Form 3160-3				SUBMIT IN	TRIPLICATE*			
		INITED STATES MENT OF THE IN						
	5. LEASE DESIGNATION AND SERIAL NO.							
	Joint Venture Agreement							
APPLI 1a. TYPE OF WORK	CATION FOR	R PERMIT TO D	RILL OR DE	EPEN		6. IF INDIAN, ALLOTTEE O Jicarilla Apac	che Tribe	
DRILL	✓	DEEPEN 🗌				7. UNIT AGREEMENT NAM Joint Venture		
b. TYPE OF WELL OIL GAS WELL WELL [✓	ER .	SINGLE ZONE	MULTIPLI ZONE		8.FARM OR LEASE NAME Jicarilla Apa	7004	
2. NAME OF OPERATOR						9. API WELL NO.	telle ava #8	
Jicarilla Apache E	-	tion					- 27091	
P.O. Box 710, Dulc	•	87528 Mr. Jes	se Evans (50	5)759-3224		10. FIELD AND POOL, OR	WILDCAT	
4. LOCATION OF WELL (Report local At surface	ition clearly and in accorda	ince with any State requirement	s.*)	Transport		West Lindrith		
617' FSL & 1620''	FWL, Sec 5, 7	23N, R3W, NMPM				11. SEC., T., R., M., OR BLI AND SURVEY OR AREA		
At proposed prod. zone A/A						Sec 5, T23N, R3W, NMPM		
14. DISTANCE IN MILES AND DIRE	CTION FROM NEAREST	TOWN OR POST OFFICE*				12. COUNTY	13. STATE	
10 miles WSW of Li	ndrith, New N	fexico				Rio Arriba	New Mexico	
15. DISTANCE FROM PROPOSED' LOCATION TO NEAREST PROPERTY OR LEASE LINE, F (Also to nearest drig, unit line, if a	16. NO. OF ACRES IN LEASE 17. NO. TO T			OF ACRES ASSIGNED HIS WELL 160 5 W/4				
18. DISTANCE FROM PROPOSED TO NEAREST WELL, DRILLING OR APPLIED FOR, ON THIS LE	LOCATION* 6, COMPLETED, 1	.240'	<u> </u>			RY OR CABLE TOOLS		
21. ELEVATIONS (Show whether Di	-		<u> </u>	· ·	1	22. APPROX. DATE WORK	(WILL START*	
23.		PROPOSED CA	ASING AND CEME	NTING PROGE	2AM			
SIZE OF HOLE GRA	ADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH			QUANTITY OF CEMENT		
	5, 8 5/8"	24	320'	225 sks (2		Circ to surfac	·p /	
	5/N-80 4.5"	10.5, 11.6	7740'			10 cf) - 2 stg - Circ to surface		
			1	l				
- -								
Jicarilla Energy Odrilled to 320' us sufficient volume minimum of 600 psi system. Run Induct and if potentially in 2-stages with scompletion unit. Perforate selected	sing a fresh we to circulate for 30 minute ion and Densir comercial, a sufficient century cased holes	vater base gel more cement to surfactes. A 7 7/8" however hours at 4 1/2" production to describe to the correlation loss	ud. 8 5/8" so ce. WOC 12 he le will be do at TD. All do ion casing w irculate to gs. Pressure	urface cas: ours. Nipp: rilled to ' Gal/DK zone ill be set surface. Re test casi	ing will le up 11 TD using es will l to TD. 'elease da ng to 30	be run and cen " 2000# BOPE ar a fresh water be analyzed to The casing will rilling rig. Mo	mented with and test to a non-dispersed total depth, be cemented ove in	
Surface: Jicarilla	Apache Reser	rvation.						
IN ABOVE SPACE DESCRIBE PROdata on subsurface locations and me	POSED PROGRAM: If pro asured true vertical depths	posal is to deepen, give data or Give blowout preventer progr	n present productive zone am, if any.	e and proposed new	oroductive zone.	. if proposal is to drill or deep	en directionally, give pertine	
24.	////					_		
SIGNED	"Merley	тгт	LE <u>Agent</u>			DATE	30/02	
(This space for Federal or St	ale office use	· · · · · · · · · · · · · · · · · · ·	 					
PERMIT NO			APPROVAL D	ATF				
	ot warrant or certify that the	applicant holds legal or equital			ch would entitle	the applicant to conduct oper	rations thereon.	
CONDITIONS OF APPROV		p	and to allege rights III	Sasjeet (case Will				

