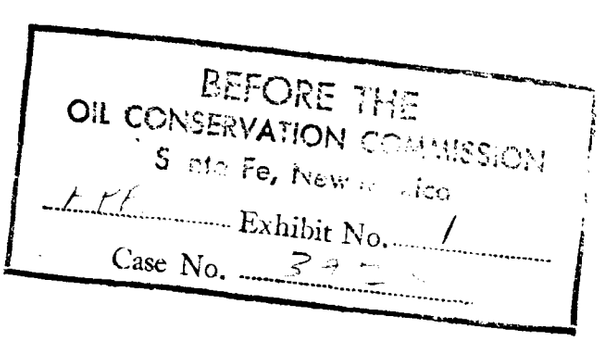
CASE 3924

APPLICATION OF MINERALS, INC., AND R. F. MONTGOMERY, ET AL.,
FOR AN EXCEPTION TO ORDER NO. R-3221, AS AMENDED,
LEA COUNTY, NEW MEXICO.

Applicants, in the above-styled cause, seek an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for the applicants' wells located in Sections 7 and 18, Township 20 South, Range 33 East, Salt Lake Pool, Lea County, New Mexico. Applicants seek authority to continue to dispose of produced water in two unlined surface pits located in Units N and C, respectively, of said Sections 7 and 18. In the alternative applicants seek authority to dispose of said produced water into a dry lake bed, known as Laguna Gatuna, located principally in said Section 18.

THE FOLLOWING EXHIBITS ARE IN SUPPORT OF THIS APPLICATION.



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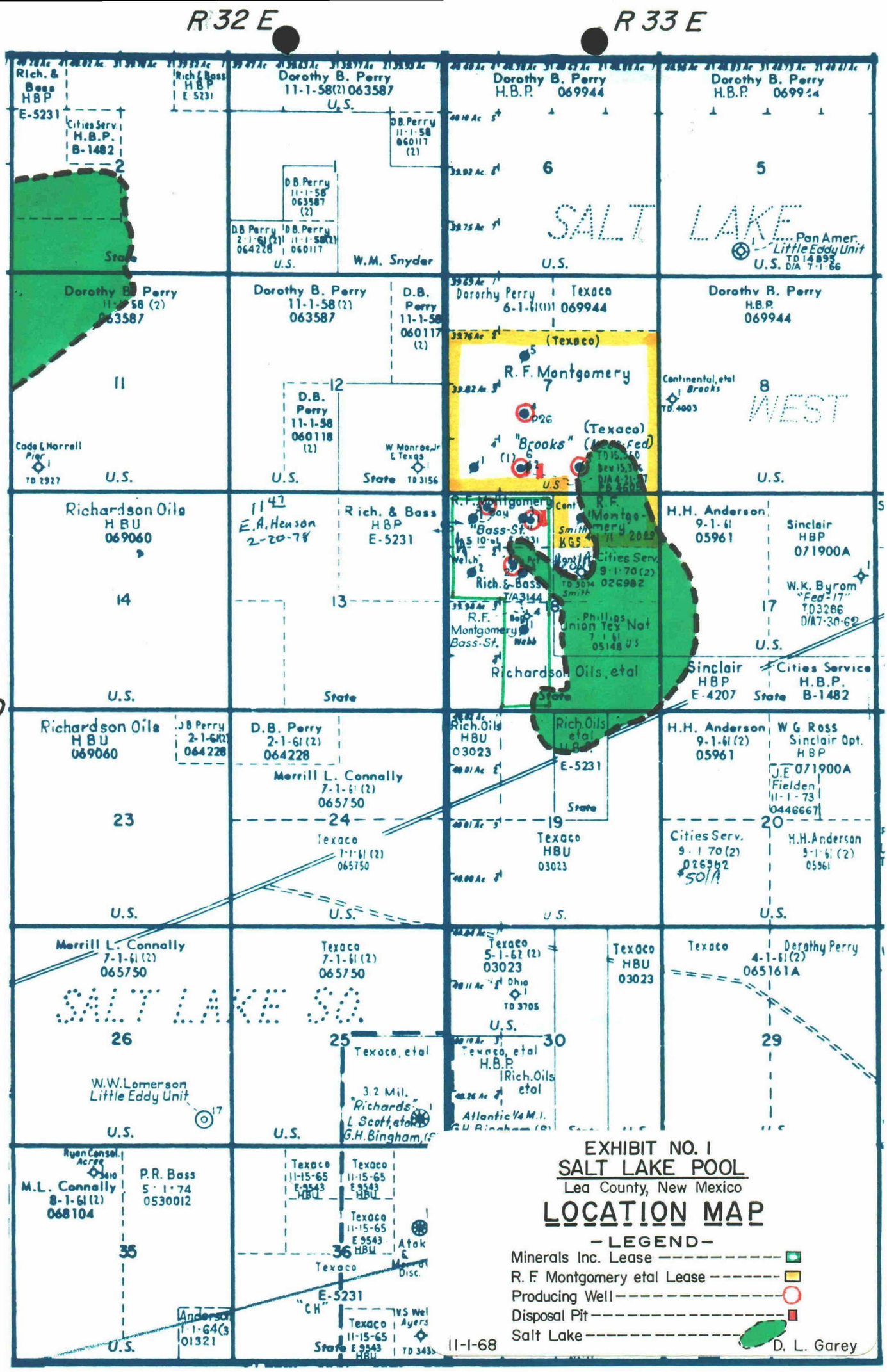

