

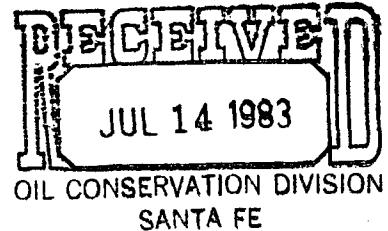


Amoco Production Company (USA)

Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

July 11, 1983



File: SJ0-1254-WF

Re: Downhole Commingling of
Greenwood PG Unit Federal "C" Com Well No. 1
Shugart Morrow and North Shugart Atoka Gas Pools
Eddy County, New Mexico

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Attention: Mr. Joe D. Ramey

Gentlemen:

Amoco, as operator of the Greenwood PG Unit Federal "C" Com Well No. 1, requests your approval to downhole commingle the subject well in accordance with NMOCD Rule 303-C.

The subject well is located 1980' FSL x 660' FWL, Section 27, T-18-S, R-31-E, Eddy County, New Mexico, in the Shugart Morrow Field. Attached is a map showing the subject well location. The Greenwood Pre Grayburg Unit Federal "C" Com No. 1 was completed in the Morrow Formation March, 1979, potentialing 5.2 MMCFD x 9 BCPD. The Production in April, 1983 was 232 MCFD x 2 BCPD with a cumulative production of .8 BCF. During a recent recompletion (January, 1983), the Atoka formation was perforated and acidized in order to dually complete up the annulus with the Morrow formation. The Atoka was flow tested for 31 MCFD with no fluid production at a flowing tubing pressure of 25 psi. Due to the low flow rates achieved in the Atoka, it is believed the Atoka will not be economically produced as a dual completion and, therefore, is currently shut-in. We feel commingling both gas zones and producing through a single tubing string will enhance the economic operation of the well and recover the remaining reserves. The sales line pressure was decreased from 400 psi to 15 psi on June 1, 1983 to improve the production of the well. Attached are the proposed dual completion, downhole commingling, and the present wellbore sketches.

July 11, 1983
File: SJ0-1254-WF
Page 2

The following facts are submitted in support of our request.

1. The latest 24 hours productivity tests are as follows:

Date	BCPD	BWPD	MCFD	Perforations
Atoka 2-15-83	0	0	31	11,090'-122'
Morrow 5-16-83	2	0	113	11,594'-97', 601'-10', 629'-34', 652'-56', 762'-66', 772'-75'

2. There is currently no water produced from either zone.
3. We estimate that the value of the commingled production stream will not be less than the sum of the values of the individual streams.
The gas produced is sold to Conoco.
The BTU tests are as follows:

* Atoka 1178 BTU/cf at 14.696 PSIA Dry
Morrow 1152 BTU/cf at 14.696 PSIA Dry

Copy of the tests are attached.

*Note: The Atoka test is taken from the Greenwood PG Unit Fed. "D" No. 1, which is producing in the North Shugart Atoka Field located 660' FNL x 1980' FWL, Section 26, T-18-S, R-31-E.

4. Bottomhole pressures are:

Atoka 1601 PSI
Morrow 2223 PSI

Copies of the Dip-In BHP tests are attached.

5. Both zones to be commingled have common ownerships.
6. Recommended gas allotments are as follows:

Atoka Reserves	Unknown
Morrow Reserves	700 MMCF
	<u>700 MMCF</u>

*Note: Due to limited flow rate achieved and pressure depletion observed, it is recommended that all remaining gas recovered from the Atoka and Morrow formations be allocated to the Shugart Morrow Field for this well.

July 11, 1983
File: SJ0-1254-WF
Page 3

If more information is required, contact Charles Herring at (505) 393-1781.

Yours very truly,

S. J. Kerson *BN*

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
Drawer DD
Artesia, NM 88210

United States Department of the Interior
Bureau of Land Management
Roswell District Office
1717 West 2nd Street
P. O. Box 1397
Roswell, NM 88201

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	499	500	501	502	503	504	505	506	507	508	509	509	510	511	512	513	514	515	516	517	518	519	519	520	521	522	523	524	525	526	527	528	529	529	530	531	532	533	534	535	536	537	538	539	539	540	541	542	543	544	545	546	547	548	549	549	550	551	552	553	554	555	556	557	558	559	559	560	561	562	563	564	565	566	567	568	569	569	570	571	572	573	574	575	575	576	577	578	578	579	579	580	580	581	582	583	584	585	585	586	587	588	588	589	589	590	590	591	592	593	593	594	595	595	596	597	597	598	598	599	599	600	600	601	601	602	602	603	603	604	604	605	605	606	606	607	607	608	608	609	609	610	610	611	611	612	612	613	613	614	614	615	615	616	616	617	617	618	618	619	619	620	620	621	621	622	622	623	623	624	624	625	625	626	626	627	627	628	628	629	629	630	630	631	631	632	632	633	633	634	634	635	635	636	636	637	637	638	638	639	639	640	640	641	641	642	642	643	643	644	644	645	645	646	646	647	647	648	648	649	649	650	650	651	651	652	652	653	653	654	654	655	655	656	656	657	657	658	658	659	659	660	660	661	661	662	662	663	663	664	664	665	665	666	666	667	667	668	668	669	669	670	670	671	671	672	672	673	673	674	674	675	675	676	676	677	677	678	678	679	679	680	680	681	681	682	682	683	683	684	684	685	685	686	686	687	687	688	688	689	689	690	690	691	691	692	692	693	693	694	694	695	695	696	696	697	697	698	698	699	699	700	700	701	701	702	702	703	703	704	704	705	705	706	706	707	707	708	708	709	709	710	710	711	711	712	712	713	713	714	714	715	715	716	716	717	717	718	718	719	719	720	720	721	721	722	722	723	723	724	724	725	725	726	726	727	727	728	728	729	729	730	730	731	731	732	732	733	733	734	734	735	735	736	736	737	737	738	738	739	739	740	740	741	741	742	742	743	743	744	744	745	745	746	746	747	747	748	748	749	749	750	750	751	751	752	752	753	753	754	754	755	755	756	756	757	757	758	758	759	759	760	760	761	761	762	762	763	763	764	764	765	765	766	766	767	767	768	768	769	769	770	770	771	771	772	772	773	773	774	774	775	775	776	776	777	777	778	778	779	779	780	780	781	781	782	782	783	783	784	784	785	785	786	786	787	787	788	788	789	789	790	790	791	791	792	792	793	793	794	794	795	795	796	796	797	797	798	798	799	799	800	800	801	801	802	802	803	803	804	804	805	805	806	806	807	807	808	808	809	809	810	810	811	811	812	812	813	813	814	814	815	815	816	816	817	817	818	818	819	819	820	820	821	821	822	822	823	823	824	824	825	825	826	826	827	827	828	828	829	829	830	830	831	831	832	832	833	833	834	834	835	835	836	836	837	837	838	838	839	839	840	840	841	841	842	842	843	843	844	844	845	845	846	846	847	847	848	848	849	849	850	850	851	851	852	852	853	853	854	854	855	855	856	856	857	857	858	858	859	859	860	860	861	861	862	862	863	863	864	864	865	865	866	866	867	867	868	868	869	869	870	870	871	871	872	872	873	873	874	874	875	875	876	876	877	877	878	878	879	879	880	880	881	881	882	882	883	883	884	884	885	885	886	886	887	887	888	888	889	889	890	890	891	891	892	892	893	893	894	894	895	895	896	896	897	897	898	898	899	899	900	900	901	901	902	902	903	903	904	904	905	905	906	906	907	907	908	908	909	909	910	910	911	911	912	912	913	913	914	914	915	915	916	916	917	917	918	918	919	919	920	920	921	921	922	922	923	923	924	924	925	925	926	926	927	927	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NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator		Lease			Well No.
Amoco Production Company		Greenwood Pre-Grbg Unit Fed <u>C102</u> 1			
Unit Letter	Section	Township	Range	County	
L	27	18-South	31-East	Eddy	

Actual Footage Location of Well:

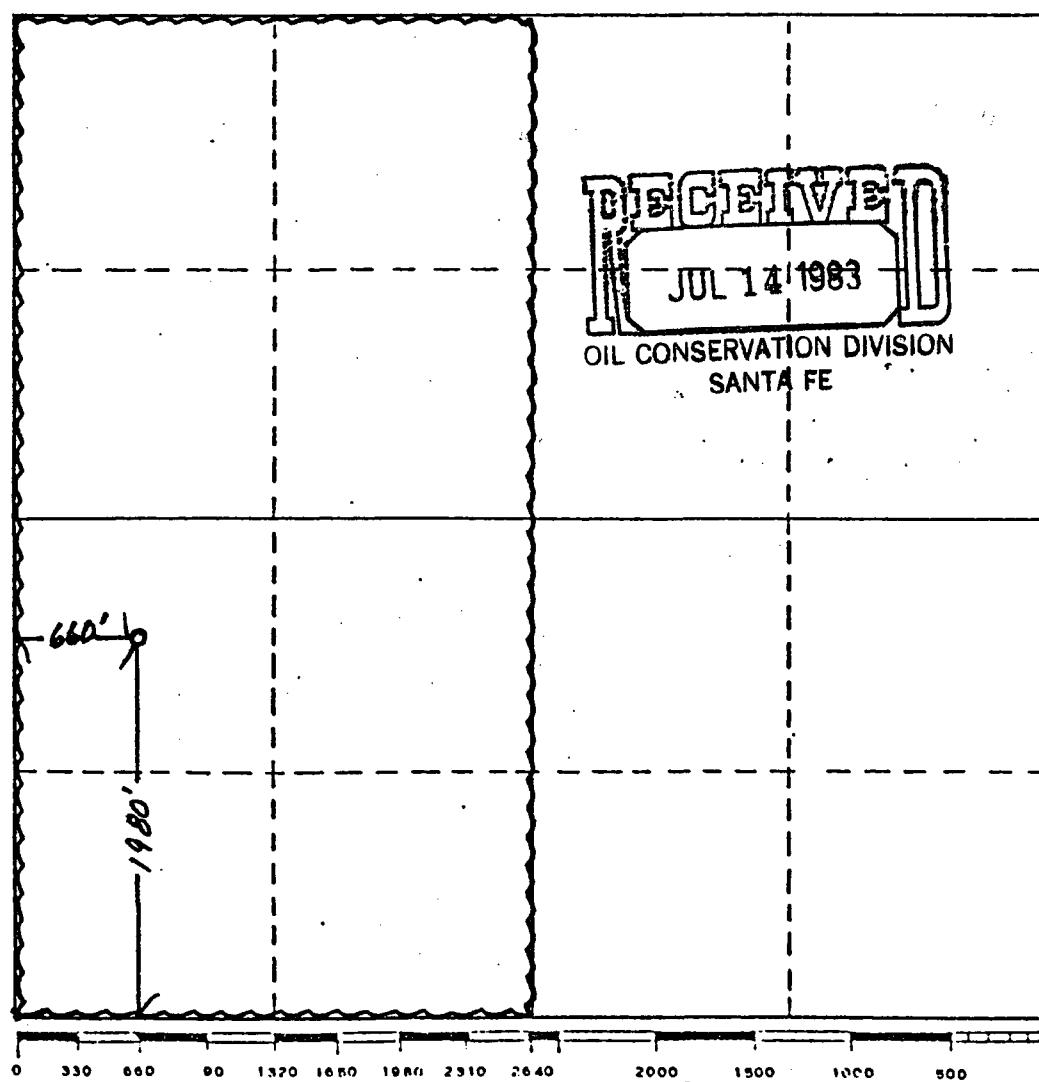
1980	feet from the	South	line and	660	feet from the	West	line
Ground Level Elev.	Producing Formation	Pool			Dedicated Acreage:		
3614.3'	Atoka	North Shugart Atoka			320		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communization, unitization, force-pooling, etc?

Yes No If answer is "yes," type of consolidation _____ Communization

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 communization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: Charles M. Loring
Position: Assist. Admin. Analyst
Company: Amoco Production Company

Date: May 25, 1983

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

Registered Professional Engineer and/or Land Surveyor

Certificate No.

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

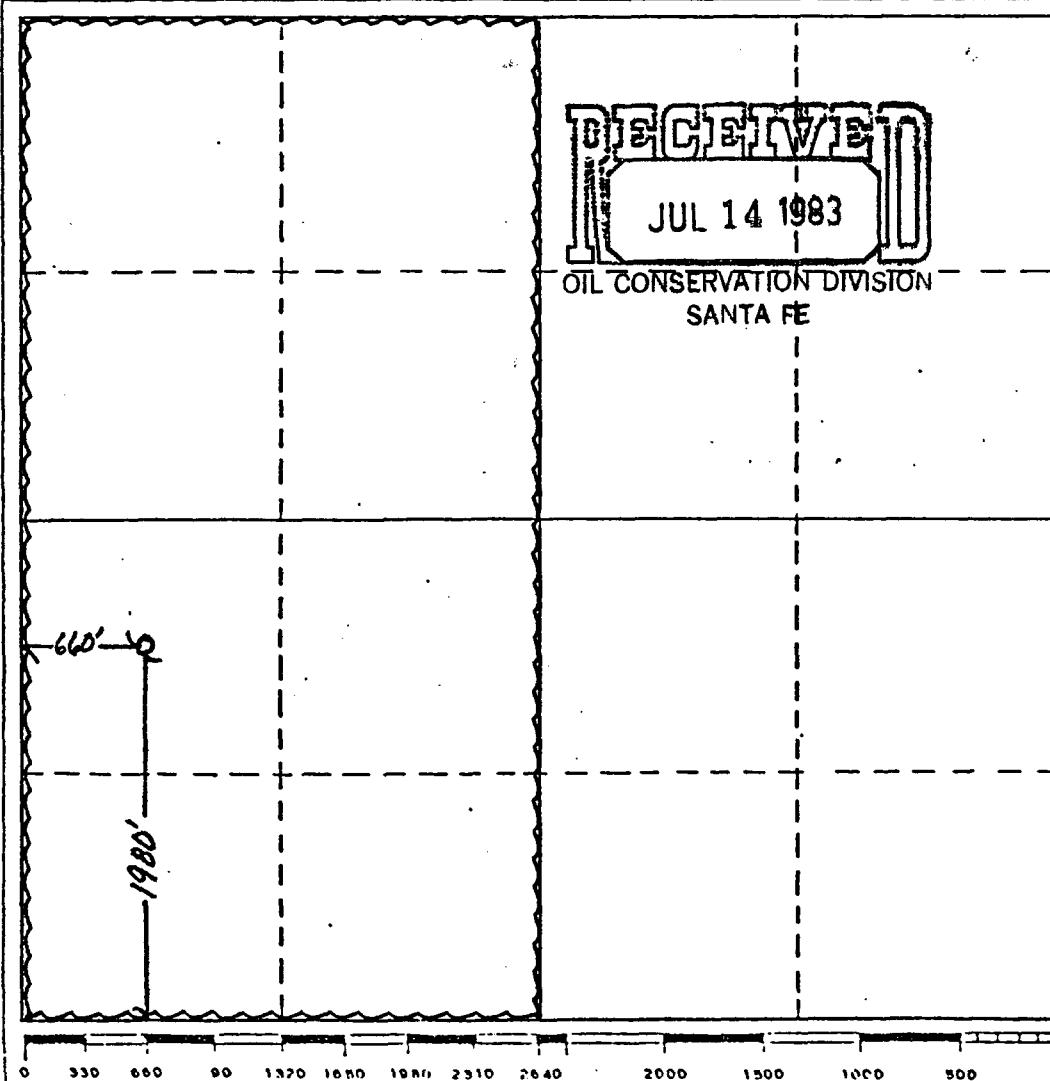
Operator Amoco Production Company			Lease Greenwood Pre-Grbg Unit Fed C Com			Well No. 1
Unit Letter L	Section 27	Township 18-South	Range 31-East	County Eddy		
Actual Footage Location of Well: 1980 feet from the South line and 660 feet from the West line.						
Ground Level Elev. 3614.3'	Producing Formation Morrow	Pool Shugart Morrow			Dedicated Acres: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communization, unitization, force-pooling, etc?

