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, New Mexico 87401 — Address

San Juan 29-6 Unit #51 A — Lease
Well No.
D, Section 31, T 29N, R6W — Unit Ltr. - Sec - Twp - Rge
Rio Arriba County, NM — County

OGRID NO. 017654 Property Code 009257 API NO. 30-039-21088 Spacing Unit Lease Types: (check 1 or more) Federal X, State ___, (and/or) Fee ___

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	72439 S. Blanco PC, Ext.		72319 Blanco Mesaverde
2. Top and Bottom of Pay Section (Perforations)	3,653' - 3,836'		5,270' - 5,860'
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) 1103 psig	a.	a. 303 psig (24 hr)
	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: 7/31/99 Rates: 279 mcfd, 1 bwpd
• If Producing, give date andoil/gas/water rates of recent test (within 60 days)	Date: 10/14/99 Rates: 300 mcfd	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

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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? ___ 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 10/22/99

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

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

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070 FARMINGTON, NM

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
30-039-21088	72439	S. Blanco Pictured Cliffs, Ext.

4 Property Code	5 Property Name	6 Well Number
009257	San Juan 29-6 Unit	51A

7 OGRID No.	8 Operator Name	9 Elevation
017654	PHILLIPS PETROLEUM COMPANY	6689'

10 Surface Location

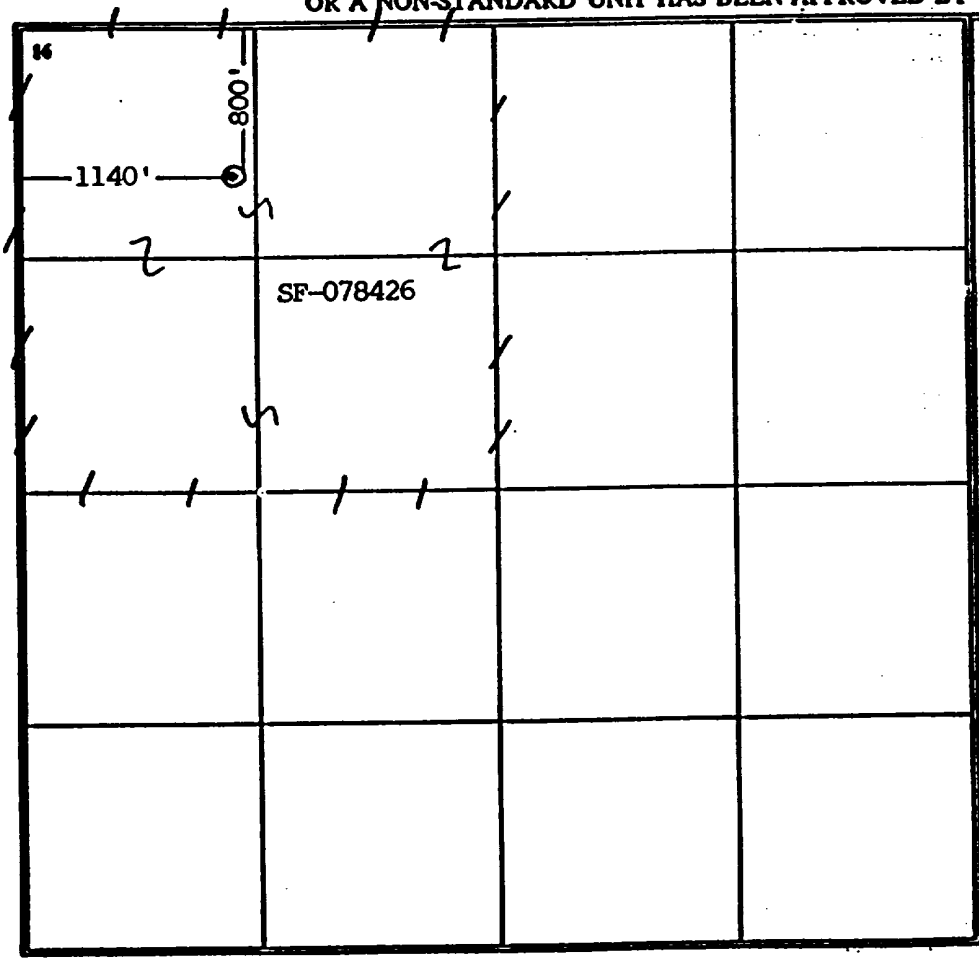
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	31	29N	6W		800	North	1140	West	Rio Arriba

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
D									

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
160 N/W/4		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



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

June 30, 1999
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.

