

Petrichawk

DATE IN 6/23/06	SUSPENSE	ENGINEER M. F. K. STOGNER	LOGGED IN 7/3/06	TYPE SD	APP NO. PTD506.18440964
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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



JUN 30 PM 3 20

### 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.

Ocean Munds-Dry      Ocean Munds-Dry      Attorney      6-23-06  
 Print or Type Name      Signature      Title      Date  
 omundsdry@hollandhart.com  
 e-mail Address

June 23, 2006

**HAND-DELIVERED**

Mark E. Fesmire, P.E.  
Director  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
1220 South Saint Francis Drive  
Santa Fe, New Mexico 87505

Re: Application of Petrohawk Operating Company for administrative approval of an infill gas well and simultaneous dedication of the State "A" A/C 3 Well No. 6, 1980' FSL and 2310' FEL, S10-T23S-R36E, Jalmat Gas Pool, Lea County, New Mexico.

Dear Mr. Fesmire:

Pursuant to the provisions of Rule 4(B) of the Special Pool Rules for the Jalmat Gas Pool, as promulgated by Division Order No. R-8170-P dated December 14, 2001, Petrohawk Operating Company ("Petrohawk") hereby seeks an administrative exception to the gas well density provisions of Rule 3(C) and authorization to simultaneously dedicate said wells to the 320-acre spacing and proration unit originally approved by Order No. R-9073, dated December 14, 1989.

Petrohawk seeks approval of the following well in Section 10, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico:

The State "A" A/C 3 Well No. 6 to be re-entered and re-completed at a standard location 1980 feet from the South line and 2310 feet from the East line (Unit J).

The proposed well would be drilled within an existing 320-acre gas spacing unit comprised of the E/2 of Section 10. Therefore, Petrohawk also seeks approval to simultaneously dedicate this well to this spacing unit.

Division Order 9073 authorized the following two wells to said spacing unit for the Jalmat Gas Pool:



State "A" A/C 3 Com "A" Well No. 1 (API No. 30-025-09299) located 990 feet from the North line and East lines (Unit A); and

State "A" A/C 3 Com "A" Well No. 2 (API No. 30-025-09289) located 1650 feet from the South line and 990 feet from the East line (Unit I).

Administrative Order NSL-2873, dated September 1990, the State "A" A/C 3 Com "A" Well No. 8 (API No. 30-025-20245) located at an unorthodox well location 660 feet from the South and East lines (Unit P) was also approved.

Administrative Order NSL-2873-A, dated January 18, 1991, authorized the simultaneous dedication of the following three wells:

State "A" A/C 3 Com "A" Well No. 4 (API No. 30-025-09300) located 660 feet from the North line and 2310 feet from the East line (Unit B);

State "A" A/C 3 Com "A" Well No. 5 (API No. 30-025-09303) located 1980 feet from the North line and 2310 feet from the East line (Unit G); and

State "A" A/C 3 Well No. 6 (API No. 30-025-09302) located 1980 feet from the South line and 2310 feet from the West line (Unit J). This well, however, was plugged and abandoned in 1994 and was omitted from the spacing unit.

Administrative Order NSL-2873-B(SD), dated July 24, 2000, authorized the unorthodox well location and simultaneous dedication of the following well to the spacing and proration unit for the Jalmat Gas Pool:

The State A A\C 3 Well No. 14 (API No. 30-025-34682) located 660 feet from the South line and 1980 feet from the East line (Unit O).

The proposed well is necessary to facilitate the recovery of Jalmat gas reserves. Based on the geological discontinuity in the Jalmat the tighter spacing is anticipated to recover reserves, which cannot be recovered from existing wells. The well will be completed with modern completion and fracture stimulation techniques which will ensure optimal recovery from the discontinuous Yates/Seven Rivers sands. **Exhibit 1** is a Base Map showing recent Jalmat activity and the proposed well locations in Section 10. a Top of Structure Map which shows the proposed well locations in Section 10. **Exhibit 2** is a Top of Structure Map with Petrohawk's acreage position in Section 10 outlined.

**Exhibits 3 through 7** are cross-sections showing the Yates and Seven Rivers sands vary substantially from well to well in thickness and reservoir quality. Given the variability of the sands, net pay isopach maps have not proven to be useful and are not included. Detailed correlations with newer generation Density-Neutron logs in the Yates and Seven Rivers interval reveal the sands "come and go" and are not blanket



reservoirs. Sands that have not adequately produced in the area are expected in each new well bore.

Jalmat producers have been down-spaced on the Petrohawk acreage from 160 acres to 80 acres to 40-acre spacing in several phases since 1989. New gas production and reserves have always been encountered from these efforts, as shown on **Exhibit 8**. Petrohawk concludes that this area of Jalmat Field has such discontinuous sand reservoirs that infill drilling on 40-acre spacing is required to adequately drain the existing reserves.

The work of Raptor Resources, Inc. ("Raptor"), Mission Resources Corporation ("Mission") and Petrohawk was reviewed from April of 1999 through 2005. All of the new drills and re-completions (32) in Township 22 South, Range 36 East were studied to develop a type curve for the area. The monthly production data for each of these completions was normalized. The data was then averaged to produce a normalized production curve as shown on **Exhibit 9**. Detailed information for all the Mission/Petrohawk completion since Mission took over as operator in March 2004 are listed on **Exhibit 10**. The first month average initial rate for these projects is 149 mcf/d. Anticipated reserves per location were determined by using the average initial rate with the decline scenario developed from the type curve. The result of this analysis yields an Estimated Ultimate Recovery of 704 MMCFG.

Economic analysis was performed based on the average initial rates realized (See Exhibit 10) in the Mission/Petrohawk wells completed and using a normalized type curve (See Exhibit 9) designed by studying all completions from 1999 through 2005 on the Petrohawk acreage for the decline rate and hyperbolic exponent. **Exhibit 12** lists the details of the input and the results of the economics. The gas is extremely rich with an NGL yield of 136 bbls/mmcft. The processing plant takes 13% of the residue gas and NGL's. Gas shrinkage was based on plant statements. The gas price used in the analysis was \$6.00/mcf flat. No condensate was included in the run. The NGL price was 71% of the oil price (\$60/stb) and thus was \$42.60/bbl flat. This percentage was determined by comparing the actual prices received to NYMEX oil prices. The operating cost is the average per producing well cost in the field. Our operations group provided the CWC for both new drills and re-completes. The results of the analysis show a EUR of 704 MMCF. The new drill wells have an NPV @ 10% - 821 M\$, Rate of Return = 36%, payout in 40 months, and a return on investment ratio of 6.1. The re-completes have an NPV @ 10% = 1,039 M\$, Rate of Return = 65%, payout in 26 months, and a return on investment ratio of 9.3. In summary, either drilling or re-completing wells on 40-acres with the discontinuous nature of the sands is extremely economic.

