

SED-287

SoCalGas Interoffice Memo re Forms Used at Aliso (9-4-1981)

I.19-06-016

ALJs: Hecht/Poirier

Date Served: May 3, 2021

INTEROFFICE



CORRESPONDENCE

7

TO * See Below FROM *J. W. Tenfelder* DATE September 4, 1981
SUBJECT Forms Used at Aliso Canyon

- * S. Ghaemian
- K. H. Guppy
- R. C. Hazel
- M. Melkonian
- M. E. Melton
- M. H. Nguyen
- F. N. Nchamukong
- M. A. Nozaki
- S. P. Robinson
- G. A. Ruiz
- K. M. Taira
- R. E. Wallace
- P. D. Yu

Attached are filled out samples of the major forms in use at Aliso Canyon along with some blank master forms. Since most fields have similar information needs, these or similar forms should be in use. During the Functional Review, please check to see how and if the information on these forms is being assembled and used in each field. Also attached is a short form description and use guide. For additional information, please contact me.

JWT:mm

Attachment

cc: P. S. Magruder, Jr. ✓
B. F. Jones
T. L. Chamberlen

FORM NAME

INFORMATION GIVEN/RECORDED

a. PREPARER(S); b. USER(S); c. USE

1. Injection Schedule

- A. Well name and location
- B. Injection string
- C. Availability and Priority group
- D. Non-available well comments

- a. Resident Reservoir Engineer
- b. Shift Supervisor
Field Operators
- c. To keep field people informed of injection well priority and availability

2. Withdrawal Schedule

- A. Well name and location
- B. Flow string
- C. SSSV size and installation information
- D. Choke size and location
- E. Availability and priority group
- F. Estimated rate at a specific inventory
- G. Non-available well comments

- a. Resident Reservoir Engineer
- b. Shift Supervisor
Field Operators
Senior Records Control Clerk
- c. Provide well availability and priority information, allow checking of estimate vs. actual rate, give Shift Supervisor guidance in increasing or decreasing field rate to called for rate, provide rate estimate to Senior Clerk when actual rate not determined for use in DOG 110 preparation.

3. Gas Well Inj/Wd Daily Log

- A. Well name
- B. Withdrawal or injection time and operation information
- C. SIWHP & FWHP for casing and tubing (flow and control string)
- D. Estimated rate from field, master meter, or choke equation not from withdrawal schedule

- a. Shift Supervisor - Prepared separately
Field Operator then compared for accuracy
- b. Resident Reservoir Engineer
Senior Records Control Clerk
- c. Pressure information used for determining whether or not chokes SSSV's are in place, pressure and rate used for back-pressure curve development, time and rate used to prepare DOG 110 information.

4. Daily Inj/Wd Well Summary

- A. Well name
- B. Estimated rate from withdrawal schedule
- C. Total of estimated rates
- D. Actual metered total
- E. Time of operation

- a. Shift Supervisor
- b. Shift Supervisor
Senior Records Control Clerk
Resident Reservoir Engineer
- c. Give quick look of operations to Shift Supervisor; allow checking estimated percentage difference, provide clerk with check list of daily log.

FORM NAMEINFORMATION GIVEN/RECORDEDa, PREPARER(S); b, USER(S); c, USE

5. JWT 26 Individual Well Withdrawal/ Injection Log	A. History of well operations times and rates B. Cumulative volume of withdrawal for DOG 110 C. Cumulative hours of injection for prorating injection for DOG 110	a. Senior Records Control Clerk b. Senior Records Control Clerk Resident Reservoir Engineer c. Used with JWT 26 Program, allows data preparation for monthly DOG 110 reports
6. Well Mechanical Information Sheet and Well Work History Log	A. Wireline jewelry information B. Pulling tool information C. Well work description D. Cost of contract work performed E. Erosion and well test data F. Noise, RA, and temperature survey results description	a. Gas Storage Technicians Resident Reservoir Engineer Senior Records Control Clerk b. Contract and company wireline operators Resident Reservoir Engineer Underground Storage Staff c. Wireline operators use information to choose the right size and type of tools, any and all well information is posted daily with a copy of daily work sent to UGS Staff
7. Well History Log Entry Sheet	A. Date well work was done B. Name of well worked on C. Date work description was put in well history log	a. Gas Storage Technicians Resident Reservoir Engineer b. Resident Reservoir Engineer Senior Records Control Clerk c. Allows users to know which wells were worked on and when, provides daily check of work activity vs. memory tells clerk which wells have had entries made and therefore, what information to send to UGS Staff
8. Weekly Pressure Information Sheet	A. Date pressures were recorded B. Well status at time pressures were taken C. Tubing, casing and annuli pressures D. SSSV control line string	a. Field operators b. Resident Reservoir Engineer Senior Records Control Clerk UGS Staff c. Clerk plots shut-in and annular pressures. Data used for inventory verification and leak detection

FORM NAMEINFORMATION GIVEN/RECORDEDa. PREPARER(S); b. USER(S); c. USE

9. Helium Analysis

- A. Well name, date sample taken, PPM He, operator and well status

- a. Test Center Staff
b. Resident Reservoir Engineer
UGS Staff
Senior Records Control Clerk
c. When data is put on Helium sample log and plotted, trends can be seen in the monitored wells

10. Helium Samples

- A. PPM He and date

- a. Senior Records Control Clerk
b. Resident Reservoir Engineer
c. Shows trends in He concentrations throughout the field by well and date

11. Killed Well Information Sheet

- A. Well data
B. Mud data
C. Pressure data

- a. Resident Reservoir Engineer
Field Operators
b. Resident Reservoir Engineer
Field Operators
c. Daily pressure checks of killed wells insure that zone fracturing will not occur and that killed wells are either kept dead or promptly unloaded

12. Temperature Survey Summary

- A. Well name
B. Date temperature survey run
C. Survey results
D. Follow-up action plans

- a. Resident Reservoir Engineer
b. Resident Reservoir Engineer
UGS Staff
c. Allows quick review of wells with possible leakage problems

13. Temperature Survey Schedule

- A. Survey plans

- a. Resident Reservoir Engineer
b. Gas Storage Technicians
c. Plans survey work, gives instructions that vary from normal, and provides technician with a check off sheet

FORM NAME

INFORMATION GIVEN/RECORDED

a. PREPARER(S); b. (USER(S); c. USE

14. Noise Log Program

- A. Depths to be surveyed
- B. Distance between survey points desired

- a. Resident Reservoir Engineer
- b. Contract Logging Co.
- c. Given to contractor along with well mechanical, tubing detail and E-Log to provide job instruction for running noise log without engineer to supervise job

15. RA Survey Program

- A. Depth to be surveyed
- B. Method of RA injection
- C. Size of RA slug

- a. Resident Reservoir Engineer
- b. Contract Logging Co.
- c. Used along with a well mechanical, tubing detail and E-log by Logging Co. to run tracer survey without engineer supervising all the time

16. RA Survey Preparation Notice

- A. Well No.
- B. Gauge location
- C. Injection gas requirements

- a. Resident Reservoir Engineer
- b. Shift Supervisor
- c. Used to set up well for RA survey work the night before logging

17. Well Leak Log

- A. Well No.
- B. Approximate dates between which leaks were occurring
- C. Description of leakage problem
- D. Final cure of leak
- E. Estimate of gas lost

- a. Resident Reservoir Engineer
- b. UGS Staff
- c. Used to justify inventory loss write offs and to keep track of past problems