Yes No If answer is "yes," type of consolidation Communitization

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 communization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: Charles M. Stevens
Position: Assist. Admin. Analyst
Company: Amoco Production Company
Date: May 25, 1983

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

Registered Professional Engineer
and/or Land Surveyor

Certificate No.



PROPOSED DUHL COMPLETION

Amoco Production Company

ENGINEERING CHART

SUBJECT GREENWOOD PRE-GRAYBURG UNIT FED. "C" COH. NO. 1

SHEET NO.

OF

FILE

APPN

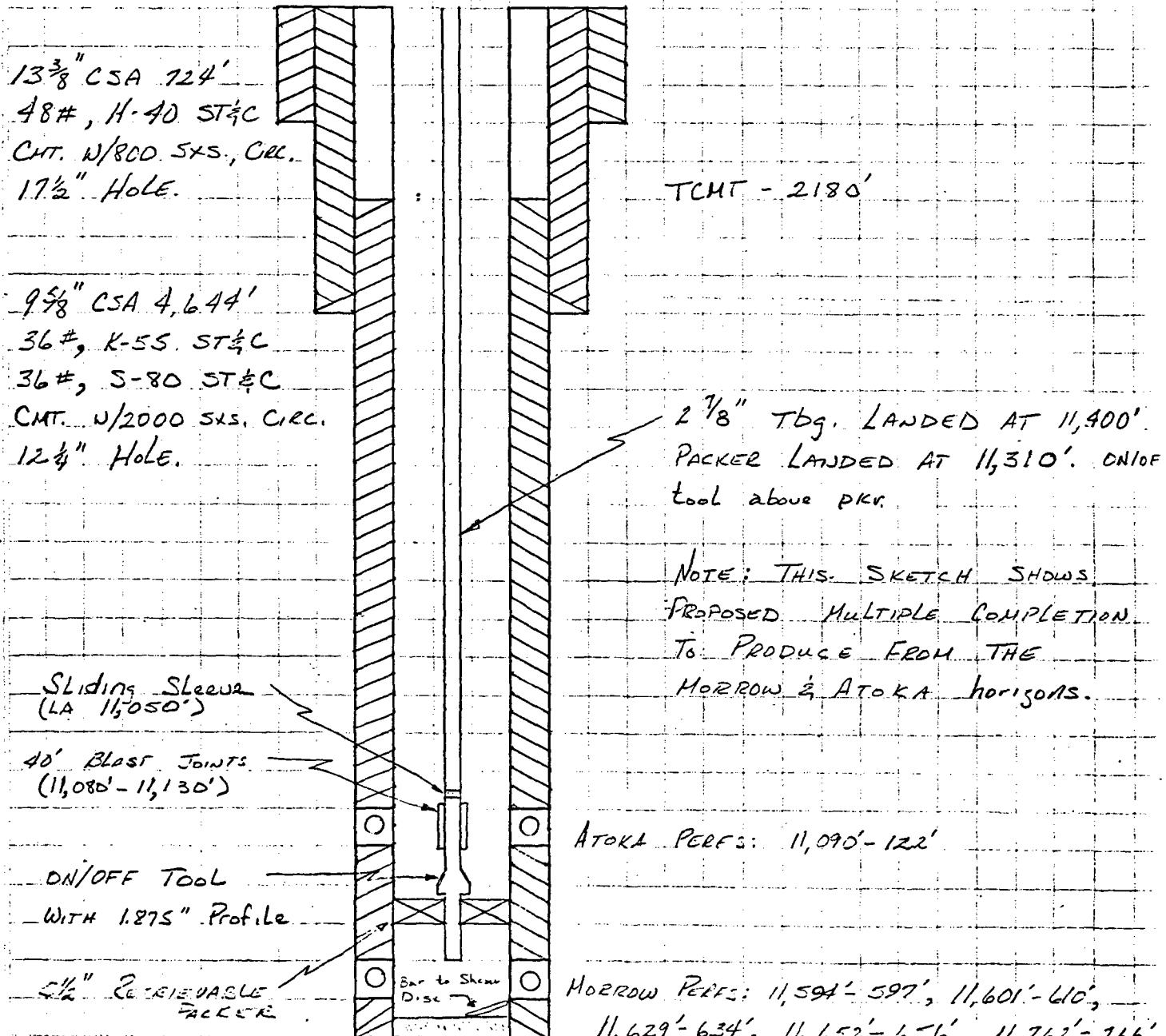
DATE 12/14/82

BY PWD

SHUGART MORROW (GAS)1980' FSL & 660' FWL, SEC. 27, T-18-S, R-31-E
EDDY COUNTY, NEW MEXICO

COMPLETED: 3-9-79

ELEV. 3614.4 GL





Amoco Production Compar

ENGINEERING CHART

SUBJECT

GREENWOOD PRE-GRAYBURG FED. "C" COM No. 1

(FORMERLY #10)

SHEET NO.

OF

FILE

APPN

DATE 3-3-83

BY BAW

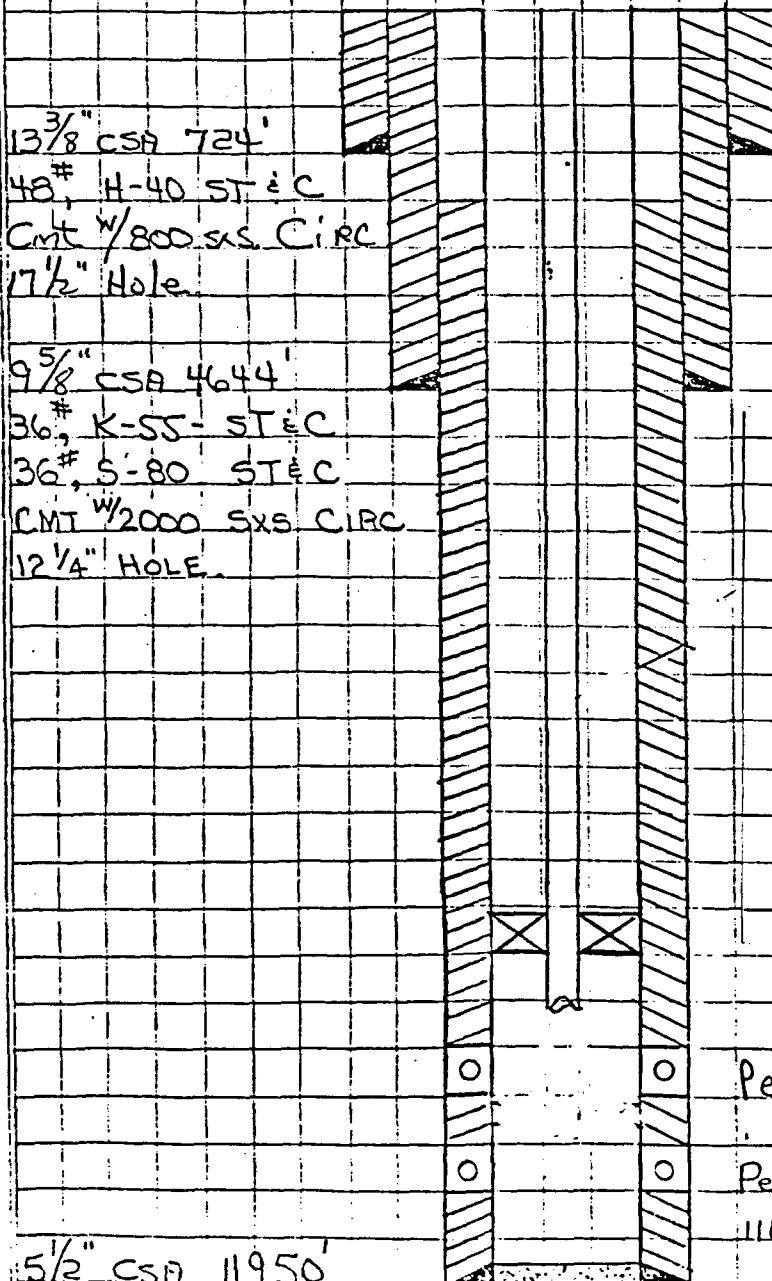
Shugart Penn Proposed wellbore for commingling

1980 FSL = 660 FWL, Sec 27, T 18S, R 31E
Eddy County, New Mexico

E/EY

3614.4 G.L.

Completed: 3-9-79



5 1/2" CSA 11950'

17 1/2" N-80 LT & C

TD - 11,950'

Cmt w/ 2300 sxs.

