

DATE IN 11/19/07	SUSPENSE	W Jones ENGINEER	11/21/07 LOGGED IN	PC TYPE	PKUR0732529043 APP NO.
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



### ADMINISTRATIVE APPLICATION CHECKLIST

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

#### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [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 - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ 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
- [D] Other: Specify \_\_\_\_\_
- [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] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

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

Ann Ritchie  
 Print or Type Name

Signature

Regulatory Agent  
 Title

10-25-07  
 Date

annritchie@wtor.net  
 e-mail Address

RECEIVED  
 2007 NOV 19 PM 3 52

District I  
1625 N. French Drive, Hobbs, NM 88240  
District II  
1301 W. Grand Ave, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St Francis Dr, Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107-B  
Revised June 10, 2003

**OIL CONSERVATION DIVISION**  
1220 S. St Francis Drive  
Santa Fe, New Mexico 87505

Submit the original  
application to the Santa Fe  
office with one copy to the  
appropriate District Office.

**APPLICATION FOR SURFACE COMMINGLING (DIVERSE OWNERSHIP)**

OPERATOR NAME: Pogo Producing (San Juan) Company

OPERATOR ADDRESS: P.O. Box 10340 Midland, Texas 79702

APPLICATION TYPE:

☒ Pool Commingling ☐ Lease Commingling ☐ Pool and Lease Commingling ☐ Off-Lease Storage and Measurement (Only if not Surface Commingled)

LEASE TYPE: ☐ Fee ☐ State ☒ Federal

Is this an Amendment to existing Order? ☐ Yes ☒ No If "Yes", please include the appropriate Order No. \_\_\_\_\_

Have the Bureau of Land Management (BLM) and State Land office (SLO) been notified in writing of the proposed commingling

☒ Yes ☐ No **BLM has been notified. Proposed commingled area is comprised of Federal lands only.**

**(A) POOL COMMINGLING**

Please attach sheets with the following information

(1) Pool Names and Codes	Gravities / BTU of Non-Commingled Production	Calculated Gravities / BTU of Commingled Production		Calculated Value of Commingled Production	Volumes (Monthly)
Basin-Fruitland Coal Gas Pool (71629)	1,053	1,040		Value of production	1,017 MCF
Fulcher Kutz-Pictured Cliffs Gas (77200)	984			will not be decreased	8,898 MCF
				by commingling	

(2) Are any wells producing at top allowables? ☐ Yes ☒ No

(3) Has all interest owners been notified by certified mail of the proposed commingling? ☒ Yes ☐ No.

(4) Measurement type: ☒ Metering ☐ Other (Specify)

(5) Will commingling decrease the value of production? ☐ Yes ☒ No If "yes", describe why commingling should be approved

**(B) LEASE COMMINGLING**

Please attach sheets with the following information

(1) Pool Name and Code.

(2) Is all production from same source of supply? ☐ Yes ☐ No

(3) Has all interest owners been notified by certified mail of the proposed commingling? ☐ Yes ☐ No

(4) Measurement type: ☐ Metering ☐ Other (Specify)

**(C) POOL and LEASE COMMINGLING**

Please attach sheets with the following information

(1) Complete Sections A and E.

**(D) OFF-LEASE STORAGE and MEASUREMENT**

Please attached sheets with the following information

(1) Is all production from same source of supply? ☐ Yes ☐ No

(2) Include proof of notice to all interest owners.