April 18, 1975
Date of Survey

Signature and Seal of Professional Surveyor:
See original Mesaverde C102
signed by Fred B. Kerr, Jr.
dated 4/18/75

3950
Certificate Number

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.
Northwest Pipeline Corporation	San Juan 29-6 Unit	51A

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Unit Letter	Section	Township	Range	County
D	31	29N	6W	Rio Arriba

Actual Footage Location of Well: 800 feet from the North line and 1110 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6689	Mesa Verde	Blanco Mesa Verde	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

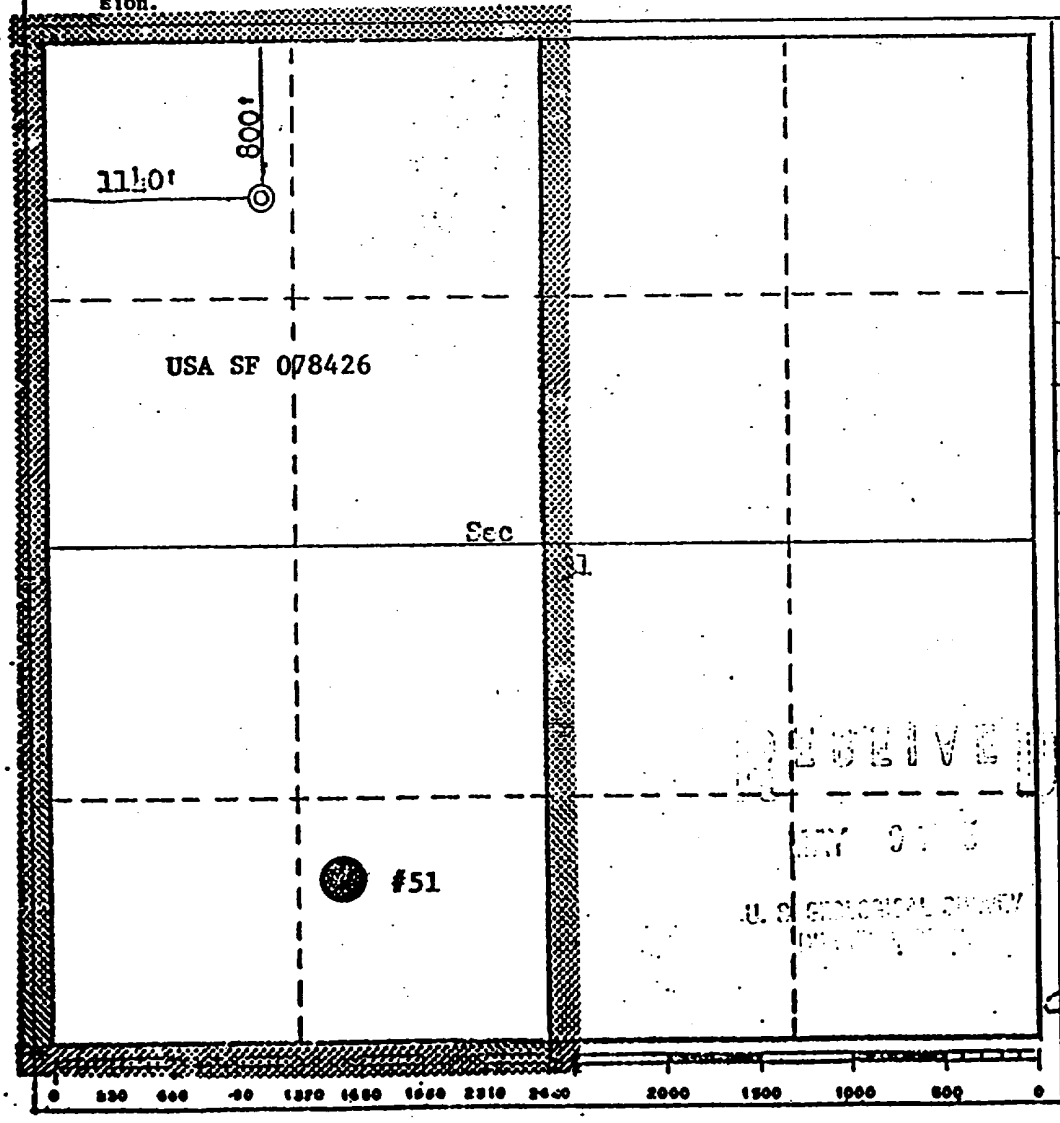
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