PBD - 11,906'

TCMT - 2180'

8 1/4" Hole



Amoco Production Compar

ENGINEERING CHART

SHEET NO.

OF

FILE

APPN

DATE 3-3-83

BY BAW

SUBJECT GREENWOOD PRE-GRAYBURG FED. "C" COM No. 1
(Formerly #10)

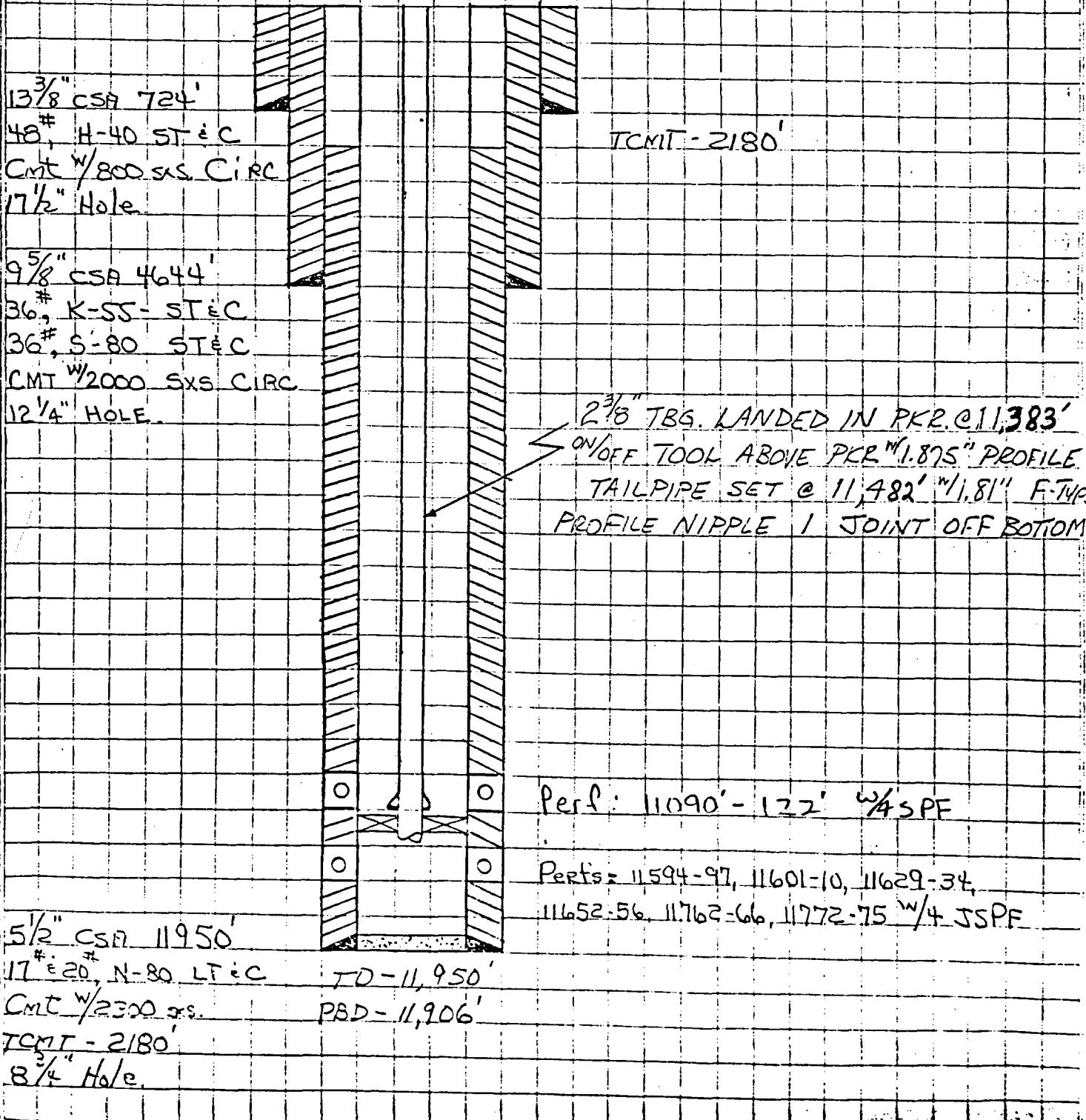
Shugart Penn Present wellbore sketch

1980 FSL = 660 FWL, Sec. 27, T 18S, R 31E
Eddy County, New Mexico

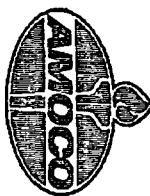
Completed: 3-9-79

E/EY's

3614.4' G.L.



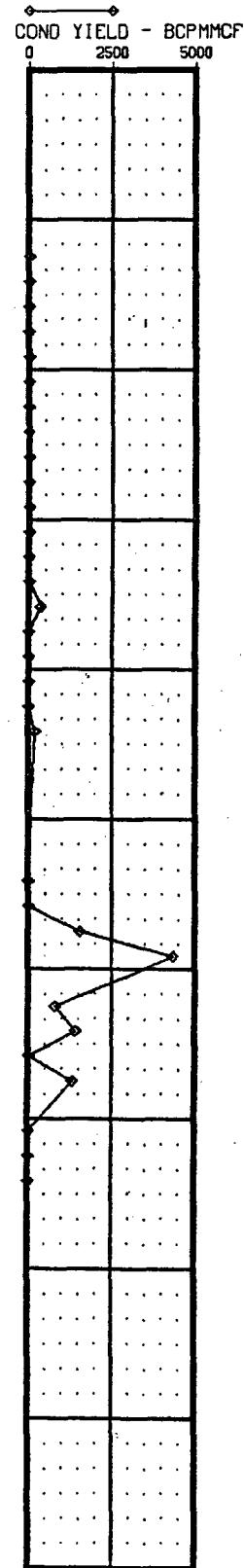
INDUSTRY PRODUCTION DATA RATE-TIME PLOTS



