

BENSON-MONTIN
INTERFERENCE TEST NO. 1
GALLEGOS CANYON AREA
SAN JUAN COUNTY, NEW MEXICO
PICTURED CLIFFS FORMATION

DATE OF TEST: May, June, July, 1952

AREA OF TEST:

<u>Description</u>	<u>Approximate Area</u>
All Section 33, Twp. 28N, Rge. 12W	640 acres
" Section 34, Twp. 28N, Rge. 12W	640 "
" Section 35, Twp. 28N, Rge. 12W	640 "
" Section 2, Twp. 27N, Rge. 12W	640 "
" Section 3, Twp. 27N, Rge. 12W	640 "
" Section 4, Twp. 27N, Rge. 12W	640 "
" Section 9, Twp. 27N, Rge. 12W	640 "
" Section 10, Twp. 27N, Rge. 12W	640 "
" Section 11, Twp. 27N, Rge. 12W	<u>640</u> "
TOTAL	5,760 acres

PRODUCING WELLS WITHIN TEST AREA:

<u>Well</u>	<u>Location</u>	<u>Date of First Production into pipe line</u>
Benson-Montin #4 G.C.U.	NE/4 Sec. 34, T-28N, R-12W	February, 1952
Danube #1 Harmon	SW/4 Sec. 2, T-27N, R-12W	February, 1952
Danube #2 Harmon	NW/4 Sec. 2, T-27N, R-12W	February, 1952
Danube #1 Thompson	NE/4 Sec. 2, T-27N, R-12W	February, 1952
Danube #2 Thompson	SE/4 Sec. 2, T-27N, R-12W	February, 1952
DAnube #3 Thompson	SE/4 Sec. 3, T-27N, R-12W	February, 1952
Danube #5 Thompson	NW/4 Sec. 3, T-27N, R-12W	May, 1952
Danube #7 Thompson	SW/4 Sec. 3, T-27N, R-12W	February, 1952
Hancock #4 Edgar	NE/4 Sec. 11, T-27N, R-12W	November, 1951
Hancock #6 Edgar	NW/4 Sec. 11, T-27N, R-12W	January, 1952

SHUT-IN WELL WITHIN TEST AREA:Well: J. D. Hancock #11 HancockLocation: 1575⁺ FNL, 1650⁺ FEL, Sec. 3, T-27N, R-11WDISTANCES FROM NEAREST WELLS:

<u>Well</u>	<u>Distance from</u> <u>#11 Hancock</u>
Danube #3 Thompson	2,160 feet
Danube #5 Thompson	2,700 "
Danube #2 Harmon	3,300 "

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INTERFERENCE TEST OF
HANCOCK #11 HANCOCK
NE/4 SEC. 3, TWP. 27N, RGE. 12W
WEST KUTZ FIELD, SAN JUAN COUNTY, NEW MEXICO

SHOWING
RECORD OF WELL-HEAD PRESSURES

MEASURE- MENT NO.	DATE	TIME	TUBING-HEAD PRESSURE (psig)	DAYS SHUT IN	TYPE PRESSURE GAUGE	REMARKS
1	5-16-52	-	-	0		Shut in.
2	5-23-52	-	434	6	S. U. G. Dead- weight	3-hour state potential test taken by Southern Union Gas Co.
3	5-26-52	7:30 PM	444	9	B & M Spring Gauge	
4	6- 3-52	2:00 PM	443	17	B & M Spring Gauge	Well has apparently reached maximum pressure.
5			446½		EPNG Dead- weight Gauge	Spring gauge is 3½# in error.
6	6- 7-52	7:30 PM	446½	21	EPNG Dead- weight Gauge	Well blown through tubing in morning by Hancock personnel to check for water. No water in hole.
7	6- 8-52	1:00 PM	446½	22	"	
8	6-11-52	10:00 PM	446½	25	"	
9	6-25-52	12:30 PM	445-3/4	39	"	
10	7- 2-52	9:00 PM	445	46	"	
11	7- 5-52	4:30 PM	444½	49	"	
12	7-11-52	12:00 Noon	444.2	55	"	
13			444.5		B & M Dead weight Gauge	0.3# difference in B & M gauge and EPNG gauge.

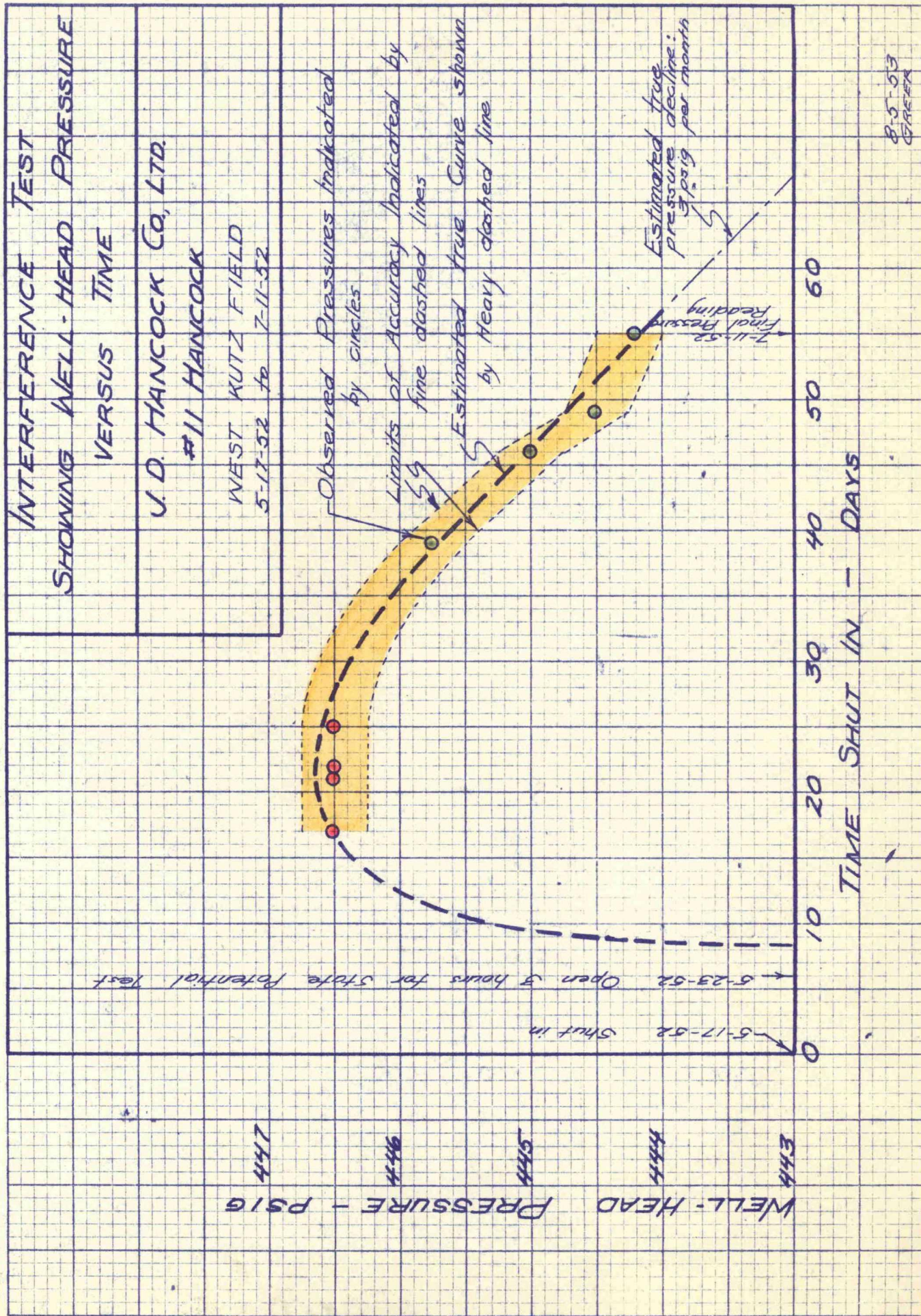
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INTERFERENCE TEST OF
HANCOCK #11 HANCOCK

(CONTINUED)

NOTE: To eliminate possible measurement error between different gauges, Measurements 5 through 12 were taken with the same dead weight gauge, borrowed from El Paso Natural Gas Company. Smallest weight was 1#. Readings reported to nearest one-fourth and one-half pound were estimated.

For Measurement #12, 1/10# weights from Benson-Montin's dead weight gauge were used and reading of 444.2# was determined to nearest 1/10# for that gauge. Difference in Benson-Montin and El Paso Natural Gas Company dead weight gauges was 3/10#.



DATA ON
PICTURED CLIFFS SAND

KUTZ CANYON - FULCHER BASIN, WEST KUTZ,
AND GALLEGOS CANYON AREAS
SAN JUAN COUNTY, NEW MEXICO



5-1-52 GREER
8-1-53 Rev. N. A. N. A.

LEGEND

- ★ PRODUCING PICTURED CLIFFS WELL
- ◇ WELL ABANDONED IN PICTURED CLIFFS
- WELL LOCATION
- ▨ AREA INFERRED TO BE NON-COMMERCIAL FOR PICTURED CLIFFS PRODUCTION

LEGEND REGARDING
INTERFERENCE TEST



AREA COVERED BY TEST.



SUBJECT SHUT-IN WELL.



WELLS PRODUCING DURING
PERIOD OF TEST. (ALL
OTHER WELLS SHOWN IN
TEST AREA WERE NOT
COMPLETED AS OF TIME
OF INTERFERENCE TEST.)

GAS FIELD

KUTZ CANYON - FULCHER BASIN

GALLEGOS CANYON UNIT

WEST KUTZ FIELD

T30N

T29N

T28N

T27N

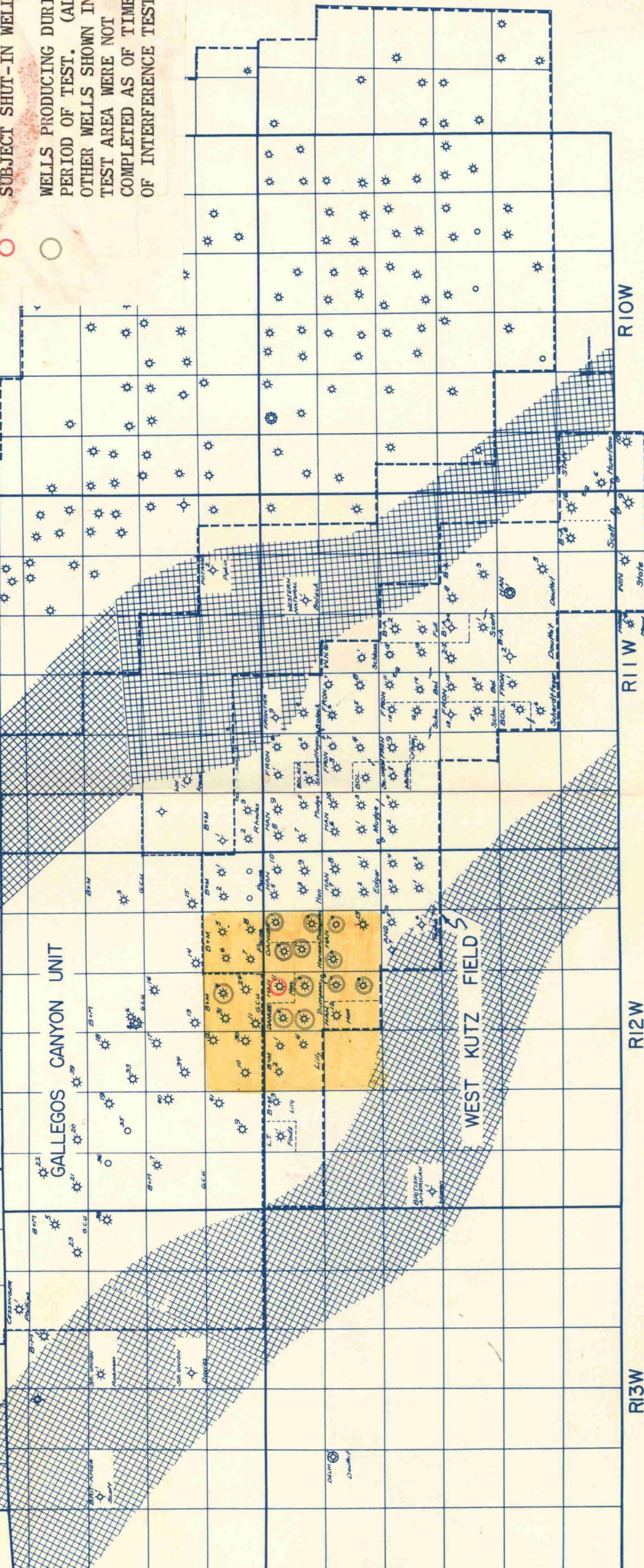
R13W

R12W

R11W

R10W

FARMINGTON



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BENSON-MONTIN
INTERFERENCE TEST NO. 2
GALLEGOS CANYON AREA
SAN JUAN COUNTY, NEW MEXICO
PICTURED CLIFFS FORMATION

DATE OF TEST: July 1952 to March 1953.