**(E) ADDITIONAL INFORMATION (for all application types)**

Please attach sheets with the following information

(1) A schematic diagram of facility, including legal location. **Attached**

(2) A plat with lease boundaries showing all well and facility locations. Include lease numbers if Federal or State lands are involved. **Attached**

(3) Lease Names, Lease and Well Numbers, and API Numbers. **Attached**

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

SIGNATURE: 

TITLE: Regulatory Agent

DATE: 10-25-07

TYPE OR PRINT NAME: Ann Ritchie

TELEPHONE NO.: (432) 684-6381

E-MAIL ADDRESS: ann.ritchie@wtor.net

October 24, 2007

New Mexico Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, New Mexico 87505  
Attn: Mr. Mark E. Fesmire, P.E., Director

U.S. Bureau of Land Management  
1235 La Plata Highway, Suite A  
Farmington, New Mexico 87401-8731  
Attn: Mr. Jim Lovato

Re: Application for Pool Commingling  
Pogo Producing (San Juan) Company  
Arnie 2 CDP Gas Gathering System  
San Juan County, New Mexico

Dear Sir:

Pogo Producing (San Juan) Company ("Pogo") hereby requests approval to surface commingle the gas production from two existing gas wells located within a proposed commingled area comprising the N/2 of Section 25, Township 30 North, Range 13 West, NMPM, San Juan County, New Mexico. One of the wells is a single completion in the Fulcher Kutz-Pictured Cliffs Gas Pool (77200) and the other well is a single completion in the Basin-Fruitland Coal Gas Pool (71629).

Pogo further seeks approval to add wells within the commingled area that may be drilled in the future and completed in either the Basin-Fruitland Coal Gas Pool or the Fulcher Kutz-Pictured Cliffs Gas Pool without having to provide additional notice to the interest owners within the commingled area, and without having to amend the commingling order. Pogo will advise the interest owners that are being provided notice of this application that it is requesting this provision be incorporated in the commingling order.

The proposed surface commingling will allow Pogo to utilize a single compressor at the central delivery point, resulting in the reduction of operating costs and extending the economic life of the wells. The resulting increase in the ultimate recovery of gas from these wells will benefit all interest owners in the wells. The proposed surface commingling is also necessary due to topography and the close proximity of these wells to populated areas, and will reduce the environmental impact on these sensitive areas.

Due to the diversity of ownership between the commingled wells, each well will be equipped with a continuously recording allocation meter. Production will be allocated to each of the wells in accordance with the following procedure: The production

allocated to each well will be the integrated volume from the CDP gas sales meter, less the sum of the other allocation meters, plus any lease use gas. Lease use gas is estimated to be approximately 2.5 MCF gas per day for those wells equipped with a pumping unit and a separator. In the event the sum of the allocation meters does not equal the integrated volume of the CDP gas sales meter, the gas production from each well will be calculated using the volume its allocation meter indicates, divided by the sum of all the allocation meters. This percentage will then be multiplied times the integrated volume of the CDP gas sales meter, plus lease use gas. The proposed well metering system and method of allocation will protect the correlative rights of all interest owners within the commingled area. Compressor use gas will be allocated ratably to each of the wells.

Pursuant to the requirements of Division Rule 19.15.5.303(B)(4)(b), Enterprise Field Services (or the current operator of the gas sales meter) will calibrate the central delivery point gas sales meter at least quarterly at current production levels. Pogo will operate all allocation meters and will calibrate quarterly all allocation meters that measure more than 100 MCF of gas per day, and will calibrate semi-annually all allocation meters that measure less than 100 MCF of gas per day. All liquids, (oil, condensate and water) will be separated, stored, measured and sold at each individual well. Except for small amounts of water that may drop out of the commingled gas stream at the central processing facility, no commingling of liquids will occur.

The gas gathering system will not degrade the mechanical integrity of the wells or the CDP facility.

It is anticipated that the purging of natural gas and condensed water vapor from the gas gathering lines will occur infrequently. Any lost gas due to purging the system will be allocated ratably to each of the wells.

Attachment No. 1 is a table showing the wells proposed to be surface commingled. Pogo has also included, among other things, each well's API Number, well location, producing formation, and the acreage that is currently dedicated to the well.

Attachment No. 2 shows the current (June, 2007) producing rates for each of the wells to be commingled. The combined monthly gas production from the wells to be commingled is 9,915 MCF. Of that total, 1,017 MCF is from the Basin-Fruitland Coal Gas Pool and 8,898 MCF is from the Fulcher Kutz-Pictured Cliffs Gas Pool.