EXHIBIT NO. 1

SALT LAKE POOL

Lea County, New Mexico

LOCATION MAP

-LEGEND-

Minerals Inc. Lease

R. F. Montgomery etal Lease

Producing Well

Disposal Pit

Salt Lake

11-1-68

D. L. Garey

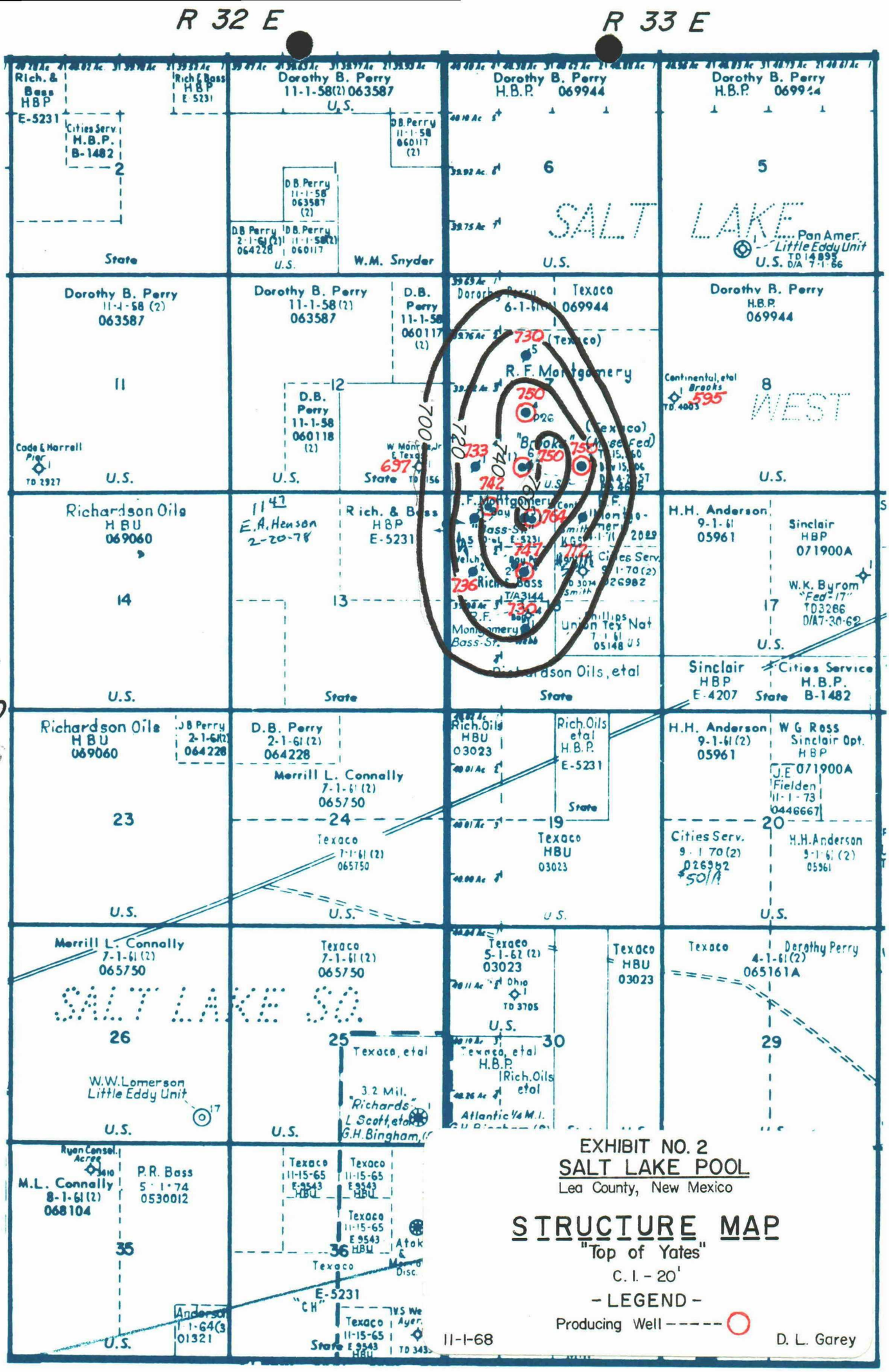

EXHIBIT NO. 2

SALT LAKE POOL

Lea County, New Mexico

STRUCTURE MAP

"Top of Yates"

