

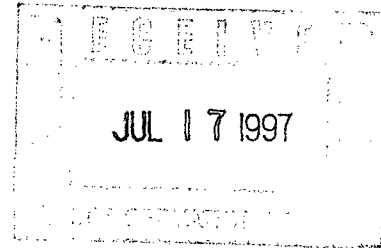
DHC 8/6/97

1665

Via Federal Express

July 16, 1997

State of New Mexico
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505-6429



RE: Geronimo Federal Well No. 1
Geronimo (Delaware) Pool
Gem (Bone Spring) Pool
Lea County, New Mexico

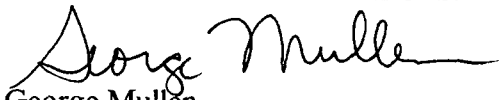


Gentlemen:

Enclosed for your review and further handling you will find, in duplicate, OCD Form C-107-A, Application for Downhole Commingling, along with various other information for the subject well. Mitchell is requesting approval to downhole commingle the Delaware and Bone Spring zones in the Geronimo Federal No. 1 wellbore.

Should you require additional information or if I can be of any further help in this matter, kindly advise.

Very truly yours,
MITCHELL ENERGY CORPORATION


George Mullen
Regulatory Affairs Specialist

c107a.ltr

Enclosures

cc: Manzano Oil Corporation
HEYCO-Harvey E. Yates Co.
Kaiser-Francis Oil Company

Grace Petroleum Corporation
Union Oil Company of California
Bureau of Land Management

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
811 South First St., Artesia, NM 88210-2835
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107-A
New 3-12-96

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

APPROVAL PROCESS:

___ Administrative ___ Hearing

EXISTING WELLBORE

___ YES ___ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Mitchell Energy Corporation PO Box 4000; The Woodlands, TX 77387-4000

Operator

Address

Geronimo Federal

1

Unit D

Sec 31, T19S, R33E

Lea

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

OGRID NO. 015025

Property Code 007987

API NO. 30 025 30645

Spacing Unit Lease Types: (check 1 or more)

Federal ☒ , State ___ , (and/or) Fee ___

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Geronimo (Delaware) 27400		Gem (Bone Spring) 27220
2. Top and Bottom of Pay Section (Perforations)	7510-7666'		9254-10,002'
3. Type of production (Oil or Gas)	oil		oil
4. Method of Production (Flowing or Artificial Lift)	pumping		SI
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) see attached b. (Original)	a. b.	a. see attached b.
6. Oil Gravity (° API) or Gas BTU Content	43.		41.
7. Producing or Shut-In?	producing		SI-CIBP
Production Marginal? (yes or no)	yes		N/A
* If Shut-In, give date and oil/gas/ water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data * If Producing, give date and oil/gas/ water rates of recent test (within 60 days)	Date: Rates: Date: 3-25-97 Rates: oil gas water 9 0 13	Date: Rates: Date: Rates:	Date: 9-30-90 Rates: oil gas water 27 0 13 Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 34 % Gas: 34 %	Oil: % Gas: %	Oil: 66 % Gas: 66 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ___ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ___ Yes ___ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ___ No

11. Will cross-flow occur? ___ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ___ Yes ☒ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ___ No

13. Will the value of production be decreased by commingling? ___ Yes ☒ No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ___ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). DHC-1226

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Staff

SIGNATURE

Rob Pawlik

TITLE Prod. Engineer

DATE 5-6-97

TYPE OR PRINT NAME

Rob Pawlik

TELEPHONE NO. (

713)

377-5979

Geronimo Federal #1
Geronimo Area
Lea County, New Mexico

Form C-107-A Supplemental Data

Initial bottom hole pressure data was not recorded on any of the Bone Springs intervals or Delaware intervals in the subject well. In addition, BHP data was not recorded from the Bone Springs prior to recompletion to the Delaware. There has also not been any recorded BHP's from the Delaware since recompletion.

The production characteristics of the Bone Springs indicate that the intervals are relatively tight. The Bone Springs first produced from the gross interval 9254-10,002' in June 1990. Initial production tests on pump were 18 BOPD and 147 BWPD with a 1-1/4" pump, 8 SPM and 168" stroke. The pump was set at 10,007'. By the end of September 1990, the production rate was 27 BOPD, 13 BWPD and gas TSTM. Fluid level measurements at the end of June 1990 indicated that the well was pumped off.

Similarity, the production characteristics of the Delaware indicate that the intervals are relatively tight. The Delaware first produced from the entire gross interval 7510-7666' in May 1993. Initial production tests on pump were 23 BOPD, 39 BWPD and 30 MCFD with a 1-1/2" pump, 9 SPM and 149" stroke. The pump was set at 7662'. Currently, the production rate is 9 BOPD, 13 BWPD and gas TSTM.

Upon approval to commingle the Bone Springs and Delaware, Mitchell Energy Corporation will drill out the CIBP at 9230' and clean out the well through the bottom Bone Springs perforation at 10,002'. We will then set the pump below the bottom perforation and restore production. The projected stabilized production should be about 36 BOPD, 26 BWPD and gas TSTM which is well within the production capabilities of the pumping equipment on location. As a result, we project that there will be no cross flow from the Delaware to the Bone Springs when the well is producing. In addition, we project that cross flow from the Delaware to the Bone Springs will be minimal if any if the well goes down since the Bone Springs is relatively tight. It is our position, that the commingling of these two intervals is necessary to prevent waste and recover the maximum amount of hydrocarbons since the economic limit will be extended by the combined production.

