

Original

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107A
Revised June 10, 2003

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

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

District III
1000 Rio Brazos Road, Aztec, NM 87410

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

APPLICATION FOR DOWNHOLE COMMINGLING

APPLICATION TYPE
 Single Well
 Establish Pre-Approved Pools
EXISTING WELLS
 Yes No

RECEIVED

JUL 15 2004

Jicarilla Apache Energy Corp
Operator

P.O. Box 710, Dulce, NM 87528
Address

JVA
Lease

2A
Well No.

D-28-217N-R2W
Unit Letter-Section-Township-Range

Rio Arriba OIL CONSERVATION
DIVISION
County

OGRID No. 11859 Property Code 5415 API No. 30-039-27408 Lease Type: Indian State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	UNDA Gavilan PC		Blanco Mesaverde
Pool Code	77360		72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3645' - 3867'		5658' - 6162'
Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
Bottomhole Pressure <small>(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)</small>	Estimated 1040 psi		Initial BHP ~ 1260 psi
Oil Gravity or Gas BTU <small>(Degree API or Gas BTU)</small>	Estimated 1050 btu/scf		1258 btu/scf
Producing, Shut-In or New Zone	New Zone		Producing
Date and Oil/Gas/Water Rates of Last Production. <small>(Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)</small>	Date: Rates:	Date: Rates:	Date: 5/31/04 Rates: 1 BO/ 152 mcfpd / No
Fixed Allocation Percentage <small>(Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)</small>	Oil Gas To be determined after test % %	Oil Gas % %	Oil Gas To be determined after PC tst % %

DAC-3310

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes 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 No

Will commingling decrease the value of production? Yes No

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 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 Charles Neeley TITLE Agent/PE DATE 7/15/04

TYPE OR PRINT NAME Charles Neeley TELEPHONE NO. (505) 486-0211

E-MAIL ADDRESS neelece@acrnct.com

NEELEY CONSULTING SERVICE, LLC
3001 Northridge Drive, Los Amigos Bldg
FARMINGTON, NEW MEXICO 87401
(505) 486-0211

July 12, 2004

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

Bureau of Land Management
Mr. Ed Singleton, Field Manager
435 Montano NE
Albuquerque, New Mexico 87107

RE: Jicarilla Apache Energy Corporation (JAECO)
JVA #2A NW/NW, Sec 28, T27N, R2W
Rio Arriba County, New Mexico

Downhole Commingling Request

Dear Mr. Fesmire and Mr. Singleton:

The Jicarilla Apache Energy Corporation is applying for administrative approval to downhole commingling production in the Gavilan Pictured Cliffs ext with production from the Blanco Mesaverde pool in the referenced well. The ownership of the zones to be commingled is common, JAECO.

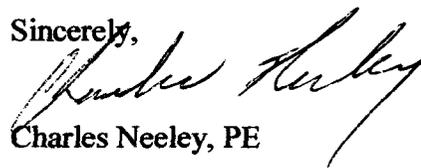
The Mesaverde wells in this area are marginal economic producers based on current rates of 10 – 160 MCFD. The closest Gavilan PC wells are in Sections 25, 35 and 36, of T27N, T3W and are also marginal economic producers based on current rates of 35 – 70 MCFD. A reserve study predicts an ultimate recovery of 270 MMSCF from the Mesaverde and 600 MMSCF for the Pictured Cliffs. These reserves and the low current producing rates are uneconomic as a separate zone well. The well is economic when commingled due to savings realized on surface facilities and tubulars. The only economical way to recover the Mesaverde and Pictured Cliffs reserves identified on lease is to downhole commingle production from both zones in the well as proposed.

The Mesaverde formation has been completed and produced in this well for 12 months – production data, including a production curve is attached for your review. It is proposed to set a bridge plug above the Mesaverde, perforate and stimulate the Pictured Cliffs, and test its production. The bridge plug will then be removed and both zones produced through a single string of tubing. The reservoir characteristics of each of the subject zones are such that underground waste will not be caused by the proposed commingling ie, the fluids are compatible with each other, the initial bottom-hole pressure for the Mesaverde and anticipated bottom-hole pressure for the Pictured Cliffs are 1260 psi and 1040 psi, respectively.