Attachment No. 3 is a map showing the location of the wells and the associated pipelines within the proposed Arnie 2 CDP Gas Gathering System. The central delivery point and Enterprise Field Services gas sales meter is located within the SW/4 NW/4 of Section 25, Township 30 North, Range 13 West, NMPM.

Attachment No. 4 is a map that identifies all wells and leases within the proposed commingled area. As shown on the map, there is one Federal lease (Federal Lease No. NMSF-078213) within the commingled area.

Attachment No. 5 is a schematic diagram of the commingled facility showing the legal location, tanks, pipes, sales meters, and all other associated equipment. All equipment used in selling, storing and measuring combined production will meet the Onshore Oil & Gas Orders No. 3, Site Security; No. 4, Oil Measurement; and No. 5, Gas Measurement. None of the wells are Navajo allotted/royalty wells.

The natural gas from all three pools is believed to be compatible and to date Pogo has not observed any compatibility problems. The BTU content for each of the respective gas pools is very similar, and for that reason, the value of the commingled production will not be less than the value of the individual gas streams. A representative gas analysis for the Fruitland Coal and Pictured Cliffs formations are shown, respectively, as Attachments No. 6 and 7.

A notification letter (copy attached) and a copy of the application have been sent to all parties owning an interest within the proposed commingled area. In addition, enclosed is a list of the parties to which notice has been provided.

In summary, Pogo believes that the proposed surface commingling is in the best interest of conservation, prevention of waste and protection of correlative rights, and that the application should be approved.

Pogo has included with this application, a draft pool commingling order that summarizes the pertinent details.

If additional information is required, please contact me at (432) 684-6381.

Yours Truly,



Ann E. Ritchie, Regulatory Agent  
Pogo Producing (San Juan) Company  
P.O. Box 10340  
Midland, Texas 79702  
(432) 684-6381  
(432) 682-1458-Fax  
[ann.ritchie@wtor.net](mailto:ann.ritchie@wtor.net)

cc: Cathy Wright, Pogo Producing (San Juan) Company-Midland, Texas  
New Mexico Oil Conservation Division, 1000 Rio Brazos Rd. Aztec, NM 87410

Pogo Producing (San Juan) Company  
Arnie 2 CDP Gas Gathering System

Well Name & Number	Current Operator	API Number	Unit		Tw. Range	Well Location	Current Completion	Latitude	Longitude	Lease		Dedicated Acreage
			Letter	Section						Type	Number	
Arnie No. 2 Arnie No. 4T	Pogo Producing (San Juan) Company	30-045-29669	E	25	30N 13W	1460' FNL & 885' FWL	Fulcher Kutz-Pictured Cliffs Gas Pool	36.78749	-108.16233	Fed	NMSF-078213	NW/4
	Pogo Producing (San Juan) Company	30-045-32167	F	25	30N 13W	1770' FNL & 1545' FWL	Basin-Fruitland Coal Gas Pool	36.78722	-108.16	Fed	NMSF-078213	N/2