Rob Pawlik 5/8/97

Rob Pawlik
Staff Production Engineer
Mitchell Energy Corporation

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

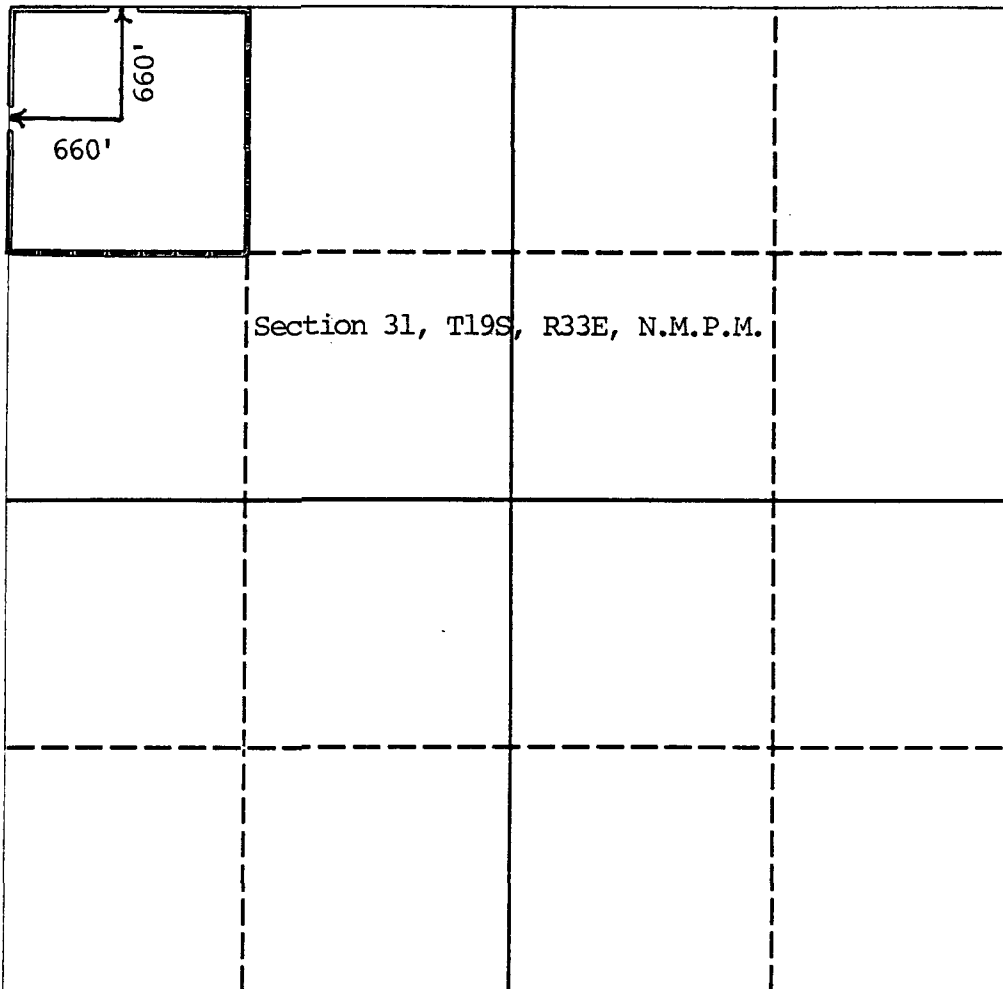
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Mitchell Energy Corporation			Lease Geronimo Federal		Well No. 1
Unit Letter D	Section 31	Township 19S	Range 33E	County Lea	
Actual Footage Location of Well: 660 feet from the North line and 660 feet from the West line					
Ground level Elev. 3576	Producing Formation Bone Spring		Pool Gem (Bone Spring)	Dedicated Acreage: 40 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary). _____
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

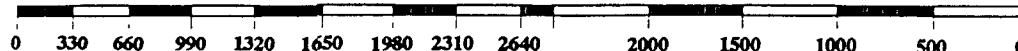
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature
George Mullen
Printed Name
George Mullen
Position
Reg. Affairs Specialist
Company
Mitchell Energy Corp.
Date
July 15, 1997

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
Signature & Seal of Professional Surveyor
Certificate No.



Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

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P.O. Box 1980, Hobbs, NM 88240

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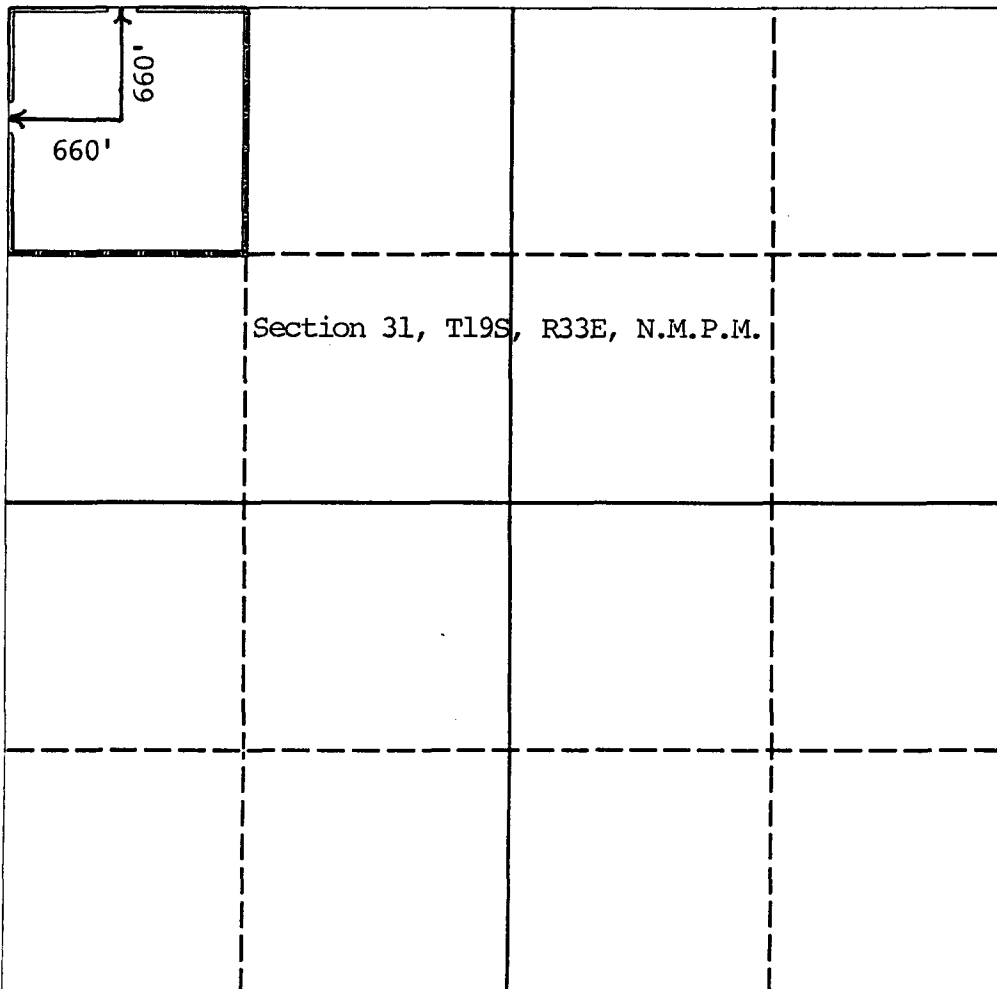
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