The allocation of the commingled production will be calculated using flow tests for the Pictured Cliffs during completion operations, production data from the Mesaverde, and reserve studies for both producing intervals. JAECO will consult with the NMOCD district supervisor of the Aztec NMOCD office for approval of the allocation.

Your respective approvals of this project are appreciated.

Sincerely,



Charles Neeley, PE

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 72319	³ Pool Name Blanco Mesa Verde
⁴ Property Code	⁵ Property Name Apache JVA	⁶ Well Number 2A
⁷ OGRID No. 11859	⁸ Operator Name Jicarilla Apache Energy Corporation	⁹ Elevation 7309' GE

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Rio	County
D	28	27N	2W		895	North	673	West	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 215.52	¹³ Joint or Infill Infill	¹⁴ Consolidation Code	¹⁵ 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

¹⁶ Proposed New Location	5296.84'	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 Charles Neeley Printed Name Agent Title 05/21/02 Date
	28	
Apache JVA 2 790' FSL & 850' FWL API: 30-039-21460	5300.46'	904.20'

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State Lease - 4 Copies
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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-27408		² Pool Code 77360		³ Pool Name Gavilan PC ext	
⁴ Property Code 5415		⁵ Property Name JVA			⁶ Well Number 2A
⁷ OGRID No. 11859		⁸ Operator Name Jicarilla Apache Energy Corporation			⁹ Elevation 7309' GL

¹⁰ Surface Location

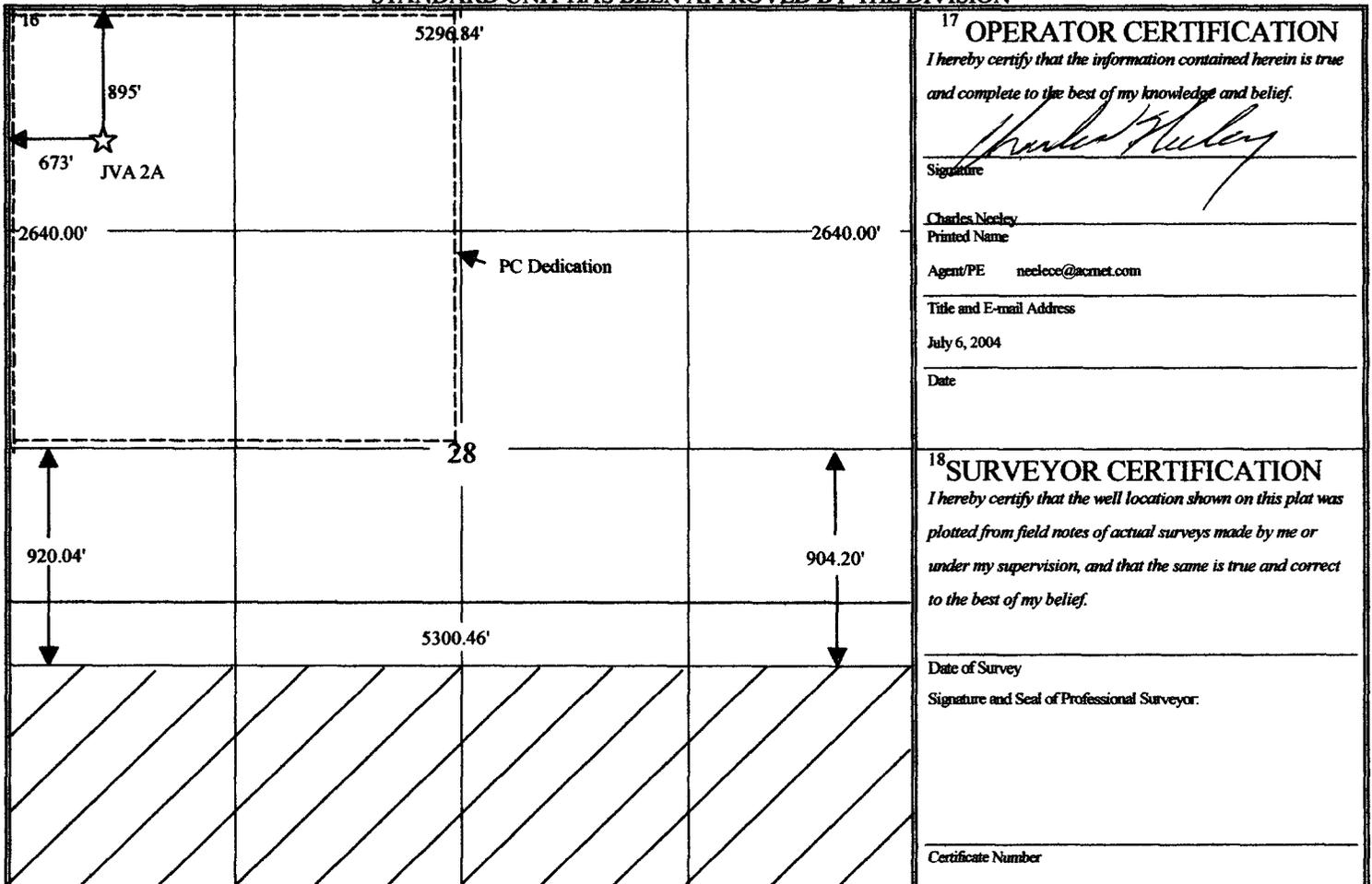
UL or lot no.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County
D	28	27N	2W		895'	North	673'	West	Rio Arriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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



¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
Charles Neeley
Signature
Charles Neeley
Printed Name
Agent/PE neelece@acmet.com
Title and E-mail Address
July 6, 2004
Date

¹⁸ 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 and Seal of Professional Surveyor:
Certificate Number

JAECO JVA 2A Proposed Gavilan PC ext - Estimated Production Rates & Supporting Data From:

Jic 95 #3A Calc Gavilan PC Prod (Total Prod - MV Est Prod from harmonic decline)

NW/NW, Sec 35, T27N, R3W, NIMPM

Rio Arriba County, NM

* PC production started 8/15/94

Days	Prod Flow Rate mcf/day	Cum mcf	Days Prod	Flow Rate mcf/day	Cum mcf	Days Prod	Flow Rate mcf/day	Cum mcf	Days Prod	Flow Rate mcf/day	Cum mcf
* 29	100.41	2912	1061	191.94	196917	2157	162.65	338051	3210	72.6	442707
59	126.1	6695	1092	79.9	199394	2188	132.61	342162	3236	47.5	443942 Thru 1/31/04
90	317.06	16524	1120	160.25	203881	2216	99.14	344938	3293	63.99	435508 Future
121	227.52	23577	1151	105.13	207140	2247	57.55	346722	3804	53.26	467752 Projected
149	114.75	26790	1181	163.7	212051	2277	73.53	348928	4314	44.32	494585 Production
180	215.87	33482	1212	56.97	213817	2308	66.35	350985	4825	36.88	516916 ←
201	197.29	37625	1242	93	216607	2338	100.13	353989	5336	30.70	535500
224	216.43	42603	1273	145.77	221126	2369	74.77	356307	5847	25.54	550965
254	138.33	46753	1304	137.81	225398	2400	99.26	359384	6358	21.26	563836
285	144.52	51233	1334	140.87	229624	2430	98.3	362333	6869	17.69	574547
316	219.23	58029	1365	158.97	234552	2461	119.9	366050	7380	14.72	583461
346	231.23	64966	1395	155.27	239210	2491	121.33	369690	7891	12.25	590879
375	220.86	71371	1426	10.13	239524	2522	168.9	374926	8402	10.20	597053
395	212.35	75618	1457	163.9	244605	2553	175.71	380373	8913	8.49	602190
429	211.68	82815	1485	171.21	249399	2581	214.25	386372	9424	7.06	606466
460	114.03	86350	1516	174.45	254807	2612	202.9	392662	9935	5.88	610024
489	199.48	92135	1546	158.4	259559	2642	109.1	395935			
520	121.9	95914	1576	129.77	263452	2672	118.17	399480			
550	196.77	101817	1606	101.83	266507	2702	47.17	400895			
566	124	103801	1637	110.94	269946	2733	88.19	403629			
574	128.13	104826	1668	120.13	273670	2764	121	407380			
577	158.33	105301	1699	161.87	278688	2794	122.57	411057			
637	111.93	112017	1730	133.71	282833	2825	121.84	414834			
667	232.97	119006	1761	121.87	286611	2855	110.93	418162			
698	337.71	129475	1792	135.39	290808	2886	86.19	420834			
729	267.39	137764	1823	126.94	294743	2917	61.61	422744			
757	234.89	144341	1852	103.93	297757	2945	75.29	424852			
788	188.9	150197	1883	128.58	301743	2976	61.39	426755			
818	198	156137	1913	122.53	305419	3006	37.7	427886			
847	180.38	161368	1944	104.03	308644	3037	70.16	430061			
877	176.83	166673	1974	99.97	311643	3067	55.03	431712			
908	136.9	170917	2004	124.27	315371	3098	65.03	433728			
939	163.65	175990	2035	130	319401	3129	49.32	435257			
969	165.97	180969	2065	116.57	322898	3144	134.4	437273			
1000	156.55	185822	2096	145.97	327423	3175	89.35	440043			
1030	171.5	190967	2126	186.2	333009	3205	76.7	442344			

EUR

Production Data – Blanco Mesaverde Pool
JAECO JVA 2A
NW/NW Sec 18, T27N, R2W, NMPM
Rio Arriba County, New Mexico

<u>Month</u>	<u>Gas, mcf</u>	<u>Oil, bbls</u>	<u>Water, bbls</u>	<u>Cum Gas, mcf</u>	<u>Cum Oil, bbls</u>
6/03	18,559	No measure	0	18,559	No measure
7/03	12,034	A/A	0	30,593	A/A
8/03	9,736	A/A	0	40,329	A/A
9/03	8,024	A/A	0	48,353	A/A
10/03	7,322	A/A	0	55,675	A/A
11/03	5,674	A/A	0	61,349	A/A
12/03	6,384	190	0	67,733	190
1/04	6,068	No measure	0	73,801	190+
2/04	5,049	A/A	0	78,850	190+
3/04	4,900	A/A	0	83,750	190+
4/04	5,053	A/A	0	88,803	190+
5/04	4,698	141	0	93,501	331

Gas Reserves – Estimated by Hyperbolic Decline: ~ 176,624 mcf
 Estimate Ultimate Recovery (EUR) ~ 270,125 mcf

