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

OIL CONSERVATION DIVISION

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

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

APPROVAL PROCESS:
X Administrative __Hearing

EXISTING WELLBORE
X YES __ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Phillips Petroleum Company (Operator) 5525 Hwy. 64, Farmington, NM 87401 (Address)

San Juan 29-6 Unit (Lease) #16 (Well No.) N, 32 T29N, R6W (Unit Ltr. - Sec - Twp - Rge) Rio Arriba (County)

OGRID NO. 017654 Property Code 009257 API NO. 30-039-07471 Spacing Unit Lease Types: (check 1 or more) Federal ___, State ___, (and/or) Fee X

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	72439 S. Blanco PC, Ext.		72319 Blanco Mesaverde
2. Top and Bottom of Pay Section (Perforations)	3585' - 3652		5353' - 5935'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 1056 psi *	a.	a. 350 psi (est)
	b. (Original) 1200 psi (est.)	b.	b. 1280 psi (est).
6. Oil Gravity (°API) or Gas BTU Content	1100 btu/scf		1200 btu/scf
7. Producing or Shut-In?	Producing		Shut-in
Production Marginal? (yes or no)	yes		yes
* 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	Date: Rates:	Date: Rates:	Date: 9/30/99 Rates: 200 mcfd, 0 bopd
* If Producing, give date andoil/gas/ water rates of recent test (within 60 days)	Date: 1/9/00 Rates: 336 mcfd, 0bopd	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

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OIL CON. DIV
DIST. 3

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 X 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? X Yes ___ No

11. Will cross-flow occur? ___ Yes X 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? X Yes ___ No

13. Will the value of production be decreased by commingling? ___ Yes X 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). R-11187

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.

SIGNATURE Mark Stodola TITLE Reservoir Engr. DATE 1/11/00

TYPE OR PRINT NAME Mark Stodola TELEPHONE NO. (505) 599-3455

* We didnot get measured bottomhole pressure in MV. Instead have attached BHP measurements from four adjacent wells to support item 5a above

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-039-07471	72439	S. Blanco Pictured Cliffs, Ext.

4 Property Code	5 Property Name	6 Well Number
009257	San Juan 29-6 Unit	16

7 OGRID No.	8 Operator Name	9 Elevation
017654	Phillips Petroleum Company	6752'

10 Surface Location

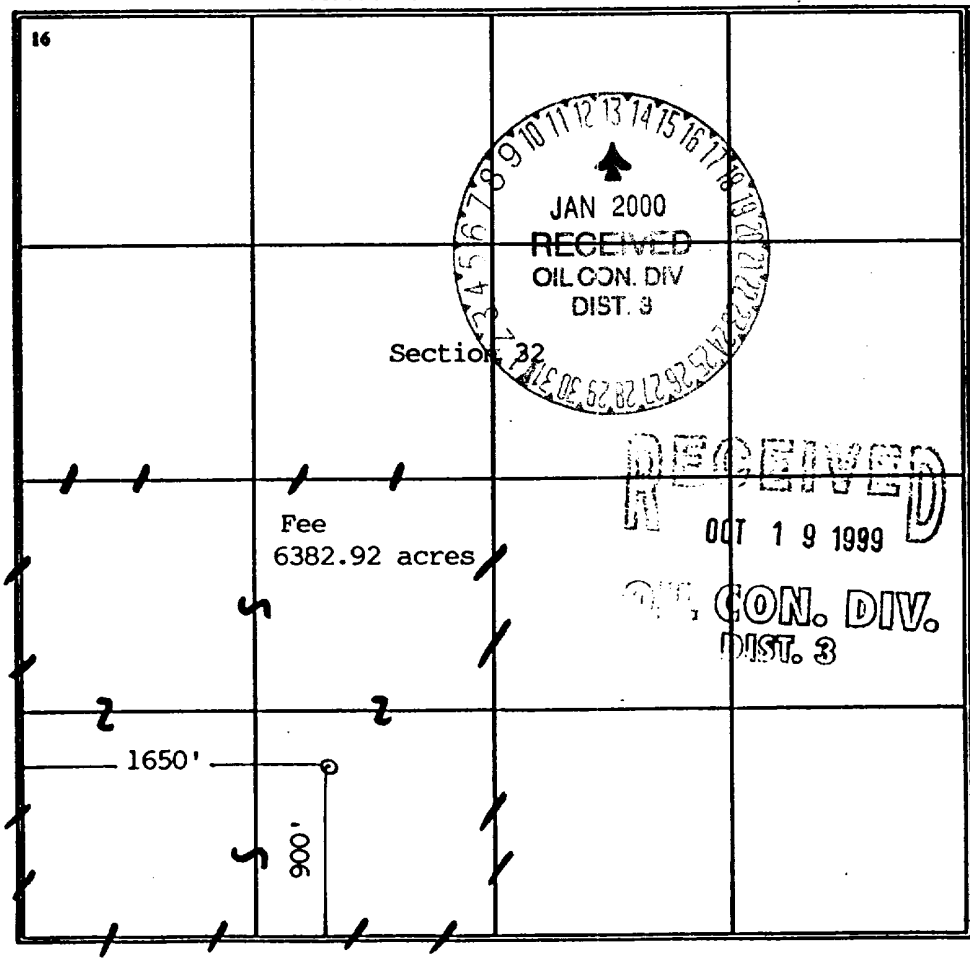
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	32	29N	6W		900	South	1650	West	Rio Arriba

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N									

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
160 ac SW/4	J	U	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



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OCT 19 1999
OIL CON. DIV.
DIST. 3

17 OPERATOR CERTIFICATION

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

Patsy Clugston
Signature

Patsy Clugston
Printed Name

Regulatory Assistant
Title

10-15-99
Date

18 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 belief.

