

Petroleum

DATE IN 6/21/06	SUSPENSE 7-11-06	ENGINEER MIKE STOGNER	LOGGED IN 6/21/06	TYPE SD	APP NO. PTD50617259331
-----------------	------------------	-----------------------	-------------------	---------	------------------------

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.

Ocean Munds Dry Ocean Munds Dry Attorney 6-21-06
Print or Type Name Signature Title Date
omundsdy@hollardhart.com
e-mail Address

2006 JUN 21 PM 2 50



June 21, 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 infill gas wells and simultaneous dedication of State "A" A/C 2 Well No. 91, 660' FSL and 660' FWL, State "A" A/C 2 Well No. 92, 660' FSL and 2180' FWL, and State "A" A/C 2 Well No. 49, 660' FNL and 1980' FWL, S8-T22S-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 600-acre spacing and proration unit originally approved by Order No. R-9073, dated December 14, 1989, as amended by Order NSP-1878 (SD), dated October 19, 2004.

Petrohawk seeks approval of the following wells in Section 8, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico:

The State "A" A/C 2 Well No. 91 to be drilled at a standard location 660 feet from the South line and 660 feet from the West line (Unit M);

The State "A" A/C 2 Well No. 92 to be drilled 660 feet from the South line and 2180 feet from the West line (Unit N); and

The State "A" A/C 2 Well No. 49 to be re-entered 660 feet from the North line and 1980 feet from the West line (Unit C).

30-025-
D 8838

Holland & Hart LLP

Phone [505] 988-4421 Fax [505] 983-6043 www.hollandhart.com

110 North Guadalupe Suite 1 Santa Fe, NM 87501 Mailing Address P.O. Box 2208 Santa Fe, NM 87504-2208

Aspen Billings Boise Boulder Cheyenne Colorado Springs Denver Denver Tech Center Jackson Hole Salt Lake City Santa Fe Washington, D.C. ♻



The proposed wells would be drilled within an existing 600-acre gas spacing unit comprised of Section 8. Therefore, Petrohawk also seeks approval to simultaneously dedicate these wells to this spacing unit.

Administrative Order NSL-2816-E (SD), dated January 24, 2002, authorized the simultaneous dedication of the following nine wells to a standard 640-acre gas spacing and proration unit for the Jalmat Gas Pool:

State "A" A/C 2 Well No. 3 (API No. 30-025-08829) located 1980 feet from the North line and East lines (Unit G);

State "A" A/C 2 Well No. 7 (API No. 30-025-08830) located 660 feet from the North and West lines (Unit D) which was re-classified a Jalmat oil well and was omitted from the standard 640-acre gas spacing unit by Order NSP1878 (SD);

State "A" A/C 2 Well No. 24 (API No. 30-025-08833) located 1980 feet from the South line and 660 feet from the East line (Unit I);

State "A" A/C 2 Well No. 25 (API No. 30-025-08835) located 660 feet from the North and East lines (Unit A);

State "A" A/C 2 Well No. 26 (API No. 30-025-08835) located 660 feet from the North line and 1980 feet from the East line (Unit B);

State "A" A/C 2 Well No. 43 (API No. 30-025-08837) located 1650 feet from the North line and 990 feet from the West line (Unit H);

State "A" A/C 2 Well No. 54 (API No. 30-025-08841) located 660 feet from the South line and 1980 feet from the East line (Unit O);

State "A" A/C 2 Well No. 70 (API No. 30-025-28279) located at an unorthodox location 1295 feet from the South and East lines (Unit P) which was approved by Administrative Order NSL-2816-B (SD); and

State "A" A/C 2 Well No. 76 (API No. 30-025-34672) located 1980 feet from the North line and 660 feet from the West line (Unit E).

Administrative Order SD-06-13, dated May 30, 2006, authorized the simultaneous dedication of the following two wells to the spacing and proration unit (which was

HOLLAND & HART^{LLP}



amended to be a 600-acre spacing unit in Administrative Order NSP-1878 (SD), dated October 19, 2004) for the Jalmat Gas Pool:

The State A A/C 2 Well No. 95 (API No. 30-025-37910) located ~~1980~~ ¹⁹³⁰ feet from the North line and 1780 feet from the West line (Unit F); and ^{OIC} ~~30-025-37909~~

The State A A/C 2 Well No. 94 (API No. 30-025-37909) located 1930 feet from the South line and 660 feet from the West line (Unit L).

The proposed wells are 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 wells 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 8. Exhibit 2 is a Top of Structure Map with Petrohawk's acreage position in Section 8 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 mcfd. 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 14** lists the details of the input and the results of the economics. The gas is extremely rich with an NGL yield of 136 bbls/MMCF. 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.

Exhibits 11 through 13 are the completion data and estimated EUR for the 40-acre locations around the proposed wells. In Unit Letter C of Section 8, the surrounding 40-acre wells have produced 7,923 MMCF, and will make another 712 MMCF. The three P&A'd wellbores (Nos. 49, 41, and 51), were abandoned with only a portion of the productive sands treated with small fracs. The mechanical condition of Well No. 49 should allow re-entry of this plugged wellbore. In Unit Letter M of Section 8, the surrounding 40-acre wells have produced 14,475 MMCF and will make another 77 MMCF. The three P&A'd and T&A'd wellbores (Nos. 37, 12 and 8) were abandoned with only a portion of the productive sands treated with small or no fracs. The mechanical condition of Well No. 10 requires one new well to be drilled - Well No. 91. In Unit Letter N of Section 8, the surrounding 40-acre wells have produced 4,540 MMC and will make another 83 MMCF. The two P&A'd and T&A'd wellbores (Nos. 56 and 37) were abandoned with only a portion of the productive sands treated with small fracs. The mechanical condition of Well No. 53 requires one new well to be drilled - Well No. 92.

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. **Exhibits 11 through 13** show that seven of the offsets in Section 8 had fracture treatments exceeding 100,000 # of sand - all but one completed after 1999. The older wells, if they were frac'd, had fracs of only 20,000 to 60,000 # of sand. 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. Petrohawk believes it is economically better to drill a new well wherever the old casing integrity is

HOLLAND & HART^{LLP}



questionable, so that a modern frac job can be done. 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 15 lists the parties affected by this application as defined by Rule 1210. **Exhibit 16** is a map displaying the offset operators around Section 8. **Exhibit 17** 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.

Exhibits 18 through 20 are OCD Forms C-102 depicting the proposed surface locations of the referenced wells.

Also enclosed is a proposed administrative order of the Division.

Sincerely,

Ocean Munds-Dry
Attorney for Petrohawk Operating Company

Enclosures

Attention: Ms. Nancy Gatti

Administrative Order - _____

Dear Ms. Gatti:

Reference is made to your application dated June 20, 2006 for infill gas wells and simultaneous dedication for its proposed State "A" A/C 2 Well No. 91, 660 FSL and 660' FWL, State "A" A/C 2 Well No. 92, 660' FSL and 2180' FWL, and State "A" A/C 2 Well No. 49, 660' FNL and 1980' FWL, S8-T22S-R36E, Jalmat Gas Pool, Lea County, New Mexico.

The proposed wells will be simultaneously dedicated to an existing 600-acre gas spacing unit comprising Section 8 which is currently dedicated to the State "A" A/C 2 Well No. 3 (Unit G); the State "A" A/C 2 Well No. 24 (Unit I); State "A" A/C 2 Well No. 25 (Unit A); State "A" A/C 2 Well No. 26 (Unit B); State "A" A/C 2 Well No. 43 (Unit H); State "A" A/C 2 Well No. 54 (Unit O); State "A" A/C 2 Well No. 70 (Unit P); State "A" A/C 2 Well No. 76 (Unit E); the State "A" A/C 2 Well No. 94 (Unit L); and the State "A" A/C 2 Well No. 95 (Unit F).

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 2 Well No. 91 to be drilled at a standard location 660 feet from the South line and 660 feet from the West line (Unit M);

The State "A" A/C 2 Well No. 92 to be drilled 660 feet from the South line and 2180 feet from the West line (Unit N); and

The State "A" A/C 2 Well No. 49 to be re-entered 660 feet from the North line and 1980 feet from the West line (Unit C).

