$25,000 State-Wide
Bond w/ fed. gov't.
BLM.

FILE NOTATIONS

Entered in N I D File	✓	Checked by Chief	
Entered On S R Sheet		Copy N I D to Field Office	
Location Map Pinned		Approval Letter	
Card Indexed	✓	Disapproval Letter	
I W R for State or Fee Land			

COMPLETION DATA:

Date Well Completed	Location Inspected
OW WW TA	Bond released
GW OS PA	State of Fee Land

LOGS FILED

Driller's Log

Electric Logs (No.)

E I E-I GR GR-N Micro

Lat Mi-L Sonic Others

														TEMP ABND
39S 25E	9 NWNE MILESTONE PETROLEUM			NAVAJO FEDERAL #9-1			TURNER BLUFF							08-84UNKWN
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	0	3403	3071	0	8363	6930	223	21767	21767	1				
GAS MCF	0	3612	3884	0	8077	10385	335	25958	25958	0				
WTR BBL	0	52	2	0	0	0	0	54	54	0				
40S 22E	2 NWSW DAVIS OIL COMPANY			RECAPTURE POCKET #7			UNDESIGNATED							10-81DSCR
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	329	330	178	361	440	459	14	4274	18079	1				
GAS MCF	465	465	450	405	450	360	11	5310	17042	0				
WTR BBL	26	139	86	101	61	113	3	1077	6032	0				
40S 22E	3 SESE DAVIS OIL COMPANY			RECAPTURE POCKET #1			UNDESIGNATED							06-81DSCR
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	242	276	217	288	203	284	9	3148	15365	1				
GAS MCF	930	510	900	930	780	240	7	9750	31894	0				
WTR BBL	86	56	116	165	11	101	3	1220	7972	0				
40S 22E	10 NENE DAVIS OIL COMPANY			RECAPTURE POCKET #5			UNDESIGNATED							09-81DSCR
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	386	327	314	354	349	344	11	4191	16209	1				
GAS MCF	465	465	450	465	450	465	15	5460	17145	0				
WTR BBL	51	142	102	100	28	46	1	1181	6820	0				
40S 22E	13 NESE HOLMES J H			SO BLUFFS #1			TURNER BLUFF							HRMS
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	44	112	109	95	103	105	3	1233	64196	1				
GAS MCF	200	200	200	200	200	200	6	2400	30600	0				
WTR BBL	31	31	30	31	30	31	1	432	2806	0				
40S 22E	13 SWSE HERSHEY OIL CORP			HOLMES-FED 34-13			TURNER BLUFF							01-81ISMY
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	290	295	0	254	239	233	7	2928	31528	1				
GAS MCF	152	255	0	133	125	122	3	1636	15822	0				
WTR BBL	834	675	0	612	565	534	17	4861	6689	0				
40S 22E	15 NWNW MERRION OIL & GAS CORP			GVT NORWOOD			BROKEN HILLS							ISMY
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	32	183	174	69	120	190	6	1453	96464	1				
GAS MCF	19	107	101	40	71	111	3	853	52911	0				
WTR BBL	0	0	0	0	0	0	0	0	697	0				
40S 22E	16 NWNE KAISER-FRANCIS OIL CO			NATHAN 1			BROKEN HILLS							10-79ISMY
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	55	57	58	57	47	50	1	671	10917	1				
GAS MCF	0	0	0	0	0	0	0	0	4500	0				
WTR BBL	276	258	415	600	525	569	18	4561	25167	0				
40S 22E	23 NWNE P & M PETROLEUM MGMT			FED 23-32			TURNER BLUFF							04-81ISMY
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	114	109	107	36	67	62	2	1002	4012	1				
GAS MCF	0	0	0	0	0	0	0	0	0	0				
WTR BBL	928	848	812	851	424	368	11	7296	25510	0				
40S 22E	24 SWSE P & M PETROLEUM MGMT			FEDERAL 1-24			TURNER BLUFF							12-79DSCR
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	456	595	495	438	410	237	7	5822	101123	1				
GAS MCF	291	385	767	960	661	424	13	6189	55915	0				
WTR BBL	325	439	403	420	415	230	7	4585	4836	0				
40S 22E	25 SWNE P & M PETROLEUM MGMT			FEDERAL 2-25-3E			TURNER BLUFF							03-82DSCR
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	1329	749	1643	1682	1302	999	32	14012	55933	1				
GAS MCF	573	413	624	740	574	583	18	7423	20231	0				
WTR BBL	245	213	167	139	146	122	3	1844	1921	0				
40S 22E	25 NENE P & M PETROLEUM MGMT			FEDERAL 1-25-3-E			TURNER BLUFF							06-80ISMY
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	342	10	0	0	313	245	7	1813	5639	1				
GAS MCF	135	5	0	0	108	108	3	482	4453	0				
WTR BBL	1457	0	0	0	1919	1226	39	10073	22325	0				
40S 22E	25 NENW P & M PETROLEUM MGMT			KIRKWOOD-FED 1-25			TURNER BLUFF							03-80ISMY
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	686	2261	1983	1598	1258	1328	42	16227	148939	1				
GAS MCF	337	857	676	617	732	857	27	8484	87786	0				
WTR BBL	1264	2303	2142	2241	2113	2338	75	23688	25356	0				
40S 22E	25 NESE MOUNTAIN STATES RESOURC			MSR FEDERAL #25-1			TURNER BLUFF							12-83UNKWN
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	0	0	0	0	0	0	0	313	511	0	NO			
GAS MCF	0	0	0	0	0	0	0	0	0	0	RPT			
WTR BBL	0	0	0	0	0	0	0	158	316	0	AVAIL			
40S 22E	25 NWNW P & M PETROLEUM MGMT			FEDERAL 1-26D			TURNER BLUFF							06-84IS-DC
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	4253	2288	2705	1291	1210	778	25	18137	18137	1				
GAS MCF	2341	1281	1540	794	739	521	16	10222	10222	0				
WTR BBL	170	452	714	552	410	547	17	2845	2845	0				
40S 22E	25 SENW P & M PETROLEUM MGMT			KGS FEDERAL #1-25A			TURNER BLUFF							12-83DSCR
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	2174	1301	2259	4527	3129	2794	90	44709	50350	1				
GAS MCF	576	477	1049	1777	1347	1463	47	18631	21485	0				
WTR BBL	0	0	50	0	0	0	0	50	50	0				
40S 22E	25 SWSW CHUSKA ENERGY COMPANY			NAVAJO TRIBAL 14-25			TURNER BLUFF							05-84ISMY
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	408	0	217	0	0	158	5	1612	1612	1				
GAS MCF	1260	0	360	0	0	489	15	5709	5709	0				
WTR BBL	441	0	18	0	0	12	0	531	531	0				
40S 22E	26 NESE CHUSKA ENERGY COMPANY			NAVAJO TRIBAL 43-26			TURNER BLUFF							03-84IS-DC
	JUL	AUG	SEP	OCT	NOV	DEC	DAILY	YR TO DTE	CUMULATIVE	HLS	CONN			
OIL BBL	436	0	411	0	0	185	5	5027	5027	1				
GAS MCF	1120	0	330	0	0	213	6	12853	12853	0				
WTR BBL	784	0	19	0	0	14	0	817	817	0				

william w. whitley
1705 colorado state bank building
1600 broadway
denver · colorado · 80202
phone (303) 861-2469

March 6, 1980

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1588 West, North Temple
Salt Lake City, Utah 84116

Re: 3 Application for Permit to Drill

1. #1-25 3-E Federal (U-18433)
   NE NE Sec. 25-T40S-R22E
   San Juan County, Utah
2. #2-24 Federal (U-42474)
   NE SE Sec. 24-T40S-R22E
   San Juan County, Utah
3. #1-19A Federal (U-01058)
   SE NW Sec. 19-T40S-R23E
   San Juan County, Utah

Gentlemen:

Enclosed are copies of applications to drill the above three wells for your approval. The #1-25 3-E Federal well is located at a point 1000' FNL and 670' FEL. It was necessary to move the location south of the center 40-acre spot because of a combination of topographic and archeological factors. The U.S.G.S. and B.L.M. would not approve a location at the center 40-acre spot.

It is our intention to commence drilling the first well (#1-25 3-E Federal) on or about April 1, 1980.

If you have any questions about this material, please advise.

Very truly yours,

William W. Whitley

WWW:ss
Enclosures 3

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U-18433

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [XX] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [ ] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: 3-E Federal

2. NAME OF OPERATOR: William W. Whitley

9. WELL NO.: 1-25

3. ADDRESS OF OPERATOR: 1600 Broadway, #1705, Denver, CO 80202

10. FIELD AND POOL, OR WILDCAT: Turner Bluff ~~Recapture Creek~~

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1000' FNL & 670' FEL NE NE

At proposed prod. zone

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 25-T40S-R22E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10.5 miles SE of Bluff, Utah

12. COUNTY OR PARISH: San Juan

13. STATE: Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
670'	570.25	80
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
None	5650' Desert Creek	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 4444' G.L.

22. APPROX. DATE WORK WILL START*: March 10, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17½"	13-3/8"	48	80'	150 sx.
12¼"	8-5/8"	24	950'	350 sx.
7-7/8" or	5-1/2"	14 lb.	5650'	150 sx.
7-7/8"	4-1/2"	10.5 lb.	5650'	150 sx.

1. The well will be spudded in the Morrison Formation.
2. The estimated tops of important geological formations are as follows:

Entrada	325'	Moenkopi	2100'
Carmel	375'	Cutler	2335'
Navajo	425'	Hermosa	4315'
Kayenta	830'	Ismay	5223'
Wingate	890'	Lower Ismay	5344'
Chinle	1283'	"C" Shale	5404'
Shinarump	2085'	Desert Creek	5444'

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Robert K. Peterson TITLE Petroleum Engineer DATE February 3, 1980

(This space for Federal or State office use)

PERMIT NO. 43-037-30540 APPROVAL DATE 17 March 1980

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED
MAR 10 1980
DIVISION OF
OIL, GAS & MINING

*See Instructions On Reverse Side

** FILE NOTATIONS **

DATE: March 11, 1980

Operator: William W. Whitley

Well No: Federal # 1-25 3-E

Location: Sec. 25 T. 40S R. 22E County: San Juan

File Prepared: [ ] Entered on N.I.D.: [✓]

Card Indexed: [✓] Completion Sheet: [ ]

[✓] API Number 43-037-30540

CHECKED BY:

Geological Engineer: M.J. Minder 3/17/80 Will send BOP details and drilling program - has sent statement of ownership per phone conversation 3/17/80

Petroleum Engineer: _____

Director: unorthodox location - need 660' statement

APPROVAL LETTER:

Bond Required: [ ] Survey Plat Required: [✓]

Order No. 185-2 1/23/80 O.K. Rule C-3 [ ]

Rule C-3(c), Topographic Exception/company owns or controls acreage within a 660' radius of proposed site [ ]

#3

Lease Designation [Fed] Plotted on Map [✓]

Approval Letter Written [✓]

PI

william w. whitley
1705 colorado state bank building
1600 broadway
denver · colorado · 80202
phone (303) 861-2469

March 12, 1980

Ms. Bonnie Melendez
State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1588 West, North Temple
Salt Lake City, Utah 84116

Re: 1-25 3-E Federal (U-18433)
NE NE Sec. 25-T40S-R22E

2-24 Federal (U-42474)
NE SE Sec. 24-T40S-R22E

1-19A Federal (U-01058)
SE NW Sec. 19-T40S-R23E

Each in San Juan County, Utah

Dear Ms. Melendez:

Enclosed is a location plat on each of the above wells, as requested by telephone this morning. We are very sorry for the oversight and thank you for calling it to our attention!

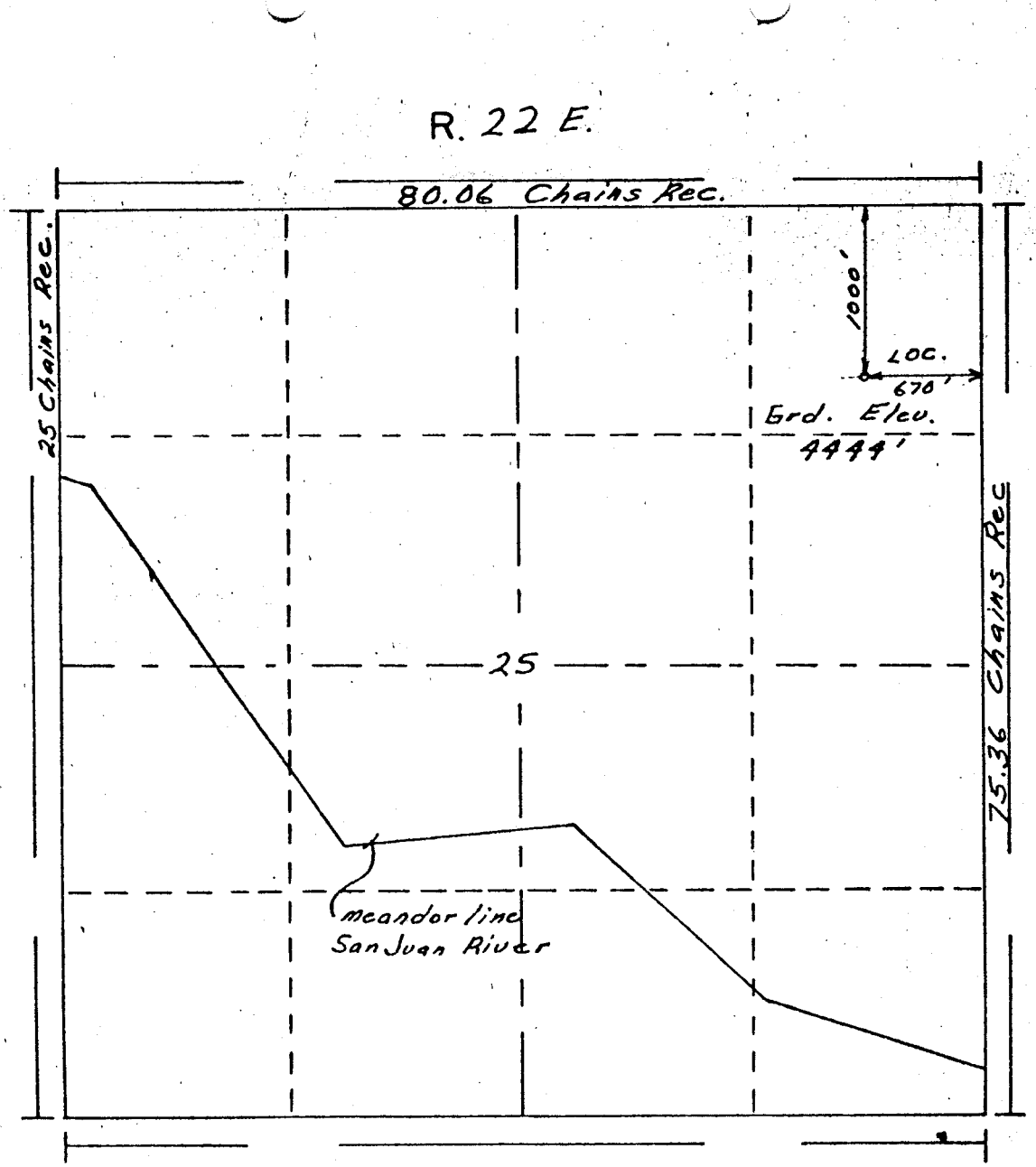
Very truly yours,

Sally Scheiman

Sally Scheiman

/ss
enclosures 3

FORM F-106



Scale··· 1" = 1000'

Powers Elevation of Denver, Colorado
has in accordance with a request from *Kathy Mohrbacher*
for *Wm. W. Whitley*
determined the location of *1-25 3-E Federal*
to be *1000' FNL & 670' FEL* Section 25 Township 40 South
Range *22 East* Salt Lake Meridian
San Juan County, *Utah*

RECEIVED
MAR 14 1980
DIVISION OF
OIL, GAS & MINING

I hereby certify that this plat is an accurate representation of a correct survey showing the location of

Date: *25 Jan. '80*

T. Wilson
Licensed Land Surveyor No. *2711*
State of *Utah*

william w. whitley
1705 colorado state bank building
1600 broadway
denver · colorado · 80202
phone (303) 861-2469

March 13, 1980

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1588 West, North Temple
Salt Lake City, Utah 84116

Attn: Ms. Bonnie Melendez

Re: #1-25 3-E Federal
NE¼NE¼ Section 25-T40S-R22E
San Juan County, Utah

Dear Ms. Melendez:

With regard to my proposed location, this is to advise you that the surveyed location falls on an oil and gas lease which I own, covering the NE/4 Section 25-T40S-R22E. Therefore I control all the lands within a 660' radius of the well location.

Very truly yours,

William W. Whitley

WWW:ss

March 17, 1980

William W. Whitley
1600 Broadway, Suite 1705
Denver, Colorado 80202

Re: Well No. Federal #1-25 3-E, Sec. 25, T. 40S, R. 22E., San Juan County, Utah
Well No. Federal #2-24, Sec. 24, T. 40S, R. 22E., San Juan County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil wells is hereby granted in accordance with the Order issued in Cause No. 185-2 dated January 23, 1980.

Should you determine that it will be necessary to plug and abandon these wells, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Geological Engineer
Office: 533-5771
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (acquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API numbers assigned to these wells are #1-25 3-E -- 43-037-30540; #2-24 -- 43-037030541.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder
Geological Engineer

/btm

cc: USGS

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: William W. Whitley

WELL NAME: Federal #1-25 3E

SECTION 25 NE NE TOWNSHIP 40S RANGE 22E COUNTY San Juan

DRILLING CONTRACTOR Mesa Drillers

RIG # 1

SPUDDED: DATE 4/12/80

TIME 5:00 p.m.

HOW rotary

DRILLING WILL COMMENCE presently

REPORTED BY William W. Whitley

TELEPHONE # 303-861-2469

DATE April 14, 1980 SIGNED Original Signed By M. T. Minder

cc: USGS

FILE IN TRIPLICATE
FORM OGC-8-X

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number #1-25 3-E FEDERAL

Operator William W. Whitley Address 1600 Broadway, Suite 1705 Denver, CO 80202

Contractor Loffland Bros. Co. Address P.O.Box 3565, Grand Junction, CO 81501

Location NE ¼ NE ¼ Sec. 25 T. 40S R. 22E County San Juan

Water Sands

	Depth		Volume	Quality
	From	To	Flow Rate or Head	Fresh or Salty
1.	358'	840'	3" stream	fresh
2.				
3.				
4.				
5.				

(Continue on reverse side if necessary)

Formation Tops

Navajo Sand	358'
Kayenta Formation	840'

Remarks

RECEIVED
MAY 15 1980
DIVISION OF
OIL, GAS & MINING

NOTE: (a) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.
(b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

william w. whitley
1705 colorado state bank building
1600 broadway
denver · colorado · 80202
phone (303) 861·2469

September 10, 1980

U. S. G. S.
P. O. Box 1809
Durango, Colorado 81301

Attn: Mr. Carl A. Barrick

Re: 1-25 3-E Federal well
Turner Bluff Prospect
NE/4 NE/4 Section 25-T40S-R22E
San Juan County, Utah

Dear Mr. Barrick:

Enclosed are three (3) copies of the Well Completion Report on the above well together with the Geological Report (attached).

