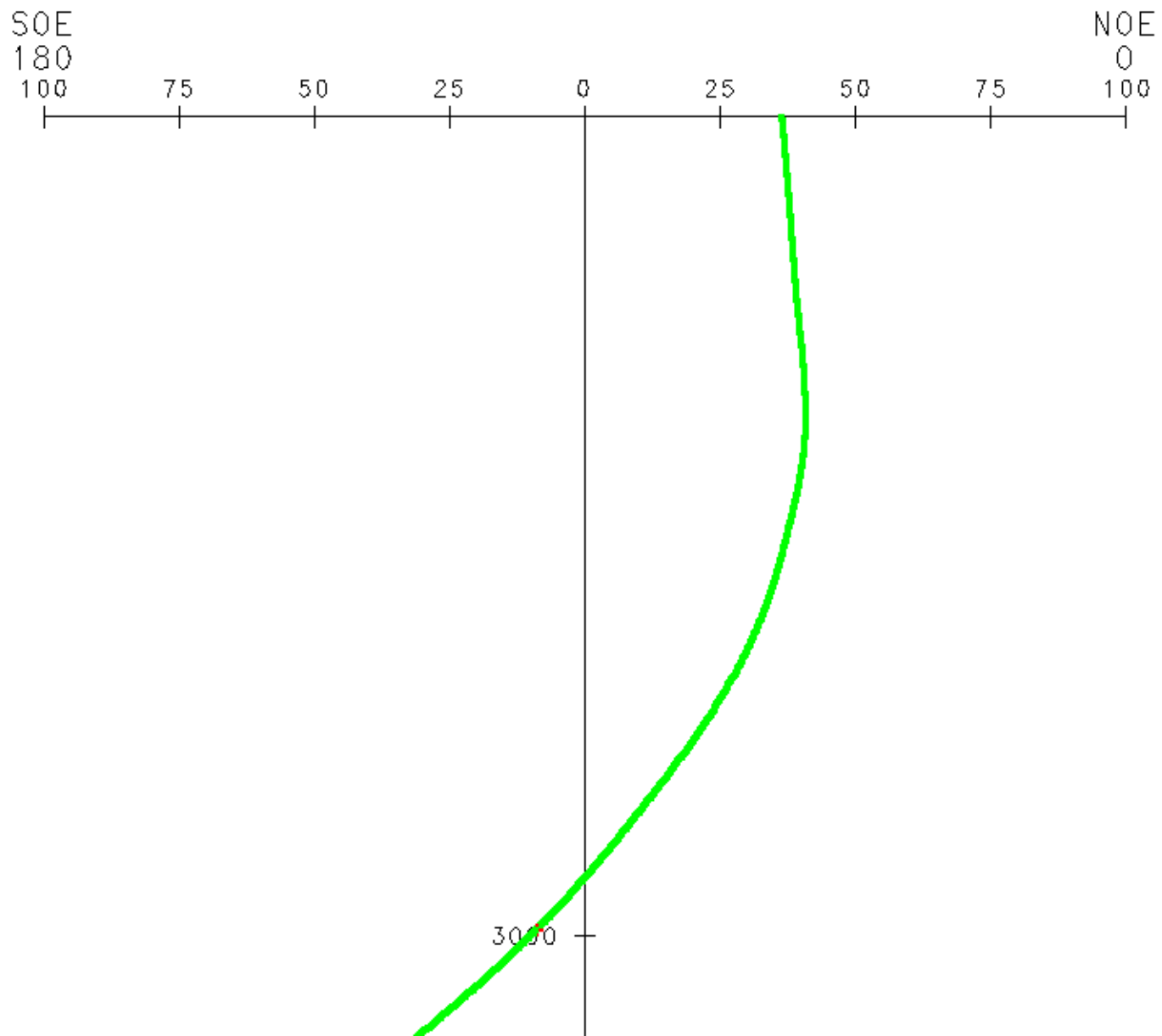
PLAN VIEW

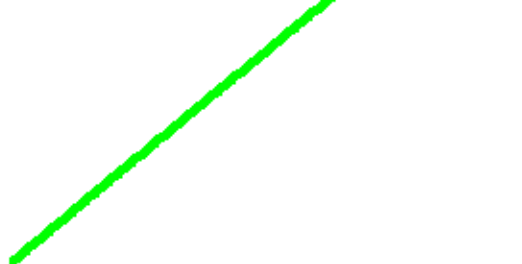
✓ : WELLBORE COURSE	FINAL EAST-WEST DRIFT	75.53 FT WEST
✚ : MEASURED DEPTH TIE-IN	FINAL NORTH-SOUTH DRIFT	80.05 FT SOUTH
✱ : WELLHEAD POSITION	FINAL DRIFT DISTANCE	110.06 FT
	FINAL DRIFT DIRECTION	S 43.34 W
	DRIFT UNITS	FEET
	DEPTH UNITS	FEET






SIDE VIEW FROM AZIMUTH 0

✓ : WELLBORE COURSE	MAX. DRIFT N90E	0.00 FT
+ : MEASURED DEPTH TIE-IN	MAX. DRIFT S90W	87.54 FT
* : WELLHEAD POSITION	BOTTOM TVD THIS INTERVAL	3285.37 FT
	DRIFT UNITS	FEET
	DEPTH UNITS	FEET