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



June 21, 2006

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Application of Petrohawk Operating Co. for administrative approval of infill gas wells and simultaneous dedication of State "A" A/C 2 Well No. 91, 660 FSL and 660' FWL, State "A" A/C 2 Well No. 92, 660' FSL and 2180' FWL, and State "A" A/C 2 Well No. 49, 660' FNL and 1980' FWL, S8-T22S-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 proposed State "A" A/C 2 Well No. 91 to be drilled at a standard location 660 feet from the South line and 660 feet from the West line (Unit M) and the State "A" A/C 2 Well No. 92 to be drilled 660 feet from the South line and 2180 feet from the West line (Unit N), and the State A A/C 2 Well No. 49 to be re-entered at a location 660 feet from the North line and 1980 feet from the West line in Section 8, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico. Petrohawk seeks to dedicate these wells to an existing 600-acre gas spacing unit comprising Section 8 which is currently dedicated to the State "A" A/C 2 Well No. 3 (Unit G); the State "A" A/C 2 Well No. 24 (Unit I); State "A" A/C 2 Well No. 25 (Unit A); State "A" A/C 2 Well No. 26 (Unit B); State "A" A/C 2 Well No. 43 (Unit H); State "A" A/C 2 Well No. 54 (Unit O); State "A" A/C 2 Well No. 70 (Unit P); the State "A" A/C 2 Well No. 76 (Unit E); the State "A" A/C 2 Well No. 94 (Unit L); and the State "A" A/C 2 Well No. 95 (Unit F).