JWT:mm
9/3/81

Date: 8/4/81

INJECTION SCHEDULE

By: *Ken W. Gagnier*

WELL	INJ STR.	SSSV	CHOKE	AVAIL	RATE	REMARKS	WELL	INJ STR.	SSSV	CHOKE	AVAIL	RATE	REMARKS
26	IW 54	C	1.125		Y-2		P 4	C	0.750		Y-2		
	IW 55	C	0-OUT 1.125				P 12		C-OUT 1.125				
32	IW 56	C	C-OUT 1.125		Y-3								
	IW 57	C	C-OUT 1.125		Y-3		P 25	T	0-OUT 0.750		N-2		Lateral out
32	IW 58	C	0-OUT 1.125		N-3	N/A indicates well shut	P 26	C	C-OUT 1.125		Y-2		
32	IW 60	C	C-OUT 1.125		Y-3		P 30	C	C-OUT 1.875		Y-2		
	IW 61	C	C-OUT 1.125		Y-3		P 32	C	NONE		Y-2		
32	IW 62	C	C-OUT 1.125		Y-2		P 34		C-OUT 1.125				
30	IW 63	C	C-OUT 1.125		Y-4		P 35		C-OUT 1.125				
	IW 64	C	C-OUT 1.125		Y-4		P 36		C-OUT 1.125				
26	IW 65	C	0-OUT 1.125		Y-2		P 37		0-OUT 1.125				
35	IW 66	C	0-OUT 1.125		N-4	w/d line valve out	P 69A	C	out		N		NEEDS CLEAN UP flow - back
30	IW 67	C	B-OUT 1.43		Y-4		P 38		C-OUT 1.125				
25	IW 69	C	0-OUT 1.125		Y-1		P 39		C-OUT 1.125				
44	IW 70	C	0-IN 1.125		Y-1		P 40		0-OUT 1.125				
32	IW 73	C	C-OUT 1.125		N-3	plus due to w/o on IW 76	P 41		0-OUT 1.125				
26	IW 74	C	0-OUT 1.125		N-2	CSP leak	P 42		0-OUT 1.125				
32	IW 75	C	C-OUT 1.125		N-2	plus due to w/o on IW 76	P 42A	C	C-OUT 1.567		Y-3		
	IW 76	C	0-OUT 1.125		N-3	CSP leak	P 42B	C	0-OUT 1.500		Y-3		
25	IW 77	C	C-NONE 1.125		Y-1		P 42C	C	0-OUT 1.500		Y-3		
32	IW 78	C	C-OUT 1.125		Y-2		P 43		C-OUT 1.125				
44	IW 79	C	C-OUT 1.125		Y-1		P 44		C-OUT 1.125				
26	IW 80	C	0-OUT 1.125		Y-2		P 45		0-IN 0.750				
32	IW 81	C	C-OUT 1.125		Y-3		P 46		0-OUT 1.125				
35	IW 82	C	0-OUT 1.125		Y-4		P 47		0-OUT 1.125				
44	IW 83	T-K	0-OUT 1.125		Y-1		PF 1		0-OUT 1.125				
	F 2	C	0-OUT 1.125		Y-1		PF 2		0-OUT 1.125				
	F 3	C	0-OUT 1.125		Y-1		PF 3		0-OUT 1.125				
	F 4	C-K	0-OUT 1.125		Y-1		PS 42		C-OUT 1.125				
	F 5	C-K	0-OUT 1.125		Y-1		SS 1	C-K	0-OUT 1.125		N		observation well
	F 7	T-K	C-OUT 1.125		Y-1		SS 2	C	0-OUT 0.750		Y-1		
	FF 31		0-OUT 0.750				SS 3	T-K	C-OUT 1.125		Y-1		
	FF 32	C	C-OUT 1.875		Y-3		SS 4	C	C-OUT 1.125		Y-1		
	FF 32A	C	C-OUT 1.567		Y-3		SS 5	T	0-OUT 0.750		Y-1		
	FF 33		C-OUT 1.125				SS 6	C	C-OUT 1.125		Y-1		
	FF 34A	C	out		Y-6		SS 7	C	C-OUT 1.125		Y-1		
	MA 1A	C	out		Y-4		SS 8	C	0-OUT 0.750		Y-1		
	MA 1B	C	out		N-4	suspected leak	SS 9	C	C-OUT 1.125		Y-1		
	MA 3		0-OUT 1.125				SS 10	C-K	0-OUT 1.125		Y-1		
	MA 4		0-IN 1.125				SS 11	C-K	C-OUT 1.125		Y-1		
	MA 5		0-OUT 0.750				SS 17	C-K	0-OUT 0.750		Y-1		
							SS 24	C-K	C-OUT 1.125		Y-1		
							SS 25	C	C-OUT 1.125		Y-1		
							SS 29	C	0-OUT 0.750		Y-1		
							SS 31		C-OUT 1.125				
							SS 44	T-K	0-OUT 1.125		Y-1		

N = wells that will be out of service at same time

Date: 8-1-81

in service until released by U.S.

Well ID: W 244 WT

By: Ken H. [Signature]

SITE	WELL	FLOW STR.	SSSV	CHOKE	AVAIL	RATE	REMARKS	WELL	FLOW STR.	SSSV	CHOKE	AVAIL	RATE	REMARKS
"	IW 54	C	C-OUT 1.125	BHC .85	Y4	47		P 4	C	0-OUT 1.750	SC .75	Y2	20	
"	IW 55	T	0-OUT 1.125	-	W1	20	Lateral completion (9/11/81)	P 12	T	C-IN 1.125	SSSV 1.125	Y1	7	
P32	IW 56	C	C-OUT 1.125	BHC 1.0	Y6	22								
"	IW 57	C	C-OUT 1.125	SC 1.25	Y4	66		P 25	T	0-OUT .750	SC .58	N1	18	Bad elbow (I)
FF32	IW 58	C	0-OUT 1.125	-	N	9	Sand - up (I)	P 26	C	C-OUT 1.125	BHC .65	Y4	22	
P32	IW 60	C	C-OUT 1.125	BHC 0.7	Y4	36		P 30	C	C-OUT 1.875	-	Y4	46	
"	IW 61	C	C-OUT 1.125	SC .65	Y4	28		P 32	C	NONE	-	Y4	64	
FF32	IW 62	C	C-OUT 1.125	BHC .625	Y3	32		P 34	C	C-OUT 1.125	BHC 0.47	Y4	15	
FF30	IW 63	C	C-OUT 1.125	BHC .84	Y5	48		P 35	T	C-OUT 1.125	SC 0.60	Y1	5	
"	IW 64	C	C-OUT 1.125	BHC .95	Y5	54		P 36	T	C-OUT 1.125	SC 0.5	Y1	5	
P26	IW 65	C	0-OUT 1.125	BHC .85	Y4	60		P 37	C	0-OUT 1.125	BHC 1.0	Y5	56	
FF35	IW 66	C	0-OUT 1.125	BHC 1.0	N3	61	Header Valve change (I)	P 37A	C	-	.75 SC	N	26	Surface Safety System + Clean up flow (9/11/81)
FF30	IW 67	C	B-OUT 1.43	SC 0.95	Y5	45		P 38	T	C-OUT 1.125	-	Y1	16	
SS25	IW 69	C	0-OUT 1.125	BHC .94	Y2	46		P 39	T	C-OUT 1.125	BHC 0.525	Y1	16	
SS4	IW 70	C	0-IN 1.125	SSSV 1.125	Y1	20		P 40	T	0-OUT 1.125	-	Y1	15	
FF32	IW 73	C	C-OUT 1.125	BHC .75	N3	38	Plug due to w/o in 2w76 (9/11/81)	P 41	T	0-OUT 1.125	Plug	N1	3	Mechanical string handle area (I)
P26	IW 74	C	0-OUT 1.125	BHC 1.0	N4	42	Workover until in operation	P 42	T	0-OUT 1.125	SC .5 BHC .5	Y1	4	
FF32	IW 75	C	C-OUT 1.125	BHC .50	N3	19	Plug due to w/o on 2w76 (9/11/81)	P 42A	C	C-OUT 1.567	1.15 SC	Y3	68	
"	IW 76	C	0-OUT 1.125	BHC 1.0	Y3	65	Workover in progress (9/11/81)	P 42B	C	0-OUT 1.500	BHC .925	Y3	59	
SS25	IW 77	C	C-OUT 1.125	SC 1.0	Y5	43		P 42C	C	0-OUT 1.500	SC 1.0 BHC 1.0	Y3	51	
SS4	IW 78	C	C-OUT 1.125	-	Y1	11		P 43	T	C-OUT 1.125	SC .5	N	2	Killed (I)
P26	IW 79	C	C-OUT 1.125	BHC .875	Y2	31		P 44	C	C-OUT 1.125	BHC 0.875	Y4	40	
P32	IW 80	C	0-OUT 1.125	BHC 1.0	Y4	30		P 45	C	0-IN .750	SSSV .75 SC .75	Y4	25	
P32	IW 81	C	C-OUT 1.125	BHC .875	Y4	52		P 46	C	0-OUT 1.125	BHC 0.65	Y4	29	
FF35	IW 82	C	0-OUT 1.125	BHC .75 SC .82	Y3	42		P 47	C	0-OUT 1.125	BHC 1.0	Y1	18	
SS4	IW 83	T	0-IN 1.125	-	Y1	8		P 60A	C	-	X-750	N	25	Needs Clean up flow + Surface Syst. (9/11/81)
F 2	C	0-IN 1.125	SSSV 1.125 BHC 1.0	V1	37	SSSV & BHC PULLED 7-10-81	PF 1	T	0-IN 1.125	SSSV 1.125 SC .50	Y1	11		
F 3	C	0-IN 1.125	SSSV 1.125 BHC 1.0	Y1	35		PF 2	T	0-OUT 1.125	SC .50	N1	2	Mech. Plug handle area (I)	
F 4	C	0-OUT 1.125	BHC .85	Y2	21		PF 3	T	0-OUT 1.125	-	N	0	Mech. Plug handle area (I)	
F 5	C	0-OUT 1.125	-	Y1	16		PS 42	T	C-OUT 1.125	-	Y1	4		
F 7	T	C-OUT 1.125	SC=1.0	Y1	22		SS 2	C	0-OUT .750	BHC 0.75	Y2	26		
FF 31	T	0-OUT .750	-	N	3	Sand up (I)	SS 3	T	C-OUT 1.125	-	Y1	2		
							SS 4	C	C-OUT 1.125	-	Y1	17		
FF 32	C	C-OUT 1.875	-	Y3	69		SS 5	C	0-OUT .750	SC .875	Y1	32		
FF 32A	C	C-OUT 1.567	SC 1.125	Y3	73		SS 6	C	C-OUT 1.125	BHC 0.645	Y1	18		
FF 33	T	C-OUT 1.125	-	Y6	14		SS 7	C	C-OUT 1.125	BHC 1.0	Y1	12		
FF 34A	C	-	-	Y6	25		SS 8	C	0-OUT .750	BHC .75	Y1	31		
FF 34B	C	-	-	Y6	25	Lateral completion (10/11/81)	SS 9	C	C-OUT 1.125	BHC 1.0	Y6	47		
MA 1A	C	-	SC .95	Y6	68		SS 10	C	0-OUT 1.125	BHC 0.75	Y2	38		
MA 1B	C	-	SC .95	Y6	33		SS 11	C	C-OUT 1.125	C-SSV .5 SC .5	Y1	12		
MA 3	T	0-OUT 1.125	SC .25	N1	1	Mech. Plug handle area (I)	SS 17	C	0-OUT .750	BHC .750	Y1	32		
MA 4	T	0-IN 1.125	SSSV 1.125	N1	0	Sand - up (I)	SS 24	C	C-OUT 1.125	BHC 0.75	Y1	28		
MA 5	T	0-OUT .750	SC .375	Y1	2		SS 25	C	C-OUT 1.125	BHC 1.0	Y5	60		
							SS 29	C	0-OUT .750	BHC 0.86	Y1	31		
							SS 31	T	C-OUT 1.125	-	Y1	19		
							SS 44	T	0-OUT 1.125	-	Y1	15		

