

NSL

6/5/00

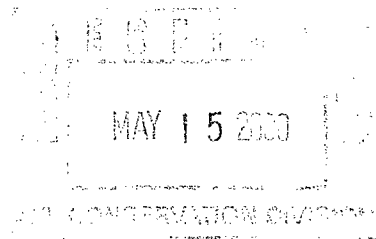


**PHILLIPS PETROLEUM COMPANY**

FARMINGTON, NEW MEXICO 87401  
5525 HWY. 64 NBU 3004

May 8, 2000

Oil Conservation Division  
State of New Mexico  
2040 South Pacheco  
Santa Fe, New Mexico 87505



Attn: Mr. Michael E. Stogner  
Chief Hearing Officer/Engineer

RE: APPLICATION FOR ADMINISTRATIVE APPROVAL OF UNORTHODOX WELL LOCATION  
SAN JUAN 29-6 UNIT #94M WELL  
W/2 SECTION 16-29N-6W  
RIO ARRIBA COUNTY, NEW MEXICO

Dear Mr. Stogner:

Please find attached, the captioned application, which was returned to our office along with your letter of April 24, 2000. It is my understanding that Mr. Charlie Perrin of the Aztec District Office has met with our Drilling Supervisor, Richard Allred at the location for the captioned well and determined that it will not be possible to move the location to an orthodox location, due to topographical considerations.

Even though our initial intent was to move the location, we hereby re-submit our application for approval of an unorthodox location for the San Juan 29-6 Unit #94M Well. We respectfully ask that along with the original information provided, you please take into account the topographic considerations, which have been concurred with by Mr. Perrin.

We thank you in advance for your cooperation in working with us on this matter.

Very Truly Yours,

S. Scott Prather, CPL  
Senior Landman  
San Juan Area  
(505) 599-3410

cc: J. L Mathis - C40453  
Frank Chavez - OCD, Aztec



**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

April 24, 2000

**Phillips Petroleum Company  
5525 Highway 64 - NBU 3004  
Farmington, New Mexico 87401**

**Attention: S. Scott Prather**

**Re:** Administrative applications of Phillips Petroleum Company for exceptions to the well location requirements provided within the "*Special Rules and Regulations for the Basin-Dakota (Gas) Pool*", as promulgated by Division Order No. R-10987, as amended, for the San Juan "29-6" Unit Wells No. 81-M, 85-M, 91-M, 94-M, 100-M, and 101-M and San Juan "30-5" Unit No. 48-M.

Dear Mr. Prather:

From conversations with the Aztec district office of the Division, it is my understanding that the above-described seven proposed locations are to be moved and re-staked at standard locations. Therefore, I am returning these applications to you at this time.

Thank you for your cooperation in this matter.

Sincerely,

Michael E. Stogner  
Chief Hearing Officer/Engineer

cc: New Mexico Oil Conservation Division - Aztec  
Mr. Steve Salzman - U. S. Bureau of Land Management, Santa Fe  
Mr. Neel McBride - U. S. Bureau of Land Management, Farmington  
U. S. Forest Service - Bloomfield  
Ms. Kathy Valdes, NMOCD - Santa Fe

DATE IN 3/28/00	SUSPENSE 4/17/00	ENGINEER MS	LOGGED BY KV	TYPE NSL
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ABOVE THIS LINE FOR DIVISION USE ONLY

# NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

2040 South Pacheco, Santa Fe, NM 87505



1294-M

## ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATION FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

### Application Acronyms:

- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
- [DD-Directional Drilling] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☒ NSL ☐ NSP ☐ DD ☐ SD

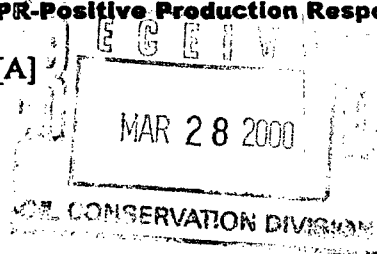
Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☒ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