AREA OF TEST:

<u>Description</u>	<u>Approximate Area</u>
All Section 15, Twp. 28N, Rge. 12W	640 acres
" Section 16, Twp. 28N, Rge. 12W	640 "
" Section 17, Twp. 28N, Rge. 12W	640 "
" Section 20, Twp. 28N, Rge. 12W	640 "
" Section 21, Twp. 28N, Rge. 12W	640 "
" Section 22, Twp. 28N, Rge. 12W	640 "
" Section 27, Twp. 28N, Rge. 12W	640 "
" Section 28, Twp. 28N, Rge. 12W	640 "
" Section 29, Twp. 28N, Rge. 12W	640 "
TOTAL	5,760 acres

PRODUCING WELLS WITHIN TEST AREA:

<u>Well</u>	<u>Location</u> (T-28N, R-12W)	<u>Date of First Production</u> <u>into pipe line</u>
#6 Gallegos Canyon Unit	SW/4 Sec. 22	February, 1952
#16 Gallegos Canyon Unit	NE/4 Sec. 27	September, 1952
#17 Gallegos Canyon Unit	NE/4 Sec. 28	September, 1952

SHUT-IN WELL WITHIN TEST AREA:

<u>Well</u>	<u>Location</u>	<u>Nearest Producing Well</u>	<u>Distance to Nearest Producing Well</u>
#18 Gallegos Canyon Unit	NE/4 Sec. 21 T-28N, R-12W	#6 G.C.U.	3,050 feet

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INTERFERENCE TEST OF
BENSON-MONTIN'S #19 GALLEGOS CANYON UNIT
NE/4 SECTION 21, TWP. 28N, RGE. 12W
SAN JUAN COUNTY, NEW MEXICO
SHOWING
RECORD OF WELL-HEAD PRESSURES

<u>MEASURE- MENT NO.</u>	<u>DATE</u>	<u>TIME</u>	<u>CASINGHEAD PRESSURE (psig)</u>	<u>DAYS SHUT IN</u>	<u>REMARKS</u>
1	7-27-52	6:30 PM	-	0	Shut in.
2	7-31-52	10:00 AM	450	3½	B & M Spring Gauge.
3	8- 5-52	6:00 PM	459.6	9	B & M Deadweight Gauge.
4	8- 9-52	1:00 PM	460.9	13	"
5	8-21-52	12:00 Noon	462.7	25	"
6	9-21-52	4:00 PM	462.8	56	"
7	10-28-52	12:00 Noon	461.8	93	"
8	12-11-52	3:30 PM	460.5	137	"
9	1-22-53	4:00 PM	459.2	179	"
10	2-12-53	4:00 PM	458.4	200	"
11	3- 5-53	3:30 PM	457.7	221	"
12	3-28-53	11:00 AM	457.0	244	"

NOTE: Measurements #3 through #12 were made with Benson-Montin's dead weight gauge, which has a sensitivity of 1/10#.

After being shut in 7-27-52, the well was not opened until after Measurement #12 on 3-28-53, at which time it was blown through the tubing for 5 minutes to determine if there was any fluid in the hole. The well was absolutely dry.

State Potential Test was taken 4-3-53.

DATA ON

PICTURED CLIFFS SAND

KUTZ CANYON - FULCHER BASIN, WEST KUTZ, AND GALLEGOS CANYON AREAS

SAN JUAN COUNTY, NEW MEXICO

scale

0 1 2 3 4

miles

5-1-52 GREER

8-1-53 Rev. M. H. H. H.

LEGEND

★ PRODUCING PICTURED CLIFFS WELL

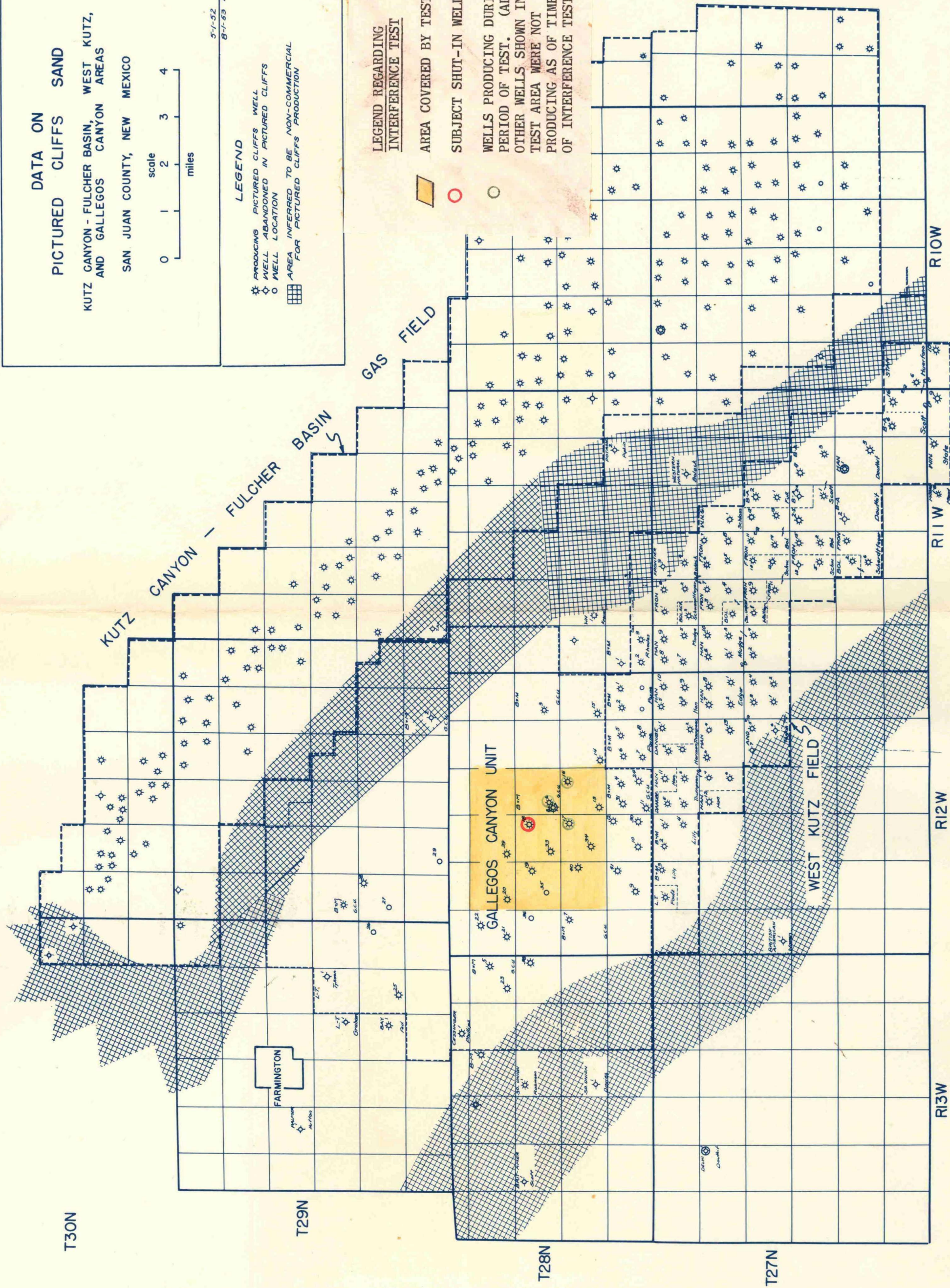
◇ WELL ABANDONED IN PICTURED CLIFFS

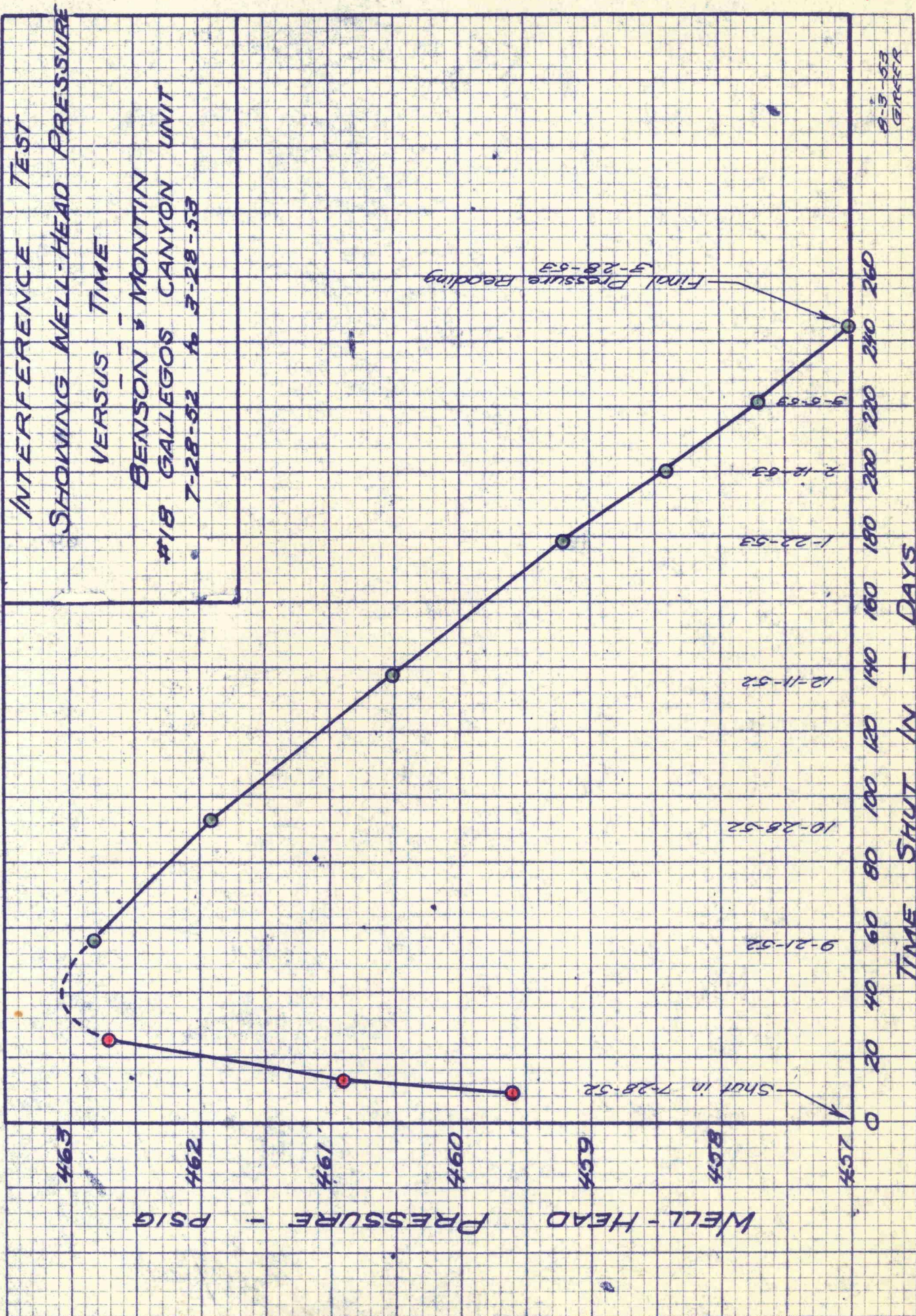
○ WELL LOCATION

▨ AREA INFERRED TO BE NON-COMMERCIAL FOR PICTURED CLIFFS PRODUCTION

LEGEND REGARDING INTERFERENCE TEST

 AREA COVERED BY TEST.
 SUBJECT SHUT-IN WELL.
 WELLS PRODUCING DURING PERIOD OF TEST. (ALL OTHER WELLS SHOWN IN TEST AREA WERE NOT PRODUCING AS OF TIME OF INTERFERENCE TEST.)





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BENSON-MONTIN
INTERFERENCE TEST NO. 3
GALLEGOS CANYON AREA
SAN JUAN COUNTY, NEW MEXICO
PICTURED CLIFFS FORMATION

DATE OF TEST: November 1952 to March 1953.