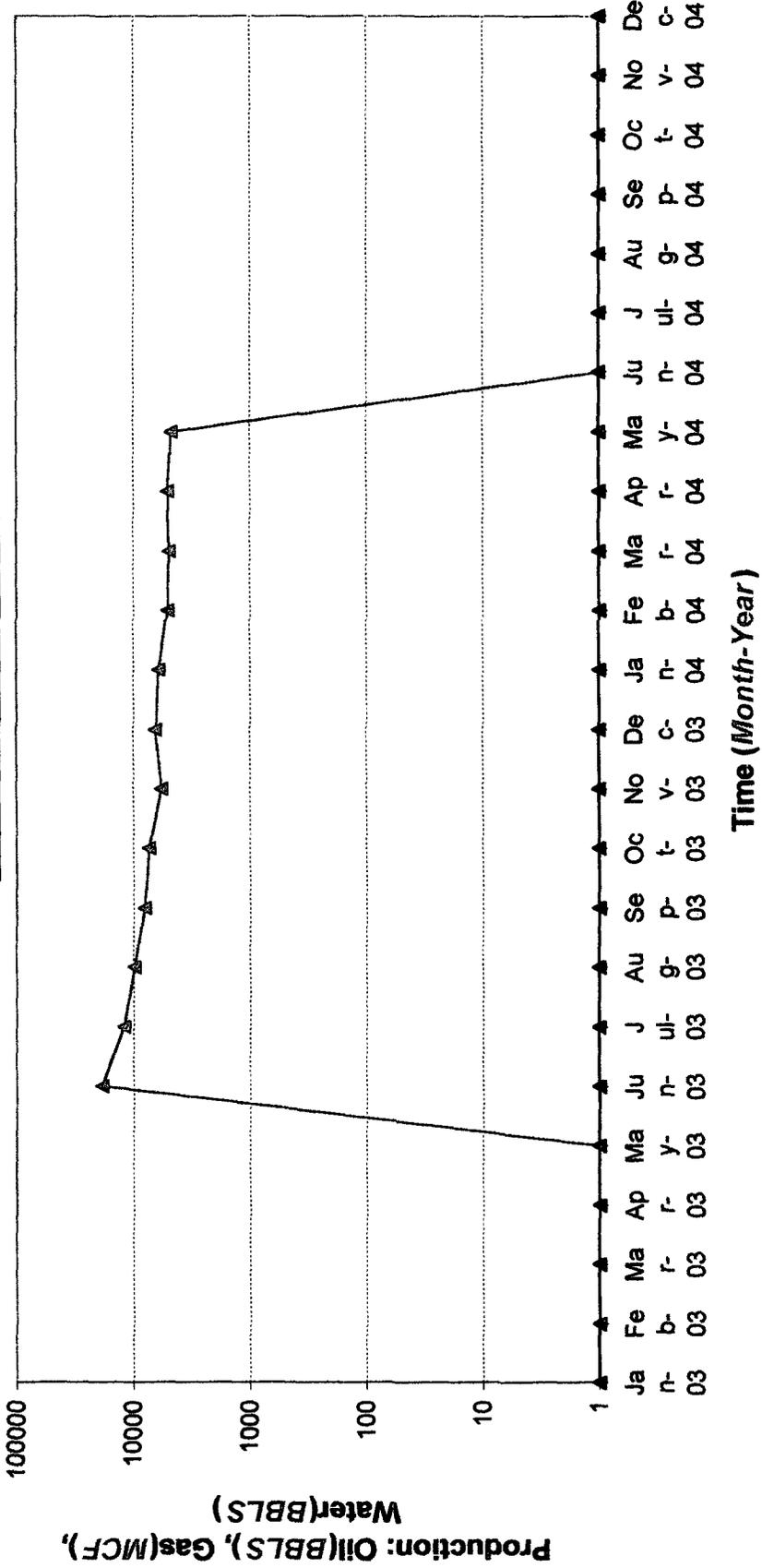
Gas Production Logarithmic Curve of Well:

Total Production
Oil: 331
Gas: 88803
Water: 0
Days Produced: 326

APACHE JVA 2A

To make log function continuous, those production data points with value 0 are all set to 1