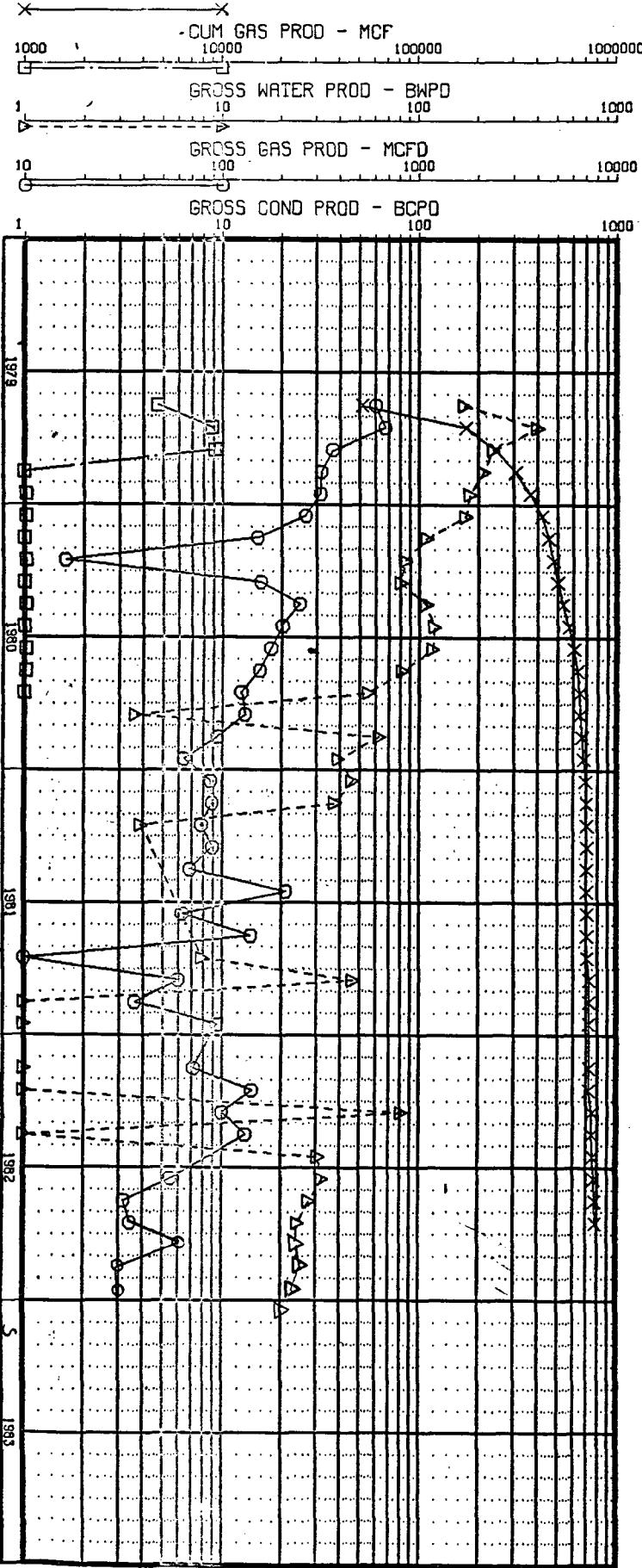
GAS

WELL:	GREENWOOD PRE-GRAYBURG UNIT	API NO:	300150000000
FIELD:	SHUGART MORROW (GAS)	PM	008068817 PERFS:
OPERATOR:	AMOCO PRODUCTION CO	019922	COMP DATE:
STATE:	NM 30	COUNTY:	EDDY
FIRST PROD	79 08	LAST PROD	82 09
REQUESTOR:	KIMBLE - HOB-41	LOCATION:	HOBBS
MAJOR PROD CUM: 788.460			