C. I. - 20'

- LEGEND -

Producing Well ----- ○

11-1-68

D. L. Garey

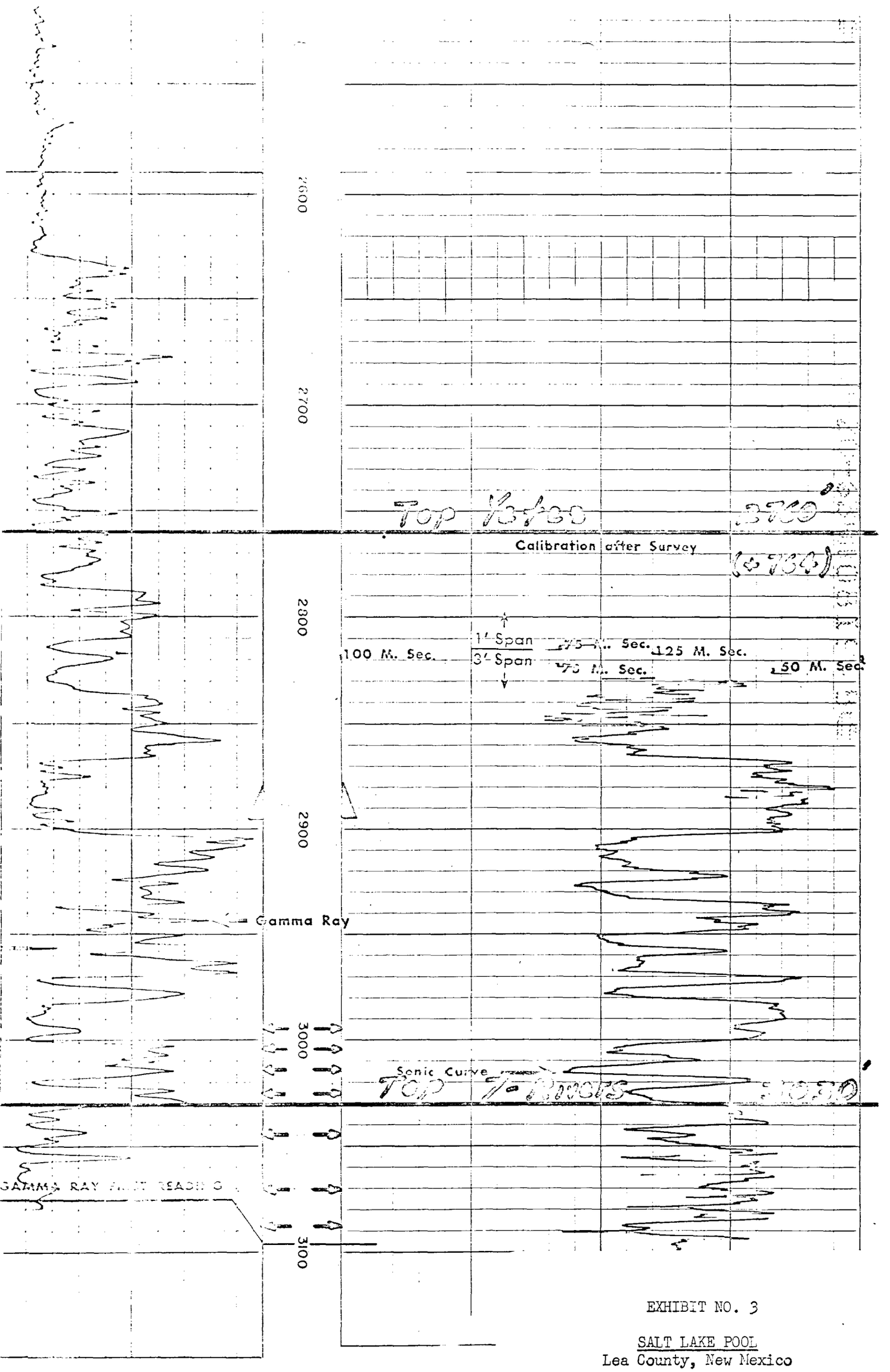

EXHIBIT NO. 3

SALT LAKE POOL
Lea County, New Mexico

TYPICAL SECTION

[illegible]

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Plugged and Abandoned Wells

NAME	LOCATION	COMPLETED	TD	CASING	PRODUCING FORMATION	CASING PERFS	TREATMENT	I.P.P.	P & A	CUMULATIVE PRODUCTION	REMARKS
Conoco #1 Brooks 7	M 7-20-33	10-31-41	3110	7 @ 2906'	Yates	2906-3110	1000 Gal. Acid	102 BO/12 hrs	11/48	39,337	Pulled Csg.
Conoco #2 Brooks 7	N 7-20-33	1-9-42	3075	5½ @ 2910'	Yates	2910-3075	Natural	233 BO/24 hrs.	11/48	39,000	Pulled Csg.
Conoco #3 Brooks 7	O 7-20-33	10-14-44	3025	5½ @ 2887'	Yates	2887-3025	Natural	288 BO/24 hrs.	11/48	35,600	Pulled Csg.
Conoco #4 Brooks 7	K 7-20-33	1-11-45	3064 PB 3054	5½ @ 2907'	Yates	2907-3054	Natural	104 BO/12 hrs.	11/48	21,200	Cement Plugs
Conoco #5 Brooks 7	F 7-20-33	5-30-45	3123 PB 3060	5½ @ 2933'	Yates	2933-3060	100 qts. N 2000 Gal. Acid	6 BO/24 hrs.	11/48	3,100	Pulled Csg.
Conoco #1 Smith 18	B 18-20-33	3-11-42	3034	5½ @ 2908'	Yates	2908-3034	Natural	182 BO/15 hrs.	7/28/48	41,000	Pulled Csg.
Bay Petroleum #1 Welch State	D 18-20-33	7-10-41	3102	7 @ 2865'	Yates	2865-3102	Natural	250 BO/24 hrs.	3/14/47	32,800	Pulled Csg.
Bay Petroleum #2 Welch State	E 18-20-33	12-31-41	3104 PB 3047	7 @ 2995'	Yates	2995-3047	500 Gal Acid	7 BO/24 hrs.	3/30/47	26,400	Pulled Csg.
Bay Petroleum #3 Welch State	C 18-20-33	11-17-41	3099	7 @ 2975'	Yates	2975-3099	1000 Gal. Acid	115 BO/24 hrs.	2/7/48	28,900	Pulled Csg.
Bay Petroleum #4 Welch State	F 18-20-33	12-15-41	3001	7 @ 2953'	Yates	2953-3001	Natural	35 BO/1 hr.	3/15/47	26,700	Pulled Csg.
Conoco #1 Brooks	D 8-20-33	1-16-29	4003	6 5/8 @ 3526'	--	--	Natural	Dry	5/7/29	-0-	Pulled Csg.
Conoco #2 Smith 18	G 18-20-33	5-12-42	3074 PB 3050	5½ @ 2910'	--	--	10 qts. Nitro	Dry	5/42	-0-	Pulled Csg.
Texaco #1 Muse Federal	N 7-20-33	4-21-57	15,560	5½ @ 10,780'	--	--	---	Dry	4/21/57	-0-	Pulled Csg.
R. F. Montgomery Base #4	K 18-20-33	9-25-65	3126 PB 3095	7 @ 2721'	--	--	5750 Gal. Acid	Dry	9/25/65	-0-	Cement Plugs
W. Monroe #1 State	P 12-20-32	7-16-43	3156	8¼ @ 1117'	--	--	---	Dry	7/43	-0-	Pulled Csg.