### [3] INFORMATION / DATA SUBMITTED IS COMPLETE - Certification

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

S. Scott Prather  
Print or Type Name

Signature

Title

Date

3/24/00



## PHILLIPS PETROLEUM COMPANY

FARMINGTON, NEW MEXICO 87401  
5525 HWY. 64 NBU 3004

March 23, 2000

Oil Conservation Division  
State of New Mexico  
2040 South Pacheco  
Santa Fe, New Mexico

Attn: Mr. Michael E. Stogner  
Chief Hearing Officer/Engineer

RE: APPLICATION FOR ADMINISTRATIVE APPROVAL OF UNORTHODOX WELL LOCATION  
SAN JUAN 29-6 UNIT #94M WELL  
W/2 SECTION 16-29N-6W  
RIO ARRIBA COUNTY, NEW MEXICO

Dear Mr. Stogner:

Phillips Petroleum Company (Phillips) as Operator of the captioned well, respectfully requests administrative approval of an Unorthodox Well Location for said well.

Phillips proposes to drill the San Juan 29-6 Unit #94M well at a location of 2370' FNL & 1845' FWL of Section 16-29N-6W, Rio Arriba County, New Mexico. This will be a commingled well located in the Basin Dakota and Blanco Mesaverde Pools and will have the W/2 of Section 16 designated as the drillblock for the Mesaverde and as the drillblock for the Dakota. This is an orthodox location for the Mesaverde (as per Order No. R-10987-A) and is an 80 acre infill well for the Mesaverde Pool, however it is not an orthodox location for the Dakota Pool, as currently established.

In the San Juan 29-6 Unit the Mesaverde has been developed on the optional 160 acre basis. Optimal spacing of this 80 acre Mesaverde infill well for the reservoir drainage purposes was the primary reason this location was selected. As demonstrated in the Exhibits presented in conjunction with Case No. 12136 (Phillips' application for downhole commingling) it is unlikely that a stand-alone Dakota well can be drilled on an economic basis. The most viable alternative to recover Dakota reserves is to drill Dakota/Mesaverde commingled wells. Utilization of 80 acre Mesaverde infill wells accomplishes this, however it precludes drilling the well at a standard Dakota location. The drilling of commingled wells also provides the added benefit of less surface disturbance.

For your benefit in reviewing this request, we are providing the following:

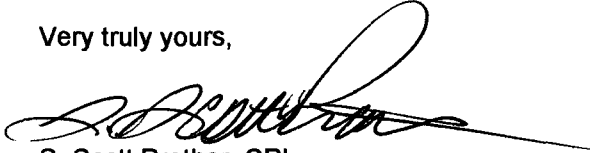
1. Form C-102
2. A topographical plat of the area
3. A nine section plat exhibiting offset operators & affected owner list
4. A plat of this well's location in relation to existing and proposed Mesaverde wells
5. Copies of Exhibits presented in Case 12136, (Order No. 11187 issued)

MR. MICHAEL STOGNER  
APPLICATION FOR ADMINISTRATIVE APPROVAL OF UNORTHODOX WELL LOCATION  
SAN JUAN 29-6 UNIT #94M WELL  
MARCH 21, 2000  
PAGE 2

This drillblock is located within the confines of the San Juan 29-6 Unit. Phillips is the Operator of this unit. The ownership of Dakota offset spacing units to the North, Northwest, West, Southwest and South is different from the Dakota spacing unit for this well and per Rule 104.F notice of this application is required to be sent to all affected persons. All affected persons are being furnished with 3 copies of this application by certified mail and are advised that they must submit objections to this application in writing within twenty (20) days. They may alternately forward an executed waiver to your office, retain one copy for their records and return one copy to our office.

We appreciate and thank you for your attention to this request and should you need additional information or clarification on this matter, please do not hesitate to contact the undersigned.