015 GENID: 4WG01083
RESERVOIR: PM
MAJOR PROD CUM: 788.460



MAJOR PRODUCT →



1983-03-10

TIME

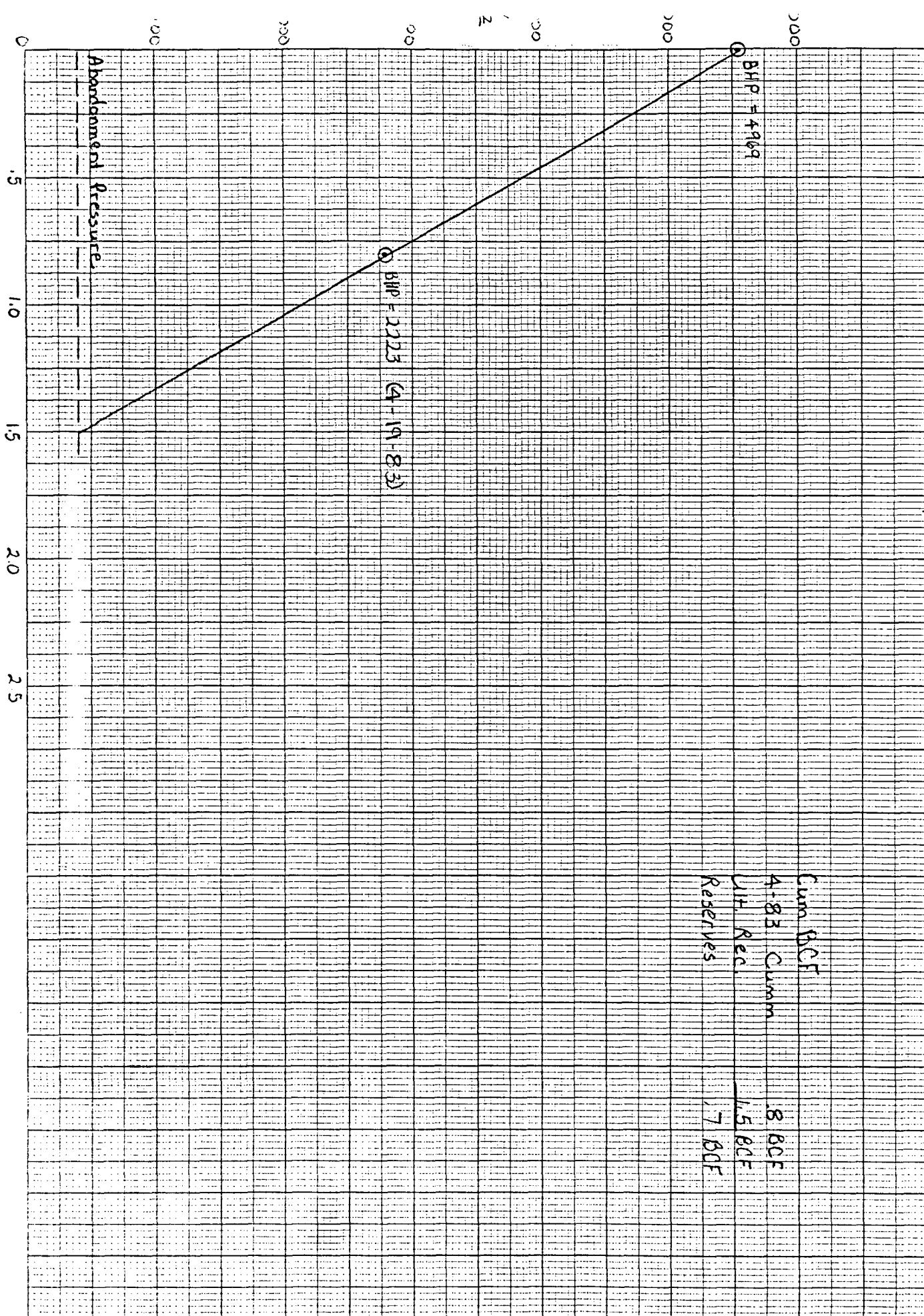
REPORT NUMBER 321

K+E 10 X 10 TO 1" INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

46
1320

P/E Analysis

Greenwood PG C No. 1



JOHN W. WEST ENGINEERING COMPANY
412 NORTH DAL PASO, HOBBS, NEW MEXICO

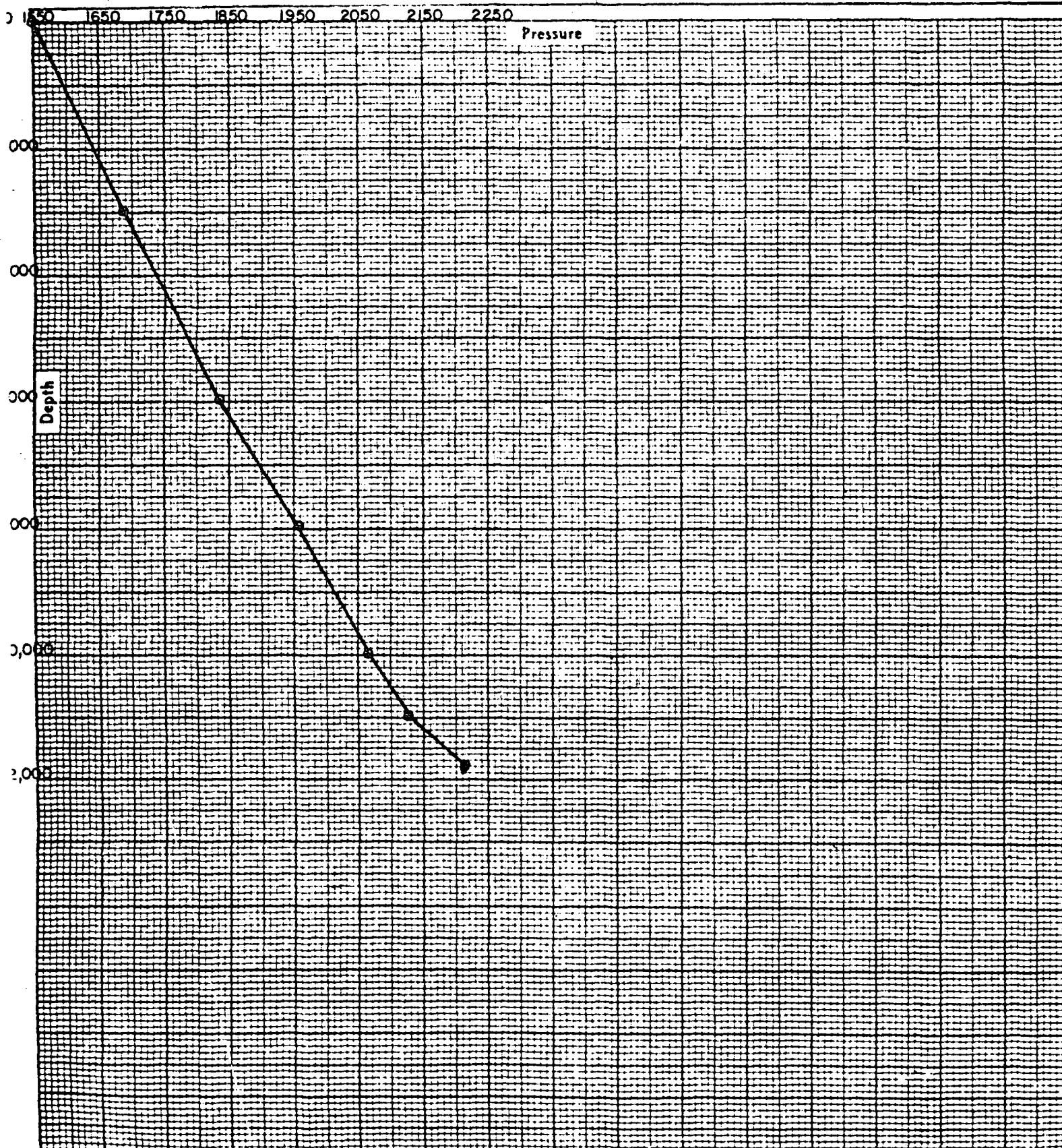
TELEPHONES 393-3942
393-3117

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR AMOCO PRODUCTION COMPANY
LEASE GREENWOOD PRE-GRAYBURG. FED. "C" COM
WELL NO. 1
FIELD Shugart Morrow
DATE 4-19-83 TIME 10:30 A.M.
STATUS Shut-In TEST DEPTH 11,780'
TIME S.I. LAST TEST DATE
CAS. PRES. BHP LAST TEST
TUB. PRES. 1550 psi BHP CHANGE
ELEV. FLUID TOP
DATUM WATER TOP
TEMP RUN BY R.T.
CLOCK NO. 84479 GAUGE NO. 19389
ELEMENT NO. 14659-N (0-3500 psi)

DEPTH	PRESSURE	GRADIENT
000	1550	
3000	1688	.046
6000	1835	.049
8000	1954	.040
10000	2065	.056
11000	2127	.062
11780	2223	.123

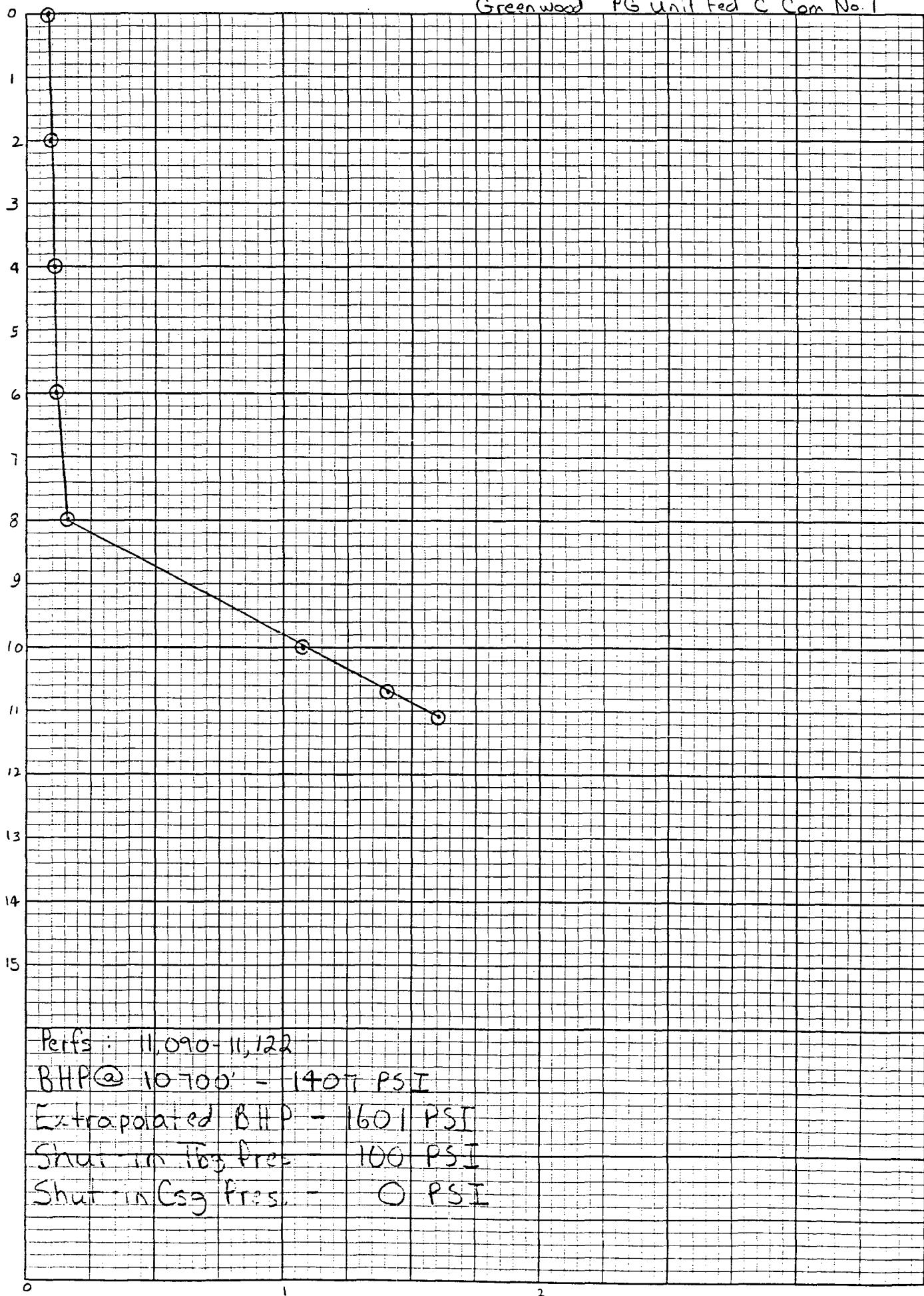
D.W. 1547 PSIG.



Greenwood PG Unit Fed "C" Com No. 1

46 0780

10 X 10 TO THE INCH • 2 X 10 INCHES
KEUFFEL & ESSER CO. NEW YORK U.S.A.



Perfs : 11,090-11,122

BHP @ 10700' = 140+ PSI

Extrapolated BHP = 1601 PSI

Shut-in Gas Pres. = 100 PSI

Shut-in Oil Pres. = 0 PSI

COMPANY M.A.C.O. FIELD HUGERT MARRAUL. WELL GREENH DRILLING FED-C. NO. 1
STATE N.M. DATE 1-2-2-23

PRESS RANGE 0 TO 6000 PSI - DATE CALIBRATED 12-1-87

CAMERATION: X - _____ y, _____ @ _____ p. FEN. _____

TEMP. CORR. = _____ P. TEMP. CORR. = _____ P. C. = _____

NO CHANGE IN TUB PSI OR OSG PSI
FROM START TO FINISH

MAX. DSI AT 10,700' MAY 30

LEFT WELL SHUT IN.

RUN B11
TAN RICHARDSON

H. A. Miller

NEW-TEX

LAB

P. O. BOX 1161
HOBBS, N.M. 88240

No. 1772
Run No.
Date of Run 10-3-79
Date Secured 10-3-79

CERTIFICATE OF ANALYSIS

A Sample of Amoco Production Company Greenwood Unit #10
 Secured from West Engineering
412 N. Dal Paso Secured by _____
At Hobbs, N. M. 88240 Time _____ Date _____
 Sampling conditions Press _____
 Temp. _____

Eddy County, N. M.