**Exhibit 11** is the completion data and estimated EUR for the 40-acre locations around the proposed wells. In Unit Letter J of Section 10, the surrounding 40-acre wells have produced 6,203 MMCF and will make another 454 MMCF. The mechanical condition of Well No. 6 should allow re-entry of this plugged wellbore.



Many of the older wells had only small or no frac treatment and were not perforated or treated in a way to adequately contact every gas-bearing sand. In many cases, the Seven Rivers gas zones were not perforated at all. Petrohawk is using a combination of limited entry perforating and pumping much larger frac jobs (300K#) to ensure that the entire Jalmat interval is stimulated. The designed fracture half length is approximately 300 feet. Careful engineering of the frac job can then assure all potential sands are effectively drained.

Approval of this application will result in the efficient recovery of hydrocarbons, prevent waste and will not violate correlative rights.

**Exhibit 13** lists the parties affected by this application as defined by Rule 1210. **Exhibit 14** is a map displaying the offset operators around the spacing unit in Section 22. **Exhibit 15** is an affidavit confirming that notice of this application has been provided in accordance with the provisions of Rule 4(D) and Rule 1210(B) by providing a copy of this application, including all attachments, to the affected parties by certified mail-return receipt requested advising them that if they have an objection to this application it must be filed in writing with the Division's Santa Fe office within twenty (20) days after the filing of this application and proof of notice with the Division.

**Exhibit 16** is OCD Form C-102 depicting the proposed surface locations of the referenced wells.

Also enclosed is a proposed administrative order of the Division.

Sincerely,

A handwritten signature in black ink that reads "Ocean Munds-Dry".

Ocean Munds-Dry  
Attorney for Petrohawk Operating Company

Enclosures



June 23, 2006

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Re: Application of Petrohawk Operating Co. for administrative approval of infill gas wells and simultaneous dedication of the State "A" A/C 3 Well No. 6, 1980' FSL and 2310' FEL, S10-T23S-R36E, Jalmat Gas Pool, Lea County, New Mexico.

Dear Ladies and Gentlemen:

Enclosed is a copy of the above-referenced application which was filed with the New Mexico Oil Conservation Division on this date by Petrohawk Operating Company for administrative approval of infill gas wells and simultaneous dedication for its State "A" A/C 3 Well No. 6, 1980 feet from the South line and 2310 feet from the East line, Section 10, Township 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

Petrohawk seeks to dedicate this well to an existing 320-acre gas spacing unit comprising the E/2 of Section 10 which is currently dedicated to the State "A" A/C 3 Com "A" Well No. 1 (Unit A); State "A" A/C 3 Com "A" Well No. 2 (Unit I); the State "A" A/C 3 Com "A" Well No. 8 (Unit P); State "A" A/C 3 Com "A" Well No. 4 (Unit B); State "A" A/C 3 Com "A" Well No. 5 (Unit G); and the State A A\C 3 Well No. 14 (Unit O).

As an owner of an interest that may be affected by these proposed wells, you may object to this application. Objections must be filed in writing within twenty days from this date at the Division's Santa Fe office that is located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. If no objection is received within this twenty-day period, this application may be approved.

Sincerely,  
  
Ocean Munds-Dry  
Attorney for Petrohawk Operating Co.

Enclosures

**EXHIBIT 13**

**Affected Parties**

**State A A/C 3 Well No. 6  
Section 10, Township 23 South, Range 36 East, NMPM  
Lea County, New Mexico.**

Plantation Operating LLC  
2203 Timberwolf Suite 229  
The Woodlands, TX 77380

COG Operating LLC  
550 W. Texas Suite 1300  
Midland, TX 79701

Clayton Williams  
Six Desta Dr. Suite 3000  
Midland, TX 79705



Attention: Ms. Nancy Gatti

*Administrative Order - \_\_\_\_\_*

Dear Ms. Gatti:

Reference is made to your application dated June 23, 2006 for an infill gas well and simultaneous dedication for its State "A" A/C 3 Well No. 6, 1980 feet from the South line and 2310 feet from the East line, Section 10, Township 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

The proposed wells will be simultaneously dedicated to an existing 320-acre gas spacing unit comprising Section 10 which is currently dedicated to the State "A" A/C 3 Com "A" Well No. 1 (Unit A); State "A" A/C 3 Com "A" Well No. 2 (Unit I); the State "A" A/C 3 Com "A" Well No. 8 (Unit P); State "A" A/C 3 Com "A" Well No. 4 (Unit B); State "A" A/C 3 Com "A" Well No. 5 (Unit G); and the State A A\C 3 Well No. 14 (Unit O).

This application has been duly filed under the provisions of the "Special Pool Rules for the Jalmat Gas Pool," as promulgated by Division Order No. R-8170-P, issued in Case No. 12563 on December 14, 2001.

By authority granted me under the provisions of Rules 4(A), (B), and (D) of the special rules governing the Jalmat Gas Pool, the following described wells within this 600-acre spacing unit is hereby approved:

The State "A" A/C 3 Well No. 6, to be re-entered and re-completed 1980 feet from the South line and 2310 feet from the East line (Unit J).

Further, Petrohawk is hereby authorized to simultaneously dedicate Jalmat gas production from the above-described wells.

Sincerely,

Mark E. Fesmire, P.E.  
Director

cc: Oil Conservation Division - Hobbs/Artesia

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

State of New Mexico

Energy, Minerals & Natural Resources Department

Form C-102  
Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies  
Fee Lease - 3 Copies

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

OIL CONSERVATION DIVISION  
1220 South St. Frances Dr.  
Santa Fe, NM 87505

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

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-09302	Pool Code 79240	Pool Name JALMAT; TANSILL-YATES- 7 RIVERS (GAS)
Property Code 33493	Property Name STATE A A/C3	Well Number 006
OGRID No. 148381	Operator Name PETROHAWK OPERATING COMPANY	Elevation 3435

