WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

COMPANY: SOUTHERN CALIF. GAS CO.
WELL: STANDARD SESNON 30
FIELD: ALISO CANYON
COUNTY: LOS ANGELES
STATE: CALIFORNIA
LOCATION: DISTRICT 2
OTHER SVC:
WELL TYPE: GS
BFW
API NUMBER: 0403700780
SEC: 28 TWN: 3N RNG: 16W
PERMANENT DATUM: GROUND LEVEL ELEV: 2330.00'
LOG MEASURED FROM KB 10' ABOVE PERM DATUM
DRILLING MEASURED FROM

-ELEVATIONS-
KB: 2340.00 Ft.
DF: Ft.
GL: 2330.00 Ft.

DATE LOG RAN	04-06-2016	PRESSURE	FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI			828
EFFECTIVE DEPTH	9240'	CASING PSI			828
PICKUP DEPTH	9170'	INJECTION RATE		N/A	
BOT LOGGED INT	9170'	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	199.8 F	OIL Gr.	N/A	OIL =	N/A
AT DEPTH	9170.0'	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	D.PROKUSKI				
WITNESSED BY	N/A				
EMAIL TO	A.KARGAR				
DEPTH CORRELATION	PACKER				

C:\DATA\STANDARD SESNON 30.LAS

Equipment Data

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

TOOL DIAGRAM

COLLAR LOCATOR AT 2.0'
TEMPERATURE TOOL AT 5.0'
AUDIO DETECTOR AT 8.0'

Remarks/Survey Results

11:40AM - ON LOCATION
11:45AM - RAN IN HOLE
11:50AM - BEGIN SURVEY
03:00PM - PULL OUT OF HOLE
03:15PM - OFF LOCATION

SAND TAG MARKERS: 8880' TOP S1
8962' TOP S4
9084' TOP S8

CASING AND TUBING RECORD

SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
11.750"	47	SURFACE	2500'				
7.000"	29	SURFACE	9248'				
2.875"	6.5	SURFACE	8847'				

STR.	PIPE DIA.	PERFORATIONS
A	7.000"	WSO: 8853', 8884'-8896', 8911'-8945', 8962'-9010', 9030'-9070', 9100'-9125', 9135'-9180', 9200'-9240'.
		PACKERS: 8840'.
		GAS LIFT MANDRELS: 2795', 5333', 6883', 7886', 8765'.
		NO-GO: 8806'.

