WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

WELL TYPE GS, OG LAW	COMPANY: SOUTHERN CALIF. GAS CO WELL: STANDARD SESNON 44A FIELD: ALISO CANYON COUNTY: LOS ANGELES STATE: CALIFORNIA

LOCATION: DISTRICT 2 API NUMBER: 0403721455 SEC: 28 TWN: 3N RNG: 16W	OTHER SVC:
PERMANENT DATUM: GROUND LEVEL ELEV: 2674' LOG MEASURED FROM KB 17' ABOVE PERM DATUM DRILLING MEASURED FROM	-ELEVATIONS- KB: 2691 Ft. DF: Ft. GL: 2674 Ft.

DATE LOG RAN	04-13-2016	PRESSURE	FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI			0
EFFECTIVE DEPTH	9424'	CASING PSI			0
PICKUP DEPTH	8736'	INJECTION RATE	N|A		
BOT LOGGED INT	8736'	OBSERVED RATE	N|A		
TOP LOGGED INT	100'	R/A SOURCE	N|A		
TYPE OF INJECT	NONE	ACTIVITY	N|A		
FLUID IN WELL	G/W	HALF LIFE	N|A		
FLUID LEVEL	1554'				
WELL STATUS	STATIC			PRODUCTION DATA	
MAX TEMPERATURE	180.4 F.	OIL Gr.		OIL =	
AT DEPTH	8736'	GAS Gr.		GAS=	
TEMPERATURE SENS	1 F/DIV.	MPP		BHP =	
LOGGING SPEED	100 FPM			WATER=	
RECORDED BY	D. PROKUSKI				
WITNESSED BY	NONE				
EMAIL TO	A.KARGAR				
DEPTH CORRELATION	NONE				

Equipment Data

	Collar Locator	1.375"	
	Temperature Tool	1.375"	
	Audio Detector	1.375"	

Remarks/Survey Results

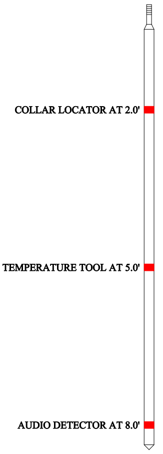
PLEASE NOTE: TUBING INFORMATION DOESNT MATCH; POSSIBLE TUBING TAIL @ 4191'.
11:15 AM - ON LOCATION
11:30 AM - RAN IN HOLE
11:35 AM - BEGIN SURVEY
02:45 PM - PULLED OUT OF HOLE
03:00 PM - OFF LOCATION
SANDTAG MARKERS: 8812' TOP S1
8879' TOP S4
8990' TOP S8
9202' FREW

CASING AND TUBING RECORD

SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
13.375"	54.5	SURFACE	854'	3.500"	9.3	8755'	8762'
8.625"	36	SURFACE	8865'	2.375"	4.7	8762'	9084'
6.625"	24	8830'	9424'				
2.875"	6.5	SURFACE	8755'				

STR.	PIPE DIA.	PERFORATIONS
A	8.625"	SQUEEZED: 8811'-8812'
	6.625"	WSO: 8835' WSO: 8833', 8822'-9061', 8865'-9031',
		9031'-9080', .
		PACKERS: 8756', [ECP] 9047', 9073'.
		MANDRELS: 8646'.
		SLEEVES: 8688', 9002'.
		PENGO PATCH: 3966'-3987'.
		NO-GO: 8722', 9036'.
		STAGE COLLARS: 3976', 3987'.