I = indefinite

* Csg flow wells on flow slow due to valve w req.

11906016_SCG_SED_DR_88_001130

GAS WELL INJECTION/WITHDRAWAL

Well Name	W/I	Time		Flow String		Control String		Est. Rate	Remarks
		On	Off	SIWHP PSIG	Inj/Flow PSIG	SIWHP PSIG	Inj/Flow PSIG		
SS-17	W		7 ⁵⁰ A	580	1300	800	1450		TO CUT RATE TO 100M
SS-24	W		7 ⁵⁵ A	520	780	670	780		
P-42A	W		8 ⁰⁰ A	-	-	-	-		
SS-8	W		9 ⁰⁰ A	-	-	-	-		
SS-24	W	1 ⁰⁰ pm		2350	2350	1030	1030		INCREASE RATE TO 300M
SS-17	W	1 ¹⁰ pm		2390	2390	700	1120		
SS-8	W	1 ²⁰ pm		2300	2300	500	1660		
SS-31	W	1 ³⁰ pm		2400	2000	580	1130		
P-42A	W	1 ³⁰ pm		-	-	-	-		
P-34	W	2 ¹⁰ p		2560	440	2580	1020		NA NO TEST MEANT
P-40	W	3 ⁰⁰ p		2600	600	2600	7600		INCREASE RATE TO 500 M ³ CFD
W-78	W	3 ³⁰ p		2240	2180	2340	440		" " " "
P-4	W	4 ⁰⁰ p		2650	500	2650	2080		" " " "
SS-2	W	4 ⁰⁰ p		2460	700	2460	1200		" " " "
SS-10	W	4 ⁰⁰ p		2460	1000	2500	2300		" " " "
W-79	W	4 ⁴⁵ p		2460	700	2460	750		" " " "
P-2A	W	5 ⁰⁰ p		2620	2480	2620	2540		INCREASE RATE TO 750 M ³ CFD
FF-32	W	5 ⁴⁵ p		2580	1320	2640	1900		" " " "
W-76	W	5 ⁰⁰ p		2600	660	2640	500		" " " "
P-42C	W	6 ⁰⁰ p		-	-	-	-		" " " "
P-42B	W	6 ¹⁵ p		-	-	-	-		" " " "
P-34	W		9 ⁰⁵ pm	620	600	600	450		OFF TO MAINTAIN 750 M ³ CFD
P-34	W		9 ⁰⁰ pm	2560	600	2560	1180		ON TO MAINTAIN 750 M ³ CFD

I1906016_SCG_SED_DR_88_0001131

From: JUN 23 1981 To: JAN 30 1981

6 AM

6 AM

DAILY INJECTION/WITHDRAWAL
WELL SUMMARY WORKSHEET

WELL	8am	10am	12N	2pm	4pm	6pm	8pm	10pm	12M	2am	4am	6am	Est. Rate	Act. Rate
	127	102	102	282	282	684	672	684	665	665	665	665	138	138
													102	102
													102	102
													282	282
													282	282
													684	684
													672	672
													684	684
													665	665
													665	665
													665	665
													665	665

WELL	8am	10am	12N	2pm	4pm	6pm	8pm	10pm	12M	2am	4am	6am	WELL RATE
54													P 25
55													P 26
56													P 30
57													P 32
58													P 34
60													12
61													4
62													3
63													P 37
64													P 37A
65													14
66													15
67													13
69	39												1
70													3
73													71
74													55
75													72
76	53												P 43
77													P 44
78	10												P 45
79													P 46
80													P 47
81													P 69A
82													9
83													PF 2
													PF 3
													PS 42
													22
													1
													SS 4
81													25
													16
													11
82A	66												25
83													SS 9
84A													31
													SS 11
8A													26
8B													34
													SS 25
													SS 29
													18
16													SS 44

I1906016_SCG_SED_DR_88_0001132

Year: 1979

(noon=on)

					WITHDRAWAL							INJECTION					
A or B	W or I	A or B TIME	SIWHP	HRS PROD	CUM HRS	DYS PROD	CUM DYS	EST RATE	VOL PROD	CUM VOL	HRS INJ	CUM HRS	DYS INJ	CUM DYS	EST RATE	VOL INJ	CUM VOL
12/31	W	12M	2260					46									
1/10	W	0220B	1000	230.3	230.3	10	10		441.5	441.5							
1/11	W	0820A	2010					39.2									
1/12	W	0355A	1540	19.6	249.9	2	12		32.0	473.5							
1/14	W	1100A	2020					29.2									
1/18	W	1250A	950	96.8	335.7	5	17		190.2	613.7							
1/18	W	0150B	1890					36									
1/20	W	1250B	1300	49.0	32.7	3	20		70.5	684.2							
1/21	W	0555A	1930					36.5									
1/31	W	1159B		258.1	640.8	11	31		392.5	1076.7							
2/1	W	1200A						36.5									
2/3	W	0825A	1050	56.4	56.4	3	3		85.8	85.8							
2/8	W	0430A	1575	8.4	64.8	1	4	21.9	11.2	97.0							
2/10	W	0630A	0230B	1300	8.0	72.8	1	5	31.9	10.6	107.6						
2/16	W	0615A	0215B	1590	8.0	80.8	1	6	12	4.0	111.6						
2/17	W	1210A	1040A	1650	10.5	91.3	1	7	12	5.3	116.9						
2/17	W	0215B	1635					27.4									
2/20	W	1010A	1440	67.9	159.2	4	11		77.5	194.4							
2/20	W	1040A	1470					27.4									
2/21	W	1040A	1410	24.0	183.2	2	13		27.4	221.8							
2/21	W	1050A	1450					27.4									
2/25	W	0200B	1380	99.2	282.4	5	18		113.2	335.0							
2/28	W	0850B	1159B	1440	32	285.6	1	19	17.4	2.3	337.3						
3/1	W	1200A						17.4									
3/3	W	0350B	1320	63.8	63.8	3	3		46.3	46.3							
8/2	W	0755A	0355B	-	8.0	8.0	1	1	36	12.0	12.0						
8/31	W	0740A	0440B	2440	9.0	17.0	1	2	44	16.5	28.5						
9/7	W	1020A	0620B	0670	8.0	8.0	1	1	46	15.0	15.0						
9/14	W	0910A	0510E	2060	8.0	16.0	1	2	30	10.0	25.0						
9/17	W	0900A	0400B	0810	8.0	24.0	1	3	32	10.9	35.9						
10/3	W	0920E	0800B	1000	4	4	1	1	27	.5	.5						