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

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) NW/4, NW/4, Sec 31, T29N, R6W

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such 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.

O B Whitenburg

Name: O.B. Whitenburg js

Position: Sr. Drilling Engineer

Company: Northwest Pipeline Corp.

Date: May 7, 1975

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: April 18, 1975

Registered Professional Engineer and/or Land Surveyor: Fred B. Kerr Jr.

Certificate No.: 3950

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

October 22, 1999

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 #51A

Dear Sirs:

Phillips is proposing to utilize the subtraction method on the subject well for between six and twelve months after actual commingling occurs. After a six to 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

December 1999	8,471	January 2000	8,364
February 2000	7,464	March 2000	8,166
April 2000	7,806	May 1999	7,967
June 2000	7,722	July 2000	7,774
August 2000	7,679	September 2000	7,443
October 2000	7,494	November 2000	7,265

For example, if the total volume for January 2000 were 16,734 mcf, then the Pictured Cliffs would be allocated 8,364 mcf and the Mesaverde 8,370 mcf. And subsequently, the Pictured Cliffs would be allocated (8,364/16,734) or 49.98 %, and Mesaverde would be allocated (8,370/16,734) or 50.02%.

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

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

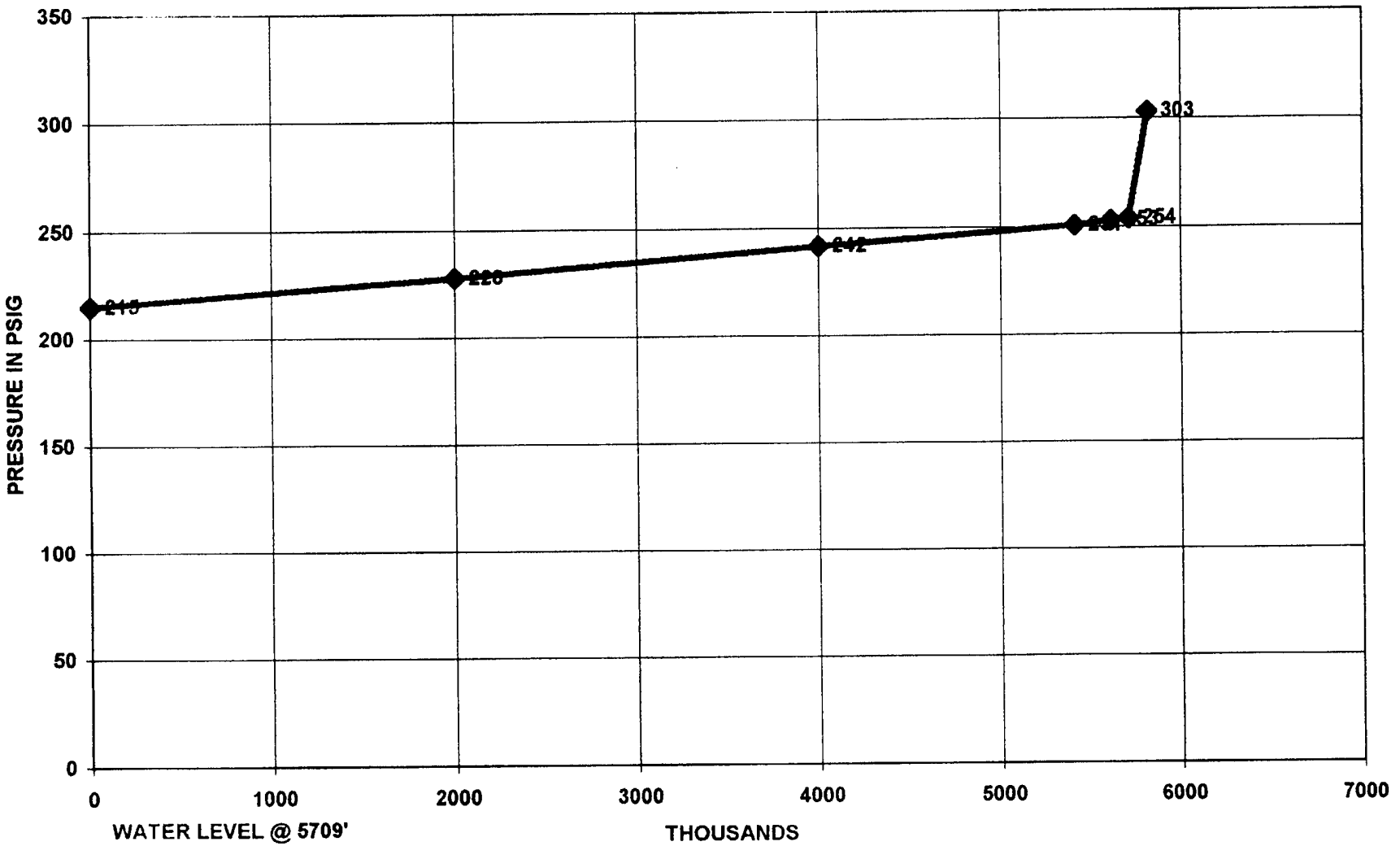
WELL STATUS: SHUT IN

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



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

DATE: AUGUST 23, 1999

WELL NAME: SAN JUAN 29-6 # 51A
FORMATION: PICTURE CLIFF

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH: PBTD 4196'
PERFS: MP @ 3745'
TUBING SIZE: 2 3/8 TO 3804'
CASING SIZE: TO
PACKER:
OTHER: 2.25 SN @ 3773'
ENGAGED @ 09:10