AREA OF TEST:

<u>Description</u>	<u>Approximate Area</u>
All Section 27, Twp. 28N, Rge. 12W	640 acres
" Section 28, Twp. 28N, Rge. 12W	640 "
" Section 33, Twp. 28N, Rge. 12W	640 "
" Section 34, Twp. 28N, Rge. 12W	<u>640</u> "
TOTAL	2,560 acres

PRODUCING WELLS WITHIN TEST AREA:

<u>Well</u>	<u>Location (T-28N, R-12W)</u>	<u>Date of First Production into Pipe Line</u>
#4 Gallegos Canyon Unit	NE/4 Sec. 34	February, 1952
#11 Gallegos Canyon Unit	SW/4 Sec. 34	November, 1952
#16 Gallegos Canyon Unit	NE/4 Sec. 27	September, 1952
#17 Gallegos Canyon Unit	NE/4 Sec. 28	September, 1952

SHUT-IN WELLS WITHIN TEST AREA:

<u>Well</u>	<u>Location (T-28N, R-12W)</u>
#10 Gallegos Canyon Unit	SW/4 Sec. 33
#12 Gallegos Canyon Unit	NE/4 Sec. 33
#13 Gallegos Canyon Unit	SW/4 Sec. 27
#24 Gallegos Canyon Unit	SE/4 Sec. 34

DISTANCE FROM TEST WELL (G.C.U. #13) TO PRODUCING WELLS WITHIN TEST AREA:

3,750 feet to #4 Gallegos Canyon Unit
4,000 feet to #17 Gallegos Canyon Unit
4,750 feet to #16 Gallegos Canyon Unit
5,280 feet to #11 Gallegos Canyon Unit

INTERFERENCE TEST OF
BENSON-MONTIN²S #13 GALLEGOS CANYON UNIT
SW/4 SECTION 27, TWP. 28N, RGE. 12W
SAN JUAN COUNTY, NEW MEXICO
SHOWING
RECORD OF WELL-HEAD PRESSURES

MEASURE- MENT NO.	DATE	TIME	CASINGHEAD PRESSURE (psig)	DAYS SHUT IN	REMARKS
1	11- 9-52	4:00 PM	-	0	Shut in.
2	11-13-52	-	447	4	Open 3 hours to take State Potential Test.
3	11-22-52	7:00 PM	457.0	13	B & M Dead Weight Gauge.
4	12- 3-52	3:00 PM	460.1	24	"
5	12-11-52	3:00 PM	460.7	32	"
6	12-30-52	4:30 PM	460.9	51	"
7	1-12-53	6:30 PM	460.6	64	"
8	1-22-53	3:30 PM	460.3	74	"
9	2- 3-53	4:00 PM	459.5	86	"
10	2-12-53	2:30 PM	458.8	95	"
11	3- 1-53	4:00 PM	458.0	112	"

DATA ON
PICTURED CLIFFS SAND

KUTZ CANYON - FULCHER BASIN, WEST KUTZ,
AND GALLEGOS CANYON AREAS
SAN JUAN COUNTY, NEW MEXICO

scale
0 1 2 3 4
miles

5-1-52 GREER
8-1-53 Rev. M. Kutz
MKS

LEGEND
★ PRODUCING PICTURED CLIFFS WELL
☆ WELL ABANDONED IN PICTURED CLIFFS
○ WELL LOCATION
▨ AREA INFERRED TO BE NON-COMMERCIAL
FOR PICTURED CLIFFS PRODUCTION

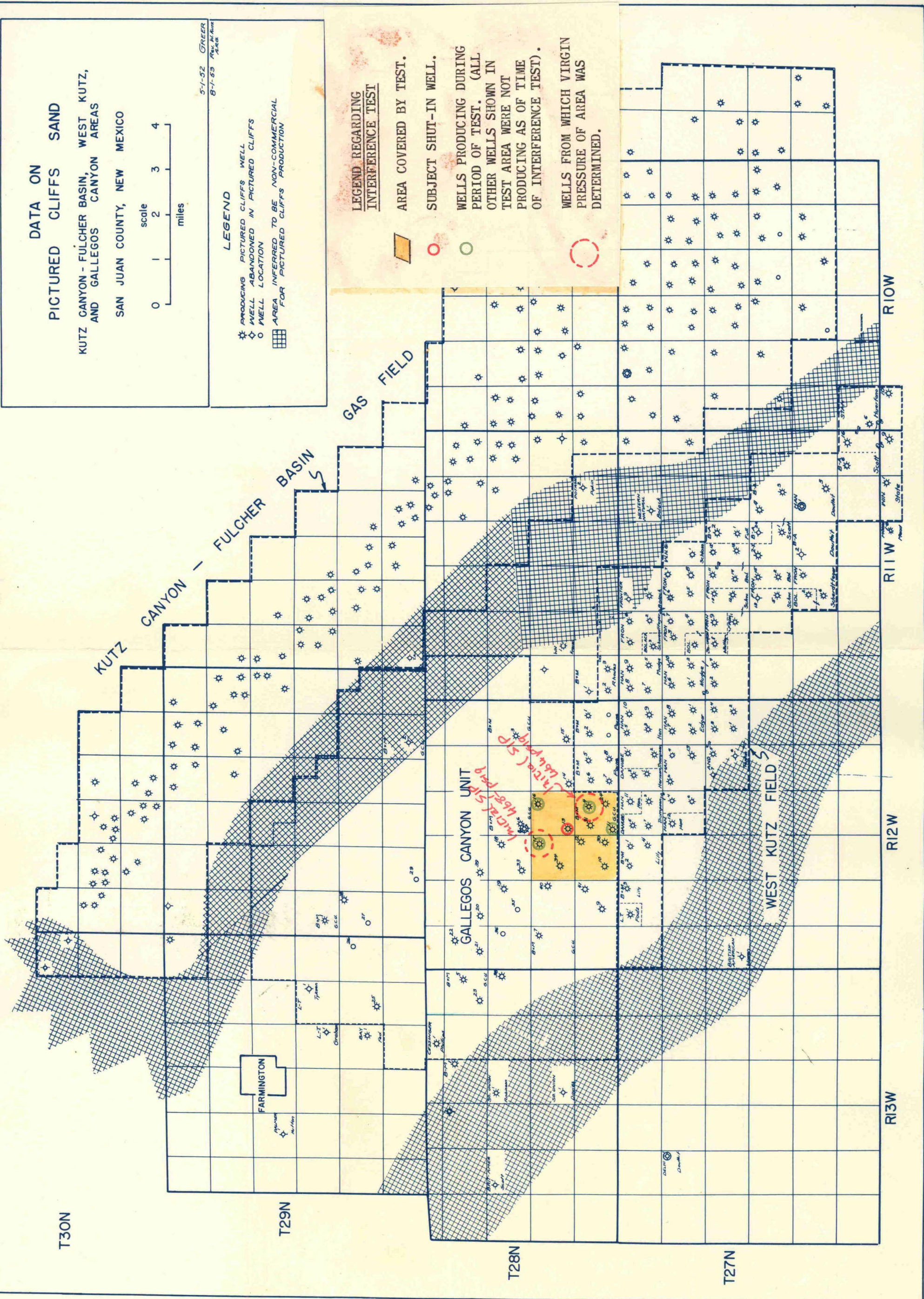
LEGEND REGARDING
INTERFERENCE TEST

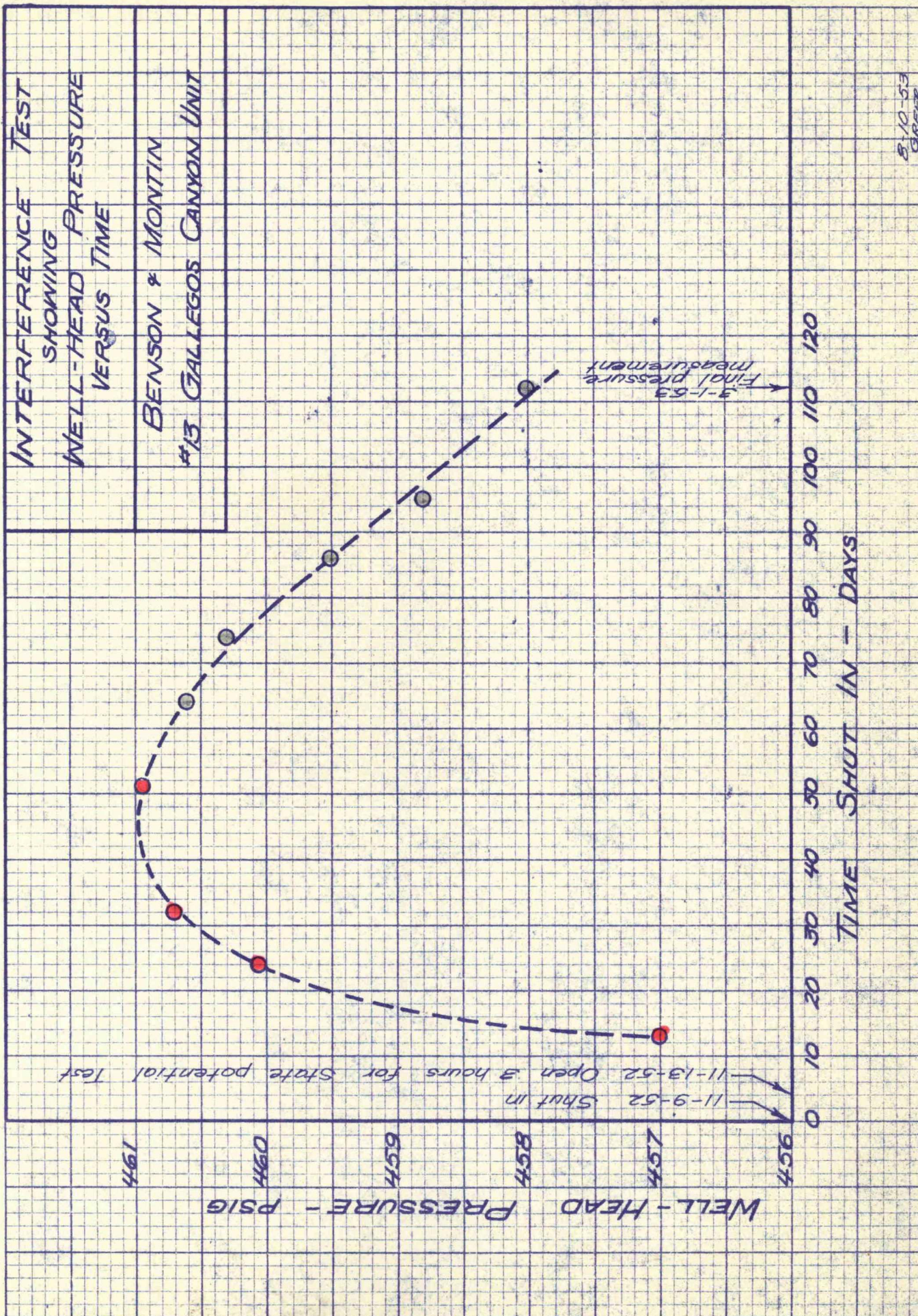
AREA COVERED BY TEST.

SUBJECT SHUT-IN WELL.

WELLS PRODUCING DURING
PERIOD OF TEST. (ALL
OTHER WELLS SHOWN IN
TEST AREA WERE NOT
PRODUCING AS OF TIME
OF INTERFERENCE TEST).

WELLS FROM WHICH VIRGIN
PRESSURE OF AREA WAS
DETERMINED.





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BENSON-MONTIN
INTERFERENCE TEST NO. 4
GALLEGOS CANYON AREA
SAN JUAN COUNTY, NEW MEXICO
PICTURED CLIFFS FORMATION

DATE OF TEST: March, April, May, June, July, 1953.