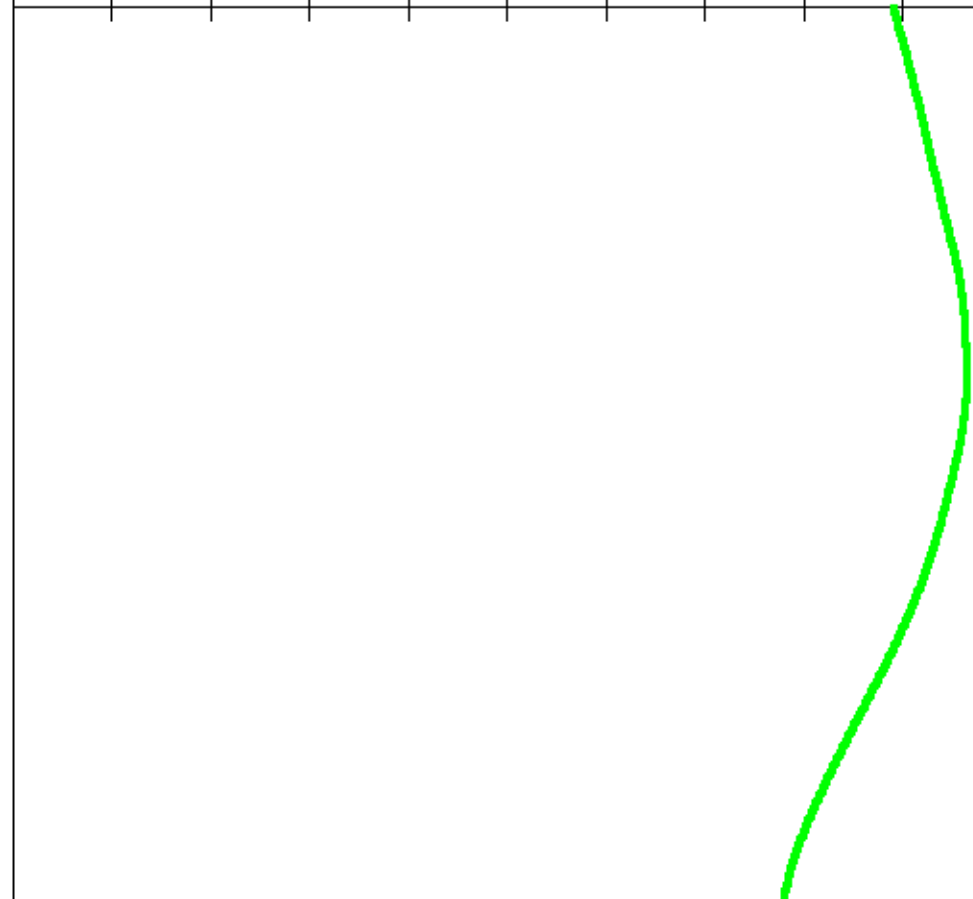




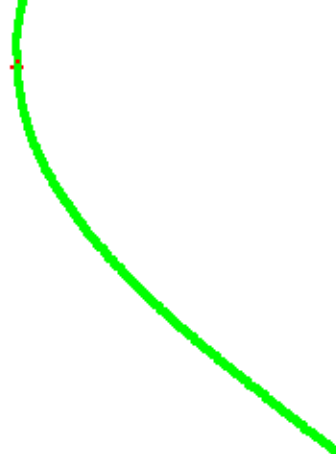
SIDE VIEW FROM AZIMUTH 90

	: WELLBORE COURSE	MAX. DRIFT SOE	80.05 FT
	: MEASURED DEPTH TIE-IN	MAX. DRIFT NOE	40.85 FT
	: WELLHEAD POSITION	BOTTOM TVD THIS INTERVAL	3285.37 FT
		DRIFT UNITS	FEET
		DEPTH UNITS	FEET




0 10 20 30 40 50 60 70 80 90 100 110 120



3000



DEPTH VS. DRIFT

	: WELLBORE COURSE	MAX. DRIFT FROM WELLHEAD	110.06 FT
	: MEASURED DEPTH TIE-IN	BOTTOM TVD THIS INTERVAL	3285.37 FT
	: WELLHEAD POSITION	DRIFT UNITS	FEET
		DEPTH UNITS	FEET

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SIERRA GEOTHERMAL POWER, INC.
ALUM 25-29

DEPTH	DEVIATION		T.V.D.	DRIFT COORDINATES			
	ANGLE	AZIMUTH		STATION		TOTAL	
				N-S	E-W	N-S	E-W
2325.00	2.4	300.4	2322.60	36.52N	81.37W	36.52N	81.37W
2375.00	2.1	299.0	2372.58	0.99N	1.69W	37.51N	83.06W
2425.00	1.9	300.3	2422.53	0.86N	1.48W	38.37N	84.54W
2475.00	2.1	305.3	2472.50	0.86N	1.48W	39.24N	86.02W
2525.00	1.3	332.9	2522.47	1.13N	1.18W	40.37N	87.20W
2575.00	0.2	249.5	2572.47	0.48N	0.31W	40.85N	87.51W
2625.00	2.4	167.8	2622.45	1.10S	0.11E	39.76N	87.40W