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All Distances must be from the outer boundaries of the section

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Unit Letter D	Section 31	Township 19S	Range 33E	County Lea	
Actual Footage Location of Well: 660 feet from the North line and 660 feet from the West line					
Ground level Elev. 3576	Producing Formation Delaware		Pool Geronimo (Delaware)		Dedicated Acreage: 40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
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If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if neccessary.) _____
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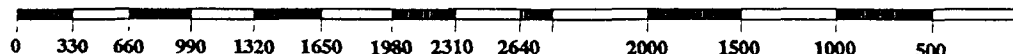
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Printed Name
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Position
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Date Surveyed
Signature & Seal of
Professional Surveyor
Certificate No.



Lease: GERONIMO FEDERAL 000001

Dwights
05/05/97

Retrieval Code: 150,025,19S33E31D00BS



County: LEA, NM

F.P. Date: 01/90

Field: GEM (BONE SPRINGS) BS

Oil Cum: 7179 bbl

Reservoir: BONE SPRINGS

Gas Cum: 22.04 mmcf

Operator: MITCHELL ENERGY CORP

Location: 31D 19S 33E

Dwight's Energydata Inc.
TX - NM Permian
New Mexico Oil

Run Date: 5/6/97
Published 4/97
(#160,026,19S33E31D00BS)

Operator:	MITCHELL ENERGY CORP	First Production Date:	01/90
Well/Lease Name:	GERONIMO FEDERAL	Last Production Date:	10/90
Well #:	000001	Cum. Thru L. P. Date Oil:	7,179
Location:	31D 19S 33E	Cum. Thru L. P. Date Gas:	22,036
State:	NM	Total Depth:	10,664
District:	002	Upper Perforation:	9,862
County:	LEA	Lower Perforation:	10,002
Regulatory #:	46680		
API #:	30-026-3064600		
Field:	GEM (BONE SPRINGS) BS		
Reservoir:	BONE SPRINGS		
Basin:	PERMIAN BASIN		
Gas Gatherer:			
Liquid Gatherer:	TEXAC		
Status Date:			
Status:	INA		

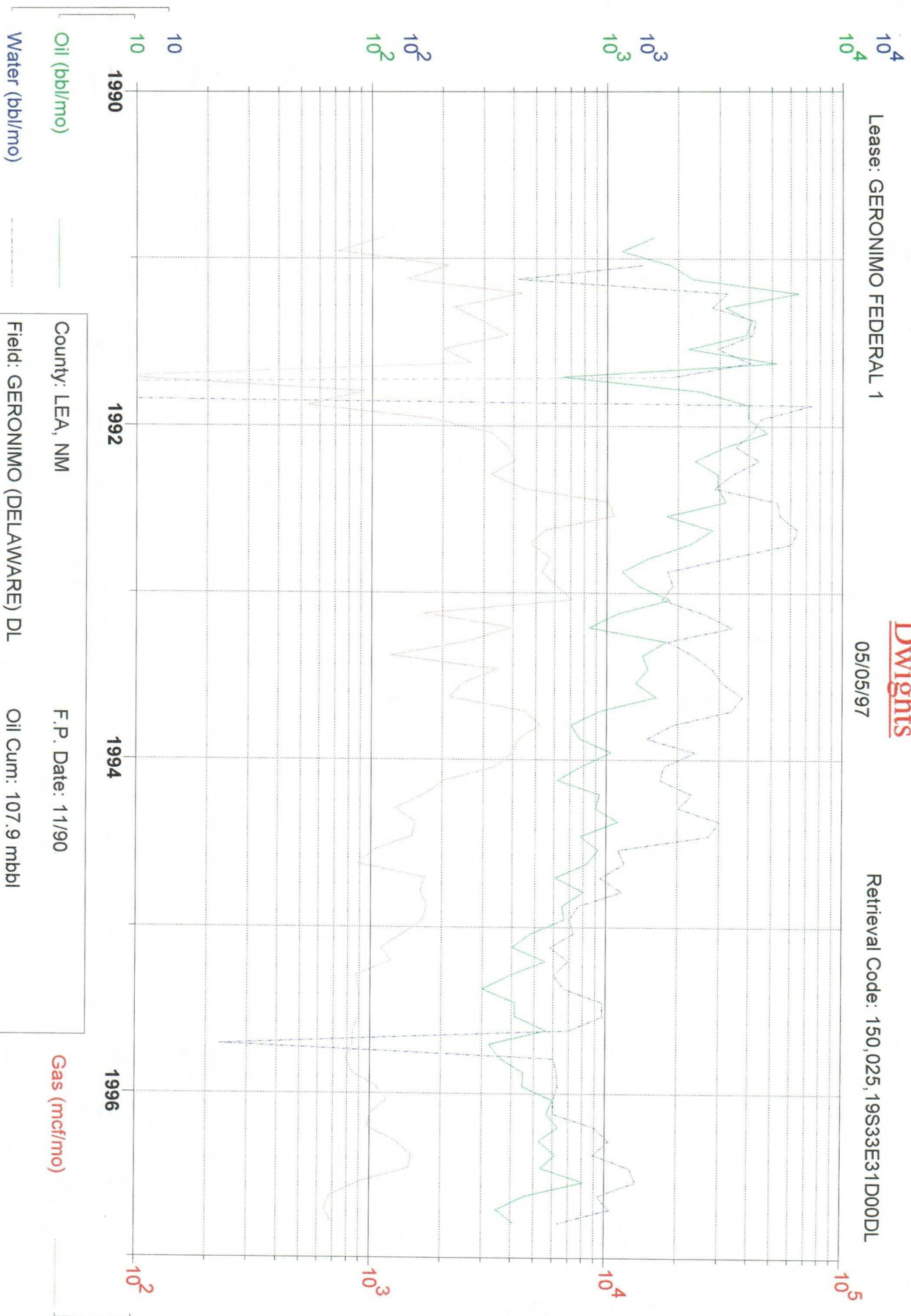
Year	Oil Prod BBLs	Gas Prod MCF	Water BBLs	# of Wells	Days On	Allowables
1990	7,179	22,036	10,681	1	247	