Very truly yours,



S. Scott Prather, CPL  
Senior Landman  
San Juan Area  
(505) 599-3410

cc: J. L. Mathis (r)C40453  
Frank Chavez-OCD, Aztec  
Offset Owners

\_\_\_\_\_ hereby waives objection to Phillips Petroleum Company's application for a Dakota unorthodox location for the San Juan 29-6 Unit #94M well as proposed above.

By: \_\_\_\_\_

Date: \_\_\_\_\_

**OFFSET AFFECTED OWNERS LIST**

**BURLINGTON RESOURCES OIL & GAS COMPANY**

**Z 464 536 965**

**VASTAR RESOURCES, INC.**

**Z 464 536 974**

**CONOCO, INC.**

**Z 464 536 975**

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
811 S. 1st Street, Artesia, NM 88210-2834  
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-  
Revised October 18, 1998  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 6 Copies  
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

<sup>1</sup> Operator name and Address Phillips Petroleum Company 5525 Highway 64, NBU 3004 Farmington, NM 87401		<sup>2</sup> OGRID Number 017654
<sup>4</sup> Property Code 009257	<sup>5</sup> Property Name San Juan 29-6 Unit	<sup>3</sup> API Number 30-0 39-2630
		<sup>6</sup> Well No. 94M

<sup>7</sup> Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
F	16	29N	6W		2370'	North	1845'	West	Rio Arriba

<sup>8</sup> Proposed 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
F									
<sup>9</sup> Proposed Pool 1 Basin Dakota 71599					<sup>10</sup> Proposed Pool 2 Blanco Mesaverde 72319				

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code M	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 6527'
<sup>16</sup> Multiple Y	<sup>17</sup> Proposed Depth 7904'	<sup>18</sup> Formation Dakota	<sup>19</sup> Contractor 4CAT-Key Energy	<sup>20</sup> Spud Date 1st Qtr 2000

<sup>21</sup> Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	9-5/8"	36#, J/K-55	320' *	159 sx Type 3	Surface
8-3/4"	7"	20#, J/K-55	3834'	352 sx Type 3	Surface
				T-100 sx Type 3	
6-1/4"	4-1/2"	11.6#, N-80	7904	246 sx C1 H	**

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

\* The surface casing will be set at a minimum of 320', but could be set deeper if required to maintain hole stability.

\*\* The cement for the 4-1/2" casing is designed to cover 100' above the Cliffhouse Sandstone. Circulation/squeeze cementing will be conducted to isolate the Lewis Shale interval prior to its completion.

See attached details for the cathodic protection for this well.

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name:

Patsy Clugston

Title:

Sr. Regulatory/Proration Clerk

OIL CONSERVATION DIVISION

Approved by:

Title: SUPERVISOR DISTRICT # 3

Approval Date:

FEB - 2 2000

Expiration Date:

FEB - 2

**OIL CONSERVATION DIVISION**  
2040 South Pacheco  
Santa Fe, NM 87505

Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

* API Number <b>30-039-26339</b>		* Pool Code <b>72319</b>	* Pool Name <b>Blanco Mesaverde</b>
* Property Code <b>009257</b>	* Property Name <b>SAN JUAN 29-6 UNIT</b>		* Well Number <b>94M</b>
* OGRID No. <b>017654</b>	* Operator Name <b>PHILLIPS PETROLEUM COMPANY</b>		* Elevation <b>6527'</b>

**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
<b>F</b>	<b>16</b>	<b>29N</b>	<b>6W</b>		<b>2370'</b>	<b>NORTH</b>	<b>1845'</b>	<b>WEST</b>	<b>RIO ARriba</b>

**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
<b>F</b>									

* Dedicated Acres <b>320 W/2</b>	* Joint or Infill <b>I</b>	* Consolidation Code <b>U</b>	* Order No.
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**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**

