**WELL ANALYSIS CORPORATION**

# AUDIO DETECTION SURVEY

WELL TYPE: GS

AJ

COMPANY: SOUTHERN CALIF. GAS CO.
WELL: MISSION ADRIAN 1B
FIELD: ALISO CANYON
COUNTY: LOS ANGELES
STATE: CALIFORNIA

LOCATION:
DISTRICT 2

API NUMBER: 0403721892
SEC: 34 TWN: 3N RNG: 16W

OTHER SVC:

PERMANENT DATUM: GROUND LEVEL ELEV:

LOG MEASURED FROM MAT 0' ABOVE PERM DATUM

DRILLING MEASURED FROM

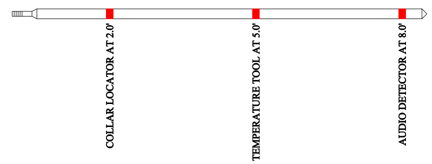
-ELEVATIONS-
KB: Ft.
DF: Ft.
GL: Ft.

| | | | | | |
|---|---|---|---|---|---|
| DATE LOG RAN | 03-22-2016 | PRESSURE | FLOWING | INJECTION | SHUT-IN |
| RUN NUMBER | ONE | TUBING PSI | | | 1102 |
| EFFECTIVE DEPTH | 7512' PLUG | CASING PSI | | | 1102 |

| | | | |
|---|---|---|---|
| PICKUP DEPTH | 7470' | INJECTION RATE | N\|A |
| BOT LOGGED INT | 7470' | 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 | N\|A | | |

| | | | | |
|---|---|---|---|---|
| WELL STATUS | STATIC | | | PRODUCTION DATA |
| MAX TEMPERATURE | 169.7 F | OIL Gr. | | OIL = |
| AT DEPTH | 7470.0' | GAS Gr. | | GAS= |
| TEMPERATURE SENS | 1 F/DIV. | MPP | | BHP = |
| LOGGING SPEED | 100 FPM | | | WATER= |
| RECORDED BY | D. PROKUSKI | | | |
| WITNESSED BY | N\|A | | | |
| EMAIL TO | A. KARGAR | | | |
| DEPTH CORRELATION | LINER TOP | | | |

TOOL DIAGRAM



## Equipment Data

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

## Remarks/Survey Results

2:30PM ON LOCATION
2:45PM RAN IN HOLE
2:50PM BEGIN SURVEY
6:30PM PULL OUT OF HOLE
6:45PM OFF LOCATION
SAND TAG MARKERS: 7025' TOP MP
7262' TOP S1
7294' TOP S2
7374' TOP S4
7468' TOP S8
7930' TOP FREW

## CASING AND TUBING RECORD

| SIZE | WT(#) | FROM | TO | SIZE | WT(#) | FROM | TO |
|---|---|---|---|---|---|---|---|
| 13.375" | 54.5 | SURFACE | 1014' | 2.875" | 6.5 | SURFACE | 7192' |
| 8.625" | 40 | SURFACE | 7347' | | | | |
| 6.625" | 24 | SURFACE | 7213' | | | | |
| 5.500" | 20.0 | 7233' | 7716' | | | | |