*Pogo Producing (San Juan) Company  
 Arnie 2 CDP Gas Gathering System*

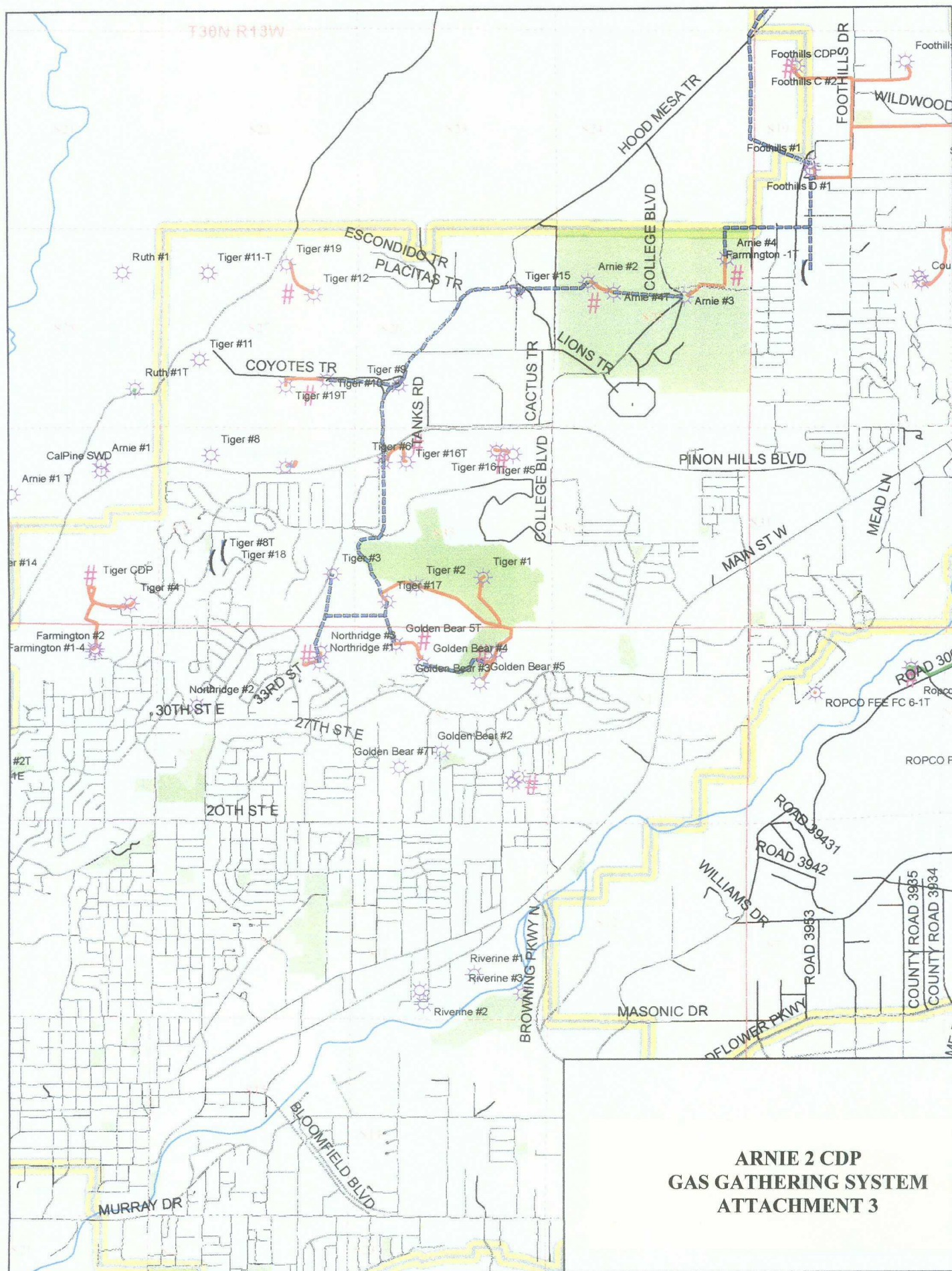
<i>Well Name &amp; Number</i>	<i>Producing Pool</i>	<i>Current Production (June 2007)</i>
Arnie No. 2	Fulcher Kutz-Pictured Cliffs Gas Pool	8,898 MCF
Arnie No. 4T	Basin-Fruitland Coal Gas Pool	1,017 MCF

