

RECEIVED

November 14, 2006

NOV 27 2006

Mr. Mark E. Fesmire, P.E. - Director
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: Administrative Approval to Downhole Commingle
Energen Resources Corporation
Jicarilla 96 #5B
2240' FNL, 1980' FWL, Section 11, T26N, R3W, NMPM
Rio Arriba County, New Mexico

Dear Mr. Fesmire:

Energen Resources Corporation requests administrative approval to downhole commingle the Gavilan-Pictured Cliffs (PC) and Blanco Mesa Verde (MV) pools in the subject well. Due to the liquid loading problems commingling with plunger lift is the most economical method to recover gas from both zones in the subject well. We have successfully applied this method along with plunger lift in similar wells that have experienced liquid loading problems and it is felt this method would improve the overall producing efficiency of the well.

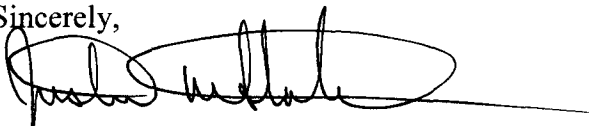
To comply with New Mexico Oil Conservation Rules, Energen Resources Corporation is submitting the following data for your approval of the proposed commingling.

1. C-107A - Application for Downhole Commingling
2. C-102 - Location plat showing each spacing unit and dedicated acreage
3. Offset Operator Ownership Plat
4. Production curves from the current well completed in the MV.
5. Estimated production from dually completed well.
5. Allocation method

In accordance with New Mexico Oil Conservation Division Rule 303C, Energen Resources operates all offset units.

If additional information is needed, please contact me at 505-325-6800.

Sincerely,



Justin M. Stolworthy
District Engineer

xc:

NMOCD - Aztec District Office
BLM- FFO notified via Federal Sundry Notice 3160-5 and sent NMOCD form C-107A

DATE IN 11/27/06	SUSPENSE	ENGINEER Will Jones	LOGGED IN 11/28/06	TYPE DHC	APP NO. PTDS0633237527
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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.

Justin Stalworthy
Print or Type Name

Signature

DISTRICT ENGINEER
Title

11/21/06
Date

JSTOWOR@ENERGEN.COM
e-mail Address

District I
1625 N. French Drive, Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
Well
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-107A
Revised June 10, 2003

Oil Conservation Division
1220 South St. Francis Dr.

APPLICATION TYPE
X Single

Santa Fe, New Mexico 87505

Establish Pre-Approved Pools
EXISTING WELLBORE
X Yes No

APPLICATION FOR DOWNHOLE COMMINGLING

Energien Resources

2198 Bloomfield Highway, Farmington, New Mexico 87401

Operator Address
Jicarilla 96 5B F Section 11, T26N, R3W N.M.P.M Rio Arriba
Lease Well No. Unit Letter-Section-Township-Range County
162928 21938 30-039-26587 X
OGRID No. Property Code API No. Lease Type: Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Gavilan Pictured Cliffs	N/A	Blanco Mesa Verde
Pool Code	77360	N/A	72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3730' to 3768'	N/A	5800' to 5858'
Method of Production (Flowing or Artificial Lift)	Artificial Lift - Plunger	N/A	Artificial Lift - Plunger
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	N/A within 150%	N/A	N/A within 150%
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1,027 BTU	N/A	1,056 BTU
Producing, Shut-In or New Zone	New Zone	N/A	Producing
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: New Zone Rates: 0 BOPD/60 MCFPD/1.5 BWPD	Date: N/A Rates: N/A	Date: 11/15/06 Rates: 0 BOPD/140 MCFPD/1.5 BWPD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas 0 % 34 %	Oil N/A Gas N/A % %	Oil Gas 0 % 66 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes X No
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes No
Are all produced fluids from all commingled zones compatible with each other? Yes X No
Will commingling decrease the value of production? Yes No X
If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes X No

NMOCD Reference Case No. applicable to this well:

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 working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

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

SIGNATURE Justin M. Stolworthy TITLE District Engineer DATE 11/21/06
TYPE OR PRINT NAME Justin M. Stolworthy TELEPHONE NO. (505) 325-6800
E-MAIL ADDRESS jstolwor@energen.com