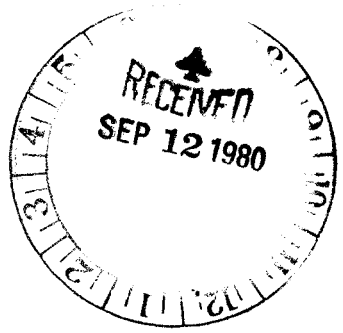
Very truly yours,

Sally Scheiman

Sally Scheiman

/ss
Enclosures 3

cc: State of Utah
Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116



Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE* (See instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

5. LEASE DESIGNATION AND SERIAL NO.: U-18433

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: 3-E Federal

9. WELL NO.: 1-25

10. FIELD AND POOL, OR WILDCAT: Turner Bluff

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 25-T40S-R22E

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: William W. Whitley

3. ADDRESS OF OPERATOR: 1600 Broadway, Suite 1705, Denver, Colorado 80202

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 1000' FNL and 670' FEL, NE NE
At top prod. interval reported below: same
At total depth: same

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
43-037-30540	3-17-80	San Juan	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
4-12-80	5-2-80	6-7-80	4444' G.L.	4443' C.H.

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5620'	5564' K.B.	-	→	Rotary	-

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: Lower Ismay 5375'-80'

25. WAS DIRECTIONAL SURVEY MADE: no

26. TYPE ELECTRIC AND OTHER LOGS RUN: GR Density-Compensated Neutron, Dual Induction SFL

27. WAS WELL CORED: no

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	45#	109' KB	17 ½"	140sx Class B w/ 3% CaCl2	none
8 5/8"	24#	1323' KB	12 ¼"	50sx thick-set, 500sx Howcolite, 150sx thixotropic, 235sx Class B	none
5 ½"	14&15.5lb.	5603' KB	7 7/8"		none

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
none				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8" EUE 6.416	5437' KB	

31. PERFORATION RECORD (*Interval, size and number*)
5375-80' KB w/ 2 jets / foot,
1-11/16" diameter hyperdome jets

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5375-80' KB	1000 gals 28% MSR Acid

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
6-7-80	Pumping-Insert pump 2½'x1¼"x16'x17'x18'	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
6-14-80	24	-	→	6	TSTM	17	-

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
-	50 psi	→	6	TSTM	17	42.6

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Used for fuel

TEST WITNESSED BY: Bush Chancey

35. LIST OF ATTACHMENTS: See Geological Report

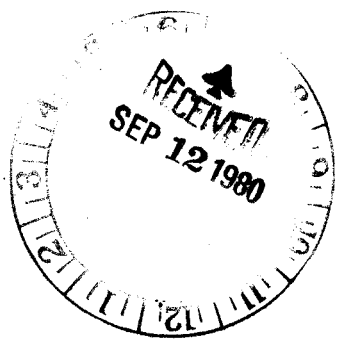
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Robert W. Peterson TITLE Petroleum Engineer DATE 9-10-80

*(See Instructions and Spaces for Additional Data on Reverse Side)

WILLIAM W. WHITLEY

#1-25 3-E Federal
Section 25, T40S - R22E
San Juan County, Utah



CONTENTS

SUMMARY

WELL NAME:	William W. Whitley #1-25 3-E Federal
WELL LOCATION:	NE NE¼ Section 25, T40S - R22E (1000' F.N.L. & 670' F.E.L.) San Juan County, Utah
TYPE:	Field Extension
ELEVATION:	4444 feet - Ground 4456 feet - Kelly Bushing
TOTAL DEPTH:	5620 feet - Driller 5621 feet - Schlumberger
GEOLOGIST:	Achille Vitali, Jr. 6670 West 28th Avenue Denver, Colorado 80214
CONTRACTOR:	Mesa Drillers Dolores, Colorado Rig #1 - National 50-A Pump #1 - Wilson 600 Pump #2 - Oil Well 214-P Pusher - Elvin Vavra
DRILLING FOREMAN:	John Steele
COMMENCED:	Spudded 5:00 PM; April 12, 1980
COMPLETED:	Finished Drilling - May 1, 1980 Logged with Schlumberger - May 1, 1980 Ran and Cemented Production Casing - May 2, 1980

CASING RECORD:

Surface Casing

Landed 3 joints of 13 3/8 inch casing at 109 feet kb. Cemented with 140 sacks type 'B' cement containing 3% calcium chloride.

Intermediate Casing

Landed 29 joints 24#, K-55, 8 5/8 inch casing at 1325 feet kb. Cemented casing with the following: 50 sacks Thickset containing 3% calcium chloride; 500 sacks Howcalite cement containing 10# gilsonite and 3/4# flocele per sack plus 3% calcium chloride; and 150 sacks Thicksotropic cement containing 3% calcium chloride. Squeezed 235 sacks of cement down backside to stop water flow.

Production Casing

Landed 145 joints of 14# and 15.5, K-55, 5 1/2 inch casing at 5603 feet kb. Cemented casing with 125 sacks of 50/50 Pozmix cement containing 10% salt and 2% gel.

LOGGING RECORD:

Samples

Caught	4000' - 5620'
Described	4000' - 5620'

Drilling Time

Geolograph	100' - 5620'

Mechanical Log

Schlumberger

Dual Induction - S.F.L. Log	1326' - 5618'
Compensated Neutron Formation Density Log	3580' - 5619'

FORMATION TOPS

FORMATION AND AGE	SAMPLE TOPS	LOG TOPS	DATUM
Jurassic			
Morrison Formation	Surface	Surface	+4444'
Entrada Formation	- - -	- - -	- - -
Carmel Formation	- - -	- - -	- - -
Triassic			
Navajo Formation	358'	- - -	- - -
Keyenta Formation	840'	- - -	- - -
Wingate Formation	- - -	- - -	- - -
Chinle Formation	1313'	1312'	+3144'
Shinarump Member	- - -	2075'	+2381'
Moenkopi Formation	- - -	2175'	+2281'
Permian			
Cutler Formation	- - -	2465'	+1991'
Pennsylvanian			
Hermosa Formation	4340'	4338'	+ 118'
Paradox Formation	5085'	5080'	- 624'
Ismay Member	- - -	5242'	- 786'
Desert Creek Member	5464'	5468'	-1012'

+4444
-5468

DRILL STEM TESTS

Drill Stem Test #1 5350' to 5440' (90') Lower Ismay

Halliburton Tester. Bottom Anchor. Tool opened with very weak blow that increased to strong in 4 minutes, built to 18 pounds on 1/8 inch choke in 30 minutes. Had gas up in 5 minutes of I.S.I.P. Reopened tool with fair blow that increased to strong in 1 minute. Placed flow on 1/4 inch choke with flow remaining at 1 pound for last 75 minutes = to 23 MCFG/D.

Recovered: 1116 feet fluid consisting of: 93 feet oil and gas cut mud, 279 feet oil and mud cut oil, 93 feet oil cut mud, 93 feet oil and gas cut mud (slightly watery), 93 feet fluffy oil and water cut mud, 279 feet gas and slight oil cut very muddy salt water (.03 ohms at 86°F.), 186 feet gas and very slight oil cut salt water (.011 ohms at 85°F. = 121,212 ppm).

Pressures		Time
IHP	2755#	
IFP	107/242#	30 minutes
ISIP	1860#	60 minutes
2nd FP	188/404#	120 minutes
ISIP	1860#	180 minutes
FHP	2755#	
Temperature	130°F.	

Sample Chamber Recovery: Pressures 1200 P.S.I.

2.5 cubic feet gas

1350 cc oil

100 cc water

Drill Stem Test #2 5510' to 5540' (30') Desert Creek

Halliburton Testers. Bottom Anchor. Tool opened with a faint blow that increased to strong in 2 minutes, increased to 5 pounds on 1/8 inch choke in 30 minutes. Reopened tool with fair blow that increased to strong in 1 minute, built to a maximum of 2 pounds on 1/8 inch choke in 9 minutes, remained steady to end.

Recovered: 3154 feet of fluid consisting of: 93 feet oil and oil cut mud, 93 feet oil and gas cut muddy water, 186 feet slight oil and gas cut water, 2782 feet gas cut muddy water.

Pressures		Time
IHP	2848#	
IFP	352/947#	30 minutes
ISIP	1678#	40 minutes
2nd FP	947/1570#	120 minutes
±FSIP	1678#	180 minutes
FHP	2821#	
Temperature	130°F.	

Sample Chamber Recovery: Pressures 200#

2200 cc
slight gas cut salt water

Rw .12 ohms at 72°F. = 39,000 ppm

BIT RECORD

NO	SIZE	MAKE	TYPE	DEPTH OUT	FEET	HOURS	PUMP PRESS.
1	12 1/4	HTC	OSC	109'	109'	4 1/2	1200#
2	12 1/4	Smith	SDGH	841'	732'	16 1/2	1000#
3	12 1/4	HTC	OSC	1325'	484'	13 3/4	1000#
4	7 7/8	Smith	SDS	2202'	877'	21	11-1200#
5	7 7/8	Smith	F2-J	3928'	1726'	110 3/4	1200#
6	7 7/8	Smith	F2-J	5440'	1512'	152 3/4	1100#
7	7 7/8	Smith	F3-J	5620'	180'	19 3/4	1100#

DEVIATION RECORD

DEPTH	DEVIATION
109'	1/4°
410'	1/2°
746'	3/4°
1123'	1°
1610'	1/2°
1901'	3/4°
2202'	3/4°
2526'	1 1/4°
3124'	3/4°
3691'	1°
4509'	3/4°
5120'	1/2°

CHRONOLOGICAL SUMMARY

April 11	Moved in and rigged up.
April 12	Finished rigging up. Drilled rat and mouse hole. Spudded at 5:00 PM.
April 13	Finished drilling surface hole. Ran and cemented 13 3/8 inch surface casing. Waiting on cement. Nippled up. Drilled out at 7:00 PM.
April 14	Drilling ahead on 12 1/4 inch hole.
April 15	Finished drilling 12 1/4 inch hole. Ran and cemented 8 5/8 inch casing - water shut off string. Waiting on cement. Nippled up. Drilled out at 10:00 AM.
April 16	Drilling 7 7/8 inch hole - 1724 feet.
April 17	2434 feet - Drilling.
April 18	2820 feet - Drilling.
April 19	3227 feet - Drilling.
April 20	3468 feet - Drilling.
April 21	3775 feet - Drilling.
April 22	3998 feet - Drilling.
April 23	4346 feet - Drilling.
April 24	4579 feet - Drilling.
April 25	4801 feet - Drilling.
April 26	4998 feet - Drilling.
April 27	5174 feet - Drilling.
April 28	5365 feet - Ran Drill Stem Test #1. T.D. 5440'.
April 29	Finished Drill Stem Test #1. Drilling ahead.
April 30	Ran Drill Stem Test #2. T.D. 5540'.
May 1	Drilling ahead. Reached T.D. 5620' at 2:00 PM. Logged with Schlumberger.
May 2	Ran 5 1/2 inch Production Casing.

REMARKS

HYDROCARBON EVALUATION

Lower Ismay Zone

A gross porosity zone (4 to 8% porosity) was encountered from 5374 to 5414 feet. The porosity was interrupted by a tight (0% porosity) streak from 5394 to 5402 feet. A Drill Stem Test (5350 to 5440 feet) of the porosity recovered 1116 feet of fluid approximately half (558 feet) of which was oil.

Production casing has been run and it is hoped that by restricting perforation to the uppermost 6 feet of porosity (5374-80 feet - also coincides to best porosity - 7½ to 8%), a relatively water free commercial completion can be effected.

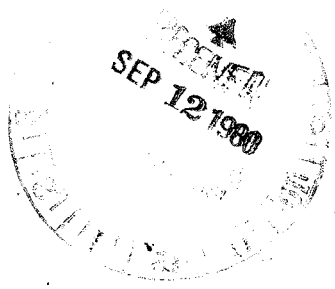
Desert Creek Zone

A porosity zone with 6 to 12% porosity was encountered in the interval 5522-40 feet. A Drill Stem Test of this zone (5510-40 feet) recovered 3154 feet of fluid consisting of approximately 3% oil and 97% water. It is believed that this zone is too wet to plough.

All other sands and carbonates penetrated are believed to be tight and/or water bearing.

OPERATIONS

Daily operations were conducted efficiently and in good spirits.



Achille Vitali, Jr.
Geologist

SAMPLES

WILLIAM W. WHITLEY

#1-25 3-E Federal
(670' F.E.L. & 1000' F.N.L.)
NE NE¼ Section 25, T40S - R22E
San Juan County, Utah

SAMPLE DESCRIPTION

(Note: Samples not lagged unless otherwise noted.)

FROM	TO	IN CUTLER FORMATION
4000'	4020'	90% Shale, medium gray green, sub-waxy, bentonitic, soft, lumpy plus 10% Shale, brick red, soft clay type grading to Siltstone, orange red, brown red, very finely sandy, calcareous, slightly firm.
4020'	4040'	50% Shale, medium gray green as above, plus 50% Shale, brick red, flaky clay type, calcareous in part, plus some brown red, silty, firm and calcareous.
4040'	4060'	70% Shale, medium gray green, as above, plus 10% Shale, reds as above, plus 20% Siltstone, salmon to light brown, very calcareous to limy, shaly, firm, occasionally micaceous.
4060'	4080'	70% Shale, medium gray green, as above, plus 20% Shale, red, etc., and Siltstone, as above, plus 10% Limestone, off-white, faint gray, pinkish and red stain, dense, soft and chalky to firm.
4080'	4100'	60% Shale, medium gray green plus 30% Shale and Limestone as above, plus 10% Limestone, orange tan to light brown, slightly silty and shaly, soft to slightly firm.
4100'	4140'	Sample as above.
4140'	4160'	Sandstone, white, very fine grain to silt size, firm to slightly hard, angular, very calcareous to limy grading to Limestone, white to very light gray, in part very finely sandy, plus Shales as above.
4160'	4180'	Sandstone, white to light gray, very fine grain with some to silt size, angular, firm to hard, very finely micaceous in part, very calcareous to limy, very tight, plus Shales as above.
4180'	4200'	Shales as above, plus heavy trace Limestone, off-white to light brown, dense, chalky, plus trace Sandstone, as above.

Sample Description
#1-25 3-E

FROM	TO	
4200'	4280'	Shale, brown, silty and in part very finely sandy, firm calcareous to very calcareous, grading to Siltstone, brown, very finely sandy, shaly to very shaly, very calcareous, firm to slightly hard, blocky in part, plus heavy fraction of Shales gray green and reds as above, plus traces to heavy traces Sandstone, white to light gray, very fine grain as above, and occasional trace Limestone, as above.
4280'	4300'	Shale, brown with bronze sheen, largely silty, occasionally very finely sandy, firm, very calcareous in part, very finely micaceous, plus trace Shales as above.
4300'	4320'	Shale, brown and brown red, occasionally mottled light gray plus brick red, predominately clay type, occasionally slightly silty, calcareous, plus trace Limestone, white to pinkish, dense, soft to firm.
4320'	4340'	70% Siltstone, off-white to light gray, light brown gray mottled and gray brown, very finely sandy, firm to slightly hard, very calcareous, plus Shale, gray brown, brown and red, clay type, plus trace Limestone, off-white, faint gray.
		Extra Sample at 4336'
		Shale, brown with some faint to light gray mottling, slightly silty in part, calcareous to very calcareous, firm, very finely micaceous in part, trace Gypsum white, fiberous.
		HERMOSA FORMATION
4340'	4360'	20% Limestone, faint buff, off-white to light gray, compact, tabular to thinly blocky, plus 60% Siltstone, green and gray green, firm to hard, blocky, slightly calcareous, some with faint brown mottling plus Shale, green to gray green, as above, plus Shale, red and brown, as above.
4360'	4380'	Limestone, off-white to buff to tan, compact, tabular, brittle, plus 80% Limestone, silty and finely sandy grading to limy Sandstone, light to medium gray buff and tan, very fine grain to silt size, all very finely micaceous (bronze), for most part firm to hard, tabular to blocky to chunky.
4380'	4400'	Limestone, white, compact, very finely sandy in part grading light to dark gray, dolomitic, slightly shaly, compact, all tabular to chunky.

Sample Description
#1-25 3-E Federal

FROM	TO	
4400'	4420'	Limestone, off-white to light to dark gray, some with tan cast, slightly dolomitic in part, partly grainy calcarenite and some finely sandy (Quartz grains), very fossiliferous, crinoid, sponge spicules, algal, pelecypods, slightly shaly in part, looks tight.
4420'	4440'	70% Sandstone, white, very fine grain, very limy, tight grading to small fraction Limestone, medium gray, shaly and finely sandy plus 10% Limestone, as above, plus Shale and Siltstone, light to dark brown, very calcareous, very finely micaceous (bronze).
4440'	4460'	Sandstone, white, very fine to fine grain, angular, firm, very calcareous to limy, tight grading to small fraction Limestone, white, sandy in part, some soft, chalky.
4460'	4480'	Limestone, predominately medium gray, some to dark gray, in part grainy slightly shaly, some gray brown to brown, fossiliferous, crinoid and pelecypod, trace of styolitic seams.
4480'	4500'	Limy Sandstone, to sandy Limestone, off-white grading to light gray, grading to/and mottled in part faint reddish medium brown, very fine grain, all dense and tight, tabular to blocky.
4500'	4520'	10% Limestone, white to faint gray, compact to chalky, 90% Siltstone, medium to dark gray, shaly, limy, firm, blocky to chunky grading to Limestone, medium to dark gray, shaly, silty and to Shale, dark gray, silty in part, sub-waxy in part, very calcareous to limy.
4520'	4540'	Siltstone, medium bronze brown, very calcareous, firm, shaly grading to Shale, medium bronze brown to dark brown, silty in part to clay type, firm, calcareous to very calcareous.
4540'	4560'	Siltstone, light bronze tan, very finely sandy in part, friable to firm, very calcareous, limy, very finely micaceous, bronze.
4560'	4580'	Shale, brown, predominately clay type, very finely micaceous in part, slightly silty in part, grading to/and interlaminated with Siltstone, as above, plus heavy trace to 5% Limestone, light gray, compact, blocky.
4580'	4600'	80% Siltstone, as above, plus 20% Limestone, white to very light gray, flaky and chalky to tabular and brittle, slightly and very finely sandy in part.