EXHIBIT NO. 4A

SALT LAKE POOL
Lea County, New Mexico

Webb Lease

Plugged and Abandoned Wells

NAME	LOCATION	COMPLETED	TD	CASING	PRODUCING FORMATION	PRODUCING INTERVAL	TREATMENT	I.P.P.	P & A	CUMULATIVE PRODUCTION	REMARKS
Conoco #1 Brooks 7	M 7-20-33	10-31-41	3110	7 @ 2906'	Yates	2906-3110	1000 Gal. Acid	102 BO/12 hrs	11/48	39,337	Pulled Csg.
Conoco #2 Brooks 7	N 7-20-33	1-9-42	3075	5½ @ 2910'	Yates	2910-3075	Natural	233 BO/24 hrs.	11/48	39,000	Pulled Csg.
Conoco #3 Brooks 7	O 7-20-33	10-14-44	3025	5½ @ 2887'	Yates	2887-3025	Natural	288 BO/24 hrs.	11/48	35,600	Pulled Csg.
Conoco #4 Brooks 7	K 7-20-33	1-11-45	3064 PB 3054	5½ @ 2907'	Yates	2907-3054	Natural	104 BO/12 hrs.	11/48	21,200	Cement Plugs
Conoco #5 Brooks 7	F 7-20-33	5-30-45	3123 PB 3060	5½ @ 2933'	Yates	2933-3060	100 qts. N 2000 Gal. Acid	6 BO/24 hrs.	11/48	3,100	Pulled Csg.
Conoco #1 Smith 18	B 18-20-33	3-11-42	3034	5½ @ 2908'	Yates	2908-3034	Natural	182 BO/15 hrs.	7/28/48	41,000	Pulled Csg.
Bay Petroleum #1 Welch State	D 18-20-33	7-10-41	3102	7 @ 2865'	Yates	2865-3102	Natural	250 BO/24 hrs.	3/14/47	32,800	Pulled Csg.
Bay Petroleum #2 Welch State	E 18-20-33	12-31-41	3104 PB 3047	7 @ 2995'	Yates	2995-3047	500 Gal Acid	7 BO/24 hrs.	3/30/47	26,400	Pulled Csg.
Bay Petroleum #3 Welch State	C 18-20-33	11-17-41	3099	7 @ 2975'	Yates	2975-3099	1000 Gal. Acid	115 BO/24 hrs.	2/7/48	28,900	Pulled Csg.
Bay Petroleum #4 Welch State	F 18-20-33	12-15-41	3001	7 @ 2953'	Yates	2953-3001	Natural	35 BO/1 hr.	3/15/47	26,700	Pulled Csg.
Conoco #1 Brooks	D 8-20-33	1-16-29	4003	6 5/8 @ 3526'	--	--	Natural	Dry	5/7/29	-0-	Pulled Csg.
Conoco #2 Smith 18	G 18-20-33	5-12-42	3074 PB 3050	5½ @ 2910'	--	--	10 qts. Nitro	Dry	5/42	-0-	Pulled Csg.
Texaco #1 Muse Federal	N 7-20-33	4-21-57	15,560	5½ @ 10,780'	--	--	---	Dry	4/21/57	-0-	Pulled Csg.
R. F. Montgomery Bass #4	K 18-20-33	9-25-65	3126 PB 3095	7 @ 2721'	--	--	5750 Gal. Acid	Dry	9/25/65	-0-	Cement Plugs
W. Monroe #1 State	P 12-20-32	7-16-43	3156	8¼ @ 1117'	--	--	---	Dry	7/43	-0-	Pulled Csg.

EXHIBIT NO. 4B

SALT LAKE POOL
Lea County, New Mexico

WELL DATA

Producing Wells

(As of 10/1/68)

NAME	LOCATION	COMPLETED	TD	CASING	PRODUCING FORMATION	PRODUCING INTERVAL	TREATMENT	I.P.	CUMULATIVE PRODUCTION	REMARKS
Montgomery #3 Brooks	O 7-20-33	11-29-62	3025	3½ @ 2910'	YATES	2910-3025	Natural	Swbd. 37 BO + 200 BW/24 hrs.	24,448	Re-en Conoco #3
Montgomery #4 Brooks	K 7-20-33	7-13-62	3064	5½ @ 2907'	YATES	2907-3054	Natural	P 26 BO + 125 BW/24 hrs.	45,293	Re-en Conoco #4
Montgomery #6 Brooks	N 7-20-33	8-8-63	15,560	9 5/8 @ 8156'	YATES	3026-3052	1000 Gal. Acid	P 38 BO + 16 BW/24 hrs.	48,304	Re-en Texaco #1 Muse Federal
Minerals #1 Bass St.	C 18-20-33	9-30-63	3100	4½ @ 3100'	YATES- 7 R	2992-3072	3500 Gal. Acid	P 33 BO + 2 BW/24 hrs.	9,265	New Well
Minerals #2 Bass St.	F 18-20-33	2-2-64	3101	4½ @ 3101'	YATES-7 R	3014-3080	500 Gal. Acid	P 25 BO + 100 BW/24 hrs.	12,932	New Well
Minerals #3 Bass St.	D 18-20-33	4-5-65	3120	4½ @ 3120'	7 RIVERS	3096-3112	168 Gal. Acid	Swbd. 31 BO + 20 BW/24 hrs.	15,037	New Well

EXHIBIT NO. 5A

SALT LAKE POOL
Lea County, New Mexico

WELL DATA

Production Data

MINERALS, INC.