May 6, 1955
Date of Survey

Signature and Seal of Professional Surveyer:

See Plat signed by

James P. Leese

1463
Certificate Number

ok 2

REC'D MAY 9 1955

Copies sent to Albq. 5-9-55 bl

Company PACIFIC NORTHWEST PIPELINE CORPORATION

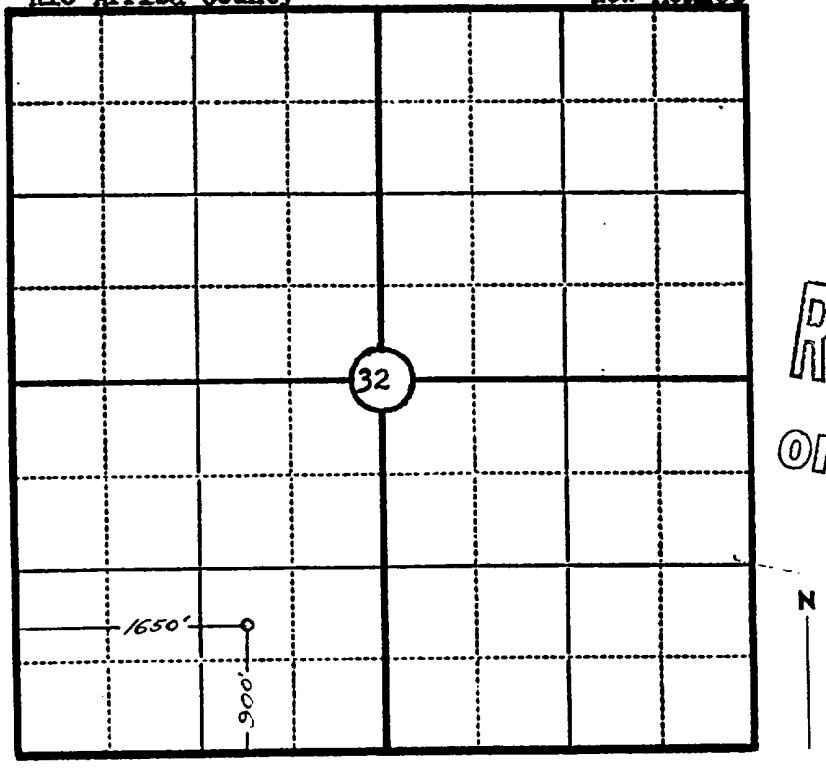
Lease ..... Well No. .....

Sec. #32, T. 29 N, R. 6 W, N.M.P.M.

Location 900' from the South line and 1650' from the West line.

Elevation 6752 Ungraded ground.

Rio Arriba County New Mexico



Scale—4 inches equal 1 mile.

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

James P. Leese

Seal:

Registered [redacted] Land Surveyor.

James P. Leese
N. Mex. Reg. No. 1463

Surveyed 6 May, 1955

SAN JUAN ENGINEERING CO.
P. O. Box 752
FARMINGTON, N. M.

PHILLIPS PETROLEUM COMPANY
FARMINGTON, NEW MEXICO 87401
5525 HWY. 64 NBU 3004

January 11, 2000

New Mexico Oil & Gas Conservation Div.
2040 South Pacheco
Santa Fe, New Mexico 87505-6429

Downhole Commingling Allocation Method
on the San Juan 29-6 Unit #16

Dear Sirs:

Phillips is proposing to utilize the subtraction method on the subject well for approximately twelve months after actual commingling occurs. After the twelve month period we will convert to the ratio method as indicated in our commingling application. We believe this will be a more accurate method of allocating production considering that the Mesaverde interval has been producing for years and that the production will not be stabilized on the Pictured Cliffs for several months.

Pictured Cliffs Forecast

February 2000	9,262	March 2000	10,035
April 2000	9,499	May 2000	9,601
June 2000	9,215	July 2000	9,189
August 2000	8,990	September 2000	8,632
October 2000	8,612	November 2000	8,272
December 2000	8,254	January 2000	8,082

For example, if the total volume for March 2000 were 16,235 mcf, then the Pictured Cliffs would be allocated 10,035 mcf and the Mesaverde 6,200 mcf. And subsequently, the Pictured Cliffs would be allocated (10,035/16,235) or 61.81%, and Mesaverde would be allocated (6,200/16,235) or 38.19%.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Mark Stodola

Mark W. Stodola
Reservoir Engineer

MS/pc

cc: OCD – Aztec
BLM- Farmington
NM Commissioner of Public Lands – Santa Fe

H & H Wireline Service Inc.

P. O. Box 899, Flora Vista New Mexico 87415

DECEMBER 1, 1999

PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87415

WELL NAME: SAN JUAN 29-6 # 16

TYPE TEST: STATIC PRESSURE
FORMATION: PICTURE CLIFF
COUNTY: RIO ARRIBA
STATE: NEW MEXICO

ATTENTION: MR. JERRY LOUDERMILK

GENTLEMEN:

ATTACHED YOU WILL FIND THE RESULTS OF THE ABOVE CAPTIONED TEST OF STATIC GRADIENT SURVEY ON THE ABOVE CAPTIONED WELL WHICH ARE IN TABULAR AND GRAPHICAL FORM.

IT HAS BEEN OUR PLEASURE TO CONDUCT THIS SERVICE FOR YOU. WE ARE LOOKING FORWARD TO SERVING YOU IN THE FUTURE.

THANK YOU,

H & H WIRELINE SERVICE INC.

Sarah Hughes

CHARLES HUGHES & SARAH HUGHES

PRESIDENT

PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87401

DATE: DECEMBER 1, 1999

WELL NAME: SAN JUAN 29-6 # 16
FORMATION: PICTURE CLIFF

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH: PBTD 3748'
PERFS: 3585' TO 3652'
TUBING: 2 3/8 TO 3603'
CASING SIZE:
PACKER:
OTHER: 1.81 FN @ 3592'
PRESSURED UP @