Sample Description
#1-25 3-E Federal

FROM	TO	
4600'	4620'	70% Limestone, light to dark gray, compact, thickly tabular to blocky, slightly shaly in part, plus 30% Siltstone, salmon brown to light bronze brown, shaly in part, very finely micaceous in part, firm to hard, calcareous, grading to traces Limestone, light reddish brown, silty, blocky.
4620'	4640'	Sandstone, white to very light gray, very fine grain, angular, friable to slightly hard, calcareous to very calcareous to limy, irregularly tabular to chunky, tight with 5+% grading to Limestone, white to light gray, in part finely sandy, some chalky, rest compact and hard.
4640'	4660'	Sandstone, white, very fine to fine grain, angular, friable to hard, very calcareous to limy, tight, grading to traces sandy white Limestone, plus heavy trace Chert, clear to slightly milky.
4660'	4680'	Limestone, white to very light gray, in part slightly and finely dense, chalky, compact, occasionally slightly fossiliferous, plus small fraction Sandstone, as above, plus heavy trace Chert, as above, some light amber.
4680'	4700'	Limestone, off-white to light gray and light gray buff to buff mottled, some chalky, compact, fossil hashy looking, flaky, thinly tabular, tight, No Show, plus trace Chert, light amber to slightly milky, translucent.
4700'	4720'	Shale, brown to bronze brown, very heavily micaceous in part, clay type, slightly calcareous with some slightly to heavily silty and very calcareous, soft to firm, flaky to tabular.
4720'	4740'	Limestone, off-White to buff to dark buff tan, mottled, very slightly and finely scattering of sand grains, compact to grainy calcarenite, in part very finely veined with clear calcite, tight, irregularly tabular to thinly blocky.
4740'	4780'	Limestone, off-white to buff to light to medium gray and gray buff, some occasional tan, mottled in part, non-sandy, compact, slightly chalky, rest firm, slightly fossiliferous, tight plus very heavy traces Chert, slightly milky, orange, amber, light smoky gray.
4780'	4800'	Limestone, white, very finely sandy in large part, firm to hard, grading to 50% Sandstone, white, very fine grain, angular, limy, firm to hard, tabular to blocky, plus 5% Cherty, clear to lightly milky.
4800'	4820'	Limestone, buff gray and light to dark gray, compact, tabular, dark gray type, slightly shaly.

Sample Description
#1-25 3-E Federal

FROM	TO	
4820'	4860'	Limestone, very light to medium gray, in part very finely calcarenite, rest compact, small fraction grading to dark gray and becoming lightly shaly.
4860'	4880'	Limestone, off-white with slight buff to buff to light gray buff, compact in part lithographic, small fraction grading to medium and dark gray, becoming lightly shaly, plus traces Chert, faintly amber to faintly milky, occasional orange.
4880'	4900'	50% Shale, black, slightly calcareous to calcareous, flaky to slightly blocky grading to 30% Limestone, very dark gray to black, shaly in large part, firm, all fossiliferous with crinoid stems, plus 20% Limestone, white and buff, compact, tabular, plus very heavy trace Chert, slightly milky to faint smoky gray.
4900'	4920'	Limestone, very light gray with some to medium gray, predominately calcarenite, friable to firm, in part very finely sandy with Quartz, occasionally slightly and finely micaceous, plus heavy trace Limestone, dark gray types as above.
4920'	4940'	Limestone, off-white to light tattletale gray, predominately lithographic, hard, brittle and tabular, occasionally some slightly chalky, plus 5% Chert, light amber to light milky.
4940'	4960'	Limestone, predominately medium to dark gray, in part lightly shaly, compact, plus some light to medium gray with buff cast, fossiliferous, crinoid and other species (?).
4960'	4980'	60% Limestone, dark gray type as above, plus 40% Limestone, off-white, light to medium gray with buff cast, in part chalky, rest in part hashy looking with fossil species(?), plus heavy trace Shale, black, sooty, very calcareous, firm.
4980'	5000'	Limestone, very light to medium gray, grainy, calcarenite, friable to hard, slightly micaceous, slightly and very finely sandy (Quartz), plus heavy trace Chert, light amber, slightly milky, faint gray.
5000'	5030'	Limestone, very light to medium gray to dark gray, compact to cryptocrystalline, tabular to chunky, slightly shaly in part, trace Fossil debris, pelecypod and crinoid plus other species(?).
5030'	5040'	Limestone, white to light gray, very finely sandy Quartz, calcarenite, friable to firm to hard, very finely micaceous in part, plus some Limestone, as above plus trace Shale, dark to very dark gray, fissile, flaky, calcareous.

Sample Description
#1-25 3-E Federal

FROM	TO	
5040'	5050'	Limestone, white to very light gray, predominately compact, lithographic, some grading to calcarenite, occasionally very finely sandy with Quartz grains, trace styolite.
5050'	5060'	80% Limestone, white, light gray to light gray buff, compact lithographic, plus 20% Shale, medium to dark gray, smooth and slick looking, sub-fissile to slightly blocky, calcareous, soft to firm, plus trace Chert.
5060'	5070'	80% Shale, dark to very dark gray, fissile to sub-fissile, flaky, soft to slightly firm, calcareous, plus Limestone, as above.
5070'	5090'	70% Shale, dark gray to black, fissile, flaky to splintery, soft to firm and brittle, calcareous, plus 30% Limestone, off-white to faint buff to lightly gray buff, compact, some chalky, slightly fossiliferous in part, species(?).
		PARADOX FORMATION
5090'	5100'	70% Limestone, off-white, some with faint green cast, buff to tan, trace light brown, compact, lithographic, tabular to chunky to blocky, plus 30% Shale, dark gray to black, as above.
5100'	5110'	Limestone, very light to medium gray, in large part very fine grain, calcarenite, friable to firm, looks tight, plus some Limestone, as above, plus heavy trace Shale, very dark gray black as above.
5110'	5120'	Limestone, off-white to light gray, lithographic, tabular, hard, brittle.
5120'	5130'	Limestone, as above, mottled occasionally with buff, trace being grainy calcarenite.
5130'	5140'	Limestone, off-white to buff, mottled, predominately compact, some trashy looking with Fossil debris, crinoid, coral, brachiopods, pelecypods and other species(?), plus 5% Chert, light orange small nodules, plus some slightly milky.
5140'	5150'	Limestone, as above, with some becoming buff to light brown, plus trace Chert, as above.
5150'	5160'	Limestone, off-white to faint gray buff to gray brown to brown, chalky to compact, tabular to slightly blocky, slightly fossiliferous, plus 5 to 10% Chert, light to dark smoky brown.
5160'	5190'	Limestone, off-white to light gray, lithographic, tabular, traces Chert, slightly milky, faint brown.

Sample Description
#1-25 3-E Federal

FROM	TO	
5190'	5200'	85% Limestone, as above, plus 10% Shale, dark to very dark gray, flaky, calcareous, brittle, fissile plus 5% Limestone, gray brown to brown, silty, gritty, friable to firm, chunky plus heavy trace Chert, smoky brown, slightly milky, faint gray.
5200'	5210'	Limestone, very light to light gray, compact to cryptocrystalline, tabular to slightly blocky, plus 5 to 10% Chert, predominately faint amber, translucent.
5210'	5220'	Limestone, light gray, compact, lithographic, tabular, slightly fossiliferous, crinoid, coral, other species, plus 5% Chert as above.
5220'	5250'	Limestone to dolomitic Limestone, medium to dark gray to gray brown, compact, tabular to chunky to blocky, some shaly, plus 5 to 10% Shale, dark gray to black, sub-fissile to fissile, calcareous to very calcareous, plus very heavy trace to 5% Chert, medium to dark brown, sub-translucent.
		ISMAY MEMBER
5250'	5260'	80% Limestone, off-white to very light gray, compact, tabular to slightly blocky, some chalky looking, plus 20% Dolomite, dark gray and gray brown, in part shaly, compact to crystalline.
5260'	5270'	Limestone, off-white to very light to with some medium gray with olive cast, 50% compact, 50% very finely calcarenite, tight.
5270'	5280'	Limestone, off-white to very light gray, compact, slightly chalky looking, slightly fossiliferous, tabular, trace Chert, brown and faint amber.
5280'	5300'	Limestone, off-white to faint gray with some buff, compact and lithographic, tabular, brittle, to in part chalky and soft, light to very heavy traces Chert, faint gray, amber and light brown, translucent.
5300'	5320'	Limestone, as above.
		LOWER ISMAY ZONE
5320'	5340'	Limestone, light to medium gray, medium gray brown to brown black, mottled and spotty, cryptocrystalline, compact, some chalky looking, tabular to blocky, fossiliferous to very fossiliferous, fusulinds, crinoid, coral, algal(?), other debris, soft to hard, tight looking, No fluorescence, brown black type has faint to light yellow crushed cut, traces Chert, brown.

Sample Description
#1-25 3-E Federal

FROM	TO	
5340'	5350'	Limestone, medium to dark gray brown and brown black, rest as above, plus 15 to 20% Chert, medium to dark brown, translucent to opaque.
5350'	5370'	Limestone, as above, some medium gray, earthy and soft, heavy trace Chert, as above.
		Drilling Break 5368' to 5374' (Drilled 5 minutes per foot)
		Better Drilling Break 5374' - (Drilled ±3 minutes per foot)
5370'	5380'	Limestone, off-white to very light gray, compact to chalky looking and chalky, non-vuggy, traces to 5% faint to light yellow fluorescence, predominately chalky material, faint yellow crushed cut.
	5385'	Extra Sample
		Limestone, white to light gray, abundant chalky type, rest compact, heavy traces of loose calcite crystals, heavy trace Fossil fusulind, spicules, other species, fluorescence as above.
5380'	5390'	Limestone, white to very light gray, predominately chalky looking, rest as above, trace Fossil, trace evidence vugs, 10 to 15% faint to bright yellow fluorescence, fair to good crushed cut in chalky pieces.
	5395'	Extra Sample
		Limestone, 60% white chalky and chalky looking, rest light gray, compact, trace evidence of vugs, heavy traces calcite crystals, 20 to 25% light to bright yellow fluorescence, bright yellow crushed cut.
5390'	5400'	Limestone, white, dhalky, plus very fine vugs, drusy, occasional faint to light brown stain, considerable loose calcite crystals, 30 to 40% light to bright yellow fluorescence to streaming bright yellow cut on vugg pieces, rest crushed cut as above.
5400'	5410'	Limestone, as above, 5 to 10% very fine vugs as above, some speckled with asphaltic stain, plus calcite as above, 20 to 25% fluorescence and cut as above.
5410'	5420'	Limestone, as above, 5% plus with very fine vugs, trace fluorescence, as above.

Sample Description
#1-25 3-E Federal

FROM	TO	
5420'	5430'	Dolomite, faint yellow buff, cryptocrystalline to earthy looking, thickly tabular, some pinpoint porosity, tight looking, No fluorescence or cut.
		'C' SHALE
5430'	5440'	50% Shale, very dark to black, sooty, stains black, finely carbonaceous, grainy looking, calcareous, plus Dolomite to dolomitic Limestone, as above, grading to medium gray brown, becoming shaly in part.
	5440'	Circulation Sample
		Shale, dark brown black to black, some sub-fissile and flaky, mostly grainy, blocky and chunky, all calcareous to limy, very finely carbonaceous, stains black.
5440'	5470'	Shale, black, flaky to tabular to blocky, firm to slightly hard, calcareous, sub-fissile in part, carbonaceous, stains black.
		TOP DESERT CREEK 5464'
5470'	5480'	Limestone, light to medium gray, some white, very finely grainy calcarenite to compact, chunky, slightly shaly in part, plus 30% Shale, black, as above.
5480'	5490'	Limestone, dolomitic in part(?), medium to dark gray, shaly in large part, compact, chunky, firm, plus 15 to 20% Anhydrite, white, fiberous and chalky, light to medium gray, mottled.
5490'	5500'	Anhydrite, white (chalky to fiberous), light and medium gray, some to dark gray, shaly, soft to firm and brittle, plus heavy trace Limestone as above.
5500'	5510'	Dolomitic Limestone to Limestone, medium buff gray to dark gray to very dark gray black, some earthy looking, predominately cryptocrystalline, soft to hard, predominately tabular, some shaly, occasionally very finely micaceous, interlaminated with streaks of Shale, black, sub-fissile, very finely micaceous in part.
5510'	5540'	Limestone, off-white, faint gray buff to light gray with olive cast, predominately lithographic and compact, small fraction slightly chalky, occasional traces fossiliferous, tabular to chunky.
		Drilling Break 5521' to 5540' (19 feet drilled in 54 mintes)
		20 Minute Circulation Sample
		Predominately Limestone, as above, plus 20% Limestone, white, chalky, soft, 5% bright yellow fluorescence, light to fair yellow crushed cut from chalky material.

Sample Description
#1-25 3-E Federal

FROM	TO	
		40 Minute Circulation Sample
		Limestone, white, chalky type, plus light to medium gray compact lithographic, tabular to chunky, heavy to 5% evidence of vugs, (crystal coated vug edges), 20 to 25% bright yellow fluorescence, predominately in chalky type, fair to good delayed crushed cut.
		60 Minute Circulation Sample
		Limestone, 60% white chalky type, rest white to light gray, compact lithographic type, +5% evidence of vugginess (crystal coated vug edges) free drusy surface of vugs, 25 to 30% light bright yellow fluorescence and cut as above.
		80 Minute Circulation Sample
		Limestone, white to light gray, 20% chalky type, rest compact, 10 to 15% with vugginess, some with fair to bright yellow fluorescence and cut, 20 to 25% light to bright yellow fluorescence, predominately in chalky type, crushed cut as above, plus heavy traces Chert, light to medium smoky gray, opaque.
5540'	5550'	Limestone, white to light gray olive to buff, chalky and soft, compact and lithographic, heavy trace to 5% vugginess as above, 15% faint to bright spotty yellow white fluorescence, fair light yellow cut on best pieces.
5550'	5560'	Limestone, off-white to chalky to buff, flaky and tabular, lithographic.
5560'	5570'	Dolomite, faint yellow buff, lightly mottled with faint gray in part, cryptocrystalline to faintly microcrystalline, occasionally mottled with faint brown stain, 60% very faint to very light splochy yellow fluorescence, faint yellow delayed crushed cut.
5570'	5580'	Dolomite as above, grading to Limestone, buff to brown, some with dark brown mottling, earthy to cryptocrystalline, 10% fluorescence as above.
5580'	5590'	Limestone, buff to light to dark gray buff to gray brown to brown black, mottled in part, finely calcarenite, earthy to compact, in part shaly, plus 10% Shale, dark gray brown to black, blocky to chunky, calcareous.
5590'	5600'	Shale, black, tabular and sub-fissile to irregular fracture and chunky, firm, calcareous, carbonaceous.
5600'	5610'	25% Shale, as above, 25% limy Dolomite, brown, flaky, 50% dolomitic Limestone grading to Dolomite, medium gray olive, grainy and friable to chunky and hard.

Sample Description
#1-25 3-E Federal

FROM	TO	
5610'	5620'	20% Anhydrite, white, soft, chalky looking, 20% Limestone, brown, tabular, lithographic, 10% Shale, black, as above, 50% dolomitic Limestone grading to Limestone, medium to dark gray olive, in part greasy looking, earthy to compact, chunky.
		45 Minute Circulation Sample
		Sample as above with increase to 40% Shale, black, as above.

Gov't Evelyn Chambers Well No. Allwestern 8750' Est. 6-7069 Appropriated Spent	1 $1,788,500 $ 479,218	8-3-80	9-5/8" 4000'	9-10: Drld. 233' in 10-3/4 hrs, Drlg. 9.8.	4910'	5143'

william w. whitley
1705 colorado state bank building
1600 broadway
denver · colorado · 80202
phone (303) 861·2469

November 8, 1983

State of Utah
Division of Oil, Gas, and Mining
Room 4241 State Office Building
Salt Lake City, Utah 84114

Re: Application to Convert to
Water Disposal Well
1-25 3-E Federal Well
Section 25-40S-22E
San Juan County, Utah

Gentlemen:

Enclosed is our Application to Convert to Water Disposal Well for the captioned well. The application contains the following:

1) Form No. DOGM-UIC-1
2) Form No. DOGM-UIC-2
3) Water Analysis Test Reports on the captioned well together with Water Analysis Test Reports on the wells producing water to be injected
4) Plat showing subject well and all known oil and gas wells within one-half mile radius
5) Dual Induction-SFL log
6) Drawing of subsurface Well Facility

If there is any further information you require, please let us know.

Very truly yours,

Sally Scheiman

Sally Scheiman
Secretary

/ss
Enclosures

FORM NO. DOGM-UIC-1
(Revised 1982)

STATE OF UTAH
DIVISION OF OIL, GAS, AND MINING
ROOM 4241 STATE OFFICE BUILDING
SALT LAKE CITY, UTAH 84114
(801) 533-5771
(RULE I-5 & RULE I-4)

RECEIVED
NOV 10 1983
DIVISION OF OIL, GAS & MINING

IN THE MATTER OF THE APPLICATION OF
WILLIAM W. WHITLEY

ADDRESS 1600 Broadway, Suite 1705
Denver, Colorado ZIP 80202

INDIVIDUAL X PARTNERSHIP ___ CORPORATION ___
FOR ADMINISTRATIVE APPROVAL TO DISPOSE OR
INJECT FLUID INTO THE 1-25 3-E Federal WELL
SEC. 25 TWP. 40S RANGE 22E
San Juan COUNTY, UTAH

CAUSE NO. UIC-030

ENHANCED RECOVERY INJ. WELL	☐
DISPOSAL WELL	☒
LP GAS STORAGE	☐
EXISTING WELL (RULE I-4)	☐

APPLICATION

Comes now the applicant and shows the Corporation Commission the following:
1. That Rule I-5 (g) (iv) authorizes administrative approval of enhanced rcovery injections, disposal or LP Gas storage operations.
2. That the applicant submits the following information.

Lease Name: Federal	Well No.: 1-25 3-E Federal	Field: Turner Bluff	County: San Juan
Location of Enhanced Recovery Injection or Disposal Well: NE NE	Sec. 25	Twp. 40S	Rge. 22E
New Well To Be Drilled: Yes ☐ No ☒	Old Well To Be Converted: Yes ☒ No ☐	Casing Test: Yes ☒ No ☐ Date ____	
Depth-Base Lowest Known Fresh Water Within ½ Mile: 1400'	Does Injection Zone Contain Oil-Gas-Fresh Water Within ½ Mile: YES ☒ NO ☐	State What: Oil	
Location of Injection Source(s): Wells in Turner Bluff Field	Geologic Name(s) and Depth of Source(s): Lower Ismay Desert Creek		
Geologic Name of Injection Zone: Lower Ismay & Desert Creek	Depth of Injection Interval: 5375'-5380' to 5522'-5562'		
a. Top of the Perforated Interval:	b. Base of Fresh Water:	c. Intervening Thickness (a minus b)	
Is the intervening thickness sufficient to show fresh water will be protected without additional data? X YES NO			
Lithology of Intervening Zones: Shales, tight sandstones and dense limestone			
Injection Rates and Pressures: Maximum 1000 B/D; 2000 PSI			

The Names and Addresses of Those to Whom Notice of Application Should be Sent.

Home Petroleum Corp. (was Tiger well), 999 18th Street, Suite 601, Denver, CO 80202

MSR Exploration, Ltd., CBM Bldg., Box 176, Cut Bank, MT 59427

State of Colorado)
County of Denver)

Robert W. Peterson
Applicant Petroleum Engineer

Before me, the undersigned authority, on this day personally appeared Robert W. Peterson known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states, that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Subscribed and sworn to before me this 7th day of November, 19 83

Sara Ann Scheiman
Notary Public in and for Denver, Colorado

SARA ANN SCHEIMAN SEAL
NOTARY PUBLIC STATE OF COLORADO

My commission expires March 27, 1984

(OVER)

FORM DOGM-UIC-1 (continued) INSTRUCTIONS

1. Attach qualitative and quantitative analysis of representative sample of water to be injected and a qualitative and quantitive analysis of the injection formation of water.

2. Attach plat showing subject well and all known oil and gas wells, abandoned, drilling and dry holes within one-half mile, together and with the name of the operator(s).

3. Attach Drillers Log (Form DOGM-UIC-2). (Appropriate Surety must be on file with Conservation Division or appropriate government agencies.)