DEPTH	200Hz	600Hz	1000Hz	2000Hz	COMMENTS
100.0	15.90	7.30	4.10	1.40	
120.0	15.90	7.30	4.10	1.40	
140.0	16.00	7.30	4.10	1.40	
160.0	15.80	7.20	4.10	1.40	
180.0	16.10	7.40	4.10	1.40	
200.0	15.90	7.30	4.10	1.40	
220.0	15.80	7.30	4.10	1.40	
240.0	16.00	7.30	4.10	1.40	
260.0	15.90	7.30	4.10	1.40	
280.0	16.00	7.20	4.10	1.40	
300.0	15.90	7.30	4.00	1.40	
320.0	15.90	7.30	4.10	1.40	
340.0	15.80	7.30	4.10	1.30	
360.0	15.90	7.30	4.10	1.40	
380.0	15.80	7.30	4.10	1.40	
400.0	15.50	7.20	4.10	1.40	
420.0	15.70	7.30	4.10	1.40	
440.0	15.80	7.30	4.10	1.30	
460.0	15.60	7.20	4.00	1.30	
480.0	15.80	7.30	4.00	1.30	
500.0	15.60	7.30	4.10	1.40	
750.0	15.70	7.20	4.00	1.30	
1000.0	15.60	7.20	4.10	1.40	
1200.0	15.80	7.30	4.10	1.30	
1220.0	15.50	7.20	4.00	1.30	
1240.0	15.60	7.30	4.10	1.40	
1260.0	15.60	7.20	4.10	1.40	
1280.0	15.60	7.20	4.10	1.40	
1300.0	15.50	7.20	4.10	1.40	
1320.0	15.50	7.20	4.00	1.30	
1340.0	15.40	7.20	4.10	1.30	
1360.0	15.70	7.30	4.10	1.40	
1380.0	15.40	7.20	4.10	1.50	
1400.0	15.40	7.20	4.10	1.40	
1420.0	15.60	7.20	4.10	1.40	
1440.0	15.50	7.30	4.10	1.40	
1460.0	15.60	7.30	4.20	1.50	
1480.0	15.50	7.20	4.10	1.40	
1500.0	15.40	7.20	4.00	1.30	
1520.0	15.50	7.20	4.00	1.30	
1540.0	15.70	7.20	4.10	1.30	
1560.0	15.30	7.20	4.00	1.30	
1580.0	15.50	7.20	4.10	1.40	
1600.0	15.60	7.20	4.10	1.40	
1620.0	15.60	7.20	4.10	1.40	
1640.0	15.30	7.20	4.10	1.30	
1660.0	15.60	7.20	4.00	1.30	
1680.0	15.60	7.20	4.10	1.40	
1700.0	15.40	7.20	4.00	1.30	
1720.0	15.60	7.20	4.10	1.30	
1740.0	15.40	7.20	4.10	1.40	
1760.0	15.60	7.30	4.10	1.40	
1780.0	15.50	7.20	4.10	1.40	
1800.0	15.50	7.20	4.00	1.40	
1820.0	15.40	7.20	4.10	1.30	
1840.0	15.50	7.20	4.10	1.40	
1860.0	15.70	7.30	4.10	1.50	
1880.0	15.70	7.30	4.10	1.40	
1900.0	15.60	7.30	4.10	1.40	
1920.0	15.70	7.30	4.20	1.60	
1940.0	15.60	7.30	4.10	1.40	
1960.0	15.80	7.30	4.20	1.50	
1980.0	15.70	7.30	4.10	1.40	
2000.0	15.90	7.20	4.10	1.40	
2020.0	15.60	7.20	4.00	1.30	
2040.0	15.50	7.20	4.10	1.40	
2060.0	15.80	7.30	4.20	1.60	
2080.0	15.50	7.20	4.10	1.40	
2100.0	15.50	7.20	4.10	1.40	
2400.0	15.40	7.20	4.10	1.40	
2420.0	15.30	7.10	4.10	1.40	
2440.0	15.50	7.20	4.10	1.40	
2460.0	15.50	7.20	4.20	1.50	
2480.0	15.50	7.20	4.10	1.40	
2500.0	15.40	7.20	4.20	1.50	
2520.0	15.30	7.20	4.10	1.40	
2540.0	15.40	7.20	4.10	1.40	
2560.0	15.50	7.20	4.10	1.40	
2580.0	15.30	7.10	4.10	1.50	
2600.0	15.30	7.20	4.10	1.50	
2750.0	15.50	7.20	4.20	1.50	
3000.0	15.90	7.30	4.20	1.50	
3250.0	16.10	7.40	4.40	1.70	
3550.0	17.20	8.30	5.40	3.20	
3750.0	18.30	8.60	5.70	3.50	
4000.0	21.60	13.70	11.80	10.20	
4020.0	21.10	11.00	8.60	6.70	
4040.0	21.60	12.90	10.90	9.00	
4060.0	22.80	15.10	13.50	12.30	
4080.0	24.80	15.50	13.70	12.40	POSSIBLE FLUID
4100.0	196.50	119.40	103.80	74.90	LEVEL @ 4090'.