CASING PRESSURE:
TUBING PRESSURE: 960
OIL LEVEL:
WATER LEVEL:
TEMPERATURE:
ELEMENT NO. 86484
ELEMENT RANGE 0 TO 3000

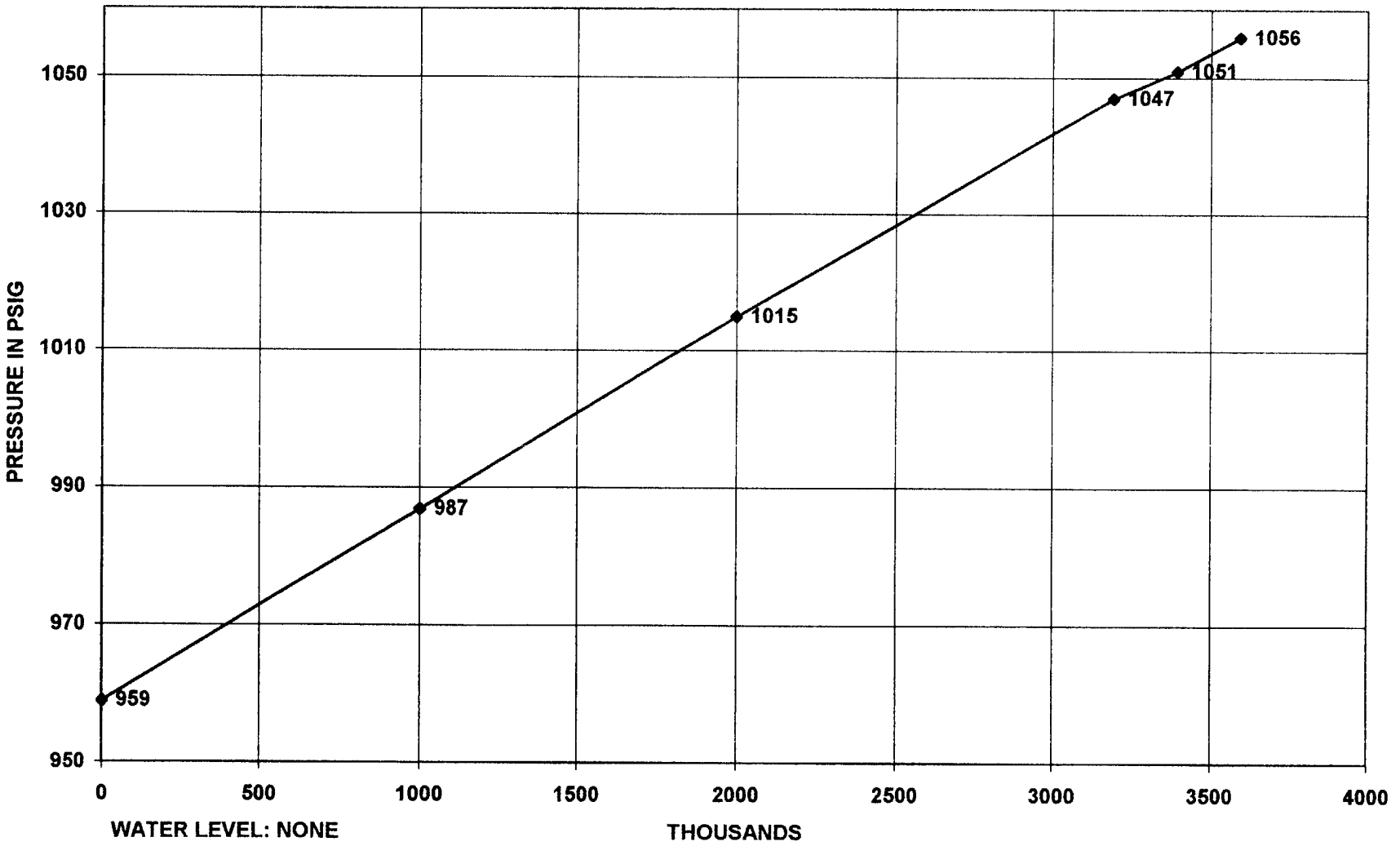
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	959	
1000	987	0.028
2000	1015	0.028
3192	1047	0.027
3392	1051	0.020
3592	1056	0.025

SLM

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: CHARLES HUGHES
UNIT NO. T-10

PHILLIPS PETROLEUM SAN JUAN 29-6 # 16
DATE: DECEMBER 1, 1999



H & H Wireline Service Inc.

P. O. Box 899, Flora Vista New Mexico 87415

NOVEMBER 23, 1999

PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87415

WELL NAME: SAN JUAN 29-6 # 53 & 51

TYPE TEST: STATIC PRESSURE
FORMATION: MESA VERDE
COUNTY: RIO ARRIBA
STATE: NEW MEXICO

ATTENTION: MR. JERRY LOUDERMILK

GENTLEMEN:

ATTACHED YOU WILL FIND THE RESULTS OF THE ABOVE CAPTIONED TEST OF STATIC GRADIENT SURVEY ON THE ABOVE CAPTIONED WELLS WHICH ARE IN TABULAR AND GRAPHICAL FORM.

IT HAS BEEN OUR PLEASURE TO CONDUCT THIS SERVICE FOR YOU. WE ARE LOOKING FORWARD TO SERVING YOU IN THE FUTURE.

THANK YOU,

H & H WIRELINE SERVICE INC.

CHARLES HUGHES & SARAH HUGHES
PRESIDENT

PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87401

DATE: NOVEMBER 23, 1999

WELL NAME: SAN JUAN 29-6 # 53
FORMATION: MESA VERDE

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH: 5645'
PERFS: 5034' TO 5600'
TUBING: 2 3/8 TO 5579'
CASING SIZE:
PACKER:
OTHER:
PRESSURED UP @ 10:45

CASING PRESSURE:
TUBING PRESSURE: 295
OIL LEVEL:
WATER LEVEL: 5389'
TEMPERATURE:
ELEMENT NO. 86484
ELEMENT RANGE 0 TO 3000

