WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

FILING NO.	BFW|CB
COMPANY:	SOUTHERN CALIF. GAS CO.
WELL:	FERNANDO FEE 32-A
FIELD:	ALISO CANYON
COUNTY:	LOS ANGELES
STATE:	CALIFORNIA
LOCATION:	DISTRICT 2
OTHER SVC:	
API NUMBER:	0403721872
SEC: 27	TWN: 3N RNG: 16W

PERMANENT DATUM: GROUND LEVEL ELEV: 1995.00'
LOG MEASURED FROM KB 19' ABOVE PERM DATUM
DRILLING MEASURED FROM

-ELEVATIONS-
KB: 2014.00 Ft.
DF: Ft.
GL: 1995.00 Ft.

DATE LOG RAN	03-08-2016	PRESSURE	FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI			1051
EFFECTIVE DEPTH	7479'	CASING PSI			1051
PICKUP DEPTH	7452'	INJECTION RATE			N|A
BOT LOGGED INT	7452'	OBSERVED RATE			N|A
TOP LOGGED INT	25'	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	151.3 F.	OIL Gr.		OIL =	
AT DEPTH	7060.0'	GAS Gr.		GAS=	
TEMPERATURE SENS	1 F/DIV.	MPP		BHP =	
LOGGING SPEED	100 FPM			WATER=	
RECORDED BY	S.MACIAS				
WITNESSED BY	C.KNIGHT				
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

07:00AM - ON LOCATION
08:49AM - RAN IN HOLE
08:50AM - BEGIN SURVEY
12:20PM - PULL OUT OF HOLE
12:35PM - OFF LOCATION

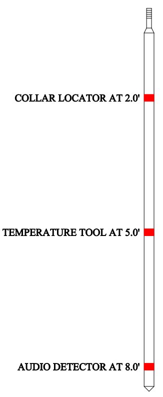
SAND TAG MARKERS: 7187' TOP S1
7287' TOP S4
7372' TOP S8