*Total Production by Pool: (June, 2007):*

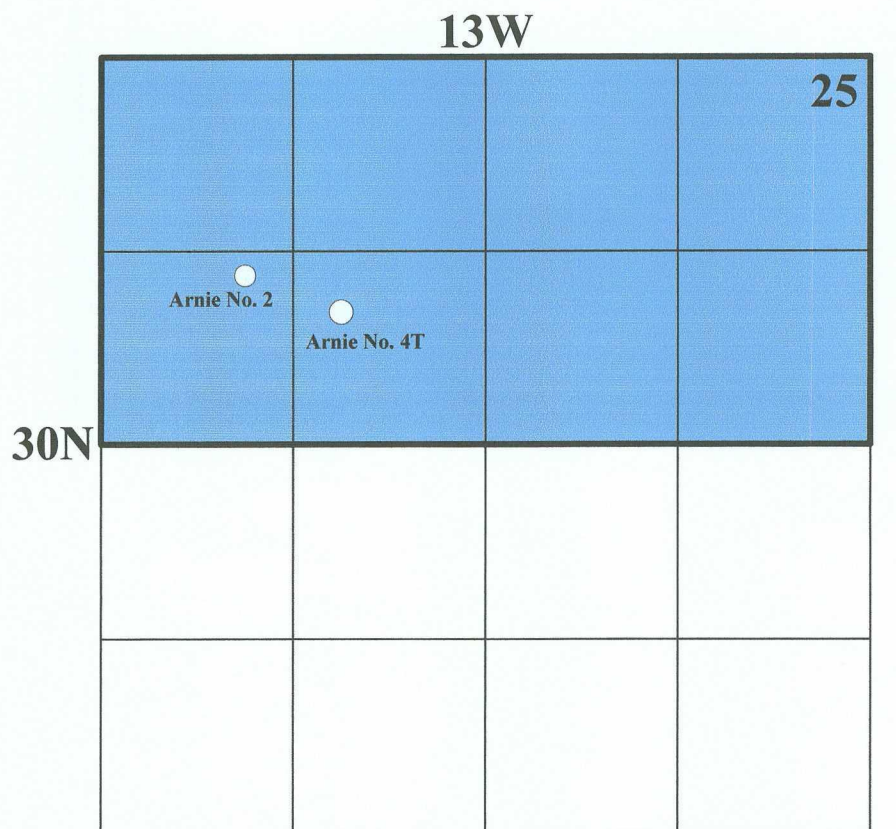
<i>Basin-Fruitland Coal Gas Pool</i>	<i>1,017 MCF</i>
<i>Fulcher Kutz-Pictured Cliffs Gas Pool</i>	<i>8,898 MCF</i>
<b><i>Total:</i></b>	<b><i>9,915 MCF</i></b>