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

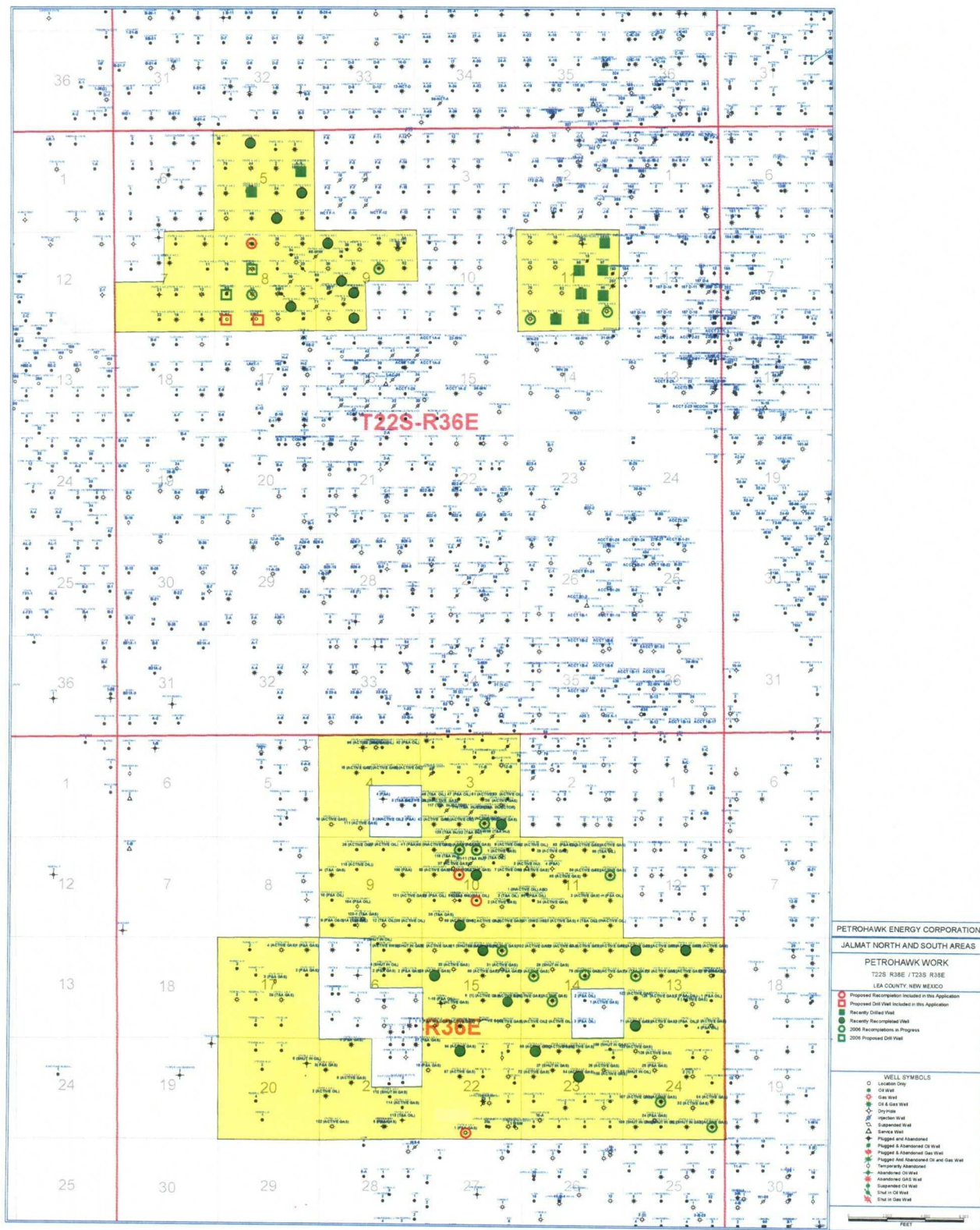


EXHIBIT 1

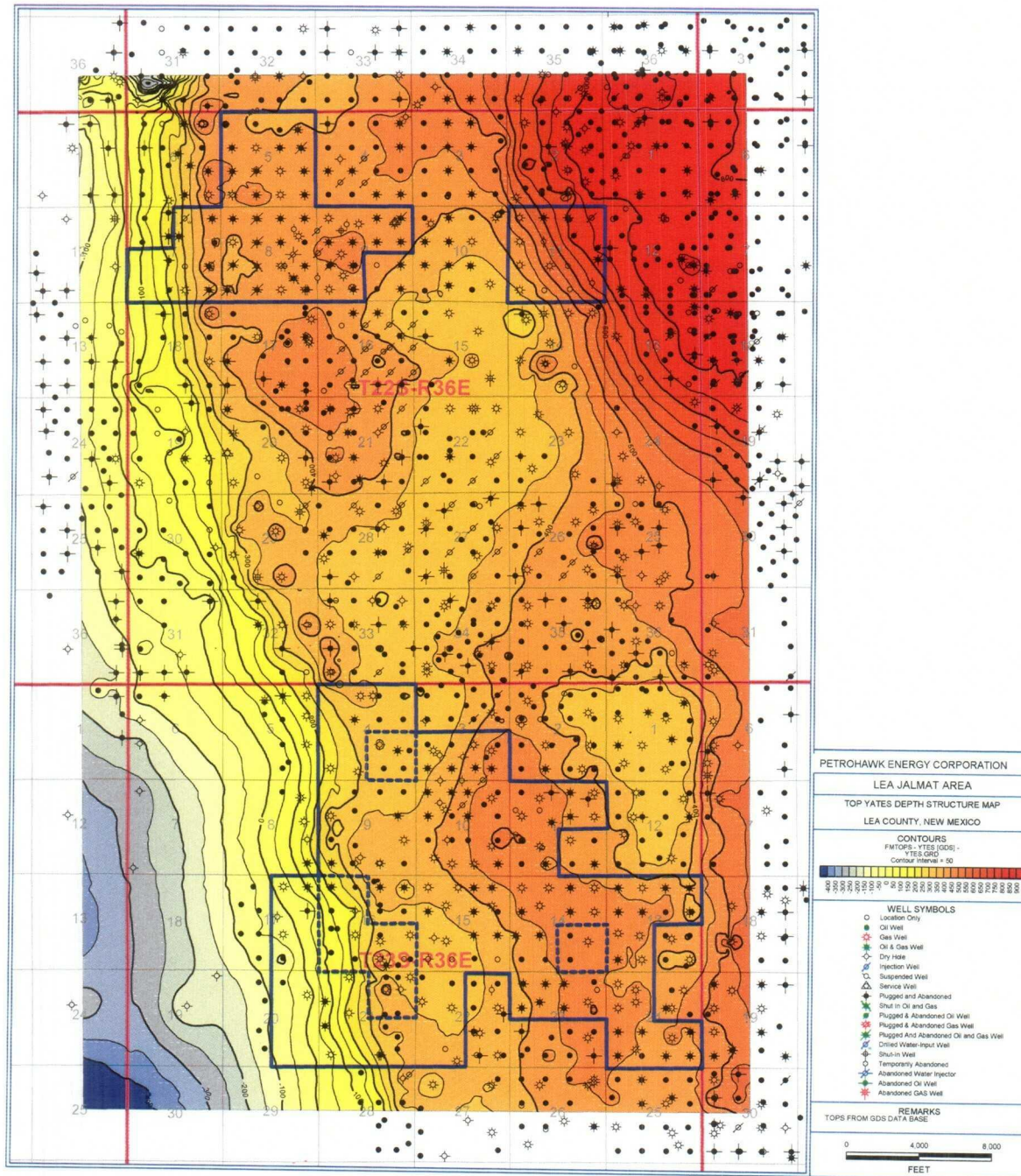
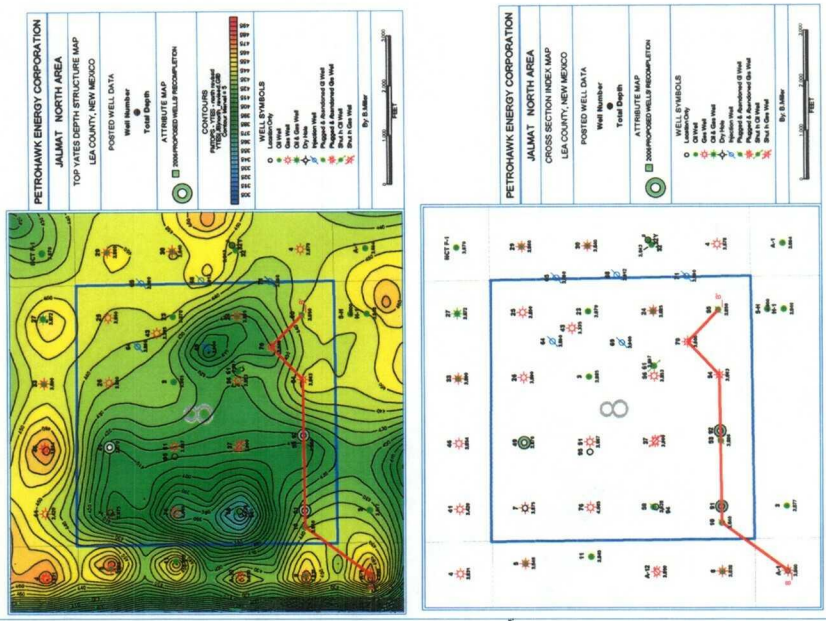
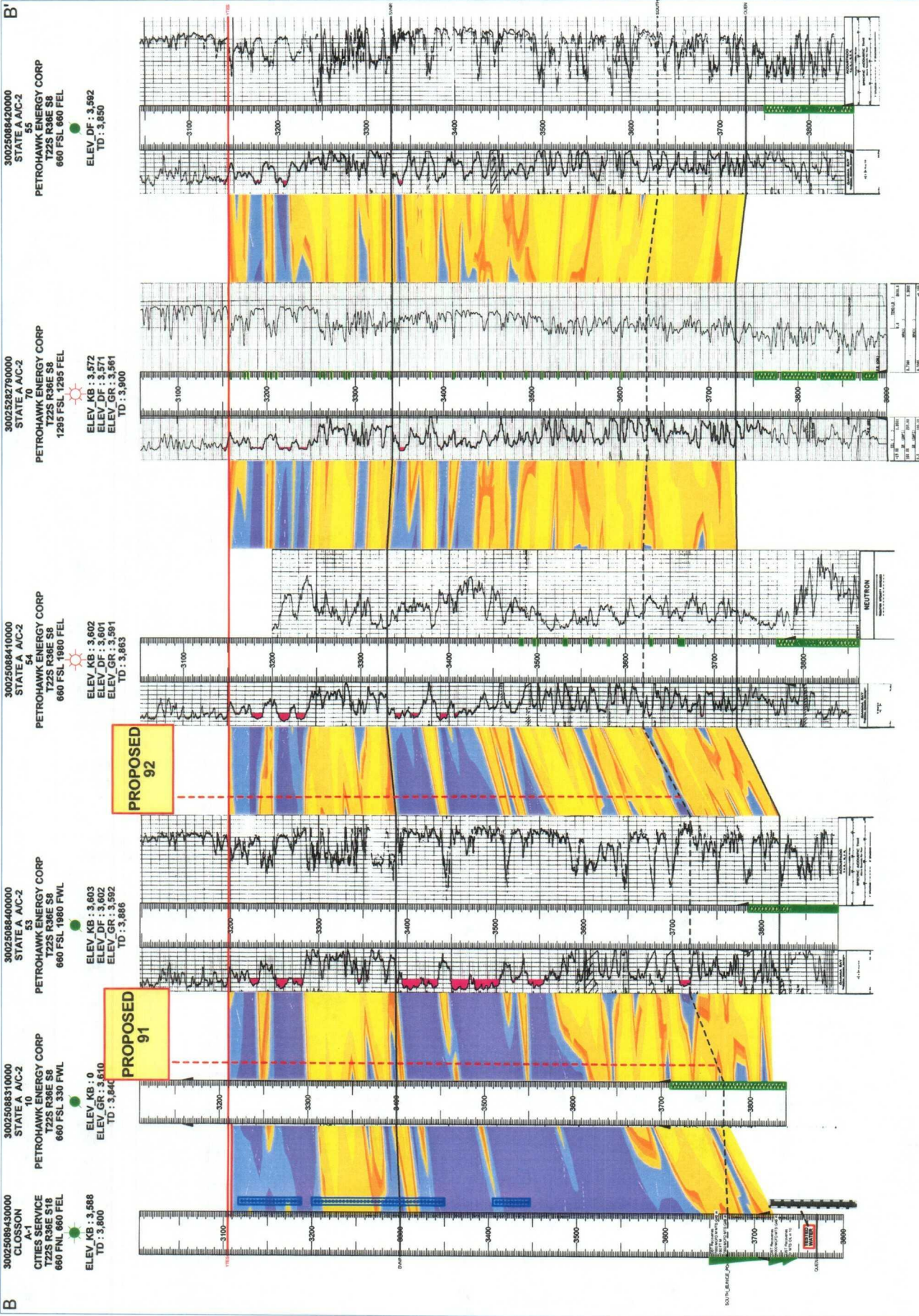


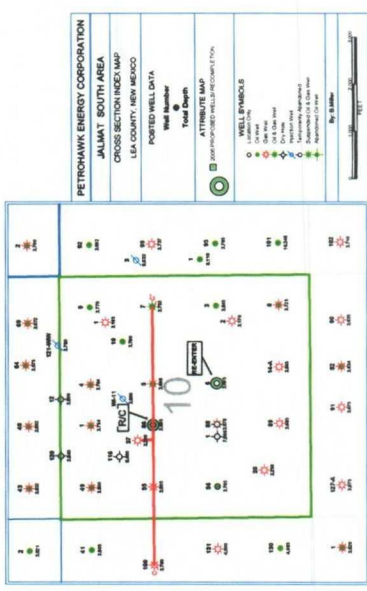
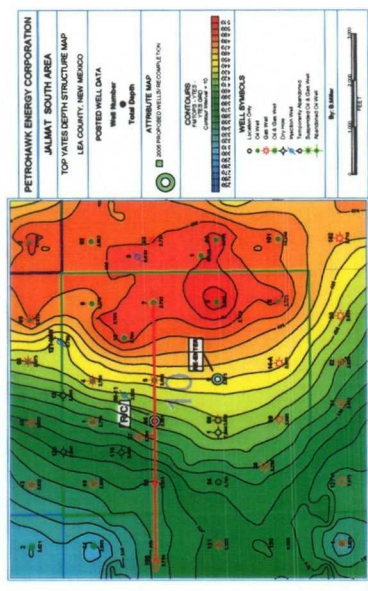
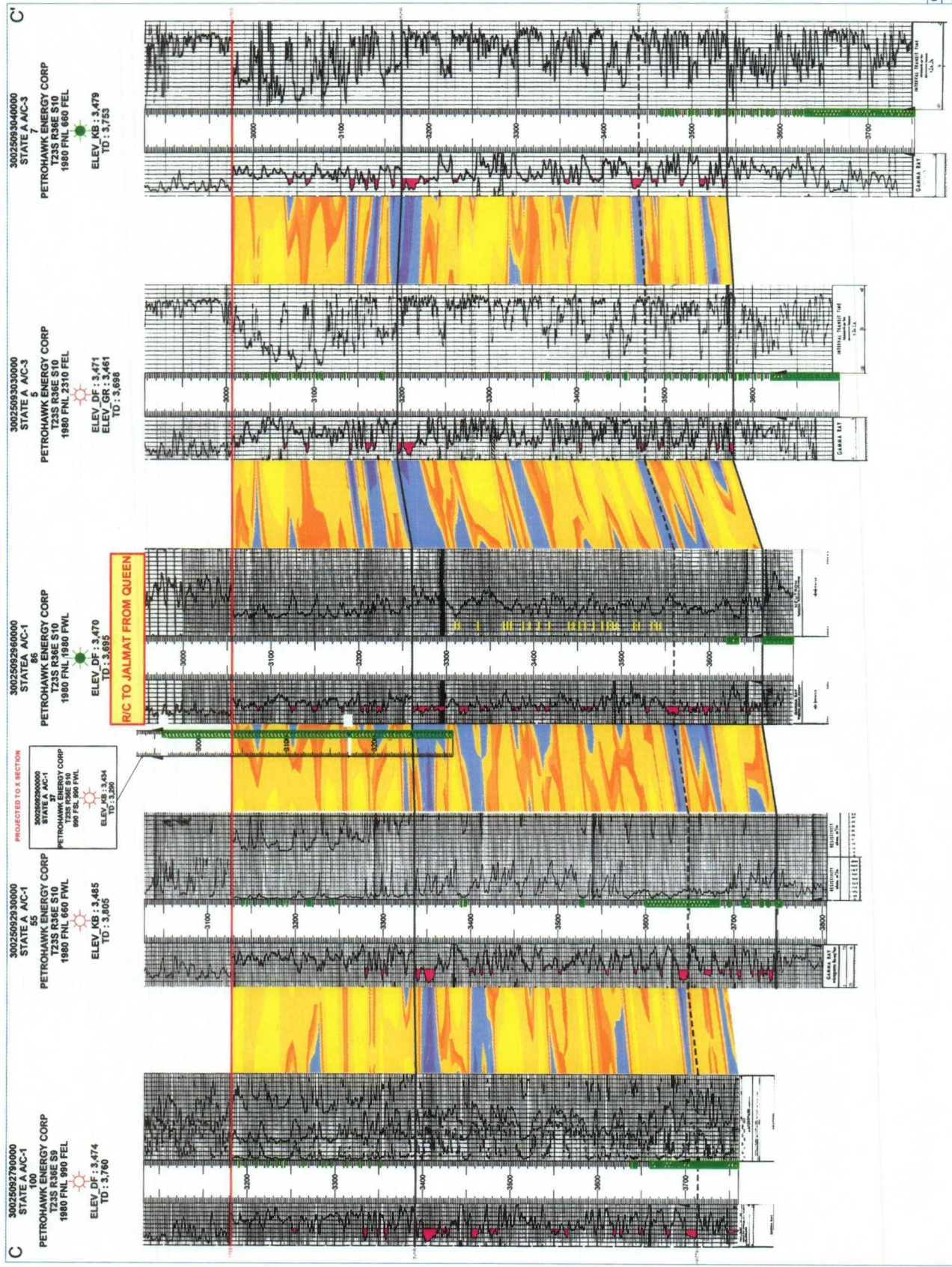
EXHIBIT 2