| STR. | PIPE DIA. | PERFORATIONS |
|---|---|---|
| A | 8.625" | WS□: 7203' . |
| | 5.500" | 7347'-7512'. |
| | | PACKERS: 7183'-7188', 7213'-7218'. |
| | | MANDRELS: 7071'-7076'. |
| | | SLEEVES: 7115'-7120'. |
| | | NO-GO: 7149'. |

```
     Audio Data:  c:\data\noise.txt
--------------------------------------------------
   DEPTH |   200HZ |   600HZ |  1000HZ |  2000HZ |
--------------------------------------------------
     100 |   15.90 |    6.10 |    4.20 |    2.70 |
     250 |   13.40 |    5.70 |    4.00 |    2.60 |
     500 |   10.70 |    6.60 |    4.70 |    3.20 |
     750 |    8.80 |    5.40 |    3.60 |    2.20 |
     900 |    8.90 |    5.50 |    3.80 |    2.30 |
     920 |    8.80 |    5.30 |    3.70 |    2.20 |
     940 |    8.70 |    5.30 |    3.60 |    2.20 |
     960 |    9.20 |    5.80 |    3.80 |    2.20 |
     980 |    8.90 |    5.40 |    3.60 |    2.20 |
    1000 |    8.80 |    5.40 |    3.70 |    2.20 |
    1020 |    8.90 |    5.50 |    3.80 |    2.30 |
    1040 |    8.80 |    5.30 |    3.60 |    2.20 |
    1060 |    8.80 |    5.40 |    3.70 |    2.20 |
    1080 |    8.80 |    5.40 |    3.80 |    2.30 |
    1100 |    9.20 |    5.80 |    3.80 |    2.20 |
    1250 |    9.30 |    5.50 |    3.70 |    2.20 |
    1500 |    8.90 |    5.50 |    3.70 |    2.20 |
    1750 |    9.10 |    5.50 |    3.70 |    2.20 |
    2000 |    8.80 |    5.30 |    3.70 |    2.30 |
    2250 |    8.60 |    5.20 |    3.70 |    2.30 |