FRACTIONAL ANALYSIS

Percentage Composition

	MOL %	LIQ. %	G.P.M.
Carbon Dioxide	.563		
Air	.679		
Nitrogen			
Oxygen			
Hydrogen sulfide			
Hydrogen			
Methane	86.247		
Ethane	7.329	1.955	
Propane	3.198	.881	
Butanes			
Iso-Butane	.390	.127	
N-Butane	.908	.285	
Pentanes			
Iso-Pentane	.240	.088	
N-Pentane	.279	.101	
Hexanes	.088	.036	
Heptanes	.079	.034	
Octanes			
TOTAL	100.000	3.507	

Calc. Sp. Gr.— 0.6618
 Calc. A.P.I.—
 Calc. Vapor Press.—
 Sp. Gr. _____ PSIA
 Mol. Wt. 19.18

LIQUID CONTENT (GAL./MCF)

Propane Calc. G.P.M.	.881
Butanes Calc. G.P.M.	.412
Pentanes Plus. G.P.M.	.259
Ethane Calc. G.P.M.	1.955
RVP Gasoline G.P.M.	
B.T.U./Cu. Ft. @ 14.696 P.S.I.A.	
Dry Basis	1152
Wet Basis	1132
Sulfur Analysis by Titration	
Gr./100 Cu. Ft.	
Hydrogen Sulfide	
Mercaptans	
Sulfides	
Residual Sulfur	
Total Sulfur	

Run by Deane Simpson Checked by _____ Approved by Deane Simpson

Additional Data and Remarks

**NEW-TEX
LAB**

PHONE 505/393-3561 • P.O. BOX 1161 • 611 W. SNYDER • HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

CLIENT: JOHN WEST ENGINEERING
ADDRESS: 412 N DAL PASO ST
CITY, STATE: HOBBS NM 88240

ANALYSIS NUMBER: 8294
DATE OF RUN: 09/15/82
DATE SECURED: 09/14/82

SAMPLE IDENT: AMOCO PRODUCTION COMPANY - GREENWOOD PREGRAY BURG
UNIT "D" WELL #1
SAMPLING PRESS: SAMPLING TEMP:

***** GAS ANALYSIS *****

	MOLE PERCENT	GAL / MCF
NITROGEN	2.546	
CARBON DIOXIDE	0.350	
METHANE	79.892	
ETHANE	10.964	2.924
PROPANE	4.359	1.197
ISO-BUTANE	0.504	0.164
NORMAL BUTANE	0.921	0.290
ISO-PENTANE	0.163	0.060
NORMAL PENTANE	0.146	0.053
HEXANES	0.066	0.027
HEPTANES PLUS	0.089	0.041
TOTAL	100.000	4.756

PROPANE GPM: 1.20 BUTANES GPM: 0.45
ETHANE GPM: 2.92 PENTANES PLUS GPM: 0.18

SPECIFIC GRAV (CALC): 0.6938
MOLE WEIGHT: 27.10

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
		1157	1178
	14.696	1153	1174
	14.650	1160	1180
	14.730	1160	1181
	14.735		

ANALYZED BY: _____

R. H. HAMILTON

APPROVED BY Glenn Simpson

Greenwood PreGrayburg Federal "C" Com #1 (Formerly #10)

Well History:

Cementing Record:

- 12/08/78: Set 13 3/8"-48#, H-40 ST&C casing at 724' in a 17½" hole. Cemented with 800 sx Class C 2% CaCl. Circulated.
- 12/21/78: Set 9 5/8"-36#, K-55 and S-80 ST&C casing at 4644' in a 12¼" hole. Cemented with 1800 B J Lite containing 6% gel, 5lb/sk Gilsonite, 1/4 lb/sk Cello-flake and 8 lb/sk salt followed by 200 sx Class C 2% CaCl.
- 02/07/79: Set 5½"-17# & 20#, N-80 LT&C casing at 11950' in an 8 3/4" hole. Cemented with 1600 sx Trinity Lite and followed by 700 sx Class H. Cement did not circulate. Top of cement approximately 2180'.

Initial Completion:

- 03/01/79: Spotted 300 gallons 10% Acetic acid with 2 gallons FSF Surfactant plus 5 gallons claymaster and 2 gallons 1-6 Inhibitor per 100 gallons acid. Perforated intervals 11594'-97', 11601'-10', 11629'-34', 11652'-56', 11762'-66' and 11772'-75' with 4 JSPF. Packer set at 10885'.
- 03/09/79 Completed well, test 1;24 hrs. ;5200 mcfd;9 bcpd;¹²/64" choke;tubing press.:1150 psi.

- 1-12-83 POH tubing and packer. Ran retrievable bridge plug SA 11,400'.
- 1-13-83 MISU. Spot 250 gallons 10% acetic acid from 11,214' from surface to 10,900' from surface. Perf 11,090'-122' w/4 SPF. Drop bar. Pump 3000 gallons 7-1/2% NEFE HCL acid and 1000 SCF N2 per bbl. MAX TRTP 4900 PSI. MIN TRTP 4200 PSI. Air 4.3 BPM. ISIP 3400.
Flow tested 31 MCFPD, TPF 25 PSI.
- 3-02-83 Ran 3 joints 2-7/8" tailpipe, 5-1/2" Pkr, 2-7/8" seating nipple land-at 10,874'; PSA 10,875', tailpipe SA 10,975'. Pumped 3200 gallons 7-1/2% MS acid and 3200 gallons CO2 with additives. MAX TRTP 4030 PSI. MIN TRTP 3100 PSI. AIR 3 BPM with CO2. ISIP 3170 PSI.
- 3-07-83 Pull tubing, packer, and retrievable bridge plug. Ran 3 joints 2-3/8" tubing, pkr and 2-3/8" tbg to surface. Tailpipe landed at 11,478' with PSA 11,377'. PKR was leaking therefore the packer and tubing was pulled.
- 3-24-83 Ran 2-3/8" tbg, 5-1/2" pkr, w/2-3/8" tailpipe to 11,482' w/PSA 11,383'. Back in hole.
- 4-28-83 Flow 2 BC X 0 BW, 180 MCF in 24 hours. TPF 410 PSI, on 48/64" choke. Morrow returned to production w/2 BCPD X 0 BWPD X 180 MCFD X TPF 410 PSI. Atoka zone left SI pending evaluation for downhole commingling with Morrow.

OFFSET OPERATORS

Gulf Oil Exploration and Production Company
P. O. Box 670
Hobbs, NM 88240

Phillips Petroleum Company
4001 Penbrook
Odessa, TX 79762

Southland Royalty Company
21 Desta Drive
Midland, TX 79701

Arco Oil and Gas Company
P. O. Box 1610
Midland, TX 79701

Westall-Mask
P. O. Box 1477
Roswell, NM 88201

TXO Production Corporation
900 Wilco Bldg.
Midland, TX 79701

P 267 164 377

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		TXO Production Corp.	
STREET AND NO.		900 Waco Blvd.	
P.O., STATE AND ZIP CODE		Midland, TX 79701	
POSTAGE		\$.54	
CONSULT POSTMASTER FOR FEES OPTIONAL SERVICES RETURN RECEIPT SERVICE	CERTIFIED FEE	75 c	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED	60 c	
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	c		
TOTAL POSTAGE AND FEES		\$ 1.89	
POSTMARK OR DATE			

5678910111213141516171819
JUL 1983
202613

PS Form 3800, Apr. 1976

P 267 164 378

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Westall-Mask	
STREET AND NO.		P.O. Box 1477	
P.O., STATE AND ZIP CODE		Roswell, NM 88201	
POSTAGE		\$.54	
CONSULT POSTMASTER FOR FEES OPTIONAL SERVICES RETURN RECEIPT SERVICE	CERTIFIED FEE	.75 c	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED	.60 c	
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	c		
TOTAL POSTAGE AND FEES		\$ 1.89	
POSTMARK OR DATE			

5678910111213141516171819
JUL 1983
202613

PS Form 3800, Apr. 1976

P 267 164 379

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
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(See Reverse)

SENT TO		Arco Oil and Gas Co.	
STREET AND NO.		P.O. Box 1610	
P.O., STATE AND ZIP CODE		Midland, TX 79701	
POSTAGE		\$.54	
CONSULT POSTMASTER FOR FEES OPTIONAL SERVICES RETURN RECEIPT SERVICE	CERTIFIED FEE	.75 c	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED	.60 c	
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	c		
TOTAL POSTAGE AND FEES		\$ 1.89	
POSTMARK OR DATE			