4. Attach Electric or Radioactivity Log of Subject well (if released).

5. Attach schematic drawing of subsurface facilities including; Size, setting depth, amount of cement used measured or calculated tops of cement surface, intermediate (if any) and production casings; size and setting depth of tubing; type and setting depth of packer; geologic name of injection zone showing top and bottom of injection interval.

6. If the application is for a NEW well the original and six (6) copies of the application and three (3) complete sets of attachments shall be mailed to the Division. For EXISTING well applications (Rule I-4) only ONE copy of the application and ONE complete set of attachments are required to be mailed to the Division.

7. The Division is required to send notice of application to he surface owner of the land within one-half mile of the injection well and to each operator of a producing leasehole within one-half mile of the injection well. List all required names and addresses in the appropriate space provided on the front of this form.

8. Notice that an application has been filed shall be published by the Division in a newspaper of general circulation in the county of publication before the application is approved. The notice shall include the name and address of applicant, location of proposed injection or disposal well, injection zone, injection pressure and volume. If no written objection is received within 15 days from date of publication the application may be approved administratively.

9. A well shall not be used for injection or disposal unless completed machine accounting Form DOGM-UIC-3b is filed by January 31st each year.

10. Approval of this application, if granted, is valid only as long as there is no substantial change in the operations set forth in the application. A substantial operation change requires the approval of a new application.

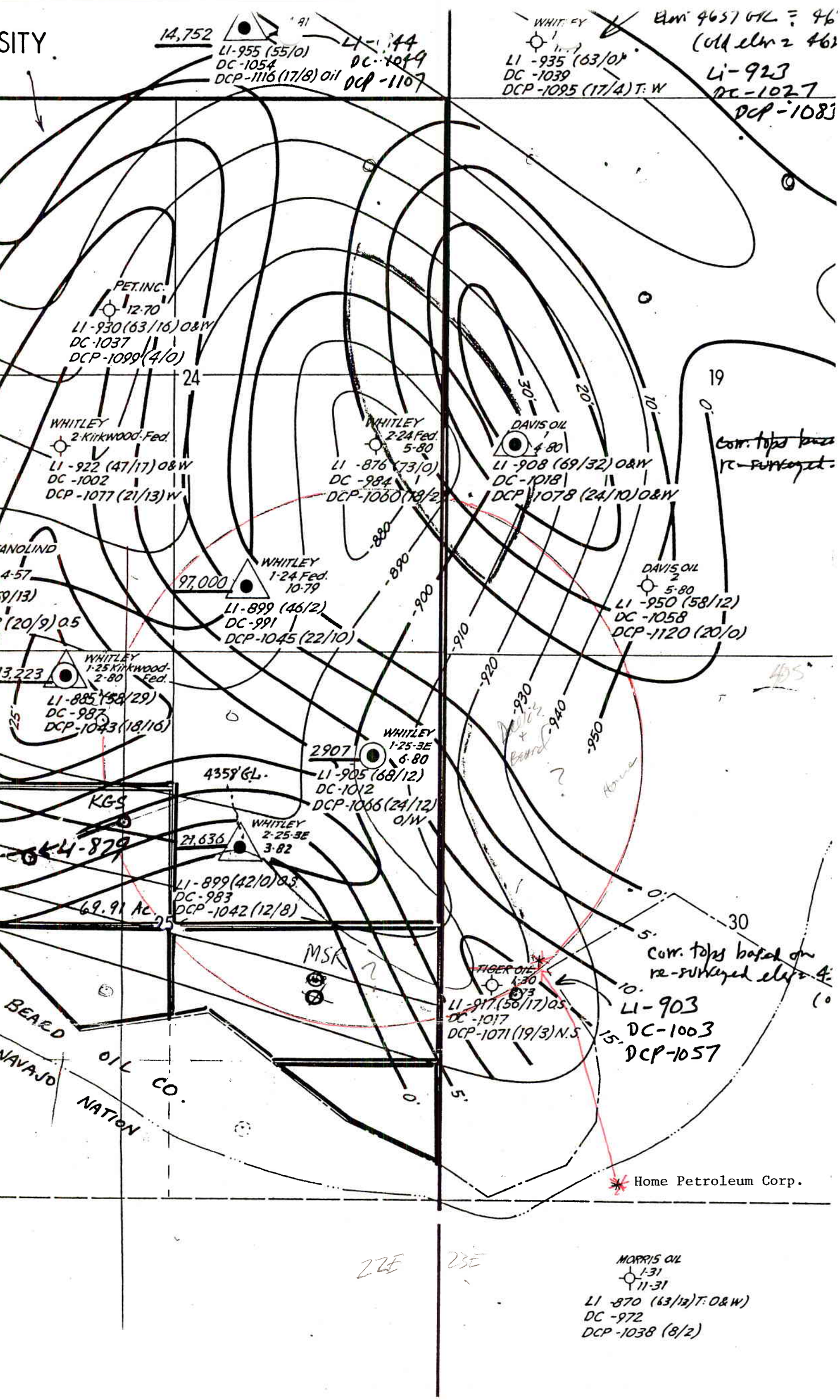
11. If there is less intervening thickness required by Rule I-5 (b) 4, attach sworn evidence and data.

12. For enhanced recovery projects, information required by Rule I-4 which is common to more than one well, need be reported only once on the application.

CASING AND TUBING DATA

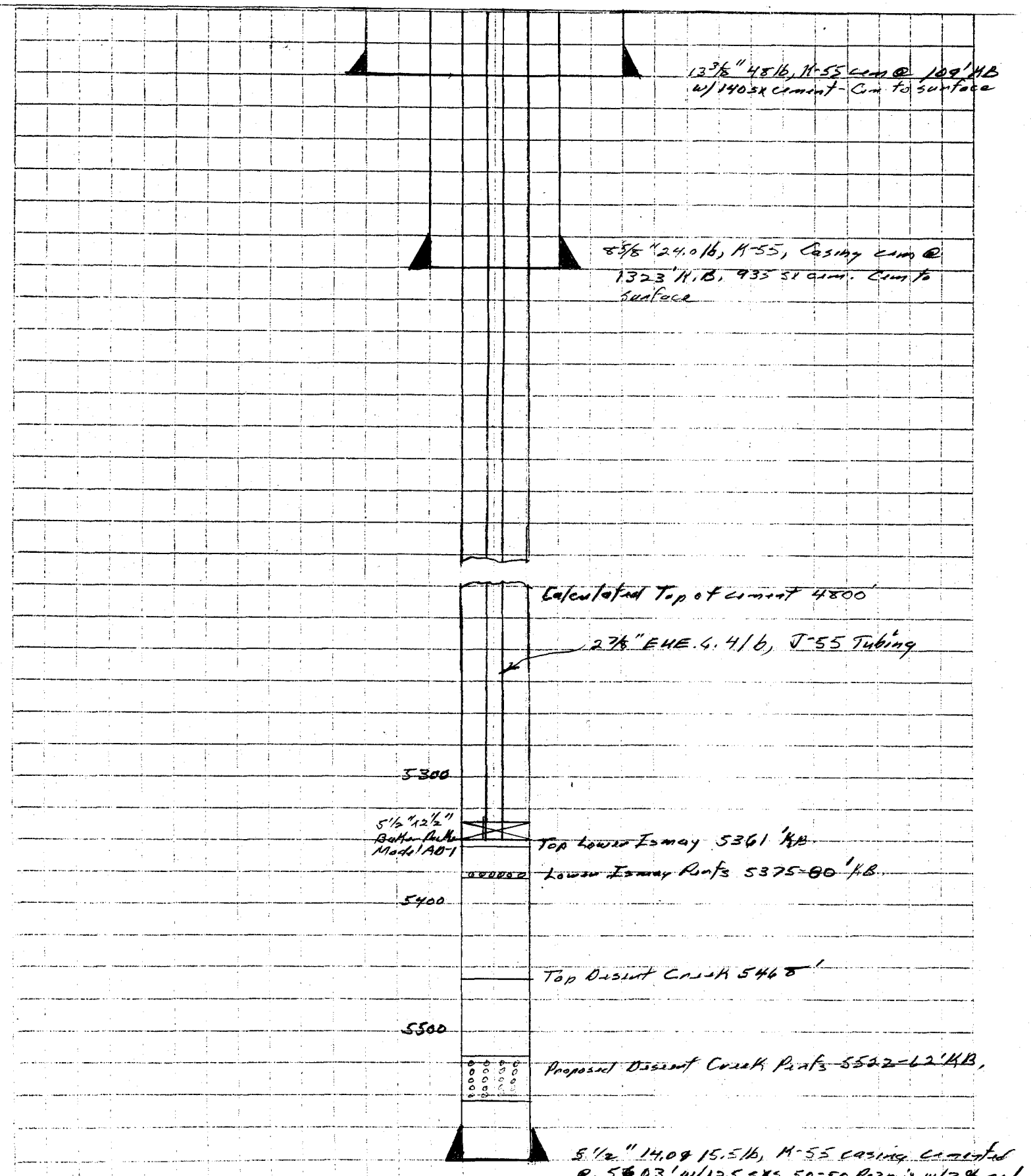
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
Surface	8-5/8"	1323'	700	Surface	Circulating cement to the surface
Intermediate	N/A				
Production	5-1/2"	5603'	125	4800' est.	Calculated
Tubing	2-7/8"	5350'	Name - Type - Depth of Tubing Packer, + 5½" x 2½" Baker Model A-1 set @ 5350'		

Total Depth	Geologic Name - Inj. Zone	Depth - Top of Inj. Interval	Depth - Base of Inj. Interval
	Lower Ismay & Desert Creek	Desert Creek 5522' KB Lower Ismay 5375' KB	Desert Creek 5562' KB Lower Ismay 5380' KB


SITY
14,752
LI-955 (55/0)
DC-1054
DCP-1116 (17/8) oil
DCP-1107
WHITLEY
LI-935 (63/0)
DC-1039
DCP-1095 (17/4) T: W
Li-923
DC-1027
DCP-1083
PET. INC.
12-70
LI-930 (63/16) O&W
DC-1037
DCP-1099 (4/0)
24
19
WHITLEY
2-Kirkwood-Fed.
LI-922 (47/17) O&W
DC-1002
DCP-1077 (21/13) W
WHITLEY
2-24 Fed.
5-80
LI-876 (73/0)
DC-984
DCP-1060 (18/2)
DAVIS OIL
1
4-80
LI-908 (69/32) O&W
DC-1018
DCP-1078 (24/10) O&W
Corr. tops based on re-surveyed elev.
-880
-890
-900
-910
-920
-930
-940
-950
30'
20'
10'
0'
WHITLEY
1-24 Fed.
10-79
97,000
LI-899 (46/2)
DC-991
DCP-1045 (22/10)
DAVIS OIL
2
5-80
LI-950 (58/12)
DC-1058
DCP-1120 (20/0)
WHITLEY
1-25 Kirkwood-
2-80
Fed.
LI-885 (58/29)
DC-987
DCP-1043 (18/16)
WHITLEY
1-25-3E
6-80
2907
LI-905 (68/12)
DC-1012
DCP-1066 (24/12)
O/W
4358' GL.
KGS
LI-879
WHITLEY
2-25-3E
3-82
21,636
LI-899 (42/10) O.S.
DC-983
DCP-1042 (12/8)
69.91 Ac.
25
30
Corr. tops based on re-surveyed elev.
MSR
TIGER OIL
1-30
LI-917 (56/17) O.S.
DC-1017
DCP-1071 (19/3) N.S.
LI-903
DC-1003
DCP-1057
BEARD OIL CO.
NAVAJO NATION
Home Petroleum Corp.
MORRIS OIL
1-31
11-31
LI-870 (63/12) T: O&W)
DC-972
DCP-1038 (8/2)

1-25 3-E Federal
1000' FNL, 670' FEL
Sec. 25, T40S-R22E
San Juan County, Utah

Subsurface Well Facility



Chemical Consultants

All Types Oil Field Chemicals and Services

P.O. Box 421
Farmington, New Mexico 87401

WATER ANALYSIS TEST REPORT

SHEET NUMBER

COMPANY: P&M PETROLEUM MANAGEMENT

DATE: 3-9-83

FIELD

COUNTY OR PARISH

STATE

LEASE OR UNIT: W.W. WHITLEY

WELL(S) NAME OR NO.: FED. 1-25-3E

WATER SOURCE (FORMATION)

DEPTH, FT.	BHT, F	SAMPLE SOURCE	TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY

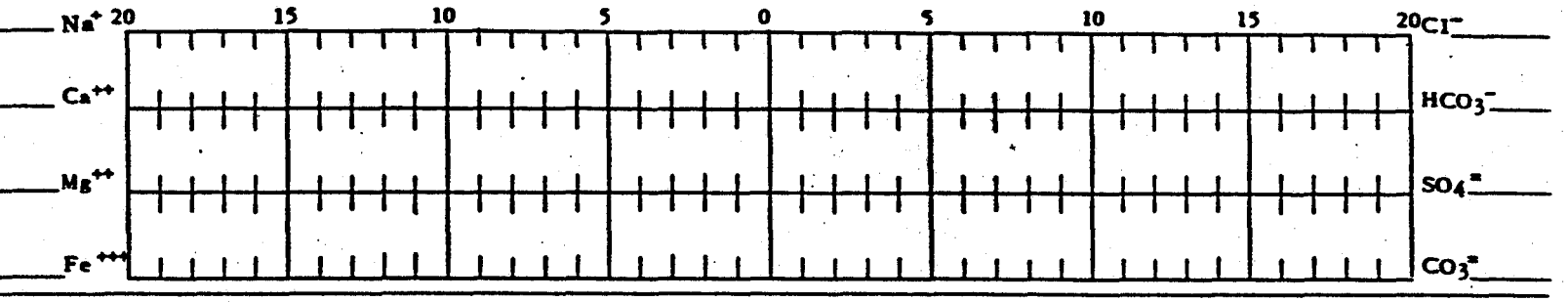
TYPE OF OIL

API GRAVITY: °

TYPE OF WATER: ☐ PRODUCED WATER ☐ INJECTION WATER OTHER

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l*	mg/l*
Total Hardness	86.4	4320.0
Sodium, Na^{+} (calc.)	3088.0	71024.0
Calcium, Ca^{++}	65.6	1312.0
Magnesium, Mg^{++}	20.8	253.0
Iron (Total), Fe^{+++}	.08	1.5
ANIONS		
Chloride, Cl^{-}	3159.0	112000.0
Sulfate, $SO_4^{=}$	14.9	715.0
Carbonate, $CO_3^{=}$	0	0
Bicarbonate, HCO_3^{-}	.5	30.5
Hydroxyl, OH^{-}	0	0
Sulfide, $S^{=}$		
Phosphate-Meta, PO_3^{-}		
Phosphate-Ortho, $PO_4^{\equiv}$		

DISSOLVED GASES

Hydrogen Sulfide, H_2S		mg/l*
Carbon Dioxide, CO_2		mg/l*
Oxygen, O_2		mg/l*

PHYSICAL PROPERTIES

pH	6.6	
Eh (Redox Potential)		MV
Specific Gravity		
Turbidity, JTU Units		
Total Dissolved Solids (Calc.)	188091.	mg/l*
Stability Index @ F		
@ F		
$CaSO_4$ Solubility @ F		mg/l*
@ F		mg/l*
Max. $CaSO_4$ Possible (Calc.)		mg/l*
Max. $BaSO_4$ Possible (Calc.)		mg/l*
Residual Hydrocarbons		ppm(Vol/Vo

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
MIKE JONES		Box 421 Farmington, N.M.	327-7775	

Chemical Consultants

All Types Oilfield Chemicals and Services

P.O. Box 421
Farmington, New Mexico 87401

WATER ANALYSIS TEST REPORT

SHEET NUMBER

COMPANY: P&M PETROLEUM MANAGEMENT

DATE: 3-9-83

FIELD

COUNTY OR PARISH

STATE

LEASE OR UNIT: W.W. WHITLEY

WELL(S) NAME OR NO.: 23-32

WATER SOURCE (FORMATION)

DEPTH, FT.	BHT, F	SAMPLE SOURCE	TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY

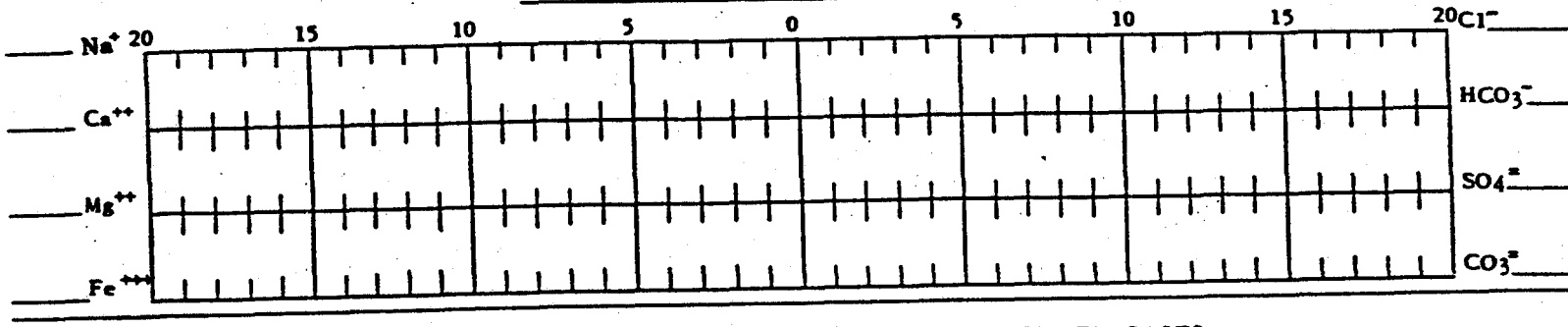
TYPE OF OIL

API GRAVITY: °

TYPE OF WATER: ☐ PRODUCED WATER ☐ INJECTION WATER OTHER

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)



DISSOLVED SOLIDS

	me/l*	mg/l*
CATIONS		
Total Hardness	88.0	4400.0
Sodium, Na^+ (calc.)	3196.0	73508.0
Calcium, Ca^{++}	80.0	1600.0
Magnesium, Mg^{++}	8.0	97.2
Iron (Total), Fe^{+++}	2.2	40.0
ANIONS		
Chloride, Cl^-	3272.0	116000.0
Sulfate, $SO_4^=$	13.0	625.0
Carbonate, $CO_3^=$	0	0
Bicarbonate, HCO_3^-	.8	49.0
Hydroxyl, OH^-	0	0
Sulfide, $S^=$		
Phosphate-Meta, PO_3^-		
Phosphate-Ortho, $PO_4^{\equiv}$		

DISSOLVED GASES

Hydrogen Sulfide, H_2S _____ mg/l*

Carbon Dioxide, CO_2 _____ mg/l*

Oxygen, O_2 _____ mg/l*

PHYSICAL PROPERTIES

pH 6.57

Eh (Redox Potential) _____ MV

Specific Gravity _____

Turbidity, JTU Units _____

Total Dissolved Solids (Calc.) 194622.0 mg/l*

Stability Index @ ____ F _____

@ ____ F _____

$CaSO_4$ Solubility @ ____ F _____ mg/l*

@ ____ F _____ mg/l*

Max. $CaSO_4$ Possible (Calc.) _____ mg/l*

Max. $BaSO_4$ Possible (Calc.) _____ mg/l*

Residual Hydrocarbons _____ ppm(Vol/

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
MIKE JONES		BOX 421 FARMINGTON, N.M.	327-7775	

