WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

WELL TYPE OG BFW	COMPANY: SOUTHERN CALIF. GAS CO. WELL: SESNON FEE 2 FIELD: ALISO CANYON COUNTY: LOS ANGELES STATE: CALIFORNIA

LOCATION: DISTRICT 2 API NUMBER: 0403700648 SEC: 33 TWN: 3N RNG: 16W	OTHER SVC:
PERMANENT DATUM: GROUND LEVEL ELEV: 2439.00' LOG MEASURED FROM KB 13.5' ABOVE PERM DATUM DRILLING MEASURED FROM	-ELEVATIONS- KB: 2452.50 Ft. DF: Ft. GL: 2439.00 Ft.

DATE LOG RAN	04-14-2016	PRESSURE	FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI			0
EFFECTIVE DEPTH	9429'	CASING PSI			966
PICKUP DEPTH	9334'	INJECTION RATE	N|A		
BOT LOGGED INT	9334'	OBSERVED RATE	N|A		
TOP LOGGED INT	100'	R/A SOURCE	N|A		
TYPE OF INJECT	NONE	ACTIVITY	N|A		
FLUID IN WELL	GAS	HALF LIFE	N|A		
FLUID LEVEL	2730'				
WELL STATUS	STATIC			PRODUCTION DATA	
MAX TEMPERATURE	197.0 F	OIL Gr.	N|A	OIL =	N|A
AT DEPTH	9334.0'	GAS Gr.	N|A	GAS=	N|A
TEMPERATURE SENS	1 F/DIV.	MPP	N|A	BHP =	N|A
LOGGING SPEED	100 FPM			WATER=	N|A
RECORDED BY	S. MACIAS				
WITNESSED BY	N|A				
EMAIL TO	A.KARGAR				
DEPTH CORRELATION	LINER TOP				

Equipment Data

Collar Locator	■ 1.375"		
Temperature Tool	🟩 1.375"		
Audio Detector	🟥 1.375"		

Remarks/Survey Results

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06:30AM - ON LOCATION
07:30AM - RAN IN HOLE
07:30AM - BEGIN SURVEY
01:00PM - PULL OUT OF HOLE
01:30PM - OFF LOCATION

SAND TAG MARKERS: 9165' TOP S1
                  9178' TOP S4
                  9290' TOP S8
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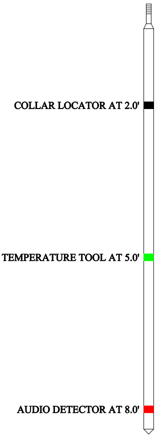
CASING AND TUBING RECORD

SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
13.375"	54.5	SURFACE	1594'				
7.000"	29.0	SURFACE	9245'				
5.000"	17.9	9237'	9469'				
2.875"	6.50	SURFACE	9147'				

STR.	PIPE DIA.	PERFORATIONS
A	7.000"	WSO: 9153', SQUEEZED: 9172'-9180', 9190'-9208', 9212'-9225'.