AREA OF TEST:

<u>Description</u>	<u>Approximate Area</u>
All Section 26, Twp. 28N, Rge. 12W	640 acres
" Section 27, Twp. 28N, Rge. 12W	640 "
" Section 28, Twp. 28N, Rge. 12W	640 "
" Section 33, Twp. 28N, Rge. 12W	640 "
" Section 34, Twp. 28N, Rge. 12W	640 "
" Section 35, Twp. 28N, Rge. 12W	640 "
" Section 2, Twp. 27N, Rge. 12W	640 "
" Section 3, Twp. 27N, Rge. 12W	640 "
" Section 4, Twp. 27N, Rge. 12W	<u>640</u> "
TOTAL	5760 acres

PRODUCING WELLS WITHIN TEST AREA:

<u>Well</u>	<u>Location</u>	<u>Date of First Production into Pipe Line</u>
<u>Benson-Montin</u>		
# 4 Gallegos Canyon Unit	NE/4 Sec. 34, T-28N, R-12W	February, 1952
#10 Gallegos Canyon Unit	SW/4 Sec. 33, T-28N, R-12W	March, 1953
#11 Gallegos Canyon Unit	SW/4 Sec. 34, T-28N, R-12W	November, 1952
#12 Gallegos Canyon Unit	NE/4 Sec. 33, T-28N, R-12W	March, 1953
#13 Gallegos Canyon Unit	SW/4 Sec. 27, T-28N, R-12W	March, 1953
#14 Gallegos Canyon Unit	SW/4 Sec. 26, T-28N, R-12W	November, 1952
#16 Gallegos Canyon Unit	NE/4 Sec. 27, T-28N, R-12W	September, 1952
#17 Gallegos Canyon Unit	NE/4 Sec. 28, T-28N, R-12W	September, 1952
#24 Gallegos Canyon Unit	SE/4 Sec. 34, T-28N, R-12W	March, 1953

INTERFERENCE TEST NO. 4 - CONTINUED

<u>Well</u>	<u>Location</u>	<u>Date of First Production into Pipe Line</u>
<u>Benson-Montin (contd.)</u>		
#5 Payne	NE/4 Sec. 35, T-28N, R-12W	December, 1952
#6 Payne	NW/4 Sec. 35, T-28N, R-12W	September, 1952
#7 Payne	SW/4 Sec. 35, T-28N, R-12W	September, 1952
#8 Payne	SE/4 Sec. 35, T-28N, R-12W	September, 1952
#1 Lilly	NE/4 Sec. 4, T-27N, R-12W	November, 1952
#2 Lilly	NW/4 Sec. 4, T-27N, R-12W	January, 1953
#4 Lilly	SE/4 Sec. 4, T-27N, R-12W	February, 1953
<u>Danube</u>		
#1 Thompson	NE/4 Sec. 2, T-27N, R-12W	February, 1952
#2 Thompson	SE/4 Sec. 2, T-27N, R-12W	February, 1952
#3 Thompson	SE/4 Sec. 3, T-27N, R-12W	February, 1952
#5 Thompson	NW/4 Sec. 3, T-27N, R-12W	May, 1952
#7 Thompson	SW/4 Sec. 3, T-27N, R-12W	February, 1952
#1 Harmon	SW/4 Sec. 2, T-27N, R-12W	February, 1952
#2 Harmon	NW/4 Sec. 2, T-27N, R-12W	February, 1952
<u>Hancock</u>		
#11 Hancock	NE/4 Sec. 3, T-27N, R-12W	July, 1952

SHUT-IN WELLS WITHIN TEST AREA:

<u>Well</u>	<u>Location</u>	<u>Nearest Producing Well</u>	<u>Distance to Nearest Producing Well</u>
Benson-Montin #30 G.C.U.	SE/4 33-28-12	#12 G.C.U.	1920*
Benson-Montin #31 G.C.U.	NW/4 34-28-12	#11 G.C.U.	2120*

INTERFERENCE TEST OF
BENSON-MONTIN #31 GALLEGOS CANYON UNIT
NW/4 SECTION 34, TWP. 28N, RGE. 12W
SAN JUAN COUNTY, NEW MEXICO
SHOWING
RECORD OF WELL-HEAD PRESSURES

<u>MEASURE- MENT NO.</u>	<u>DATE</u>	<u>TIME</u>	<u>CASINGHEAD PRESSURE (psig)</u>	<u>DAYS SHUT IN</u>	<u>REMARKS</u>
1	3-17-53	12:00 Noon	-	0	Shut in.
2	4-3-53	-	443	17	Opened well 3 hours for State Potential test. Pressure measured with EPNG deadweight gauge.
3	4-23-53	6:00 PM	442.5	37	Used B & M dead- weight gauge.
4	5-12-53	3:30 PM	440.7	56	"
5	5-29-53	1:00 PM	437.9	73	"
6	6-9-53	3:00 PM	436.2	84	"
7	7-11-53	4:30 PM	431.2	116	"

NOTE: Measurements #3 through #7 were made with Benson-Montin's
dead weight gauge, which has a sensitivity of 1/10#.
After the well was shut in at close of potential test on
4-3-53, it was not opened until after Measurement #7 on
7-11-53, at which time it was blown through the tubing
for 5 minutes to determine if there was any fluid in the
hole. This showed the well to be absolutely dry.

DATA ON
PICTURED CLIFFS SAND

KUTZ CANYON - FULCHER BASIN, WEST KUTZ, AND GALLEGOS CANYON AREAS
SAN JUAN COUNTY, NEW MEXICO

scale

0 1 2 3 4

miles

5-1-52 GREER
8-1-53 1900 ACRES

LEGEND

★ PRODUCING PICTURED CLIFFS WELL

◇ WELL ABANDONED IN PICTURED CLIFFS

○ WELL LOCATION

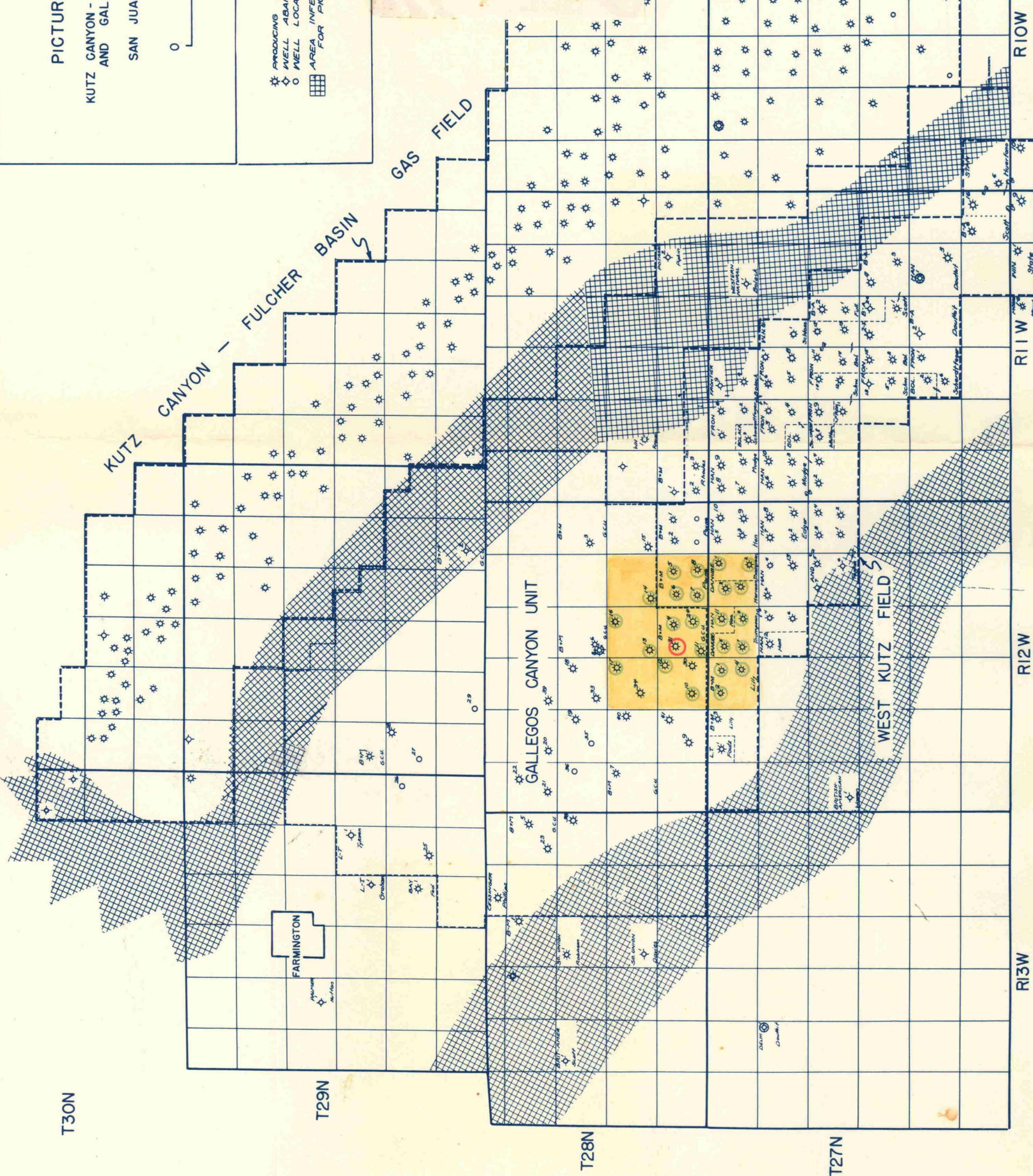
▨ AREA INFERRED TO BE NON-COMMERCIAL FOR PICTURED CLIFFS PRODUCTION

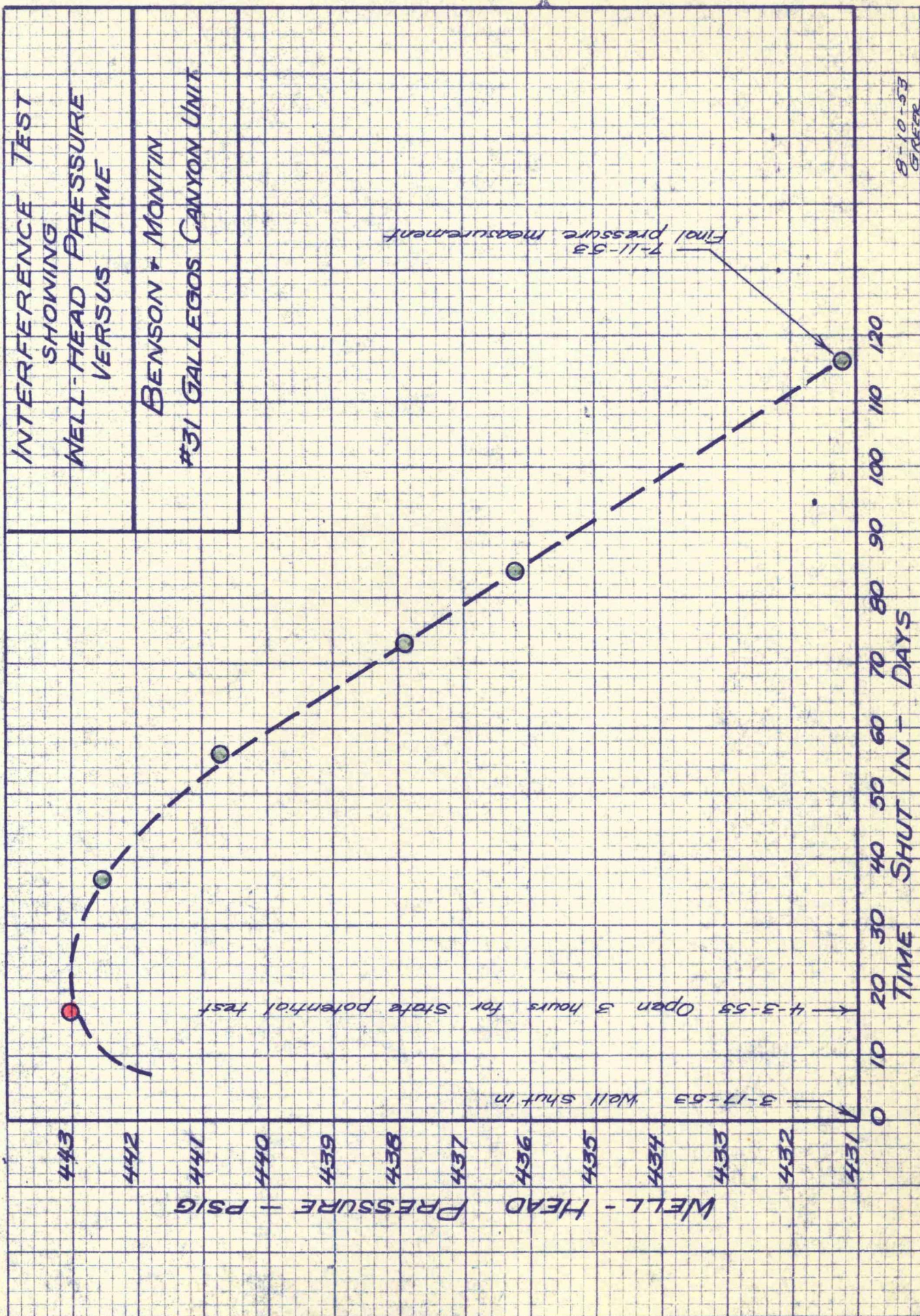
LEGEND REGARDING INTERFERENCE TEST

▨ AREA COVERED BY TEST.