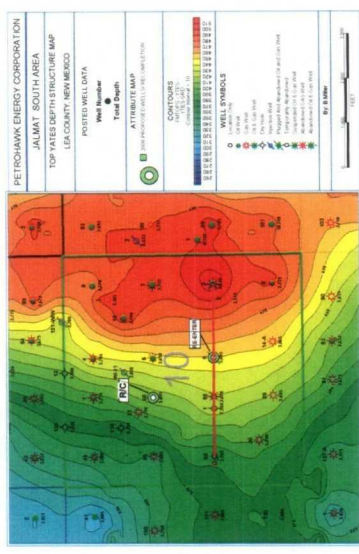
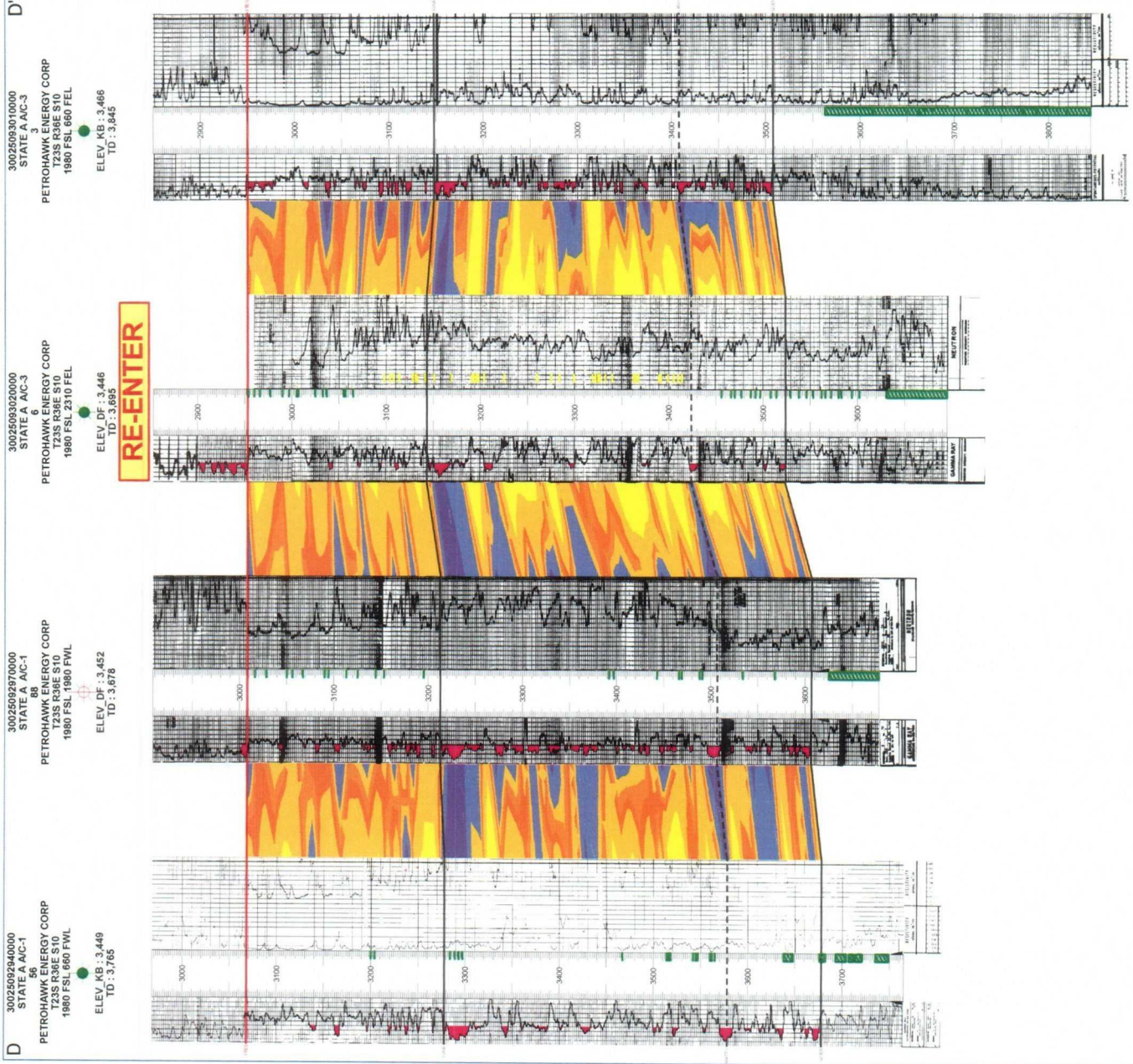
PETROHAWK ENERGY CORP
LEA JALMAT NORTH AREA
CROSS SECTION INDEX MAP
LEA COUNTY, NEW MEXICO
DATE: 10/10/2012
TIME: 10:10:12
USER: JALMAT
PROJECT: JALMAT
WELL: 3002508420000
WELL ID: 3002508420000
WELL NAME: JALMAT
WELL TYPE: JALMAT
WELL STATUS: JALMAT
WELL DEPTH: JALMAT
WELL ELEVATION: JALMAT
WELL ELEVATION AT HEAD: JALMAT
WELL ELEVATION AT TAIL: JALMAT
WELL ELEVATION AT HEAD: JALMAT
WELL ELEVATION AT TAIL: JALMAT

EXHIBIT 4

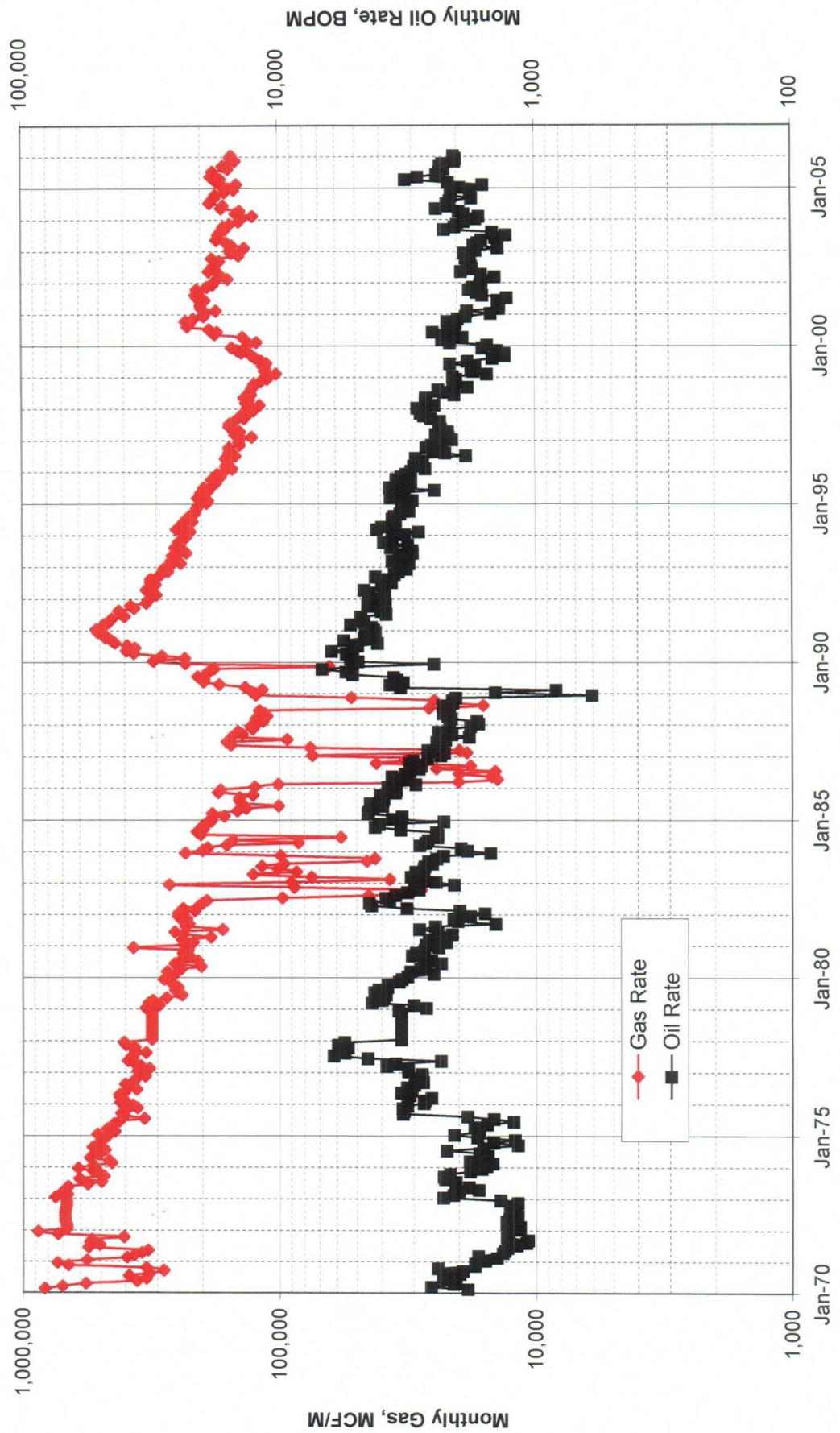


PETROHAWK ENERGY CORP	
LEA, JALMAT "SOUTH AREA"	
2 1/2" X 3 1/2" (10" X 14")	
THIS MAP IS A REPRODUCTION OF THE ORIGINAL MAP	
DATE: 10/10/2000	
BY: J. L. HARRIS	
CHECKED BY: J. L. HARRIS	
APPROVED BY: J. L. HARRIS	

EXHIBIT 5



Petrohawk Leases
Jalmat Field
Lea County, New Mexico



002450 | Jalmat Normalized Type Curve Case | | G8BKFS7BKA

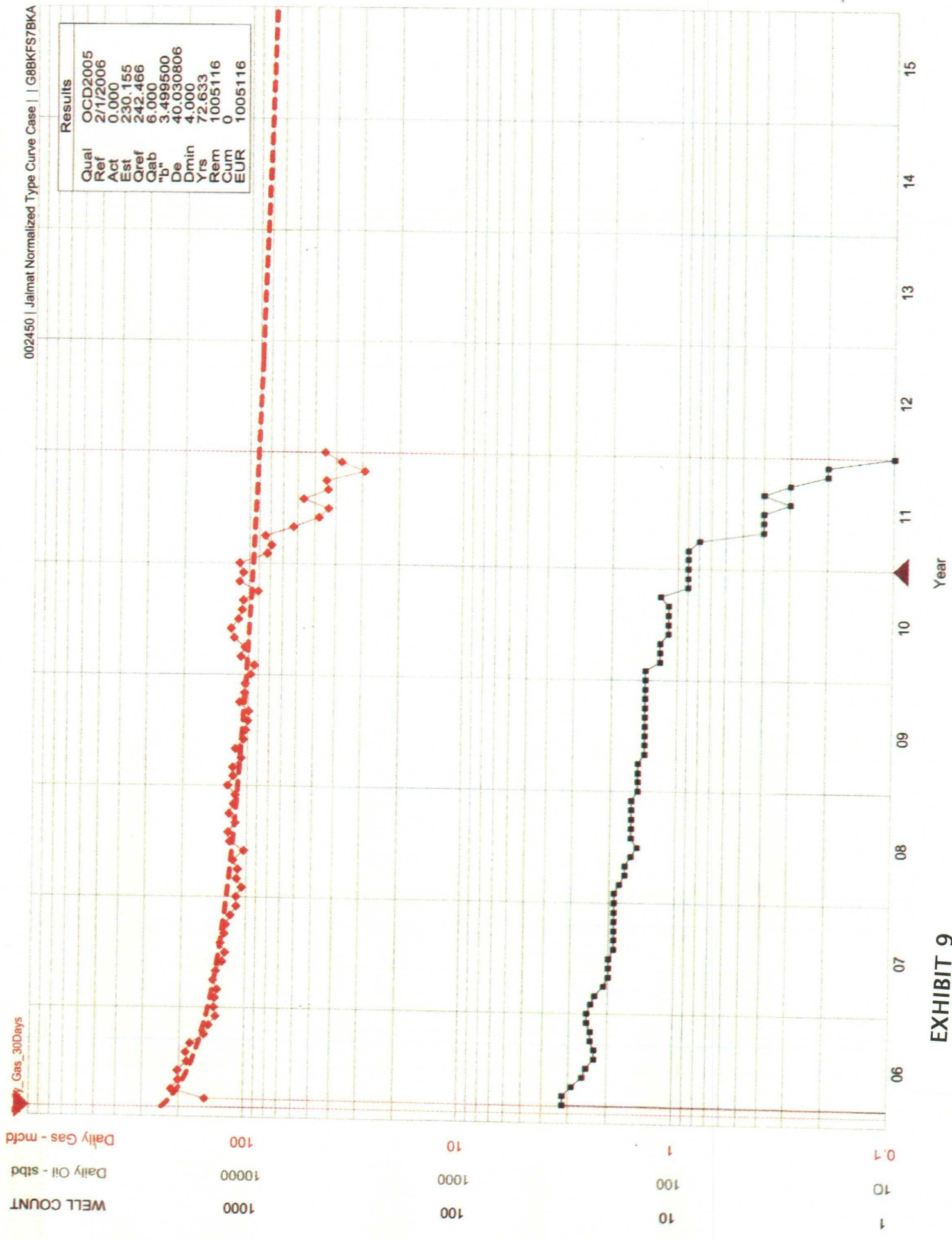


EXHIBIT 9

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	8/8ths Initial Rate		
											Oil (stbd)	Gas (mcf/d)	Wtr (stbd)
MATKINS		2	15I 23S 36E	30-025-10720	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	34	2
STATE A A C 1		57	13B 23S 36E	30-025-09344	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	81	0
STATE A A C 1		59	15E 23S 36E	30-025-10725	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	39	2
STATE A A C 1		65	23D 23S 36E	30-025-09394	Add pay & Frac	Gas	JALMAT	Producing	2005/02	TANSILL-YATES-SEVEN RIVERS	0	172	6
STATE A A C 1		66	13D 23S 36E	30-025-09346	Add pay & Frac	Gas	JALMAT	Producing	2005/04	TANSILL-YATES-SEVEN RIVERS	0	94	0
STATE A A C 1		69	3P 23S 36E	30-025-09229	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	158	0
STATE A A C 1		71	13M 23S 36E	30-025-09347	Add pay & Frac	Gas	JALMAT	Producing	2005/01	TANSILL-YATES-SEVEN RIVERS	0	205	1
STATE A A C 1		82	15B 23S 36E	30-025-10723	Add pay & Frac	Gas	JALMAT	Producing	2005/01	TANSILL-YATES-SEVEN RIVERS	0	305	0
STATE A A C 1		84	23G 23S 36E	30-025-09397	Add pay & Frac	Gas	JALMAT	Producing	2005/04	TANSILL-YATES-SEVEN RIVERS	0	176	0
STATE A A C 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 A A C 1		94	22C 23S 36E	30-025-09384	Add pay & Frac	Gas	JALMAT	Producing	2005/01	TANSILL-YATES-SEVEN RIVERS	1	132	36
STATE A A C 2		1	9N 22S 36E	30-025-08849	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	68	0
STATE A A C 2		28	5I 22S 36E	30-025-08792	Add pay & Frac	Oil	JALMAT	Producing	2004/06	TANSILL-YATES-SEVEN RIVERS	1	324	1
STATE A A C 2		29	9D 22S 36E	30-025-08854	Add pay & Frac	Gas	JALMAT	Producing	2005/05	TANSILL-YATES-SEVEN RIVERS	0	162	0
STATE A A C 2		33	5O 22S 36E	30-025-08793	Add pay & Frac	Gas	JALMAT	Producing	2005/05	TANSILL-YATES-SEVEN RIVERS	1	266	6
STATE A A C 2		38	9K 22S 36E	30-025-08847	Add pay & Frac	Gas	JALMAT	Producing	2004/07	TANSILL-YATES-SEVEN RIVERS	0	119	0
STATE A A C 2		47	5C 22S 36E	30-025-08798	Add pay & Frac	Oil	JALMAT	Producing	2005/04	TANSILL-YATES-SEVEN RIVERS	28	137	0
STATE A A C 2		67	9K 22S 36E	30-025-28276	Add pay & Frac	Gas	JALMAT	Producing	2005/03	TANSILL-YATES-SEVEN RIVERS	0	70	0
STATE A A C 2		70	8P 22S 36E	30-025-28279	Add pay & Frac	Gas	JALMAT	Producing	2004/08	TANSILL-YATES-SEVEN RIVERS	0	223	85
STATE A A C 2		81	5K 22S 36E	30-025-35868	New Drill	Gas	JALMAT	Producing	2004/04	TANSILL-YATES-SEVEN RIVERS	2	247	4
STATE A A C 2		82	11J 22S 36E	30-025-36936	New Drill	Gas	JALMAT	Producing	2005/05	TANSILL-YATES-SEVEN RIVERS	0	136	0
STATE A A C 2		83	11N 22S 36E	30-025-36910	New Drill	Gas	JALMAT	Producing	2005/05	TANSILL-YATES-SEVEN RIVERS	0	70	0
STATE A A C 3		84	11O 22S 36E	30-025-36935	New Drill	Gas	JALMAT	Producing	2005/04	TANSILL-YATES-SEVEN RIVERS	0	100	0
STATE A A C 2		85	11A 22S 36E	30-025-37563	New Drill	Gas	JALMAT	WO Compl	WO Compl	TANSILL-YATES-SEVEN RIVERS	WO Compl		
STATE A A C 2		86	11G 22S 36E	30-025-37564	New Drill	Gas	JALMAT	Producing	2006/04	TANSILL-YATES-SEVEN RIVERS	0	243	0
STATE A A C 2		87	11H 22S 36E	30-025-37565	New Drill	Gas	JALMAT	WO Compl	2006/05	TANSILL-YATES-SEVEN RIVERS	Cleaning up after frac		
STATE A A C 2		88	11I 22S 36E	30-025-37566	New Drill	Gas	JALMAT	Producing	2006/04	TANSILL-YATES-SEVEN RIVERS	0	316	0
STATE A A C 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	30-025-37801	New Drill	Gas	JALMAT	WO Compl	WO Compl	TANSILL-YATES-SEVEN RIVERS	WO Compl		

Avg Initial Rate:

149

OFFSET JALMAT WELLS FOR NEW WELL...(RE-ENTRY OF ACC 2 # 49)										
SECTION: 8		SPOT:C		T22S 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	
40-acre offsets, Sec 8:										
ACC2 #26	8B	Jun-90	Y	3154-3321	150K# SD	263	16	GAS	406	
ACC2 #49	8C	Apr-65	T-Y	3074-3383	60K# SD	327	0	P&A 6/94	327	
			Y-7R	To be reentered		0	0		704	
ACC2 #7	8D	Oct-03	T-Y	3151-3398	175K# SD	29	31	OIL	71	
ACC2 #76	8E	Jul-01	Y-7R	3289-3395	190K# SD	33	1	OIL	33	
ACC2 #51	8F	Oct-69	Y	3192-3370	30K# SD	85	0	P&A 9/85	85	
			Y-7R	To be redrilled		0	0		704	
ACC2 #3	8G	Jul-03	Y-7R	3162-3622	286K# SD	54	14	OIL	66	
40-acre offsets, Sec 5:										
ACC2 #41	5M	Oct-52	Y-7R	3110-3457	30K# SD	6570	0	P&A 12/94	6570	
ACC2 #46	5N	Nov-99	Y	3147-3342	180K# SD	188	32	GAS	408	
ACC2 #33	5O	Jan-90	Y	3158-3323	100K# SD					
		Apr-04	Y-7R	3158-3604	302K# SD	374	88	GAS	669	

OFFSET JALMAT WELLS FOR PROPOSED NEW WELL - AAC2 #91...(REDRILL OF ACC 2 #10)									
SECTION: 8		SPOT:M		T22S 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
40-acre offsets, Sec 8:									
ACC2 #37	8K	Dec-46	Y-7R	3200-3684	32K# SD	1913	0	TA 10/98	1913
				Proposed Refrac		0	0		704
ACC2 #58	8L	Oct-64	SE	Queen		0	0	P&A 12/92	0
			Y-7R	To be redrilled - AAC2 #94		0	0		704
ACC2 #10	8M	Apr-98	SE	Queen		0	0	P&A 6/94	0
			Y-7R	To be redrilled - AAC2 #91		0	0		704
ACC2 #53	8N	Feb-61	SE	Queen		0	0	P&A 6/94	0
			Y-7R	To be redrilled - AAC2 #92		0	0		704
40-acre offsets, Sec 7:									
ACC2 #12	7I	Apr-52	Y	3180-3370	NITRO	1865	0	P&A 12/94	1865
ACC2 #8	7P	Jun-62	Y	3160-3218	60K# SD	294	0	P&A 5/03	294
40-acre offsets, Sec 17:									
ConocoPhillips									
St E 3	17D	Feb-38	SE	Queen		0	0	P&A 6/91	0
40-acre offsets, Sec 18:									
OXY USA									
Clossen C1	18A	Mar-51	Y-7R	3200-3350	NONE				
		Jul-65	Y	3117-3198	A/10,000g	10403	38	GAS	10480

OFFSET JALMAT WELLS FOR PROPOSED NEW WELL - AAC2 #92.. (REDRILL OF ACC 2 #53)										
SECTION: 8			SPOT:N		T22S 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	
40-acre offsets, Sec 8:										
ACC2 #56	8J	Sep-61	Y	3182-3353	60K# SD	2493	0	P&A 6/94	2493	
ACC2 #61	8J	Jul-70	SE	Queen		0	0	TA 7/86	0	
ACC2 #37	8K	Dec-46	Y-7R	3200-3684	32K# SD	1913	0	TA 10/98	1913	
			Y-7R	Proposed Refrac		0	0		704	
ACC2 #58	8L	Oct-64	SE	Queen		0	0	P&A 12/92	0	
			Y-7R	To be redrilled - AAC2 #94		0	0		704	
ACC2 #10	8M	Apr-98	SE	Queen		0	0	P&A 6/94	0	
			Y-7R	To be redrilled - AAC2 #91		0	0		704	
ACC2 #53	8N	Feb-61	SE	Queen		0	0	P&A 6/94	0	
			Y-7R	To be redrilled - AAC2 #92		0	0		704	
ACC2 #54	8O	Aug-99	7R	3480-3666	191K# SD	134	23	GAS	217	
40-acre offsets, Sec 17:										
Breck Oper.										
St H 3	17B	Jan-70	SE	Queen		0	0	P&A 3/97	0	
ConocoPhillips										
St E 3	17D	Feb-38	SE	Queen		0	0	P&A 6/91	0	

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		(from avg of Mission/Petrohawk activity)
di = 40%		(from normalized type curve)
n = 3.5		(from normalized type curve)
NGL Yield = 136 bbls/mmcft		(from plant statements)
1-Gas Shrinkage = 59%		(from plant statements)
Plant Takes = 13% of residue gas & ngl		(contract with plant)
Gas Price = \$6.00/mcf flat		
Oil Price = \$60/stb flat		(no oil in economics)
NGL Price = \$42.60/stb flat		(71% of Oil)
OP Cost = \$1264/well/mth		(actuals from los statement)
CWC = 650 M\$ (New Drill)	CWC = 425 M\$ (Recomplete)	

Results:

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

EXHIBIT 15

Affected Parties

**State A A/C 2 Well No. 91
State A A/C 2 Well No. 92
State A A/C 2 Well No. 49
Section 8, Township 22 South, Range 36 East, NMPM
Lea County, New Mexico.**

XTO Energy, Inc.
810 Houston Street #2000
Fort Worth, TX 76102-6298

OXY USA, Inc.
P. O. Box 4294
Houston, TX 77210-4294

ConocoPhillips
Post Office Box 2197
Houston, TX 77079

Guadalupe Operating Co.
1407 Cuthbert Avenue
Midland, TX 79701

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

Finley Resources Inc.
1308 Lake Street
Fort Worth, TX 76102

Cimarex Energy Co.
Post Office Box 140907 (75014-0907)
600 East Las Colinas Boulevard
Suite 1200
Irving, TX 75039

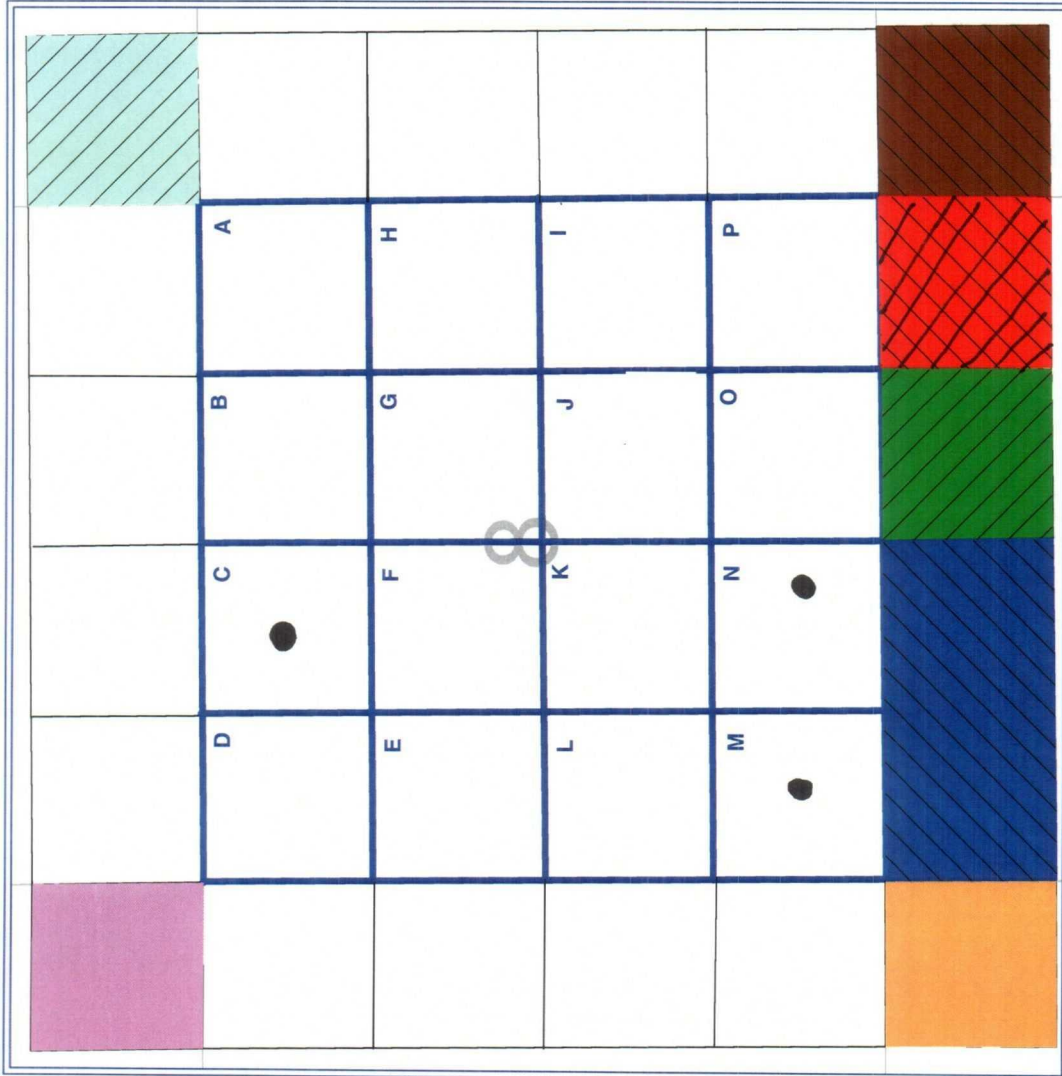
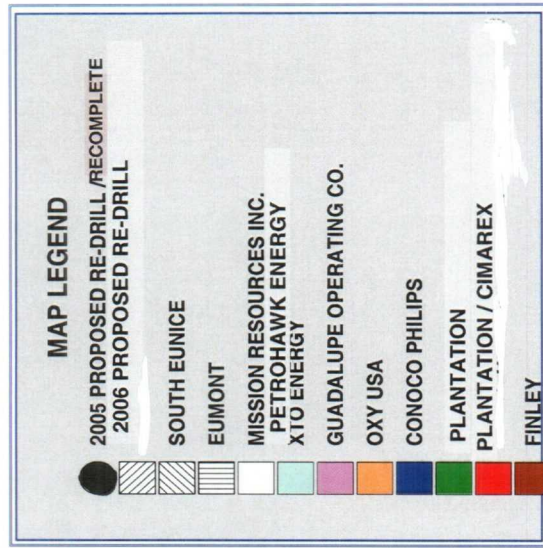


EXHIBIT 16

EXHIBIT 17

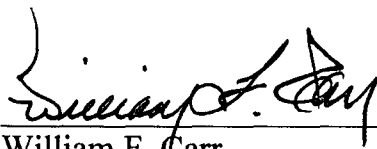
**BEFORE THE
OIL CONSERVATION DIVISION
NEW MEXICO ENERGY, MINERALS AND
NATURAL RESOURCES DEPARTMENT**

IN THE MATTER OF THE APPLICATION OF PETROHAWK OPERATING COMPANY
FOR ADMINISTRATIVE APPROVAL OF AN INFILL GAS WELL AND SIMULTANEOUS
DEDICATION OF STATE "A" A/C 2 WELL NO. 91, 660' FSL AND 660' FWL, STATE "A"
A/C 2 WELL NO. 92, 660' FSL AND 2180' FWL, AND STATE "A" A/C 2 WELL NO. 49,
660' FNL AND 1980' FWL, S8-T22S-R36E, JALMAT GAS POOL, LEA COUNTY, NEW
MEXICO.

AFFIDAVIT

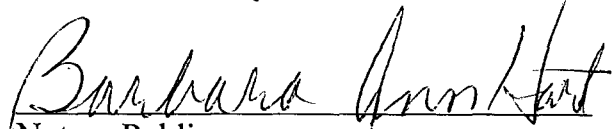
STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

William F. Carr, attorney in fact and authorized representative of Petrohawk
Operating Company, the Applicant herein, being first duly sworn, upon oath, states that
notice of the above-referenced Application was mailed to the addresses shown on Exhibit
"15" attached hereto.



William F. Carr

SUBSCRIBED AND SWORN to before me this 21st day of June 2006 by
William F. Carr.



Notary Public

My Commission Expires:

3/28/08

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. Frances Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-08838	Pool Code 79240	Pool Name JALMAT: TANSILL-YATES-7 RIVERS (GAS)
Property Code 33493	Property Name STATE A A/C2	Well Number 049
OGRID No. 148381	Operator Name PETROHAWK OPERATING COMPANY	Elevation 3585'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	8	22 S	36 E		660	NORTH	1980	WEST	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 320	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

	<p>OPERATOR CERTIFICATION</p> <p>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 undivided 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.</p> <p><i>Nancy K. Gatti</i> 6-15-06 Signature Date</p> <p>NANCY K. GATTI Printed Name</p> <p>REGULATORY MANAGER</p> <p>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>Date of Survey Signature & Seal of Professional Surveyor</p> <p>EXHIBIT 18</p> <p>Certificate No.</p>
--	---

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

EXHIBIT 19

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 79240	Pool Name JALMAT:TANSILL-YATES-7RIVERS (GAS)
Property Code	Property Name STATE A A/C 2	Well Number 92
OGRID No. 194849	Operator Name PETROHAWK OPERATING COMPANY	Elevation 3586'

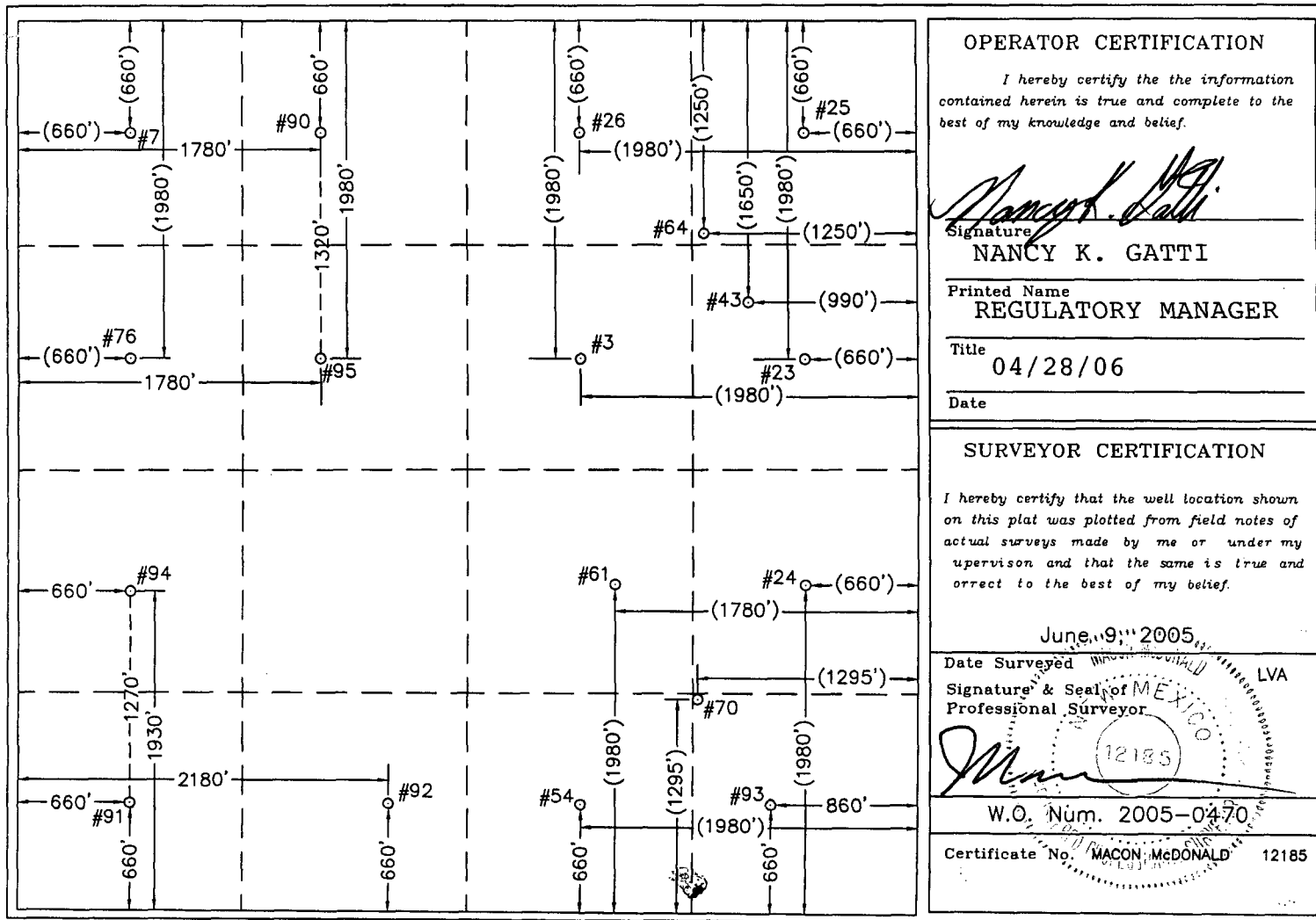
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	8	22 S	36 E		660	SOUTH	2180	WEST	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	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



WELL LOCATIONS SHOWN HEREON WITH DIMENSIONS IN PARENTHESIS WERE PROVIDED BY MISSION RESOURCES CORPORATION AND ARE NOT FIELD SURVEYED.

DISTRICT I
1825 N. French Dr., Hobbs, NM 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

EXHIBIT 20

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 79240	Pool Name JALMAT:TANSILL-YATES-7RIVERS(GAS)
Property Code	Property Name STATE A A/C 2	Well Number 91
GRID No. 194849	Operator Name PETROHAWK OPERATING COMPANY	Elevation 3596'

Surface Location

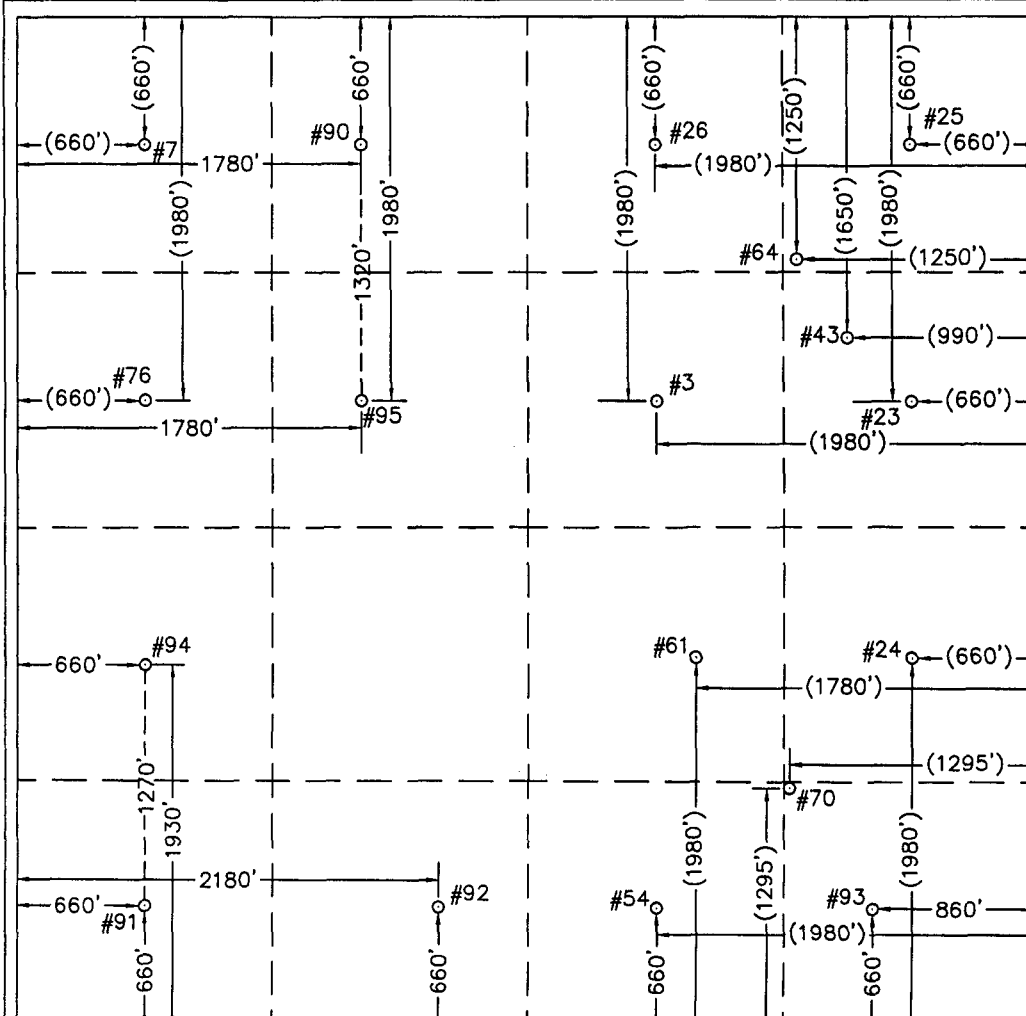
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	8	22 S	36 E		660	SOUTH	660	WEST	LEA

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	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

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Nancy K. Gatti</i> Signature</p> <p>NANCY K. GATTI Printed Name</p> <p>REGULATORY MANAGER Title</p> <p>04/28/06 Date</p> <p>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 upervison and that the same is true and orrect to the best of my belief.</p> <p>June 9, 2005 Date Surveyed</p> <p>Signature & Seal of Professional Surveyor <i>W.O. Num. 2005-0469</i> W.O. Num. 2005-0469</p> <p>Certificate No. MACON, McDONALD 12185</p>
---	--

WELL LOCATIONS SHOWN HEREON WITH DIMENSIONS IN PARENTHESIS WERE PROVIDED BY MISSION RESOURCES CORPORATION AND ARE NOT FIELD SURVEYED.