Equipment Name	WSS	Type	Nom. Size	Max OD"	Min OD"	Latch Type	Mandrel Type	Pull Run. Tool	Depth	In	Out	Remarks
CENT	4.15		2 7/8	1.875	1.00	V-N	V-N	G.S.	7649	✓		.650" deficit
PIPE	4.15		2 3/8	1.875		V-N	V-N	G.S.	7649	✓		
SV	4.15		2 7/8	2.33	1/25	V-N	V-N	G.S.	7627	✓		
SEP. DEVICE	4.15		2 7/8	2.35		X	X	G.S.	7627	✓		
OR. DEVICE	4.15		Within			SEP. DEVICE				✓		400" Δ

Date Well Work History Log

2-10-79 Sand test. .895 BHC, SIWHP 1580, Pdn 610, Tdn 108°, Q₂₉ E=5.17
Probes show extreme buffing. Pull BHC, re test and ultra-sonic csg. W/D lateral.

2-14-79 Used ultra-sonic pipe thickness tester on csg. W/D lateral. No severe erosion was noted. Smallest reads were recorded on a 8" pup welded on the down-stream end of the first 90° ell. Facing up-stream, the reads were recorded in the 3 o'clock position. Noted reads of .495, .505 and .515.

2-16-79 Otis pulled .895 BHC

2-16-79 Sand test. .500 sc, SIWHP 1630, Pup 1550, Tup 95°, Pdn 450
Q 10 m³, Erosion .016

2-20-79 Sand test .750 sc, SIWHP 1465, Pup 1250, Tup 109°, Pdn 520
24 hr. test, well s/I 30 min prior to test.

3-13-79 Ran BHP & Temp survey.

4/11/79 Ran BHP survey

7-18-79 Ran Temp. survey.

8-2-79 Ran 8hr sand test. .800 s.c., SIWHP=2540, Pup=2370, Pdn=550,
Tup=120, Q=36.7, Erosion=12%

8-31-79 Ran sand test. .875 sc, SIWHP=2695, Pup=2480, Pdn=540, Tup=120,
Q=45.9, Erosion=33.6%. Design BHC=.775, 45m³/d

9-7-79 Ran sand test .775 B.H.C., SIWHP=2800, Pup=660, Pdn=660, Tup=89,
Q 95, Erosion 137.3%. Pull BHC and retest well.

9-7-79 Hanson set .775 BHC.

9-11-79 Hanson pulled .775 BHC.

9-14-79 Ran sand test. .700 sc, SIWHP=2800, Pup=2690, Pdn=560,
Tup=120, Q 31.8, Erosion=11.8%, Design BHC=.650

7-25-79 Hanson ran .650 BHC.

9-27-79 Ran sand test. .650 BHC, SIWHP=2920, Pup=620, Pdn=620,
Tup=91, Q=32.8, Erosion=6%. BHC OK

10-17-79 Pulled .650 BHC. Well ready for TDT logging.

1-77 Hanson set .650 BHC.

12-14-79 Archer-Road ran scratcher, shifted sv sleeve, ran ssv and sep. tool. Put 10 gal. oil in tbg.

12-15-79 Tested valve, test N/A. Pulled sep. tool. Ran sep. tool
Tested valve, test N/A. Pulled sep. tool. Ran with moly pack.

I1906016 SCG SED DR 88 0001134

ALISO CANYON FIELD

WEEKLY WELLHEAD PRESSURES

KIO: 7/81

DATE: 9/2/81

BY: Shift Supervisor

STATUS: S/I/W/K/N

Well List

WELL	DAY	SM	TAC	CSG	ANNULUS	WELL	DAY	SM	TAC	CSG	ANNULUS	WELL	DAY	SM	TAC	CSG	ANNULUS	WELL	DAY	SM	TAC	CSG	ANNULUS	
			REA	BLK	TRD				REA	BLK	TRD				REA	BLK	TRD				REA	BLK	TRD	
IW 54	31	S	2720	2670	⊖	FF 31	30	N	1820	620	⊖	P 43	29	K	200	30	⊖							
IW 55	31	N	240	N	⊖	FF 32	30	S	2690	2690	⊖	P 44	29	S	2610	2610	⊖							
IW 56	29	N	2650	2650	⊖	FF32A	30	S	2620	2680	30	P 45	30	S	2620	2660	5	10						
IW 57	29	S	2620	2650	⊖	FF 33	30	N	2630	2640	20	P 46	31	S	2630	2630	⊖							
IW 58	30	N	600	580	80	FF34A	30	S	2570	2570	⊖	P 47	31	S	2600	2620	⊖							
IW 60	29	N	2620	2660	⊖	FF34B	30	N	⊖	N ^O DAT.	10	P 69A	31	K	⊖	⊖	⊖							
IW 61	29	S	2620	2650	50																			
IW 62	30	S	2670	2680	180	MA 1A	30	S	2620	2620	50	PP 1	29	S	2600	2600	⊖							
IW 63	30	S	2690	2600	520	MA 1B	30	K	⊖	⊖	⊖	PP 2	29	N	METH	PLUG	⊖							
IW 64	30	S	2620	2610	⊖	MA 3	30	N	2570	2570	⊖	PP 3	29	N	METH	PLUG	⊖							
IW 65	31	S	2740	2740	400	MA 4	30	N	1750	1370	⊖	PS 42	31	S	2320	2320	⊖							
IW 66	30	N	2650	2670	⊖	MA 5	30	S	2540	720	⊖													
IW 67	30	S	2660	2600	20																			
IW 69	31	S	2600	2620	50	P 4	31	N	2580	2620	80	SS-2	31	N	2650	2650	⊖							
IW 70	31	N	2650	2650	⊖	P 12	29	S	2640	2660	⊖	SS 3	31	S	2550	2550	10	⊖						
IW 73	30	S	2680	2670	⊖	P 25	31	N	2580	N	⊖	SS 4	31	N	2650	2650	⊖	⊖						
IW 74	31	K	⊖	2570	⊖	P 26	31	S	2620	2640	60	SS 5	31	S	2600	2600	⊖	⊖						
IW 75	30	S	2680	2685	50	P 30	30	S	2680	2680	230	SS 6	31	N	2620	2580	40	20						
IW 76	30	S	2680	2690	30	P 32	29	S	2630	2650	70	SS 7	31	S	2680	2680	⊖							
IW 77	31	S	2600	2600	5	P 34	29	S	2650	500	⊖	SS 8	31	N	2640	420	⊖							
IW 78	29	N	2600	2620	⊖	P 35	29	S	2640	1400	⊖	SS 9	31	S	2600	2600	5							
IW 79	31	S	2600	2660	20	P 36	29	S	2620	2620	10	SS 10	31	N	2650	2650	⊖							
IW 80	31	S	2620	2640	⊖	P 37	29	S	2620	2640	⊖	SS 11	31	N	wireline		⊖							
IW 81	29	N	1510	2630	130	P 37A	29	N	2650	650	10	SS 17	31	S	2550	2550	⊖							
IW 82	30	S	2640	2650	10	P 38	31		2600	2600	⊖	SS 24	31	S	2600	2600	50							
IW 83	31	S	2480	2500	40	P 39	31		2620	2620	⊖	SS 25	31	S	2580	2580	⊖							
						P 40	31	S	2780	500	⊖	SS 29	31	S	2600	2600	5							
F 2	31	N	2650	2650	⊖	P 42	31	N	480	160	⊖	SS 31	31	S	2420	2420	⊖							
F 3	31	N	2650	450	⊖	RA 2	29	N	2630	2630	⊖	SS 44	31	S	2540	1600	10							
F 4	31	N	2640	2640	50	P 42A	29	S	2650	2650	⊖													
F 5	31	N	2650	2650	⊖	P 42B	29	S	2650	2650	40													
F 7	31		2650	2650	⊖	P 42C	29	N	2770	2650	⊖													