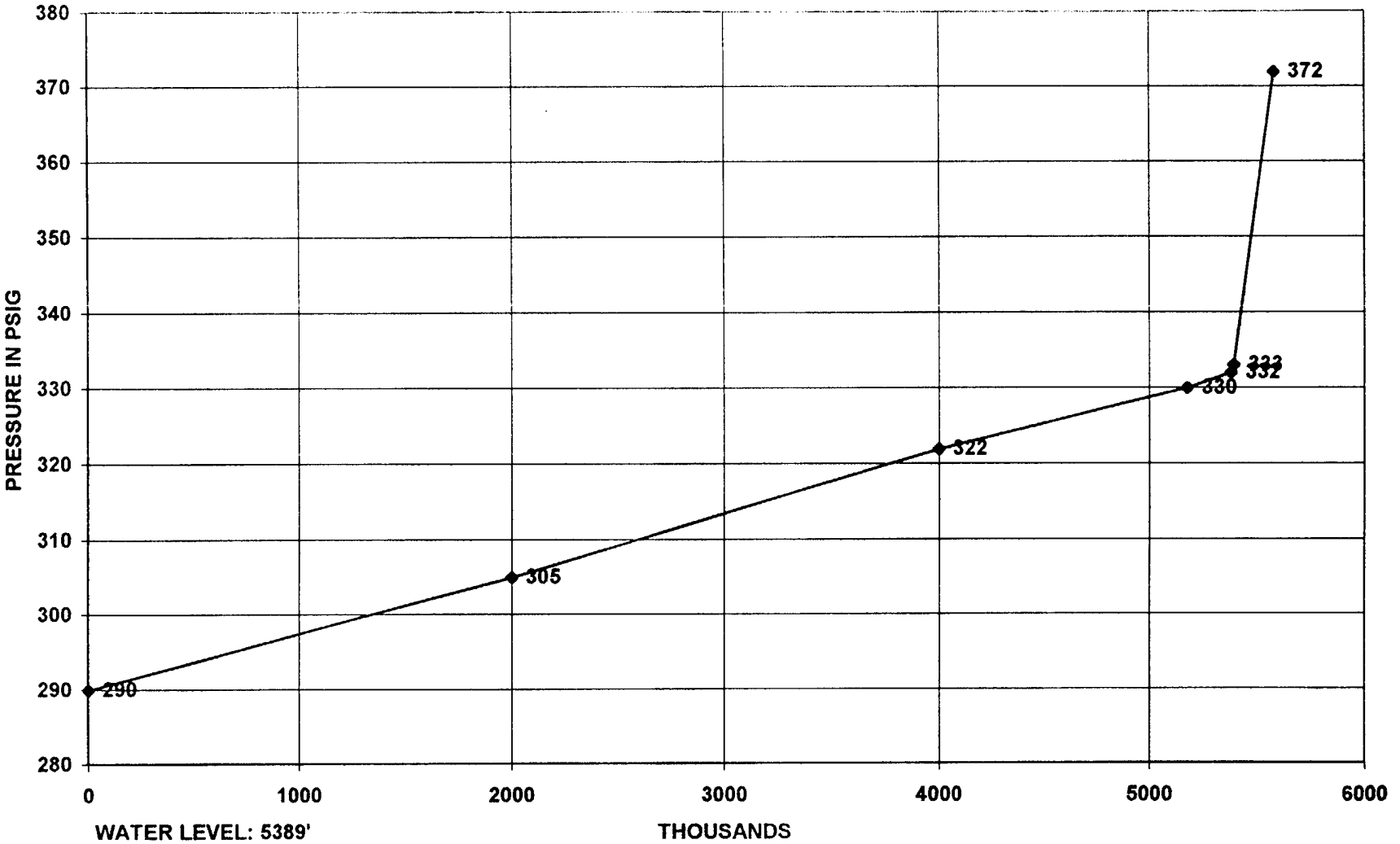
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	290	
2000	305	0.008
4000	322	0.009
5176	330	0.007
5376	332	0.010
5576	372	0.200

SLM @ 5579'

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: CHARLES HUGHES
UNIT NO. T-11

PHILLIPS PETROLEUM SAN JUAN 29-6 # 53
DATE: NOVEMBER 23, 1999



WATER LEVEL: 5389'

PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87401

DATE: NOVEMBER 23, 1999

WELL NAME: SAN JUAN 29-6 # 51
FORMATION: MESA VERDE

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH: 6012'
PERFS: 5872' TO 5992'
TUBING: 2 3/8 TO 5981'
CASING SIZE:
PACKER:
OTHER:
PRESSURED UP @ 13:00