	5.000"	9250'-9300', 9308'-9316', 9322'-9428'.
		PACKERS: 9140'.
		GAS LIFT MANDRELS: 2989', 5800', 8017', 9039'.
		SLIDING SLEEVES: 9076'.
		NO-GO: 9109'.
		CASING PATCH: 3226'-3258'

TOOL DIAGRAM



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     Audio Data:  C:\data\NOISE.txt
-------------------------------------------------------------
   DEPTH |   200HZ |   600HZ |  1000HZ |  2000HZ |  COMMENTS
-------------------------------------------------------------
     100 |    5.60 |    4.40 |    4.20 |    2.90 |
     250 |    4.60 |    4.30 |    4.20 |    2.90 |
     500 |    4.50 |    4.20 |    4.10 |    2.90 |
     750 |    4.40 |    4.30 |    4.20 |    3.00 |
    1000 |    4.40 |    4.30 |    4.20 |    3.00 |
    1250 |    4.60 |    4.30 |    4.10 |    2.90 |
    1500 |    4.40 |    4.30 |    4.20 |    2.90 |
    1530 |    4.60 |    4.40 |    4.30 |    3.00 |
    1550 |    4.30 |    4.20 |    4.10 |    2.90 |
    1570 |    4.40 |    4.30 |    4.20 |    2.90 |
    1590 |    5.00 |    4.40 |    4.30 |    3.10 |
    1610 |    4.30 |    4.20 |    4.10 |    2.90 |
    1630 |    4.60 |    4.40 |    4.30 |    3.00 |
    1650 |    4.50 |    4.30 |    4.20 |    2.90 |
    1900 |    5.20 |    4.50 |    4.30 |    3.00 |
    2150 |    8.80 |    6.70 |    5.60 |    3.40 |
    2400 |   39.70 |   23.80 |    8.50 |    3.70 |
    2650 |  119.30 |   64.70 |   27.50 |   11.20 | -
    2670 |  129.50 |   93.50 |   38.80 |   10.50 | | WATER
    2690 |   12.40 |    8.20 |    6.80 |    4.00 | | DRIPPING
    2710 |   16.50 |   11.30 |    9.10 |    4.80 | -
    2730 |   17.80 |    8.50 |    6.60 |    4.20 | -
    2750 |   15.60 |   11.60 |    8.40 |    4.80 | | FLUID
    2770 |   16.60 |   12.40 |    9.70 |    6.90 | | MOVING
    2790 |   21.40 |   16.80 |   15.50 |   11.50 | |