HELIUM ANALYSIS OF NATURAL GAS

Field: ALISO CANYON

2 Quarter

Year: 1981

Well No.	Date Run	Run By	PPM He	Status	Well No.	Date Run	Run By	PPM He	Status
DA-1	6-11	-	-	NOT ACCESSIBLE	P-58	6-30	BS	-	NO PRESSURE
DA-2	6-30	B.S		NOT AVAILABLE	P-59	6-30	BS	15	
DA-4	6-11	-	-	NOT ACCESSIBLE	P-60	6-11	-	-	NO VALUE
DA-5	6-11	RS	12	NOT ACCESSIBLE	P-61	7-1	BB	21	
DA-6	6-11	-	-		P-63	6-30	BS	16	
DA-9	6-11	RS	7		P-65	6-30	BS	20	
FF-1	6-30	BS	3		P-66	6-11	-	-	NO VALUE
FF-11	6-30	BS	5		P-68	6-30	BS	12	
FF-30	6-30	BS	-	NOT ACCESSIBLE	P-69	6-11	RS	9	
FF-38	6-30	B.S	3		P-70	6-11	RS	5	
P-1	6-30	B.S	3		P-71	6-30	BS	5	
P-2	7-1	BB	5		P-72	6-10	RS	0	
P-3	7-1	BB	7		PS-20	7-1	BB	-	
P-5	6-30	BS.	10		15-P	6-11	RS	0	
P-10	7-1	BB	5		SS-18	6-11	RS	25	
P-11	6-30	BS	5		SS-19	6-11	RS	-	NO PRESSURE
P-13	6-30	B.S.	5		SS-21	6-11	RS	5	
P-14	6-30	BS	78		SS-22	6-11	RS	-	NO VALUE
P-15	7-1	BB	12		SS-23	6-11	-	-	NOT ACCESSIBLE
P-16	6-30	BS.	-	NO PRESSURE	SS-26	6-11	RS	0	
P-17	6-30	BS	5		SS-27	6-11	RS	10	
P-18	6-30	BS.	18		SS-28	6-10	RS	20	
P-19	6-30	BS	10		SS-32	6-11	RS	-	NOT ACCESSIBLE
P-27	6-30	BS	5		SS-33	6-11	RS	14	
P-28	6-10	RS	20		SS-34	6-11	RS.	0	
P-29	7-1	BB	229		SS-35	6-11	R.S.	0	
P-33	7-1	BB	-	NO PRESSURE	SS-39	6-11	R.S.	10	
P-51	6-30	BS	-	NO PRESSURE	SS-40	6-10	R.S.	5	
P-52	7-1	BB	7		SS-45	6-11	RS	5	
P-53	6-30	BS	16		SS-46	6-11	R.S.	0	
P-55	6-30	BS	-	NO PRESSURE	W-3	6-30	BS	-	NO PRESSURE
P-56	6-11	-	-	NO VALUE	Union	6-10	RS	0	
P-57	7-1	BB	-	NO PRESSURE	Tank Farm	"	"	"	
P-32	6-10	RS	310		IWSS	6-10	RS	240	

cc: Senior Reservoir Engineer, ML 1107
 Resident Reservoir Engineer, ML 270
 Storage Maintenance Supervisor, ML 270
 Test Center

I1906016 SCG SED DR 88 0001137

HELIUM SAMPLES

DATE	1/29/80	2/7/80	4/14/80	7/23/80	10/9/80	11/2/81	-	6/30/81		DATE	1/29/80	2/7/80	4/16/80	7/23/80	10/9/80	11/2/81	-	7/1/81	
WELL	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	WELL	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
DA-1			-	-	-	-		-		P-58	-		5	-	-	-		-	
DA-2			-	-	-	-		-		P-59	-		5	-	-	0		15	
DA-4			5	14	5	-		-		P-60		-	-	-	-	-		-	
DA-5			10	-	10	0		12		P-61	10		85	65	50	0		21	
DA-6			8	-	5	0		-		P-63	10		10	9	10	15		16	
DA-9			0	7	5	0		7		P-65	10		20	16	15	20		20	
FF-1		0	0	0	0	0		3		P-66		10	8	-	-	-		-	
FF-11			0	0	0	-		5		P-68	100		165	105	35	15		12	
FF-30			0	0	-	-		-		P-69	5		10	10	10	0		9	
FF-38		2	0	0	0	-		3		P-70	0		0	2	5	0		5	
P-1	0		0	0	0	0		3		P-71		2	0	3	0	0		5	
P-2		7	3	0	0	0		5		P-72	175		230	94	90	85		11	
P-3	10		5	0	0	10		7		PS-20		-	10	-	12	15		11	
P-5	0		5	-	1	-		10		SS-15			2	-	-	-		0	
P-10		5	0	-	0	0		5		SS-18			23	19	16	35		25	
P-11			-	-	0	-		5		SS-19		-	20	19	10	20		11	
P-13	0		0	0	0	-		5		SS-21		-	40	44	-	0		5	
P-14			35	15	0	15		78		SS-22		-	0	7	-	-		11	
P-15		5	12	0	5	0		12		SS-23			2	-	5	0		17	
P-16			-	-	-	-		-		SS-26		19	0	0	12	0		10	
P-17	0		0	0	5	0		5		SS-27		20	10	9	5	-		10	
P-18			15	9	-	-		18		SS-28		26	20	13	14	20		26	
P-19	15		-	3	0	35		10		SS-32			2	7	4	-		-	
P-27	0		0	0	0	10		5		SS-33			3	7	5	0		14	
P-28	0		0	0	0	0		20		SS-34		12	18	16	7	0		0	
P-29	0		0	0	0	0		229		SS-35		21	7	7	10	0		0	
P-33	100		110	100	90	-		-		SS-39		12	10	9	8	0		0	
P-51	-		0	0	-	-		-		SS-40			2	2	3	0		5	
P-52	0		5	5	0	0		7		SS-45		0	0	0	0	0		5	
P-53	20		18	10	5	20		15		SS-46		0	5	5	5	0		0	
P-55	-		0	-	0	-		-		W-3	0		5	5	0	0		1	
P-56		-	-	-	-	-		-		15-P		28	0	-	14	-		0	
P-57	0		0	2	0	0		-		Un. GP			0	7	12	0		0	
										P-43				214	190				

KILLED WELL INFORMATION SHEET FOR WELL NUMBER: 1W 82 Year: 1980

Date Killed: 3/19/80 TVD(Top of Zone): 7002 ft. Mud Weight: 63 lb./cu.ft.

Pressure at zone exerted by mud: 3060 psi Desired Overbalance: 200 psi

Maintain a gas pressure on well equal to the SIWHP of a nearby well minus 2400 psi. If a nearby well's shut-in well head pressure is 2800 psi, it will be necessary to hold 400 psi on the tubing and casing. When neighboring pressure is below 2400 psi, the wellhead pressures should be bled to zero.

DAILY PRESSURES

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
JAN																														
Tbg																														
Csg																														
Nearby psi																														
Well no.																														
Circulated																														
FEB																														
Tbg																														
Csg																														
Nearby psi																														
Well no.																														
Circulated																														
MAR																														
Tbg																														
Csg																														
Nearby psi																														
Well no.																														
Circulated																														
APR																														
Tbg	50	0	10	50	0	20	40	60	0	40	60															0				
Csg	0	0	0	0	0	20	20	20	0	100	200															15				
Nearby psi	2400	2400	2400	2380	2380	2410	2420	2430	2440	2450	2460															2430				
Well no.	1W67	1W67	1W67	1W63	1W63	1W6A	1W6A	1W6A	1W6A	1W6A	1W6A															1W64				
Circulated	X			X				X		X																				
MAY																														
Tbg																														
Csg																														
Nearby psi																														
Well no.																														
Circulated																														
JUN																														
Tbg																														
Csg																														
Nearby psi																														
Well no.																														
Circulated																														

DATE 7-31-81

BY: Kern H. Guppy

KHG: ju.