CASING PRESSURE: 350
TUBING PRESSURE: 325
OIL LEVEL:
WATER LEVEL:
TEMPERATURE:
ELEMENT NO. 86484
ELEMENT RANGE 0 TO 3000

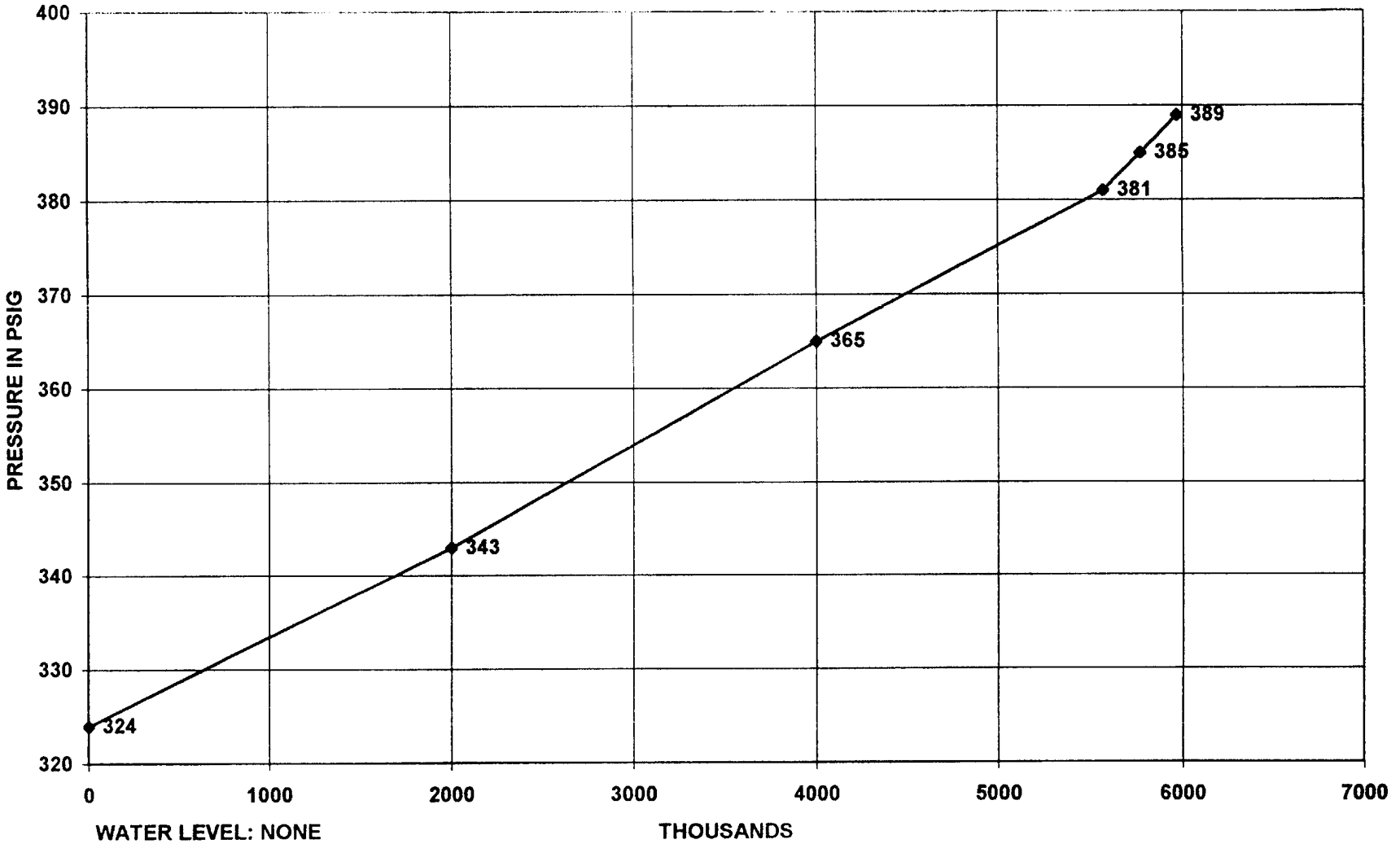
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	324	
2000	343	0.010
4000	365	0.011
5570	381	0.010
5770	385	0.020
5970	389	0.020

SLM @ 5578'

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: CHARLES HUGHES
UNIT NO. T-11

PHILLIPS PETROLEUM SAN JUAN 29-6 # 51
DATE: NOVEMBER 23, 1999



WATER LEVEL: NONE

PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87401

DATE: JUNE 3, 1999

WELL NAME: SAN JUAN 29-6 # 53A
FORMATION: MESA VERDE

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH:
PERFS:
TUBING SIZE: 2 3/8 TO 5987'
CASING SIZE:
PACKER:
OTHER: SN @ 5986'
RAN PRESSURE @ 11:30

CASING PRESSURE:
TUBING PRESSURE: 110
OIL LEVEL:
WATER LEVEL: 4871'
TEMPERATURE:
ELEMENT NO.
ELEMENT RANGE 0 TO 3500

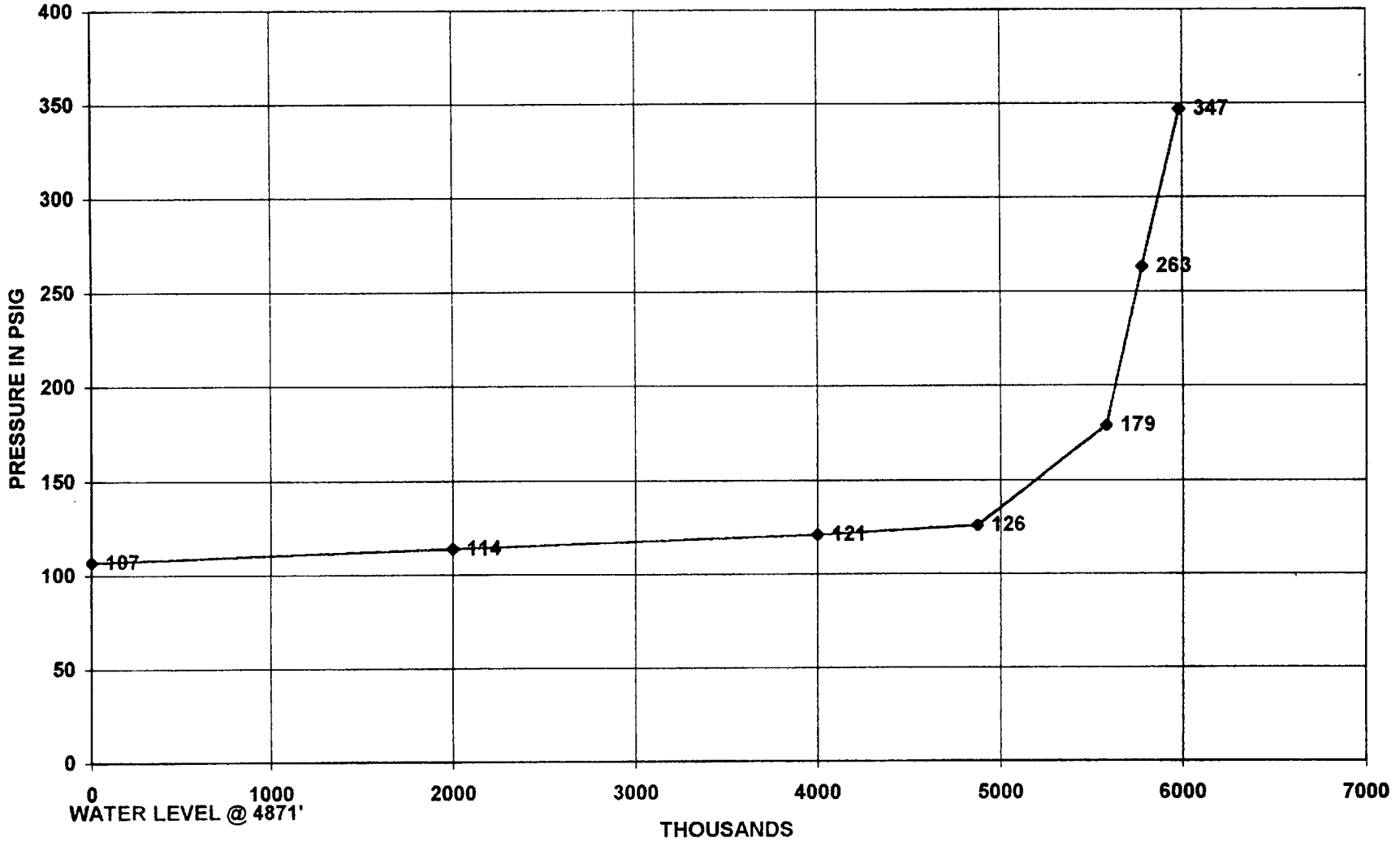
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	107	
2000	114	0.004
4000	121	0.004
5586	179	0.037
5786	263	0.420
5986	347	0.420