<p>16</p> <p>N89°55'E 5281.32'</p> <p>E-289-46 520 acres</p> <p>2370'</p> <p>1845'</p> <p>Section 16</p> <p>N00°01'E</p> <p>N89°54'E 5278.68'</p>		<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Patsy Clugston</i></p> <p>Signature <b>Patsy Clugston</b></p> <p>Printed Name <b>Sr. Regulatory Clerk</b></p> <p>Title <b>January 18, 2000</b></p> <p>Date</p>	
<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>11/18/99</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p><i>Henry P. Broadhurst</i></p> <p>REGISTRY OF PROFESSIONAL SURVEYORS NEW MEXICO 11383</p> <p>Certificate Number</p>		<p>5280.00'</p> <p>N00°02'E</p>	



PHILLIPS PETROLEUM COMPANY

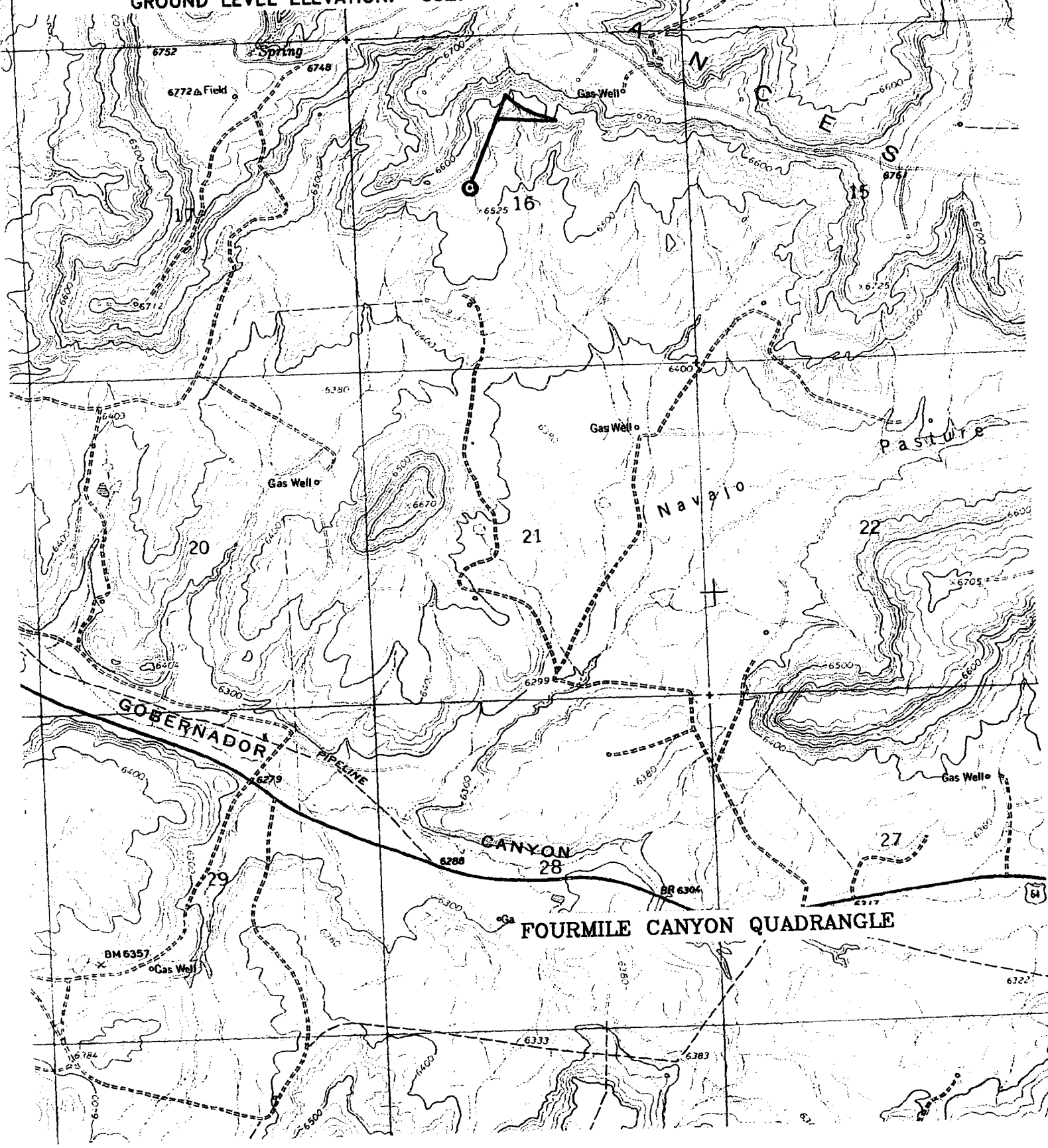
SAN JUAN 29-6 UNIT No. 94M

2370' FNL, 1845' FWL

NW/4 SEC. 16, T-29-N, R-06-W, N.M.P.M.,

RIO ARriba COUNTY, NEW MEXICO

GROUND LEVEL ELEVATION: 6527'



FOURMILE CANYON QUADRANGLE

**PLAT OF OFFSET OPERATORS TO  
W/2 SECTION 16-29N-6W, RIO ARRIBA COUNTY, NEW MEXICO**

29N		8		9		10
		Phillips Petroleum Company (100%)	Phillips Petroleum Company (100%)	Phillips Petroleum Company (100%)		
		17	<div style="background-color: #cccccc; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center;"> #94M * </div>	16		15
		Phillips Petroleum Company (Burlington Resources, etal)		Phillips Petroleum Company		
		20		21		22
		Phillips Petroleum Company (Burlington Resources, etal)	Phillips Petroleum Company (Burlington Resources)	Phillips Petroleum Company		