**Attachment 2**







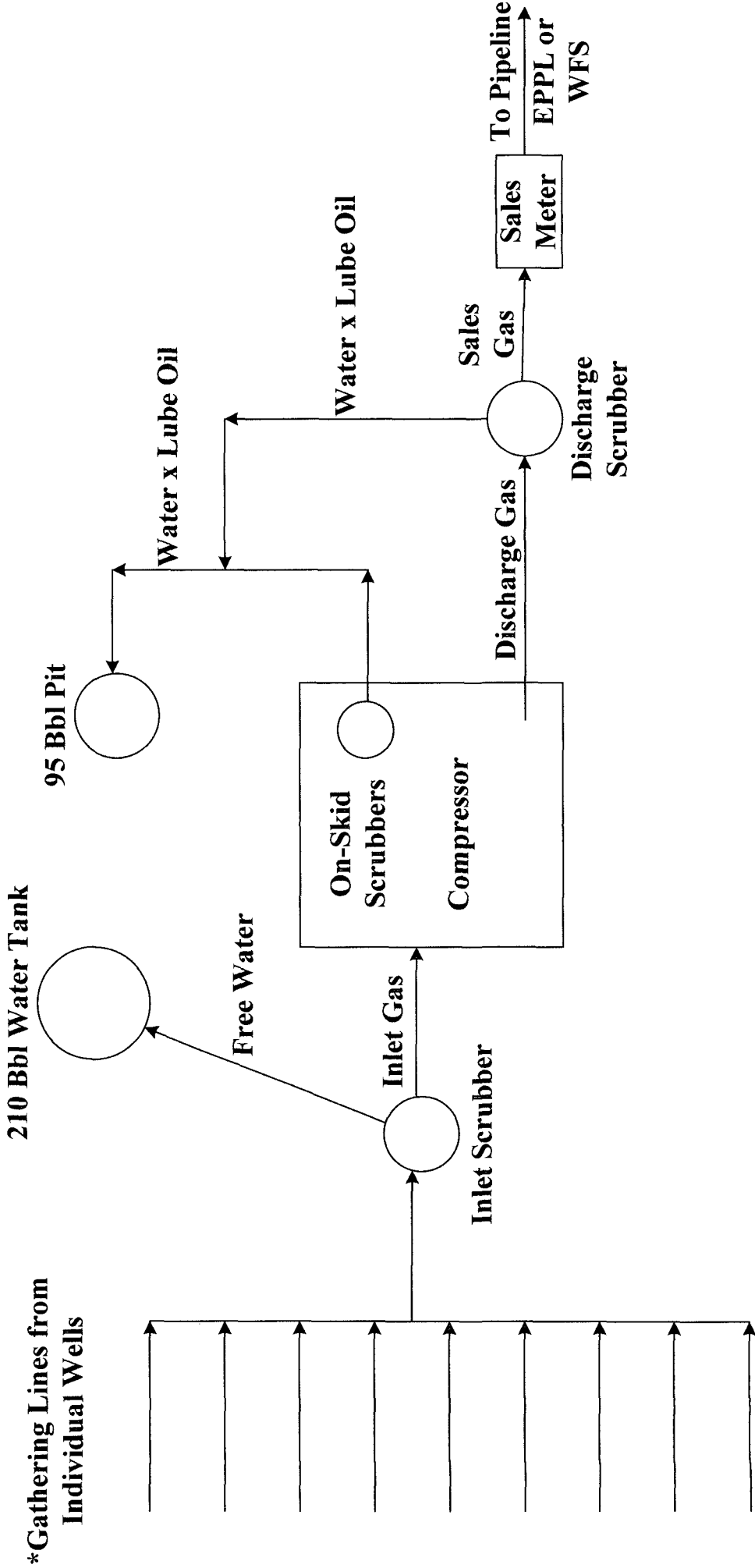


 **Federal Lease No. NMSF-078213**

**POGO PRODUCING (SAN JUAN) COMPANY  
ARNIE 2 CDP GAS GATHERING SYSTEM  
ATTACHMENT 4**

POGO PRODUCING (SAN JUAN) COMPANY  
TYPICAL SAN JUAN BASIN CDP  
SCHEMATIC AND FLOW DIAGRAM

(Arnie 2 CDP Gas Gathering System Facilities are Located in the  
SW/4 NW/4 of Section 25, T-30 North, Range 13 West



\*Gathering Lines from Individual Wells

\*Allocation Meters at Each Wellsite



2030 AFTON PLACE  
FARMINGTON, N.M. 87401  
(505) 325-6622

ANALYSIS NO. PC270023  
CUST. NO. 62780 - 10480

### WELL/LEASE INFORMATION

CUSTOMER NAME	POGO PRODUCTION	SOURCE	WELLHEAD CASING
WELL NAME	SAN JUAN FEDERAL 1-T	PRESSURE	48 PSI G
COUNTY/ STATE	SAN JUAN NM	SAMPLE TEMP	N/A DEG.F
LOCATION		WELL FLOWING	Y
FIELD		DATE SAMPLED	03/14/2007
FORMATION	FRUITLAND COAL	SAMPLED BY	JAMES MCGAHA
CUST.STN.NO.	202A357095 T8409	FOREMAN/ENGR.	