TOOL DIAGRAM



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     Audio Data:  C:\data\NOISE.txt
--------------------------------------------------
   DEPTH |   200HZ |   600HZ |  1000HZ |  2000HZ | COMMENTS
--------------------------------------------------
     100 |   13.30 |    6.50 |    4.00 |    1.40 |
     120 |   13.50 |    6.50 |    4.00 |    1.40 |
     140 |   13.30 |    6.50 |    4.00 |    1.40 |
     160 |   13.60 |    6.60 |    4.10 |    1.50 |
     180 |   13.30 |    6.50 |    4.10 |    1.50 |
     200 |   13.30 |    6.50 |    4.00 |    1.40 |
     220 |   13.50 |    6.60 |    4.10 |    1.50 |
     240 |   13.30 |    6.50 |    4.00 |    1.50 |
     260 |   13.40 |    6.50 |    4.10 |    1.40 |
     280 |   13.30 |    6.50 |    4.00 |    1.50 |
     300 |   13.30 |    6.50 |    4.10 |    1.50 |
     320 |   13.30 |    6.50 |    4.00 |    1.40 |
     340 |   13.40 |    6.50 |    4.10 |    1.50 |
     360 |   13.50 |    6.50 |    4.00 |    1.50 |
     380 |   13.30 |    6.50 |    4.10 |    1.50 |
     400 |   13.30 |    6.50 |    4.00 |    1.50 |
     420 |   13.30 |    6.50 |    4.10 |    1.50 |
     440 |   13.30 |    6.50 |    4.10 |    1.50 |
     460 |   13.40 |    6.50 |    4.10 |    1.50 |
     480 |   13.30 |    6.50 |    4.10 |    1.50 |
     499 |   13.30 |    6.50 |    4.10 |    1.50 |
     520 |   13.30 |    6.50 |    4.10 |    1.60 |
     541 |   13.20 |    6.50 |    4.00 |    1.50 |
     560 |   13.20 |    6.50 |    4.00 |    1.50 |
     580 |   13.30 |    6.50 |    4.10 |    1.50 |