Well List

WELL	1st HALF	2nd HALF	STATUS	WELL	1st HALF	2nd HALF	STATUS	WELL	1st HALF	2nd HALF	STATUS	WELL	1st HALF	2nd HALF	STATUS
IW 54	1-27-81		O.K.	FF 31	6-3-81		O.K.	P 43	5-20-81		O.K.	OBSERVATION WELLS			
IW 55	1-26-81		A/A,O.K.	FF 32	5-6-81		O.K.	P 44	5-1-81		O.K.				
IW 56	7-9-81		O.K.	FF32A	5-7-81		O.K.	P 45	6-2-81		O.K.	DA 1	N.A.		
IW 57	4-8-81		O.K.	FF 33	5-20-81		O.K.	P 46	5-1-81		O.K.	W 3	N.A.		
IW 58	6-8-81		O.K.	FF34A	5-21-81		O.K.	P 47	5-12-81		O.K.	FF 34	N.A.		
IW 60	4-8-81		O.K.	FF34B	5-21-81		O.K.	P 69A	4-22-81		A/A,R/A	FF 35	N.A.		
IW 61	4-7-81		O.K.									SS 1	N.A.		
IW 62	4-7-81		O.K.	MA 1A	5-8-81		O.K.	PF 1	6-5-81		O.K.	SS1-C	N.A.		
IW 63	6-4-81		O.K.	MA 1B	5-8-81		R/A	PF 2	6-3-81		O.K.	SS4-C	6-4-81		O.K.
IW 64	4-20-81		O.K.	MA 3	5-27-81		O.K.	PF 3	6-3-81		O.K.	MA5-C	Not Drilled		
IW 65	1-27-81		A/A,O.K.	MA 4	5-27-81		O.K.								
IW 66	4-20-81		O.K.	MA 5	6-4-81		O.K.	PS 42	5-11-81		O.K.				
IW 67	4-20-81		O.K.												
IW 69	4-2-81		O.K.	P 4	4-23-81		R/A	SS 2	5-22-81		O.K.	OIL WELLS			
IW 70	5-15-81		O.K.	P 12	5-7-81		O.K.	SS 3	6-1-81		O.K.	F 6	6-5-81		O.K.
IW 73	7-24-81		O.K.	P 25	4-23-81		O.K.	SS 4	5-15-81		O.K.	F 8	5-15-81		D.T.
IW 74	6-4-81		A/A,R/A	P 26	1-26-81		O.K.	SS 5	6-1-81		A/A,O.K.	F 9	6-16-81		O.K.
IW 75	4-6-81		O.K.	P 30	4-8-81		O.K.	SS 6	5-28-81		O.K.	SF 1	5-18-81		O.K.
IW 76	2-18-81		W/O	P 32	6-16-81		W.S.	SS 7	5-22-81		O.K.	SF 2	6-2-81		O.K.
IW 77	4-2-81		O.K.	P 34	4-30-81		O.K.	SS 8	5-28-81		D.T.	SF 3	5-14-81		O.K.
IW 78	4-9-81		R/A,O.K.	P 35	4-30-81		O.K.	SS 9	4-27-81		O.K.	SF 4	5-14-81		O.K.
IW 79	4-10-81		O.K.	P 36	6-2-81		O.K.	SS 10	5-28-81		D.T.	SF 5	5-19-81		O.K.
IW 80	4-22-81		O.K.	P 37	4-28-81		O.K.	SS 11	5-29-81		O.K.	SF 6	5-14-81		O.K.
IW 81	5-7-81		O.K.	P 37A	4-24-81		O.K.	SS 17	6-1-81		O.K.	SF 7	5-12-81		O.K.
IW 82	4-21-81		R/A	P 38	5-4-81		O.K.	SS 24	6-1-81		O.K.	SF 8	5-1-81		O.K.
IW 83	4-13-81		O.K.	P 39	5-4-81		O.K.	SS 25	4-2-81		O.K.	SS 12	5-29-81		D.T.,C
				P 40	5-12-81		O.K.	SS 29	4-27-81		D.T.	SS 13	5-19-81		O.K.
P 2	4-29-81		A/A	P 41	6-2-81		O.K.	SS 31	4-27-81		O.K.	SS 14	5-29-81		D.T.
P 3	6-10-81		O.K.	P 42	5-26-81		A/A	SS 44	4-27-81		O.K.	SS 16	5-19-81		O.K.
P 4	4-29-81		O.K.	P 42A	5-26-81		O.K.					SS 30	5-10-81		O.K.
P 5	4-29-81		O.K.	P 42B	7-1-81		O.K.								
P 7	N.A.		--	P 42C	5-26-81		O.K.	W 3A	Not Drilled						

DATE: 8-20-81

BY: J. L.

TEMP SURVEY SCHEDULE

Well List

SURVEY

SURVEY

SURVEY

WELL		WELL		WELL		WELL	
IW 54	1-81	FF 31	SAMPLED	P 43	KILLED		OBSERVATION WELLS
IW 55	3	FF 32	3	P 44	4	2-80	
IW 56	3	FF32A	3	P 45	4	7-81	
IW 57	1	FF 33	6	P 46	4	10-80	
IW 58	SAMPLED	FF34A	6	P 47	1	8-80	
IW 60	4	FF34B		P 69A		UNKNOWN (FUT)	
IW 61	4		NO LAT. XALS				
IW 62	3	MA 1A	6	5-81	PF 1	1	11-80
IW 63	5	MA 1B	1	UNKNOWN	PF 2		11-80
IW 64	5	MA 3	MECH PLUG	2-80	PF 3		6-81
IW 65	1	MA 4	SAMPLED				
IW 66	?	MA 5	1	6-81	PS 42	1	5-81
IW 67	K						
IW 69	2	P 4	2	4-81			OIL WELLS
IW 70		P 12	1	10-80			
IW 73	3	P 25	1	4-81	SS 3	1	9-79
IW 74	1	P 26	4	1-81	SS 4	1	5-81
IW 75	3	P 30	4	4-81	SS 5	1	9-80
IW 76	1	P 32	4	4-81			
IW 77	5	P 34	4	8-80			
IW 78	1	P 35	1	4-81	SS 9	6	8-80
IW 79	3	P 36	1	6-81			
IW 80	4	P 37	5	10-80	SS 11	1	7-81
IW 81	4	P 37A		4-81	SS 17	1	9-79
IW 82	3	P 38	1	10-80	SS 24	1	8-79
IW 83	1	P 39	1	9-80	SS 25	5	7-80
		P 40	1	5-81	SS 29	1	11-80
		P 41		11-80	SS 31	1	4-81
		P 42	1	7-80	SS 44	1	8-79
		P 42A	3	10-80			
		P 42B	3	9-80	W 3A	-	
		P 42C	3	12-79			



TO Triangle Svcs FROM Kern H. Guppy DATE Aug. 31, 1981
 SUBJECT Noise Log Program, Well No. Frew 5

1. Notify Shift Supervisor that a noise log will be run in the above well. He will inform you if well is ready to be worked on, or he will provide a field operator to take the well out of service.
2. Run a temperature survey:

<u>from</u>	<u>to</u>	<u>rate</u>
Surface	8500'	100'/min.

3. Run noise log:

<u>from</u>	<u>to</u>	<u>survey points</u>
surface	7000'	200'
7000'	8500'	50'

If no noise is found, crack valve to create flow, record and report noise both in zone and inside tubing.

The above program is only a guide. Make more frequent stops as necessary to detail any and all significant changes.

4. Before leaving field, clean up walking/working areas, ladders, grates and upper wing valves. Remaining clean-up to be done as time permits.
5. Before leaving field, notify Shift Supervisor of job completion so that well can be returned to service. Do not return well to service yourself. Do not reconnect or change any part of the safety system.
6. Before doing anything that deviates significantly from program, notify this office.



TO Triangle Inc.

FROM

Kern H. Guppy
Kern H. Guppy

DATE June 26, 1981

SUBJECT R/A Survey Program, Well No. MA 1-B

1. Notify Shift Supervisor that a radioactive tracer survey will be run in the above well. He will inform you if well is ready to be worked on, or he will provide a field operator to take the well out of service.
2. Run a R/A survey:
 - a. Run Gamma Ray background log and CCL from surface to 5000 feet.
 - b. Effect R/A in casing @ surface with well on slight injection rate down
 - c. Use ± 50 cc shot.
3. Log up and down as necessary to monitor R/A movement. Occasionally put well on injection to insure movement.
4. Before leaving field, clean up walking/working areas, ladders, grates and upper wing valves. Remaining clean-up to be done as time permits.
5. Before leaving field, notify Shift Supervisor of job completion so that well can be returned to service. Do not return well to service yourself. Do not reconnect or change any part of the safety system.
6. Before doing anything that deviates significantly from program, notify this office.