**6W**

## OFFSET AFFECTED OWNERS LIST

Burlington Resources Oil & Gas Company  
Vastar Resources, Inc.  
Conoco, Inc.

20A 7812 ✱ 943 67  8  20 5610 ✱ 3755 294  19A 7801 ✱ 1778 50	66A 7802 ✱ 1291 282  9  66 6108 ✱ 2375 54  64 6011 ✱ 1897 118  64A 7808 ✱ 941 201	31A 7711 ✱ 1190 350  10  30 6303 ✱ 4473 251  30A 7712 ✱ 2204 363  31 6109 ✱ 2081 55	32A 7711 ✱ 1447 358  11  32 5609 ✱ 5735 217  21A 7807 ✱ 1006 234
4A 7703 ✱ 1069 161  17  4Y 4 725212 ✱ ✱ 16354 145  71 6304 ✱ 2155 182  71A 7701 ✱ 1310 208	38A 7808 ✱ 1566 325  16  38 6210 ✱ 2339 100  37 6004 ✱ 2980 173  37A 7612 ✱ 913 185  94M 93M	35A 7808 ✱ 912 210  15  36 6108 ✱ 2193 43  38A 7807 ✱ 1215 283  35 6102 ✱ 2588 117  35M	2A 7603 ✱ 1843 358  14  2 5304 ✱ 3587 309  34 5709 ✱ 4505 173  34A 7601 ✱ 1327 250
73A 7703 ✱ 1703 161  20  73 6303 ✱ 2249 238  74 6303 ✱ 2802 174  74A 7703 ✱ 992 298	6A 7703 ✱ 756 213  21  6 5309 ✱ 3643 223  24 5610 ✱ 2161  24A 7702 ✱ 1198 285  91M	72A 7707 ✱ 734 153  22  72 6303 ✱ 2494 112  39 6303 ✱ 1402 90  39A 7807 ✱ 6840 197  77M	27A 7707 ✱ 785 118  23  27 5709 ✱ 1344 102  40A 7808 ✱ 863 187  40 5703 ✱ 4438 299  76M
70A 7702 ✱ 1523 254  29  70 6210 ✱ 3421 151  68 6201 ✱ 2686 308  68A 7508 ✱ 1644 408	58A 7703 ✱ 1674 407  28  58 5804 ✱ 1835  47A 7702 ✱ 1537 320  105R	46A 7702 ✱ 1342 278  27  46 6210 ✱ 1956 134  45 6210 ✱ 1412 178  45A 7705 ✱ 1422 282  86M 85M	44A 7707 ✱ 1428 175  26  44 5804 ✱ 1360 80  43 5805 ✱ 1926 125  43A 7705 ✱ 926 116  98M  69M