Date	Oil Prod	BLS	Cum. Oil	Gas Prod	Cum. Gas	GOR	Water	%	# of	Days	Allowables
MO/YR	BLS	/Day	Prod. BLS	MCF	MCF	SCF/BLS	Water	Water	Wells	On	
01/90	1,348	58	1,348	2,300	2,300	1,706	299	18.15	1	23	
02/90	620	22	1,968	2,625	4,925	4,234	604	49.35	1	27	
03/90	336	16	2,304	2,100	7,025	6,250	203	37.66	1	21	
04/90	150	5	2,454	2,900	9,925	19,333	171	53.27	1	29	
05/90	447	21	2,901	2,017	11,942	4,512	4,156	90.29	1	21	
06/90	867	33	3,768	2,600	14,542	2,999	2,382	73.31	1	26	
07/90	904	29	4,672	3,100	17,642	3,429	889	49.58	1	31	
08/90	855	27	5,527	3,127	20,769	3,657	860	50.15	1	31	
09/90	682	25	6,209	808	21,577	1,185	788	53.61	1	27	
10/90	970	88	7,179	459	22,036	473	329	25.33	1	11	
11/90	0	0	7,179	0	22,036		0		0	0	
12/90	0	0	7,179	0	22,036		0		0	0	
Totals	7,179			22,036			10,681			247	

Lease: GERONIMO FEDERAL 1

Dwights
05/05/97

Retrieval Code: 150,025,19S33E31D00DL



County: LEA, NM

F.P. Date: 11/90

Field: GERONIMO (DELAWARE) DL

Oil Cum: 107.9 mbbl

Reservoir: DELAWARE

Gas Cum: 177.4 mmcf

Operator: MITCHELL ENERGY CORP

Location: 31D 19S 33E

Dwight's Energydata Inc.
TX - NM Permian
New Mexico Oil

Run Date: 6/6/97
Published 4/97
(#160,026,19S33E31D00DL)

Operator:	MITCHELL ENERGY CORP	First Production Date:	11/90
Well/Lease Name:	GERONIMO FEDERAL	Last Production Date:	10/96
Well #:	1	Cum. Thru L. P. Date Oil:	107,892
Location:	31D 19S 33E	Cum. Thru L. P. Date Gas:	177,379
State:	NM	Total Depth:	10,564
District:	002	Upper Perforation:	7,586
County:	LEA	Lower Perforation:	7,676
Regulatory #:	61316		
API #:	30-026-3064600		
Field:	GERONIMO (DELAWARE) DL		
Reservoir:	DELAWARE		
Basin:	PERMIAN BASIN		
Gas Gatherer:	CONCO		
Liquid Gatherer:	TEXNE		
Status Date:			
Status:	ACT		

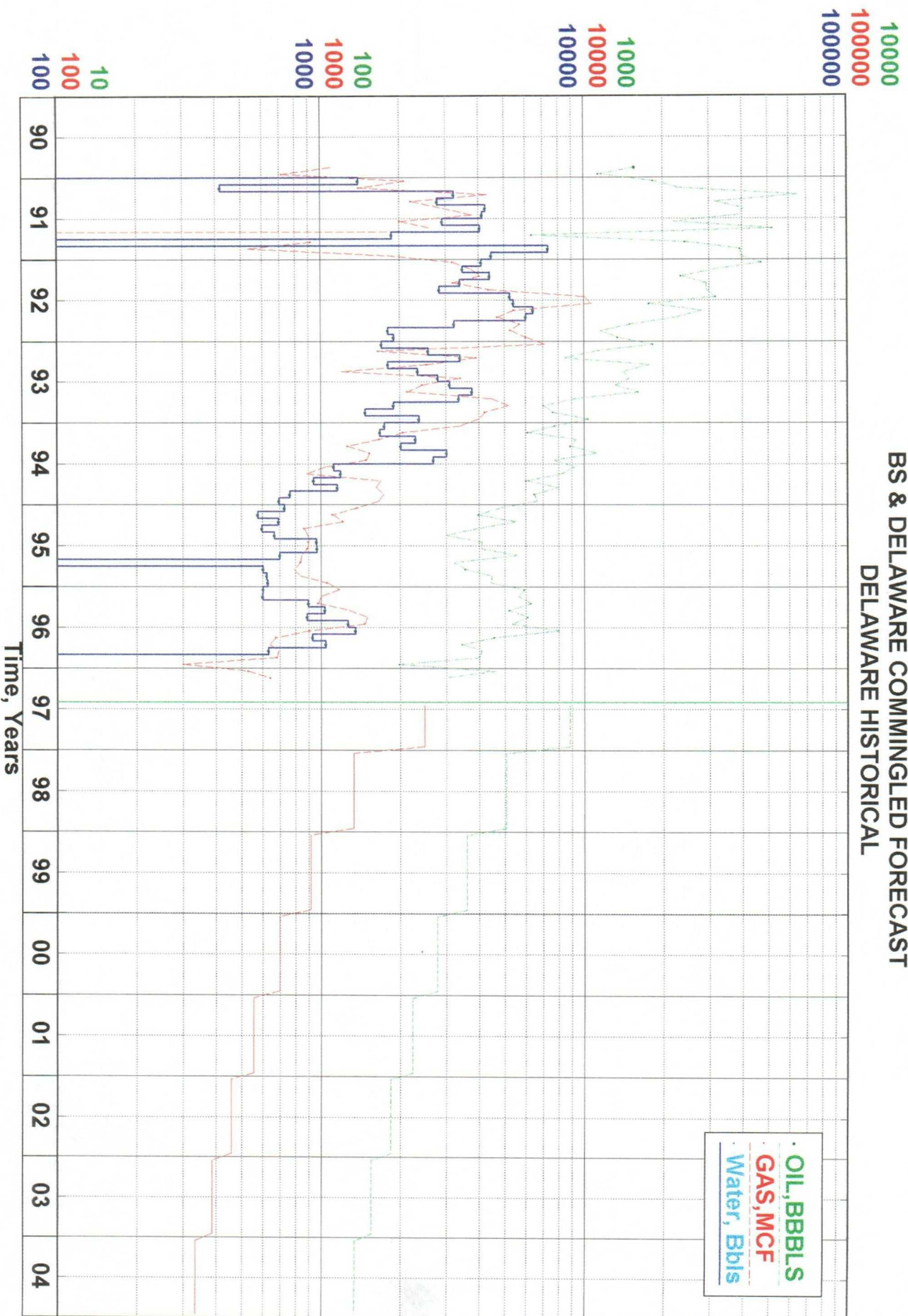
Year	Oil Prod BBLs	Gas Prod MCF	Water BBLs	# of Wells	Days On	Allowables
1990	2,716	1,820		1	281	
1991	40,058	24,725	36,812	1	353	
1992	30,153	66,537	48,242	1	337	
1993	14,846	42,250	30,525	1	351	
1994	9,572	20,088	19,299		354	
1995	5,066	11,631	7,761		304	
1996	5,481	10,328	9,244			