    2500 |    8.50 |    5.20 |    3.60 |    2.30 |
    2750 |    8.30 |    5.10 |    3.60 |    2.20 |
    3000 |    8.80 |    5.60 |    4.20 |    2.70 |
    3250 |    8.60 |    5.70 |    4.40 |    2.90 |
    3500 |    8.60 |    5.40 |    4.10 |    2.60 |
    3750 |    8.20 |    5.20 |    3.80 |    2.50 |
    4000 |    8.40 |    5.20 |    3.70 |    2.50 |
    4250 |    8.10 |    5.10 |    3.70 |    2.40 |
    4500 |    8.10 |    5.10 |    3.70 |    2.50 |
    4750 |    8.10 |    5.30 |    4.00 |    2.80 |
    5000 |    8.20 |    5.30 |    4.00 |    2.80 |
    5250 |    8.20 |    5.20 |    3.90 |    2.60 |
    5500 |    8.00 |    5.10 |    3.80 |    2.60 |
    5750 |    7.90 |    5.10 |    3.90 |    2.60 |
    6000 |    8.00 |    5.10 |    3.80 |    2.60 |
    6250 |    7.80 |    5.00 |    3.80 |    2.50 |
    6500 |    7.80 |    5.10 |    3.80 |    2.50 |
    6750 |    8.10 |    5.10 |    3.80 |    2.60 |
    6900 |    7.70 |    5.10 |    3.80 |    2.60 |
    6910 |    7.70 |    5.10 |    3.80 |    2.60 |
    6920 |    7.70 |    5.00 |    3.80 |    2.60 |
    6930 |    7.70 |    5.10 |    3.80 |    2.60 |
    6940 |    7.90 |    5.20 |    3.90 |    2.60 |
    6950 |    7.60 |    5.00 |    3.80 |    2.50 |
    6960 |    7.70 |    5.10 |    3.90 |    2.60 |
    6970 |    7.70 |    5.10 |    3.80 |    2.60 |
    6980 |    7.70 |    5.10 |    3.80 |    2.60 |
    6990 |    7.70 |    5.10 |    3.80 |    2.60 |