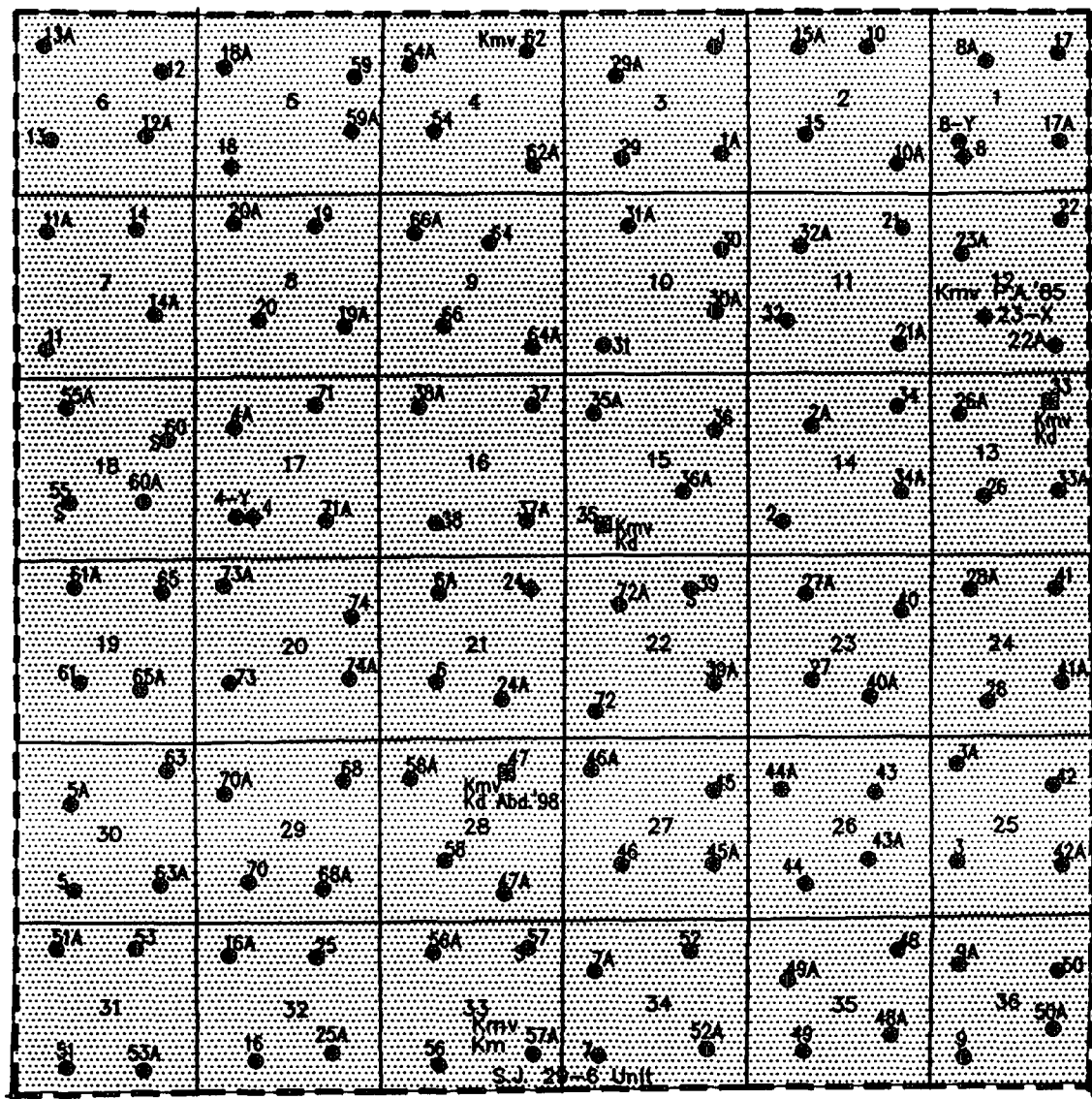
## San Juan 29-6 Unit (Mesaverde)