Date	Oil Prod	BLS	Cum. Oil	Gas Prod	Cum. Gas	GOR	Water	%	# of	Days	
MO/YR	BBLs	/Day	Prod. BBLs	MCF	MCF	SCF/BBLs	Water	Water	Wells	On	Allowables
01/90	0	0	0	0	0				0		
02/90	0	0	0	0	0				0		
03/90	0	0	0	0	0				0		
04/90	0	0	0	0	0				0		
05/90	0	0	0	0	0				0		
06/90	0	0	0	0	0				0		
07/90	0	0	0	0	0				0		
08/90	0	0	0	0	0				0		
09/90	0	0	0	0	0				0		
10/90	0	0	0	0	0				0		
11/90	1,568	52	1,568	1,100	1,100	702			1		
12/90	1,148	38	2,716	720	1,820	627			1		
Totals	2,716			1,820							
01/91	1,847	61	4,563	2,103	3,923	1,139	1,395	43.03	1	0	
02/91	2,302	127	6,865	1,411	5,334	613	418	15.37	1	18	
03/91	6,448	208	13,313	4,308	9,642	668	3,216	33.28	1	31	
04/91	3,155	131	16,468	2,227	11,869	706	2,784	46.88	1	24	
05/91	4,060	135	20,528	2,928	14,797	721	4,241	51.09	1	30	
06/91	3,854	128	24,382	3,772	18,569	979	4,119	51.66	1	30	
07/91	2,202	104	26,584	2,013	20,582	914	2,918	56.99	1	21	
08/91	5,217	200	31,801	2,622	23,204	503	4,040	43.64	1	26	
09/91	641	37	32,442	80	23,284	125	1,869	74.46	1	17	
10/91	2,447	94	34,889	924	24,208	378	0	0.00	1	26	
11/91	3,942	135	38,831	531	24,739	135	7,337	65.05	1	29	
12/91	3,943	135	42,774	1,806	26,545	459	4,475	53.16	1	29	
Totals	40,058			24,725			36,812			281	
01/92	4,747	153	47,521	3,199	29,744	674	4,090	46.28	1	31	
02/92	3,161	131	50,682	3,747	33,491	1,185	3,480	52.40	1	24	
03/92	2,354	75	53,036	4,046	37,537	1,719	4,400	65.15	1	31	
04/92	2,930	97	55,966	3,205	40,742	1,094	3,398	53.70	1	30	
05/92	2,939	94	58,905	4,378	45,120	1,490	2,834	49.09	1	31	
06/92	3,180	106	62,085	10,066	55,186	3,165	5,244	62.25	1	30	
07/92	1,780	68	63,865	10,672	65,858	5,996	5,423	75.29	1	26	
08/92	2,797	90	66,662	5,448	71,306	1,948	6,431	69.69	1	31	
09/92	2,248	74	68,910	4,718	76,024	2,099	6,022	72.82	1	30	
10/92	1,509	48	70,419	5,725	81,749	3,794	3,219	68.08	1	31	
11/92	1,155	38	71,574	5,280	87,029	4,571	1,800	60.91	1	30	
12/92	1,353	48	72,927	6,053	93,082	4,474	1,901	58.42	1	28	
Totals	30,153			66,537			48,242			353	
01/93	1,840	59	74,767	7,109	100,191	3,864	1,706	48.11	1	31	
02/93	1,109	44	75,876	1,662	101,853	1,499	2,560	69.77	1	25	
03/93	840	27	76,716	3,912	105,765	4,657	3,386	80.12	1	31	
04/93	1,775	68	78,491	2,542	108,307	1,432	1,804	50.41	1	26	
05/93	1,411	48	79,902	1,206	109,513	855	2,337	62.35	1	29	
06/93	1,489	49	81,391	3,417	112,930	2,295	2,790	65.20	1	30	