CASING PRESSURE:
TUBING PRESSURE: 655
OIL LEVEL:
WATER LEVEL: 2351'
TEMPERATURE:
ELEMENT NO.
ELEMENT RANGE 0 TO 3500

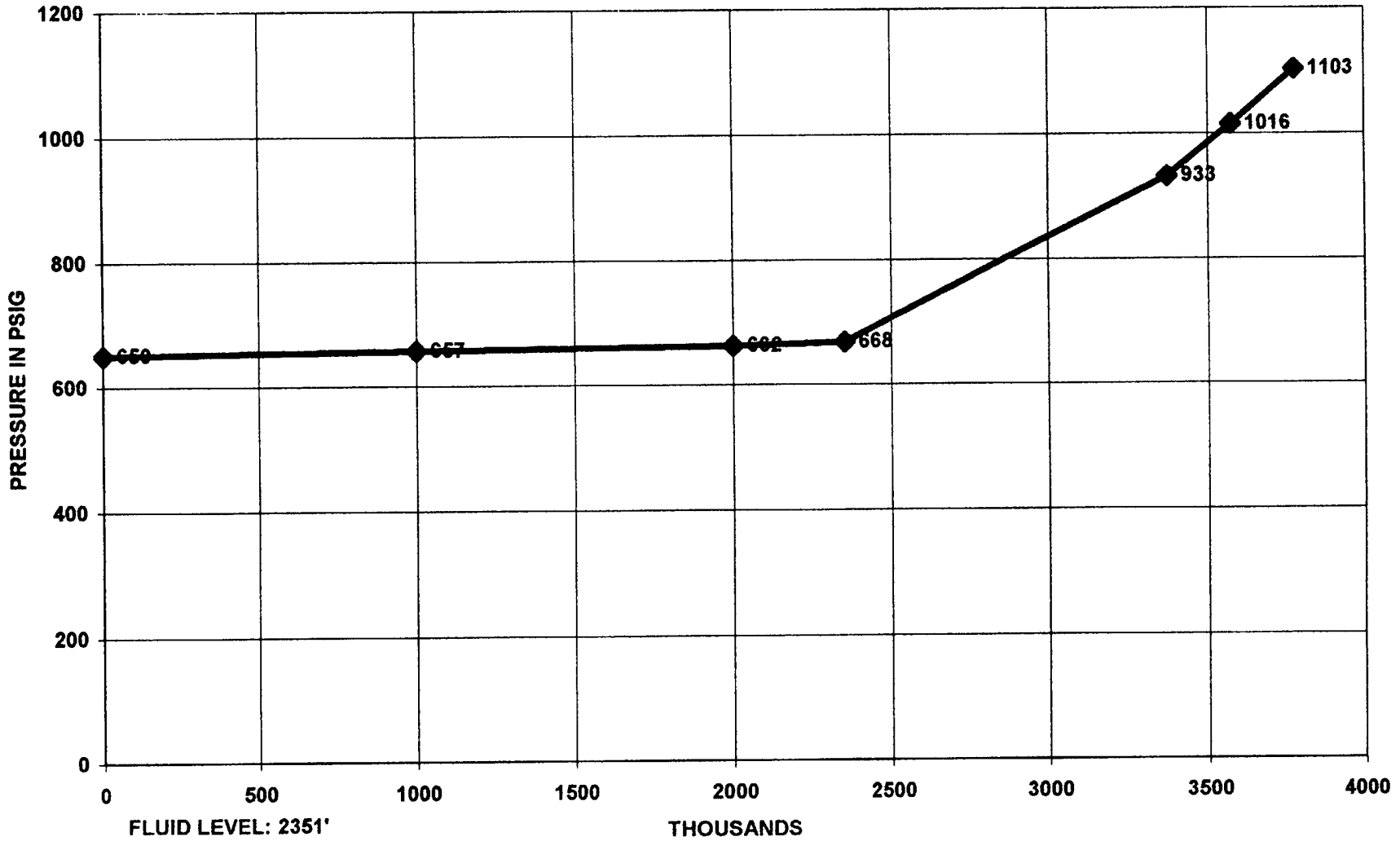
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	650	