RAN SLM @ 6016'

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: STEVEN HODGES
UNIT NO. T-8

PHILLIPS PETROLEUM SAN JUAN 29-6 # 53A
DATE: JUNE 3, 1999



PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87401

DATE: JUNE 3, 1999

WELL NAME: SAN JUAN 29-6 # 51A
FORMATION: MESA VERDE

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH:
PERFS: TO
TUBING SIZE: 2 3/8 TO 5842'
CASING SIZE: TO
PACKER:
OTHER: SN @ 5812'
ENGAGED @ 10:05

CASING PRESSURE:
TUBING PRESSURE: 220
OIL LEVEL:
WATER LEVEL: 5709'
TEMPERATURE:
ELEMENT NO.
ELEMENT RANGE 0 TO 3500

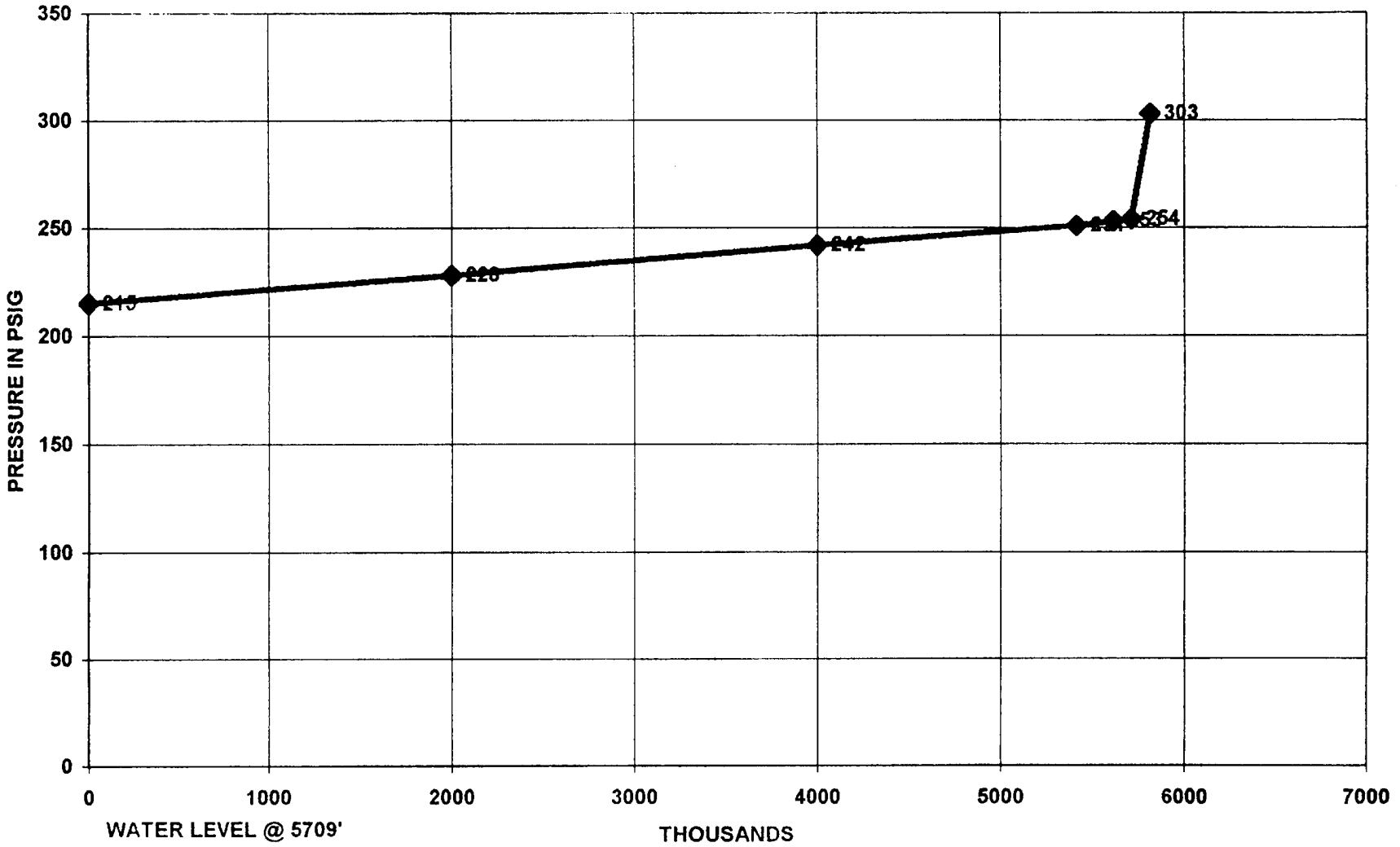
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	215	
2000	228	0.006
4000	242	0.007
5412	251	0.007
5612	253	0.010
5812	303	0.250

RAN SLM TO 5910'

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: STEVEN HODGES
UNIT NO. T-8

PHILLIPS PETROLEUM SAN JUAN 29-6 # 51A
DATE: JUNE 3,1999



MEP81-01 PARPI - WELLZONE PRODUCTION BROWSE Date: 12/07/99
MONTHLY TOTALS User: MWSTODO

Wellzone F0260 01 Yr: 1998 Mth: 10 Property: 650112 SAN JUAN 29-6 MESA VERDE
Screen: 1 (1-Prod, 2-Inj, 3-Both) Well No: 000016
Type: T (T-Total, D-Daily Avg) Field: 070724 BLANCO
Period: M (M-Mnthly, Y-Yrly, C-Cum) Resvr: 20002 MESAVERDE