Hags State Lease

Year			Well No. 1	Well No. 2	Well No. 3	Lease Total
1963		Oil	1027			1027
		Water	161			161
1964		Oil	2636	3195		5831
		Water	2033	39077		41110
1965		Oil	3518	6470	5764	15752
		Water	6348	75226	2066	83640
1966		Oil	1009	2032	5420	8461
		Water	2018	20320	2689	25027
1967		Oil	508	972	2730	4210
		Water	1218	13300	2521	17039
1968	January	Oil	70	28	142	240
		Water	140	1400	1278	2818
	February	Oil	34	12	66	112
		Water	68	600	594	1262
	March	Oil	69	25	135	229
		Water	138	1250	1215	2603
	April	Oil	49	18	95	162
		Water	98	900	855	1853
	May	Oil	57	21	111	189
		Water	114	1050	999	2163
	June	Oil	46	17	91	154
		Water	92	850	819	1761
	July	Oil	51	19	102	172
		Water	102	950	918	1970
	August	Oil	112	44	224	380
		Water	224	2200	2016	4440
	September	Oil	79	79	157	315
		Water	188	1821	1670	3679
Total 1968 (9 months)		Oil	567	263	1123	1953
		Water	1164	11021	10364	22549
Grand Total		Oil	9265	12932	15037	37234
		Water	12942	158944	17640	189526
Daily average production for October 1968 based on annual GOR test:		Oil	7	7	10	24
		Water	9	41	5	55
Estimated Month of October:		Oil	217	217	310	744
		Water	279	1271	155	1705

EXHIBIT NO. 55

SALT LAKE POOL
Lea County, New Mexico

WELL DATA

Production Data

R. F. MONTGOMERY, ET AL

Brooks Federal Lease

Year			Well No. 3	Well No. 4	Well No. 6	Lease Total
1962		Oil	564	4155		4719
		Water	5640	41550		47190
1963		Oil	5858	8619	4961	19438
		Water	34190	36305	10700	81195
1964		Oil	5528	8237	11342	25107
		Water	31915	49474	23154	104543
1965		Oil	4182	6742	8992	19916
		Water	14792	16111	14407	45310
1966		Oil	3331	6133	8243	17707
		Water	13324	11710	11280	36314
1967		Oil	3126	7490	8358	18974
		Water	7732	13613	13713	35058
1968	January	Oil	264	620	667	1551
		Water	792	2325	952	4069
	February	Oil	209	432	753	1394
		Water	627	1296	1130	3053
	March	Oil	223	461	802	1486
		Water	669	1383	1203	3255
	April	Oil	189	391	682	1262
		Water	567	1173	1023	2763
	May	Oil	217	450	783	1450
		Water	651	1350	1174	3175
	June	Oil	198	408	711	1317
		Water	594	1224	1066	2884
	July	Oil	203	420	731	1354
		Water	609	1260	1097	2966
	August	Oil	174	359	625	1158
		Water	522	1077	937	2536
	September	Oil	182	376	654	1212
		Water	546	1128	981	2655
Total 1968 (9 months)		Oil	1859	3917	6408	12184
		Water	5577	12216	9563	27356
Grand Total		Oil	24448	45293	48304	118045
		Water	113170	180979	82817	376966
Daily average production for October 1968 based on annual GOR test:		Oil	2	22	26	50
		Water	9	75	167	251
Estimated Month of October:		Oil	62	682	806	1550
		Water	279	2325	5177	7781

EXHIBIT NO. 6A

SALT LAKE POOL
Lea County, New Mexico

WELL DATA

Minerals, Inc., Bass Lease

Income and Expenses per Producing Well

WELL NO. 1

		Gross Income	Direct Operating Expenses	Net Operating Income
1967	For Year	$ 1,294.02	$ 2,944.11	$(1,650.09)
1968	January	$ -0-	$ 60.14	$(60.14)
	February	284.71	105.59	179.12
	March	-0-	75.06	(75.06)
	April	153.80	81.17	72.63
	May	161.57	90.17	71.40
	June	-0-	65.16	(65.16)
	July	104.44	90.33	14.11
	August	94.79	94.80	(.01)
	September	109.95	88.61	21.34
Total 9 Month Period		$ 909.26	$ 751.03	$ 158.23

WELL NO. 2

		Gross Income	Direct Operating Expenses	Net Operating Income
1967	For Year	$ 2,823.38	$ 1,571.02	$ 1,252.36
1968	January	$ -0-	$ 60.15	$(60.15)
	February	104.39	87.12	17.27
	March	-0-	75.07	(75.07)
	April	56.39	71.12	(14.73)
	May	59.24	84.17	(24.93)
	June	-0-	65.18	(65.18)
	July	38.29	29.82	8.47
	August	34.75	85.70	(50.95)
	September	40.31	78.52	(38.21)
Total 9 Month Period		$ 333.37	$ 636.85	$(303.48)

WELL NO. 3

		Gross Income	Direct Operating Expenses	Net Operating Income
1967	For Year	$ 7,646.64	$ 6,821.53	$ 825.11
1968	January	$ -0-	$ 123.13	$(123.13)
	February	559.93	202.35	357.58
	March	-0-	366.73	(366.73)
	April	302.46	409.00	(106.54)
	May	317.74	259.03	58.71
	June	-0-	119.49	(119.49)
	July	205.38	218.53	(13.15)
	August	186.40	104.60	81.80
	September	216.23	6,446.04	(6,229.81)
Total 9 Month Period		$ 1,788.14	$ 8,248.90	$(6,460.76)