    2810 |   29.70 |   25.90 |   23.10 |    7.30 | |
    2830 |   22.70 |   17.50 |   14.50 |    6.20 | |
    2850 |   32.80 |   28.10 |   23.90 |   13.60 | |
    2870 |   41.50 |   33.70 |   19.70 |    9.30 | |
    2890 |   39.50 |   32.10 |   25.60 |    9.20 | |
    2910 |   52.00 |   38.70 |   32.10 |   10.10 | |
    2930 |   34.30 |   28.00 |   22.70 |    7.50 | |
    2950 |   72.80 |   47.00 |   22.70 |    5.30 | |
    2970 |   19.10 |   14.90 |   11.70 |    5.10 | -
    2990 |   24.10 |   18.20 |   11.10 |    4.80 | -
    3010 |   33.20 |   26.10 |   15.90 |    5.20 | | POSSIBLE
    3030 |   32.10 |   23.70 |   14.90 |    5.90 | | FLUID
    3050 |   60.70 |   46.50 |   22.70 |    6.40 | | MOVING
    3070 |   41.60 |   31.00 |   19.10 |    5.90 | |
    3090 |   38.30 |   26.90 |   15.00 |    5.80 | |
    3110 |   29.90 |   26.20 |   12.40 |    4.30 | |
    3130 |   29.30 |   23.50 |   14.90 |    4.80 | |
    3150 |   23.50 |   20.10 |   13.20 |    5.20 | |
    3300 |   23.30 |   21.20 |   13.10 |    4.60 | |
    3320 |   30.30 |   28.40 |   17.50 |    5.50 | |
    3340 |   34.90 |   30.30 |   18.30 |    5.40 | |
    3360 |   47.70 |   44.20 |   23.10 |    6.60 | |
    3380 |   40.60 |   37.20 |   24.30 |    7.00 | |
    3400 |   48.80 |   44.80 |   26.70 |    6.30 | |
    3420 |   51.40 |   47.40 |   28.20 |    6.40 | |
    3440 |   50.60 |   47.00 |   27.90 |    6.90 | |
    3460 |   49.40 |   45.10 |   27.90 |    6.20 | |
    3480 |   65.60 |   62.50 |   36.80 |    5.30 | |
    3500 |   36.90 |   35.10 |   24.70 |    6.20 | -
    3600 |   26.90 |   23.80 |   15.90 |    4.40 |
    3850 |    7.90 |    6.40 |    5.00 |    3.30 |
    4100 |    5.40 |    4.80 |    4.50 |    3.20 |
    4350 |    5.10 |    4.70 |    4.50 |    3.20 |
    4600 |    4.90 |    4.50 |    4.40 |    3.20 |
    4630 |    5.10 |    4.60 |    4.50 |    3.30 |