ADJ FLG	DATE	PRODUCED OIL (BBL)	GAS (MCF)	WATER (BBL)	DAYS PROD	WELL OP	ST	CL	TY
	1998-10	0.00	3,973	0	31.00	31	11	03	2
	1998-11	0.00	3,863	0	30.00	30	11	03	2
	1998-12	0.00	4,333	0	31.00	31	11	03	2
	1999-01	0.00	4,053	0	31.00	31	11	03	2
	1999-02	0.00	3,313	0	28.00	28	11	03	2
	1999-03	0.00	3,343	0	31.00	31	11	03	2
	1999-04	0.00	3,615	0	30.00	30	11	03	2
	1999-05	0.00	3,364	0	31.00	31	11	03	2
	1999-06	0.00	3,166	0	30.00	30	11	03	2
	1999-07	0.00	4,804	0	31.00	31	11	03	2
	1999-08	0.00	7,069	0	31.00	31	11	03	2
*	1999-09	0.00	6,007	0	30.00	30	11	03	2

PA1=ICE PA2=Exit PF1=Help PF3=End PF11=GRAPH
Transfer-> PF7=Backward PF8=Forward PF4=PREV SCREEN PF12=LOG GRAPH

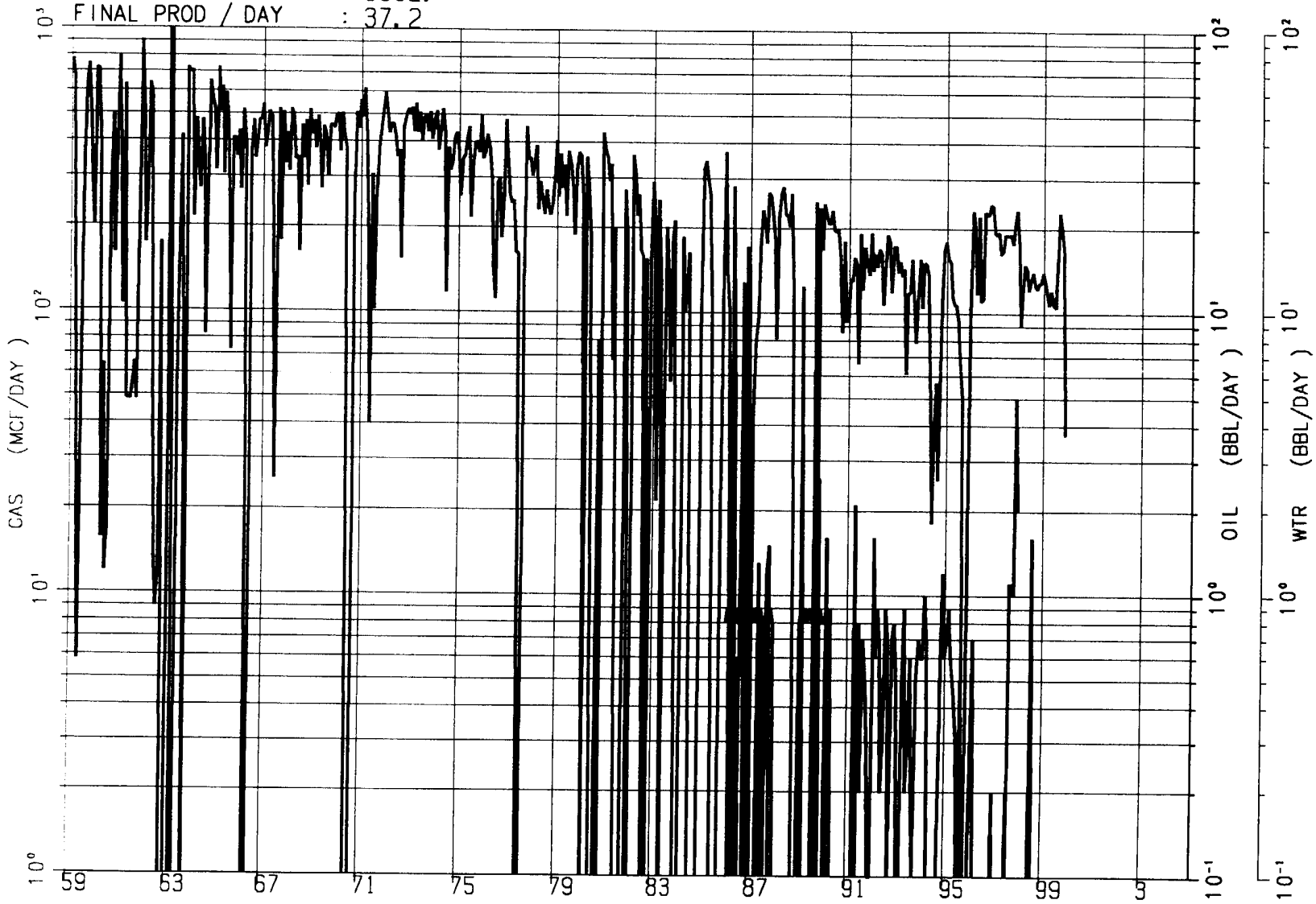
1/59-11/99

ASSOC.

Current Cums

3662.	MMCF GAS
1285.	BBL OIL
1361.	BBL WTR

INITIAL PROD / DAY	: 772.4
REMAINING LIFE	: 40.92
	0.00
CUM PRODUCTN-MUNITS	: 3662.
FINAL PROD / DAY	: 37.2



LEASE- 650112 : SAN JUAN **29-6** MESA VERDE
RESVR- 002 : BLANCO **MESAVERDE**
WELL - 000016 CUM MMCF= 3965.

