WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

FILING NO.

COMPANY: SOUTHERN CALIF. GAS CO.
WELL: STANDARD SESNON 44A
FIELD: ALISO CANYON
COUNTY: LOS ANGELES STATE: CALIFORNIA
LOCATION: DISTRICT 2
OTHER SVC:

DJS

API NUMBER: 0403721455
SEC: 28 TWN: 3N RNG: 16W

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	06-08-2012	PRESSURE	FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI			2550
EFFECTIVE DEPTH	9424'	CASING PSI			2500
PICKUP DEPTH	9404'	INJECTION RATE	N/A		
BOT LOGGED INT	9404'	OBSERVED RATE	N/A		
TOP LOGGED INT	7000'	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	SHUT-IN	PRODUCTION DATA			
MAX TEMPERATURE	191.3 F.	OIL Gr.	OIL =		
AT DEPTH	9404'	GAS Gr.	GAS=		
TEMPERATURE SENS	1 F/DIV.	MPP	BHP =		
LOGGING SPEED	100 FPM		WATER=		
RECORDED BY	R. LOPEZ				
WITNESSED BY	N/A				
ENGINEER	A. KRAGAR				
DEPTH CORRELATION	PACKER				

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

07:00 AM - ON LOCATION
01:30 PM - OFF LOCATION
SAND TAG MARKERS: 8812' S1
8879' S4
8990' S8
9202' FREW

CASING AND TUBING RECORD

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

STR.	PIPE DIA.	PERFORATIONS
A	8.625"	SQUEEZED: 8811'-8812', SQUEEZED WSO: 8833', SQUEEZED WSO: 8835'.
	6.625"	8865'-9061'.
		PACKERS: 8756'-8761', 9073'-9078'.
		MANDREL: 8642'-8646'.
		SLEEVES: 8688'-8692', 9002'-9006'.
		NO-GOS: 8722', 9036'.
		STAGE COLLAR: 3976'.

Audio Data: c:\data\NOISE.txt

DEPTH	200HZ	600HZ	1000HZ	2000HZ
150	10.70	10.40	5.40	2.20
160	10.70	10.40	5.40	2.20
170	10.60	10.20	5.40	2.20
180	10.40	10.10	5.30	2.10
190	10.50	10.10	5.30	2.10
200	10.40	10.10	5.30	2.10
210	10.60	10.30	5.30	2.10
220	10.50	10.10	5.30	2.10
230	10.60	10.20	5.30	2.10
240	10.40	10.20	5.30	2.10
250	10.30	9.90	5.20	2.10
8500	12.40	11.20	6.60	3.60
8510	12.20	11.20	6.90	4.10
8520	12.80	11.40	7.00	3.70
8530	12.90	11.60	7.40	3.80
8540	12.20	11.10	6.60	2.80
8550	12.50	11.30	6.80	3.40
8560	12.20	10.90	6.20	2.80
8570	11.90	10.80	6.20	2.70
8580	12.20	11.10	6.50	3.10
8590	12.80	11.20	6.50	2.70
8600	12.30	10.60	6.00	2.40
8605	12.10	10.90	6.00	2.50
8610	12.00	10.80	6.10	2.70
8615	12.00	10.70	6.10	2.70
8620	12.00	10.80	6.00	2.60
8625	12.10	11.00	6.40	3.40
8630	12.20	10.80	6.10	2.60
8635	12.60	10.90	6.10	2.50
8640	12.20	11.00	6.20	2.80
8645	12.30	11.00	6.10	2.50
8650	12.30	11.00	6.30	2.90
8655	13.50	11.40	6.40	2.70
8660	14.30	11.90	6.90	3.40
8665	14.30	11.70	7.00	3.30
8670	14.90	12.50	7.80	4.00
8675	17.00	14.90	10.90	7.00
8680	18.10	14.90	9.70	4.50
8685	18.00	15.00	9.60	4.40
8690	21.70	14.80	9.10	6.00
8695	21.80	15.40	10.10	7.40
8700	21.20	13.80	7.40	3.90
8705	21.00	13.30	7.00	3.20
8710	20.90	13.50	7.10	2.80
8715	21.40	13.70	7.20	3.20
8720	20.30	13.20	7.30	3.30
8725	20.40	14.30	8.30	4.70
8730	21.00	13.50	6.70	2.70
8735	19.90	13.30	6.90	2.90
8740	21.00	13.50	7.10	3.50
8745	20.90	13.80	7.90	4.70
8750	21.00	13.40	6.70	2.70
8755	18.50	12.70	7.00	3.10
8760	28.80	16.30	8.40	3.40
8765	28.70	17.00	9.00	4.10
8770	28.80	17.70	9.60	5.00
8775	28.70	17.80	10.40	5.90
8780	28.70	18.50	11.70	7.40
8785	27.60	17.40	10.00	5.40
8790	27.70	16.60	8.40	3.50
8795	27.30	16.50	8.40	3.50
8800	29.80	17.60	9.70	4.60
8805	28.70	17.10	8.70	3.60
8810	29.30	17.20	9.30	4.20
8815	29.20	17.20	9.10	3.80
8819	28.80	16.90	8.80	3.70
8825	27.80	16.80	8.60	3.50
8830	28.70	16.60	8.70	3.60
8835	28.90	17.00	8.60	3.60
8840	28.70	17.50	9.40	4.10
8845	27.60	17.20	9.00	3.80
8850	28.30	17.50	9.10	3.80
8855	29.20	17.20	9.30	3.90
8860	32.80	18.30	10.10	5.00
8865	31.20	18.90	11.50	7.00
8870	30.50	17.70	9.80	4.30
8875	31.90	18.10	10.80	5.40
8880	33.10	19.10	11.00	5.20
8885	33.50	19.20	12.00	6.90
8890	32.10	18.80	11.40	5.50
8895	45.70	21.00	13.60	7.90
8900	44.50	24.40	16.90	10.80
8905	43.60	23.70	16.10	8.10
8910	31.20	19.60	12.00	6.50
8915	49.60	24.20	16.50	9.60
8920	57.20	23.20	14.30	8.10
8925	69.60	36.60	29.70	22.30
8930	53.50	29.20	22.60	15.10
8935	44.70	21.80	14.00	8.50
8940	41.30	22.10	15.20	10.80
8945	49.20	30.40	24.60	20.50
8950	40.60	23.70	17.50	13.50
8955	49.30	23.70	16.20	10.70
8960	41.70	21.40	13.90	9.10
8965	46.70	22.90	15.20	9.40
8970	52.60	23.60	15.10	8.60
8975	51.10	23.40	15.70	8.70
8980	40.60	20.60	12.50	6.20
8985	41.80	20.60	12.40	5.90
8990	41.30	20.40	12.80	6.20
8995	42.50	20.80	12.60	5.60
9000	37.80	19.40	11.70	6.00
9005	82.80	29.10	14.70	6.20
9010	78.70	30.50	15.00	6.00
9015	75.60	32.30	16.50	7.20
9020	77.70	33.30	18.70	9.80
9025	71.70	33.80	17.00	7.80
9100	36.40	23.80	17.00	11.60
9150	30.70	19.50	15.10	11.80
9200	18.80	13.10	7.80	3.50
9250	17.10	12.60	7.20	2.80
9300	15.60	11.80	6.60	2.50
9350	17.80	11.90	6.20	2.80
9400	12.40	10.20	5.40	2.20
9404	11.90	9.80	5.30	2.20