APPROVED BY SBUANderson TITLE Agot. Field Mgr DATE DATE

Form 3160-5 (June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LA	AND MANAGEMENT	5. Lease Designation and Serial No. Joint Venture Agreement	
SUNDRY NOTICES AN Do not use this form for proposals to dr Use "APPLICATION FOR	6. If Indian, Allottee or Tribe Name Jicarilla Apache Tribe		
SUBMIT II	N TRIPLICATE	7. If Unit or CA, Agreement Designation Joint Venture Agreement	
1. Type of Well Oil Well Gas Well Other 2. Name of Operator Jicarilla Apache Energy Corpora 3. Address and Telephone No. P.O. Box 710, Dulce, New Mexico	tion 87528 Mr.Jesse Evans (505)759-3224	8. Well Name and No. Jicarilla Apache JV5 #8 9. API Well No. 30-039-2709/ 10. Field and Pool, or Exploratory Area	
4. Location of Well (Footage, Sec., T., R., M., or Survey Des 617' FSL & 1650 FWL, Sec 5, T23	cription	W. Lindrith Gallup-Dakota 11. County or Parish, State Rio Arriba, New Mexico	
TYPE OF SUBMISSION	TYPE OF ACTION		
The proposed location has been Section 5, T23N, R3W, NMPM. The	Abandonment Recompletion Plugging Back Casing Repair Altering Casing Other Move location Inent details, and give pertnennt dates, including estimated date of starting any of zones pertinent to this work.) moved 30' East by chain and compass is location is now orthodox, under Neation plat and cut and fill diagram	to 617' FSL & 1650' FWL, MOCD rules.	
14. I hereby certify the foregoing is true and correct Signed	Title Agent	Date 07/10/02	
(This space for Federal or State office use) Approved by /s/ Patricia M. Hester Conditions of approval, if any:	Title Lands and Mineral Repourded	DateSEP4_200 2	

District [

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rie Brazos Rd., Aztec, NM 87410