Surface Location

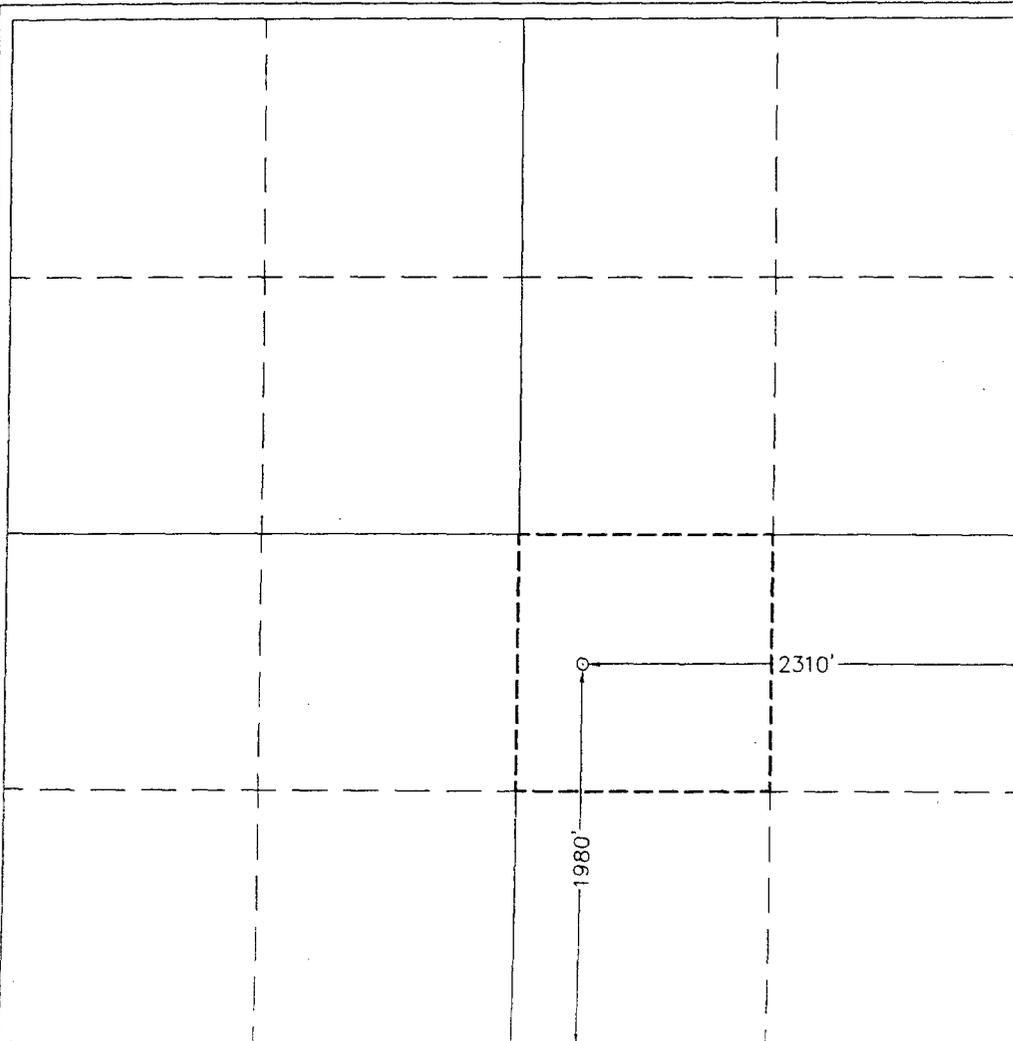
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	10	23 S	36 E		1980	SOUTH	2310	EAST	LEA

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
SAME									

Dedicated Acres 640	Joint or Infill INFILL	Consolidation Code	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



**OPERATOR CERTIFICATION**  
I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Nancy K. Gatti* 6-15-06  
Signature Date

NANCY K. GATTI  
Printed Name

**REGULATORY MANAGER**

**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.

Date of Survey  
Signature & Seal of Professional Surveyor

**EXHIBIT 15**

Certificate No.