    4650 |    4.80 |    4.50 |    4.40 |    3.20 |
    4670 |    4.70 |    4.50 |    4.30 |    3.20 |
    4690 |    4.70 |    4.40 |    4.30 |    3.10 |
    4710 |    4.60 |    4.40 |    4.30 |    3.10 |
    4730 |    5.00 |    4.40 |    4.30 |    3.20 |
    4750 |    4.70 |    4.40 |    4.30 |    3.10 |
    4770 |    4.80 |    4.40 |    4.30 |    3.20 |
    4790 |    4.70 |    4.40 |    4.30 |    3.10 |
    4810 |    4.60 |    4.40 |    4.30 |    3.10 |
    4830 |    5.10 |    4.40 |    4.30 |    3.10 |
    4850 |    4.90 |    4.40 |    4.30 |    3.10 |
    4870 |    4.60 |    4.30 |    4.20 |    3.00 |
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4890 |    4.60 |    4.40 |    4.30 |    3.10 |
4910 |    4.60 |    4.40 |    4.30 |    3.10 |
4930 |    4.70 |    4.40 |    4.30 |    3.10 |
4950 |    4.70 |    4.40 |    4.30 |    3.20 |
4970 |    4.60 |    4.40 |    4.30 |    3.20 |
4990 |    4.60 |    4.40 |    4.30 |    3.10 |
5010 |    4.70 |    4.40 |    4.30 |    3.10 |
5030 |    4.50 |    4.30 |    4.20 |    3.10 |
5050 |    4.70 |    4.40 |    4.30 |    3.10 |
5070 |    4.60 |    4.40 |    4.30 |    3.10 |
5090 |    4.60 |    4.30 |    4.20 |    3.10 |
5110 |    4.60 |    4.40 |    4.30 |    3.10 |
5130 |    4.70 |    4.40 |    4.30 |    3.10 |
5150 |    4.70 |    4.40 |    4.30 |    3.10 |
5170 |    4.80 |    4.40 |    4.30 |    3.10 |
5190 |    4.70 |    4.40 |    4.30 |    3.10 |
5210 |    4.70 |    4.30 |    4.30 |    3.10 |
5230 |    4.70 |    4.40 |    4.30 |    3.10 |
5250 |    4.80 |    4.40 |    4.30 |    3.10 |
5270 |    4.70 |    4.40 |    4.30 |    3.10 |
5290 |    4.90 |    4.40 |    4.40 |    3.20 |
5310 |    5.00 |    4.50 |    4.40 |    3.20 |
5330 |    4.60 |    4.30 |    4.20 |    3.10 |
5350 |    4.80 |    4.40 |    4.40 |    3.20 |