2675.00	3.5	162.7	2672.38	2.58S	0.67E	37.17N	86.72W
2725.00	4.9	163.1	2722.28	3.27S	1.02E	35.90N	85.70W
2775.00	6.8	163.3	2772.01	4.83S	1.45E	29.07N	84.26W
2825.00	8.5	165.4	2821.54	6.55S	1.80E	22.52N	82.46W
2875.00	10.0	167.9	2870.87	7.94S	1.83E	14.58N	80.63W
2925.00	10.5	170.1	2920.08	8.67S	1.80E	5.91N	78.83W
2975.00	11.6	175.2	2969.16	9.45S	1.44E	3.53S	77.39W
3025.00	13.4	176.3	3017.96	10.83S	0.78E	14.36S	76.81W
3075.00	14.8	177.6	3066.45	12.18S	0.63E	26.54S	75.98W
3125.00	15.2	178.5	3114.72	13.01S	0.44E	39.55S	75.54W
3175.00	15.1	180.9	3162.98	13.08S	0.23E	52.63S	75.31W
3225.00	15.0	180.7	3211.27	12.98S	0.28W	65.61S	75.58W
3275.00	14.9	179.4	3259.58	12.90S	0.04E	78.51S	75.55W
3281.00	14.9	179.4	3265.37	1.54S	0.02E	80.05S	75.53W

THE FIRST POINT INFORMATION:

2325.00 2.4 300.4 2322.60 36.52N 81.37W 36.52N 81.37W

THE LAST POINT INFORMATION:

3281.00 14.9 179.4 3265.37 1.54S 0.02E 80.05S 75.53W

FINAL EAST-WEST DRIFT = 75.53 W
 FINAL NORTH-SOUTH DRIFT = 80.05 S
 FINAL DRIFT DISTANCE = 110.06 FT
 FINAL DRIFT DIRECTION = S 43.34 W


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