Date	Oil Prod	BBLs	Cum. Oil	Gas Prod	Cum. Gas	GOR	Water	%	# of	Days
MO/YR	BBLs	/Day	Prod. BBLs	MCF	MCF	SCF/BBLs	Water	Water	Wells	On Allowables
07/93	1,321	47	82,712	2,442	115,372	1,849	3,098	70.11	1	28
08/93	1,615	55	84,327	2,141	117,513	1,326	3,756	69.93	1	29
09/93	931	31	85,258	4,448	121,961	4,778	3,354	78.27	1	30
10/93	704	26	85,962	5,173	127,134	7,348	1,890	72.86	1	27
11/93	767	38	86,729	4,226	131,360	5,510	1,477	65.82	1	20
12/93	1,044	33	87,773	3,972	135,332	3,805	2,367	69.39	1	31
Totals	14,846			42,250			30,525			337
01/94	780	33	88,553	3,410	138,742	4,372	1,749	69.16		23
02/94	616	22	89,169	2,062	140,804	3,347	1,680	73.17		28
03/94	933	33	90,102	1,680	142,484	1,801	2,292	71.07		28
04/94	892	29	90,994	1,269	143,753	1,423	2,014	69.30		30
05/94	1,117	36	92,111	1,535	145,288	1,374	3,014	72.96		31
06/94	772	25	92,883	1,494	146,782	1,935	2,683	77.66		30
07/94	923	30	93,806	1,044	147,826	1,131	1,121	54.84		30
08/94	822	26	94,628	884	148,710	1,075	1,191	59.17		31
09/94	606	20	95,234	1,692	150,402	2,792	940	60.80		30
10/94	798	26	96,032	1,623	152,025	2,034	1,159	59.22		30
11/94	650	22	96,682	1,733	153,758	2,666	762	53.97		29
12/94	663	21	97,345	1,662	155,420	2,507	694	51.14		31
Totals	9,572			20,088			19,299			351
01/95	479	15	97,824	1,377	156,797	2,875	729	60.35		31
02/95	400	14	98,224	1,110	157,907	2,775	577	59.06		27
03/95	552	19	98,776	1,217	159,124	2,205	691	55.59		29
04/95	392	13	99,168	867	159,991	2,212	598	60.40		29
05/95	299	9	99,467	896	160,887	2,987	667	69.05		30
06/95	410	14	99,877	899	161,786	2,193	961	70.09		29
07/95	410	13	100,287	894	162,680	2,180	966	70.20		31
08/95	558	20	100,845	845	163,525	1,514	698	55.57		27
09/95	320	11	101,165	839	164,364	2,622	23	6.71		29
10/95	356	11	101,521	790	165,154	2,219	602	62.84		31
11/95	447	14	101,968	838	165,992	1,875	622	58.19		30
12/95	443	14	102,411	1,059	167,051	2,391	627	58.60		31
Totals	5,066			11,631			7,761			354
01/96	595	19	103,006	1,176	168,227	1,976	602	50.29		31
02/96	564	19	103,570	1,003	169,230	1,778	601	51.59		29
03/96	631	20	104,201	980	170,210	1,553	897	58.70		31
04/96	523	17	104,724	1,280	171,490	2,447	1,036	66.45		30
05/96	612	19	105,336	1,502	172,992	2,454	885	59.12		31
06/96	533	17	105,869	1,471	174,463	2,760	1,268	70.41		30
07/96	810	26	106,679	907	175,370	1,120	1,351	62.52		31
08/96	457	14	107,136	677	176,047	1,481	928	67.00		31
09/96	346	11	107,482	640	176,687	1,850	1,043	75.09		29
10/96	410	13	107,892	692	177,379	1,688	633	60.69		31
11/96	0	0	107,892	0	177,379		0			0
12/96	0	0	107,892	0	177,379		0			0

Date	Oil Prod	BLS	Cum. Oil	Gas Prod	Cum. Gas	GOR	Water	%	# of	Days	Allowables
MO/YR	BLS	/Day	Prod. BLS	MCF	MCF	SCF/BLS	Water	Water	Wells	On	
Totals	5,481			10,328			9,244			304	

GERONIMO FEDERAL 1 BS & DELAWARE COMMINGLED FORECAST DELAWARE HISTORICAL



**GERONIMO FEDERAL #1
PROPOSAL
TO
COMMINGLE PRODUCTION
FROM
GERONIMO (DELAWARE) & GEM (BONE SPRING) ZONES**

PRODUCTION HISTORY

BONE SPRING						DELAWARE					
YR	OIL BBLs	GAS MCF	WTR BBLs	# of Wells	Days On	YR	OIL BBLs	GAS MCF	WTR BBLs	# of Wells	Days On
1990	7,179	22,036	10,681	1	247	1990	2,716	1,820		1	
						1991	40,058	24,725	36,812	1	281
						1992	30,153	66,537	48,242	1	353
						1993	14,846	42,250	30,525	1	337
						1994	9,572	20,088	19,299		351
						1995	5,066	11,631	7,761		354
						1996	5,481	10,328	9,244		304

Estimated Economic Remaining BONE SPRING Reserve = 12,600
Estimated Economic Remaining DELAWARE Reserve = 6,500
Combined Economic BONE SPRING & DELAWARE Reserve = 19,100

Fraction of remaining from BONE SPRING = $12,600/19,100 = .66$
Fraction of remaining reserve from DELAWARE = $6,500/19,100 = .34$

PROPOSED ALLOCATION FORMULA:

TOTAL PRODUCTION X (.66) = GEM (BONE SPRING) POOL
TOTAL PRODUCTION X (.34) = GERONIMO (DELAWARE) POOL

PRESENT

**Geronimo Federal #1
Geronimo Field
Lea County, New Mexico**

**13 3/8" 54.5 K-55 ST&C @ 1298'
cmt'd w/ 1130 sx CL "C" to surf.**

**csg leak 3482-3544 sqz'd
w/ 300sx CL "C" tested
to 1000#**

**8 5/8" 32# K-55 ST&C @ 3355' cmt'd
w/750 sx 65:35 c/poz +300 sx
CL "C" to surface**

TOC @ 4745 (CBL)

**DV Tool @ 6307 cmt'd
w/500sx CL "H" /poz
(CBL)**

TOC @ 6930 (CBL)