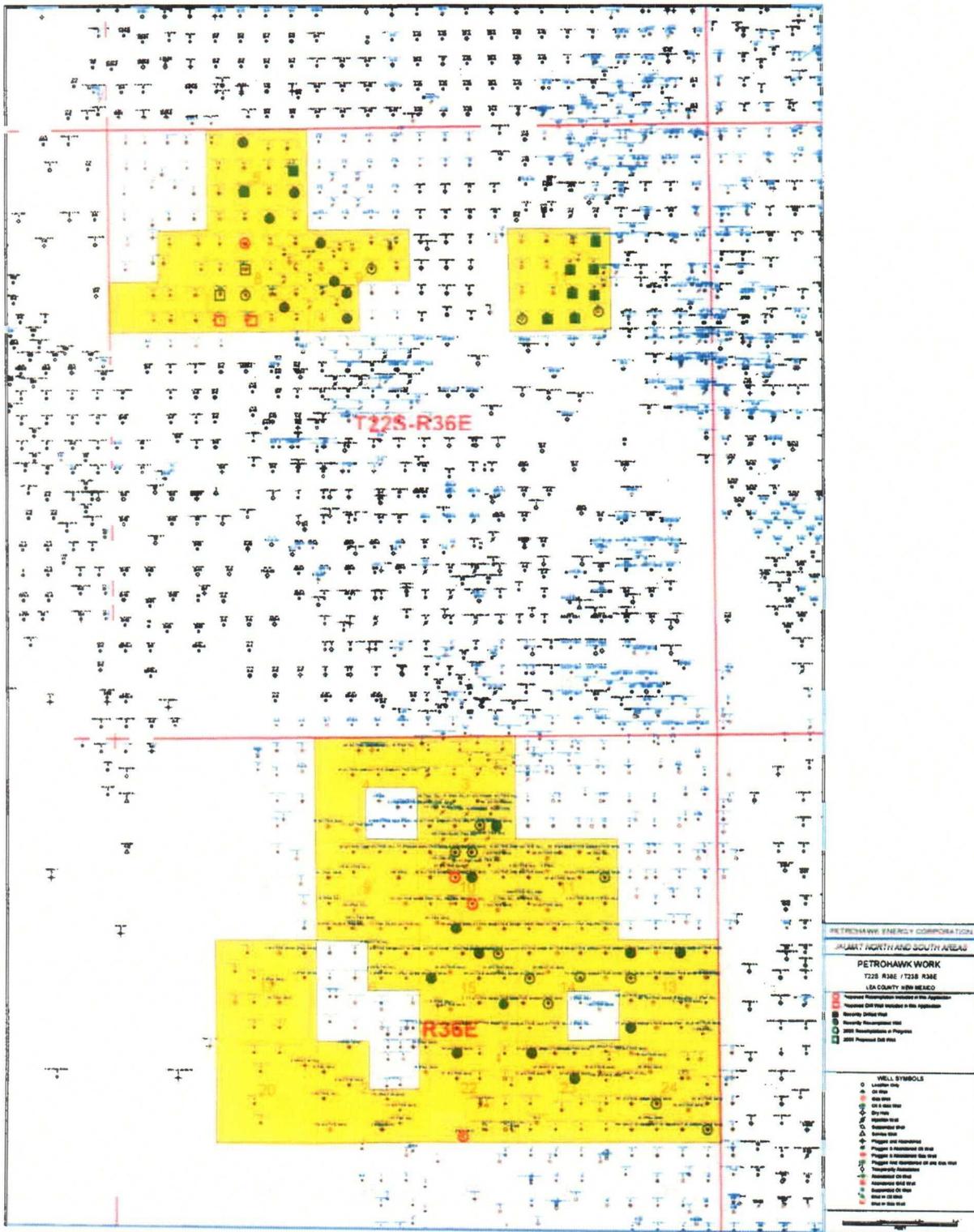


EXHIBIT 1

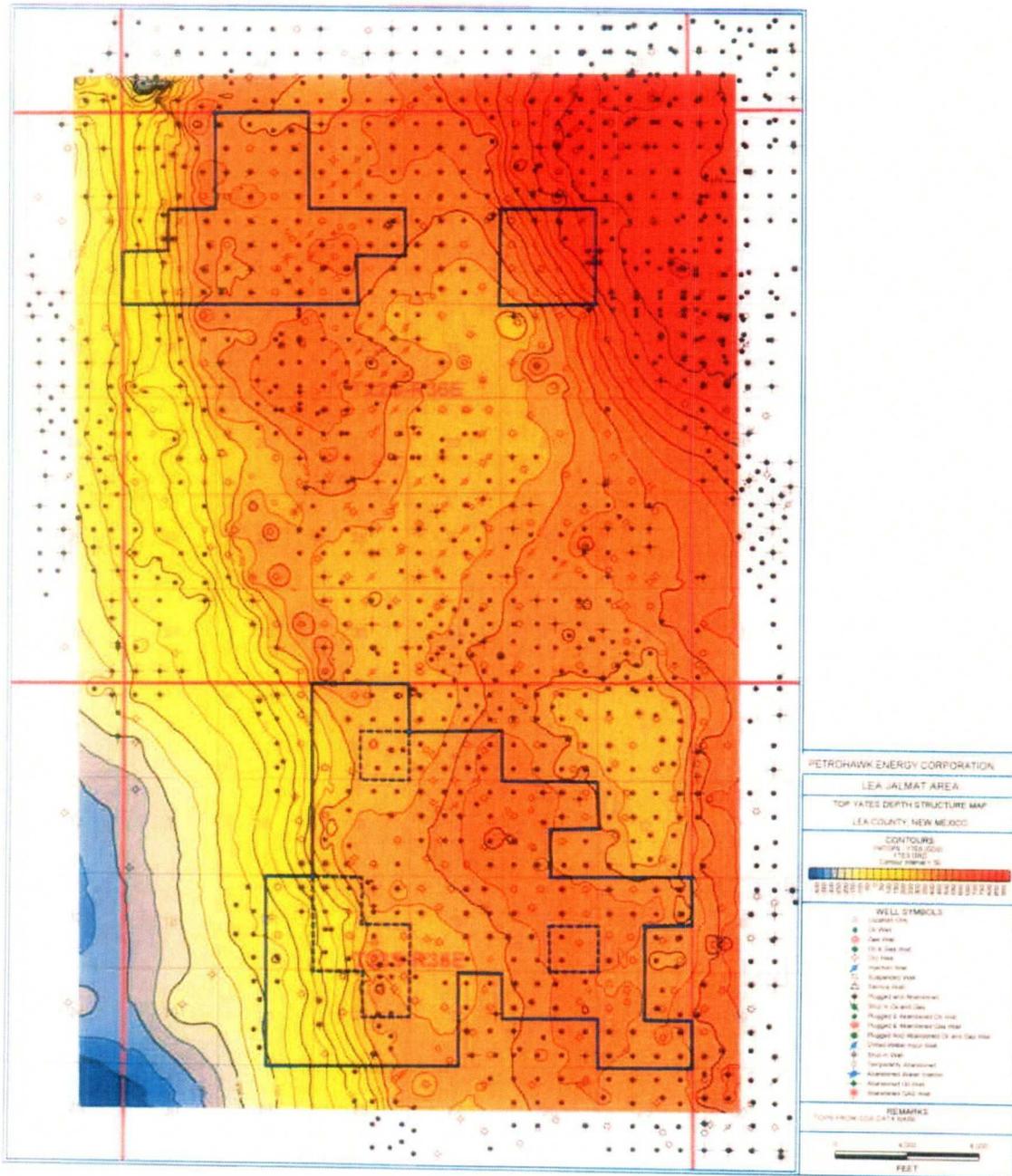