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Form C-102

Revised August 15, 2000

Submit to Appropriate District Office

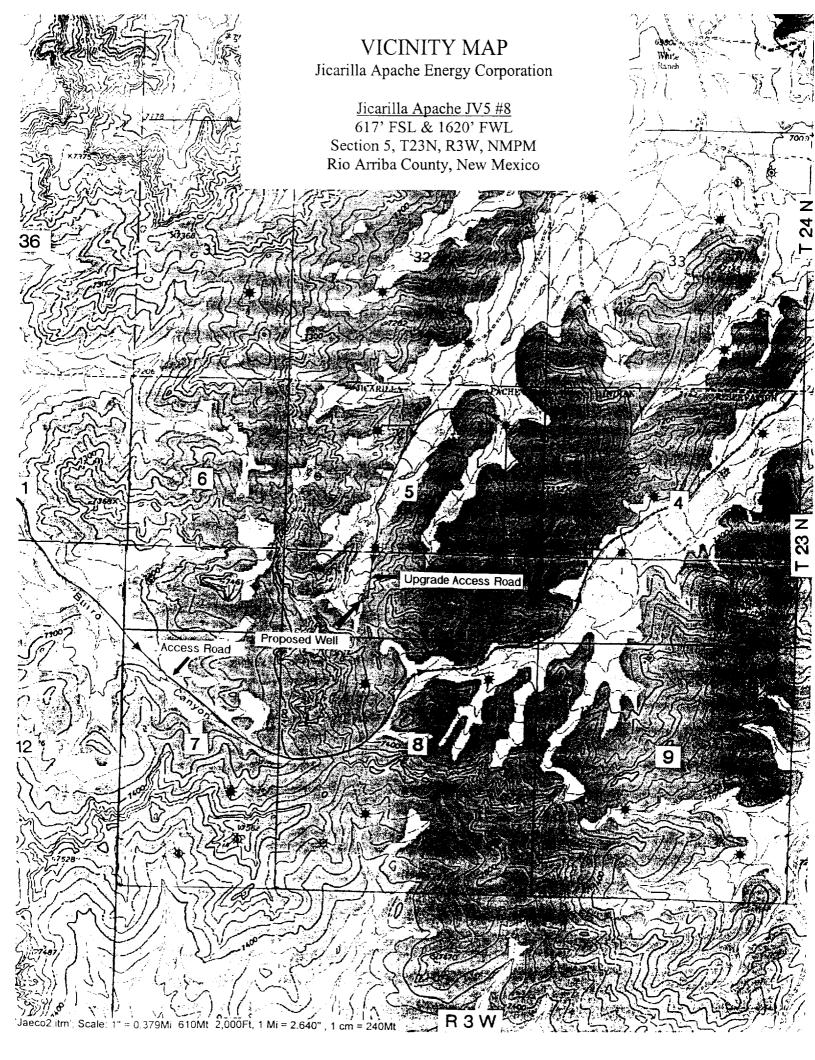
State Lease - 4 Copies

Fee Lease - 3 Copies

1220 S. St. Franci	Dr., Sauta	Fe, NM 8750	5 .		Santa Fe, N	IM 87505		57		
	API Numb	7	WELL LC	CATIO	N AND ACI	REAGE DEDIC	CATION PLA	maka T.	ENDED REPORT	
30-02	709	/	³ Peel Code 39189			us 11up-Dakota	a.			
15646				¹ Property Name JIC Apache JV 5					Well Number	
11859					Operator:		poration		Elevation 345	
		,				Location		<u> </u>		
UL or lot no.	Section 5	Township 23N	Range 3W	Let (da	Feet from the 617	North/South line South	Feet from the 1650	East/West line West	Rio County Arriba	
<u> </u>		,	11 Bot	tom Hol	e Location If	Different Fron	Surface			
UL or ist no.	Section	Toweship	Range	Letida	Foot from the	North/South line	Feet from the	East/West time	County	
12 Dedicated Acres	13 Joint of	Infil M C	onselidation Co	ode "Ord	ier No.		<u>-</u>		<i>:</i> ·	
160	Y									
NO ALLOWA										

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 5280.00 OPERATOR CERTIFICATION I hereby certify that the information contained herein

320.00 3 2 1 16D ac. 160 ac. Charles Neeley 320.00 Agent Title 07/10/02 Date Location moved 30' East with chain & compass to 1650' FWL 18SURVEYOR CERTIFICATION JV5 #4 1840'FSL & 1840'FWL I hereby certify that the well location shown on this APt: 30-039-22014 plat was plotted from field notes of actual surveys made by me or raider my supervision, and that the 00 same is true and correct to the best of my belief. 2002 May 17, <u>#</u>0 160 ac. 160 ac. Date of Surve Proposed Location 1650' 61 ار 52|80.00 11222



Drilling Program Jicarilla Apache Energy Corporation APACHE JV 5-8

Page Two

4. Casing and Cementing Program: - Continued

- WOC 12 HOURS. Nipple up 11" 2000# BOPE. Pressure test surface casing and BOPE to 600 psi for 30 minutes.
- Drill an 7 7/8" hole through the Dakota formation.
- Run Induction and Compensated density/neutron logs from TD to surface casing shoe.
- Run 4 ½" 10.5/11.6# K-55 & 11.6# N 80 production casing from surface to Total Depth and cement in 2 stages with DV tool installed at 4064'. Stage 1 (TD 4064') will be cemented with 650sacks (1255cf) 65/35 Class "B"/Poz containing 6% gel, 0.6% Halad 9 and ½ cf Perlite/sack mixed at 12.7 PPG, 1.93 yield. Followed with 100 sks 50/50 Class "B"/Poz with 2% gel, 10 ¼ #/sk Gilsonite and 10% NaCl mixed at 13.4 PPG, 1.24 yield (Total: 1379 cf of slurry; 70% excess to 4064'). Circulate with mud for 4 hours. Stage 2 (4064' 0') will be cemented with 964 sacks (1861 cf) 65/35 Class "B"/Poz containing 6% gel, 2% CaCl, 1/2 cf Perlite/sack mixed at 12.7 PPG, 1.93 yield (1861 cf of slurry, 100% excess to Surface).
- Run temperature survey after 12 hours if cement does not circulate to surface.
- WOC 18 hours.

Cement volume is subject to change after review of open hole caliper log to caliper volume +30%. Minimum clearance between couplings and hole is 2.875". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb over pull, whichever is greater.

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Bits: 12 1/4" surface hole - MT class 115 or 116 to ~ 320'.

7 7/8" production hole - PDC to ~ 7490' – top of DK "B" Sand.

7 7/8" production hole – TCI class 637 - 7490' to 7740' TD
```

Centralizers:

Surface string: 3 - 85/8" x 12 1/4": One centralizers run in middle of shoe joint with lock ring and two centralizers spaced evenly between shoe joint and 100'.

<u>Production string</u>: 25 - 4 ½" x 7 7/8" centralizers will be run across all prospective pays in the Dakota and Mesa Verde formations. 1 - 4½" x 7 7/8" centralizer will run below the DV tool and 5 - 4½" x 7 7/8" centralizers will be run every other joint above DV tool. In addition 5 - 41/2" x 7 7/8" turbolizers will be spaced such that one (1) is just below the Basal Fruitland Coal, three (3) across the Fruitland and one (1) into the Ojo Alamo