1000	657	0.007
2000	662	0.005
3373	933	0.198
3573	1016	0.415
3773	1103	0.430

RAN TD @ 4179'

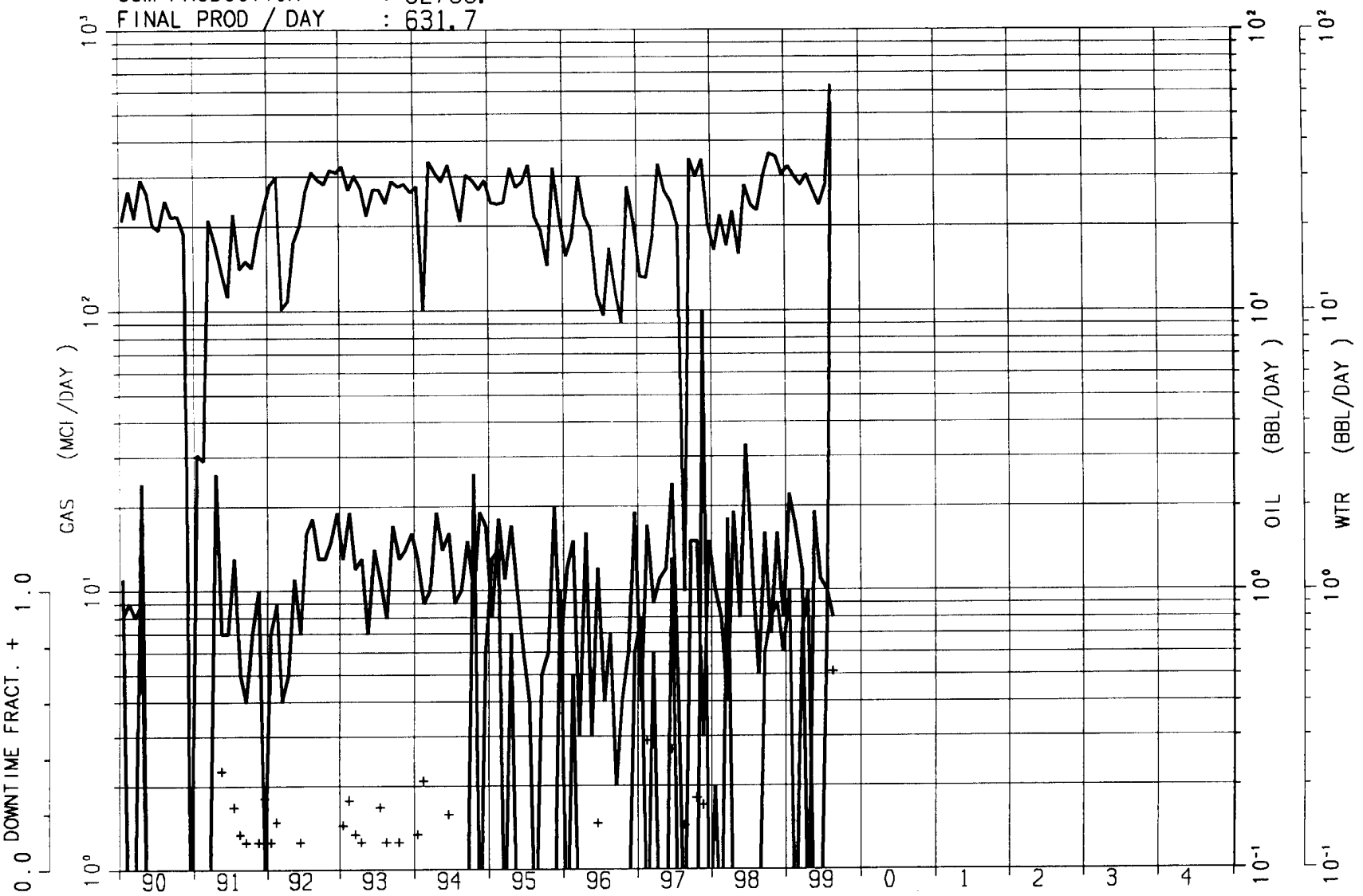
H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: STEVEN HODGES
UNIT NO. T-10