District I
1625 N. French Dr., Hobbs, NM 88240

District II
1301 W. Grand Avenue, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-26587	² Pool Code 77360/72319	³ Pool Name Gavilan Pictured Cliffs/Blanco Mesa Verde
⁴ Property Code 21938	⁵ Property Name Jicarilla 96	⁶ Well Number 5B
⁷ OGRID No. 162982	⁸ Operator Name Energen Resources Corporation	⁹ Elevation 7123'

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
P	11	26N	3W		2240	North	1980	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

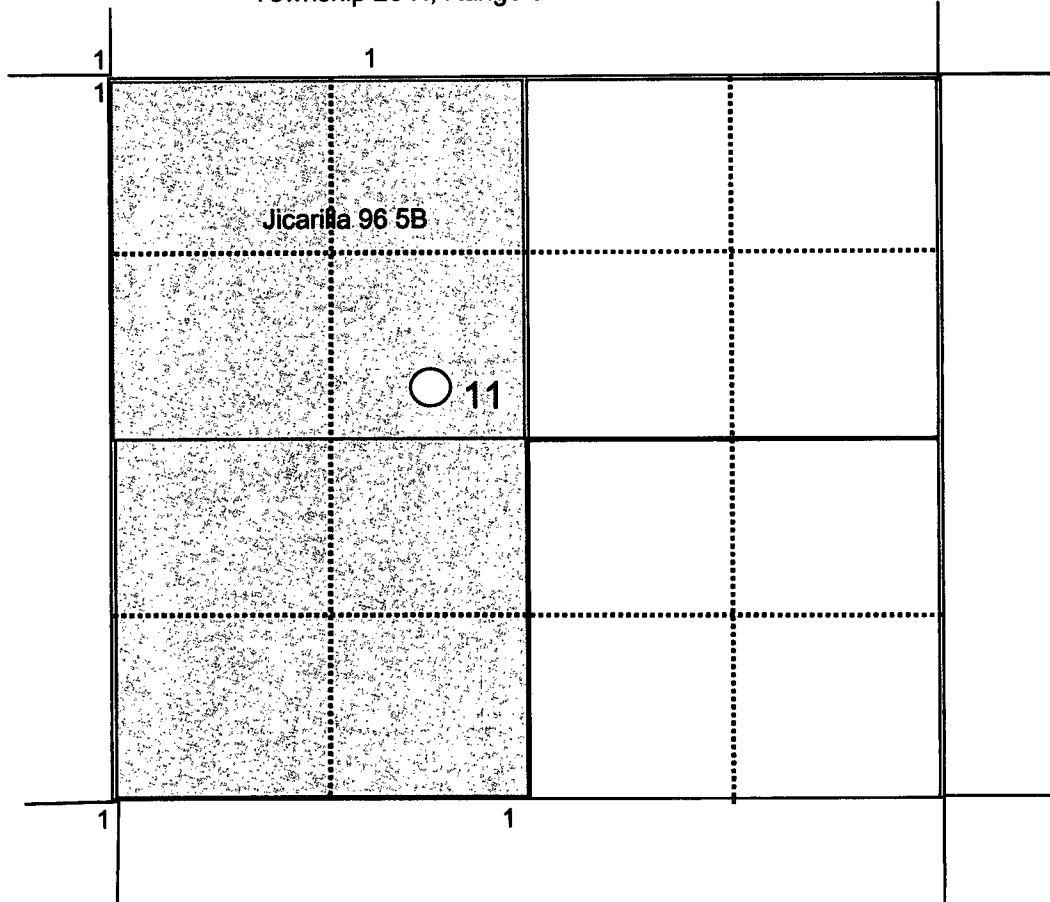
¹² Dedicated Acres 160/320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

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

¹⁶	¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i> Signature Justin M. Stolworthy Printed Name District Engineer jstolwor@energen.com Title and E-mail Address 11/14/06 Date
	¹⁸ SURVEYOR CERTIFICATION <i>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.</i> July 10, 2000 Date of Survey Signature and Seal of Professional Surveyor: Neale C. Edwards NM 6857 Certificate Number

Energen Resources Corp.
Jicarilla 96 #5B
Offset Operator/ Ownership Plat
Gavilan Pictured Cliffs/ Blanco Mesa Verde
Downhole Commingling