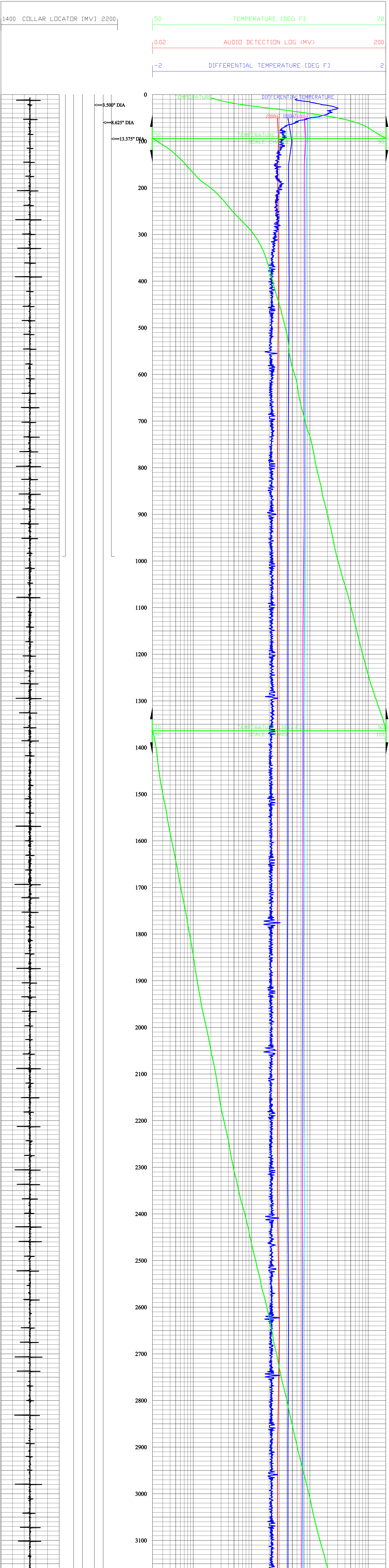
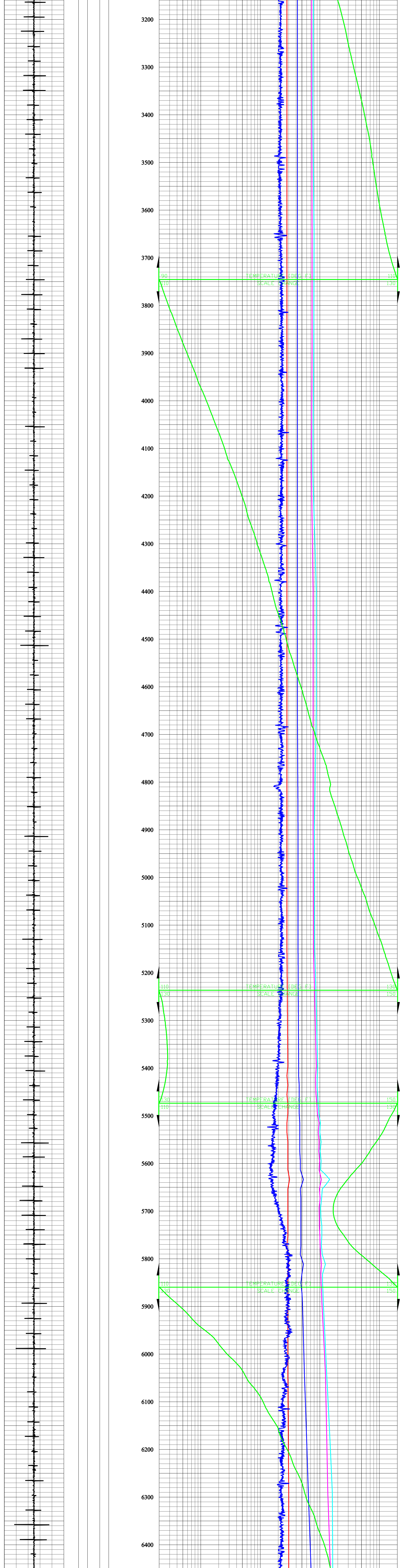
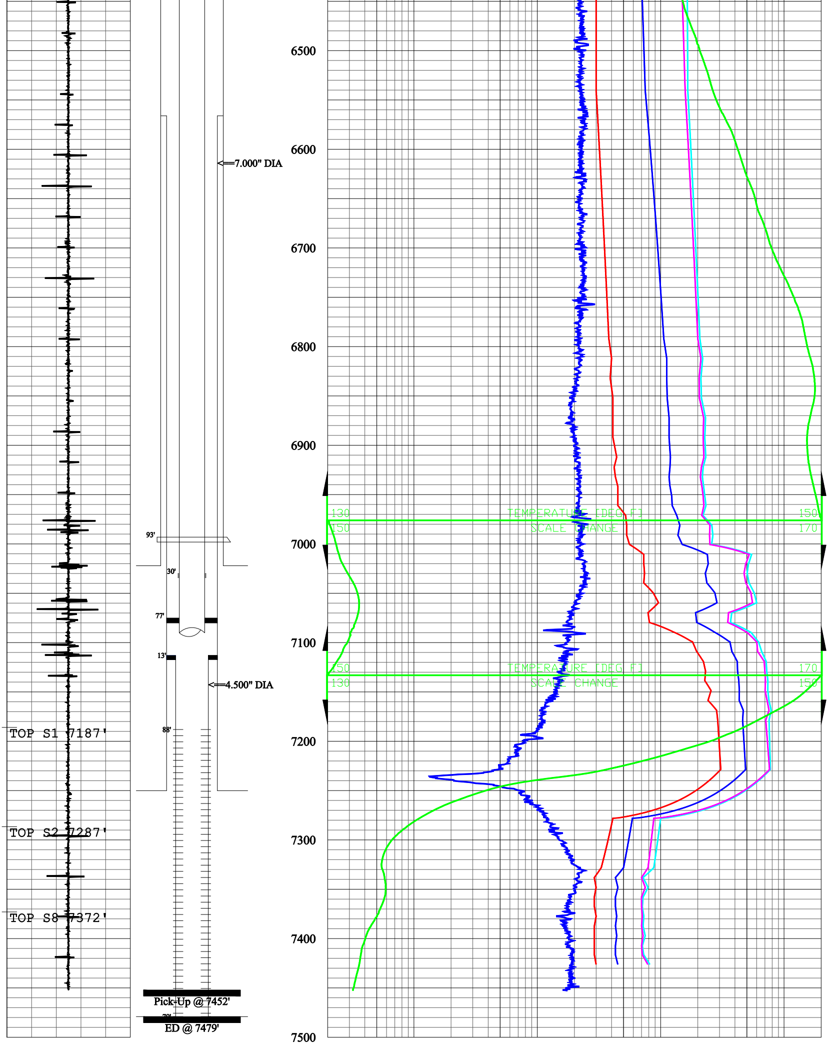
CASING AND TUBING RECORD

SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
13.375"	54.5	SURFACE	990'	3.500"	9.300	SURFACE	7090.4'
8.625"	36.0	SURFACE	7022'				
7.000"	26.0	6566'	7250'				
4.500"	11.6	7113'	7479'				

STR.	PIPE DIA.	PERFORATIONS
A	4.500"	7188'-7479'.
		PACKERS: 7077.9'-7080', 7113.5'-7118.2'.
		GAS LIFT MANDREL: 6992.3'-6998.5'.
		SLIDING SLEEVES: 7124.9'-7126.6', 7032.2'-7035.8'.
		NO-GO: 7088.4'.

TOOL DIAGRAM



```
     Audio Data:  c:\data\noise.txt
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   DEPTH |   200HZ |   600HZ |  1000HZ |  2000HZ |
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      50 |    9.20 |    8.10 |    4.20 |    2.80 |
     100 |    9.20 |    8.50 |    4.90 |    2.90 |
     150 |    8.70 |    8.00 |    4.30 |    2.80 |
     400 |    8.40 |    8.00 |    4.40 |    2.90 |
     650 |    8.40 |    7.90 |    4.30 |    2.80 |
     900 |    8.40 |    8.00 |    4.20 |    2.80 |
    1150 |    8.20 |    7.60 |    4.20 |    2.80 |
    1400 |    7.80 |    7.60 |    4.20 |    2.80 |
    1650 |    8.00 |    7.60 |    4.20 |    2.80 |
    1900 |    7.70 |    7.50 |    4.10 |    2.80 |
    2150 |    7.80 |    7.40 |    4.10 |    2.80 |
    2400 |    8.10 |    7.40 |    4.20 |    2.80 |
    2650 |    7.60 |    7.40 |    4.30 |    3.00 |
    2900 |    7.60 |    7.40 |    4.20 |    2.80 |
    3150 |    7.80 |    7.30 |    4.20 |    2.80 |
    3400 |    7.60 |    7.30 |    4.20 |    2.80 |
    3650 |    8.00 |    7.40 |    4.20 |    2.80 |
    3900 |    7.90 |    7.40 |    4.20 |    2.80 |
    4150 |    7.60 |    7.20 |    4.20 |    2.80 |
    4400 |    8.70 |    7.70 |    4.20 |    2.80 |
    4650 |    8.70 |    7.70 |    4.20 |    2.80 |
    4900 |    8.10 |    7.70 |    4.30 |    2.80 |
    5150 |    8.20 |    7.80 |    4.30 |    2.80 |
    5400 |    9.20 |    8.70 |    4.40 |    2.90 |
    5420 |    9.10 |    8.50 |    4.40 |    2.80 |
    5440 |    9.00 |    8.50 |    4.50 |    2.90 |
    5460 |    9.20 |    8.60 |    4.50 |    2.80 |
    5480 |    9.40 |    8.90 |    4.50 |    2.90 |
    5500 |    9.60 |    9.10 |    4.50 |    2.90 |
    5520 |   10.20 |    9.70 |    4.60 |    2.80 |
    5540 |   10.00 |    9.40 |    4.60 |    2.80 |
    5560 |   10.50 |    9.70 |    4.60 |    2.90 |
    5580 |   10.10 |    9.60 |    4.60 |    2.90 |
    5600 |   10.50 |    9.90 |    4.70 |    2.90 |
    5620 |   10.30 |    9.70 |    4.70 |    2.90 |
    5640 |   14.60 |   10.60 |    5.30 |    3.10 |
    5660 |   11.00 |    9.80 |    4.70 |    2.90 |
    5680 |   10.70 |   10.10 |    4.80 |    2.90 |
    5700 |   10.30 |    9.70 |    4.80 |    2.90 |
    5720 |   10.40 |    9.80 |    4.80 |    2.90 |
    5740 |   10.80 |    9.80 |    4.80 |    2.90 |
    5760 |   10.80 |   10.00 |    4.80 |    2.90 |
    5780 |   10.60 |   10.10 |    4.80 |    2.80 |
    5800 |   11.00 |   10.30 |    4.70 |    2.90 |