     600 |   13.20 |    6.50 |    4.10 |    1.60 |
     620 |   13.40 |    6.60 |    4.20 |    1.60 |
     640 |   13.20 |    6.50 |    4.10 |    1.50 |
     800 |   13.10 |    6.50 |    4.10 |    1.50 |
     820 |   13.30 |    6.70 |    4.30 |    1.90 |
     840 |   13.30 |    6.70 |    4.30 |    1.90 |
     860 |   13.30 |    6.50 |    4.10 |    1.60 |
     880 |   13.20 |    6.50 |    4.10 |    1.60 |
     900 |   13.50 |    6.60 |    4.20 |    1.80 |
    1000 |   13.50 |    6.70 |    4.30 |    1.80 |
    1250 |   13.40 |    6.80 |    4.50 |    2.20 | SOUNDS LIKE WATER
    1500 |   13.30 |    6.60 |    4.30 |    1.90 | |
    1520 |   13.10 |    6.50 |    4.20 |    1.80 | |
    1540 |   13.40 |    6.70 |    4.30 |    2.00 | |
    1560 |   13.80 |    6.90 |    4.50 |    2.10 | |
    1580 |   13.70 |    7.10 |    4.80 |    2.20 | SOUNDS LIKE WATER
    1600 |   15.40 |    8.10 |    5.10 |    2.00 |
    1620 |   13.40 |    6.80 |    4.40 |    2.00 |
    1640 |   13.50 |    6.90 |    4.50 |    1.90 |
    1750 |   15.10 |    8.20 |    5.80 |    2.90 |
    2000 |   14.10 |    7.60 |    5.20 |    2.70 | SOUNDS LIKE WATER
    2250 |   12.80 |    6.70 |    4.70 |    2.80 | |
    2500 |   12.70 |    6.80 |    4.70 |    2.70 | |
    2750 |   13.20 |    7.10 |    4.80 |    2.50 | |
    3000 |   12.80 |    6.60 |    4.40 |    2.10 | |
    3250 |   13.00 |    7.00 |    4.90 |    2.80 | |
    3500 |   13.20 |    7.50 |    5.50 |    2.60 | SOUNDS LIKE WATER
    3750 |   12.90 |    6.60 |    4.30 |    1.80 |
    4000 |   12.80 |    6.50 |    4.20 |    1.70 |
    4100 |   12.90 |    6.60 |    4.30 |    1.80 |
    4120 |   12.80 |    6.50 |    4.30 |    1.70 |
    4140 |   12.80 |    6.50 |    4.20 |    1.70 |
    4160 |   12.90 |    6.60 |    4.30 |    1.70 |
    4180 |   12.70 |    6.50 |    4.20 |    1.60 |
    4200 |   12.70 |    6.40 |    4.10 |    1.60 |
    4220 |   12.50 |    6.40 |    4.20 |    1.80 |
    4240 |   12.50 |    6.40 |    4.10 |    1.70 |
    4260 |   12.40 |    6.40 |    4.10 |    1.70 |
    4280 |   12.50 |    6.40 |    4.20 |    1.70 |
    4300 |   12.50 |    6.30 |    4.10 |    1.80 |
    4500 |   12.50 |    6.50 |    4.30 |    1.90 |
    4750 |   12.50 |    6.50 |    4.30 |    1.80 |
    5000 |   12.40 |    6.40 |    4.20 |    1.70 |
    5250 |   12.20 |    6.30 |    4.20 |    1.80 |
    5500 |   12.20 |    6.40 |    4.20 |    1.70 |
    5750 |   12.10 |    6.30 |    4.20 |    1.70 |
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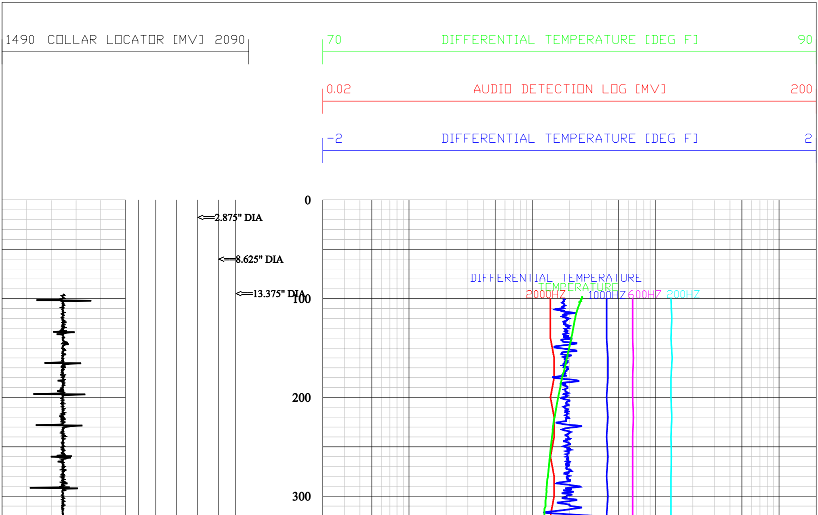
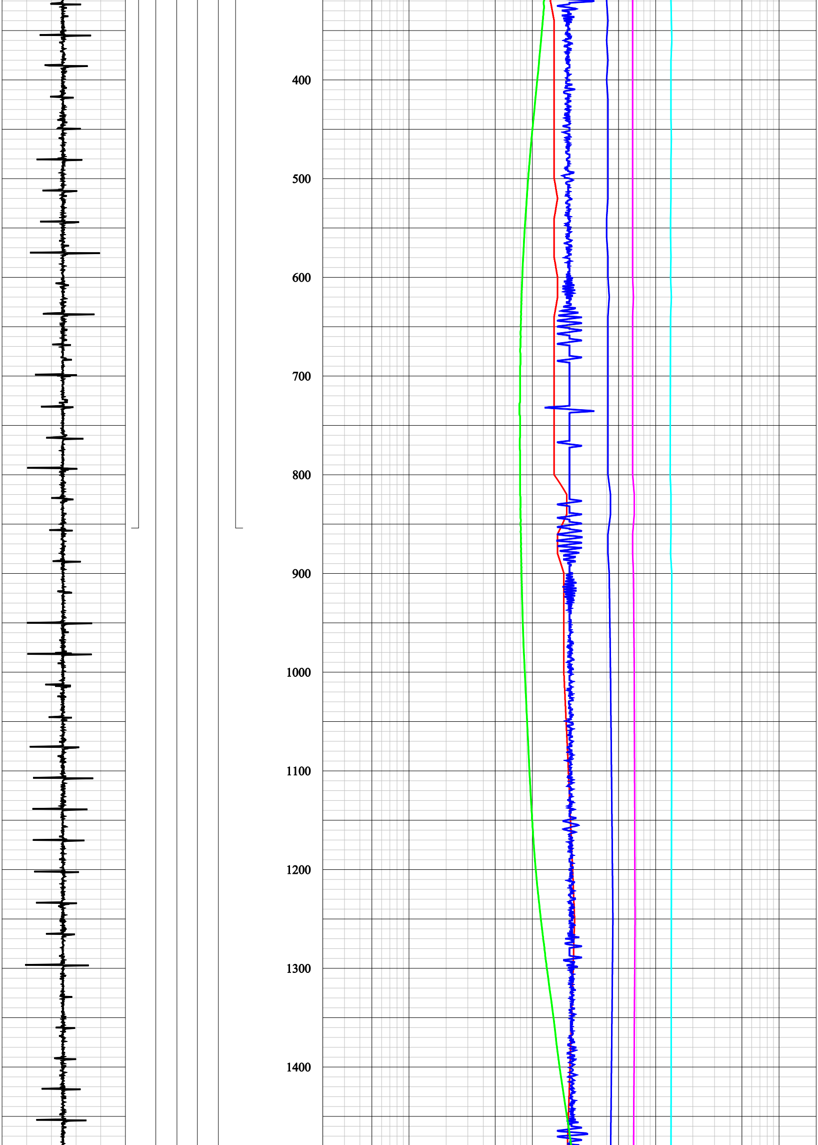
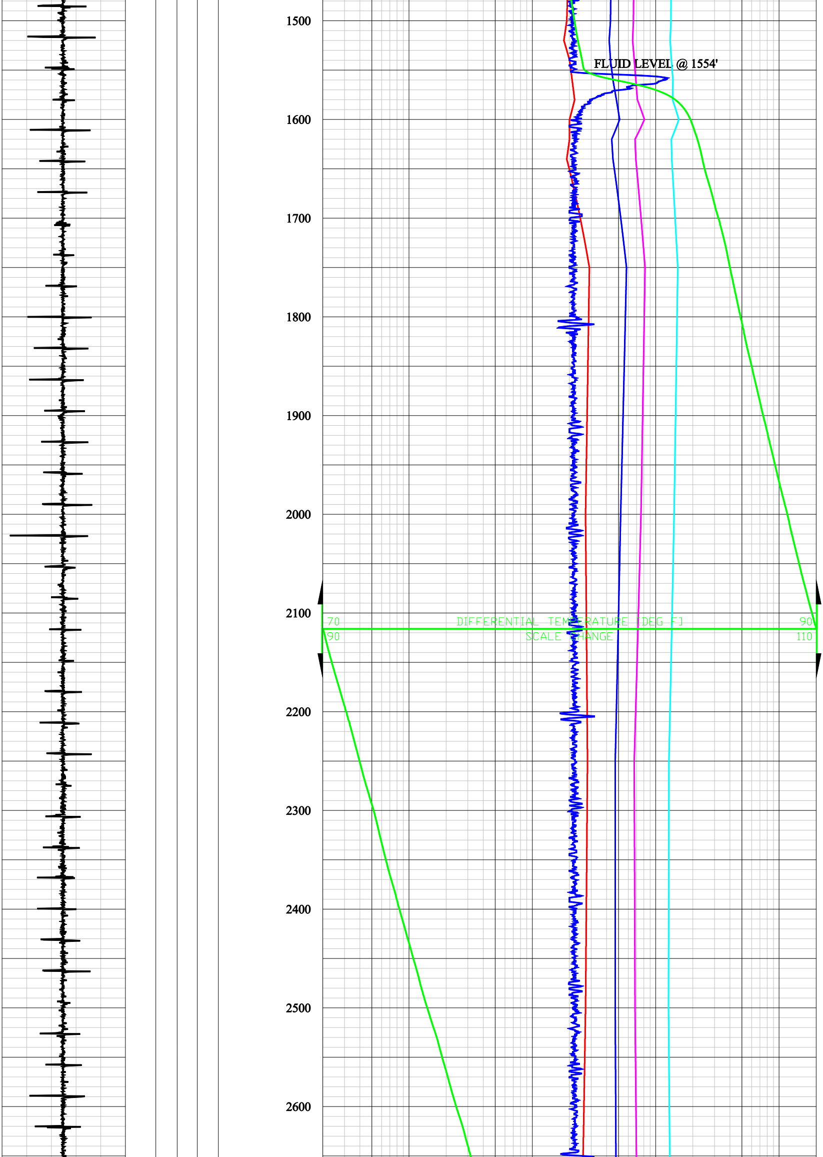
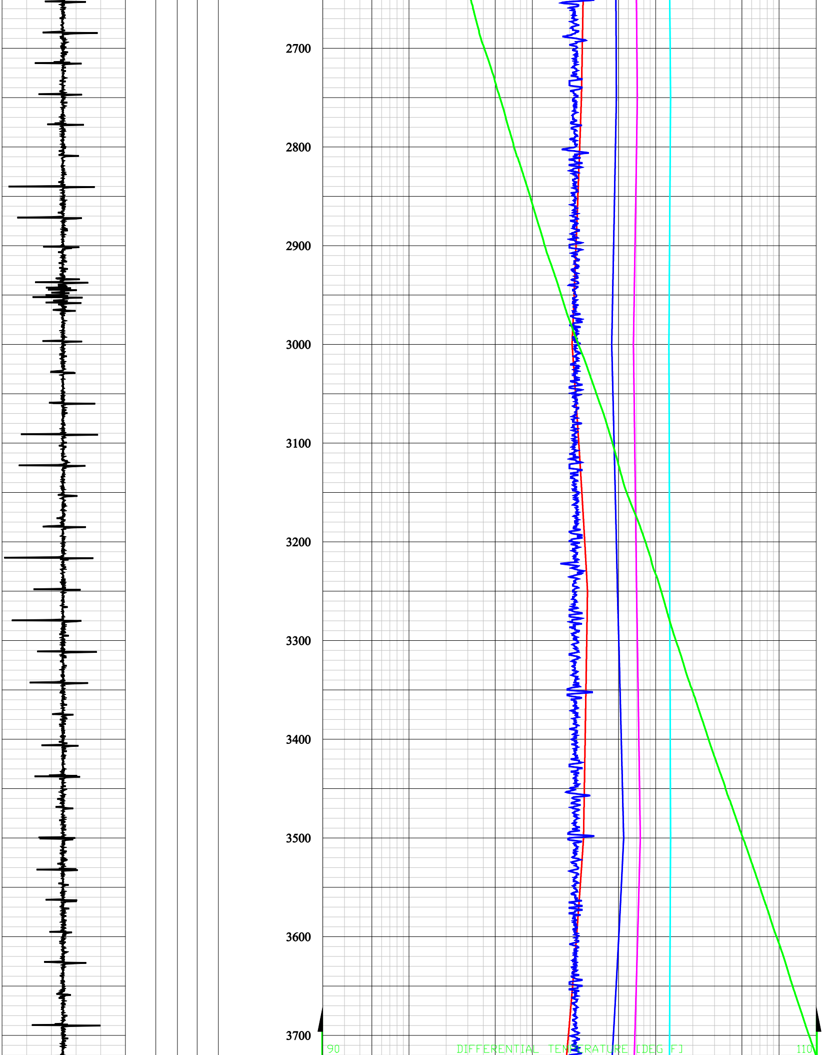
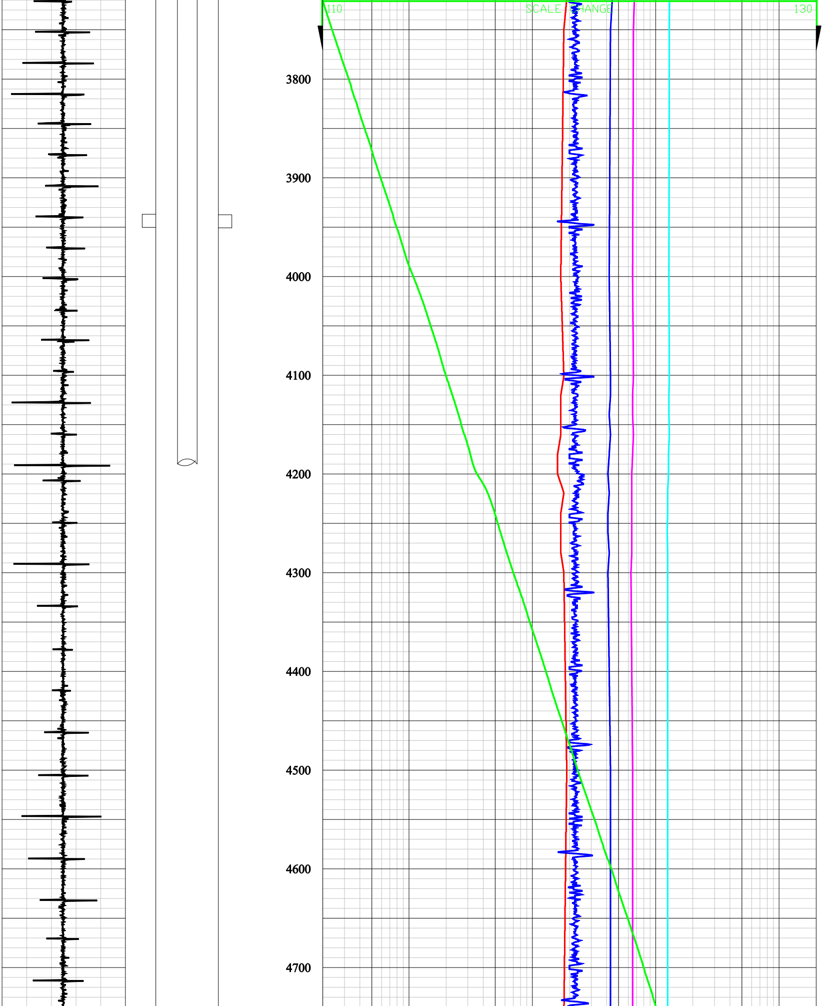
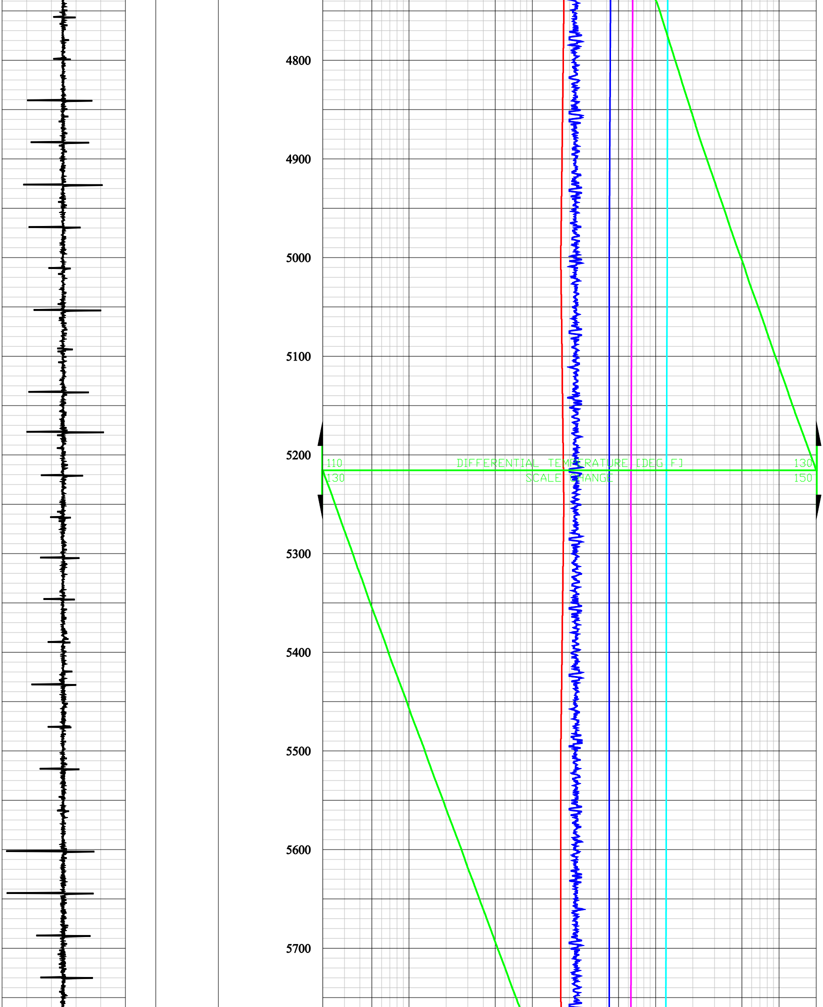
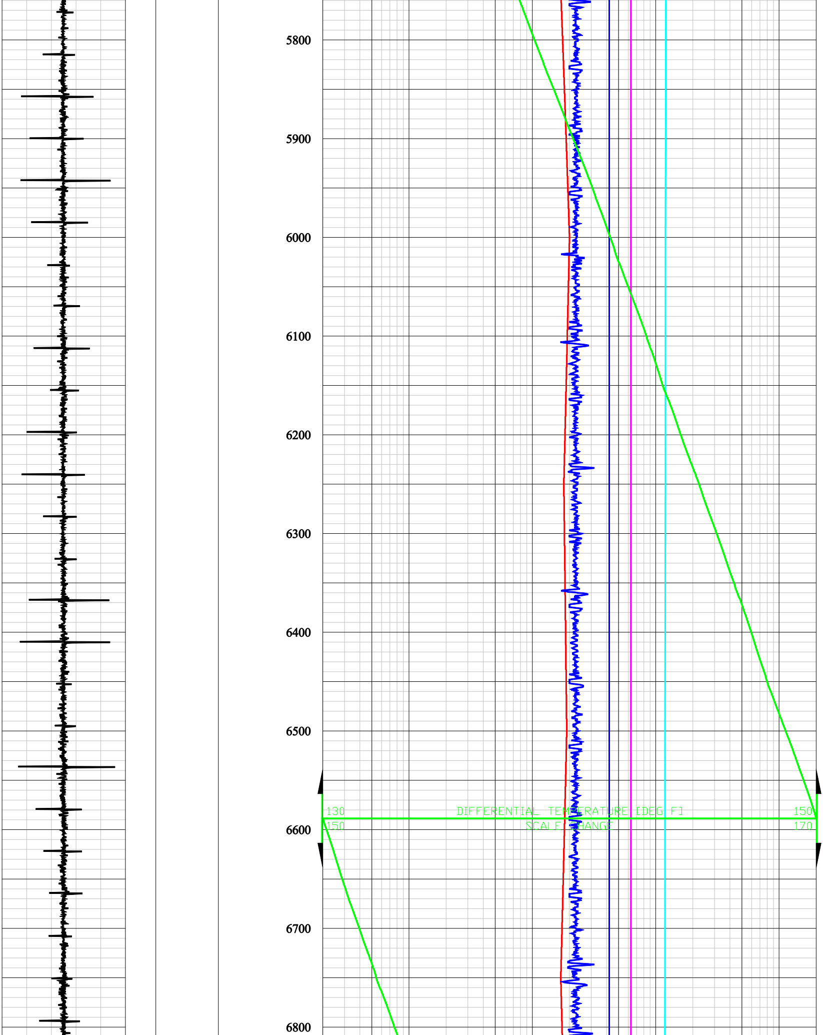
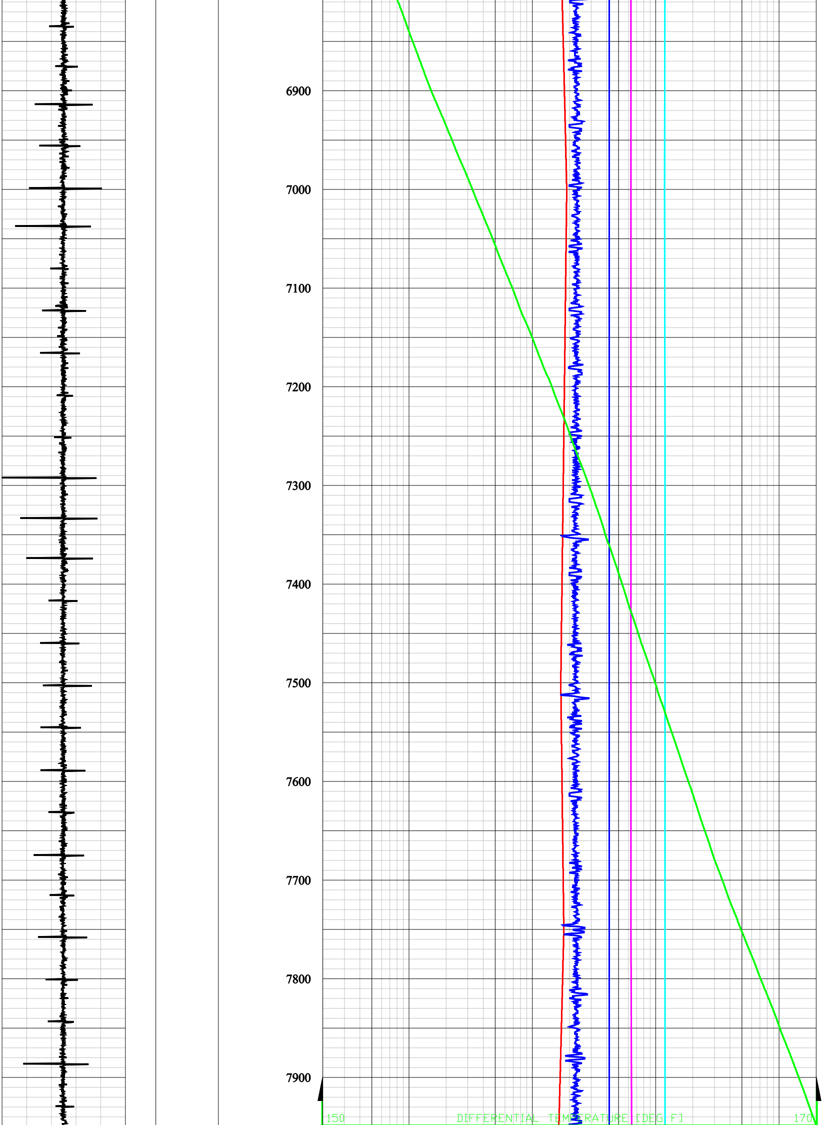
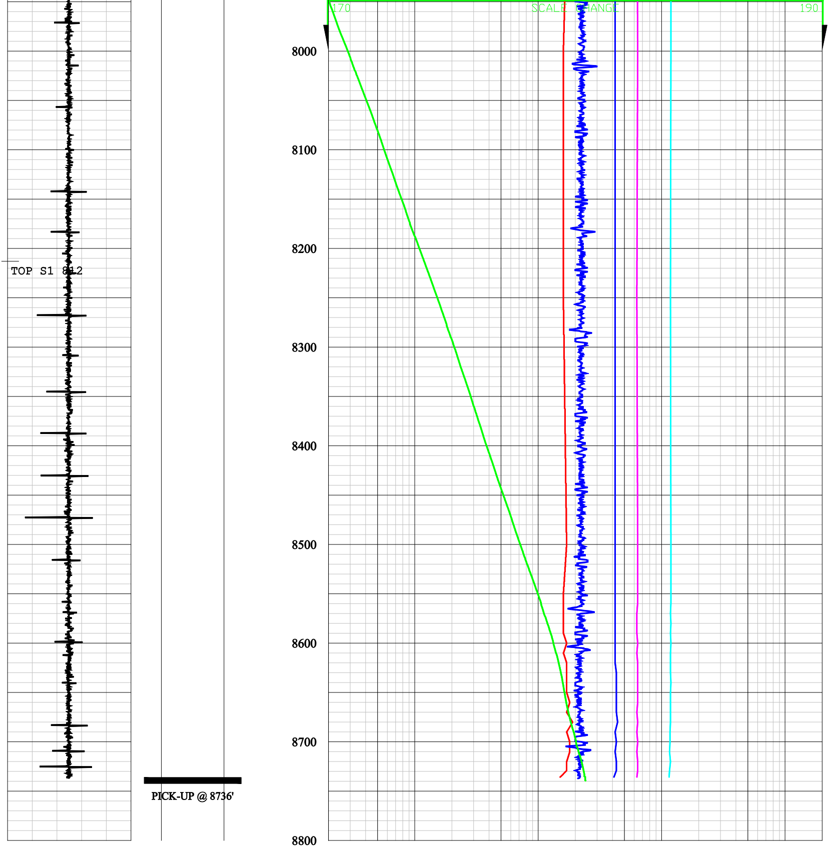
6000	12.00	6.30	4.20	2.00
6250	12.00	6.30	4.20	1.80
6500	11.90	6.30	4.20	1.90
6750	11.90	6.30	4.20	1.70
7000	11.80	6.30	4.20	1.90
7250	11.90	6.30	4.20	1.80
7500	11.90	6.30	4.20	1.70
7750	11.90	6.30	4.20	1.80
8000	11.90	6.40	4.20	1.60
8250	11.80	6.30	4.20	1.60
8500	11.90	6.40	4.20	1.70