INTEROFFICE



CORRESPONDENCE

COMPANY

TO SHIFT SUPERVISOR

FROM

Kern H. Guppy
Kern H. Guppy

DATE

June 26, 1981

SUBJECT R/A Survey @ Well No. MA 1-B

Please prepare the above named well for a R/A survey to be run June 29th. Well should be set up so that injection gas can be supplied to the casing.

Install gauge(s) that will allow logging crew to determine both the shut-in and flowing pressure on injection line(s).

Ensure that gas can be injected into well by operating valves and listening for gas injection. Leave valve handles at well. If injection gas sounds weak, either build pressure or shut-in wells on same injection line to increase amount available to well being logged.

I1906016_SCG_SED_DR_88_0001144

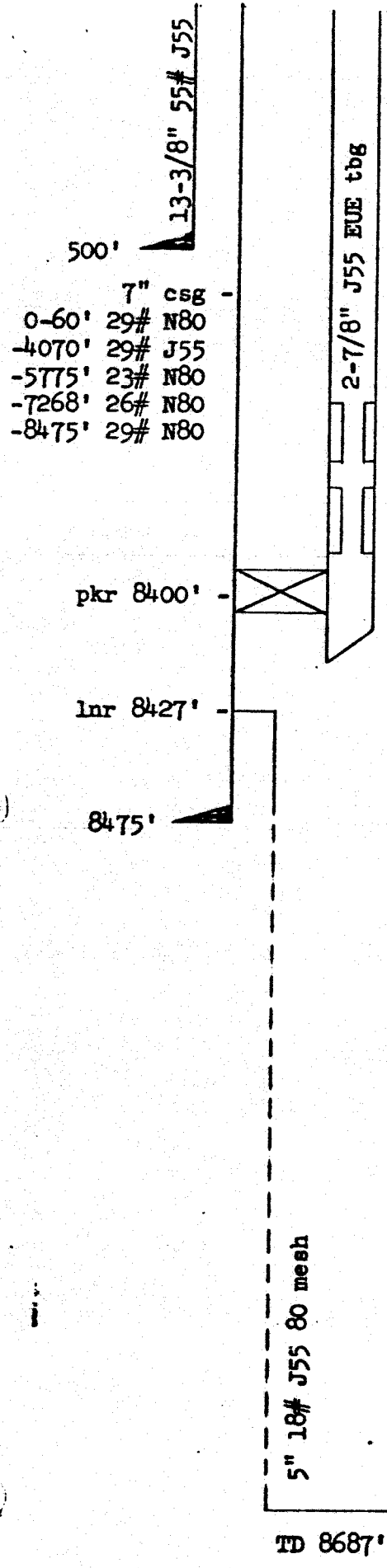
KB: 12'

FOR SET 32

Surface choke: _____

6/29/47 - Well spud
 9/7/47 - Well completed
 5/14/73 - 5/24/73 - Cleaned out to 8682', pressure tested csg, cleaned liner slots, ran tbg.
 10/14/77 - 10/25/77 - Cleaned out to 8682', pressure tested csg & ran tbg with SSSV.

TBG, FLOW SSSV



8057'
--(8002')(-5400')

--8354' Camco KP5 tbg flow SSSV
(8299') 2.313" ID, 1.125" min ID

--8385' Camco "D" No-Go 1.812" ID
(8330') BH choke: _____

pkp 8400'

--8407'

lnr 8427'

8475'

--s4 8475' (8418')

--s8 8570' (8511')

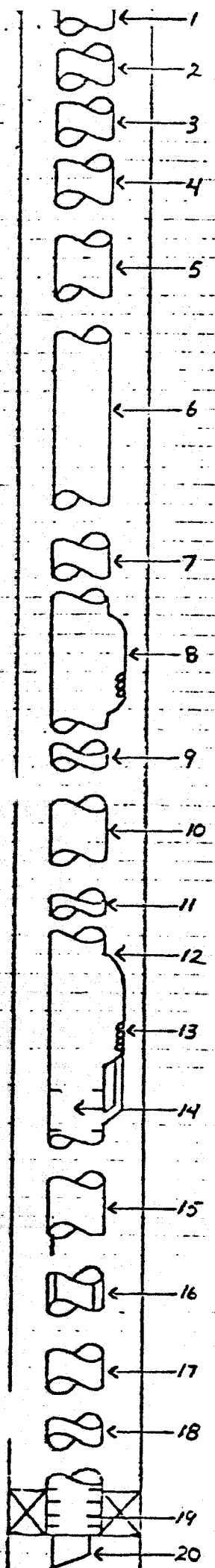
5" 18# J55 80 mesh

TD 8687' (85-6012) 8682'

Cubic Feet

Tubing	-	273
- Csg/Lnr	-	30
Annulus	-	1169

11906016 SCG SED DR 88 0001145



WELL # ● PORTER #39
 FIELD Aliso Canyon
 COUNTY Los Angeles
 STATE California
 DATE October 24, 1977
 NEW COMPLETION WORKOVER

CASING	LINER	1	2	3
SIZE				
WEIGHT				
GRADE				
THREAD				
DEPTH				

ITEM NO.	TUBING DETAILS	LENGTH	DEPTH
1.	Kelly Bushing	12.00	12.00
2.	Doughnut	.50	12.50
3.	Pup Joint 2 7/8" 8rd EUE	6.00	18.50
4.	Pup Joint 2 7/8" 8rd EUE	10.00	28.50
5.	15 Joints 2 7/8" 8rd EUE N-80	462.48	490.98
6.	251 Joints 2 7/8" 8rd EUE J-55	7813.88	8304.86
7.	Pup Joint 2 7/8" 8rd EUE N-80	4.15	8309.01
8.	Camco MMG Mandrel (Empty) 2.37" ID 5.50" OD	8.47	8317.48
9.	Pup Joint 2 7/8" 8rd EUE N-80	1.13	8318.61
10.	1 Joint 2 7/8" 8rd EUE J-55	31.27	8349.88
11.	Pup Joint 2 7/8" 8rd EUE N-80	4.11	8353.99
12.	KP-5 Tubing Flow Safety System	11.40	8365.39
13.	EH Shut-off Valve (ran closed)		
14.	KP-5 Safety Valve Nipple (empty)		
15.	Camco 20' Blast Joint 2.441" ID 3.625" OD	19.82	8385.21
16.	Camco NO-GO "D" Nipple 1.812" ID 3.625" OD	.84	8386.05
17.	Camco 10' Blast Joint 2.441" ID 3.625" OD	9.34	8395.39
18.	Baker Latch-in Locator	1.25	8397.14
	Baker Retrieve "D" Packer set at		8400.00
19.	Baker Seal Assembly (4 seals)	4.15	8401.29
20.	Baker Production Tube	5.33	8406.62

- NOTES -

Packer set at wireline measurement
 Camco KP-5 tubing flow safety system was run with EH-shut-off valve closed and safety valve nipple run empty. Camco MMG mandrel was also run empty. KP-5 safety system is to receive 2 1/2" PC-4 safety valve after completion. MMG mandrel to receive DCR+ kill valve after completion.