4120.0	176.20	102.40	87.20	66.70	
4140.0	140.40	84.50	70.90	55.70	
4160.0	127.10	69.60	58.00	47.50	
4180.0	117.80	64.70	53.20	43.20	
4200.0	119.80	72.00	60.40	50.60	
4220.0	107.80	54.90	44.20	33.80	
4240.0	96.80	50.30	42.10	34.30	
4260.0	103.00	53.40	43.40	34.90	
4280.0	116.30	69.40	58.10	48.20	
4300.0	133.50	80.50	66.30	55.30	
4320.0	123.90	65.90	52.30	42.30	
4340.0	132.80	81.50	67.50	54.40	
4360.0	130.70	78.50	66.30	54.40	
4400.0	124.20	70.90	59.80	48.70	
4420.0	107.40	62.60	51.90	42.00	
4440.0	101.70	64.10	54.40	44.60	
4460.0	100.40	58.30	50.20	41.80	
4480.0	101.30	59.20	50.10	41.40	
4500.0	91.30	54.70	45.80	37.90	
4520.0	82.40	50.10	40.90	34.10	
4540.0	100.40	59.60	51.10	41.40	
4560.0	97.40	57.50	48.30	39.40	
4580.0	90.20	49.00	40.80	32.00	
4600.0	95.10	54.80	44.60	33.40	
4620.0	81.60	43.40	35.30	26.10	
4640.0	82.10	45.90	36.80	27.90	
4660.0	78.40	41.10	33.10	24.60	
4680.0	67.20	34.30	27.90	21.20	
4700.0	66.00	35.10	27.60	21.00	
4720.0	64.30	33.10	27.60	21.00	
4740.0	55.70	26.70	22.20	16.60	
4760.0	49.70	24.80	19.80	14.30	
4780.0	48.80	22.30	18.10	13.20	
4800.0	42.60	21.70	17.00	13.00	
4820.0	40.50	19.80	14.80	10.10	
4840.0	43.40	21.50	16.90	12.20	
4860.0	39.10	18.60	13.80	9.70	
4880.0	37.30	18.90	14.20	9.80	
4900.0	38.10	17.50	13.90	10.20	
4920.0	35.60	15.40	11.80	7.90	
4940.0	35.70	14.90	11.40	8.10	
4960.0	32.60	13.80	10.60	7.20	
4980.0	33.70	15.30	11.50	7.80	
5000.0	32.80	15.40	11.50	8.00	
5020.0	33.40	14.50	11.10	7.80	
5040.0	32.60	15.00	11.60	8.30	
5060.0	32.20	14.40	10.80	7.30	
5080.0	31.10	14.70	11.00	7.50	
5100.0	32.70	14.30	10.90	7.70	
5120.0	33.40	15.90	11.90	8.30	
5140.0	32.20	14.50	10.70	7.30	
5160.0	31.90	15.70	11.80	8.20	
5180.0	31.30	14.40	10.60	7.20	
5200.0	29.80	14.50	10.50	7.10	
5220.0	27.60	13.20	9.40	6.10	
5240.0	27.90	12.90	9.70	6.90	
5260.0	23.90	10.90	7.70	5.00	
5280.0	22.60	10.80	7.50	4.80	
5300.0	20.30	9.40	6.20	3.60	
5500.0	22.60	10.80	7.70	4.90	
5520.0	20.10	10.30	7.20	4.20	
5540.0	20.00	10.50	7.20	4.30	
5560.0	20.20	10.00	6.60	3.50	
5580.0	18.50	9.10	6.00	3.30	
5600.0	18.20	8.90	5.90	3.30	
5620.0	18.70	8.80	5.90	3.30	
5640.0	18.60	8.80	5.80	3.20	
5660.0	18.60	8.90	5.90	3.30	
5680.0	18.80	9.50	6.40	3.70	
5700.0	18.80	9.40	6.30	3.60	
5720.0	18.50	9.60	6.50	3.60	
5740.0	18.60	8.90	5.70	2.90	
5760.0	18.10	8.90	5.80	2.90	
5780.0	17.40	8.40	5.30	2.60	
5800.0	17.20	8.40	5.40	2.60	
5820.0	17.20	8.30	5.30	2.70	
5840.0	17.00	7.90	5.00	2.50	
5860.0	17.10	8.00	5.10	2.60	
5880.0	17.30	8.10	5.20	2.70	
5900.0	17.30	8.20	5.20	2.50	
5920.0	16.50	8.10	5.10	2.40	
5940.0	16.70	8.00	5.00	2.40	
5960.0	17.10	8.10	5.10	2.40	
5980.0	16.60	8.00	4.90	2.30	
6000.0	16.50	7.90	4.90	2.30	
6020.0	16.00	7.60	4.70	2.10	
6040.0	16.50	7.70	4.80	2.30	