Blue - First Production Date

Red - Cumulative Production (MMCF)

Green - Daily Rate (MCF)

infillamv.ZGF



R-6-W

T  
29  
N

● MESAVERDE Km — Kmh CLIFFHOUSE  
Km MENEZES  
Kpt POINT LOOKOUT



Mesaverde Participating Area  
37th expansion Eff. 11/1/62

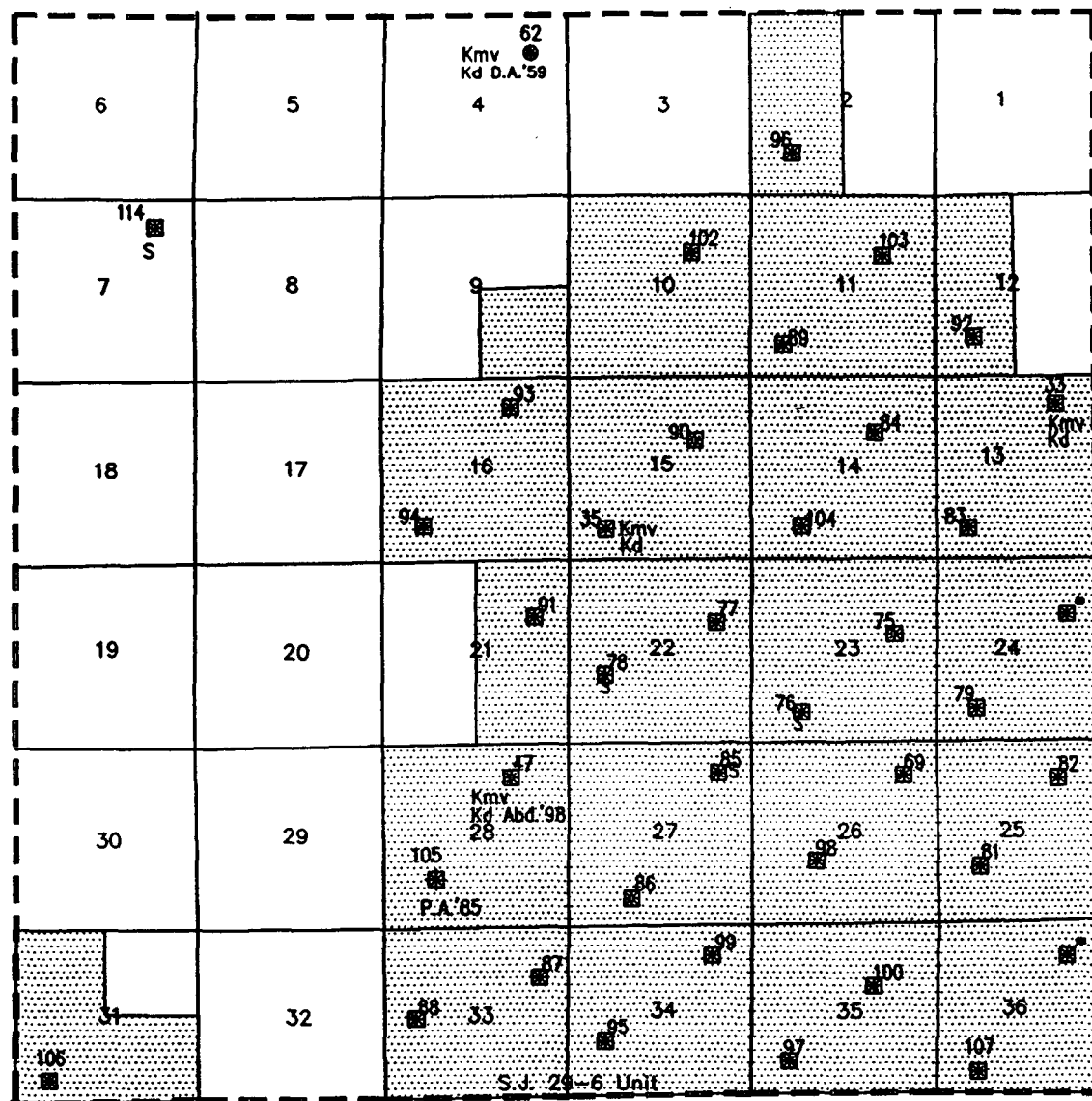
PHILLIPS PETR. CO.