S-B 8992

COMMENTS:

ALISO CANYON WELL LEAKS

Approx. Dates		WELL #	PROBLEM DESCRIPTION	ACTION TAKEN	LOSS ESTIMATE
from	to				
12/74	7/77	IW 63	Hole in casing. Temperature anomaly was 15°. Noise log confirmed leak.	Ran inner liner.	20 MCF/D x 960 dys = <u>19,200 MCF</u>
4/76	7/77	IW 78	Casing leak. Temperature anomaly was 3°.	Squeezed hole and ran casing patch.	10 MCF/D x 450 dys = <u>4,500 MCF</u>
9/77	9/77	P 4	WBO holes leaked during pressure test. Temperature anomaly at shoe was same as current 1979 anomaly which was noise logged with no noise results.	Squeezed WBO holes.	<u>None</u>
3/76	9/77	P 43	Hole in casing. Temperature anomaly was 5°.	Ran casing patch, but well was still leaking. Ran tubing plug.	10 MCF/D x 1200 dy = <u>12,600 MCF</u>
10/77	12/77	P 4	Leaking packer on innerstring casing. Temperature anomaly was 15°.	Reran packer and innerstring.	20 MCF/D x 60 dys = <u>1200 MCF</u>
11/77	12/77	SS 5	Casing leak.	Ran innerstring casing.	30 MCF/D x 120 dys = <u>3600 MCF</u>
12/77	2/78	P 44	Casing leak. Temperature anomaly was 4° at 4000'.	Ran casing patch.	10 MCF/D x 60 dys = <u>600 MCF</u>
3/78	6/78	IW 66	Shoe leak. Temperature anomaly and noise log indicated leak above WBO. However, majority of noise was at 8-1 zone which is still a storage zone even though above WBO.	Squeeze cemented with two cubic feet.	20 MCF/D x 90 dys = <u>1800 MCF</u>
6/78	8/78	IW 83	Shoe leak. Temperature, noise, and R/A indicated leakage.	Squeezed off, '79 noise survey showed no leakage.	30 MCF/D x 100 dys = <u>3000 MCF</u>
11/76	9/78	IW 82	Leaking casing patch. Temperature anomaly was 4°.	Installed new casing patch.	10 MCF/D x 630 dys = <u>6300 MCF</u>
8/77	10/78	FF 35	Shoe leak. Temperature, noise and R/A surveys indicated a large leak. Pressure analysis indicated a sink around well that would equate to a 20 MCF/D leak. However, overlying Getty wells did not show a large increase in gas production as they did when P-32 was leaking badly. Review of all closed pressure data shows this area to have poor communication with main block to the north of	Squeeze cemented but did not hold, well abandoned.	200 MCF/D x 420 dy = <u>84,000 MCF</u>

WEEK OF:

BY:

DAY= Day of Month

STATUS: M/I/W/K/N

SITE	WELL	DAY	STA-TVS	T&G RED	CSG BLUE	ANNULUS		WELL	DAY	STA-TVS	T&G RED	CSG BLUE	ANNULUS		WELL	DAY	STA-TVS	T&G RED	CSG BLUE	ANNULUS		
						YELLOW	WHITE						YELLOW	WHITE						YELLOW	WHITE	
P26	IW 54							FF 34A							SS 1							
"	IW 55							FF 35							SS 2							
P32	IW 56							MA 1A							SS 3							
"	IW 57							MA 1B							SS 4							
FF32	IW 58							MA 3							SS 5							
P32	IW 60							MA 4							SS 6							
"	IW 61							MA 5							SS 7							
FF32	IW 62							P 4							SS 8							
FF30	IW 63							P 12							SS 9							
"	IW 64							P 69A							SS 10							
P26	IW 65							P 25							SS 11							
FF35	IW 66							P 26							SS 17							
FF30	IW 67							P 30							SS 24							
SS25	IW 69							P 32							SS 25							
SS4	IW 70							P 34							SS 29							
FF32	IW 73							P 35							SS 31							
P26	IW 74							P 36							SS 44							
FF32	IW 75							P 37							DA 1							
"	IW 76							P 37A							W 3							
SS25	IW 77							P 38							F 6							
P32	IW 78							P 39							F 8							
SS44	IW 79							P 40							F 9							
P26	IW 80							P 41							SF 1							
P32	IW 81							P 42							SF 2							
FF35	IW 82							P 42A							SF 3							
SS44	IW 83							P 42B							SF 4							
	F 2							P 42C							SF 5							
	F 3							P 43							SF 6							
	F 4							P 44							SF 7							
	F 5							P 45							SF 8							
	F 7							P 46							SS 12							
	FF 31							P 47							SS 13							
								PF 1							SS 14							
								PF 2							SS 16							
	FF 32							PF 3							SS 30							
	FF 32A							PS 42														
	FF 33																					

Note: All wells are casing flow - tubing control except wells with [] in the casing column which are tubing flow - casing control

HELIUM SAMPLES

DATE										DATE									
WELL	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	WELL	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
DA-1										P-58									
DA-2										P-59									
DA-4										P-60									
DA-5										P-61									
DA-6										P-63									
DA-9										P-65									
FF-1										P-66									
FF-11										P-68									
FF-30										P-69									
FF-38										P-70									
P-1										P-71									
P-2										P-72									
P-3										PS-20									
P-5										SS-15									
P-10										SS-18									
P-11										SS-19									
P-13										SS-21									
P-14										SS-22									
P-15										SS-23									
P-16										SS-26									
P-17										SS-27									
P-18										SS-28									
P-19										SS-32									
P-27										SS-33									
P-28										SS-34									
P-29										SS-35									
P-33										SS-39									
P-51										SS-40									
P-52										SS-45									
P-53										SS-46									
P-55										W-3									
P-56										15-P									
P-57										Un. GP									

KILLED WELL INFORMATION SHEET FOR WELL NUMBER: _____ Year: _____

Date Killed: _____ TVD(Top of Zone): _____ ft. Mud Weight: _____ lb./cu.ft.

Pressure at zone exerted by mud: _____ psi Desired Overbalance: _____ psi

Maintain a gas pressure on well equal to the SIWHP of a nearby well minus _____ psi. If a nearby well's shut-in well head pressure is _____ psi, it will be necessary to hold _____ psi on the tubing and casing. When neighboring pressure is below _____ psi, the wellhead pressures should be bled to zero.

DAILY PRESSURES

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Tbg																															
Csg																															
Nearby psi																															
Well no.																															
Circulated																															
Tbg																															
Csg																															
Nearby psi																															
Well no.																															
Circulated																															
Tbg																															
Csg																															
Nearby psi																															
Well no.																															
Circulated																															
Tbg																															
Csg																															
Nearby psi																															
Well no.																															
Circulated																															
Tbg																															
Csg																															
Nearby psi																															
Well no.																															
Circulated																															



TO Triangle Svcs FROM _____ DATE _____
 SUBJECT Noise Log Program, Well No.

1. Notify Shift Supervisor that a noise log will be run in the above well. He will inform you if well is ready to be worked on, or he will provide a field operator to take the well out of service.

2. Run a temperature survey:

from to rate

3. Run noise log:

from to survey points

If no noise is found, crack valve to create flow, record and report noise both in zone and inside tubing.

The above program is only a guide. Make more frequent stops as necessary to detail any and all significant changes.

4. Before leaving field, clean up walking/working areas, ladders, grates and upper wing valves. Remaining clean-up to be done as time permits.
5. Before leaving field, notify Shift Supervisor of job completion so that well can be returned to service. Do not return well to service yourself. Do not reconnect or change any part of the safety system.
6. Before doing anything that deviates significantly from program, notify this office.

INTEROFFICE



CORRESPONDENCE

TO _____ FROM _____ DATE _____

SUBJECT R/A Survey Program, Well No.

1. Notify Shift Supervisor that a radioactive tracer survey will be run in the above well. He will inform you if well is ready to be worked on, or he will provide a field operator to take the well out of service.
2. Run a R/A survey:
 - a. Run Gamma Ray background log and CCL from
 - b. Eject R/A in _____ @ _____ with well on slight injection rate down
 - c. Use ± _____ mc shot.
3. Log up and down as necessary to monitor R/A movement. Occasionally put well on injection to insure movement.
4. Before leaving field, clean up walking/working areas, ladders, grates and upper wing valves. Remaining clean-up to be done as time permits.
5. Before leaving field, notify Shift Supervisor of job completion so that well can be returned to service. Do not return well to service yourself. Do not reconnect or change any part of the safety system.
6. Before doing anything that deviates significantly from program, notify this office.

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INTEROFFICE



CORRESPONDENCE

TO SHIFT SUPERVISOR FROM _____ DATE _____

SUBJECT R/A Survey @ Well No.

Please prepare the above named well for a R/A survey to be run
Well should be set up so that injection gas can be supplied to

Install gauge(s) that will allow logging crew to determine both the
shut-in and flowing pressure on injection line(s).

Insure that gas can be injected into well by operating valves and
listening for gas injection. Leave valve handles at well. If
injection gas sounds weak, either build pressure or shut-in wells
on same injection line to increase amount available to well being
logged.

I1906016 SCG SED DR 88 0001161

TABLE I
ALISO CANYON WELL LEAKS

<u>Approx. Dates</u> from	<u>to</u>	WELL #	PROBLEM DESCRIPTION	ACTION TAKEN	LOSS ESTIMATE