    7000 |    7.80 |    5.10 |    3.90 |    2.60 |
    7010 |    7.70 |    5.10 |    3.90 |    2.60 |
    7020 |    7.70 |    5.10 |    3.80 |    2.60 |
    7030 |    7.70 |    5.10 |    3.90 |    2.60 |
    7040 |    7.70 |    5.10 |    3.90 |    2.70 |
    7050 |    7.70 |    5.10 |    3.90 |    2.70 |
    7060 |    7.70 |    5.10 |    3.90 |    2.60 |
    7070 |    7.80 |    5.10 |    3.90 |    2.60 |
    7080 |    7.60 |    5.10 |    3.90 |    2.70 |
    7090 |    8.60 |    5.20 |    4.00 |    2.80 |
    7100 |    7.90 |    5.20 |    4.10 |    2.80 |
    7110 |    7.70 |    5.20 |    4.10 |    2.80 |
    7120 |    7.80 |    5.40 |    4.20 |    2.90 |
    7130 |    7.90 |    5.30 |    4.20 |    2.90 |
    7140 |    7.80 |    5.30 |    4.20 |    3.00 |
    7150 |    7.80 |    5.30 |    4.20 |    2.90 |
    7160 |    8.10 |    5.40 |    4.30 |    3.00 |
    7170 |    8.00 |    5.30 |    4.10 |    2.80 |
    7180 |    7.90 |    5.30 |    4.20 |    2.90 |
    7190 |    7.80 |    5.20 |    4.00 |    2.60 |
    7200 |    7.90 |    5.30 |    4.00 |    2.70 |
    7210 |    7.70 |    5.10 |    3.90 |    2.60 |
    7220 |    7.70 |    5.20 |    4.00 |    2.70 |
    7230 |    8.00 |    5.60 |    4.40 |    3.30 |
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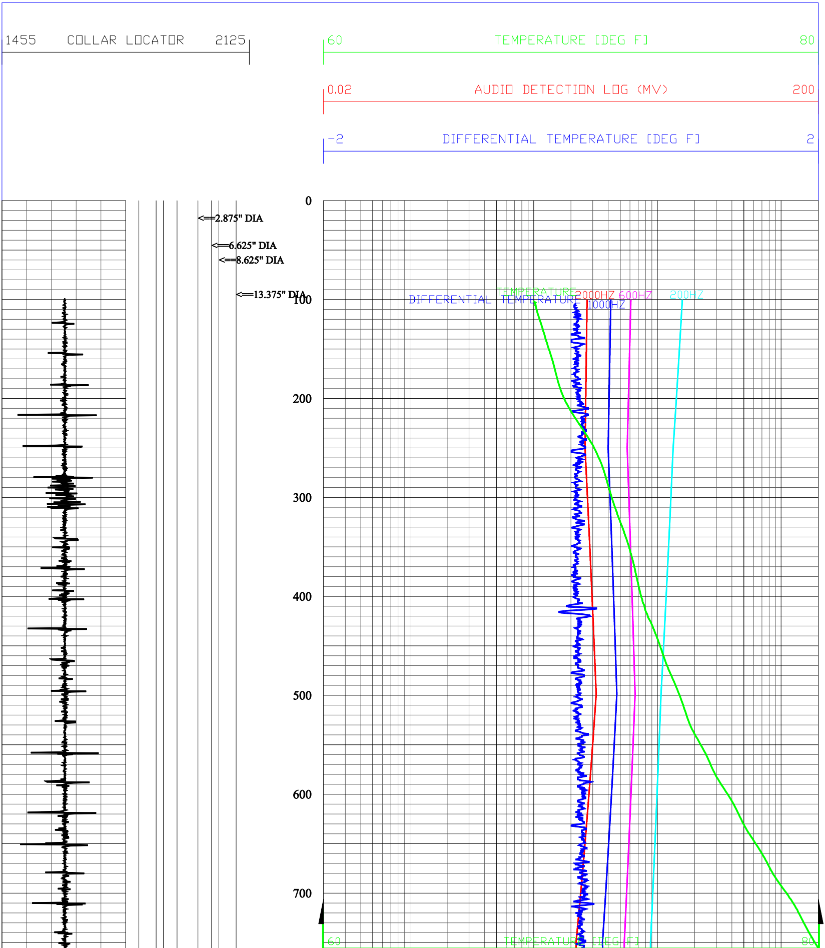
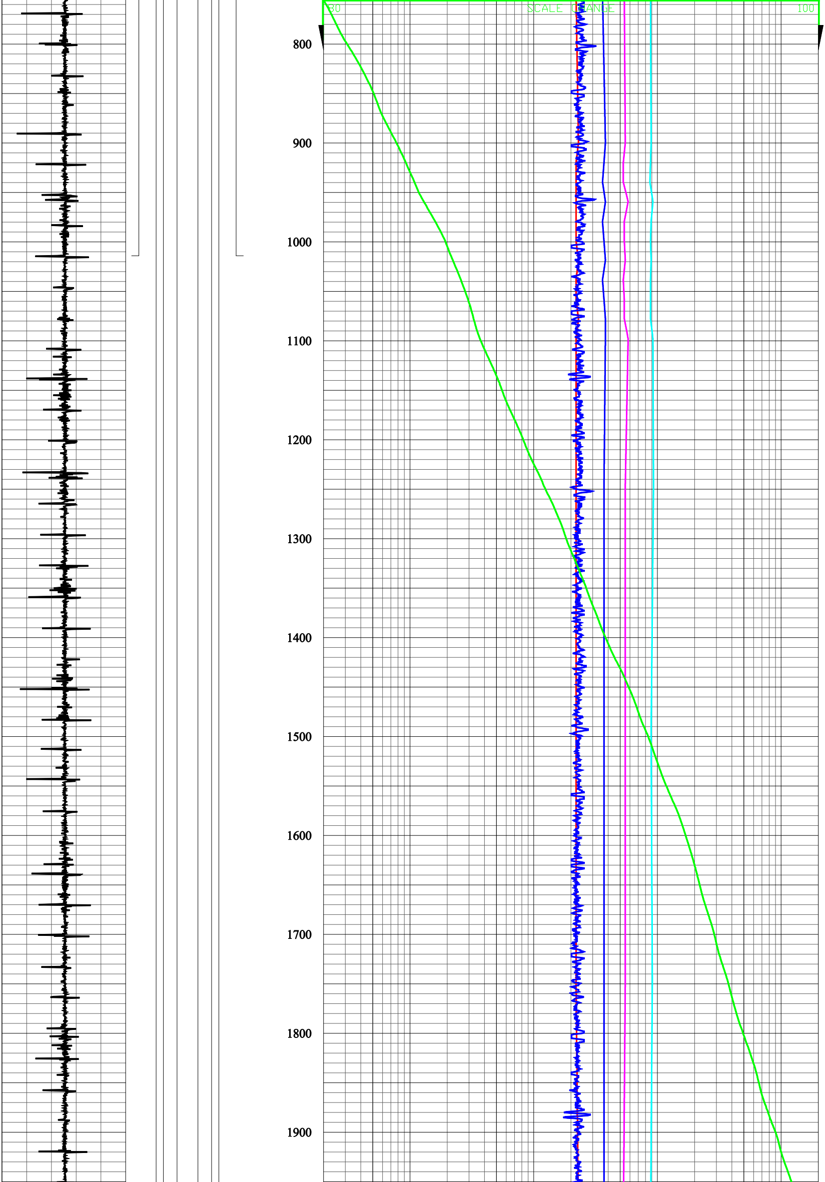
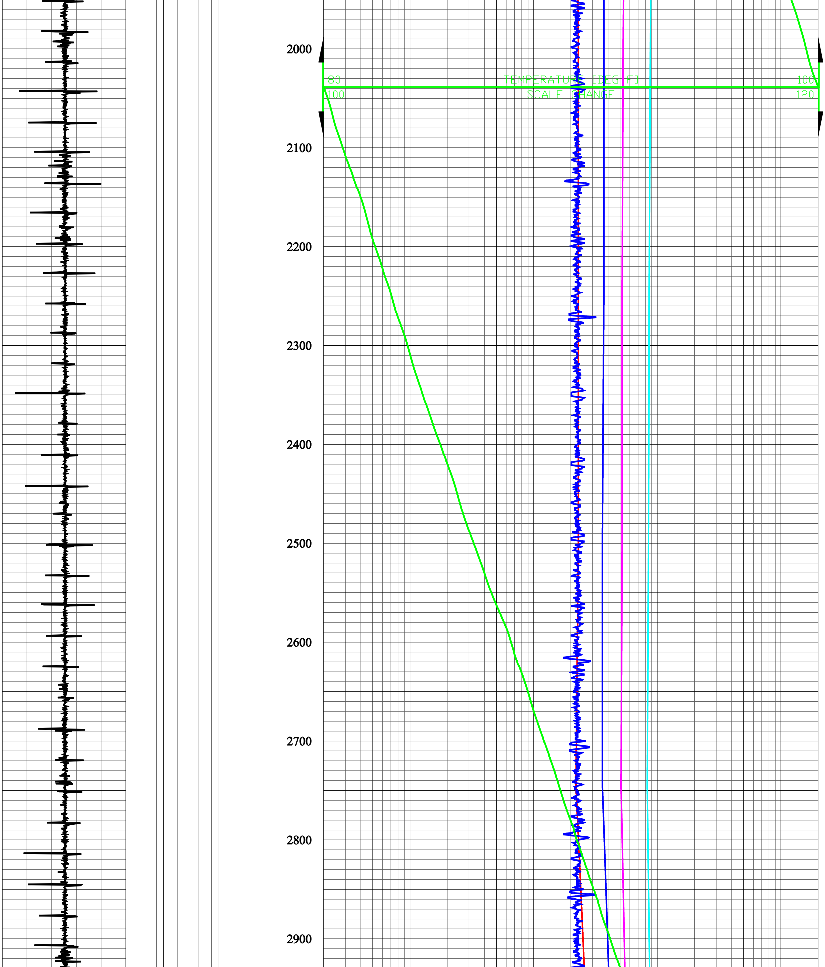
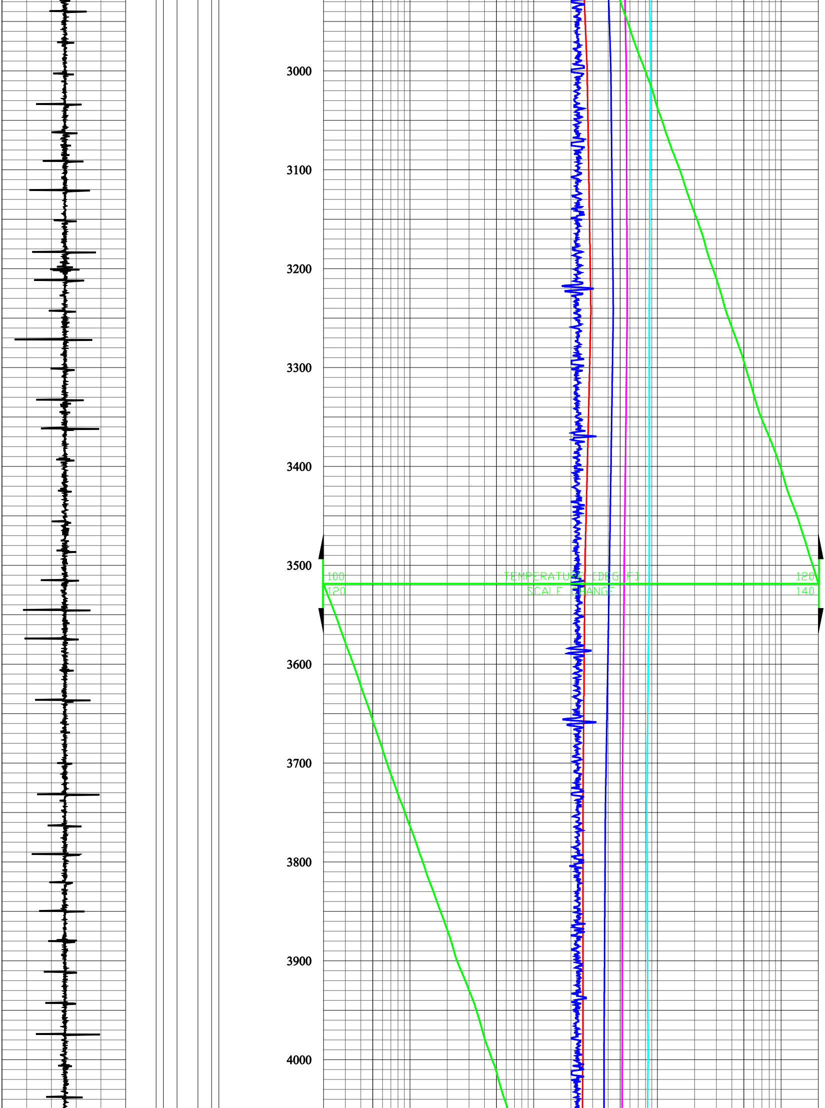