**2 7/8" 6.5# N-80 tbg.
@ 7725 SN @ 7663 TA @ 7441
2 1/2" x 1 1/2" x 26' RHBC Pump
w/ "97" Norris Rod String**

Delaware Perfs

**7510-7553 lspf 24 holes acidized w/2500 gal 7 1/2% hr
7586-88 7591-97 lspf 10 holes
7610-22 7656-66 lspf 24 holes
frac'd w 275,000# 20/40**

**CIBP @ 9230
w/ 20' cmt on top**

Bone Spring Perfs

**9254-9277 lspf 24 holes
frac'd w/ 86,000# 16/30
9617-9651 > lspf 27 holes
9704-9750 frac'd w/ 189,000# 16/30
9852-10002 28 holes**

**PBTD 10,491
TD 10,564**

**frac'd w/260,000# 16/30
5 1/2" 17# K-55/N-80 LT&C @ 10562
cmt'd w/ 725sx CL "H" Selfstress**

*MEV
4-97*

PROPOSED

Geronimo Federal #1
Geronimo Field
Lea County, New Mexico

13 3/8" 54.5 K-55 ST&C @ 1298'
cmt'd w/ 1130 sx CL "C" to surf.

csg leak 3482-3544 sqz'd
w/ 300sx CL "C" tested
to 1000#

8 5/8" 32# K-55 ST&C @ 3355'
cmt'd w/ 750sx 65:35 c/poz
+ 300 sx CL "C" to surface

TOC @ 4745 (CBL)

DV Tool @ 6307 cmt'd
w/500sx CL "H" /poz
(CBL)

2 7/8" 6.5# N-80 tbg.
@10090 SN @ 10030 TA @ 7450
2 1/2" x 1 1/2" x 26' RHBC Pump

TOC @ 6930 (CBL)

Delaware Perfs

7510-7553 1spf 24 holes acidized w/2500 gal 7 1/2' hcl
7586-88 7591-97 1spf 10 holes
7610-22 7656-66 1spf 24holes
frac'd w 275,000# 20/40

Bone Spring Perfs

9254-9277 1spf 24 holes
frac'd w/ 86,000# 16/30
9617-9651 > 1spf 27 holes
9704 9750 frac'd w/ 189,000# 16/30
9852-10002 28 holes
frac'd w/260,000# 16/30

EOT @ 10062

PBTD 10,491
TD 10,564

5 1/2" 17# K-55/ N-80 LT&C @ 10562
cmt'd w/ 725sx CL "H" Selfstress

M&F
4-97



Champion
Technologies, Inc.

Committed To Improvement

Water Analysis Report

Customer: Mitchell Energy

3/5/96

Address:

City:

State:

Zip:

Attention: Gary Butler

Date Sampled: 2/28/96

CC1: Herb Singleton

Date Received: 2/28/96

CC2: Greg Colburn

SALESMAN NAME: Mike Edwards

LEASE: Geronimo

SAMPLE POINT: Geronimo Fed #1 *DELAWARE*

WELL: Geronimo Fed #1

REMARKS:

CHLORIDE: 168000
SULFATE: 380
BICARBONATE: 85
CALCIUM: 32481
MAGNESIUM: 4981
IRON: 6
BARIUM: 6
STRONTIUM: 1172
MEASURED pH: 6.21
TEMPERATURE: 86
DISSOLVED CO2: 395

MOLE PERCENT CO2 IN GAS:

DISSOLVED H2S: 0.0
PRESSURE (PSIA): 100

SODIUM (PPM): 61863

IONIC STRENGTH: 4.75

CALCITE (CaCO3) SI: -0.26	CALCITE PTB: N/A
GYPSUM (CaSO4) SI: -0.08	GYPSUM PTB: N/A
BARITE (BaSO4) SI: 0.94	BARITE PTB: 3.2
CELESTITE (SrSO4) SI: 0.61	CELESTITE PTB: 130.8

SI calculations based on Tomson-Oddo



Champion
Technologies, Inc.

Committed To Improvement

Water Analysis Report

Customer: Mitchell Energy

3/5/96

Address:

City:

State:

Zip:

Attention: Gary Butler

Date Sampled: 2/28/96

CC1: Herb Singleton

Date Received: 2/28/96

CC2: Greg Colburn

SALESMAN NAME: Mike Edwards

LEASE: Geronimo

SAMPLE POINT: Geronimo #5

BONE SPRING

WELL: Geronimo #5

REMARKS:

CHLORIDE: 100000

SULFATE: 529

BICARBONATE: 146

CALCIUM: 2325

MAGNESIUM: 534

IRON: 6

BARIUM: 3

STRONTIUM: 479

MEASURED pH: 6.52

TEMPERATURE: 86

DISSOLVED CO2: 526

MOLE PERCENT CO2 IN GAS:

DISSOLVED H2S: 0.0

PRESSURE (PSIA): 100

SODIUM (PPM): 61230

IONIC STRENGTH: 2.83

CALCITE (CaCO3) SI: -1.99

CALCITE PTB: N/A

GYPSUM (CaSO4) SI: -1.02

GYPSUM PTB: N/A

BARITE (BaSO4) SI: 0.58

BARITE PTB: 1.3

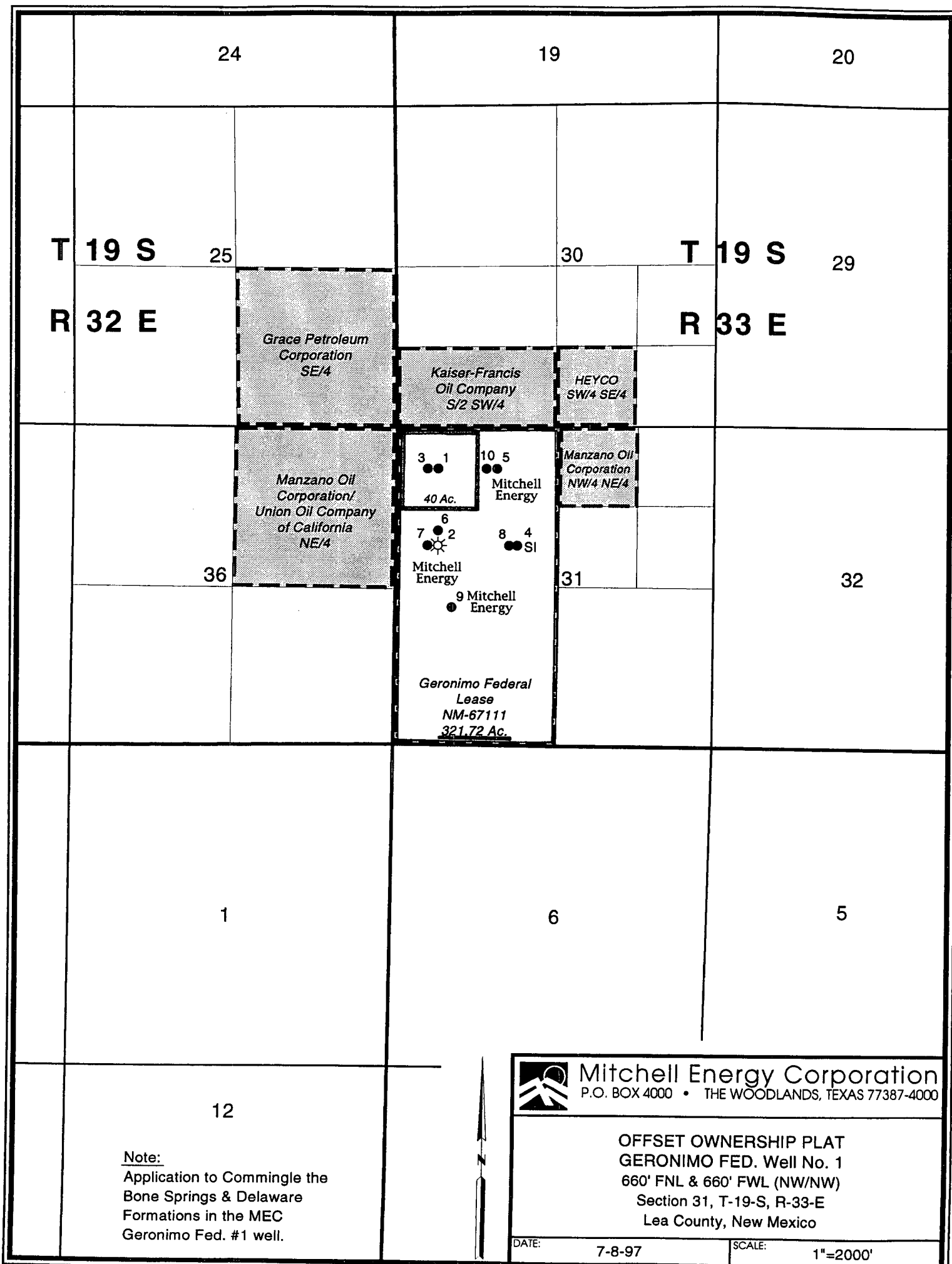
CELESTITE (SrSO4) SI: 0.23

CELESTITE PTB: 79.7

SI calculations based on Tomson-Oddo

GERONIMO FEDERAL #1
Well Chronological

1. 12-89: Well drilled and completed in the 2nd Bone Spring Formation perfs 9852-10,002 acidized with 55 bbls 15 % HCL. Frac'd with 188,340# 16/30 Ottawa and 72,000# 16/30 resin coated. Placed well on production.
2. 03-90: Added perfs in the 2nd Bone Spring Formation 9617-9750. Acidized with 68 bbls 15 % HCL and frac'd with 164,000# 16/30 Ottawa. Placed well on production.
3. 05-90: perf'd the 1st Bone Spring Formation 9254-9277. Acidized with 48 bbls 15 % NEFE and frac'd with 66,000# 16/30 Ottawa and 20,000# 16/30 Super DC.
4. 05-90: Producing from perforations in the Bone Spring Formation 9254-10002.
5. 09-90: Set CIBP @ 9240 and dumped 20' sand on top. Isolated Bone Spring Formation. Perf'd the Delaware Formation 7586-7597. Acidized with 24 bbls 15% HCL. Swabbed on well.
6. 10-90: Acidized with 60 bbls gelled 15% HCL. Swabbed on well. Perf'd Delaware Formation 7610-7666. Acidized with 29 bbls 15% HCL. Swab tested zones. Placed well on production.
7. 10-90: Producing from perforations in the Delaware Formation 7586-7666.
8. 02-91: RIH and retrieved CIBP @ 9240. POOH. Frac'd Delaware Formations with 240,000# Ottawa and 35,000# resin coated. Placed well on production.
9. 02-95: File for approval to commingle Geronimo Federal #1 production on the surface with other Geronimo Federal wells producing from the same formation.
10. 05-97: File paperwork for approval of downhole commingling of the Bone Spring and the Delaware Formation.



Certificate of Service

I hereby certify that a true and correct copy of Mitchell Energy Corporation's Application for Downhole Commingling for its Geronimo Federal Well No. 1 was sent to each of the below named parties by certified mail on July 16, 1997.

Manzano Oil Corporation
P.O. Box 2107
Roswell, New Mexico 88202

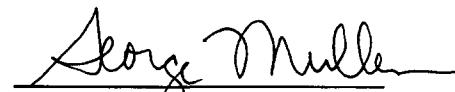
Grace Petroleum Corporation
6501 N. Broadway
Oklahoma City, Oklahoma 73116-8246

HEYCO - Harvey E. Yates Co.
P.O. Box 1933
One Sunwest Centre
Roswell, New Mexico 88201

Union Oil Company of California
HC31, Box 3
Edinburgh Drive
Midland, Texas 79707

Kaiser-Francis Oil Company
P.O. Box 21468
Tulsa, Oklahoma 74121-1468

Bureau of Land Management
2909 West Second Street
Roswell, New Mexico 88201

A handwritten signature in cursive script, appearing to read "George Mullen", written over a horizontal line.

George Mullen
Regulatory Affairs Specialist