5370 |    4.70 |    4.40 |    4.30 |    3.10 |
5390 |    4.60 |    4.40 |    4.30 |    3.10 |
5410 |    4.80 |    4.40 |    4.30 |    3.10 |
5430 |    4.80 |    4.40 |    4.30 |    3.20 |
5450 |    4.80 |    4.40 |    4.30 |    3.10 |
5470 |    4.70 |    4.40 |    4.30 |    3.10 |
5490 |    5.20 |    4.50 |    4.40 |    3.10 |
5510 |    4.90 |    4.50 |    4.30 |    3.10 |
5530 |    4.90 |    4.40 |    4.30 |    3.10 |
5550 |    4.80 |    4.40 |    4.30 |    3.10 |
5570 |    4.80 |    4.40 |    4.30 |    3.10 |
5590 |    5.00 |    4.50 |    4.40 |    3.10 |
5610 |    4.80 |    4.40 |    4.30 |    3.10 |
5630 |    5.00 |    4.60 |    4.40 |    3.10 |
5650 |    4.90 |    4.50 |    4.40 |    3.20 |
5670 |    5.50 |    5.00 |    4.80 |    3.50 |
5690 |    5.10 |    4.60 |    4.50 |    3.20 |
5710 |    4.90 |    4.50 |    4.40 |    3.10 |
5730 |    5.10 |    4.70 |    4.50 |    3.20 |
5750 |    5.10 |    4.60 |    4.50 |    3.20 |
5770 |    5.00 |    4.60 |    4.40 |    3.20 |
5790 |    4.80 |    4.60 |    4.40 |    3.20 |
5810 |    4.90 |    4.50 |    4.40 |    3.20 |
5830 |    5.00 |    4.50 |    4.40 |    3.20 |
5850 |    4.90 |    4.50 |    4.40 |    3.10 |
5870 |    5.10 |    4.60 |    4.40 |    3.20 |
5890 |    4.90 |    4.40 |    4.30 |    3.10 |
5910 |    4.90 |    4.50 |    4.30 |    3.10 |
5930 |    4.90 |    4.50 |    4.40 |    3.10 |
5950 |    5.00 |    4.50 |    4.40 |    3.10 |
5970 |    5.00 |    4.60 |    4.40 |    3.20 |
5990 |    5.10 |    4.70 |    4.50 |    3.20 |
6010 |    5.20 |    4.70 |    4.50 |    3.20 |
6030 |    5.00 |    4.60 |    4.40 |    3.20 |
6050 |    4.80 |    4.50 |    4.40 |    3.10 |
6070 |    5.10 |    4.60 |    4.50 |    3.20 |
6090 |    4.90 |    4.50 |    4.40 |    3.20 |
6110 |    4.90 |    4.50 |    4.40 |    3.20 |
6130 |    5.20 |    4.70 |    4.50 |    3.20 |
6150 |    5.30 |    4.80 |    4.60 |    3.20 |
6170 |    5.10 |    4.60 |    4.50 |    3.20 |
6190 |    5.20 |    4.60 |    4.50 |    3.20 |
6210 |    6.00 |    5.30 |    5.00 |    3.30 |
6230 |    5.90 |    5.20 |    4.90 |    3.30 |
6250 |    5.10 |    4.60 |    4.40 |    3.20 |
6270 |    5.50 |    5.10 |    4.80 |    3.20 |
6290 |    5.80 |    5.30 |    5.00 |    3.30 |
6310 |    5.70 |    5.20 |    4.90 |    3.30 |
6330 |    5.80 |    5.30 |    5.00 |    3.30 |
6350 |    5.30 |    4.80 |    4.60 |    3.20 |
6400 |    5.80 |    5.40 |    5.10 |    3.30 |
6650 |    4.90 |    4.40 |    4.30 |    3.00 |
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6900 |    5.30 |    4.50 |    4.40 |    3.10 |
7150 |    5.10 |    4.50 |    4.40 |    3.20 |
7180 |    4.90 |    4.50 |    4.30 |    3.10 |
7200 |    4.80 |    4.40 |    4.30 |    3.10 |
7220 |    5.10 |    4.50 |    4.40 |    3.10 |
7240 |    5.10 |    4.50 |    4.40 |    3.10 |
7260 |    5.10 |    4.60 |    4.40 |    3.20 |
7280 |    5.10 |    4.60 |    4.40 |    3.20 |
7300 |    5.20 |    4.60 |    4.50 |    3.20 |
7320 |    5.40 |    4.70 |    4.60 |    3.20 |
7340 |    5.40 |    4.70 |    4.50 |    3.20 |
7360 |    5.20 |    4.70 |    4.50 |    3.20 |
7380 |    5.20 |    4.80 |    4.60 |    3.30 |
7400 |    5.60 |    5.00 |    4.80 |    3.40 |
7420 |    5.40 |    4.90 |    4.70 |    3.40 |
7440 |    5.50 |    5.00 |    4.80 |    3.50 |
7460 |    5.50 |    4.80 |    4.60 |    3.30 |
7480 |    5.60 |    4.90 |    4.80 |    3.50 |
7500 |    5.40 |    4.90 |    4.70 |    3.40 |
7520 |    5.50 |    4.90 |    4.70 |    3.50 |
7540 |    5.60 |    5.00 |    4.80 |    3.50 |
7560 |    5.80 |    4.80 |    4.60 |    3.50 |
7580 |    5.90 |    4.90 |    4.70 |    3.60 |
7600 |    5.40 |    4.80 |    4.70 |    3.50 |
7620 |    5.20 |    4.50 |    4.30 |    3.10 |