6060.0	16.30	7.80	4.80	2.30	
6080.0	16.20	7.80	4.90	2.40	
6100.0	16.30	7.80	4.90	2.30	
6120.0	16.20	7.70	4.80	2.20	
6140.0	16.40	7.80	4.90	2.40	
6160.0	16.20	7.80	4.90	2.30	
6180.0	16.20	7.50	4.60	2.20	
6200.0	16.20	7.60	4.70	2.20	
6220.0	16.20	7.80	4.90	2.40	
6240.0	16.10	7.80	4.90	2.30	
6260.0	16.30	7.90	4.90	2.30	
6280.0	16.10	7.80	4.80	2.20	
6300.0	16.10	7.70	4.70	2.00	
6320.0	16.00	7.60	4.70	2.10	
6340.0	16.00	7.60	4.60	2.00	
6360.0	15.80	7.50	4.60	2.10	
6380.0	15.50	7.50	4.50	1.90	
6400.0	15.70	7.50	4.50	2.00	
6420.0	15.10	7.20	4.30	1.80	
6440.0	15.60	7.40	4.40	1.80	
6460.0	15.30	7.20	4.30	1.70	
6480.0	15.20	7.30	4.30	1.70	
6500.0	15.30	7.20	4.30	1.80	
6520.0	15.20	7.20	4.30	1.80	
6540.0	15.30	7.20	4.30	1.80	
6560.0	15.20	7.20	4.30	1.80	
6580.0	15.30	7.30	4.40	1.80	
6600.0	15.40	7.30	4.40	1.80	
6620.0	15.30	7.30	4.40	1.80	
6640.0	15.00	7.30	4.30	1.80	
6660.0	15.40	7.30	4.40	1.80	
6680.0	15.10	7.20	4.30	1.80	
6700.0	15.40	7.40	4.40	1.90	
6720.0	15.30	7.30	4.40	1.80	
6740.0	15.20	7.20	4.30	1.80	
6760.0	15.10	7.30	4.40	1.80	
6780.0	15.30	7.30	4.40	1.80	
6800.0	15.10	7.20	4.40	1.80	
6820.0	15.10	7.20	4.30	1.70	
6840.0	15.10	7.20	4.30	1.70	
6860.0	14.80	7.10	4.30	1.60	
6880.0	14.70	7.00	4.20	1.60	
6900.0	14.60	7.10	4.20	1.60	
6920.0	14.40	7.10	4.40	1.80	
6940.0	14.60	7.10	4.20	1.60	
6960.0	14.40	7.00	4.20	1.50	
6980.0	14.50	7.10	4.20	1.60	
7000.0	14.50	7.20	4.30	1.60	
7250.0	14.20	7.00	4.20	1.50	
7550.0	14.10	6.90	4.20	1.50	
7750.0	13.90	6.90	4.20	1.50	
8000.0	13.80	6.90	4.20	1.50	
8250.0	13.90	6.90	4.20	1.60	
8600.0	14.00	6.90	4.20	1.50	
8610.0	14.00	6.90	4.20	1.60	
8620.0	14.10	6.90	4.30	1.60	
8630.0	13.80	6.90	4.20	1.60	
8640.0	14.10	6.90	4.20	1.60	
8650.0	14.10	6.90	4.20	1.50	
8660.0	13.80	6.80	4.20	1.60	
8670.0	14.10	6.80	4.10	1.50	
8680.0	14.00	6.80	4.20	1.50	
8690.0	13.80	6.80	4.20	1.50	
8700.0	13.90	6.90	4.20	1.60	
8710.0	14.10	6.80	4.20	1.60	
8720.0	14.10	6.90	4.20	1.60	
8730.0	14.20	6.80	4.20	1.60	
8740.0	14.20	6.90	4.20	1.60	
8750.0	13.90	6.90	4.20	1.60	
8760.0	14.30	6.90	4.30	1.60	
8770.0	14.40	6.90	4.30	1.60	
8780.0	14.60	7.00	4.40	1.70	
8790.0	14.70	7.00	4.30	1.70	
8800.0	15.40	7.10	4.40	1.80	
8810.0	15.00	7.20	4.40	1.90	
8820.0	15.20	7.20	4.40	1.90	
8830.0	15.90	7.30	4.50	2.00	
8840.0	16.20	7.50	4.60	2.10	
8850.0	14.10	7.90	4.50	2.00	
8860.0	14.10	7.50	4.50	2.10	
8870.0	14.50	8.20	4.70	2.30	
8880.0	14.10	7.60	4.60	2.30	
8890.0	14.60	8.80	5.00	2.80	
8900.0	14.10	8.10	4.60	2.10	
8950.0	13.50	7.30	4.30	1.70	
9000.0	13.30	6.80	4.30	1.60	
9050.0	13.40	7.00	4.40	1.80	
9100.0	15.70	7.60	4.80	2.30	
9170.0	12.90	6.60	4.20	1.60	

1400 COLLAR LOCATOR [MV] 2300

65 TEMPERATURE [DEG F] 85

0.02 AUDIO DETECTION LOG (MV) 200

-2 DIFFERENTIAL TEMPERATUR [DEG F] 2