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



FLUID LEVEL: 2351'

	10/98-6/99	Current Cums
INITIAL PROD / DAY	: 381.0	782249. MCF GAS
REMAINING LIFE	: 0.75	3327. BBL OIL
HYPR(0.33) DECL %	: 67.45	1409. BBL WTR
CUM PRODUCTION	: 82758.	
FINAL PROD / DAY	: 631.7	



LEASE- 650112 : SAN JUAN 29-6 MESA VERDE
RESVR- 002 : BLANCO MESAVERDE
WELL - 00051A CUM MMCF= 2280.

F034301
ZONE-650112002000051AF034301
API-30039210880000 THRU 99/08

MWST 1999/10/21 18:15

San Juan 29-6 #51A Pictured Cliffs Forecast

Initial Production Rate	=	*275*	*MCFD*
Hyperbolic Exponent	=	*0.33*	
Decline Rate	=	*15.000*	%

Month #	Days	Cum. Days	Initial q MCFD	Final q MCFD	Average q MCFD	Cum. MCF	***Monthly MCF***
Dec-99	31	31	275	272	273	8,471	***8,471***
Jan-00	31	62	272	268	270	16,835	***8,364***
Feb-00	28	90	268	265	267	24,300	***7,464***
Mar-00	31	121	265	262	263	32,466	***8,166***
Apr-00	30	151	262	259	260	40,271	***7,806***
May-00	31	182	259	255	257	48,238	***7,967***
Jun-00	30	212	255	252	254	55,960	***7,722***
Jul-00	31	243	252	249	251	63,734	***7,774***
Aug-00	31	274	249	246	248	71,413	***7,679***
Sep-00	30	305	246	243	245	78,856	***7,443***
Oct-00	31	336	243	240	242	86,350	***7,494***
Nov-00	30	366	240	238	239	93,615	***7,265***
Dec-00	31	397	238	235	236	100,931	***7,316***
Jan-01	31	428	235	232	233	108,159	***7,228***
Feb-01	28	456	232	229	231	114,613	***6,454***
Mar-01	31	487	229	227	228	121,678	***7,065***
Apr-01	30	518	227	224	225	128,528	***6,850***
May-01	31	549	224	221	223	135,427	***6,900***

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