Township 26 N, Range 3 W



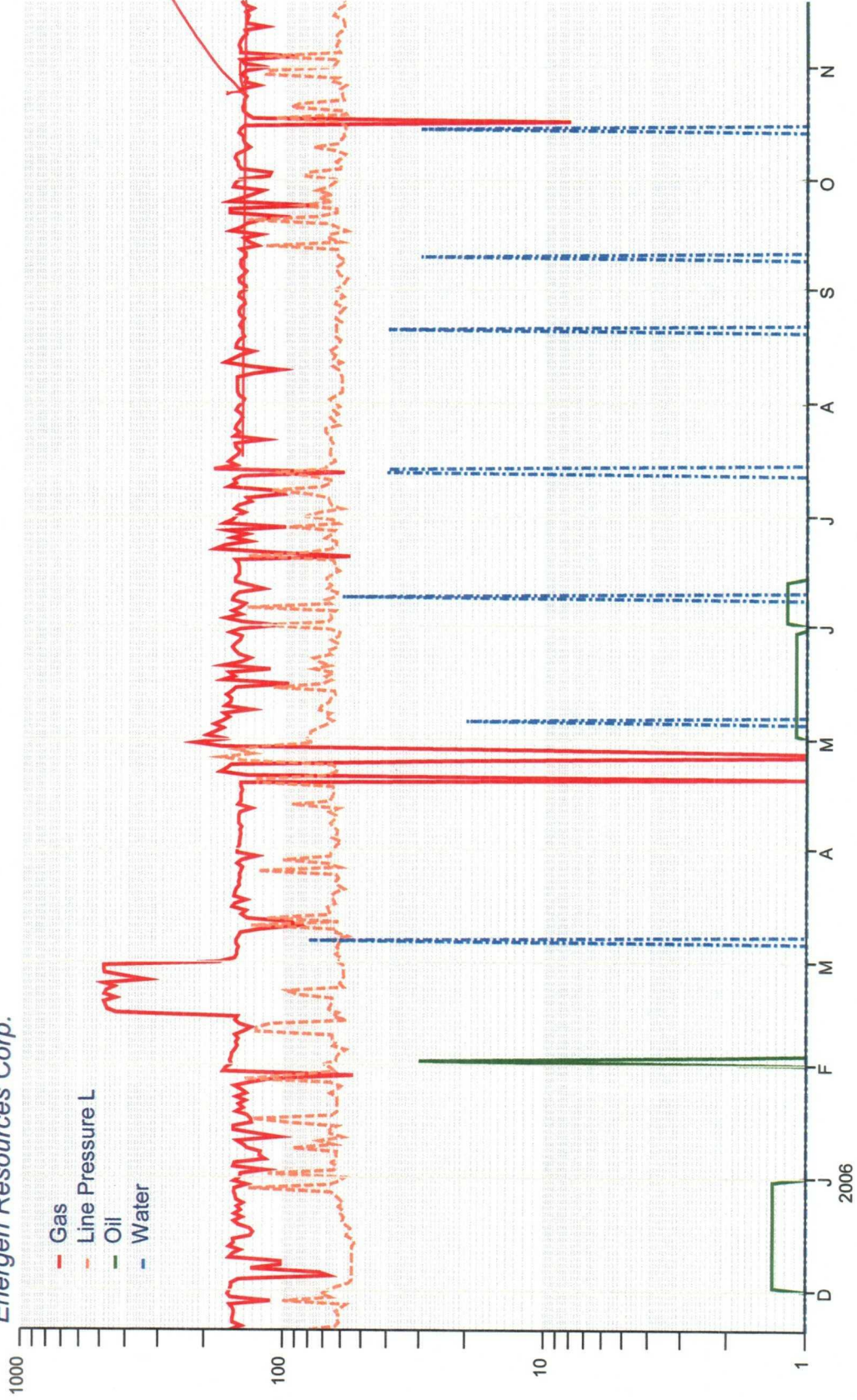
1) Energen Resources

LEASE: JICARILLA 96 5B MV
FIELD: MESAVERDE

Energren Resources Corp.

Gas
Line Pressure L
Oil
Water

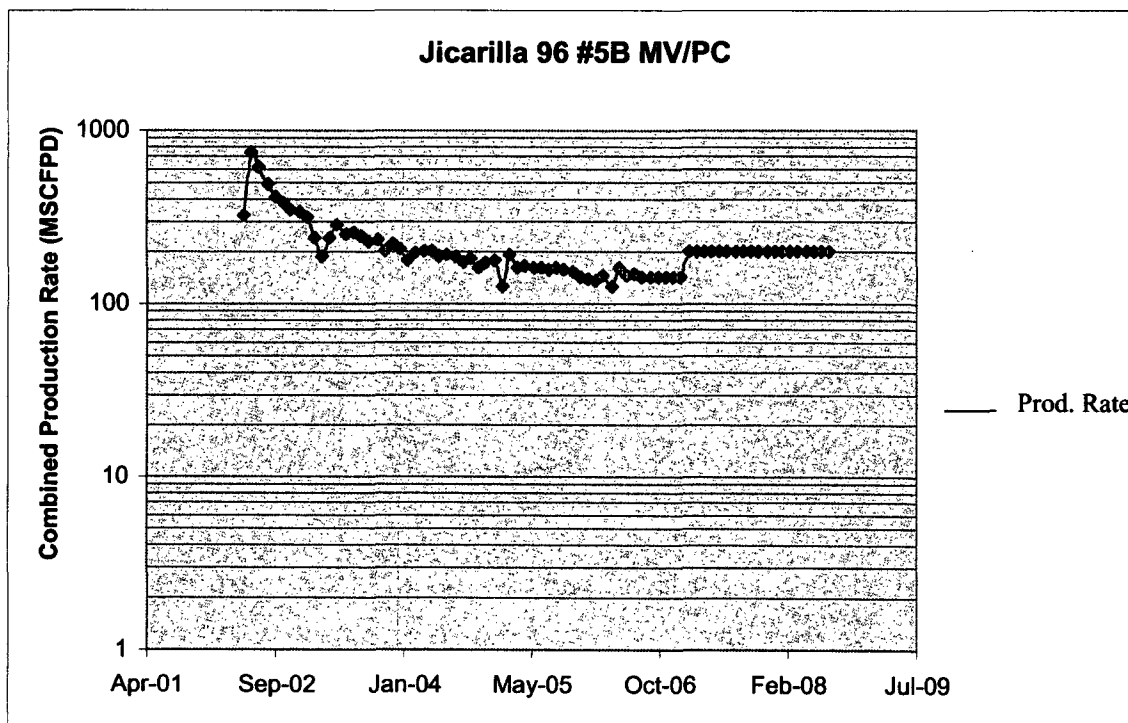
140 avg
MSCFPD



Estimated production rate:

Energen estimates that the Gavilan PC will produce at a rate of 60 MSCFPD
D. We have used Offset data to estimate its gas rate. Please see production chart below
for Jicarilla 96 #6A Gavilan PC well, which is an offset well of the Jicarilla 96 #5B.

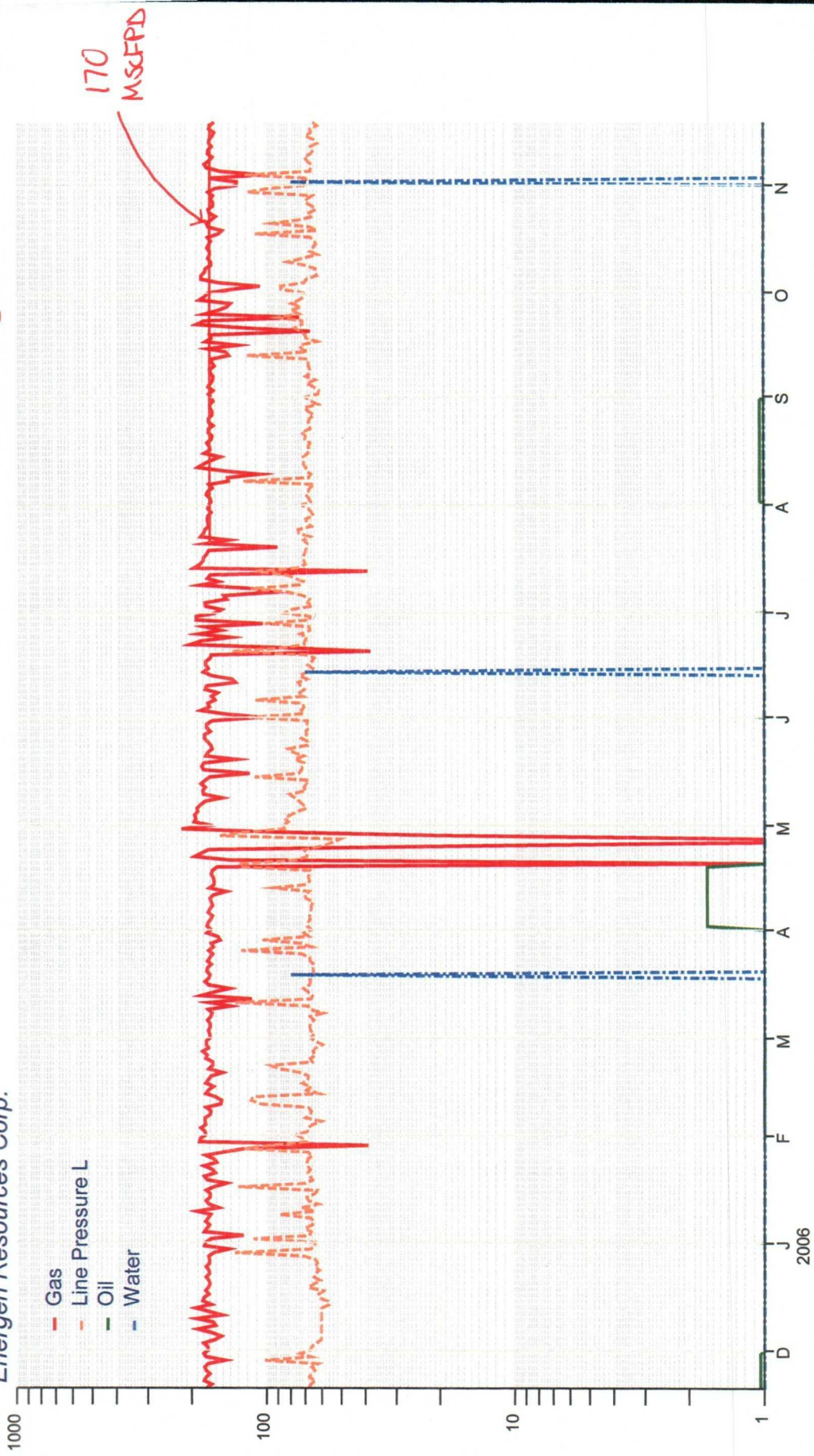
	Gavilan Pictured Cliffs	Blanco Mesa Verde
Production Rate	60 MSCFPD (est.)	140 MSCFPD
Combined Production Rate	200 MSCFPD (est.)	



LEASE: JICARILLA 96 6A
FIELD: MV/PC

OFFSET WELL
MV/PC
commingle

Energizer Resources Corp.



Energen Resources Completion Schedule - Procedure for Jicarilla 96 #5B

NOTE: See “Pertinent Data Sheet for wellbore information”, “Perforation schedule for shooting interval.”, and “Halliburton Frac Procedure.”

1. MIRU WSU NUBOP.
2. POOH production tubing.
3. TIH W/ CIBP and set right below PC Zone. Load the casing with clean 2% KCL W/ Biocide. Pressure Test Casing to 3,000 psig. Note: A packer may be required to isolate the wellhead from 3,000 psig. NU Frac Head/Valve assembly.
4. MIRU WL. TIH & perforate the PC per the selected interval.
5. Pump the Breakdown schedule per the attached procedure.
6. Fracture the PC per the attached procedure. Note: The Max treating pressure will be 3,000 psig.
7. TIH w/ tubing and clean out to above CIBP.
8. TIH w/ Production tubing and BHA per Production Foreman Specification..
9. NDBOP. NUWH. RDMO WSU. Flow test PC.
10. MIRU WSU NDWH NUBOP. POOH w/ tubing.
11. TIH with drill-out BHA and drill out CIBP and push to PBTD. POOH w/ Drill-out assembly – TIH w/ Production tubing BHA per Production Foreman Specification.
12. NDBOP NUWH RDMO WSU. Turn the well over to production.