### REMARKS

ANALYSIS				
COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	0.159	0.0000	0.00	0.0015
CO2	1.272	0.0000	0.00	0.0193
METHANE	96.120	0.0000	973.02	0.5325
ETHANE	1.415	0.3782	25.10	0.0147
PROPANE	0.593	0.1633	14.96	0.0090
I-BUTANE	0.100	0.0327	3.26	0.0020
N-BUTANE	0.140	0.0441	4.58	0.0028
I-PENTANE	0.048	0.0176	1.92	0.0012
N-PENTANE	0.035	0.0127	1.41	0.0009
HEXANE PLUS	0.118	0.0519	6.07	0.0038
TOTAL	100.000	0.7005	1,030.32	0.5877

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\* @ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR	(1/Z)	1.0020
BTU/CU.FT (DRY) CORRECTED FOR	(1/Z)	1,032.6
BTU/CU.FT (WET) CORRECTED FOR	(1/Z)	1,015.5
REAL SPECIFIC GRAVITY		0.5888

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

DRY BTU @ 14.650	1,027.0
DRY BTU @ 14.696	1,030.2
DRY BTU @ 14.730	1,032.6
DRY BTU @ 15.025	1,053.3

CYLINDER #

7005  
68 PSIG  
03/14/2007  
BRANDY ROBERTS

## ATTACHMENT 6



2030 AFTON PLACE  
FARMINGTON, N.M. 87401  
(505) 325-6622

ANALYSIS NO. PC260024  
CUST. NO. 62780 - 10490

### WELL/LEASE INFORMATION

CUSTOMER NAME	POGO PRODUCTION	SOURCE	
WELL NAME	ARNIE 1 (PC)	PRESSURE	21 PSI G
COUNTY/ STATE	SAN JUAN NM	SAMPLE TEMP	65 DEG.F
LOCATION		WELL FLOWING	Y
FIELD		DATE SAMPLED	6/13/2006
FORMATION	PICTURED CLIFFS	SAMPLED BY	
CUST.STN.NO.		FOREMAN/ENGR.	

### REMARKS

COMPONENT	MOLE %	ANALYSIS		
		GPM**	B.T.U.*	SP.GR *
NITROGEN	4.343	0.0000	0.00	0.0420
CO2	4.821	0.0000	0.00	0.0733
METHANE	87.101	0.0000	881.72	0.4825
ETHANE	2.413	0.6450	42.80	0.0251
PROPANE	0.886	0.2440	22.35	0.0135
I-BUTANE	0.235	0.0769	7.66	0.0047
N-BUTANE	0.108	0.0340	3.53	0.0022
I-PENTANE	0.050	0.0183	2.01	0.0012
N-PENTANE	0.010	0.0036	0.40	0.0002
HEXANE PLUS	0.033	0.0145	1.70	0.0011
TOTAL	100.000	1.0363	962.17	0.6458

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\* @ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR	(1/2)	1.0020
BTU/CU.FT (DRY) CORRECTED FOR	(1/2)	964.3
BTU/CU.FT (WET) CORRECTED FOR	(1/2)	948.4
REAL SPECIFIC GRAVITY		0.6470

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

DRY BTU @ 14.650	959.0	CYLINDER #	4122
DRY BTU @ 14.896	962.1	CYLINDER PRESSURE	24 PSIG
DRY BTU @ 14.730	964.3	DATE RUN	6/13/2006
DRY BTU @ 15.025	983.6	ANALYSIS RUN BY	TIFFANI MONTOYA

Pogo Producing (San Juan) Company  
P.O. Box 10340  
Midland, Texas 79702

Contact Party: Ms. Ann E. Ritchie  
Regulatory Agent  
Phone (432) 684-6381

Re: Form C-107-B (Application for Surface Commingling)  
Arnie 2 CDP Gas Gathering System  
N/2 Section 25, T-30 North, R-13 West,  
San Juan County, New Mexico

TO ALL INTEREST OWNERS (LIST ATTACHED)

Enclosed please find a copy of Form C-107-B that has been filed with the New Mexico Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. As an interest owner in the wells to be surface commingled, you are being provided a copy of this application pursuant to Division Rule No. 19.15.5.303(B)(4)(d). Any objection to the application must be filed with the Oil Conservation Division at the above address, within 20 days. If you have questions concerning this application, please contact me at (432) 684-6381.

Sincerely,

Ann E. Ritchie  
Regulatory Agent