SAN JUAN 29-6 UNIT

RIO ARRIBA CO, NM

March 4, 1999

J. Hopkins



R-6-W

T  
29  
N

■ DAKOTA Kd

■ Dakota Participating Area  
10th expansion Eff. 7/1/66

PHILLIPS PETR. CO.

SAN JUAN 29-6 UNIT

RIO ARRIBA CO, NM

March 4, 1999

J. Hopkins

# DRILLING AND COMPLETION COSTS CAPITAL EXPENSES (M\$)

## MESAVERDE

## DAKOTA

### SINGLE COMPLETION

	TANGIBLE	INTANGIBLE	TOTAL		TANGIBLE	INTANGIBLE	TOTAL
DRILL & COMPLETE	105.2	339.4	444.6	DRILL & COMPLETE	119.1	362.2	481.3
FACILITIES	22.6	16.4	39.0	FACILITIES	22.6	16.4	39.0
TOTAL	127.8	355.8	483.6	TOTAL	141.7	378.6	520.3
				Two Singles (Dakota + Mesaverde)	1003.9		

### DUAL COMPLETION

	TANGIBLE	INTANGIBLE	TOTAL		TANGIBLE	INTANGIBLE	TOTAL
DRILL & COMPLETE	74.5	330.3	404.8	DRILL & COMPLETE	80.6	362.0	442.6
FACILITIES	22.6	16.4	39.0	FACILITIES	22.6	16.4	39.0
TOTAL	97.1	346.7	443.8	TOTAL	103.2	378.4	481.6
				Dually Completed (Dakota + Mesaverde)	925.4		

### COMMINGLE COMPLETION

	TANGIBLE	INTANGIBLE	TOTAL		TANGIBLE	INTANGIBLE	TOTAL
DRILL & COMPLETE	51.7	284.5	336.2	DRILL & COMPLETE	69.7	280.3	350.0
FACILITIES	11.3	8.2	19.5	FACILITIES	11.3	8.2	19.5
TOTAL	63.0	292.7	355.7	TOTAL	81.0	288.5	369.5
				Commingled Completion (Dakota + Mesaverde)	725.2		

## **MESAVERDE OPERATING COSTS (\$/YR)**

	<b>SINGLE COMPLETION</b>	<b>DUAL COMPLETION</b>	<b>COMMINGLE COMPLETION</b>
<b>SAN JUAN 29-6 UNIT</b>	7350	6620	5510
<b>SAN JUAN 31-6 UNIT</b>	5540	4990	4160
<b>SAN JUAN 32-7 UNIT</b>	6900	6210	5180
<b>SAN JUAN 32-8 UNIT</b>	6220	5600	4670

## **DAKOTA OPERATING COSTS (\$/YR)**

	<b>SINGLE COMPLETION</b>	<b>DUAL COMPLETION</b>	<b>COMMINGLE COMPLETION</b>
<b>SAN JUAN 29-6 UNIT</b>	5560	5000	4170
<b>SAN JUAN 31-6 UNIT</b>	5560	5000	4170
<b>SAN JUAN 32-7 UNIT</b>	5500	4950	4130
<b>SAN JUAN 32-8 UNIT</b>	5025	4525	3770



# **SAN JUAN 29-6 UNIT** DAKOTA MARGINAL ECONOMICS