EXHIBIT NO. 6B

SALT LAKE POOL
Lea County, New Mexico

WELL DATA

R. F. Montgomery, et al, Brooks Lease

Income and Expenses per Producing Well

WELL NO. 3

		Gross Income	Direct Operating Expenses	Net Operating Income
1967	For Year	$ 7,931.67	$ 8,381.83	$(450.16)
1968	January	$ 707.21	$ 182.34	$ 524.87
	February	419.48	163.04	256.44
	March	533.12	211.30	321.82
	April	546.05	175.04	371.01
	May	513.46	134.41	379.05
	June	516.40	138.21	378.19
	July	545.72	138.36	407.36
	August	407.50	1,632.40	(1,224.90)
	September	526.25	1,013.60	(487.35)
Total 9 Month Period		$ 4,715.19	$ 3,788.70	$ 926.49

WELL NO. 4

		Gross Income	Direct Operating Expenses	Net Operating Income
1967	For Year	$19,018.64	$ 7,515.23	$ 11,503.41
1968	January	$ 1,664.02	$ 285.40	$ 1,378.62
	February	866.94	218.13	648.81
	March	1,101.77	279.18	822.59
	April	1,128.51	219.61	908.90
	May	1,061.16	201.65	859.51
	June	1,067.22	607.88	459.34
	July	1,127.81	214.42	913.39
	August	842.17	175.14	667.03
	September	1,087.57	401.96	685.61
Total 9 Month Period		$ 9,947.17	$ 2,603.37	$ 7,343.80

WELL NO. 6

		Gross Income	Direct Operating Expenses	Net Operating Income
1967	For Year	$21,263.82	$ 3,166.06	$ 18,097.76
1968	January	$ 1,788.81	$ 298.85	$ 1,489.96
	February	1,510.17	297.27	1,212.90
	March	1,919.21	376.73	1,542.48
	April	1,965.78	807.86	1,157.92
	May	1,848.47	502.36	1,346.11
	June	1,859.04	303.20	1,555.84
	July	1,964.57	283.60	1,680.97
	August	1,467.00	609.10	857.90
	September	1,894.48	590.36	1,304.12
Total 9 Month Period		$16,217.53	$ 4,069.33	$ 12,148.20

TELEPHONE: HOBBS 393-6215

KE-TONE®

UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Minerals, Incorporated

Field

Lease Bass #1 Sampling Date 9/19/68

Type of Sample Wellhead

WATER ANALYSIS C 18-20-33

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	43.91	880
Magnesium (Mg++)	32.24	392
Sodium (Na+) (cal.)	180.70	4154
Bicarbonate (HCO_3)	16.60	1012
Carbonate (CO_3 -)	NOT	FOUND
Hydroxide (OH-)	NOT	FOUND
Sulphate (SO_4 -)	54.13	2600
Chloride (Cl-)	186.12	6600
6.9 ph c @ 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO_3	76.15	3808
Carbonate Hardness as $CaCO_3$ (temporary)	16.60	830
Non-Carbonate Hardness as $CaCO_3$ (permanent)	59.55	2978
Alkalinity as $CaCO_3$	16.60	830
Specific Gravity c 68° F	1.010	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

EXHIBIT NO. 7A

SALT LAKE POOL
Lea County, New Mexico

OIL WELL
WATER ANALYSIS

Mobil Oil

TELEPHONE: HOBBS 393-6215

KE-TONE®

UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Minerals, Incorporated

Field

Lease Bass #2 Sampling Date 9/19/68

Type of Sample Wellhead

WATER ANALYSIS F 18-20-33

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	51.90	1040
Magnesium (Mg++)	32.24	392
Sodium (Na+) (cal.)	177.10	4072
Bicarbonate (HCO_3)	13.40	817
Carbonate (CO_3 -)	NOT	FOUND
Hydroxide (OH-)	NOT	FOUND
Sulphate (SO_4 -)	64.54	3100
Chloride (Cl-)	183.30	6500
6.9 ph c @ 68 °F		
Dissolved Solids on Evap. at 103°- 105° C		
Hardness as $CaCO_3$	84.14	4207
Carbonate Hardness as $CaCO_3$ (temporary)	13.40	670
Non-Carbonate Hardness as $CaCO_3$ (permanent)	70.74	3537
Alkalinity as $CaCO_3$	13.40	670
Specific Gravity c 68° F	1.010	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

EXHIBIT NO. 7B

SALT LAKE POOL
Lea County, New Mexico

OIL WELL
WATER ANALYSIS

Mabel Pe

TELEPHONE: HOBBS 393-6215

KE-TONE®

UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Minerals, Incorporated

Field Salt Lake Field

Lease Bass #3 Sampling Date 10/24/68

Type of Sample

WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca^{++})	65.77	1318
Magnesium (Mg^{++})	53.13	646
Sodium (Na^{+}) (cal.)	728.10	16,739
Bicarbonate (HCO_3^-)	19.57	1194
Carbonate (CO_3^{--})	NOT	FOUND
Hydroxide (OH^-)	NOT	FOUND
Sulphate (SO_4^{--})	115.80	5562
Chloride (Cl^-)	711.63	25,235
6.7 ph c @ 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as $CaCO_3$	118.90	5945
Carbonate Hardness as $CaCO_3$ (temporary)	19.57	979
Non-Carbonate Hardness as $CaCO_3$ (permanent)	99.33	4967
Alkalinity as $CaCO_3$	19.57	979
Specific Gravity c 68° F	1.030	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