8550	11.90	6.40	4.20	1.60
8560	11.90	6.40	4.20	1.60
8570	11.80	6.30	4.20	1.60
8580	11.90	6.30	4.20	1.60
8590	11.80	6.30	4.20	1.60
8600	11.90	6.40	4.20	1.70
8610	11.80	6.30	4.20	1.60
8620	11.80	6.40	4.20	1.70
8630	11.80	6.40	4.30	1.70
8640	11.90	6.40	4.30	1.70
8650	11.80	6.40	4.30	1.70
8660	11.80	6.40	4.30	1.80
8670	11.80	6.30	4.30	1.70
8680	11.80	6.40	4.40	1.90
8690	11.70	6.30	4.20	1.70
8700	11.70	6.40	4.30	1.80
8710	11.60	6.30	4.20	1.80
8720	11.80	6.40	4.30	1.70
8730	11.60	6.40	4.30	1.70
8736	11.50	6.30	4.10	1.50


1490 COLLAR LOCATOR [MV] 2090
70 DIFFERENTIAL TEMPERATURE [DEG F] 90
0.02 AUDIO DETECTION LOG [MV] 200
-2 DIFFERENTIAL TEMPERATURE [DEG F] 2
0
<==2.875" DIA
<==8.625" DIA
<==13.375" DIA
100
200
300
DIFFERENTIAL TEMPERATURE
TEMPERATURE
2000HZ
1000HZ
600HZ
200HZ