5678910111213141516171819
JUL 1983
202613

PS Form 3800, Apr. 1976

P 267 164 380

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Southland Royalty Co.	
STREET AND NO.		21 Desta Drive	
P.O., STATE AND ZIP CODE		Midland, TX 79701	
POSTAGE		\$.54	
CONSULT POSTMASTER FOR FEES OPTIONAL SERVICES RETURN RECEIPT SERVICE	CERTIFIED FEE	.75 c	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED	.60 c	
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	c		
TOTAL POSTAGE AND FEES		\$ 1.89	
POSTMARK OR DATE			

5678910111213141516171819
JUL 1983
202613

PS Form 3800, Apr. 1976

P 267 164 381

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Phillips Petroleum Co.	
STREET AND NO.		4001 Penbrook	
P.O., STATE AND ZIP CODE		Oklahoma, TX 79762	
POSTAGE		\$.54	
CONSULT POSTMASTER FOR FEES OPTIONAL SERVICES RETURN RECEIPT SERVICE	CERTIFIED FEE	.75 c	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED	.60 c	
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	c		
TOTAL POSTAGE AND FEES		\$ 1.89	
POSTMARK OR DATE			

5678910111213141516171819
JUL 1983
202613

PS Form 3800, Apr. 1976

P 267 164 382

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Gulf Oil Export Co.	
STREET AND NO.		P.O. Box 670	
P.O., STATE AND ZIP CODE		Albion, NY 88240	
POSTAGE		\$.54	
CONSULT POSTMASTER FOR FEES OPTIONAL SERVICES RETURN RECEIPT SERVICE	CERTIFIED FEE	.75 c	
	SPECIAL DELIVERY	c	
	RESTRICTED DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED	.60 c	
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	c	
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	c	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	c		
TOTAL POSTAGE AND FEES		\$ 1.89	
POSTMARK OR DATE			

5678910111213141516171819
JUL 1983
202613

PS Form 3800, Apr. 1976



File
DHC-A19

Amoco Production Company (USA)

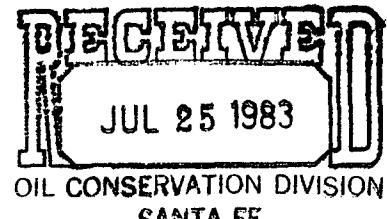
Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

July 11, 1983

File: SJ0-1253-WF

Re: Downhole Commingling of
Greenwood PG Unit Federal "C" Com Well No. 1
Shugart Morrow and North Shugart Atoka Gas Pools
1980' FSL x 660' FWL
Section 27, T-18-S, R-31-E
Eddy County, New Mexico



Arco Oil and Gas Company
P. O. Box 1610
Midland, TX 79701

Gentlemen:

Amoco Production Company, as operator of the Greenwood PG Unit Federal "C" Com Well No. 1, hereby notifies you that we have applied to the NMOCD for Administrative Approval to downhole commingle the subject well.

Our plans are to place a packer above the Morrow and Atoka gas zones and produce both through a single tubing string. Commingling will enhance the economic operation of the well and allow us to economically recover the remaining reserves.

If you have no objections to the commingling, sign below and forward one copy to the NMOCD in Santa Fe, one copy to the NMOCD in Artesia, one copy to this office and retain one copy for your records. Addressed, stamped envelopes have been provided for your convenience.

Yours very truly,

S. J. Okerson

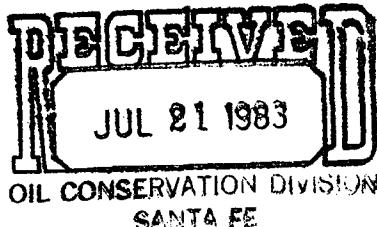
APPROVAL

Company: ARCO Oil and Gas Co.

By: *Ronald D. White*

Date: July 21, 1983

Attachments



Amoco Production Company (USA)

Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

July 11, 1983

File - A19
DTC-A19

File: SJ0-1253-WF

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Greenwood PG Unit Federal "C" Com Well No. 1
Shugart Morrow and North Shugart Atoka Gas Pools
1980' FSL x 660' FWL
Section 27, T-18-S, R-31-E
Eddy County, New Mexico

Southland Royalty Company
21 Desta Drive
Midland, TX 79701

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Yours very truly,

S. J. Okerson

Attachments

APPROVAL

Company: Southland Royalty Company

By: *John Harbin*

Date: 7/15/83



DC-419

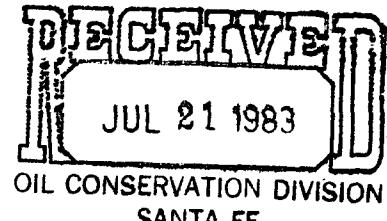
Amoco Production Company (USA)

Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

July 11, 1983

File: SJ0-1253-WF



Re: Downhole Commingling of
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Shugart Morrow and North Shugart Atoka Gas Pools
1980' FSL x 660' FWL
Section 27, T-18-S, R-31-E
Eddy County, New Mexico

Phillips Petroleum Company
4001 Penbrook
Odessa, TX 79762

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Yours very truly,

S. J. Okerson

Attachments

APPROVAL

Company: PHILLIPS PETROLEUM COMPANY

By: *G. R. Smith* G. R. Smith
Director of Reservoir Engineering
Date: July 15, 1983



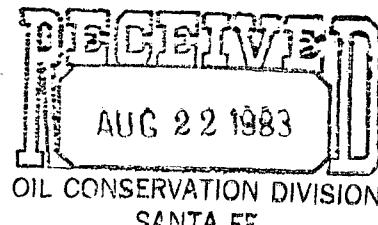
Amoco Production Company (USA)

Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

July 11, 1983

File: SJ0-1253-WF



Re: Downhole Commingling of
Greenwood PG Unit Federal "C" Com Well No. 1
Shugart Morrow and North Shugart Atoka Gas Pools
1980' FSL x 660' FWL
Section 27, T-18-S, R-31-E
Eddy County, New Mexico

TXO Production Corporation
900 Wilco Bldg.
Midland, TX 79701

Gentlemen:

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Yours very truly,

S. J. Okerson

APPROVAL

Company: TXO PRODUCTION CORP.

By: *[Signature]*

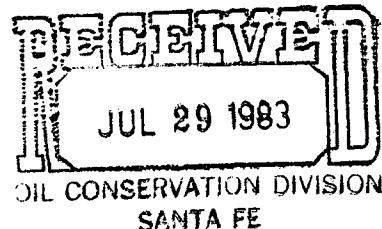
Date: August 18, 1983

Attachments



Amoco Production Company (USA)

Post Office Box 68
Hobbs, New Mexico 88240



S. J. Okerson
District Superintendent

July 11, 1983

File: SJ0-1253-WF

Re: Downhole Commingling of
Greenwood PG Unit Federal "C" Com Well No. 1
Shugart Morrow and North Shugart Atoka Gas Pools
1980' FSL x 660' FWL
Section 27, T-18-S, R-31-E
Eddy County, New Mexico

Gulf Oil Exploration and Production Company
P. O. Box 670
Hobbs, NM 88240

Gentlemen:

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Yours very truly,

S. J. Okerson

APPROVAL

Company: Gulf Oil Corporation

By: J. R. Frank J. R. Frank
Chief Proration Engineer

Date: July 20, 1983

Attachments

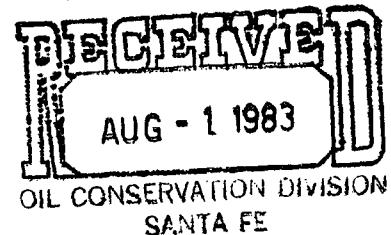


Amoco Production Company (USA)

Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

July 11, 1983



File: SJ0-1253-WF

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Greenwood PG Unit Federal "C" Com Well No. 1
Shugart Morrow and North Shugart Atoka Gas Pools
1980' FSL x 660' FWL
Section 27, T-18-S, R-31-E
Eddy County, New Mexico

Westall-Mask
P. O. Box 1477
Roswell, NM 88201

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Yours very truly,

S. J. Okerson

Attachments

APPROVAL

Company: Westall-Mask

By: *James T. Jennings*
Date: July 29, 1983