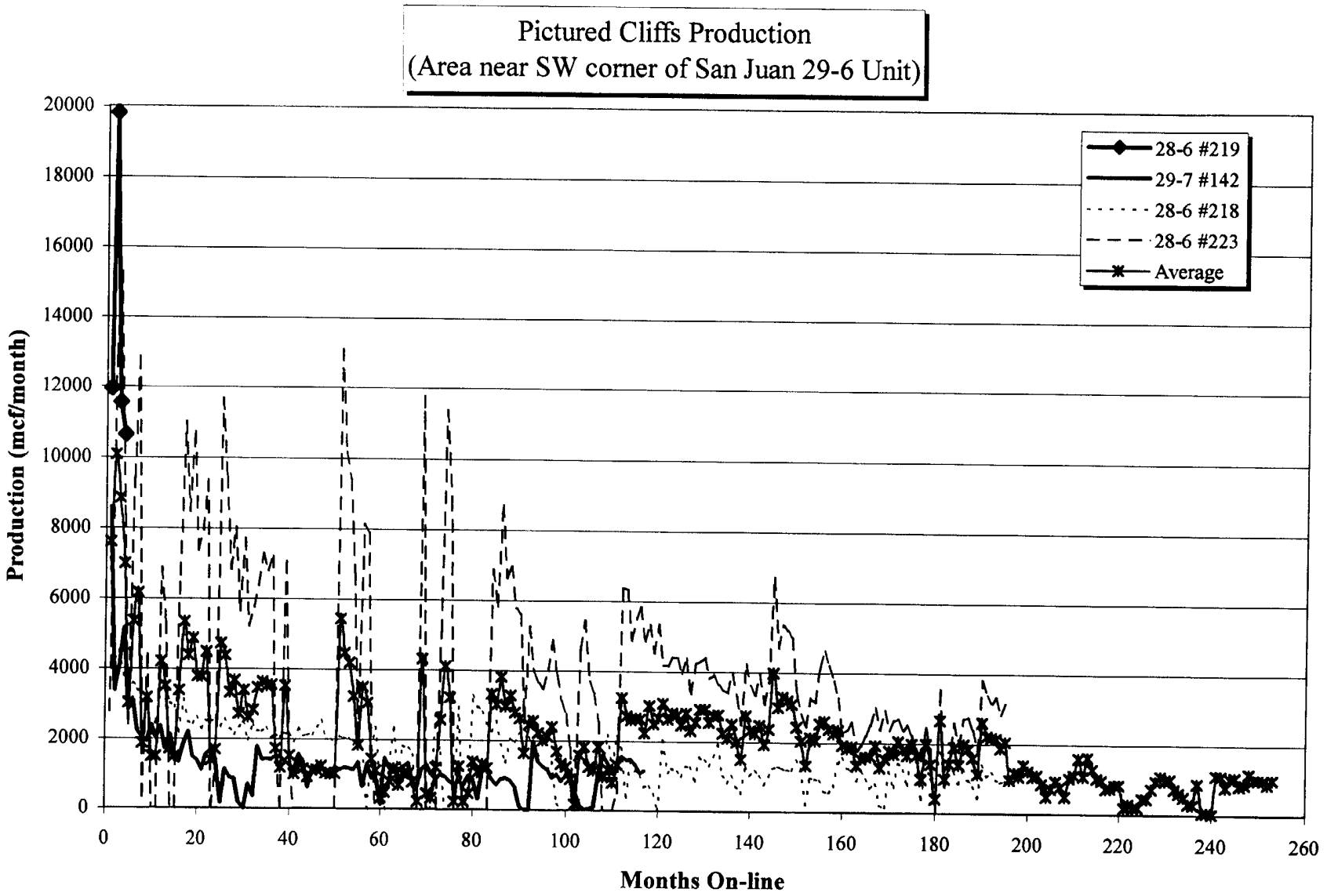
F026001
ZONE-650112002000016 F026001
API-30039074710000 THRU 99/11

MWST 2000/01/11 08:15

San Juan 29-6 #16 Pictured Cliffs Forecast

Initial Production Rate	=	*350*	*MCFD*
Hyperbolic Exponent	=	*0.33*	
Decline Rate	=	*27.360*	%

Month	Days	Cum. Days	Initial q MCFD	Final q MCFD	Average q MCFD	Cum. MCF	***Monthly MCF***
Dec-99	31	31	350	342	346	10,725	***10,725***
Jan-00	31	62	342	335	338	21,206	***10,481***
Feb-00	28	90	335	327	331	30,468	***9,262***
Mar-00	31	121	327	320	324	40,504	***10,035***
Apr-00	30	151	320	313	316	50,002	***9,499***
May-00	31	182	313	306	310	59,604	***9,601***
Jun-00	30	212	306	300	303	68,819	***9,215***
Jul-00	31	243	300	293	296	78,008	***9,189***
Aug-00	31	274	293	287	290	86,997	***8,990***
Sep-00	30	305	287	281	284	95,630	***8,632***
Oct-00	31	336	281	275	278	104,241	***8,612***
Nov-00	30	366	275	269	272	112,513	***8,272***
Dec-00	31	397	269	264	267	120,768	***8,254***
Jan-01	31	428	264	258	261	128,849	***8,082***
Feb-01	28	456	258	253	256	136,004	***7,155***
Mar-01	31	487	253	248	251	143,770	***7,766***
Apr-01	30	518	248	243	246	151,235	***7,465***
May-01	31	549	243	238	241	158,689	***7,454***


Pictured Cliffs Production
(Area near SW corner of San Juan 29-6 Unit)
Production (mcf/month)
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
Months On-line
28-6 #219
29-7 #142
28-6 #218
28-6 #223
Average

Production Allocation Methodology

- Adding New Zone to Existing Zone - Initially Subtraction Method followed by Fixed Allocation Method
  - Subtraction Method (+/- 1st 12 months)
    - Forecast production rate by month for existing zone utilizing established decline curve for zone
    - Subtract forecasted rate from commingled rate to define new zone rate
    - Utilize subtraction method for +/- 12 months until new zone rate stabilizes, then utilize fixed allocation method with current rates
  - Fixed Allocation Method (after Subtraction Method)
    - Utilize forecasted rate from established decline curve for lower zone
    - Calculate upper zone rate by subtracting lower zone rate from commingled rate
    - Lower zone allocation = $\frac{\text{Lower zone rate}}{\text{Commingled rate}}$
    - Upper zone allocation = (Commingled rate - Lower zone rate) / Commingled rate