    5820 |   12.40 |   10.60 |    5.30 |    3.00 |
    5840 |   11.10 |   10.40 |    5.00 |    2.90 |
    5860 |   11.10 |   10.50 |    4.80 |    2.90 |
    5880 |   11.30 |   10.70 |    5.00 |    2.90 |
    5900 |   11.40 |   10.80 |    5.10 |    2.90 |
    6050 |   13.00 |   12.40 |    5.50 |    2.90 |
    6300 |   16.20 |   13.60 |    6.40 |    3.00 |
    6550 |   16.60 |   15.80 |    7.50 |    3.00 |
    6802 |   20.80 |   20.00 |   10.60 |    3.80 |
    6822 |   21.90 |   21.20 |   11.20 |    4.00 |
    6842 |   21.20 |   20.50 |   11.20 |    3.90 |
    6862 |   21.40 |   20.60 |   11.30 |    4.10 |
    6882 |   23.10 |   22.30 |   11.70 |    4.10 |
    6902 |   22.80 |   22.10 |   11.70 |    4.10 |
    6922 |   23.20 |   22.40 |   12.00 |    4.40 |
    6932 |   22.10 |   21.40 |   11.90 |    4.20 |
    6942 |   21.80 |   21.00 |   11.70 |    4.30 |
    6952 |   22.30 |   21.60 |   11.90 |    4.50 |
    6962 |   22.80 |   22.10 |   12.30 |    4.50 |
    6972 |   23.30 |   22.40 |   12.40 |    4.50 |
    6982 |   22.00 |   21.50 |   13.50 |    5.20 |
    6992 |   26.00 |   25.10 |   14.30 |    5.30 |
    7002 |   26.50 |   24.90 |   13.80 |    5.30 |
    7012 |   25.90 |   25.10 |   15.00 |    5.60 |
    7022 |   54.60 |   52.20 |   23.90 |    7.30 |
    7032 |   51.50 |   48.90 |   24.30 |    7.30 |
    7042 |   50.20 |   47.40 |   23.00 |    7.40 |
    7052 |   52.10 |   49.00 |   23.70 |    7.30 |
    7062 |   57.30 |   53.90 |   27.50 |    8.70 |
    7072 |   60.00 |   55.50 |   28.60 |    9.60 |
    7082 |   37.70 |   35.50 |   19.20 |    7.90 |
    7092 |   36.80 |   35.00 |   19.60 |    8.10 |
    7102 |   53.90 |   50.00 |   27.50 |   12.90 |
    7112 |   62.10 |   60.10 |   36.40 |   18.10 |
    7122 |   65.90 |   61.10 |   37.80 |   19.60 |
    7132 |   71.70 |   69.10 |   41.80 |   22.20 |
    7142 |   72.40 |   69.90 |   42.00 |   23.10 |
    7152 |   74.00 |   70.70 |   43.00 |   22.80 |
    7162 |   73.90 |   70.20 |   43.40 |   25.60 |
    7172 |   75.50 |   72.90 |   43.30 |   24.20 |
    7182 |   78.60 |   75.50 |   46.70 |   28.40 |
    7192 |   75.60 |   71.10 |   46.20 |   29.00 |
    7242 |   77.50 |   76.30 |   48.80 |   30.70 |
    7292 |   10.00 |    8.80 |    5.90 |    4.10 |
    7342 |    8.80 |    7.90 |    5.00 |    3.30 |
    7352 |    7.20 |    7.00 |    4.30 |    2.90 |
    7362 |    7.90 |    7.50 |    4.50 |    3.00 |
    7372 |    7.20 |    7.00 |    4.30 |    2.90 |
    7382 |    7.10 |    7.00 |    4.30 |    2.90 |
    7392 |    7.30 |    7.10 |    4.40 |    3.00 |
    7402 |    7.20 |    7.00 |    4.30 |    2.90 |
    7412 |    7.50 |    7.20 |    4.40 |    2.90 |
    7422 |    7.10 |    7.00 |    4.30 |    2.90 |
    7432 |    7.30 |    7.10 |    4.30 |    2.90 |
    7442 |    8.20 |    7.90 |    4.50 |    3.00 |
```