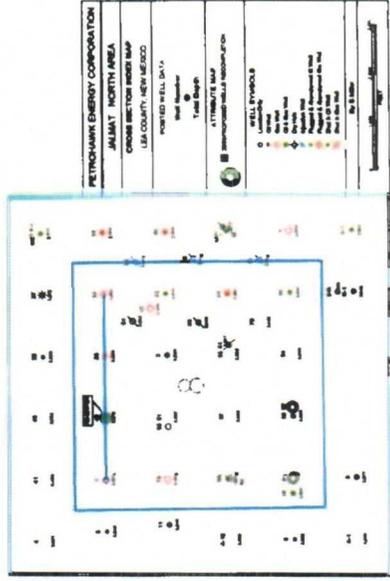
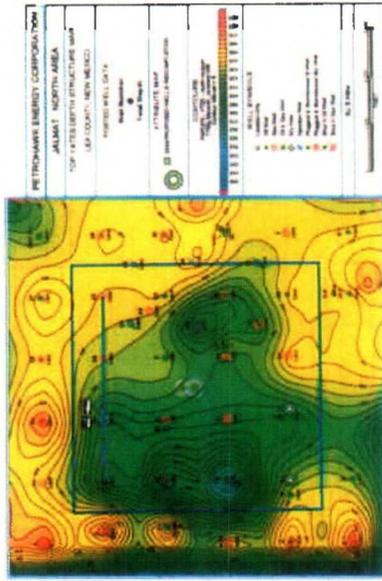
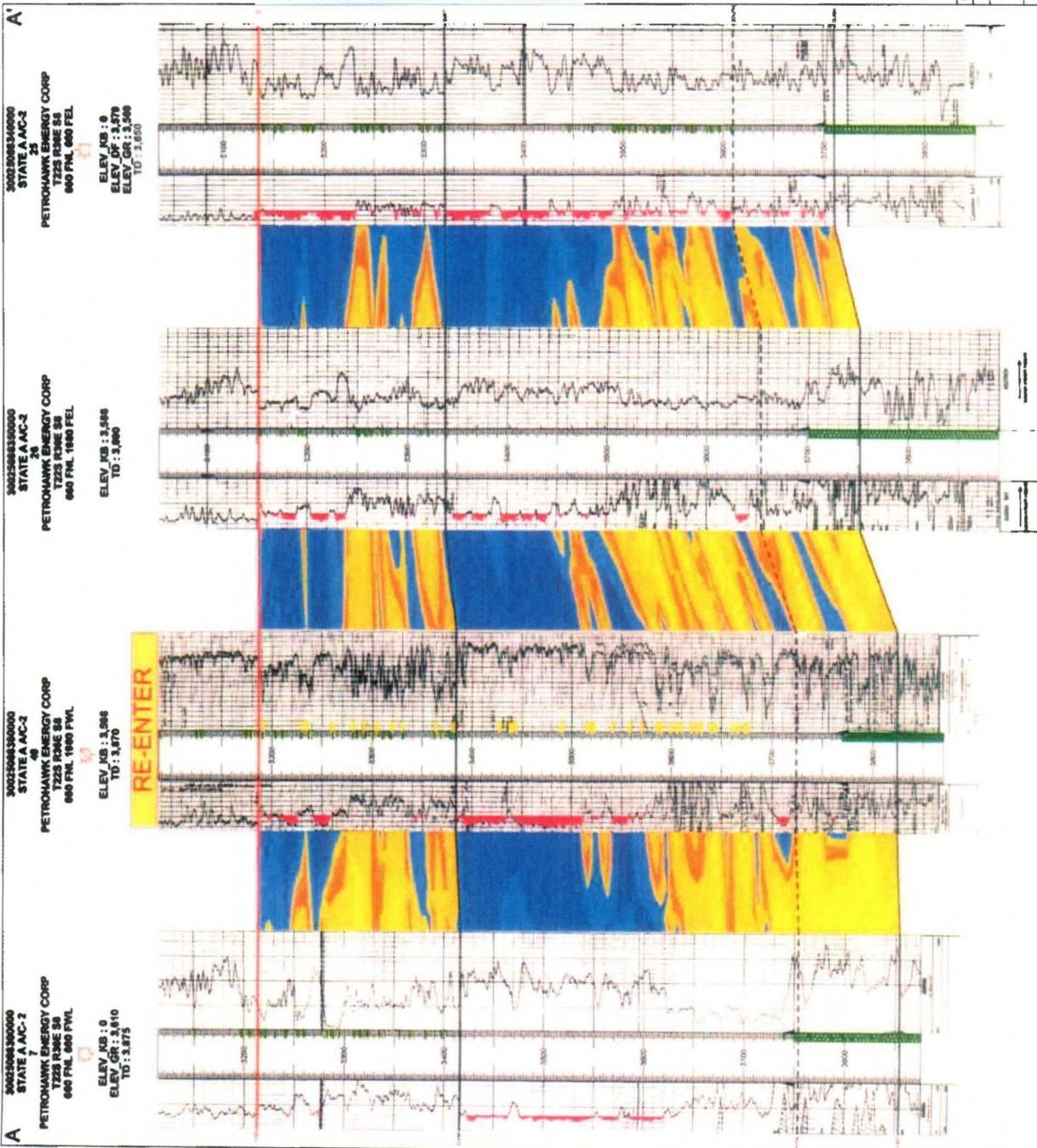


EXHIBIT 2



PETROMARK ENERGY CORPORATION
LEA JALMAT NORTH AREA
STRATIGRAPHIC CROSS SECTION A-A
T225 R34E S8 SECTION 4
LEA COUNTY, NEW MEXICO
Operator:
Project:
Well No.:
Well Ref. No.:
Well Name:
Well ID:
SECTION: 0001 - 0002
By: [Signature]

EXHIBIT 3

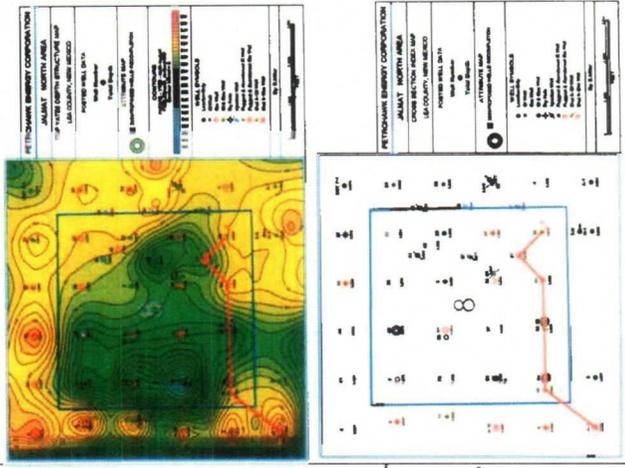
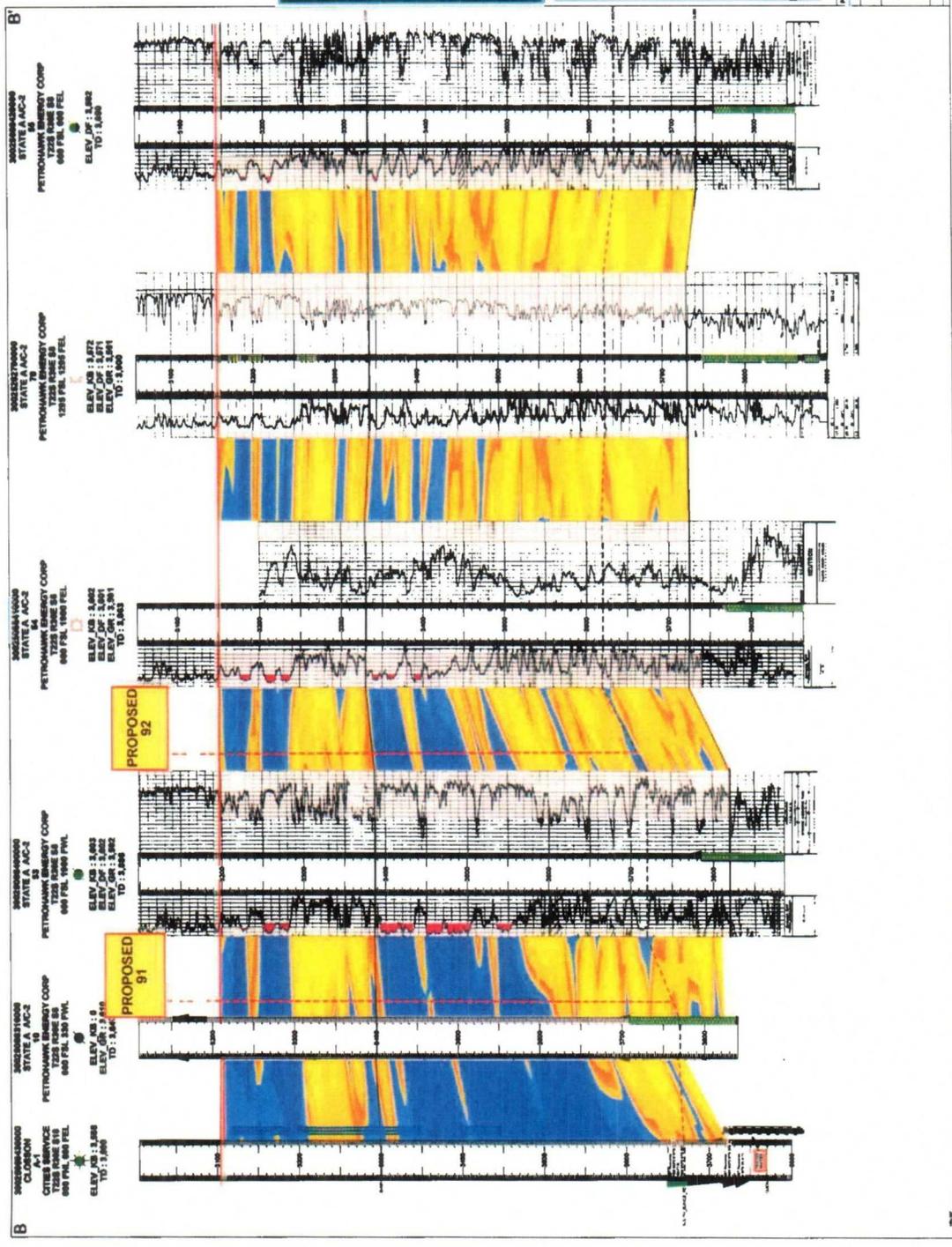


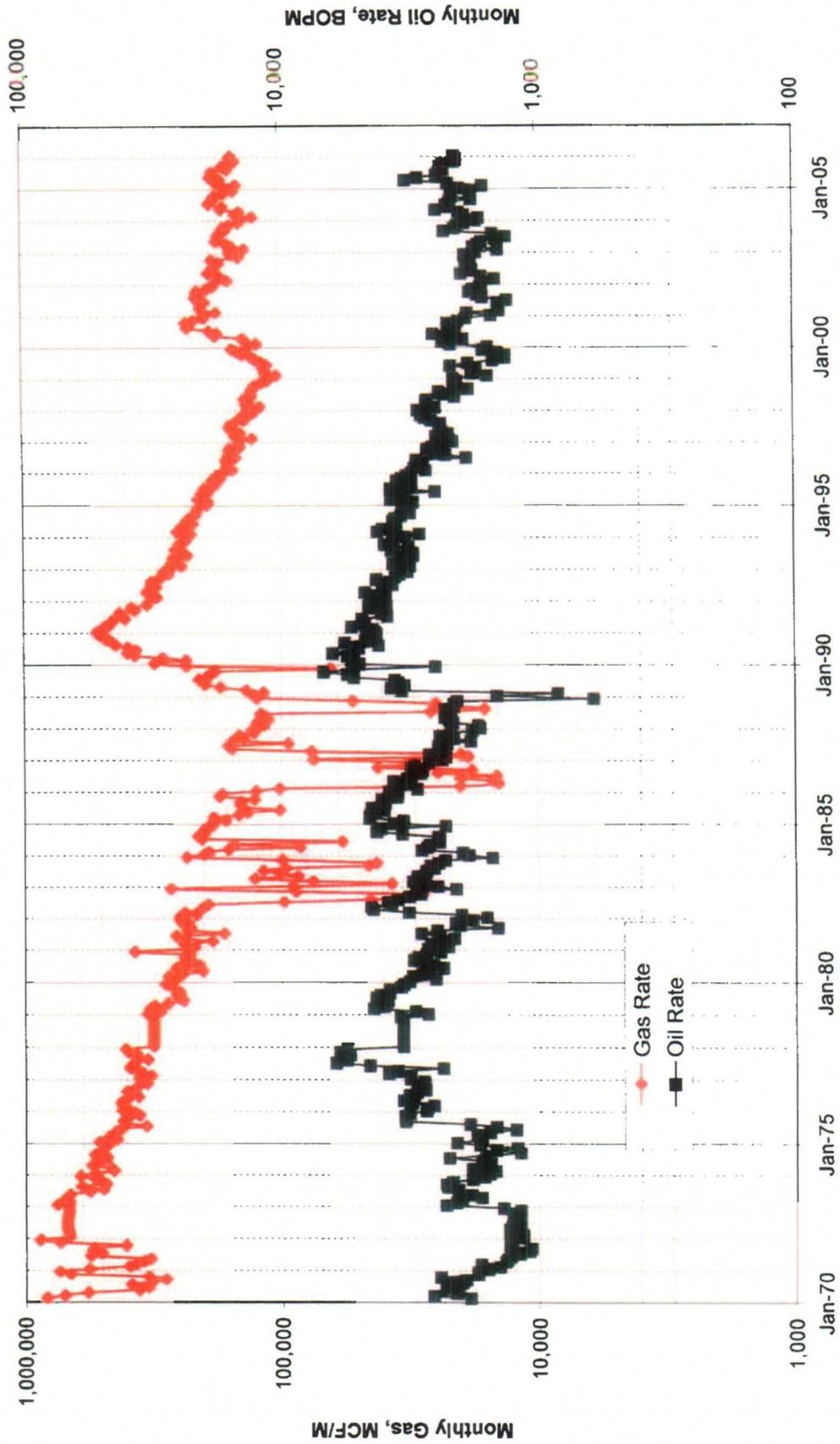
EXHIBIT 4







**Petrohawk Leases  
Jalmat Field  
Lea County, New Mexico**



002450 | Jaimat Normalized Type Curve Case | G8BKFS7BKA

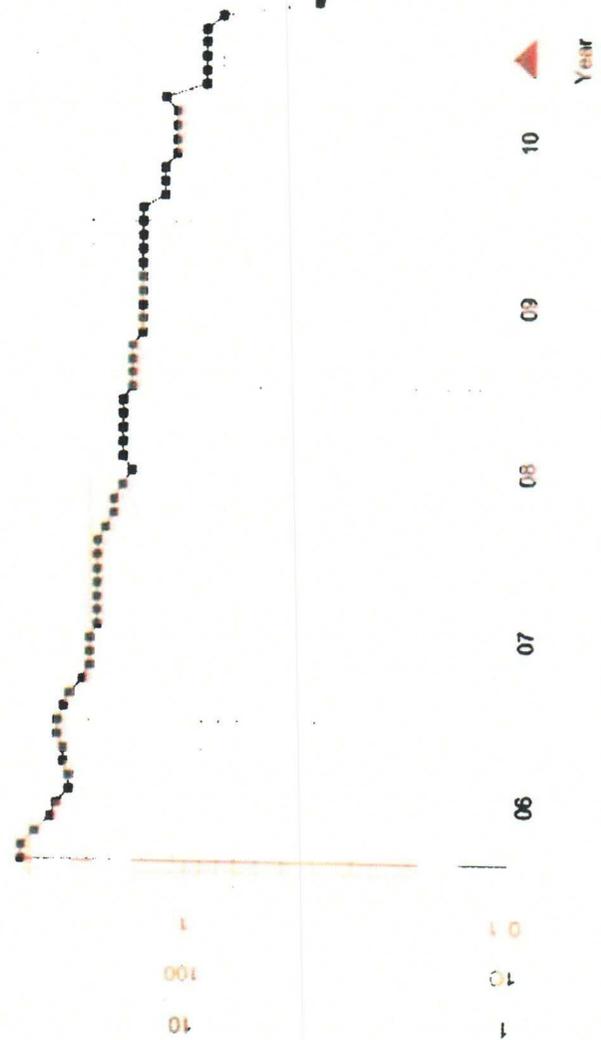
Gas\_300Days  
Daily Gas - mcd

Results	
Qual	OCD2005
Ref	2/1/2006
Act	0.000
Est	230.155
Qref	242.466
Qab	6.000
"b"	3.499500
De	40.030806
Dmin	4.000
Yrs	72.633
Rem	1005116
Cum	0
EUR	1005116

WELL COUNT  
Daily Oil - stbd  
Daily Gas - mcd



WELL COUNT  
Daily Oil - stbd  
Daily Gas - mcd



Jalmat Field - New Compls since Mission / Petrohawk became operator in 3/2004

Lease Name	Well	Location	API	Type	Oil or Gas	Field Name	Status	First Prod Date	Prod Zone Name	8/6ths Initial Rate		
										Oil (stb/d)	Gas (mcsf/d)	Wtr (stb/d)
MATKINS	2	151 23S 36E	30-025-10720	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	34	2
STATE AAC 1	57	13B 23S 36E	30-025-09344	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	81	0
STATE AAC 1	59	15E 23S 36E	30-025-10725	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	39	2
STATE AAC 1	65	23D 23S 36E	30-025-09394	Add pay & Frac	Gas	JALMAT	Producing	2005/02	TANSILL-YATES-SEVEN RIVERS	0	172	6
STATE AAC 1	66	13D 23S 36E	30-025-09346	Add pay & Frac	Gas	JALMAT	Producing	2005/04	TANSILL-YATES-SEVEN RIVERS	0	94	0
STATE AAC 1	69	3P 23S 36E	30-025-09229	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	158	0
STATE AAC 1	71	13M 23S 36E	30-025-09347	Add pay & Frac	Gas	JALMAT	Producing	2005/01	TANSILL-YATES-SEVEN RIVERS	0	205	1
STATE AAC 1	82	15B 23S 36E	30-025-10723	Add pay & Frac	Gas	JALMAT	Producing	2005/01	TANSILL-YATES-SEVEN RIVERS	0	305	0
STATE AAC 1	84	23G 23S 36E	30-025-09397	Add pay & Frac	Gas	JALMAT	Producing	2005/04	TANSILL-YATES-SEVEN RIVERS	0	176	0
STATE AAC 1	89	10N 23S 36E	30-025-09298	Add pay & Frac	Gas	JALMAT	Shut In	2005/03	TANSILL-YATES-SEVEN RIVERS	0	8	35
STATE AAC 1	94	22C 23S 36E	30-025-09384	Add pay & Frac	Gas	JALMAT	Producing	2005/01	TANSILL-YATES-SEVEN RIVERS	1	132	36
STATE AAC 2	1	9N 22S 36E	30-025-08849	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	68	0
STATE AAC 2	28	5I 22S 36E	30-025-08792	Add pay & Frac	Oil	JALMAT	Producing	2004/06	TANSILL-YATES-SEVEN RIVERS	1	324	1
STATE AAC 2	29	9D 22S 36E	30-025-08854	Add pay & Frac	Gas	JALMAT	Producing	2005/05	TANSILL-YATES-SEVEN RIVERS	0	162	0
STATE AAC 2	33	5O 22S 36E	30-025-08793	Add pay & Frac	Gas	JALMAT	Producing	2004/05	TANSILL-YATES-SEVEN RIVERS	1	266	6
STATE AAC 2	38	9K 22S 36E	30-025-08847	Add pay & Frac	Gas	JALMAT	Producing	2004/07	TANSILL-YATES-SEVEN RIVERS	0	119	0
STATE AAC 2	47	5C 22S 36E	30-025-08798	Add pay & Frac	Oil	JALMAT	Producing	2005/04	TANSILL-YATES-SEVEN RIVERS	28	137	0
STATE AAC 2	67	9K 22S 36E	30-025-28276	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	70	0
STATE AAC 2	70	8P 22S 36E	30-025-28279	Add pay & Frac	Gas	JALMAT	Producing	2004/08	TANSILL-YATES-SEVEN RIVERS	0	223	85
STATE AAC 2	81	5K 22S 36E	30-025-35868	New Drill	Gas	JALMAT	Producing	2004/04	TANSILL-YATES-SEVEN RIVERS	2	247	4
STATE AAC 2	82	11J 22S 36E	30-025-36836	New Drill	Gas	JALMAT	Producing	2005/05	TANSILL-YATES-SEVEN RIVERS	0	70	0
STATE AAC 2	83	11N 22S 36E	30-025-36910	New Drill	Gas	JALMAT	Producing	2005/05	TANSILL-YATES-SEVEN RIVERS	0	100	0
STATE AAC 2	84	11O 22S 36E	30-025-36935	New Drill	Gas	JALMAT	Producing	2005/04	TANSILL-YATES-SEVEN RIVERS	0	WO Compl	0
STATE AAC 2	85	11A 22S 36E	30-025-37563	New Drill	Gas	JALMAT	WO Compl	WO Compl	TANSILL-YATES-SEVEN RIVERS	0	243	0
STATE AAC 2	86	11G 22S 36E	30-025-37564	New Drill	Gas	JALMAT	Producing	2006/04	TANSILL-YATES-SEVEN RIVERS	Cleaning up after frac	0	0
STATE AAC 2	87	11H 22S 36E	30-025-37565	New Drill	Gas	JALMAT	WO Compl	2006/05	TANSILL-YATES-SEVEN RIVERS	0	316	0
STATE AAC 2	88	11I 22S 36E	30-025-37566	New Drill	Gas	JALMAT	Producing	2006/04	TANSILL-YATES-SEVEN RIVERS	0	0	0
STATE AAC 3	5	10G 23S 36E	30-025-09303	Add pay & Frac	Gas	JALMAT	Shut In	2005/03	TANSILL-YATES-SEVEN RIVERS	0	0	25
STATE 157 G	5	5H 22S 36E	30-025-37601	New Drill	Gas	JALMAT	WO Compl	WO Compl	TANSILL-YATES-SEVEN RIVERS	0	WO Compl	0

Avg Initial Rate:

1.49

OFFSET JALMAT WELLS FOR PROPOSED NEW WELL., (RE-ENTRY OF ACC 3 #6)											
SECTION: 10 SPOT: J T23S R36E											
JALMAT FIELD, LEA CO., NM											
Well #	Sec/spot	Comp date	Zones	Pay interval	Treatment	Y-7R Cum MMCF	Y-7R Cur rate MCFD	Status	Y-7R EUR		
<b>40-acre offsets, Sec 10:</b>											
AAC1 #86	10F	Apr-60	Queen	3660-3696	10 K# SD	0	0	T&A 12/93	0		
			7R	Proposed Recompletion		0	0		704		
ACC3 #5	10G	May-60	Queen	3502-3698	10K# SD	0	0	T & A 9/90	0		
		Sep-90	Y-7R	3024-3457	74 K# SD	78	0	SI	78		
		Mar-05	Y-7R	2941-3326	282 K# SD	0	0	SI	0		
ACC3 #7	10H	Sep-62	Queen	3466-3731	45K# SD	0	0	SI	0		
ACC3 #2	10I	Jul-53	Y-7R	2847-3170	Natural	5313	57	Active	5767		
ACC3 #3	10I	May-59	Queen	3653-77	10K# SD	0	0	T&A 6/92	0		
ACC3 #6	10J	Aug-60	Queen	3456-3602	40K# SD	0	0	P&A 12/94	0		
		Oct-90	Y	2954-3065	219K# SD	0	0	P&A 12/94	0		
			7R	To be re-entered		0	0		704		
ACC1 #88	10K	May-60	Queen	3625-78	10K# SD	0	0	T&A 3/89	0		
		Mar-89	Y-7R	3016-3568	156 K# SD	0	0	SI	0		
Gazelle #1	10K	Mar-98	Abo	None	None	0	0	P&A 8/98	0		
ACC1 #89	10N	Jun-60	Queen	3655-85	10K# SD	0	0	T & A 11/89	0		
		Nov-89	Y-7R	2885-3150	135 K# SD	448	0	SI	448		
		Jan-05	Y-7R	3208-3510	301 K# SD	1	0	SI	1		
ACC3 #8	10P	Feb-64	Queen	3452-3673	40K# SD	0	0	T & A 12/89	0		
		Dec-89	Y-7R	2957-3056	120 K# SD	363	0	SI	363		

**Jalmat - New Drill & Recomplete - Economics Summary Table**

**Input:**

**WI = 100 %**      **RI = 82.5%**  
**Prod Start Date = Drill Date + 1 mth**  
**Initial Rate = 149 mcf/d + 0 bopd**  
**di = 40%**  
**n = 3.5**  
**NGL Yield = 136 bbbls/mmcft**  
**1-Gas Shrinkage = 59%**  
**Plant Takes = 13% of residue gas & ngls**  
**Gas Price = \$6.00/mcf flat**  
**Oil Price = \$60/stb flat**  
**NGL Price = \$42.60/stb flat**  
**OP Cost = \$1264/well/mth**  
**CWC = 650 M\$ (New Drill)    CWC = 425 M\$ (Recomplete)**

(from avg of Mission/Petrohawk activity)  
 (from normalized type curve)  
 (from normalized type curve)  
 (from plant statements)  
 (from plant statements)  
 (contract with plant)  
 (no oil in economics)  
 (71% of Oil)  
 (actuals from los statement)

**Results:**

<b>8/8ths Reserves:</b>	<u>New Drill</u>	<u>Recompl</u>
<b>NPV @ 10%:</b>	704 MMCFG	704 MMCFG
<b>ROR:</b>	821 M\$	1039 M\$
<b>Payout:</b>	36%	65%
<b>ROI:</b>	40 mths	26 mths
	6.1	9.3

**EXHIBIT 13**

**Affected Parties**

**State A A/C 3 Well No. 6  
Section 10, Township 23 South, Range 36 East, NMPM  
Lea County, New Mexico.**

Plantation Operating LLC  
2203 Timberwolf Suite 229  
The Woodlands, TX 77380

COG Operating LLC  
550 W. Texas Suite 1300  
Midland, TX 79701

Clayton Williams  
Six Desta Dr. Suite 3000  
Midland, TX 79705

PROPOSED WELLS IN SECTION 10-23S-36E

4

3

2



PH = Petrohawk  
 PLANT = Plantation



DISTRICT I  
1825 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

Form C-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
1220 South St. Frances Dr.  
Santa Fe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-09302	Pool Code 79240	Pool Name JALMAT; TANSILL-YATES- 7 RIVERS (GAS)
Property Code 33493	Property Name STATE A A/C3	Well Number 006
OGRID No. 148381	Operator Name PETROHAWK OPERATING COMPANY	Elevation 3435

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	10	23 S	36 E		1980	SOUTH	2310	EAST	LEA

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
SAME									

Dedicated Acres 640	Joint or Infill INFILL	Consolidation Code	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

*State "A" A/C-3 Com. "A"*  
*Well No. 4*  
*30-025-09300*  
*660' FSL - 2310' FSL*  
*NSL - 2873-A*

*State "A" A/C-3 Com. "A"*  
*Well No. 5*  
*30-025-09303*  
*1980' FSL - 2310' FSL*  
*NSL - 2873-A*

*State "A" A/C-3 Com. "A"*  
*Well No. 6*  
*30-025-09289*  
*990' FSL*  
*R-9073*

*State "A" A/C-3 Com. "A"*  
*Well No. 7*  
*30-025-09289*  
*1650' FSL - 990' FSL*  
*R-9073*

*State "A" A/C-3 Com. "A"*  
*Well No. 8*  
*30-025-20245*  
*660' FSL*  
*NSL - 2873*

*320-acre non-standard JALMAT Gas Spacing Unit R-9073 Approved by R-9073 (Petrohawk)*

*Sublease State "A" A/C-3*

**OPERATOR CERTIFICATION**  
I hereby certify the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Nancy K. Gatti*  
Signature Date 6-15-06  
NANCY K. GATTI  
Printed Name

**REGULATORY MANAGER**

**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.

Date of Survey  
Signature & Seal of Professional Surveyor

**EXHIBIT 16**

Certificate No.