7640 |    5.30 |    4.80 |    4.60 |    3.40 |
7660 |    5.20 |    4.60 |    4.40 |    3.20 |
7680 |    5.40 |    4.60 |    4.40 |    3.20 |
7700 |    5.20 |    4.70 |    4.50 |    3.30 |
8010 |    5.80 |    4.80 |    4.60 |    3.40 |
8030 |    5.50 |    4.60 |    4.40 |    3.20 |
8050 |    5.80 |    4.70 |    4.50 |    3.20 |
8070 |    5.90 |    4.70 |    4.40 |    3.20 |
8090 |    5.40 |    4.50 |    4.40 |    3.20 |
8110 |    5.20 |    4.50 |    4.40 |    3.20 |
8130 |    5.70 |    4.60 |    4.40 |    3.20 |
8150 |    5.70 |    4.70 |    4.50 |    3.20 |
8170 |    5.50 |    4.80 |    4.50 |    3.30 |
8190 |    5.50 |    4.70 |    4.40 |    3.20 |
8210 |    5.80 |    4.60 |    4.40 |    3.20 |
8230 |    5.30 |    4.60 |    4.40 |    3.20 |
8250 |    5.60 |    4.70 |    4.40 |    3.20 |
8270 |    5.80 |    4.60 |    4.40 |    3.20 |
8290 |    5.40 |    4.70 |    4.50 |    3.20 |
8310 |    5.70 |    4.80 |    4.60 |    3.30 |
8330 |    5.60 |    4.70 |    4.50 |    3.30 |
8350 |    5.50 |    4.60 |    4.40 |    3.10 |
8370 |    5.20 |    4.50 |    4.30 |    3.10 |
8390 |    5.50 |    4.60 |    4.40 |    3.20 |
8410 |    5.00 |    4.40 |    4.30 |    3.10 |
8430 |    5.20 |    4.50 |    4.40 |    3.10 |
8450 |    5.20 |    4.50 |    4.30 |    3.10 |
8610 |    5.50 |    4.60 |    4.40 |    3.10 |
8630 |    5.50 |    4.70 |    4.40 |    3.10 |
8650 |    5.40 |    4.70 |    4.40 |    3.10 |
8670 |    5.00 |    4.50 |    4.40 |    3.10 |
8690 |    5.00 |    4.60 |    4.40 |    3.10 |
8710 |    5.00 |    4.50 |    4.30 |    3.10 |
8730 |    5.50 |    4.90 |    4.60 |    3.20 |
8750 |    5.30 |    4.80 |    4.40 |    3.00 |
8930 |    5.70 |    4.80 |    4.50 |    3.20 |
8940 |    5.40 |    4.80 |    4.50 |    3.10 |
8950 |    5.80 |    4.80 |    4.50 |    3.10 |
8960 |    5.90 |    4.90 |    4.50 |    3.10 |
8970 |    5.50 |    4.80 |    4.50 |    3.10 |
8980 |    5.70 |    4.80 |    4.40 |    3.10 |
8990 |    5.80 |    4.90 |    4.50 |    3.10 |
9000 |    5.80 |    4.90 |    4.60 |    3.20 |
9010 |    5.80 |    5.00 |    4.60 |    3.20 |
9020 |    5.80 |    5.00 |    4.60 |    3.10 |
9030 |    5.70 |    5.00 |    4.70 |    3.20 |
9040 |    6.10 |    5.00 |    4.70 |    3.30 |
9050 |    5.60 |    5.00 |    4.60 |    3.30 |
9060 |    5.90 |    5.00 |    4.70 |    3.30 |
9070 |    5.60 |    4.90 |    4.50 |    3.20 |
9080 |    6.10 |    5.10 |    4.70 |    3.30 |
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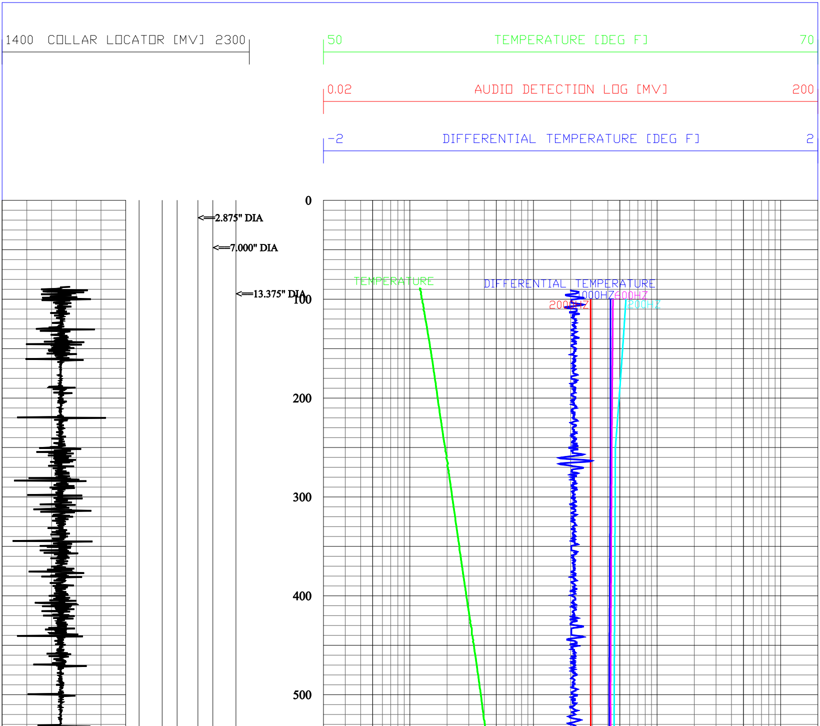
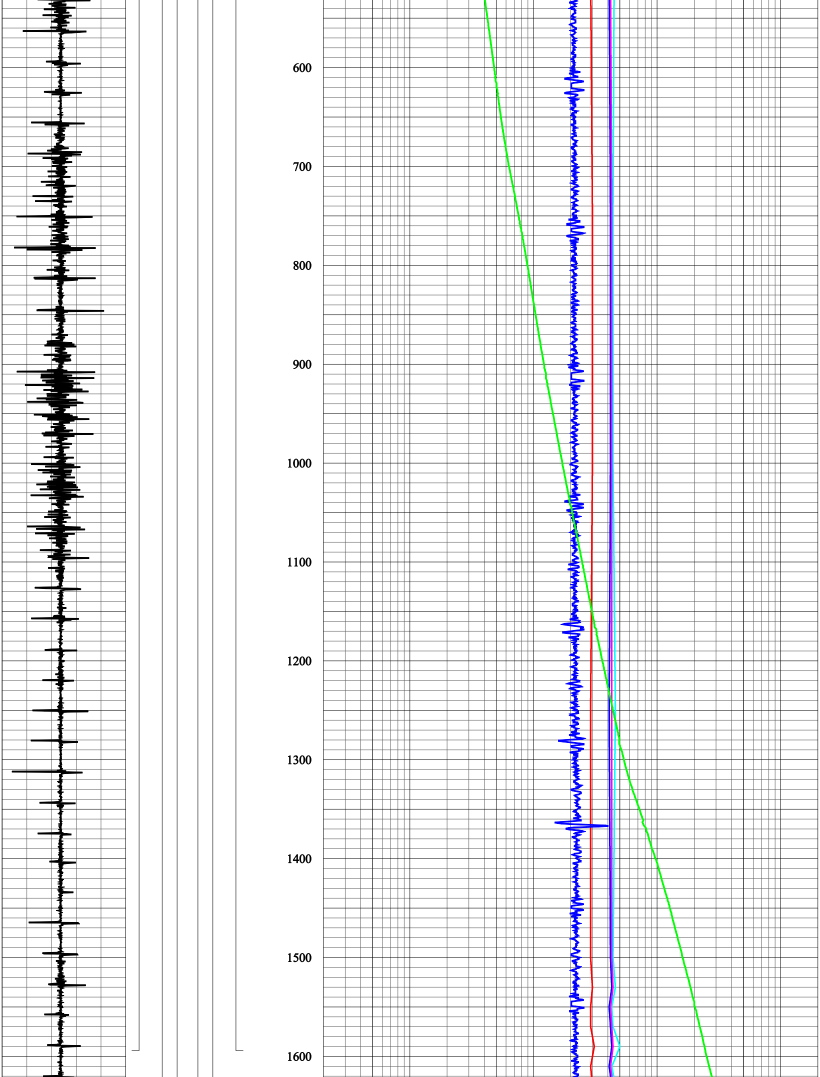
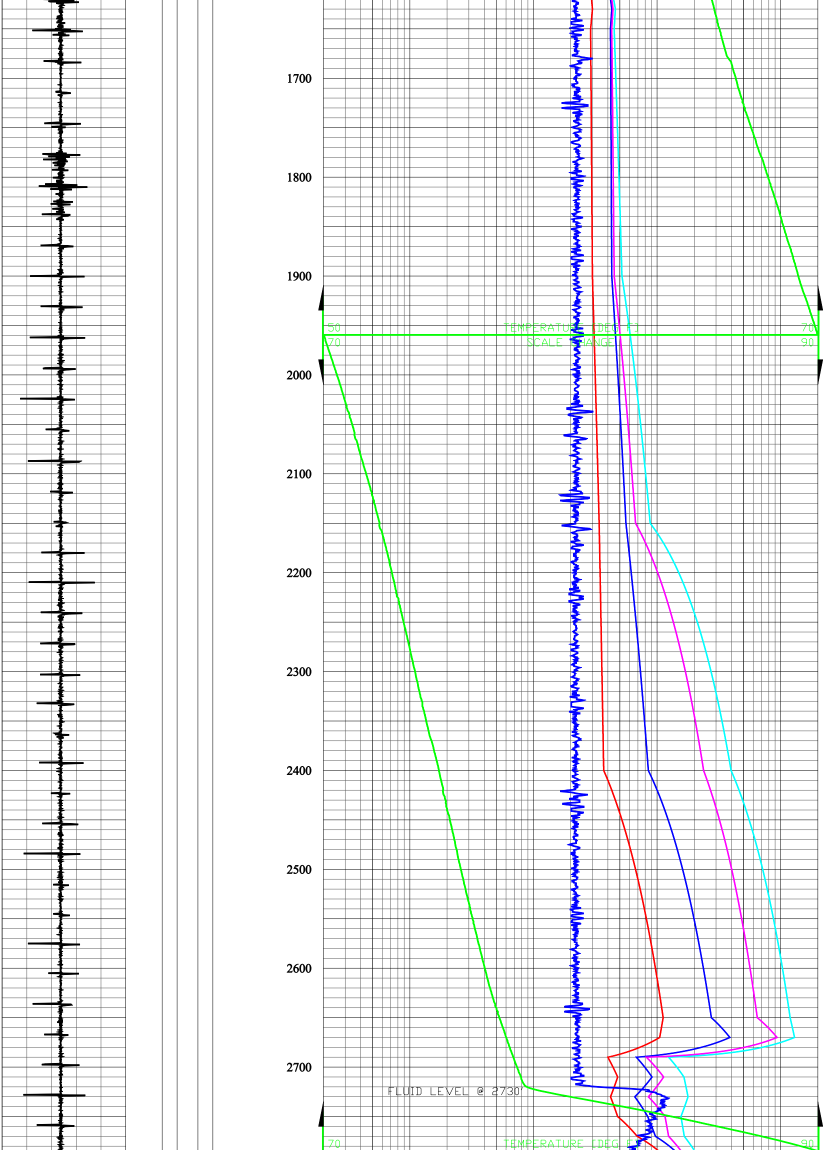
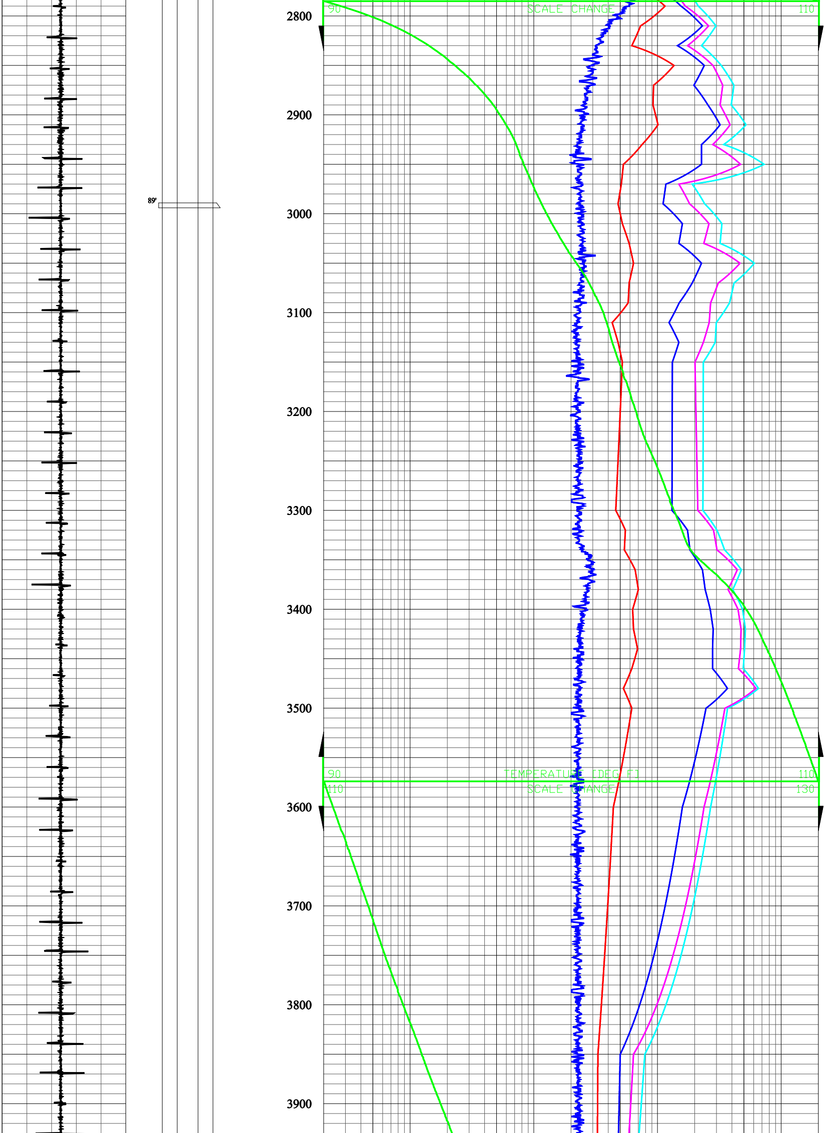
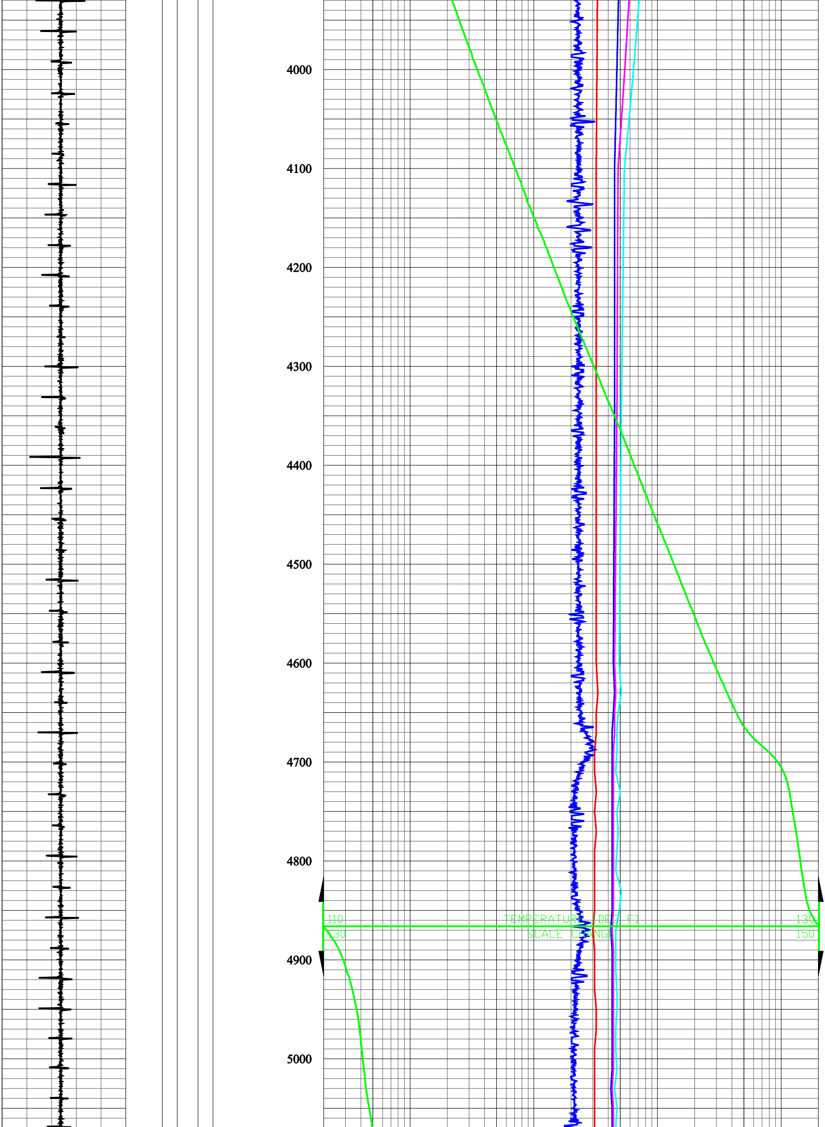
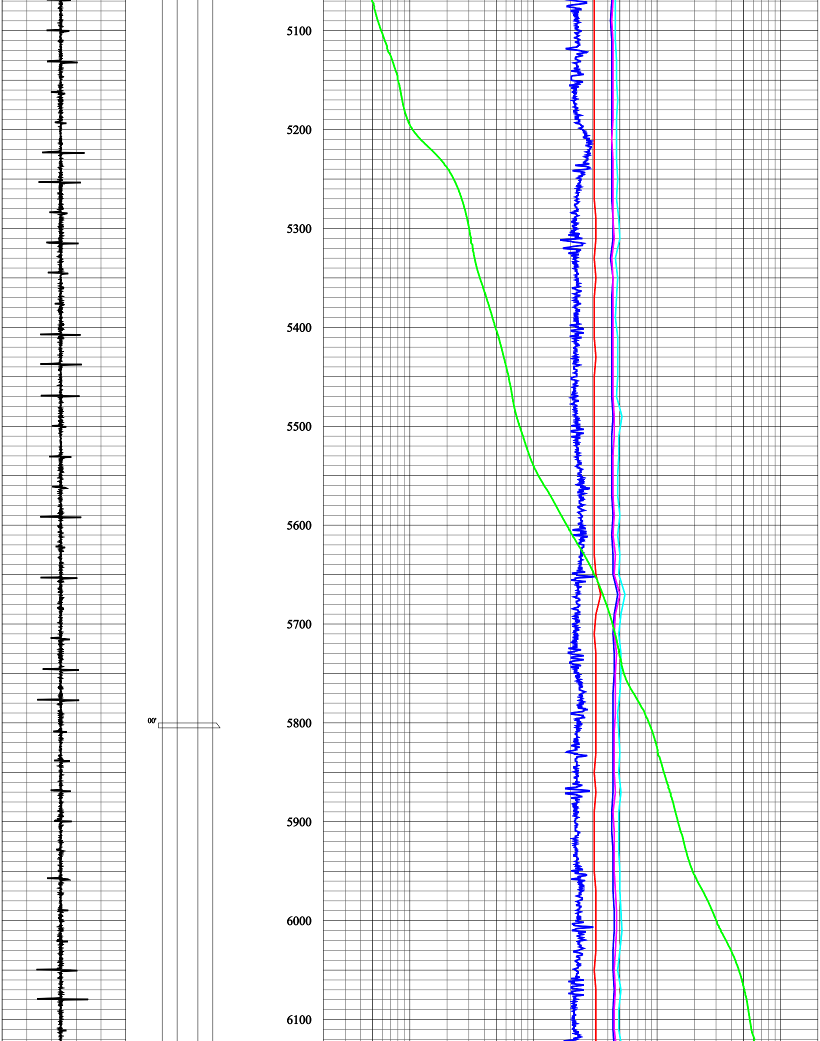
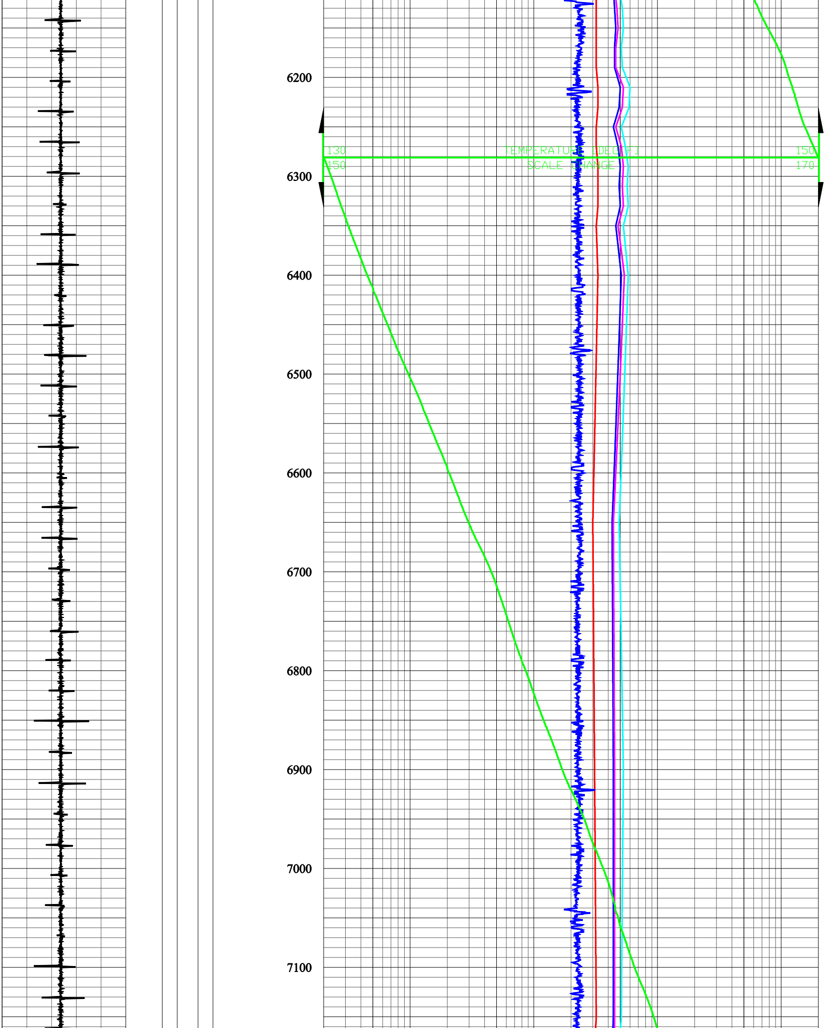
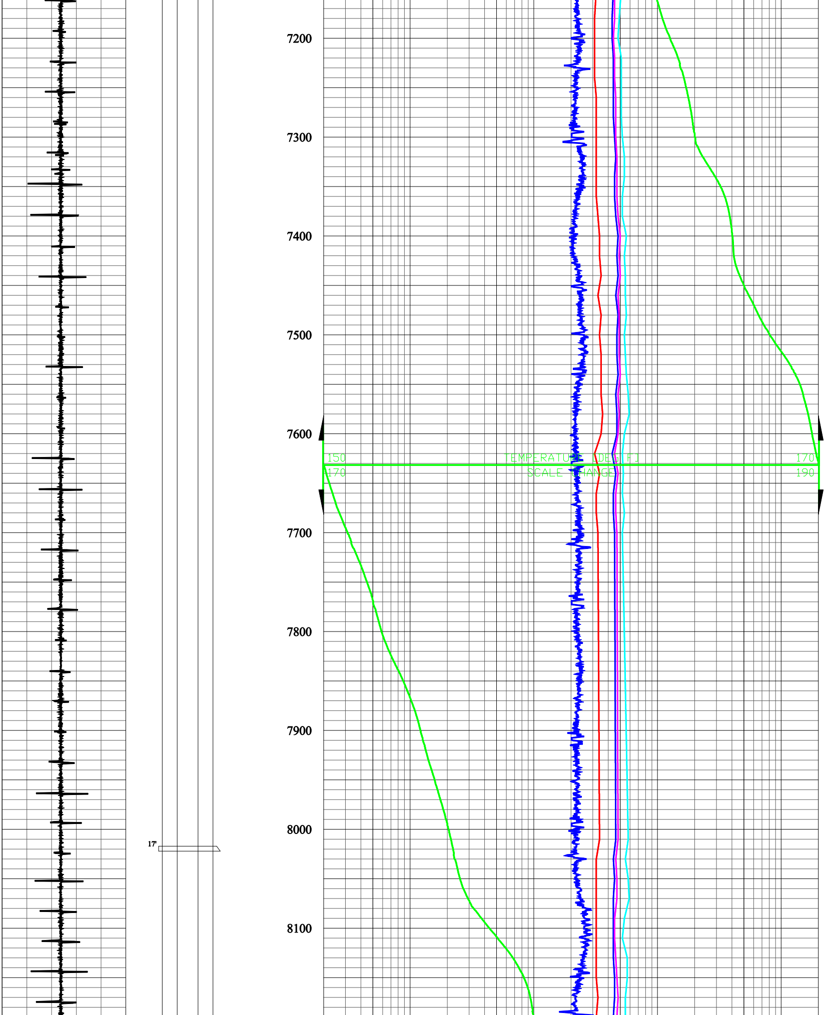
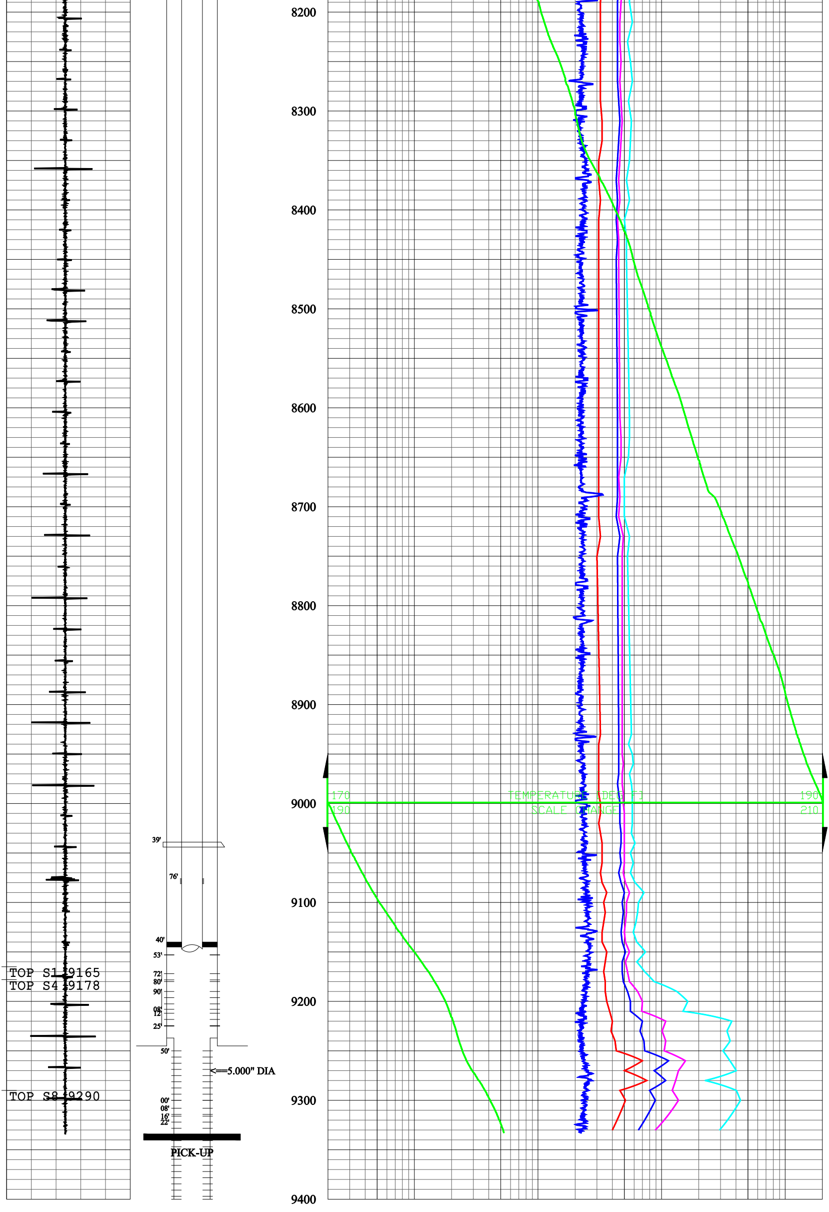
9090	7.20	5.50	5.00	3.60
9100	6.50	5.20	4.80	3.40
9110	6.40	5.20	4.90	3.50
9120	6.20	5.10	4.80	3.40
9130	5.90	5.00	4.70	3.30
9140	6.30	5.10	4.80	3.30
9150	7.40	5.50	5.10	3.60
9160	6.30	5.10	4.80	3.50
9170	7.30	5.30	4.80	3.40
9180	8.70	5.50	4.90	3.50
9190	13.30	6.40	5.30	3.50
9200	16.30	7.00	5.60	3.60
9210	14.90	6.90	5.60	3.80
9220	37.00	10.80	7.00	4.00
9230	33.80	10.10	6.70	3.90
9240	35.90	10.80	7.20	4.20
9250	31.40	10.50	7.30	4.30
9260	35.70	15.60	11.40	7.00
9270	40.20	13.70	8.70	5.00
9280	22.50	13.00	10.80	7.60
9290	40.30	12.20	8.00	4.60
9300	43.50	13.70	8.90	5.10
9330	29.50	8.90	6.50	4.00


1400 COLLAR LOCATOR [MV] 2300
50 TEMPERATURE [DEG F] 70
0.02 AUDIO DETECTION LOG [MV] 200
-2 DIFFERENTIAL TEMPERATURE [DEG F] 2
0
<==2.875" DIA
<==7.000" DIA
<==13.375" DIA
100
200
300
400
500
TEMPERATURE
DIFFERENTIAL TEMPERATURE
1000HZ
600HZ
200HZ
2000HZ