—▲— Oil —▲— Gas —▲— Series3



FUTURE PRODUCTION

Well ID : JVA 2A
 Field : Blanco MV
 Location : New Mexico
 Company : JAECO

Time (Days)	Flow Rate (Mscf/d)	Cum (Mscf)	
357	151.54839	93501	Last Reported Production
414.2845	137.78953	101210.9	
478.5725	124.16967	110806.7	
542.857	112.5826	119480.6	
607.1415	102.63369	127366.5	
671.4295	94.020304	134573.2	
735.714	86.508237	141188.8	
799.9985	79.912136	147289.5	
864.2865	74.085743	152933.8	
928.571	68.910097	158175.7	
992.8555	64.289827	163059.4	
1057.144	60.146075	167621.5	
1121.428	56.4138	171895.4	
1185.716	53.038745	175908.2	
1250.001	49.975415	179685.5	
1314.285	47.185729	183247.3	
1378.573	44.636998	186615.3	
1442.858	42.301588	189803	
1507.142	40.155909	192826.4	
1571.43	38.179067	195699	
1635.715	36.353538	198433	
1699.999	34.66382	201036.4	
1764.287	33.096231	203521.4	
1828.572	31.63911	205896	

1892.856	30.282011	208166.9
1957.144	29.015666	210342.2
2021.429	27.832021	212426
2085.713	26.723763	214427.7
2150.001	25.684455	216350
2214.286	24.708335	218198.3
2278.57	23.790279	219976.5
2342.858	22.925571	221690.1
2407.143	22.110098	223341.8
2471.427	21.340053	224935.6
2535.715	20.612066	226474.3
2600	19.922968	227960.4
2664.284	19.270031	229398.1
2728.572	18.650692	230788.6
2792.857	18.06256	232136.1
2857.145	17.503578	233440.5
2921.429	16.971758	234704.5
2985.714	16.465348	235930.8
3050.002	15.982663	237120.8
3114.286	15.52222	238277.1
3178.571	15.082671	239399.8
3242.859	14.662702	240490.2
3307.143	14.261099	241550.9
3371.428	13.876851	242583.4
3435.716	13.508881	243587.6
3500	13.156278	244566.2
4142.845	10.311122	253107.4
4785.725	8.3367397	259906.7
5428.57	6.9045908	265471.6
6071.415	5.8291227	270125.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Copy

FORM APPROVED
OMB No. 1004-0135
Expires: January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
 Jicarilla Apache Energy Corporation

3a. Address
 P.O. Box 710, Dulce, NM 87528

3b. Phone No. (include area code)
 505-759-3224

4. Location of Well (Footage, Sec., T, R., M., or Survey Description)
 895' FNL & 673' FWL, Sec 28, T27N, T2W, NMPM

5. Lease Serial No.
 70190001

6. If Indian, Allottee or Tribe Name
 Jicarilla Apache Tribe

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
 Apache JVA #2A

9. API Well No.
 30-039-27408

10. Field and Pool, or Exploratory Area
 Blanco-MesaVerde/Gavilan PC

11. County or Parish, State
 Rio Arriba County, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

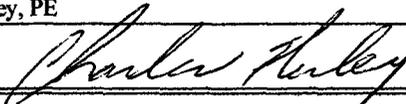
TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Complete Gavilan</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>PC & Downhole</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	<u>Commingle w/MV</u>

3. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

The Jicarilla Apache Energy Corporation (JAECO) proposes to complete and test this well as a Gavilan PC extension and Downhole Commingle the PC production with the existing Blanco-MesaVerde production. Attached is NMOCD form C-102 dedicating the NW 1/4 of Sec 28, T27N, T2W to the Gavilan PC, the West 1/2 of said section is presently dedicated to the Blanco-MesaVerde. Ownership between the pools in the spacing units to be commingled is identical and controlled by JAECO, therefore notice of intent to downhole commingle to interest owners is not required. The Blanco-MesaVerde is producing from perms 5658' - 6162'. It is proposed to perforate and stimulate the Gavilan PC: 3645' - 3867'. Production data from the Blanco-MesaVerde (completed 6/03) and test data from the Gavilan PC will be used to determine the allocation of production to each pool. Downhole commingling will not reduce the value of the total remaining production. A copy of the NMOCD application for downhole commingling Form C-107A is attached.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed) Charles Neeley, PE Title Agent

Signature  Date 7/13/04

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (Signature) _____ Name (Printed/Typed) _____ Title _____

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office _____ Date _____

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.