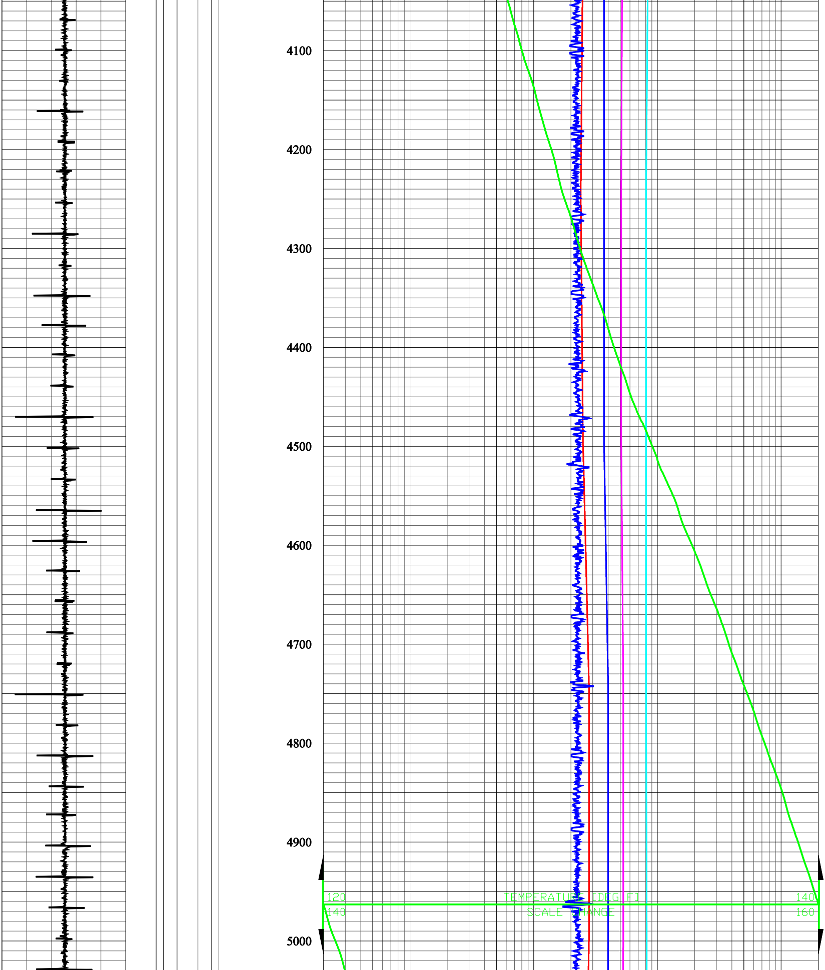
|---|---|---|---|---|
| 7240 | 8.50 | 6.00 | 4.80 | 3.30 |
| 7250 | 8.40 | 5.90 | 4.80 | 3.40 |
| 7260 | 9.70 | 7.50 | 6.60 | 5.10 |
| 7270 | 10.90 | 9.00 | 8.10 | 6.60 |
| 7280 | 12.80 | 11.20 | 10.50 | 9.00 |
| 7290 | 14.20 | 12.90 | 12.30 | 11.00 |
| 7300 | 14.80 | 13.50 | 12.90 | 11.70 |
| 7310 | 15.20 | 14.00 | 13.40 | 12.30 |
| 7320 | 16.20 | 14.90 | 14.40 | 13.30 |
| 7330 | 16.90 | 15.80 | 15.30 | 14.20 |
| 7340 | 17.50 | 16.30 | 15.90 | 14.70 |
| 7350 | 17.70 | 16.50 | 16.10 | 15.10 |
| 7470 | 9.70 | 7.40 | 6.50 | 5.60 |

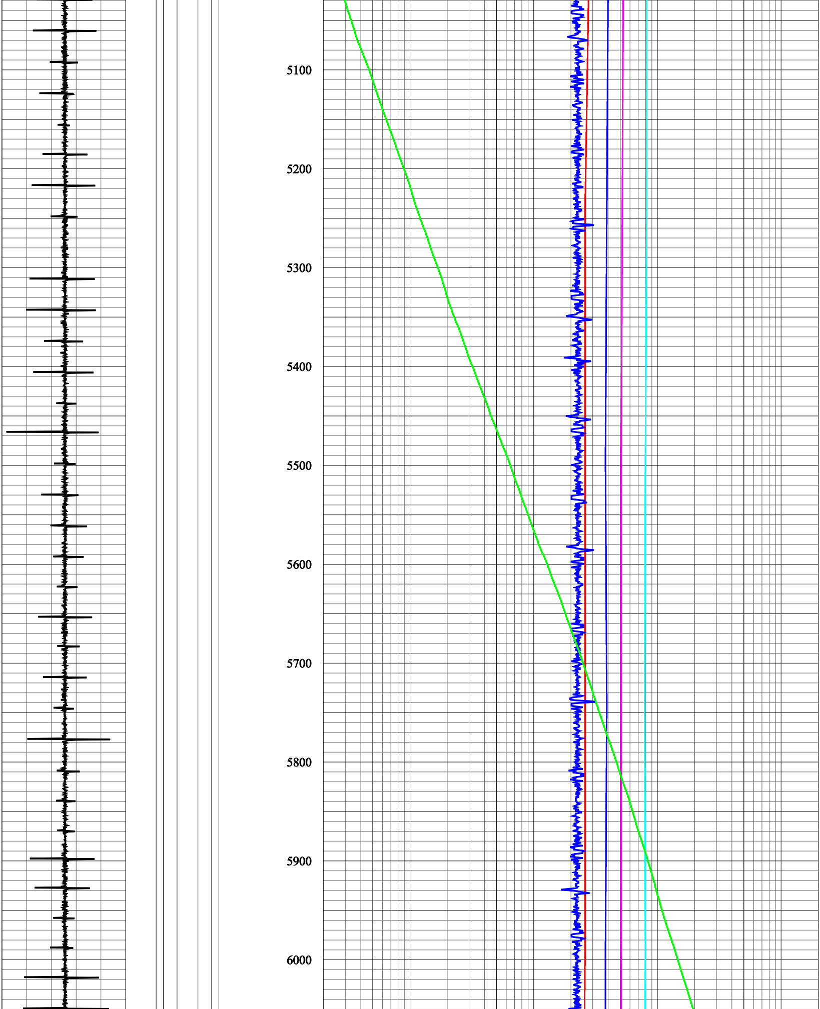


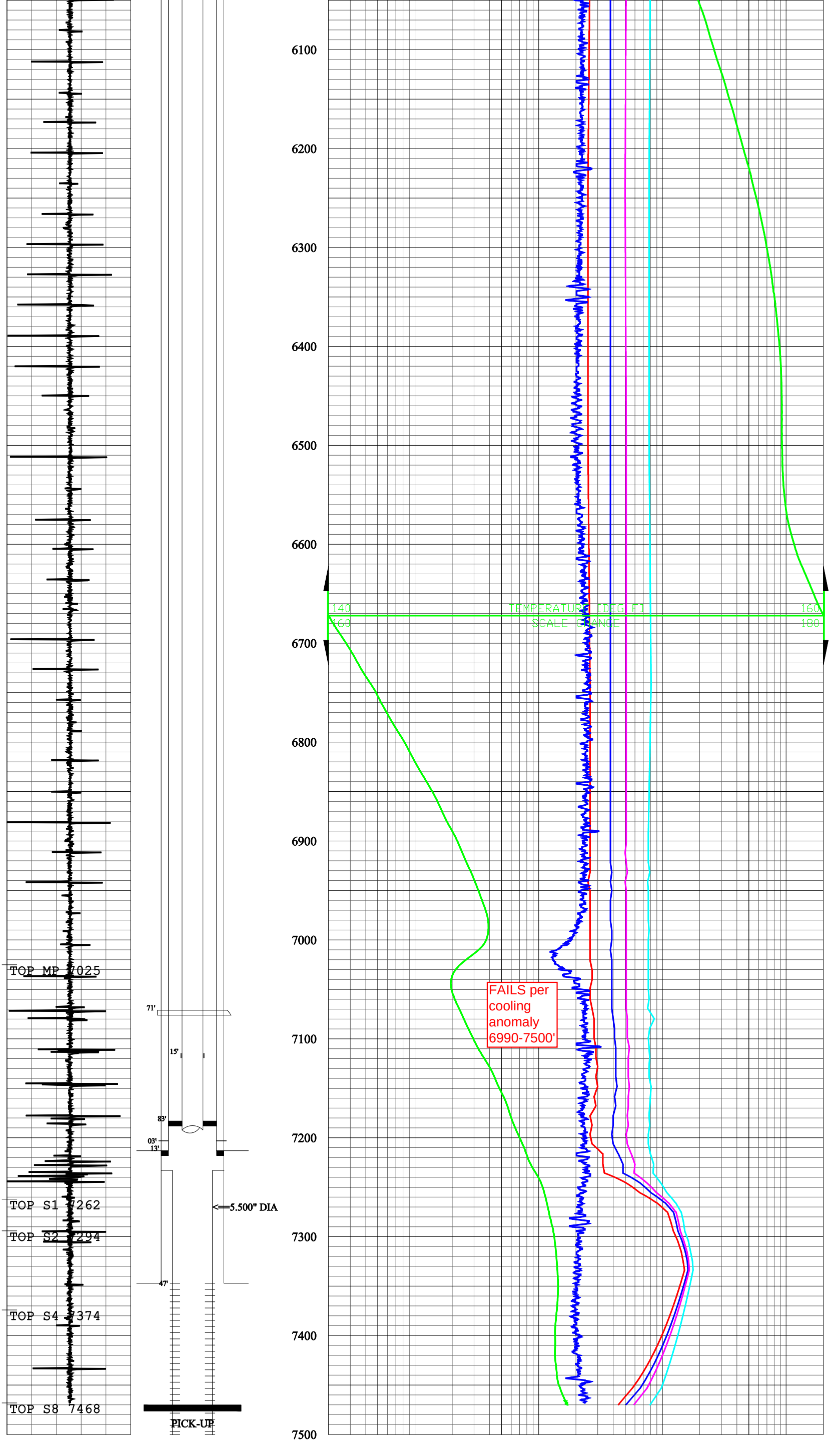












FAILS per cooling anomaly 6990-7500'