EXHIBIT NO. 7C

SALT LAKE POOL
Lea County, New Mexico

OIL WELL
WATER ANALYSIS

Baker Oil

TELEPHONE: HOBBS 393-6215

KE-TONE®

UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company R. F. Montgomery, et al

Field

Lease Brooks T-7-3 Sampling Date 9/19/68

Type of Sample Wellhead

WATER ANALYSIS Unit O 7-20-33

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	45.91	920
Magnesium (Mg++)	32.24	392
Sodium (Na+) (cal.)	184.81	4249
Bicarbonate (HCO_3)	7.40	451
Carbonate (CO_3 --)	NOT	FOUND
Hydroxide (OH-)	NOT	FOUND
Sulphate (SO_4 --)	66.62	3200
Chloride (Cl-)	188.94	6700
7.8 ph c @ 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO_3	78.15	3908
Carbonate Hardness as $CaCO_3$ (temporary)	7.40	370
Non-Carbonate Hardness as $CaCO_3$ (permanent)	70.75	3538
Alkalinity as $CaCO_3$	7.40	370
Specific Gravity c 68° F	1.010	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

EXHIBIT NO. 7D

SALT LAKE POOL
Lea County, New Mexico

OIL WELL
WATER ANALYSIS

Mobil Oil

TELEPHONE: HOBBS 393-6215

KE-TONE®

UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company R. F. Montgomery, et al

Field

Lease Brooks T-7-4 Sampling Date 9/19/68

Type of Sample Wellhead

WATER ANALYSIS K-7-20-33

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	36.93	740
Magnesium (Mg++)	27.63	336
Sodium (Na+) (cal.)	169.67	3901
Bicarbonate (HCO_3)	21.00	1281
Carbonate (CO_3 -)	NOT	FOUND
Hydroxide (OH-)	NOT	FOUND
Sulphate (SO_4 -)	46.85	2250
Chloride (Cl-)	166.38	5900
6.6 pH c@ 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO_3	64.56	3228
Carbonate Hardness as $CaCO_3$ (temporary)	21.00	1050
Non-Carbonate Hardness as $CaCO_3$ (permanent)	43.56	2178
Alkalinity as $CaCO_3$	21.00	1050
Specific Gravity c 68° F	1.005	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

EXHIBIT NO. 7E

SALT LAKE POOL
Lea County, New Mexico

OIL WELL
[illegible]

Mobil Oil

TELEPHONE: HOBBS 393-6215

KE-TONE®

UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company R. F. Montgomery, et al

Field

Lease Brooks T-7-6 Sampling Date 9/19/68

Type of Sample Wellhead

WATER ANALYSIS Unit N 7-20-33

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	34.93	700
Magnesium (Mg++)	27.63	336
Sodium (Na+) (cal.)	163.29	3754
Bicarbonate (HCO_3)	26.59	1622
Carbonate (CO_3)	NOT	FOUND
Hydroxide (OH-)	NOT	FOUND
Sulphate (SO_4)	38.52	1850
Chloride (Cl-)	160.74	5700
6.7 ph c @ 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO_3	62.56	3128
Carbonate Hardness as $CaCO_3$ (temporary)	26.56	1330
Non-Carbonate Hardness as $CaCO_3$ (permanent)	36.00	1800
Alkalinity as $CaCO_3$	26.56	1330
Specific Gravity c 68° F	1.005	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

EXHIBIT NO. 7F

SALT LAKE POOL
Lea County, New Mexico

OIL WELL
WATER ANALYSIS

Maha Oil

EXHIBIT NO. 8A

SALT LAKE POOL

Lea County, New Mexico

W A T E R W E L L I N F O R M A T I O N

Township 20 South, Range 33 East

Sec 4 SW/4 NW/4 SE/4 Quaternary
T.D. 58'. ABANDONED STOCK. Rancher states water was gypy and cattle would walk greater distance to another water source.

Sec 5 SW/4 SE/4 SW/4 Triassic
T.D. 680' COMMERCIAL - was used for oil well drilling.

Sec 18-NE/4 NW/4 Triassic
T.D. 450' (approx) ABANDONED. Well was reportedly drilled in 1942 and water was not potable. Used only for washing in old oil field camp.

Sec 21-NW/4 NW/4 NW/4 Quaternary
T.D. 52' ABANDONED STOCK

Sec 24-SE/4 NE/4 NW/4 Triassic
T.D. 676'. STOCK.

Township 20 South, Range 32 East

Sec 1 SW/4 NW/4 SW/4 Quaternary
No T.D. recorded. NON-PRODUCING. Rancher stated well was too salty for cattle to drink.

Sec 23-SW/4 SW/4 SE/4 Quaternary (2 wells)
T.D. 78' DOMESTIC AND STOCK. These wells are approx. 2 miles from salt lake being used for surface disposal.

Sec 25-NW/4 NW/4 NW/4 Quaternary (2 wells)
T.D. 65' (2 wells) Both STOCK.