Chemical Consultants

All Types Oil Field Chemicals and Services

P.O. Box 421
Farmington, New Mexico 87401

WATER ANALYSIS TEST REPORT

SHEET NUMBER

COMPANY: P&M PETROLEUM MANAGEMENT

DATE: 3-9-83

FIELD

COUNTY OR PARISH

STATE

LEASE OR UNIT: W.W. WHITLEY

WELL(S) NAME OR NO.: FED. 1-24

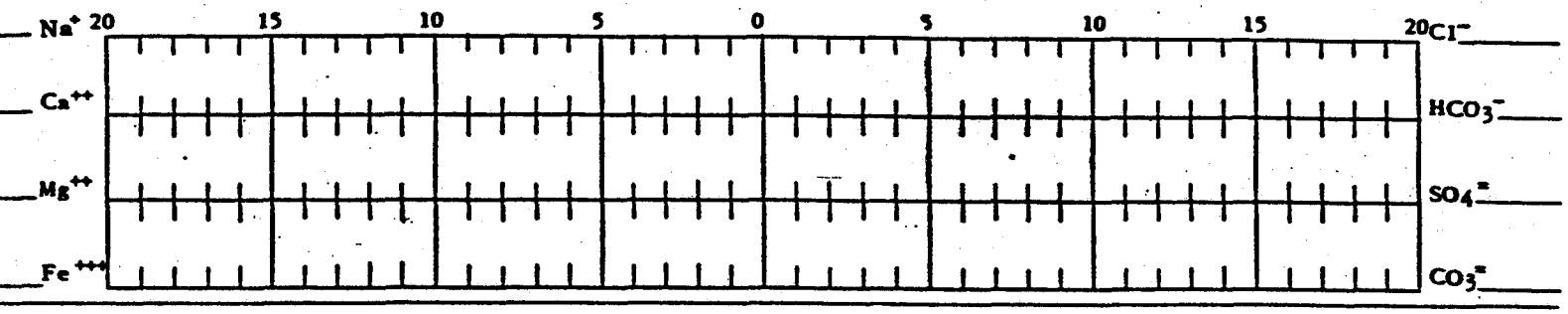
WATER SOURCE (FORMATION)

DEPTH, FT.	BHT, F	SAMPLE SOURCE	TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY

TYPE OF OIL	API GRAVITY	TYPE OF WATER
	°	☐ PRODUCED WATER ☐ INJECTION WATER OTHER _____

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l *	mg/l *
Total Hardness	144.0	7200.0
Sodium, Na^+ (calc.)	3951.	90865.0
Calcium, Ca^{++}	104.0	2080.
Magnesium, Mg^{++}	40.0	486.0
Iron (Total), Fe^{+++}	.07	1.4
ANIONS		
Chloride, Cl^-	4089.5	145000.0
Sulfate, $SO_4^=$	4.6	220
Carbonate, $CO_3^=$	0	0
Bicarbonate, HCO_3^-	.6	36.6
Hydroxyl, OH^-	0	0
Sulfide, $S^=$		
Phosphate-Meta, PO_3^-		
Phosphate-Ortho, $PO_4^{\equiv}$		

DISSOLVED GASES

Hydrogen Sulfide, H_2S	_____	mg/l *
Carbon Dioxide, CO_2	_____	mg/l *
Oxygen, O_2	_____	mg/l *

PHYSICAL PROPERTIES

pH	6.34	
Eh (Redox Potential)	_____	MV
Specific Gravity	_____	
Turbidity, JTU Units	_____	
Total Dissolved Solids (Calc.)	243323.0	mg/l *
Stability Index @ ____ F	_____	
@ ____ F	_____	
$CaSO_4$ Solubility @ ____ F	_____	mg/l *
@ ____ F	_____	mg/l *
Max. $CaSO_4$ Possible (Calc.)	_____	mg/l *
Max. $BaSO_4$ Possible (Calc.)	_____	mg/l *
Residual Hydrocarbons	_____	ppm(Vol/Vol

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
MIKE JONES		BOX 421 Farmington, N.M.	327-7775	

Chemical Consultants

All Types Oil Field Chemicals and Services

P.O. Box 421
Farmington, New Mexico 87401

WATER ANALYSIS TEST REPORT

SHEET NUMBER

COMPANY: P&M PETROLEUM MANAGEMENT

DATE: 3-9-83

FIELD | COUNTY OR PARISH | STATE

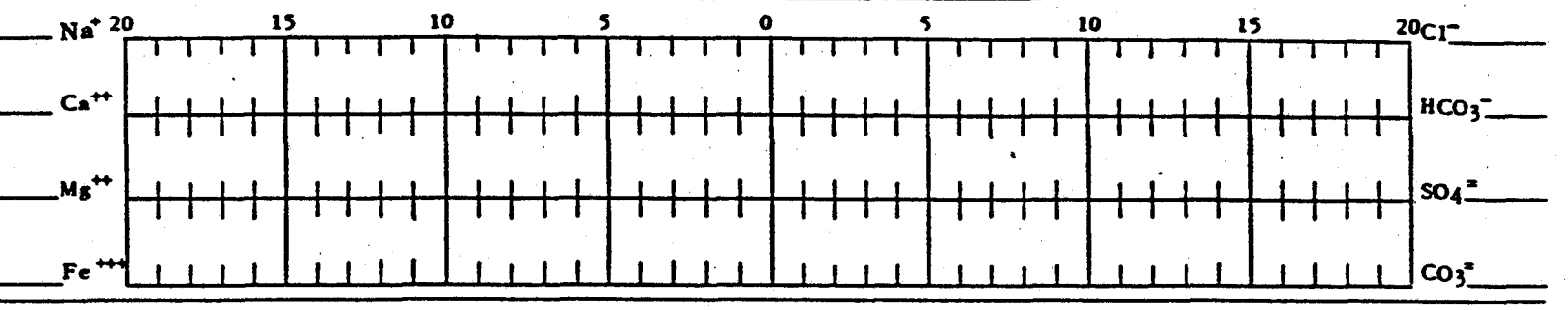
LEASE OR UNIT: W.W. WHITLEY | WELL(S) NAME OR NO.: Kirkwood FED. 1-25 | WATER SOURCE (FORMATION)

DEPTH, FT. | BHT, F | SAMPLE SOURCE | TEMP, F | WATER, BBL/DAY | OIL, BBL/DAY | GAS, MMCF/DAY

TYPE OF OIL | API GRAVITY: ° | TYPE OF WATER: ☐ PRODUCED WATER ☐ INJECTION WATER OTHER

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l *	mg/l *
Total Hardness	108.0	5400.0
Sodium, Na^+ (calc.)	3118.0	71714.0
Calcium, Ca^{++}	90.4	1808.0
Magnesium, Mg^{++}	17.6	214.0
Iron (Total), Fe^{+++}	.15	2.75
ANIONS		
Chloride, Cl^-	3215.2	114000.0
Sulfate, $SO_4^=$	10.5	505
Carbonate, $CO_3^=$	0	0
Bicarbonate, HCO_3^-	.6	36.6
Hydroxyl, OH^-	0	0
Sulfide, $S^=$		
Phosphate-Meta, PO_3^-		
Phosphate-Ortho, $PO_4^=$		

DISSOLVED GASES

Hydrogen Sulfide, H_2S _____ mg/l *

Carbon Dioxide, CO_2 _____ mg/l *

Oxygen, O_2 _____ mg/l *

PHYSICAL PROPERTIES

pH 6.58

Eh (Redox Potential) _____ MV

Specific Gravity _____

Turbidity, JTU Units _____

Total Dissolved Solids (Calc.) 191658.0 mg/l *

Stability Index @ ____ F _____

@ ____ F _____

$CaSO_4$ Solubility @ ____ F _____ mg/l *

@ ____ F _____ mg/l *

Max. $CaSO_4$ Possible (Calc.) _____ mg/l *

Max. $BaSO_4$ Possible (Calc.) _____ mg/l *

Residual Hydrocarbons _____ ppm(Vol/Vol

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
MIKE JONES		BOX 421 Farmington, N.M.	327-7775	

FORM DOGM-UIC-2
(Rule I-5 (b) 2
(Revised 1982)

PLEASE TYPE OR USE BLACK INK ONLY

(To be filed within 30 days after drilling is completed)

San Juan
COUNTY

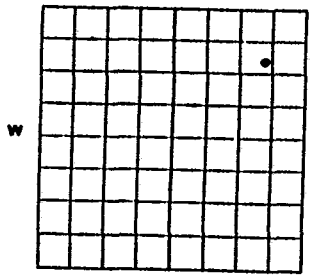
DEPARTMENT OF NATURAL RESOURCES AND ENERGY

LEASE NO. U-18433

API NO. 43-037-30540

DIVISION OF OIL, GAS, AND MINING
Room 4241 State Office Building
Salt Lake City, Utah 84114

640 Acres
N



Locate Well Correctly and Outline Lease

COUNTY San Juan SEC. 25 TWP. 40S RGE. 22E

COMPANY OPERATING William W. Whitley

OFFICE ADDRESS 1600 Broadway, Suite 1705

TOWN Denver, CO STATE ZIP 80202

FARM NAME Federal WELL NO. 1-25 3-E

DRILLING STARTED 4/12 19 80 DRILLING FINISHED 5/2 19 80

DATE OF FIRST PRODUCTION 6/7/80 COMPLETED 6/7/80

WELL LOCATED SW ¼ NE ¼ NE ¼

1640 FT. FROM SL OF ¼ SEC. & 1970 FT. FROM WL OF ¼ SEC.

ELEVATION DERRICK FLOOR 4456' GROUND 4444'

TYPE COMPLETION

Single Zone x

Multiple Zone

Comingled

LOCATION EXCEPTION

OIL OR GAS ZONES

Name	From	To	Name	From	To
Lower Ismay	5375'	5380'			

CASING & CEMENT

Casing Set				Csg. Test	Cement		
Size	Wgt.	Grade	Feet	Psi	Sax	Fillup	Top
13-3/8"	45	K-55	109'				
8-5/8"	24	K-55	1323'				
5½"	14	K-55	5603'				

TOTAL DEPTH 5564 PBTD

PACKERS SET DEPTH 5398'

NOTE: THIS FORM MUST ALSO BE ATTACHED WHEN FILING PLUGGING FORM DOGM-UIC-6

COMPLETION & TEST DATA BY PRODUCING FORMATION

	1	2	3
FORMATION	Lower Ismay		
SPACING & SPACING ORDER NO.	80 Acres #185-2		
CLASSIFICATION (DISPOSAL WELL, ENHANCED RECOVERY, LP GAS STORAGE)	Disposal		
PERFORATED	Lower Ismay		
INTERVALS	5375'-5380'		
ACIDIZED?	5375'-5380'		
FRACTURE TREATED?	No		

RECEIVED
NOV 10 1983
DIVISION OF OIL, GAS & MINING

INITIAL TEST DATA

Date	6-7-80		
Oil, bbl./day	6		
Oil Gravity	42.6		
Gas, Cu. Ft./day	TSTM CF	CF	CF
Gas-Oil Ratio Cu. Ft./Bbl.	- -		
Water-Bbl./day	17		
Pumping or Flowing	Pumping		
CHOKE SIZE			
FLOW TUBING PRESSURE			

A record of the formations drilled through, and pertinent remarks are presented on the reverse. (use reverse side)

I, the undersigned, being first duly sworn upon oath, state that this well record is true, correct and complet according to the records of this office and to the best of my knowledge and belief.

Telephone 303-861-2470 Robert W. Peterson
Name and title of representative of company

Subscribed and sworn before me this 7th day of November 19 83

My commission expires 3-29-84

Sara Ann Scheinost
Notary Public
1600 Broadway, Suite 1705
Denver, CO 80202

SUMMARY

WELL NAME:	William W. Whitley #1-25 3-E Federal
WELL LOCATION:	NE NE¼ Section 25, T40S - R22E (1000' F.N.L. & 670' F.E.L.) San Juan County, Utah
TYPE:	Field Extension
ELEVATION:	4444 feet - Ground 4456 feet - Kelly Bushing
TOTAL DEPTH:	5620 feet - Driller 5621 feet - Schlumberger
GEOLOGIST:	Achille Vitali, Jr. 6670 West 28th Avenue Denver, Colorado 80214
CONTRACTOR:	Mesa Drillers Dolores, Colorado Rig #1 - National 50-A Pump #1 - Wilson 600 Pump #2 - Oil Well 214-P Pusher - Elvin Vavra
DRILLING FOREMAN:	John Steele
COMMENCED:	Spudded 5:00 PM; April 12, 1980
COMPLETED:	Finished Drilling - May 1, 1980 Logged with Schlumberger - May 1, 1980 Ran and Cemented Production Casing - May 2, 1980

CASING RECORD:

Surface Casing

Landed 3 joints of 13 3/8 inch casing at 109 feet kb. Cemented with 140 sacks type 'B' cement containing 3% calcium chloride.

Intermediate Casing

Landed 29 joints 24#, K-55, 8 5/8 inch casing at 1325 feet kb. Cemented casing with the following: 50 sacks Thickset containing 3% calcium chloride; 500 sacks Howcalite cement containing 10# gilsonite and 3/4# flocele per sack plus 3% calcium chloride; and 150 sacks Thicksotropic cement containing 3% calcium chloride. Squeezed 235 sacks of cement down backside to stop water flow.

Production Casing

Landed 145 joints of 14# and 15.5, K-55, 5 1/2 inch casing at 5603 feet kb. Cemented casing with 125 sacks of 50/50 Pozmix cement containing 10% salt and 2% gel.

LOGGING RECORD:

Samples

Caught	4000' - 5620'
Described	4000' - 5620'

Drilling Time

Geolograph	100' - 5620'

Mechanical Log

Schlumberger

Dual Induction - S.F.L. Log	1326' - 5618'
Compensated Neutron Formation Density Log	3580' - 5619'

FORMATION TOPS

FORMATION AND AGE	SAMPLE TOPS	LOG TOPS	DATUM
Jurassic			
Morrison Formation	Surface	Surface	+4444'
Entrada Formation	- - -	- - -	- - -
Carmel Formation	- - -	- - -	- - -
Triassic			
Navajo Formation	358'	- - -	- - -
Keyenta Formation	840'	- - -	- - -
Wingate Formation	- - -	- - -	- - -
Chinle Formation	1313'	1312'	+3144'
Shinarump Member	- - -	2075'	+2381'
Moenkopi Formation	- - -	2175'	+2281'
Permian			
Cutler Formation	- - -	2465'	+1991'
Pennsylvanian			
Hermosa Formation	4340'	4338'	+ 118'
Paradox Formation	5085'	5080'	- 624'
Ismay Member	- - -	5242'	- 786'
Desert Creek Member	5464'	5468'	-1012'

+4456
-5968

DRILL STEM TESTS

Drill Stem Test #1 5350' to 5440' (90') Lower Ismay

Halliburton Tester. Bottom Anchor. Tool opened with very weak blow that increased to strong in 4 minutes, built to 18 pounds on 1/8 inch choke in 30 minutes. Had gas up in 5 minutes of I.S.I.P. Reopened tool with fair blow that increased to strong in 1 minute. Placed flow on 1/4 inch choke with flow remaining at 1 pound for last 75 minutes = to 23 MCFG/D.

Recovered: 1116 feet fluid consisting of: 93 feet oil and gas cut mud, 279 feet oil and mud cut oil, 93 feet oil cut mud, 93 feet oil and gas cut mud (slightly watery), 93 feet fluffy oil and water cut mud, 279 feet gas and slight oil cut very muddy salt water (.03 ohms at 86°F.), 186 feet gas and very slight oil cut salt water (.011 ohms at 85°F. = 121,212 ppm).

Pressures		Time
IHP	2755#	
IFP	107/242#	30 minutes
ISIP	1860#	60 minutes
2nd FP	188/404#	120 minutes
ISIP	1860#	180 minutes
FHP	2755#	
Temperature	130°F.	

Sample Chamber Recovery: Pressures 1200 P.S.I.

2.5 cubic feet gas

1350 cc oil

100 cc water

Drill Stem Test #2 5510' to 5540' (30') Desert Creek

Halliburton Testers. Bottom Anchor. Tool opened with a faint blow that increased to strong in 2 minutes, increased to 5 pounds on 1/8 inch choke in 30 minutes. Reopened tool with fair blow that increased to strong in 1 minute, built to a maximum of 2 pounds on 1/8 inch choke in 9 minutes, remained steady to end.

Recovered: 3154 feet of fluid consisting of: 93 feet oil and oil cut mud, 93 feet oil and gas cut muddy water, 186 feet slight oil and gas cut water, 2782 feet gas cut muddy water.

Pressures		Time
IHP	2848#	
IFP	352/947#	30 minutes
ISIP	1678#	40 minutes
2nd FP	947/1570#	120 minutes
±FSIP	1678#	180 minutes
FHP	2821#	
Temperature	130°F.	

Sample Chamber Recovery: Pressures 200#

2200 cc
slight gas cut salt water

Rw .12 ohms at 72°F. = 39,000 ppm

BIT RECORD

NO	SIZE	MAKE	TYPE	DEPTH OUT	FEET	HOURS	PUMP PRESS.
1	12 1/4	HTC	OSC	109'	109'	4 1/2	1200#
2	12 1/4	Smith	SDGH	841'	732'	16 1/2	1000#
3	12 1/4	HTC	OSC	1325'	484'	13 3/4	1000#
4	7 7/8	Smith	SDS	2202'	877'	21	11-1200#
5	7 7/8	Smith	F2-J	3928'	1726'	110 3/4	1200#
6	7 7/8	Smith	F2-J	5440'	1512'	152 3/4	1100#
7	7 7/8	Smith	F3-J	5620'	180'	19 3/4	1100#

DEVIATION RECORD

DEPTH	DEVIATION
109'	1/4°
410'	1/2°
746'	3/4°
1123'	1°
1610'	1/2°
1901'	3/4°
2202'	3/4°
2526'	1 1/4°
3124'	3/4°
3691'	1°
4509'	3/4°
5120'	1/2°

CHRONOLOGICAL SUMMARY

April 11	Moved in and rigged up.
April 12	Finished rigging up. Drilled rat and mouse hole. Spudded at 5:00 PM.
April 13	Finished drilling surface hole. Ran and cemented 13 3/8 inch surface casing. Waiting on cement. Nippled up. Drilled out at 7:00 PM.
April 14	Drilling ahead on 12 1/4 inch hole.
April 15	Finished drilling 12 1/4 inch hole. Ran and cemented 8 5/8 inch casing - water shut off string. Waiting on cement. Nippled up. Drilled out at 10:00 AM.
April 16	Drilling 7 7/8 inch hole - 1724 feet.
April 17	2434 feet - Drilling.
April 18	2820 feet - Drilling.
April 19	3227 feet - Drilling.
April 20	3468 feet - Drilling.
April 21	3775 feet - Drilling.
April 22	3998 feet - Drilling.
April 23	4346 feet - Drilling.
April 24	4579 feet - Drilling.
April 25	4801 feet - Drilling.
April 26	4998 feet - Drilling.
April 27	5174 feet - Drilling.
April 28	5365 feet - Ran Drill Stem Test #1. T.D. 5440'.
April 29	Finished Drill Stem Test #1. Drilling ahead.
April 30	Ran Drill Stem Test #2. T.D. 5540'.
May 1	Drilling ahead. Reached T.D. 5620' at 2:00 PM. Logged with Schlumberger.
May 2	Ran 5 1/2 inch Production Casing.

REMARKS

HYDROCARBON EVALUATION

Lower Ismay Zone

A gross porosity zone (4 to 8% porosity) was encountered from 5374 to 5414 feet. The porosity was interrupted by a tight (0% porosity) streak from 5394 to 5402 feet. A Drill Stem Test (5350 to 5440 feet) of the porosity recovered 1116 feet of fluid approximately half (558 feet) of which was oil.

Production casing has been run and it is hoped that by restricting perforation to the uppermost 6 feet of porosity (5374-80 feet - also coincides to best porosity - 7½ to 8%), a relatively water free commercial completion can be effected.

Desert Creek Zone

A porosity zone with 6 to 12% porosity was encountered in the interval 5522-40 feet. A Drill Stem Test of this zone (5510-40 feet) recovered 3154 feet of fluid consisting of approximately 3% oil and 97% water. It is believed that this zone is too wet to plough.

All other sands and carbonates penetrated are believed to be tight and/or water bearing.

OPERATIONS

Daily operations were conducted efficiently and in good spirits.

Achille Vitali, Jr.
Geologist

WILLIAM W. WHITLEY

#1-25 3-E Federal
(670' F.E.L. & 1000' F.N.L.)
NE NE¼ Section 25, T40S - R22E
San Juan County, Utah

SAMPLE DESCRIPTION

(Note: Samples not lagged unless otherwise noted.)

FROM	TO	IN CUTLER FORMATION
4000'	4020'	90% Shale, medium gray green, sub-waxy, bentonitic, soft, lumpy plus 10% Shale, brick red, soft clay type grading to Siltstone, orange red, brown red, very finely sandy, calcareous, slightly firm.
4020'	4040'	50% Shale, medium gray green as above, plus 50% Shale, brick red, flaky clay type, calcareous in part, plus some brown red, silty, firm and calcareous.
4040'	4060'	70% Shale, medium gray green, as above, plus 10% Shale, reds as above, plus 20% Siltstone, salmon to light brown, very calcareous to limy, shaly, firm, occasionally micaceous.
4060'	4080'	70% Shale, medium gray green, as above, plus 20% Shale, red, etc., and Siltstone, as above, plus 10% Limestone, off-white, faint gray, pinkish and red stain, dense, soft and chalky to firm.
4080'	4100'	60% Shale, medium gray green plus 30% Shale and Limestone as above, plus 10% Limestone, orange tan to light brown, slightly silty and shaly, soft to slightly firm.
4100'	4140'	Sample as above.
4140'	4160'	Sandstone, white, very fine grain to silt size, firm to slightly hard, angular, very calcareous to limy grading to Limestone, white to very light gray, in part very finely sandy, plus Shales as above.
4160'	4180'	Sandstone, white to light gray, very fine grain with some to silt size, angular, firm to hard, very finely micaceous in part, very calcareous to limy, very tight, plus Shales as above.
4180'	4200'	Shales as above, plus heavy trace Limestone, off-white to light brown, dense, chalky, plus trace Sandstone, as above.

Sample Description
#1-25 3-E

FROM	TO	
4200'	4280'	Shale, brown, silty and in part very finely sandy, firm calcareous to very calcareous, grading to Siltstone, brown, very finely sandy, shaly to very shaly, very calcareous, firm to slightly hard, blocky in part, plus heavy fraction of Shales gray green and reds as above, plus traces to heavy traces Sandstone, white to light gray, very fine grain as above, and occasional trace Limestone, as above.
4280'	4300'	Shale, brown with bronze sheen, largely silty, occasionally very finely sandy, firm, very calcareous in part, very finely micaceous, plus trace Shales as above.
4300'	4320'	Shale, brown and brown red, occasionally mottled light gray plus brick red, predominately clay type, occasionally slightly silty, calcareous, plus trace Limestone, white to pinkish, dense, soft to firm.
4320'	4340'	70% Siltstone, off-white to light gray, light brown gray mottled and gray brown, very finely sandy, firm to slightly hard, very calcareous, plus Shale, gray brown, brown and red, clay type, plus trace Limestone, off-white, faint gray.
		Extra Sample at 4336'
		Shale, brown with some faint to light gray mottling, slightly silty in part, calcareous to very calcareous, firm, very finely micaceous in part, trace Gypsum white, fiberous.
		HERMOSA FORMATION
4340'	4360'	20% Limestone, faint buff, off-white to light gray, compact, tabular to thinly blocky, plus 60% Siltstone, green and gray green, firm to hard, blocky, slightly calcareous, some with faint brown mottling plus Shale, green to gray green, as above, plus Shale, red and brown, as above.
4360'	4380'	Limestone, off-white to buff to tan, compact, tabular, brittle, plus 80% Limestone, silty and finely sandy grading to limy Sandstone, light to medium gray buff and tan, very fine grain to silt size, all very finely micaceous (bronze), for most part firm to hard, tabular to blocky to chunky.
4380'	4400'	Limestone, white, compact, very finely sandy in part grading light to dark gray, dolomitic, slightly shaly, compact, all tabular to chunky.

Sample Description
#1-25 3-E Federal

FROM	TO	
4400'	4420'	Limestone, off-white to light to dark gray, some with tan cast, slightly dolomitic in part, partly grainy calcarenite and some finely sandy (Quartz grains), very fossiliferous, crinoid, sponge spicules, algal, pelecypods, slightly shaly in part, looks tight.
4420'	4440'	70% Sandstone, white, very fine grain, very limy, tight grading to small fraction Limestone, medium gray, shaly and finely sandy plus 10% Limestone, as above, plus Shale and Siltstone, light to dark brown, very calcareous, very finely micaceous (bronze).
4440'	4460'	Sandstone, white, very fine to fine grain, angular, firm, very calcareous to limy, tight grading to small fraction Limestone, white, sandy in part, some soft, chalky.
4460'	4480'	Limestone, predominately medium gray, some to dark gray, in part grainy slightly shaly, some gray brown to brown, fossiliferous, crinoid and pelecypod, trace of styolitic seams.
4480'	4500'	Limy Sandstone, to sandy Limestone, off-white grading to light gray, grading to/and mottled in part faint reddish medium brown, very fine grain, all dense and tight, tabular to blocky.
4500'	4520'	10% Limestone, white to faint gray, compact to chalky, 90% Siltstone, medium to dark gray, shaly, limy, firm, blocky to chunky grading to Limestone, medium to dark gray, shaly, silty and to Shale, dark gray, silty in part, sub-waxy in part, very calcareous to limy.
4520'	4540'	Siltstone, medium bronze brown, very calcareous, firm, shaly grading to Shale, medium bronze brown to dark brown, silty in part to clay type, firm, calcareous to very calcareous.
4540'	4560'	Siltstone, light bronze tan, very finely sandy in part, friable to firm, very calcareous, limy, very finely micaceous, bronze.
4560'	4580'	Shale, brown, predominately clay type, very finely micaceous in part, slightly silty in part, grading to/and interlaminated with Siltstone, as above, plus heavy trace to 5% Limestone, light gray, compact, blocky.
4580'	4600'	80% Siltstone, as above, plus 20% Limestone, white to very light gray, flaky and chalky to tabular and brittle, slightly and very finely sandy in part.

Sample Description
#1-25 3-E Federal

FROM	TO	
4600'	4620'	70% Limestone, light to dark gray, compact, thickly tabular to blocky, slightly shaly in part, plus 30% Siltstone, salmon brown to light bronze brown, shaly in part, very finely micaceous in part, firm to hard, calcareous, grading to traces Limestone, light reddish brown, silty, blocky.
4620'	4640'	Sandstone, white to very light gray, very fine grain, angular, friable to slightly hard, calcareous to very calcareous to limy, irregularly tabular to chunky, tight with 5% grading to Limestone, white to light gray, in part finely sandy, some chalky, rest compact and hard.
4640'	4660'	Sandstone, white, very fine to fine grain, angular, friable to hard, very calcareous to limy, tight, grading to traces sandy white Limestone, plus heavy trace Chert, clear to slightly milky.
4660'	4680'	Limestone, white to very light gray, in part slightly and finely dense, chalky, compact, occasionally slightly fossiliferous, plus small fraction Sandstone, as above, plus heavy trace Chert, as above, some light amber.
4680'	4700'	Limestone, off-white to light gray and light gray buff to buff mottled, some chalky, compact, fossil hashy looking, flaky, thinly tabular, tight, No Show, plus trace Chert, light amber to slightly milky, translucent.
4700'	4720'	Shale, brown to bronze brown, very heavily micaceous in part, clay type, slightly calcareous with some slightly to heavily silty and very calcareous, soft to firm, flaky to tabular.
4720'	4740'	Limestone, off-white to buff to dark buff tan, mottled, very slightly and finely scattering of sand grains, compact to grainy calcarenite, in part very finely veined with clear calcite, tight, irregularly tabular to thinly blocky.
4740'	4780'	Limestone, off-white to buff to light to medium gray and gray buff, some occasional tan, mottled in part, non-sandy, compact, slightly chalky, rest firm, slightly fossiliferous, tight plus very heavy traces Chert, slightly milky, orange, amber, light smoky gray.
4780'	4800'	Limestone, white, very finely sandy in large part, firm to hard, grading to 50% Sandstone, white, very fine grain, angular, limy, firm to hard, tabular to blocky, plus 5% Cherty, clear to lightly milky.
4800'	4820'	Limestone, buff gray and light to dark gray, compact, tabular, dark gray type, slightly shaly.

Sample Description
#1-25 3-E Federal

FROM	TO	
4820'	4860'	Limestone, very light to medium gray, in part very finely calcarenite, rest compact, small fraction grading to dark gray and becoming lightly shaly.
4860'	4880'	Limestone, off-white with slight buff to buff to light gray buff, compact in part lithographic, small fraction grading to medium and dark gray, becoming lightly shaly, plus traces Chert, faintly amber to faintly milky, occasional orange.
4880'	4900'	50% Shale, black, slightly calcareous to calcareous, flaky to slightly blocky grading to 30% Limestone, very dark gray to black, shaly in large part, firm, all fossiliferous with crinoid stems, plus 20% Limestone, white and buff, compact, tabular, plus very heavy trace Chert, slightly milky to faint smoky gray.
4900'	4920'	Limestone, very light gray with some to medium gray, predominately calcarenite, friable to firm, in part very finely sandy with Quartz, occasionally slightly and finely micaceous, plus heavy trace Limestone, dark gray types as above.
4920'	4940'	Limestone, off-white to light tattletale gray, predominately lithographic, hard, brittle and tabular, occasionally some slightly chalky, plus 5% Chert, light amber to light milky.
4940'	4960'	Limestone, predominately medium to dark gray, in part lightly shaly, compact, plus some light to medium gray with buff cast, fossiliferous, crinoid and other species (?).
4960'	4980'	60% Limestone, dark gray type as above, plus 40% Limestone, off-white, light to medium gray with buff cast, in part chalky, rest in part hashy looking with fossil species(?), plus heavy trace Shale, black, sooty, very calcareous, firm.
4980'	5000'	Limestone, very light to medium gray, grainy, calcarenite, friable to hard, slightly micaceous, slightly and very finely sandy (Quartz), plus heavy trace Chert, light amber, slightly milky, faint gray.
5000'	5030'	Limestone, very light to medium gray to dark gray, compact to cryptocrystalline, tabular to chunky, slightly shaly in part, trace Fossil debris, pelecypod and crinoid plus other species(?).
5030'	5040'	Limestone, white to light gray, very finely sandy Quartz, calcarenite, friable to firm to hard, very finely micaceous in part, plus some Limestone, as above plus trace Shale, dark to very dark gray, fissile, flaky, calcareous.

Sample Description
#1-25 3-E Federal

FROM	TO	
5040'	5050'	Limestone, white to very light gray, predominately compact, lithographic, some grading to calcarenite, occasionally very finely sandy with Quartz grains, trace styolite.
5050'	5060'	80% Limestone, white, light gray to light gray buff, compact lithographic, plus 20% Shale, medium to dark gray, smooth and slick looking, sub-fissile to slightly blocky, calcareous, soft to firm, plus trace Chert.
5060'	5070'	80% Shale, dark to very dark gray, fissile to sub-fissile, flaky, soft to slightly firm, calcareous, plus Limestone, as above.
5070'	5090'	70% Shale, dark gray to black, fissile, flaky to splintery, soft to firm and brittle, calcareous, plus 30% Limestone, off-white to faint buff to lightly gray buff, compact, some chalky, slightly fossiliferous in part, species(?).
		PARADOX FORMATION
5090'	5100'	70% Limestone, off-white, some with faint green cast, buff to tan, trace light brown, compact, lithographic, tabular to chunky to blocky, plus 30% Shale, dark gray to black, as above.
5100'	5110'	Limestone, very light to medium gray, in large part very fine grain, calcarenite, friable to firm, looks tight, plus some Limestone, as above, plus heavy trace Shale, very dark gray black as above.
5110'	5120'	Limestone, off-white to light gray, lithographic, tabular, hard, brittle.
5120'	5130'	Limestone, as above, mottled occasionally with buff, trace being grainy calcarenite.
5130'	5140'	Limestone, off-white to buff, mottled, predominately compact, some trashy looking with Fossil debris, crinoid, coral, brachiopods, pelecypods and other species(?), plus 5% Chert, light orange small nodules, plus some slightly milky.
5140'	5150'	Limestone, as above, with some becoming buff to light brown, plus trace Chert, as above.
5150'	5160'	Limestone, off-white to faint gray buff to gray brown to brown, chalky to compact, tabular to slightly blocky, slightly fossiliferous, plus 5 to 10% Chert, light to dark smoky brown.
5160'	5190'	Limestone, off-white to light gray, lithographic, tabular, traces Chert, slightly milky, faint brown.

Sample Description
#1-25 3-E Federal

FROM	TO	
5190'	5200'	85% Limestone, as above, plus 10% Shale, dark to very dark gray, flaky, calcareous, brittle, fissile plus 5% Limestone, gray brown to brown, silty, gritty, friable to firm, chunky plus heavy trace Chert, smoky brown, slightly milky, faint gray.
5200'	5210'	Limestone, very light to light gray, compact to cryptocrystalline, tabular to slightly blocky, plus 5 to 10% Chert, predominately faint amber, translucent.
5210'	5220'	Limestone, light gray, compact, lithographic, tabular, slightly fossiliferous, crinoid, coral, other species, plus 5% Chert as above.
5220'	5250'	Limestone to dolomitic Limestone, medium to dark gray to gray brown, compact, tabular to chunky to blocky, some shaly, plus 5 to 10% Shale, dark gray to black, sub-fissile to fissile, calcareous to very calcareous, plus very heavy trace to 5% Chert, medium to dark brown, sub-translucent.
		ISMAY MEMBER
5250'	5260'	80% Limestone, off-white to very light gray, compact, tabular to slightly blocky, some chalky looking, plus 20% Dolomite, dark gray and gray brown, in part shaly, compact to crystalline.
5260'	5270'	Limestone, off-white to very light to with some medium gray with olive cast, 50% compact, 50% very finely calcarenite, tight.
5270'	5280'	Limestone, off-white to very light gray, compact, slightly chalky looking, slightly fossiliferous, tabular, trace Chert, brown and faint amber.
5280'	5300'	Limestone, off-white to faint gray with some buff, compact and lithographic, tabular, brittle, to in part chalky and soft, light to very heavy traces Chert, faint gray, amber and light brown, translucent.
5300'	5320'	Limestone, as above.
		LOWER ISMAY ZONE
5320'	5340'	Limestone, light to medium gray, medium gray brown to brown black, mottled and spotty, cryptocrystalline, compact, some chalky looking, tabular to blocky, fossiliferous to very fossiliferous, fusulinds, crinoid, coral, algal(?), other debris, soft to hard, tight looking, No fluorescence, brown black type has faint to light yellow crushed cut, traces Chert, brown.

Sample Description
#1-25 3-E Federal

FROM	TO	
5340'	5350'	Limestone, medium to dark gray brown and brown black, rest as above, plus 15 to 20% Chert, medium to dark brown, translucent to opaque.
5350'	5370'	Limestone, as above, some medium gray, earthy and soft, heavy trace Chert, as above.
		Drilling Break 5368' to 5374' (Drilled 5 minutes per foot)
		Better Drilling Break 5374' - (Drilled ±3 minutes per foot)
5370'	5380'	Limestone, off-white to very light gray, compact to chalky looking and chalky, non-vuggy, traces to 5% faint to light yellow fluorescence, predominately chalky material, faint yellow crushed cut.
	5385'	Extra Sample
		Limestone, white to light gray, abundant chalky type, rest compact, heavy traces of loose calcite crystals, heavy trace Fossil fusulind, spicules, other species, fluorescence as above.
5380'	5390'	Limestone, white to very light gray, predominately chalky looking, rest as above, trace Fossil, trace evidence vugs, 10 to 15% faint to bright yellow fluorescence, fair to good crushed cut in chalky pieces.
	5395'	Extra Sample
		Limestone, 60% white chalky and chalky looking, rest light gray, compact, trace evidence of vugs, heavy traces calcite crystals, 20 to 25% light to bright yellow fluorescence, bright yellow crushed cut.
5390'	5400'	Limestone, white, chalky, plus very fine vugs, drusy, occasional faint to light brown stain, considerable loose calcite crystals, 30 to 40% light to bright yellow fluorescence to streaming bright yellow cut on vugg pieces, rest crushed cut as above.
5400'	5410'	Limestone, as above, 5 to 10% very fine vugs as above, some speckled with asphaltic stain, plus calcite as above, 20 to 25% fluorescence and cut as above.
5410'	5420'	Limestone, as above, 5% plus with very fine vugs, trace fluorescence, as above.

Sample Description
#1-25 3-E Federal

FROM	TO	
5420'	5430'	Dolomite, faint yellow buff, cryptocrystalline to earthy looking, thickly tabular, some pinpoint porosity, tight looking, No fluorescence or cut.
		'C' SHALE
5430'	5440'	50% Shale, very dark to black, sooty, stains black, finely carbonaceous, grainy looking, calcareous, plus Dolomite to dolomitic Limestone, as above, grading to medium gray brown, becoming shaly in part.
	5440'	Circulation Sample
		Shale, dark brown black to black, some sub-fissile and flaky, mostly grainy, blocky and chunky, all calcareous to limy, very finely carbonaceous, stains black.
5440'	5470'	Shale, black, flaky to tabular to blocky, firm to slightly hard, calcareous, sub-fissile in part, carbonaceous, stains black.
		TOP DESERT CREEK 5464'
5470'	5480'	Limestone, light to medium gray, some white, very finely grainy calcarenite to compact, chunky, slightly shaly in part, plus 30% Shale, black, as above.
5480'	5490'	Limestone, dolomitic in part(?), medium to dark gray, shaly in large part, compact, chunky, firm, plus 15 to 20% Anhydrite, white, fiberous and chalky, light to medium gray, mottled.
5490'	5500'	Anhydrite, white (chalky to fiberous), light and medium gray, some to dark gray, shaly, soft to firm and brittle, plus heavy trace Limestone as above.
5500'	5510'	Dolomitic Limestone to Limestone, medium buff gray to dark gray to very dark gray black, some earthy looking, predominately cryptocrystalline, soft to hard, predominately tabular, some shaly, occasionally very finely micaceous, interlaminated with streaks of Shale, black, sub-fissile, very finely micaceous in part.
5510'	5540'	Limestone, off-white, faint gray buff to light gray with olive cast, predominately lithographic and compact, small fraction slightly chalky, occasional traces fossiliferous, tabular to chunky.
		Drilling Break 5521' to 5540' (19 feet drilled in 54 mintes)
		20 Minute Circulation Sample
		Predominately Limestone, as above, plus 20% Limestone, white, chalky, soft, 5% bright yellow fluorescence, light to fair yellow crushed cut from chalky material.

Sample Description
#1-25 3-E Federal

FROM	TO	
		40 Minute Circulation Sample
		Limestone, white, chalky type, plus light to medium gray compact lithographic, tabular to chunky, heavy to 5% evidence of vugs, (crystal coated vug edges), 20 to 25% bright yellow fluorescence, predominately in chalky type, fair to good delayed crushed cut.
		60 Minute Circulation Sample
		Limestone, 60% white chalky type, rest white to light gray, compact lithographic type, +5% evidence of vugginess (crystal coated vug edges) free drusy surface of vugs, 25 to 30% light bright yellow fluorescence and cut as above.
		80 Minute Circulation Sample
		Limestone, white to light gray, 20% chalky type, rest compact, 10 to 15% with vugginess, some with fair to bright yellow fluorescence and cut, 20 to 25% light to bright yellow fluorescence, predominately in chalky type, crushed cut as above, plus heavy traces Chert, light to medium smoky gray, opaque.
5540'	5550'	Limestone, white to light gray olive to buff, chalky and soft, compact and lithographic, heavy trace to 5% vugginess as above, 15% faint to bright spotty yellow white fluorescence, fair light yellow cut on best pieces.
5550'	5560'	Limestone, off-white to chalky to buff, flaky and tabular, lithographic.
5560'	5570'	Dolomite, faint yellow buff, lightly mottled with faint gray in part, cryptocrystalline to faintly microcrystalline, occasionally mottled with faint brown stain, 60% very faint to very light splochy yellow fluorescence, faint yellow delayed crushed cut.
5570'	5580'	Dolomite as above, grading to Limestone, buff to brown, some with dark brown mottling, earthy to cryptocrystalline, 10% fluorescence as above.
5580'	5590'	Limestone, buff to light to dark gray buff to gray brown to brown black, mottled in part, finely calcarenite, earthy to compact, in part shaly, plus 10% Shale, dark gray brown to black, blocky to chunky, calcareous.
5590'	5600'	Shale, black, tabular and sub-fissile to irregular fracture and chunky, firm, calcareous, carbonaceous.
5600'	5610'	25% Shale, as above, 25% limy Dolomite, brown, flaky, 50% dolomitic Limestone grading to Dolomite, medium gray olive, grainy and friable to chunky and hard.

Sample Description
#1-25 3-E Federal

FROM	TO	
5610'	5620'	20% Anhydrite, white, soft, chalky looking, 20% Limestone, brown, tabular, lithographic, 10% Shale, black, as above, 50% dolomitic Limestone grading to Limestone, medium to dark gray olive, in part greasy looking, earthy to compact, chunky.
		45 Minute Circulation Sample
		Sample as above with increase to 40% Shale, black, as above.

BEFORE THE DIVISION OF OIL, GAS AND MINING
Room 4241 State Office Building
Salt Lake City, Utah 84114

IN THE MATTER OF THE APPLICATION OF WILLIAM W. WHITLEY, FOR ADMINISTRATIVE APPROVAL TO CONVERT WELL #1-25 3-E FEDERAL TO A SALT WATER DISPOSAL WELL, LOCATED IN TOWNSHIP 40 SOUTH, RANGE 22 EAST, SAN JUAN COUNTY, UTAH.	)	CAUSE NO. UIC-030

THE STATE OF UTAH TO ALL PERSONS, OWNERS, PRODUCERS, OPERATORS, PURCHASERS AND TAKERS OF OIL AND GAS AND ALL OTHER INTERESTED PERSONS, PARTICULARLY IN SAN JUAN COUNTY, UTAH:

NOTICE IS HEREBY GIVEN that William W. Whitley, 1600 Broadway, Suite 1705, Denver, Colorado, 80202, is requesting that the Division authorize the approval to convert the well mentioned below, to a salt water disposal well as follows:

Township 40 South, Range 22 East

Sec. 25, Well #1-25 3-E Federal
NE/NE

INJECTION ZONE: 5522'-5562' and 5375'-5380' , Lower Ismay and Deseret Creek Formations.

MAXIMUM INJECTION PRESSURE: 2,000 psi.

MAXIMUM INJECTION RATE: 1,000 barrels of water per day.

This application will be granted unless objections are filed with the Division of Oil, Gas and Mining within fifteen days after publication of this Notice. Objections if any, should be mailed to: Division of Oil, Gas and Mining, Room 4241 State Office Building, Salt Lake City, Utah 84114.

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

for

MARJORIE L. LARSON
Secretary of the Board

Doc. 5th Published 13th

Whitley 1-25 3E Fed. Well

Sent application & publication notice to -

Davis Oil Co.
410 17th St., Suite 1400
Denver, Colorado 80202

Beard Oil Co.
700 Broadway, Suite 1125
Denver, Co. 80202

CAUSE NO. UIC-030

Notice of Application was sent to the following:

Newspaper Agency Corp.
San Juan Record

William Whitley
1705 Colorado State Bank Bldg.
1600 Broadway
Denver, CO 80202

Utah Dept. of Health
Water Pollution Control
Attn: Jerry Riding
150 W.N. Temple
Salt Lake City, UT

U.S. Environmental Protection Agency
1860 Lincoln Street
Denver, CO 80295

Bureau of Land Management
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, UT 84104

Davis Oil Company
410 17th St.
Suite 1400
Denver, CO 80202

Beard Oil Company
700 Broadway
Suite 1125
Denver, CO 80202

Home Petroleum Corp.
999 18th Street
Suite 601
Denver, CO 80202

MSR Exploration, Ltd.
CBM Bldg.
Box 176
Cut Bank, MT 59427

December 6, 1983

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

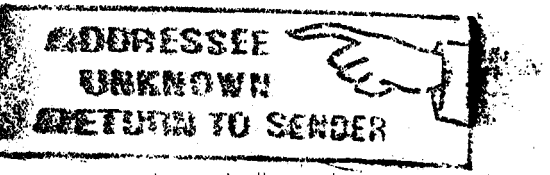
4241 State Office Building • Salt Lake City, UT 84114

THALIA

UIC-030

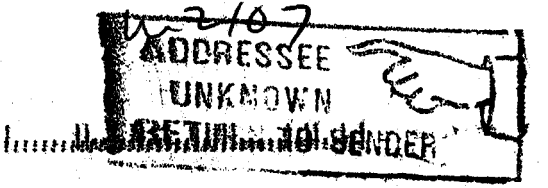
Beard Oil Company
~~7000~~ Broadway
Suite 1125
Denver, CO 80202

☐ Moved, left no address
☐ No such number
☐ Moved, not forwardable
☒ Addressee unknown



an equal opportunity employer

2407



BEFORE THE DIVISION OF OIL, GAS AND MINING
Room 4241 State Office Building
Salt Lake City, Utah 84114

IN THE MATTER OF THE APPLICATION OF WILLIAM W. WHITLEY, FOR ADMINISTRATIVE APPROVAL TO CONVERT WELL #1-25 3-E FEDERAL TO A SALT WATER DISPOSAL WELL, LOCATED IN TOWNSHIP 40 SOUTH, RANGE 22 EAST, SAN JUAN COUNTY, UTAH.	)	CAUSE NO. UIC-030

THE STATE OF UTAH TO ALL PERSONS, OWNERS, PRODUCERS, OPERATORS, PURCHASERS AND TAKERS OF OIL AND GAS AND ALL OTHER INTERESTED PERSONS, PARTICULARLY IN SAN JUAN COUNTY, UTAH:

NOTICE IS HEREBY GIVEN that William W. Whitley, 1600 Broadway, Suite 1705, Denver, Colorado, 80202, is requesting that the Division authorize the approval to convert the well mentioned below, to a salt water disposal well as follows:

Township 40 South, Range 22 East

Sec. 25, Well #1-25 3-E Federal
NE/NE

INJECTION ZONE: 5522'-5562' and 5375'-5380' , Lower Ismay and Deseret Creek Formations.

MAXIMUM INJECTION PRESSURE: 2,000 psi.

MAXIMUM INJECTION RATE: 1,000 barrels of water per day.

This application will be granted unless objections are filed with the Division of Oil, Gas and Mining within fifteen days after publication of this Notice. Objections if any, should be mailed to: Division of Oil, Gas and Mining, Room 4241 State Office Building, Salt Lake City, Utah 84114.

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

for MARJORIE L. LARSON
Secretary of the Board

Affidavit of Publication

ADM-35B

STATE OF UTAH,

ss.

County of Salt Lake

Cheryl Gierloff

Being first duly sworn, deposes and says that he/she is legal advertising clerk of THE SALT LAKE TRIBUNE, a daily newspaper printed in the English language with general circulation in Utah, and published in Salt Lake City, Salt Lake County, in the State of Utah, and of the DESERET NEWS, a daily newspaper printed in the English language with general circulation in Utah, and published in Salt Lake City, Salt Lake County, in the State of Utah.

BEFORE THE DIVISION OF OIL, GAS AND MINING
Room 4241 State Office Building
Salt Lake City, Utah 84114
CAUSE NO. UIC-030

IN THE MATTER OF THE APPLICATION OF WILLIAM W. WHITLEY, FOR ADMINISTRATIVE APPROVAL TO CONVERT WELL #1-25 3-E FEDERAL TO A SALT WATER DISPOSAL WELL, LOCATED IN TOWNSHIP 40 SOUTH, RANGE 22 EAST, SAN JUAN COUNTY, UTAH.

THE STATE OF UTAH TO ALL PERSONS, ONERS, PRODUCERS, OPERATORS, PURCHASERS AND TAKERS OF OIL AND GAS AND ALL OTHER INTERESTED PERSONS, PARTICULARLY IN SAN JUAN COUNTY, UTAH:

NOTICE IS HEREBY GIVEN that William W. Whitley, 1600 Broadway, Suite 1705, Denver, Colorado, 80202, is requesting that the Division authorize the approval to convert the well mentioned below, to a salt water disposal well as follows:

Township 40 South, Range 22 East
Sec. 25, Well #1-25 3-E Federal NE/NE

INJECTION ZONE: 5522'-5562' and 5375'-5380', Lower Ismay and Deseret Creek Formations.

MAXIMUM INJECTION RATE: 1,000 barrels of water per day.

This application will be granted unless objections are filed with the Division of Oil, Gas and Mining within fifteen days after publication of this Notice. Objections if any, should be mailed to: Division of Oil, Gas and Mining, Room 4241 State Office Building, Salt Lake City, Utah 84114.

STATE OF UTAH
DIVISIONOF OIL, GAS AND MINING
MARJORIE L. LARSON
Secretary of the Board

A-86

That the legal notice of which a copy is attached hereto

Re: Application of William W. Whitley for administrative approval to convert Well #1-25 3-E Federal to a Salt Water Disposal

was published in said newspaper on

December 13, 1983

Cheryl Gierloff
Legal Advertising Clerk

Subscribed and sworn to before me this 29th day of December A.D. 19 83

Joyce L. Marlar
Notary Public

My Commission Expires

July 23, 1986

AFFIDAVIT OF PUBLICATION

PUBLIC NOTICE

BEFORE THE DIVISION OF OIL, GAS AND MINING Room 4241 State Office Building Salt Lake City, Utah 84114

- - - - - - - - - - - - - - - -

IN THE MATTER OF THE APPLICATION OF WILLIAM W. WHITLEY, FOR ADMINISTRATIVE APPROVAL TO CONVERT WELL #1-25 3-E FEDERAL TO A SALT WATER DISPOSAL WELL, LOCATED IN TOWNSHIP 40 SOUTH, RANGE 22 EAST, SAN JUAN COUNTY, UTAH.

CAUSE NO. UIC-030

- - - - - - - - - - - - - - - -

THE STATE OF UTAH TO ALL PERSONS, OWNERS, PRODUCERS, OPERATORS, PURCHASERS AND TAKERS OF OIL AND GAS AND ALL OTHER INTERESTED PERSONS, PARTICULARLY IN SAN JUAN COUNTY, UTAH:

NOTICE IS HEREBY GIVEN that William W. Whitley, 1600 Broadway, Suite 1705, Denver, Colorado, 80202, is requesting that the Division authorize the approval to convert the well mentioned below, to a salt water disposal well as follows:

Township 40 South, Range 22 East Sec. 25, Well #1-25 3-E Federal NE/NE

INJECTION ZONE: 5522'-5562' and 5375'-5380', Lower Ismay and Deseret Creek Formations.

MAXIMUM INJECTION PRESSURE: 2,000 psi.

MAXIMUM INJECTION RATE: 1,000 barrels of water per day.

This application will be granted unless objections are filed with the Division of Oil, Gas and Mining within fifteen days after publication of this Notice. Objections if any, should be mailed to: Division of Oil, Gas and Mining, Room 4241 State Office Building, Salt Lake City, Utah 84114.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
s/ Thalia Pratt
for MARJORIE L. LARSON
Secretary of the Board

Published in The San Juan Record December 15, 1983.

I, Joyce Martin, [redacted]ng duly sworn, depose and say that I am the publisher of the San Juan Record, a weekly newspaper of general circulation published at Monticello, Utah, every Thursday; that notice Cause No. UIC -030 (Whitely)

a copy of which is hereunto attached, was published in the regular and entire issue of each number of said newspaper for a period of 1 issues, the first publication having been made on December 15, 1983 and the last publication having been made on _____

Signature Joyce A Martin
Publisher

Subscribed and sworn to before me this 15th day of December, A.D. 1983.

Dorothy Barr
Notary Public
Residing at Monticello, Utah

My commission expires May 17, 1983

I, Joyce Martin, [redacted]ng duly sworn,

depose and say that I am the publisher of the San Juan Record, a weekly newspaper of general circulation published at Monticello, Utah, every Thursday; that notice Cause No. UIC -030 (Whitely)

a copy of which is hereunto attached, was published in the regular and entire issue of each number of said newspaper for a period of 1 issues, the first publication having been made on December 15, 1983 and the last publication having been made on _____

Signature Joyce A Martin
Publisher

Subscribed and sworn to before me this 15th day of December, A.D. 1983.

Dorothy Barr
Notary Public
Residing at Monticello, Utah

My commission expires May 17, 1983

RECEIVED
DEC 19 1983
DIVISION OF
OIL, GAS & MINING

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dr. G. A. (Jim) Shirazi, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 5, 1984

William Whitley
1705 Colorado State Bank Bldg.
1600 Broadway
Denver, CO 80202

Re: Cause No. UIC-030
Administrative Approval
Salt Water Disposal Well
#1-25 3-E Federal
Sec. 25, T40S, R22E
San Juan County, Utah

Dear Mr. Whitley,

Please be advised that administrative approval has been granted for injection into the above referenced salt water disposal well. This approval follows application in accordance with the UIC rules and public notice as required. The approval is subject to completion and operation as outlined in the application, public notice and UIC rules and regulations as adopted by the Board of Oil, Gas and Mining.

Sincerely,

Dianne R. Nielson

DIANNE R. NIELSON
DIRECTOR

/tp

cc: EPA, Denver

P&M PETROLEUM MANAGEMENT
SUITE 1700 • 1600 BROADWAY • DENVER • COLORADO 80202 • PHONE (303) 861-2470

March 28, 1984

State of Utah
Natural Resources
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Attn: Oil & Gas Information System
Development Task Force, Attention Norm Stout

Re: Records Reconciliation

Gentlemen:

In response to your recent Memorandum concerning your development of an automated system for the reporting of oil and gas information, you will find enclosed in triplicate:

1) Your computer print-out with written changes noted,

2) Letter re Change of Operator to Division of Oil, Gas and Mining dated March 19, 1984,

3) Sundry Notice indicating Change of Operator for the 1-24 Federal, 1-25 Kirkwood-Federal, 1-25 3-E Federal and 2-25 3-E Federal wells, and,

4) Sundry Notice indicating Change of Operator for the 1-25A KGS Federal well (Communitized).

If there is any further information you require, please let us know.

Very truly yours,

Sally Scheiman

Sally Scheiman
Secretary

/ss
Enclosures

~~WHITLEY, WILLIAM W.~~ P + M Petroleum Management (See attached letter and Sundry Notices)
1600 BROADWAY, SUITE ~~1705~~ 1700
DENVER CO 80202
ATTN: ~~WILLIAM W. WHITLEY~~
ROBERT W. PETERSON/JULIE SPURLOCK

PHONE: 303-861-~~2469~~ 2470

YOUR UTAH ACCOUNT NUMBER: N3270

PRODUCING ENTITY NUMBER: 00415
PRODUCING ENTITY NAME : TURNER BLUFF FIELD

API	ZONE	WELL NAME	SECTION	TOWNSHIP	RANGE	QTR-QTR
43-037-30493	DSCR	1-24 FEDERAL	24	40.0-S	22.0-E	SWSE
43-037-30522	IS-DC	1-25 KIRKWOOD FED.	25	40.0-S	22.0-E	NENW
43-037-30540	ISMY	1-25 3-E FED	25	40.0-S	22.0-E	NENE
43-037-30546	DSCR	2-25 3-E FED	25	40.0-S	22.0-E	SWNE
43-037-30906	DSCR	1-25A KGS FEDERAL *	25	40.0-S	22.0-E	~~SENW~~ SW NW

* Communitized. Change of Operator still pending at BLM.

NOTE: EACH OF THE ABOVE WELLS HAS A SEPARATE TANK BATTERY (and meter where applicable).

March 19, 1984

State of Utah
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Re: Change of Operator
U-42474, U-18433, U-52026,
U-23797, U-41696
San Juan County, Utah

Gentlemen:

Upon receipt of a memo from Oil, Gas and Mining's Oil & Gas Information Systems - Development Task Force this date regarding Records Reconciliation - Action Required, I realized I had failed to send Change of Operator forms to the State. Accordingly, enclosed are copies of Change of Operator from William W. Whitley to P & M Petroleum Managament on leases U-42474, U-18433 (2 - drillsite acreage and the balance of the acreage) and communitized leases U-52026 with Beard Oil Company's U-23797 Section 25, together with the Successor Operating Agreement between William C. Kirkwood and P & M Petroleum Management covering lease U-41696.

If there is any further information you need, please let me know. I apologize for this oversight.

Very truly yours,

Sally Scheiman
Secretary

/ss
Enclosures

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: U-42474, U-18433, U-41696

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL [X] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: William W. Whitley (past)
P & M Petroleum Management (current)

8. FARM OR LEASE NAME:

3. ADDRESS OF OPERATOR: 1600 Broadway, Suite 1700, Denver, CO 80202

9. WELL NO.: See below 1-25E

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: see below

10. FIELD AND POOL, OR WILDCAT: Turner Bluff

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 24, (25) - T40S-R22E

14. PERMIT NO.: see below

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

12. COUNTY OR PARISH: San Juan

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Change of Operator			[X]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

API	WELL	LOCATION	LEASE
43-037-30493	1-24 Federal	24, T40S, R22E - SWSE	U-42474
43-037-30522	1-25 Kirkwood-Federal	25, T40S, R22E - NENW	U-41696
43-037-30540	1-25 3-E Federal	25, T40S, R22E - NENE	U-18433
43-037-30546	2-25 3-E Federal	25, T40S, R22E - SWNE	U-18433

Change Operator on above wells from William W. Whitley, to:

P & M Petroleum Management
1600 Broadway, Suite 1700
Denver, CO 80202
(303) 861-2470
Bob Peterson/Julie Spurlock

RECEIVED
APR 2 1934
DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED Robert W. Peterson TITLE: Petroleum Engineer DATE 3/27/84

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

80

P&M PETROLEUM MANAGEMENT
SUITE 1700 • 1600 BROADWAY • DENVER • COLORADO 80202 • PHONE (303) 861-2470

May 16, 1984

State of Utah Natural Resources
4241 State Office Bldg.
Salt Lake City, Ut 84114

Attn: Ms. Marlayne Poulsen
Office Specialist

Re: Federal #1-25 3E
San Juan County, Utah

Dear Ms. Poulsen:

Please be informed that as of this date there has been no injection on the aforementioned well. We will be contacting you as soon as commencement or permanent termination of injection occurs.

If there is anything further that you need, please feel free to contact me.

Very truly yours,

Janet

Janet Korzan

/s

CHECKLIST FOR INJECTION WELL APPLICATION AND FILE REVIEW
* * * * * * * * *

Operator: Willbros Whitley Well No. 1-25 3-E

County: San Juan T 40S R 22E Sec. 25 API# 43-037-30548

New Well ___ Conversion ✓ Disposal Well ✓ Enhanced Recovery Well ___

	YES	NO
UIC Forms Completed	✓	
Plat including Surface Owners, Leaseholders, and wells of available record	✓	
Schematic Diagram	✓	
Fracture Information		low inj. press. ✓
Pressure and Rate Control		✓
Adequate Geologic Information	✓	
Fluid Source	Prod. water	
Analysis of Injection Fluid	Yes ✓	No ✓ Same as TDS ✓
Analysis of Water in Formation to be injected into	Yes ✓	No ___ TDS 188,091 mg/l
Known USDW in area	Navajo	Depth 848'
Number of wells in area of review	3	Prod. 2 P&A 1
		Water ___ Inj. ___
Aquifer Exemption	Yes ___	NA ✓
Mechanical Integrity Test	Yes ___	No ✓ not yet conducted
	Date ___	Type ___

Comments: Proposed inj. zone same as prod. zones in adjacent wells. See X-section. Well was approved 1/84 still on production perhaps should rescind approval.

Reviewed by: ~~CBH~~ 5/1/85

Whitney Well
1-25 3-E Fed.

When was casing tested? Will need to witness conversation to disposal

2-25 3E

5½" @ 5431' 200 sx x 1.18 $\frac{cuft}{sx}$ = 236 cuft

5.77 $\frac{ft}{cuft}$ x 236 cuft = 1345 lin ft

5431' - 1345 = 4086' cmt top calculated

Prod Zone = 5410'-5422' Desert Cr.

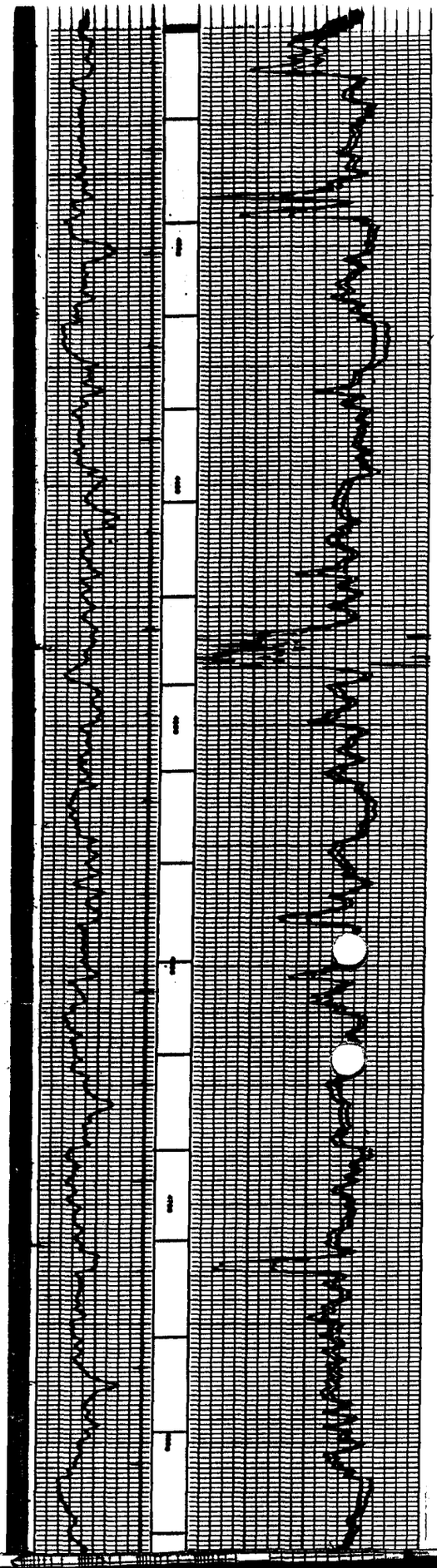
1-24 Fed

4½" @ 5582' 7⅞" hole w/ 200 sx x 1.18 = 236 cuft

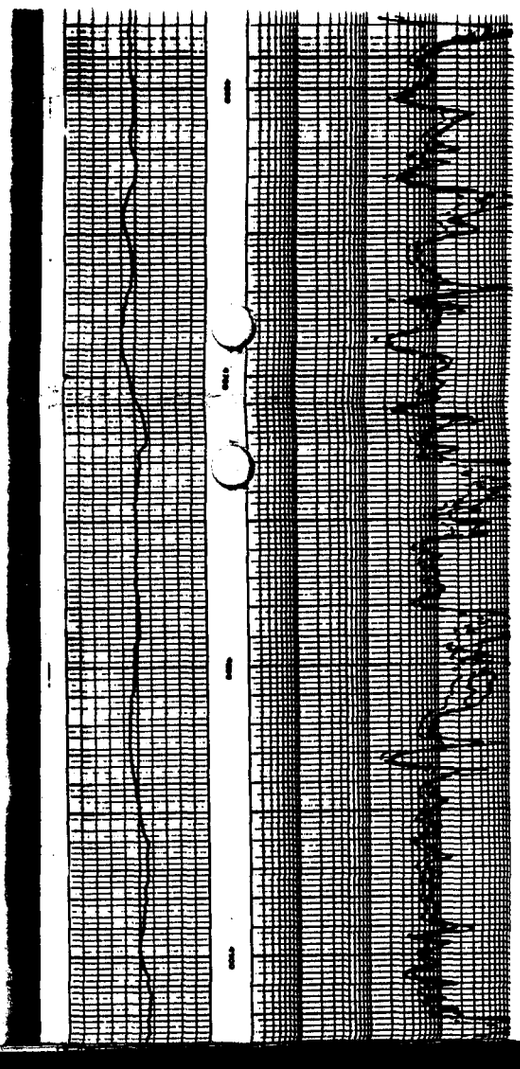
236 cuft x 4.39 $\frac{lin ft}{cuft}$ = 1036

5582 - 1036 = 4545' cmt top

Whitley
2-25-3E
KB = 4370



Whitley 1-25-3E
KB = 4456'
Proposed Disposal Well



Davis oil

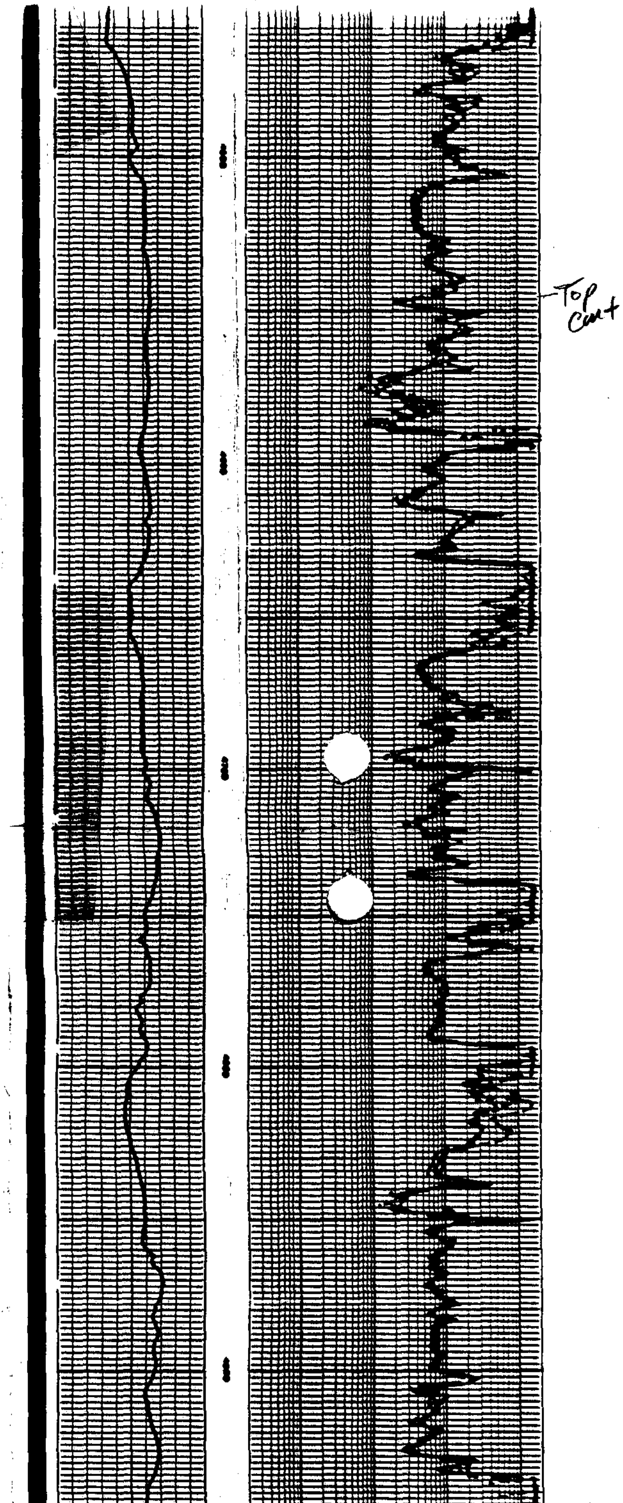
KB=4509

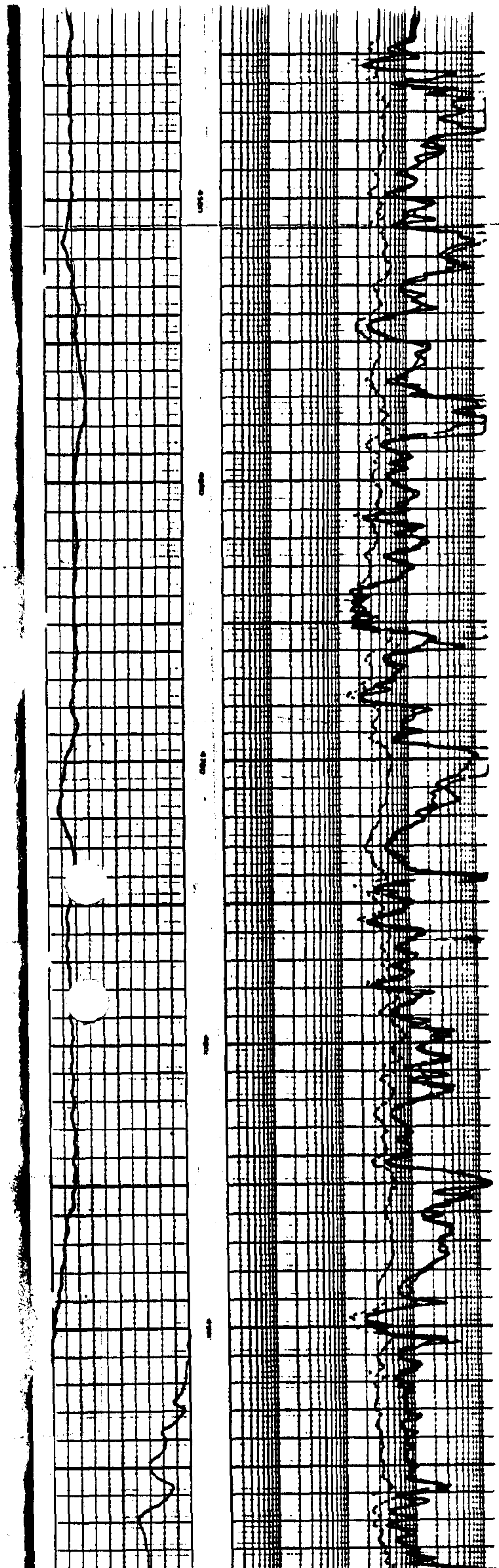
Sec. 19

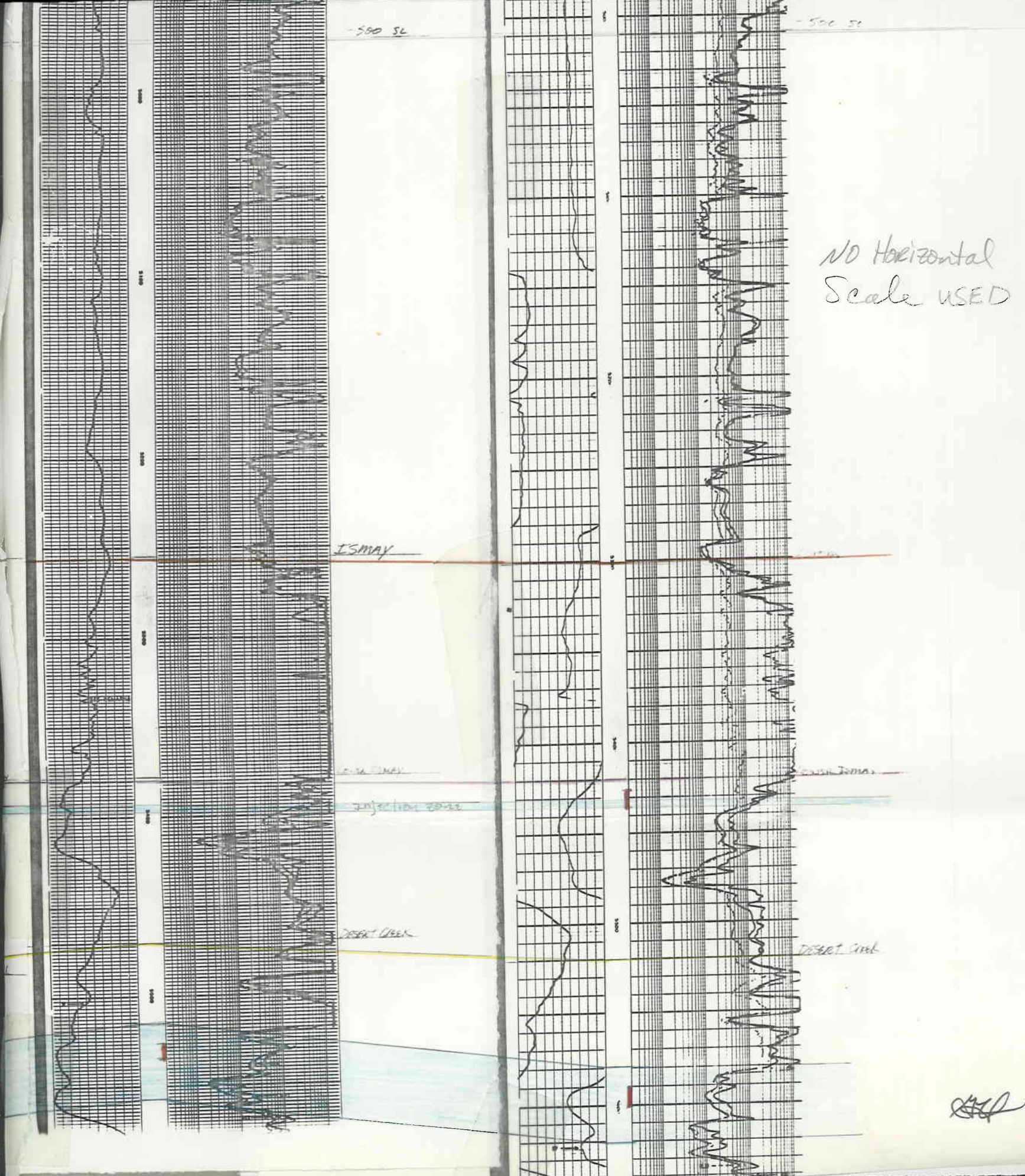
1-24

KBE 4469

Sec. 24






-500 SL
ISMAY
DESERT CREEK
NO Horizontal
Scale USED


-500 SL
ISMAY
ISMAY
LOWER ISM
DESERT CREEK
DESERT CR
Proposed
Injection
Zone

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: U-18433

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ OTHER

8. WELL NAME and NUMBER: 3-E Federal #1-25

2. NAME OF OPERATOR: P&M Petroleum Management, LLC

9. API NUMBER: 43-037-30540

3. ADDRESS OF OPERATOR: 518 17th Street CITY Denver STATE CO ZIP 80202

PHONE NUMBER: (303) 260-7129

10. FIELD AND POOL, OR WILDCAT: Turner Bluff

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1000' FNL & 670' FEL

COUNTY: San Juan

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 25 40S 22E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: _____	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☑ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion: 7/11/1997	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER: _____
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

SEE ATTACHED

RECEIVED
MAY 20 2010
DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) Jerry Calley TITLE Managing Member

SIGNATURE _____ DATE 5/17/2010

(This space for State use only)

(5/2000) (See Instructions on Reverse Side)

P&A Report I-25 3E Federal

Federal I-25 3E was P&A'd as follows:
Moved on Big 'A' Well Service Rig on 7-11-97

Plug #1-. Set CIBP @ 5325'K.B. on wireline. Spotted 30 sx class 'B' cement plug on top of CIBP. Spotted 9.0 ppg drilling mud from 5032' to 4500'.

Plug #2- 34 sx class 'B' cement plug was set from 4299- 4149' KB over the Hermosa formation.

Plug #3- 5 ½" casing was shot off at 2840' KB but the casing could not be pulled. Spotted 3451 class 'B' cement plug to cover cut pipe 2864- 2564' KB.

Plug #4- 5 ½" casing was shot off at 2230' but the 5 ½" casing could not be pulled. Set cement retainer at 2179'K.B. Squeezed cut pipe with 65sx class 'B' cement. Squeezed 36 sx below and 29 sx above cement retainer. Final squeeze pressure was 1250 psi. Tagged top cement at 1605'.

Plug #5- Cut 5 ½" casing off at 1500" KB. Pulled and laid down 30 Jts of casing. Spotted 161 sx class 'B' cement 1555' to 1054' to cover 5 ½" cement stub. Spotted 9.0 ppg drilling mud from 1034-875" KB.

Plug #6- Spotted 68 sx class 'B' cement from 870' to 648' KB. Spotted 9.0 ppg drilling mud 630' to 310.'

Plug #7- Circulated 110 sx class 'B' cement from 308' KB. to surface. Cut off well head. Welded on marker plate. Leveled well site and spread surface soil and ripped surface. Seeded location.