○ SUBJECT SHUT-IN WELL.

○ WELLS PRODUCING DURING PERIOD OF TEST. (ALL OTHER WELLS SHOWN IN TEST AREA WERE NOT PRODUCING AS OF TIME OF INTERFERENCE TEST).





BENSON-MONTIN
INTERFERENCE TEST NO. 5
GALLEGOS CANYON AREA
SAN JUAN COUNTY, NEW MEXICO
PICTURED CLIFFS FORMATION

DATE OF TEST: June, July, August, 1953

AREA OF TEST:

<u>Description</u>	<u>Approximate Area</u>
SW/2 Section 16, Twp. 28N, Rge. 12W	320 acres
SE/2 Section 17, Twp. 28N, Rge. 12W	320 "
SE/2 Section 19, Twp. 28N, Rge. 12W	320 "
All Section 20, Twp. 28N, Rge. 12W	640 "
All Section 21, Twp. 28N, Rge. 12W	640 "
SW/2 Section 22, Twp. 28N, Rge. 12W	320 "
NW/2 Section 27, Twp. 28N, Rge. 12W	320 "
All Section 28, Twp. 28N, Rge. 12W	640 "
All Section 29, Twp. 28N, Rge. 12W	640 "
NE/2 Section 30, Twp. 28N, Rge. 12W	320 "
NE/2 Section 32, Twp. 28N, Rge. 12W	320 "
NW/2 Section 33, Twp. 28N, Rge. 12W	320 "
TOTAL	5,120 acres

PRODUCING WELLS WITHIN TEST AREA:

<u>Well</u>	<u>Location (T-28N, R-12W)</u>	<u>Date of First Production into pipe line</u>
# 6 Gallegos Canyon Unit	SE/4 Sec. 22	February, 1952
# 7 Gallegos Canyon Unit	NE/4 Sec. 30	August, 1952
#17 Gallegos Canyon Unit	NE/4 Sec. 28	September, 1952
#18 Gallegos Canyon Unit	NE/4 Sec. 21	April, 1953

PRODUCING WELLS ON BOUNDARY OF TEST AREA:

<u>Well</u>	<u>Location</u> (T-28N, R-12W)	<u>Date of First Production</u> <u>into Pipe Line</u>
#10 Gallegos Canyon Unit	SW/4 Sec. 32	March, 1953
#12 Gallegos Canyon Unit	NE/4 Sec. 32	March, 1953
#13 Gallegos Canyon Unit	SW/4 Sec. 27	March, 1953
#16 Gallegos Canyon Unit	NE/4 Sec. 27	September, 1952
#20 Gallegos Canyon Unit	SW/4 Sec. 17	April, 1953

SHUT-IN WELLS WITHIN TEST AREA:

<u>Well</u>	<u>Location</u> (T-28N, R-12W)	<u>Nearest</u> <u>Producing</u> <u>Well</u>	<u>Distance to</u> <u>nearest</u> <u>Producing Well</u>
#19 Gallegos Canyon Unit	NE/4 Sec. 20	#20 G.C.U.	4,400 feet
#33 Gallegos Canyon Unit	SW/4 Sec. 21	#17 G.C.U.	3,850 "
#34 Gallegos Canyon Unit	SW/4 Sec. 28	#17 G.C.U.	3,740 "
#39 Gallegos Canyon Unit	SW/4 Sec. 16	#18 G.C.U.	4,300 "
#40 Gallegos Canyon Unit	NE/4 Sec. 29	#17 G.C.U.	5,000 "
#41 Gallegos Canyon Unit	NE/4 Sec. 32	# 9 G.C.U.	3,230 "

INTERFERENCE TEST OF
BENSON-MONTIN #33 GALLEGOS CANYON UNIT
SW/4 SECTION 21, TWP. 28N, RGE. 12W
SAN JUAN COUNTY, NEW MEXICO
SHOWING
RECORD OF SHUT-IN WELL-HEAD PRESSURES

MEASURE- MENT NO.	DATE	TIME	CASINGHEAD PRESSURE (psig)	DAYS SHUT IN	REMARKS
1	6-26-53	8:00 AM	0	0	Shut in.
2	7-21-53	8:30 PM	459.0	25	
3	7-31-53	7:30 AM	459.1	35	
4	8- 5-53	6:00 PM	459.1	40	
5	8- 9-53	11:30 AM	458.85	44	8-8-53 well was blown into pipe line lateral for 5 minutes to purge it. This reading abnormally low because of blowing well. Installed locks on valves.
6	8-15-53	2:00 PM	459.0	50	
7	8-19-53	5:30 PM	458.7	54	
8	8-24-53	9:30 PM	458.55	59	
9	8-31-53	4:00 PM	458.45	66	
10	9-12-53	12:30 PM	457.5	78	Took State Potential Test.

NOTE: Measurements 2 through 10 were made with B & M dead weight gauge, which has a sensitivity of 1/10#. After Measurement No. 10 on 9-12-53 well was blown through tubing for 5 minutes to determine if there was any liquid in the well bore. This showed the well to be absolutely dry.

INTERFERENCE TEST OF
BENSON MONTIN #34 GALLEGOS CANYON UNIT
SW/4 SECTION 28, TWP. 28N, RGE. 12W
SAN JUAN COUNTY, NEW MEXICO
SHOWING
RECORD OF SHUT-IN WELL-HEAD PRESSURES

MEASURE- MENT NO.	DATE	TIME	CASINGHEAD PRESSURE (psig)	DAYS SHUT IN	REMARKS
1	6-19-53	12:00 Noon	0	0	Shut in.
2	6-29-53	-	458	10	Opened well for 3 hours for State Potential Test. Pressure measured with EPNG gauge.
3	7-11-53	5:30 PM	460.6	22	
4	7-21-53	9:00 PM	462.6	32	
5	7-31-53	8:30 AM	462.9	42	
6	8-5-53	7:30 PM	462.5	47	Well blown on 8-5-53 for 5 minutes to purge lateral, causing this pressure to be abnormally low. Installed locks on valves.
7	8-9-53	12:00 Noon	463.1	51	
8	8-15-53	2:30 PM	463.3	57	
9	8-19-53	6:30 PM	463.4	61	
10	8-24-53	10:30 PM	463.3	66	
11	8-31-53	4:30 PM	463.3	73	
12	9-12-53	4:00 PM	462.9	85	

NOTE: Measurements #3 through #12 were made with B & M's dead weight gauge, which has a sensitivity of 1/10#. After the well was shut in at close of potential test on 6-29-53 it was not opened again until after Measurement #12 on 9-12-53, with the exception of being inadvertently opened on 8-5-53 for 5 minutes. After Measurement #12 the well was blown through the tubing for 5 minutes to determine if there was any liquid in the well bore. This showed the well to be absolutely dry.

INTERFERENCE TEST OF
BENSON-MONTIN #40 GALLEGOS CANYON UNIT
NE/4 SECTION 29, TWP. 28N, RGE. 12W
SAN JUAN COUNTY, NEW MEXICO
SHOWING
RECORD OF SHUT-IN WELL-HEAD PRESSURES

MEASURE- MENT NO.	DATE	TIME	CASINGHEAD PRESSURE (psig)	DAYS SHUT IN	REMARKS
1	7- 9-53	12:00 Noon	0	0	Shut in.
2	7-21-53	8:00 PM	457.4	12	
3	7-31-53	7:00 AM	459.9	22	
4	8- 5-53	6:30 PM	461.0	27	
5	8- 9-53	11:15 AM	461.1	31	Well was blown for 5 minutes on 8-7-53. This pressure is low as a result. Installed locks on valves.
6	8-15-53	1:30 PM	461.75	37	
7	8-19-53	6:00 PM	462.15	41	
8	8-24-53	11:00 PM	462.25	46	
9	8-31-53	4:15 PM	462.4	53	
10	9-12-53	12:15 PM	462.3	65	Took State Potential Test.

NOTE: Measurements #2 through #10 were taken with B & M dead weight gauge, which has a sensitivity of 1/10#. After Measurement #10 the well was blown through the tubing for 5 minutes to determine if there was any liquid in the well bore. This showed the well to be absolutely dry.

INTERFERENCE TEST OF
BENSON-MONTIN #41 GALLEGOS CANYON UNIT
NE/4 SECTION 31, TWP. 28N, RGE. 12W
SAN JUAN COUNTY, NEW MEXICO
SHOWING
RECORD OF SHUT-IN WELL-HEAD PRESSURES

MEASURE- MENT NO.	DATE	TIME	CASINGHEAD PRESSURE (psig)	DAYS SHUT IN	REMARKS
1	6-12-53	4:00 PM	0	0	Shut in.
2	6-26-53	"	457	14	Well opened for 3 hours to take State Potential Test. Pressure measured with EPNG gauge.
3	7-11-53	6:00 PM	462.3	29	
4	7-21-53	10:00 PM	463.0	39	
5	7-31-53	9:00 AM	463.0	49	
6	8- 5-53	8:00 PM	463.05	54	
7	8- 9-53	12:00 Noon	463.05	58	
8	9-12-53	4:15 PM	462.4	92	

NOTE: Measurements #2 through #8 were taken with B & M dead weight gauge, which has a sensitivity of 1/10#. After closing in the well at completion of potential test on 6-26-53, the well was not opened until after Measurement #8, at which time it was blown through the tubing for 5 minutes to determine if there was any liquid in the well bore. This showed the well to be absolutely dry.

JOHN K. BRIGHT & CO.
Telephone EMerson 3702
5543 Edlen Road
Dallas 9, Texas

January 21, 1954

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Hancock EXHIBIT No. 2
CASE 696

J. D. Hancock & Co., Ltd.
Fidelity Union Life Building,
Dallas, Texas

Attention: Mr. James D. Hancock, Jr.

In Re: Gas sales from your leases located in the
Gentlemen: West Kutz Canyon Field, New Mexico.

In response to your recent request, I have compiled data pertaining to the deliverability and gas sales from your company's leases to Southern Union Gas Company. The enclosed schedules covering the period from January 1, 1953 to November 1, 1953 are submitted to show the desired information.

SCHEDULE "A" - Comparison of gas sold by all producers in the West Kutz Canyon Field to Southern Union Gas Company and El Paso Natural Gas Company. This schedule shows that the average purchase per well per month by Southern Union Gas Company was 2863 MCF while the same average purchase by El Paso Natural Gas Company was 8612 MCF.

SCHEDULE "B" - Comparison of first potentials of Hancock wells with first potentials of offset wells. The Hancock wells (12 in number) on which complete data is available and which are offset by 28 wells from which El Paso Natural Gas Company is purchasing the gas, are listed. This schedule shows that the average first potentials of the Hancock wells were 1803 MCF and the average first potentials of the offset wells were 1824 MCF.

SCHEDULE "C" - This schedule is a comparison of the gas sales from Hancock wells with gas sales from offset wells. Gas from the Hancock wells was sold to Southern Union Gas Company whereas gas from the offset wells was sold to El Paso Natural Gas Company.

SCHEDULE "D" - This schedule shows deliverability based on a common wellhead working pressure of 200 psig from the Hancock wells and offset wells. This schedule shows that from January 1st to November 1, 1953 Southern Union Gas Co. purchased 38.9% of the deliverability from the Hancock wells, whereas El Paso Natural Gas Co. purchased 79.9% of the deliverability from offset wells.

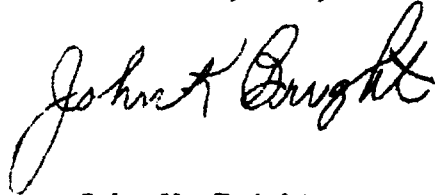
-Page 2-

SCHEDULE "E" - This schedule shows deliverability per State Tests and gas sales from Hancock wells and offset wells. This schedule shows that Southern Union Gas Co. purchased 37.7% of the deliverability from the Hancock wells, whereas El Paso Natural Gas Co. purchased 65.2% of the deliverability from offset wells.

SCHEDULE "F" - Comparison of deliverability of Hancock wells and offset wells, this schedule having been prepared by your Mr. Fred Crum.

SCHEDULE "G" - This schedule shows the amounts that Hancock would have received had Southern Union Gas Company purchased the same percentages of deliverability from 14 of the Hancock wells that El Paso Natural Gas Co. purchased from 30 offset wells. Based on deliverability on a common wellhead working pressure (line pressure) of 200 psig, Hancock would have received an additional amount of \$44,551.10, whereas based on deliverability per State Tests, Hancock would have received an additional amount of \$30,818.34.

Yours very truly,

A handwritten signature in cursive script, reading "John K. Bright". The signature is written in dark ink and is positioned below the typed name.

John K. Bright

JKB:SF

Schedule A

JAMES D. HANCOCK & COMPANY, LTD.

COMPARISON OF GAS PURCHASES BY SOUTHERN UNION GAS CO. & EL PASO NAT'L GAS CO. WEST KUTZ CANYON FIELD, NEW MEXICO. 1-1-53 to 11-1-53

Producer	Purchaser	Jan. MCF	Feb. MCF	Mar. MCF	Apr. MCF	May MCF	June MCF	July MCF	Aug. MCF	Sept. MCF	Oct. MCF	Avg. No. Wells	Total Purchases MCF	Avg. Per V MCF								
M. T. Anderson	S. U. G. Co.	4	3031	4	2433	4	2942	4	2553	4	1980	4	1202	4	2171	4	1681	4	1363	4	21336	533
J. D. Hancock & Co.	S. U. G. Co.	33	185088	33	185290	33	191047	33	186771	33	71897	33	83343	33	53138	33	119931	33	70978	33	1288350	3904
Southern Un. Gas Co.	S. U. G. Co.	1	258	1	279	1	348	1	242	1	124	1	91	1	1342	1	1342	1	1342	1	1342	1342
Stanolind O & G Co.	S. U. G. Co.	12	35574	11	8313	11	8313	11	4006	11	8055	12	5953	13	13463	13	19237	13	14297	13	26424	1118
Western Nat'l Gas Co.	S. U. G. Co.	1	2033	1	2224	1	1770	1	2735	1	1836	1	1400	1	592	1	1864	1	619	1	16596	1659
Totals		39	190510	51	225700	50	204420	50	196307	50	83892	51	92767	51	68395	51	143203	51	99384	51.1	1452946	2863
Average per well			4884		4425		4088		3926		1677		1819		1341		2808		3105		1948	

Benson & Montin	E.P.N.G. Co.	22	232046	23	203392	31	303228	33	354890	33	455489	33	421721	36	411848	35	494556	40	636221	32.7	3910308	11958
Danube Oil Co.	E.P.N.G. Co.	9	82453	9	62707	9	58258	9	58814	9	84299	9	64499	9	77181	9	88785	9	95088	9	752851	8365
Frentier Rfg. Co.	E.P.N.G. Co.	24	132716	24	107567	24	115478	24	105615	24	134250	24	116914	24	120491	25	154691	25	149756	24.3	1253929	5160
Woodward & Bolack	E.P.N.G. Co.	3	6632	3	2819	3	5581	66	674038	66	603134	69	609520	72	743821	74	5789	78	4839	3	25660	8553
Totals		55	447215	59	380298	67	479783	69	524900	66	674038	66	603134	69	609520	72	743821	74	886704	69	5942746	8612
Average per well			8131		6445		7160		7607		10212		9138		8833		10330		11367			

JAMES D. HANCOCK & COMPANY, LTD.

COMPARISON OF FIRST POTENTIALS OF HANCOCK WELLS
WITH FIRST POTENTIALS OF OFFSET WELLS, WEST KUTZ
CANYON FIELD, NEW MEXICO.

Producer	Lease	Description	First Potentials	
			Hancock Wells MCF	Offset Wells MCF
Hancock	Hancock #11	NE 3-27-12	3950	
Benson & Montin	Gallegos #24	SE 34-28-12		3060
Benson & Montin	Payne #7	SW 35-28-12		1280
Benson & Montin	Payne #8	SW 35-28-12		1270
Danube	Harmon #2	NW 2-27-12		2740
Danube	Harmon #1	SW 2-27-12		2440
Danube	Thompson #3	SE 3-27-12		3780
Danube	Thompson #7	SW 3-27-12		2000
Danube	Thompson #5	NW 3-27-12		3300
Benson & Montin	Gallegos #11	SW 34-28-12		887
Hancock	Hancock #5	NW 1-27-12	2500	
Danube	Thompson #1	NE 2-27-12		1900
Hancock	Mudge #8	NW 6-27-11	324 ^v	
Benson & Montin	Rhodes #2	SW 31-28-11		1750
Hancock	Mudge #9	NE 6-27-11	1300 ^v	
Benson & Montin	Rhodes #3	SE 31-28-11		971
Frontier	Schwerd #1	NW 5-27-11		2180
Hancock	Hancock #3	SW 1-27-12	*3400	
Danube	Thompson #2	SE 2-27-12		
Hancock	Mudge #5	SE 6-27-11	556	
Woodward	Bolack #3	SW 5-27-11		500

Incomplete Data

JAMES D. HANCOCK & COMPANY, LTD.

COMPARISON OF FIRST POTENTIALS OF HANCOCK WELLS
WITH FIRST POTENTIALS OF OFFSET WELLS, WEST KUTZ
CANYON FIELD, NEW MEXICO.

Producer	Lease	Description	First Potentials	
			Hancock Wells MCF	Offset Wells MCF
Hancock	Hancock #12	NW 10-27-12	1020	
Danube	Thompson #7	SW 3-27-12		2000
Danube	Thompson #3	SE 3-27-12		3780
Danube	Thompson #4	NE 10-27-12		1700
Danube	Thompson #6	SE 10-27-12		887
Hancock	Hancock #6	NW 11-27-12	2420	
Danube	Thompson #3	SE 3-27-12		3780
Danube	Harmon #1	SW 2-27-12		2440
Danube	Thompson #4	NE 10-27-12		1700
Danube	Thompson #6	SE 10-27-12		887
Hancock	Hancock #4	NE 11-27-12	*1930	
Danube	Thompson #2	SE 2-27-12		?
Hancock	Mudge #10	NE 7-27-11	1100	
Frontier	Schwerdt #3	NW 8-27-11		606
Hancock	Mudge #3	SE 7-27-11	4600	
Woodward & Bolack	Schwerdt #1	SW 8-27-11		760
Hancock & B. A.	Fullerton #2	NE 15-27-11	*1500	
Frontier	Bolack #12	NW 15-27-11		?
Hancock	Fullerton #1	SE 15-27-11	1500	
Frontier	Bolack #13	SW 15-27-11		2000

* Incomplete Data

JAMES D. HANCOCK & COMPANY, LTD.

COMPARISON OF FIRST POTENTIALS OF HANCOCK WELLS
WITH FIRST POTENTIALS OF OFFSET WELLS, WEST KUTZ
CANYON FIELD, NEW MEXICO.

Producer	Lease	Description	First Potentials	
			Hancock Wells MCF	Offset Wells MCF
Hancock-Lake	Mudge B-1	NE 29-27-11	1300	
Woodward & Bolack	Schwerdt #2	NW 28-27-11		1005
Frontier	Schwerdt #6	SW 28-27-11		280
Hancock & B. A.	Douthit #2	NW 27-27-11	1070	
Frontier	Bolack #1	NE 28-27-11		1210
Totals			21640	51093
Number of Wells			12	28
Avg. per Well			1803	1824

JAMES D. HANCOCK & COMPANY, LTD.

Schedule C

COMPARISON OF GAS SALES FROM HANCOCK WELLS TO SOUTHERN UNION GAS CO.
WITH GAS SALES FROM OFFSET WELLS TO EL PASO NAT'L GAS CO. 1-1-53 to 11-1-53

WITH GAS SALES FROM OFFSET WELLS TO EL PASO NAT'L GAS CO. 1-1-53 to 11-1-53													Totals	
Producer	Lease	Purchaser	Hancock Wells										Offset Hancock Wells	
			Jan. MCF	Feb. MCF	Mar. MCF	April MCF	May MCF	June MCF	July MCF	Aug. MCF	Sept. MCF	Oct. MCF	Wells MCF	Wells MCF
Hancock	Hancock #11	NE 3-27-12 S. U. G. Co.	7608	8705	7002	10327	6115	4640	2602	6607	6685	2891	63182	
	Gallejos #24	SE 34-28-12 E. P. N. G. Co.	Not Conn.	Not Conn.	16787	15645	20548	14973	15964	17120	15623	19866	136526	
	Benson & Montin	Payne #7	6828	4729	4429	5134	6677	6033	5499	6838	5674	6701	58542	
	Benson & Montin	Payne #8	8760	6783	6363	6307	8466	7962	8101	9012	6562	9284	77600	
	Danube	Harmon #2	9970	8567	8499	8682	10348	6800	9645	11633	4382	12265	96511	
Danube	Harmon #1	SW 2-27-12 E. P. N. G. Co.	6163	4653	4918	4468	5860	2989	5005	7141	5658	7061	53916	
Danube	Thompson #3	SE 3-27-12 E. P. N. G. Co.	14995	11451	10391	11846	13974	13336	13944	15430	13434	12999	131800	
Danube	Thompson #7	SW 3-27-12 E. P. N. G. Co.	8706	5883	6909	3907	9575	8429	9139	10835	8502	10705	82538	
Danube	Thompson #5	NW 3-27-12 E. P. N. G. Co.	11798	8879	6628	6744	14610	13839	13474	16063	12312	15147	119494	
Benson & Montin	Gallejos #11	SW 34-28-12 E. P. N. G. Co.	5929	6840	9120	9714	12108	10948	10406	12087	9883	12377	99412	
Hancock	Hancock #5	NW 1-27-12 S. U. G. Co.	7404	4828	4185	3425	1840	1875	785	1346	1799	564	27251	
	Thompson #1	NE 2-27-12 E. P. N. G. Co.	10913	8193	7410	8878	9909	8247	11656	10510	11383	13665	100784	
Hancock	Hancock #8	NW 6-27-11 S. U. G. Co.	44	87	67	111	33	7346	5916	6873	6962	8969	+642	
	Rhodes #2	SW 31-28-11 E. P. N. G. Co.	9572	7600	6219	6868	8412	7346	5916	6873	6962	8969	+74737	
Hancock	Hancock													
	Benson & Montin	Mudge #9	9494	7996	3695	6805	3381	3040	2030	4101	4534	1636	46712	
	Benson & Montin	Rhodes #3	4669	3442	2160	2341	2778	2429	1444	2586	1996	2728	26573	
Frontier	Schwerdt #1	NW 5-27-11 E. P. N. G. Co.	7411	5805	6068	5831	6533	6313	6551	6301	3913	4609	59335	
Hancock	Hancock #3	SW 1-27-12 S. U. G. Co.	4169	4723	5306	3973	2499	1646	1104	2748	2951	1130	30249	
	Danube	Thompson #2	SE 2-27-12 E. P. N. G. Co.	9200	6852	5967	8878	7984	3793	7950	11833	9418	12285	84160
Hancock	Hancock													
	Woodward	Mudge #5	SE 6-27-11 S. U. G. Co.	1865	1822	1521	1302	626	341	164	428	1799	214	10082
Woodward	Dojack #3	SW 5-27-11 E. P. N. G. Co.	5888		1217	4774						3465	18862	

-5-

* Incomplete Data

Schedule C

JAMES D. HANCOCK & COMPANY, LTD.

COMPARISON CF GAS SALES FROM HANCOCK WELLS TO SOUTHERN UNION GAS CO.
WITH GAS SALLS FROM OFFSET WELLS TO EL PASO NAT'L GAS CO. 1-1-53 to 11-1-53

Producer	Lease	Location	Purchaser	SALES										Totals	
				Jan. MCF	Feb. MCF	Mar. MCF	April MCF	May MCF	June MCF	July MCF	Aug. MCF	Sept. MCF	Oct. MCF	Offset Wells MCF	Hancock Wells MCF
Hancock Danube Danube Danube Danube	Hancock #12	NW 10-27-12 S. U. G. Co.		3351	2678	2150	3476	2418	1918	1497	2403	2773	1611		24275
	Thompson #7	SW 3-27-12 E. P. N. G. Co.		8706	5883	6909	3907	9575	8429	9139	10835	8502	10703	82588	
	Thompson #3	SE 3-27-12 E. P. N. G. Co.		14995	11451	10391	11846	13974	13336	13944	15430	13434	12999	131800	
	Thompson #4	NE 10-27-12 E. P. N. G. Co.		7828	6468	5885	6245	7445	4554	5801	9490	7028	8864	69608	
	Thompson #6	SE 10-27-12 E. P. N. G. Co.		2880	1761	1651	2223	2794	2512	567	1662	2350	2945	21345	
Hancock Danube Danube Danube Danube	Hancock #6	NW 11-27-12 S. U. G. Co.		9758	8110	5626	9087	4595	3138	1503	4423	6061	1923		54224
	Thompson #3	SE 3-27-12 E. P. N. G. Co.		14995	11451	10391	11846	13974	13336	13944	15430	13434	12999	131800	
	Harmon #1	SW 2-27-12 E. P. N. G. Co.		6163	4653	4918	4468	5860	2989	5005	10510	5658	7061	57285	
	Thompson #4	NE 10-27-12 E. P. N. G. Co.		7828	6468	5885	6245	7445	4554	5801	9490	7028	8864	69608	
	Thompson #6	SE 10-27-12 E. P. N. G. Co.		2880	1761	1651	2223	2794	2512	567	1662	2350	2945	21345	
Hancock Danube	Hancock #4	NE 11-27-12 S. U. G. Co.		4553	2658	2882	4745	2631	1583	9	1952	3484	979		25476
	Thompson #2	SE 2-27-12 E. P. N. G. Co.		9200	6852	5967	5821	7984	3793	7950	5821	9418	12199	75005	
Hancock Frontier	Mudge #10	NE 7-27-11 S. U. G. Co.		5954	4052	3220	2757	1713	1218	403	963	1250	1016		22546
	Schwerdt #3	NW 8-27-11 E. P. N. G. Co.		1943	1075	1154	1329	1690	1454	1406	1871	671	1034	13627	
Hancock Woodward & Bolack	Mudge #3	SE 7-27-11 S. U. G. Co.		10494	13540	11764	9477	5138	2384	807	5776	3802	3961		67143
	Schwerdt #1	SW 8-27-11 E. P. N. G. Co.		419	344	301	243	7	7	7	102	7	34	1443	
Hancock & B. A. Frontier	Fullerton #2	NE 15-27-11 S. U. G. Co		5183	6894	7915	7952	5316	4671	4186	5563	5235	4002		56917
	Bolack #12	NW 15-27-11 E. P. N. G. Co		7169	4991	6089	5291	6120	5626	5506	6409	4862	6816	58959	
Hancock Frontier	Fullerton #1	SE 15-27-11 S. U. G. Co.		8924	7174	7781	6517	4479	3511	3146	5185	4909	2878		54424
	Bolack #13	SW 15-27-11 E. P. N. G. Co.		8166	9776	10021	8965	11680	10644	10945	14715	11405	15139	111456	

Schedule C

JAMES D. HANCOCK & COMPANY, LTD.

COMPARISON OF GAS SALES FROM HANCOCK WELLS TO SOUTHERN UNION GAS CO.
WITH GAS SALES FROM OFFSET WELLS TO EL PASO NAT'L GAS CO. 1-1-53 to 11-1-53

Producer	Lease	Location	Purchaser	Totals												Offset Wells MCF	Hancock Wells MCF
				Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.			
Hancock-Lake Woodward & Bolack Frontier	Mudge B-1 Schwerdt #2 Schwerdt #6	NE 29-27-11 NW 28-27-11 SW 28-27-11	S.U.G. Co. E.P.N.G. Co. E.P.N.G. Co.	3271	3521	4842	3957	2370	2819	2104	3651	4150	2026			6411	32711
				1037	-	1301	1164	?	?		1569		1340				
				1922	1569	1743	1559	1928	?	1914	2250	1781	2251			16917	
Hancock & B. A. Frontier	Douthitt #2 Bolack #1	NW 27-27-11 NE 28-27-11	S.U.G. Co. E.P.N.G. Co.	8598	7497	7744	7937	6423	6305	4648	5805	6277	4734			14917	65968
				2405	1636	1901	1449	1775	1337	1203	1513	868	830			<u>2030217</u>	<u>581160</u>

JAMES D. HANCOCK & COMPANY, LTD. Schedule D

SCHEDULE SHOWING DELIVERABILITY BASED ON A COMMON WELLHEAD WORKING PRESSURE (LINE PRESSURE) of 200 psig FROM HANCOCK WELLS AND OFFSET WELLS. GAS FROM HANCOCK WELLS PURCHASED BY SOUTHERN UNION GAS CO.; GAS FROM OFFSET WELLS PURCHASED BY EL PASO NATURAL GAS COMPANY.

** From Schedule F
* Incomplete Data

Producer	Lease	Description	Deliverability @200	Deliverability		Purchases		% of Deliverability	
			psig Wellhead Working Pressure Hancock Wells	1-1 to 11-1-53	Offset Wells	fr. Hancock by SUG Co.	fr. Offsets by EPNG Co.	Hancock by SUG Co.	Offsets by EPNG Co.
Hancock	Benson & Montin	Hancock #11	NE 3-27-12	684.4	208057	63182	136526	30.3%	72.5%
		Gallegos #24	SE 34-28-12	531	161424		58542		
		Benson #7	SW 35-28-12	239.9	72929		77600		
		Benson & Montin	Payne #8	SW 35-28-12	95729		96511		
		Danube	Harmen #2	NW 2-27-12	119745		53916		
		Danube	Harmen #1	SW 2-27-12	231	70224	131800		
		Danube	Thompson #3	SE-3-27-12	611.46	185883	82588		
		Danube	Thompson #7	SW 3-27-12	345.24	104952	119474		
		Danube	Thompson #5	NW 3-27-12	497.4	151209	99412		
		Benson & Montin	Gallegos #11	SW 34-28-12	420.0	127680	856389	30.3%	78.5%
		Totals			1089775				
Hancock	Danube	Hancock #5	NW 1-27-12	81.9	24897	27251	100784	** 109.4%	69.5%
		Thompson #1	NE 2-27-12	476.9	144977				
Hancock	Benson & Montin	Mudge #8	NW 6-27-11	No Test	No Test	*342	*74737		
		Rhodes #2	SW 31-28-11	*311.8					
Hancock	Benson & Montin	Mudge #9	NE 6-27-11	388	117952	46712	26573	39.6%	89.5%
		Rhodes #3	SE 31-28-11	97.56	29658	53045	59335	Still over 100%	** 115.8%
		Schwerdt #1	NW 5-27-11	168.5-171.2	51224				
Hancock	Danube	Hancock #3	SW 1-27-12	524.5-732	159448-131,328	30249	84160	18.9% -- 23.6%	75.3%
		Thompson #2	SE 2-27-12	367.4	111689				
Hancock		Mudge #5	SE 6-27-11	45.9	13953	10062		72.2%	49.1%
		Bolack #3	SW 5-27-11	126.2	-8-	38364	18862		

JAMES D. HANCOCK & COMPANY, LTD.

Schedule D

SCHEDULE SHOWING DELIVERABILITY BASED ON A COMMON WELLHEAD WORKING PRESSURE (LINE PRESSURE) of 200 psig FROM HANCOCK WELLS AND OFFSET WELLS. GAS FROM HANCOCK WELLS PURCHASED BY SOUTHERN UNION GAS CO.; GAS FROM OFFSET WELLS PURCHASED BY EL PASO NATURAL GAS COMPANY.

** From Schedule F

Producer	Lease	Description	Deliverability @200 psig Wellhead		Deliverability 1-1 to 11-1-53		Purchases 1-1 to 11-1-53		% of Deliverability Purchased from
			Hancock Wells	Working Pressure Offset Wells	Hancock Wells	Offset Wells	fr. Hancock by SUG Co.	fr. Offsets by EPNG Co.	
Hancock Danube	Hancock #12	NW 10-27-12	192.9		58641		24275		41.3%
	Thompson #7	SW 3-27-12		340.5		103512	82588		79.7%
	Thompson #3	SE 3-27-12		611.4		185865	131800		70.9%
	Thompson #4	NE 10-27-12		160.3		48731	69608		** 142.8%
	Thompson #6	SE 10-27-12		119.9		36449	21345		58.5%
Hancock Danube	Hancock #6	NW 11-27-12	446.7		135796		54224		39.9%
	Thompson #3	SE 3-27-12		611.4		185865	131800		70.9%
	Harmon #1	SW 2-27-12		231		70224	57285		81.5%
	Thompson #4	NE 10-27-12		160.3		48731	69608		** 145.8%
	Thompson #6	SE 10-27-12		119.9		36449	21345		58.5%
Hancock Danube	Hancock #4	NE 11-27-12	234.6		71318		25476		35.7%
	Thompson #2	SE 2-27-12		371.7		112996	75005		66.3%
Hancock Frontier	Mudge #10	NE 7-27-11	194		58976		22546		38.2%
	Schwerdt #3	NW 8-27-11					13627		
Hancock Woodward & Bolack	Mudge #3	SE 7-27-11	636.9		193617		67143		34.6%
	Schwerdt #1	SW 8-27-11		8.5		2584	1443		55.8%
Hancock & B. A. Frontier	Fullerton #2	NE 15-27-11	427		129808		56917		43.8%
	Bolack #12	NW 15-27-11		188.7		57364	58959		** 102.7%
Hancock Frontier	Fullerton #1	SE 15-27-11	490.5		149112		54424		36.4%
	Bolack #13	SW 15-27-11		485.5		147592	111456		75.5%

Schedule D
JAMES D. HANCOCK & COMPANY, LTD.

SCHEDULE SHOWING DELIVERABILITY BASED ON A COMMON WELLHEAD WORKING PRESSURE (LINE PRESSURE) of 200 psig FROM HANCOCK WELLS AND OFFSET WELLS. GAS FROM HANCOCK WELLS PURCHASED BY SOUTHERN UNION GAS CO.; GAS FROM OFFSET WELLS PURCHASED BY EL PASO NATURAL GAS COMPANY.

** From Schedule F

Producer	Lease	Description	Deliverability @200		Deliverability		Purchases		% of Deliverability Purchased from
			psig Wellhead	Working Pressure	1-1 to 11-1-53	1-1 to 11-1-53	1-1 to 11-1-53	1-1 to 11-1-53	
			Hancock Wells	Offset Wells	Hancock Wells	Offset Wells	fr. Hancock by SUG Co.	fr. Offsets by EPNG Co.	Hancock Offsets by SUG Co. EPNG Co.
Hancock-Lake	Mudge B-1	NE 29-27-11	268		61472		32711		40%
Woodward & Bolack	Schwerdt #2	NW 28-27-11	250.2	32	76060	9728		6411	43%
Frontier	Schwerdt #6	SW 28-27-11		67.2		20428		16917	
Hancock & B. A.	Douthit #2	NW 27-27-11	307.7	25.7	93540	7812	65968		70.5%
Frontier	Bolack #1	NE 28-27-11						14917	
Totals			4905.2	8355.36	1491175	2540017	581160	2030217	** 190.5%
No. Of Wells			14	30	14	30	14	30	79.9%
Averages			350.3	278.5	106512	84667	41511	67674	

JAMES D. HANCOCK & COMPANY, LTD. Schedule E

** From Schedule F
* Incomplete Data

SCHEDULE SHOWING DELIVERABILITY PER STATE TESTS AND GAS SALES FROM HANCOCK WELLS AND OFFSET WELLS, GAS FROM HANCOCK WELLS PURCHASED BY SOUTHERN UNION GAS CO.; GAS FROM OFFSET WELLS PURCHASED BY EL PASO NATURAL GAS COMPANY.

Producer	Lease	Description	Deliverability Hancock Wells	State Tests Offset Wells	Deliverability 1-1 to 11-1-53 Hancock Wells	Purchases 1-1 to 11-1-53 fr. Hancock by SUG Co.	fr. Offsets by EPNG Co.	% of Deliverability Purchased from Hancock by SUG Co. EPNG Co.
Hancock	Hancock #11	NE 3-27-12	717		217968	63182		
Benson & Montin	Gallegos #24	SE 34-28-12		583	177232		136526	
Benson & Montin	Payne #7	SW 35-28-12		256	77824		58542	
Benson & Montin	Payne #8	SW 35-28-12		336	102144		77600	
Danube	Harmon #2	NW 2-27-12		463	140752		96511	
Danube	Harmon #1	SW 2-27-12		538	163552		53916	
Danube	Thompson #3	SE 3-27-12		706	214624		131800	
Danube	Thompson #7	SW 3-27-12		379	115216		82588	
Danube	Thompson #5	NW 3-27-12		550	167200		119494	
Benson & Montin	Gallegos #11	SW 34-28-12		381	115824		99412	
Totals					1274368		856389	28.9%
Hancock	Hancock #5	NW 1-27-12	85		25840	27251		**105.4%
Danube	Thompson #1	NE 2-27-12		538	163552		100784	61.6%
Hancock	Mudge #8	NW 6-27-11	Not Prod.			*842		
Benson & Montin	Rhodes #2	SW 31-28-11		*339	*103056		*74737	
Hancock	Mudge #9	NE 6-27-11	409		124336	46712		37.5%
Benson & Montin	Rhodes #3	SE 31-28-11		109	33136		26573	80%
Frontier	Schwerdt #1	NW 5-27-11		184	55936 58277		59335	** 106% still over 100%
Hancock	Hancock #3	SW 1-27-12	463		140752	30249		21.4%
Danube	Thompson #2	SE 2-27-12		423	128592		84160	65.4%
Hancock	Mudge #5	SE 6-27-11	48		14592	10082		69%
Woodward	Black #3	SW 5-27-11		142	43168		18862	43.7%
					-11-			

Schedule E
JAMES D.HANCOCK & COMPANY, LTD.

SCHEDULE SHOWING DELIVERABILITY PER STATE TESTS AND GAS SALES FROM HANCOCK WELLS AND OFFSET WELLS. GAS FROM HANCOCK WELLS PURCHASED BY SOUTHERN UNION GAS CO.; GAS FROM OFFSET WELLS PURCHASED BY EL PASO NATURAL GAS COMPANY.

Producer	Lease	Description	Deliver- ability Hancock Wells	State Tests Offset Wells	Deliverability 1-1 to 11-1-53 Hancock Wells	Purchases 1-1 to 11-1-53 fr. Hancock by SUG Co.	fr. Offsets by EPNG Co.	% of Deliverability Purchased from Hancock by SUG Co. EPNG Co.
Hancock	Hancock #12	NW 10-27-12	199		60496	24275		40%
Danube	Thompson #7	SW 3-27-12		379	115216	82588		71.6%
Danube	Thompson #3	SE 3-27-12		706	214624	131800		61.4%
Danube	Thompson #4	NE 10-27-12		353	107312	69608		64.8%
Danube	Thompson #6	SE 10-27-12		133	40432	21345		52.7%
Hancock	Hancock #6	NW 11-27-12	487		148048	54224		36.6%
Danube	Thompson #3	SE 3-27-12		706	214624	131800		61.4%
Danube	Harmon #1	SW 2-27-12		284	86336	57285		66.3%
Danube	Thompson #4	NE 10-27-12		353	107312	69608		64.8%
Danube	Thompson #6	SE 10-27-12		133	40432	21345		52.7%
Hancock	Hancock #4	NE 11-27-12	256		77824	25476		32.7%
Danube	Thompson #2	SE 2-27-12		423	128592	75005		58.3%
Hancock	Mudge #10	NE 7-27-11	209		63536	22546		35.4%
Frontier	Schwerdt #3	NW 8-27-11		158	48032	13627		28.3%
Hancock	Mudge #3	SE 7-27-11	692		210368	67143		31.9%
Woodward & Bolack	Schwerdt #1	SW 8-27-11		10	3040	1443		47.4%
Hancock & B. A.	Fullerton #2	NE 15-27-11	427		129808	56917		43.8%
Frontier	Bolack #12	NW 15-27-11		202	61408	58959		96%
Hancock	Fullerton #1	SE 15-27-11	513		155952	54424		34.8%
Frontier	Bolack #13	SW 15-27-11		555	168720	111456		68.4%

JAMES D. HANCOCK & COMPANY, LTD.
Schedule E

SCHEDULE SHOWING DELIVERABILITY PER STATE TESTS AND GAS SALES FROM
HANCOCK WELLS AND OFFSET WELLS, GAS FROM HANCOCK WELLS PURCHASED
BY SOUTHERN UNION GAS CO.; GAS FROM OFFSET WELLS PURCHASED BY EL PASO
NATURAL GAS COMPANY.

Producer	Lease	Description	Deliver- ability	State Tests		Deliverability		Purchases		% of Deliverability	
				Offset	Wells	1-1 to 11-1-53	Offset	1-1 to 11-1-53	fr. Offsets	Purchased by	Offset from
			Hancock Wells		Hancock Wells		Wells	fr. Hancock by SUG Co.	fr. Offsets	Hancock by	EPNG Co.
Hancock-Lake	Mudge B-1	NE 29-27-11	266			80864		32711		40.4%	
Woodward & Bolack	Schwerdt #2	NW 28-27-11		83			25232		6411		25.4%
Frontier	Schwerdt #6	SW 28-27-11		70			21280		16917		79.4%
Hancock & B. A. Frontier	Douthit #2 Bolack #1	NW 27-27-11 NE 28-27-11	291			88464	31008	65968	14917	74.5%	48.1%
				102							
Totals			5062	10238		1538848	3112352	581160	2030217	37.7%	65.2%
No. of Wells			14	30		14	30	14	30		
Averages			361	341		10991	10374	41511	67674		

JAMES D. HANCOCK & CO. LTD.

Comparison of Deliverability of Hancock Wells & Offset Wells

PRODUCER	LEASE	S.T.R.	7 da SIP		W.H.W.P.		FLOW MCF/DA		1/2 7 da SIP		FLOW MCF/		FLOW MCF/	
			ACTUAL	Pc	ACTUAL	Pw	ACTUAL	Q	250 psia	MAX. Pd.	da 1/2 7 da SIP 250 psia max. Q	da 1/2 7 da SIP 250 psia max. Q	da @ 200 psig line Q	da @ 200 psig line Q
HANCOCK	Hancock #11	NE 3-27-12	383		342		236		191		717		684.4	
Benson & M.	Gallegos #24	SE 34-28-12	370		188		578		185		583		531.0	
Benson & M.	Payne #7	SW 35-28-12	383		188		259		191		256		239.9	
Benson & M.	Payne #8	SW 35-28-12	384		189		339		192		336		314.9	
Danube	Hannon #2	NW 2-27-12	346		189		438		173		463		393.9	396.3
Danube	Hannon #1	SW 2-27-12	330		189		259		165		284		231.0	
Danube	Thomp. #3	SE 3-27-12	351		192		665		175		706-704		611.46	
Danube	Thomp. #7	SW 3-27-12	371		190		373		185		376-377		345.24	
Danube	Thomp. #5	NW 3-27-12	367		191		537		183		550		497.4	
Benson & M.	Gallegos #11	SW 34-28-12	381		191		450		191		450		420.0	
HANCOCK	Hancock #5	NW 1-27-12	406		341		38		203		85		81.9	
Danube	Thomp. #1	NE 2-27-12	358		190		519		179		538		476.9	
HANCOCK	Mudge #8	No test												
Benson & M.	Rhodes #2	SW 31-28-11	375		191		335		187		339		311.8	
HANCOCK	Mudge #9	NE 6-27-11	393		347		144		196		409		388.0	
Benson & M.	Rhodes #3	SE 31-28-11	363		190		106		181		109		97.56	
Frontier	Schwerd. #1	NW 5-27-11	358		188		188		179		184-1927		168.5-177.2	
HANCOCK	Hancock #3	SW 1-27-12	381		343		144		190		463		524.5-432	
Danube	Thomp. #2	SE 2-27-12	352		184		412		176		423		367.4	
HANCOCK	Mudge #5	SE 6-27-11	394		341		19		197		48		45.9	
Woodward	Bolack #3	SW 5-27-11	360		180		142		180		142		126.2	
HANCOCK	Hancock #12	NW 10-27-12	406		346		84		203		199		192.9	
Danube	Thomp. #7	SW 3-27-12	371		190		373		185		379		340.5-345	
Danube	Thomp. #3	SE 3-27-12	351		192		665		175		706		611.4	
Danube	Thomp. #4	NE 10-27-12	356		185		345		178		353		160.3	
Danube	Thomp. #6	SE 10-27-12	367		190		130		183		133		119.9	
HANCOCK	Hancock #6	NW 11-27-12	375		343		133		187		487		446.7	
Danube	Thomp. #3	SE 3-27-12	351		192		665		175		706		611.4	
Danube	Hannon #1	SW 2-27-12	330		189		259		165		284		231.0	
Danube	Thomp. #4	NE 10-27-12	356		185		345		178		353		160.3	
Danube	Thomp. #6	SE 10-27-12	367		190		130		183		133		119.9	
HANCOCK	Hancock #4	NE 11-27-12	377		344		71		188		256		234.6	
Danube	Thomp. #2	SE 2-27-12	352		184		412		176		423		371.7	
HANCOCK	Mudge #10	NE 7-27-11	380		342		65		190		209		194.0	
*Frontier	Schwerd. #3	NW 8-27-11	208		188		49		104		158-162		0	
HANCOCK	Mudge #3	SE 7-27-11	375		341		199		187		692		636.9	
Woodward B	Schwerd. #1	SW 8-27-11	359		185		9.5		179		9.7		8.5	
HANCOCK	Fullerton #2	NE 15-27-11	416		340		216		208		427		427.0	
Frontier	Bolack #12	NW 15-27-11	385		182		207		192		202		188.7	
HANCOCK & BA	Fullerton #1	SE 15-27-11	395		342		202		197		513		490.5	
Frontier	Bolack #13	SW 15-27-11	354		192		527		177		550		485.5	
HANCOCK & LAKE	Mudge B-1	NE 29-27-11	434		343		147		122		266		250.2-265	
Woodward-Bolack	Schwerd. #2	NW 28-27-11	244		182		53		201		83		32.0	
Frontier	Schwerd. #6	SW 28-27-11	402		182		73		250		70		67.2	
HANCOCK & BA	Douthit #2	NW 27-27-11	573		341		240		250		291		307.7	
Frontier	Bolack #1	NE 28-27-11	230		183		55		115		80		25.7	
TOTAL FOR HANCOCK 14 WELLS			5688		4796		1938		2804		5062		301.5	
AVERAGE			406.2		342.6		138.4		200.3		361.5			
TOTAL FOR OTHER WELLS 31 WELLS			10832		5821		9897		5409		10361		288.8	
AVERAGE			349.4		187.7		319.2		174.4		334.2			

* Since SIP is only 208 psia this well can not flow against 212 psia line. Test is

probably in error

Total averages will be slightly different due to the above changes.

JAMES D. HANCOCK & COMPANY, LTD.

Schedule C

SCHEDULE SHOWING ADDITIONAL AMOUNTS HANCOCK WOULD HAVE RECEIVED HAD SOUTHERN UNION GAS CO. PURCHASED THE SAME PERCENTAGES OF DELIVERABILITY FROM 14 OF HANCOCK WELLS THAT EL PASO NATURAL GAS CO. PURCHASED FROM 30 OFFSET WELLS.

	Based on Deliverability on a Common Wellhead Work. Press. (Line Pressure) of 200 psig		Based on Deliverability per State Tests	
Deliverability of 14 Hancock Wells	1491175	(Sch. D)	1538848	(Sch. E)
Deliverability of 30 Offset Wells	2540017	(Sch. D)	3112352	(Sch. E)
Purchases by Southern Union Gas Co. from 14 Hancock Wells	581160	(Sch. C)	581160	(Sch. C)
Purchases by El Paso Nat'l. Gas Co. from 30 Offset Wells	2030217	(Sch C)	2030217	(Sch. C)
Percentage of Deliverability purchased by El Paso Natural Gas Company from 30 Offset Wells	79.9%	(Sch. D)	65.2%	(Sch. E)
79.9% of Deliverability of Hancock Wells	1191449		1003329	
65.2% of Deliverability of Hancock Wells				
Less Volumes purchased by Southern Union Gas Co. from 14 Hancock Wells	581160	(Sch. C)	581160	(Sch. C)
Additional Volumes	610289		422169	
Value per MCF	\$.073		\$.073	
Additional Amounts Hancock would have received	\$ 445110		\$ 3081834	



SOUTHERN UNION GAS COMPANY			
to <i>Hammock Mischel #9</i>		INTEGRATOR	
Gas from thru <i>W. H. C.</i>		Range	—
Location <i>W. H. C.</i>		Meter No. <i>EPB 1254</i>	Run No. Operator
Orifice Plate No. <i>4 M. D. F.</i>		Size <i>1/2"</i>	Counter Reading STOP
Chart on <i>6-2-</i>		19 <i>54</i> at <i>2:55 PM</i>	Counter Reading START
Chart off <i>6-9</i>		19 <i>54</i> at <i>7:00 PM</i>	Extension
Remarks		Coefficient	
Signature Placed <i>Carl McDonald</i>		MCF	
Signature Removed		Temp. °F.	
		DELIVERY	

Form ARC 154