Sec 36-SW/4 NE/4 NE/4 Quaternary (3 wells)
T.D. 50' STOCK AND DOMESTIC
T.D. 65' ABANDONED
T.D. 80' NON-PRODUCING

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HOBBS, NEW MEXICO 88240

Company Minerals, Incorporated

Field

Lease Salt Lake Sampling Date 9/19/68

Type of Sample

WATER ANALYSIS See 7,18 20-33

IONIC FORM	me/l *	mg/l *
Calcium (Ca++	9.98	200
Magnesium (Mg++)	1667.17	20,272
Sodium (Na+) (cal.)	5395.75	124,048
Bicarbonate (HCO_3)	14.80	902
Carbonate (CO_3 -)	NOT	FOUND
Hydroxide (OH-)	NOT	FOUND
Sulphate (SO_4 -)	2602.50	125,000
Chloride (Cl-)	4455.60	158,000
7.7 ph c @ 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO_3	1677.15	83,858
Carbonate Hardness as $CaCO_3$ (temporary)	14.80	740
Non-Carbonate Hardness as $CaCO_3$ (permanent)	1662.35	83,118
Alkalinity as $CaCO_3$	14.80	740
Specific Gravity c 68° F	1.250+	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

EXHIBIT NO. 8B

SALT LAKE POOL
Lea County, New Mexico

SURFACE LAKE
WATER ANALYSIS

Mabee Y

TELEPHONE: HOBBS 393-6215

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HOBBS, NEW MEXICO 88240

Company Minerals, Incorporated

Field Salt Lake Field

Lease Salt Springs Sampling Date 10/24/68

Type of Sample

WATER ANALYSIS SW NE 12 20 33

IONIC FORM		me/l *	mg/l *
Calcium (Ca^{++})		27.59	553
Magnesium (Mg^{++})		586.62	7133
Sodium (Na^{+})	(cal.)	2389.29	54,930
Bicarbonate (HCO_3^-)		4.80	292
Carbonate ($CO_3^{=}$)		7.60	228
Hydroxide (OH^-)		NOT	FOUND
Sulphate ($SO_4^{=}$)		1532.14	73,590
Chloride (Cl^-)		1458.96	51,736
8.4 ph c @ 68 °F			
Dissolved Solids on Evap. at 103° - 105° C			
Hardness as $CaCO_3$		614.21	30,711
Carbonate Hardness as $CaCO_3$ (temporary)		12.40	620
Non-Carbonate Hardness as $CaCO_3$ (permanent)		601.81	30,091
Alkalinity as $CaCO_3$		12.40	620
Specific Gravity c 68° F		1.115	

* mg/l = milligrams per Liter
* me/l = milliequivalents per Liter

EXHIBIT NO. 8C

SALT LAKE POOL
Lea County, New Mexico

SALT SPRINGS
WATER ANALYSIS

Malco

TELEPHONE: HOBBS 393-6215

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Company Minerals, Incorporated

Field Salt Lake Field

Lease Bingham Well Sampling Date 10/24/68

Type of Sample NW NW NW 21-20-32

WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	19.86	398
Magnesium (Mg++)	17.19	209
Sodium (Na+) (cal.)	84.21	1936
Bicarbonate (HCO_3^-)	3.21	196
Carbonate (CO_3^{--})	NOT	FOUND
Hydroxide (OH^-)	NOT	FOUND
Sulphate (SO_4^{--})	18.84	905
Chloride (Cl^-)	99.21	3518
7.5 ph c @ 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as $CaCO_3$	37.05	1853
Carbonate Hardness as $CaCO_3$ (temporary)	3.21	161
Non-Carbonate Hardness as $CaCO_3$ (permanent)	33.84	1692
Alkalinity as $CaCO_3$	3.21	161
Specific Gravity c 68° F	1.005	

* mg/l = milligrams per Liter
* me/l = milliequivalents per Liter

EXHIBIT NO. 8D

SALT LAKE POOL
Lea County, New Mexico

BINGHAM WELL
WATER ANALYSIS

TELEPHONE: HOBBS 393-6215

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Company Minerals, Incorporated

Field Salt Lake Field

Lease Well #3 Wells Sampling Date 10/24/68

Type of Sample

WATER ANALYSIS NMSE 4-20-31

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	21.61	433
Magnesium (Mg++)	122.37	1488
Sodium (Na+) (cal.)	561.94	12,919
Bicarbonate (HCO_3^-)	4.60	286
Carbonate (CO_3^{--})	0.80	24
Hydroxide (OH^-)	NOT	FOUND
Sulphate (SO_4^{--})	334.54	16,068
Chloride (Cl^-)	365.98	12,978
8.3 ph c @ 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO_3	143.98	7199
Carbonate Hardness as $CaCO_3$ (temporary)	5.40	270
Non-Carbonate Hardness as $CaCO_3$ (permanent)	138.58	6929
Alkalinity as $CaCO_3$	5.40	270
Specific Gravity c 68° F	1.030	

* mg/l = milligrams per Liter
* me/l = milliequivalents per Liter

EXHIBIT NO. 8E

SALT LAKE POOL
Lea County, New Mexico

THREE WELLS
WATER ANALYSIS

TELEPHONE: HOBBS 393-6215

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Field Salt Lake

Lease Bass #1 Water Well Sampling Date 11/4/68

Type of Sample 18-20S-33E

WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	59.33	1189
Magnesium (Mg++)	105.68	1285
Sodium (Na+) (calculated)	508.85	11,698
Iron		212
Bicarbonate (HCO_3^-)	0.20	12
Carbonate ($CO_3^{=}$)	Not Found	
Hydroxide (OH^-)	Not Found	
Sulphate ($SO_4^{=}$)	81.09	3895
Chloride (Cl^-)	592.57	21,013
5.9 ph c 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as $CaCO_3$	165.01	8251
Carbonate Hardness as $CaCO_3$ (temporary)	0.20	10
Non-Carbonate Hardness as $CaCO_3$ (permanent)	164.81	8241
Alkalinity as $CaCO_3$	0.20	10
Specific Gravity c 68° F 1.025		

* mg/l = milligrams per Liter
* me/l = milliequivalents per Liter

Calcium Carbonate Scaling Index - Negative at 86°F
Calcium Sulfate Scaling Index - Negative

EXHIBIT NO. 8 F

SALT LAKE POOL
Lea County, New Mexico

BASS WATER WELLS
WATER ANALYSIS

LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE