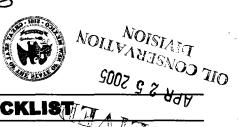
## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -1220 South St. Francis Drive, Santa Fe, NM 87505



		ADMINISTRATIVE APPLICATION CHECKLIS II TO A STATE OF THE
TH	IS CHECKLIST IS N	MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE
Applic	DHC-Dow	ndard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication] Indond Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication] Indone Commingling] [CTB-Lease Commingling] Indone Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement] Indone [OLS - Off-Lease Commingling] [OLM-Off-Lease Measurement] Indone [OLS - Off-Lease Storage] [OLS - Off-Lease Measurement] Indone [OLS - Off-Lease Storage] [OLS - Off-Lease Measurement] Indone [OLS - Off-Lease Storage] [OLS - Off-Lease Measurement] Indone [OLS - Off-Lease Measurement] [OLS - Off-Lease Measurement] Indone [OLS - Off-Lease Measurement] [OLS - Off-Lease Measurement] Indone [OLS - Off-Lease Measurement] [OLS
[1]	TYPE OF A	PPLICATION - Check Those Which Apply for [A]  Location - Spacing Unit - Simultaneous Dedication  NSL NSP SD
	Check [B]	k One Only for [B] or [C]  Commingling - Storage - Measurement  DHC CTB PC OLS OLM
	[C]	Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  WFX PMX SWD IPI EOR PPR
	[D]	Other: Specify
[2]	NOTIFICAT [A]	TION REQUIRED TO: - Check Those Which Apply, or X Does Not Apply  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]		CCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE ATION INDICATED ABOVE.
[4] approva applica	al is <b>accurate</b> a	ATION: I hereby certify that the information submitted with this application for administrative and <b>complete</b> to the best of my knowledge. I also understand that <b>no action</b> will be taken on this equired information and notifications are submitted to the Division.
		s: Statement must be completed by an individual with managerial and/or supervisory capacity.
	Corley Type Name	Signature Signature Signature Signature Signature Signature Sr. Regulatory Analyst  Corleyml@bp.com  e-mail Address

## State of New Mexico Energy, Minerals and Natural Resources Department

Form C-107A Revised May 15,

2000

District II

811 South First Street, Artesia, NM 88210

<u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410

Pools District IV

TYPE OR PRINT NAME\_

Mary Corley

## **OIL CONSERVATION DIVISION**

2040 South Pacheco Santa Fe, New Mexico 87505 APPLICATION TYPE
X Single Well

Establish Pre-Approved

EXISTING WELLBORE

2040 South Pacheco, Santa Fe, NM 87505  APPLICATION FOR DOWNHOLE COMMINGLING  X Yes No										
		- ( VHC=	7416							
	Company P. O. Box 309	2 Houston, TX 77253								
Operator Pritchard		Section 31 T29N, R08W	San Juan							
Lease	Well No. Unit Letter	-Section-Township-Range	County							
OGRID No. 0007/8 Property	Code <u>000939</u> API No. <u>30-04</u>	15-22345 Lease Type: X I	rederal State ree							
DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE							
Pool Name	Blanco Pictured Cliffs	Otero Chacra	Blanco Mesaverde							
Pool Code	72359 2294' – 2326'	82329 TBD	72319							
Top & Bottom of Pay Section (Perforated or Open-Hole Interval)	4054' – 4716'									
Method of Production (Flowing or Artificial Lift)	Artificial Lift	Flowing	Artificial Lift							
Bottomhole Pressure	430	430	480							
Oil Gravity or Gas BTU (Degree API or Gas BTU)	950	1230	950							
Producing, Shut-In or										
New Zone	Producing	New Zone	Producing							
Date and Oil/Gas/Water Rates of Last Production.	Date: Rates:	Date: Rates:	Date: Rates:							
Fixed Allocation Percentage	Oil Gas %	Oil Gas	Oil Gas %							
	ADDITIO	NAL DATA	<del></del>							
	ing royalty interests identical in all co overriding royalty interest owners be		Yes_X No Yes No							
Are all produced fluids from all con	nmingled zones compatible with each	other?	Yes X No							
Will commingling decrease the value	e of production?									
			Yes No_X							
	vith, state or federal lands, has either t Management been notified in writing		Yes No							
NMOCD Reference Case No. applic	cable to this well:									
Production curve for each zone For zones with no production hi Data to support allocation metho Notification list of working, roy	ningled showing its spacing unit and a for at least one year. (If not available, story, estimated production rates and od or formula.  alty and overriding royalty interests for documents required to support corr	attach explanation.) supporting data. or uncommon interest cases.								
	PRE-APPRO	OVED POOLS								
If application	is to establish Pre-Approved Pools, t	he following additional information w	ill be required:							
List of all operators within the prope	hole commingling within the proposed pre-Approved Pools roposed Pre-Approved Pools were pro	••								
I hereby certify that the informat	ion above is true and complete to t	he best of my knowledge and belie	of.							

TITLE Sr. Regulatory Analyst DATE 04/15/2005

TELEPHONE NO. ( 281 ) 366-4491

## State of New Mexico Energy, Minerals and Natural Resources Department

Form C-107A Revised May 15,

2000

Pools

District II

811 South First Street, Artesia, NM 88210

District III 1000 Rio Brazos Road, Aztec, NM 87410

District IV 2040 South Pacheco, Santa Fe, NM 87505

## **OIL CONSERVATION DIVISION**

2040 South Pacheco Santa Fe, New Mexico 87505

APPLICATION TYPE X Single Well \_\_\_ Establish Pre-Approved

APPLICATION FOR DOWNHOLE COMMINGLING

**EXISTING WELLBORE** X Yes No

Operator Pritchard	•	Address 2 Section 31 T29N, R08W	San Juan
ease	Well No. Unit Lette	er-Section-Township-Range	County
OGRID No. 000778 Property	Code <u>000959</u> API No. <u>30-0</u>	45-22345 Lease Type: X	Federal State Fee
DATA ELEMENT	UPPER MOST ZONE		
Pool Name	Basin Fruitland Coal		
Pool Code	71629		
Fop & Bottom of Pay Section Perforated or Open-Hole Interval)	TBD		
Method of Production Flowing or Artificial Lift)	Flowing		
Bottomhole Pressure	430		
Oil Gravity or Gas BTU Degree API or Gas BTU)	1230		
Producing, Shut-In or New Zone	New Zone		
Date and Oil/Gas/Water Rates of Last Production.	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage	Oil Gas %	Oil Gas %	Oil Gas %
f not, have all working, royalty and	ing royalty interests identical in all co overriding royalty interest owners be nmingled zones compatible with each e of production?	een notified by certified mail?	YesX No Yes No
or the United States Bureau of Land	with, state or federal lands, has either Management been notified in writing table to this well:	g of this application?	Yes No_X Yes No_
Production curve for each zone For zones with no production hi Data to support allocation metho Notification list of working, roy.	ningled showing its spacing unit and a for at least one year. (If not available story, estimated production rates and od or formula.  alty and overriding royalty interests for documents required to support cor	e, attach explanation.) supporting data. for uncommon interest cases.	
	PRE-APPR	OVED POOLS	
If application	is to establish Pre-Approved Pools,	the following additional information w	vill be required:
ist of all operators within the propo	hole commingling within the propose osed Pre-Approved Pools roposed Pre-Approved Pools were pro		
hereby certify that the informat	ion above is true and complete to	the best of my knowledge and beli	ef.
GIGNATURE Maly	Colly_TITLE_SI	r. Regulatory Analyst	DATE <u>04/15/2005</u>
	A <sup>r</sup>		

## Allocation Method Pritchard 3A

BP America Production Company request permission to complete the subject well into the Otero Chacra and Basin Fruitland Coal Pools, and commingle production downhole with the existing Blanco Pictured Cliffs and Blanco Mesaverde Pools as per the attached procedure.

The interest owners are identical between these three Pools, therefore, no additional notification is required prior to downhole commingling approval.

Proposed Production Allocation: Pictured Cliffs production will be allocated based on its decline factor – copy attached. The Mesaverde is currently producing intermittently, therefore it is our intent to test the Fruitland Coal and Chacra Pools independently; then test all 4 intervals together to determine the Mesaverde rate.

Commingling Production Downhole in the subject well from the proposed pools with not reduce the value of the total remaining production.

Application has also been submitted to BLM on Form 3160-5, Federal Lease No. SF - 078487.

## Pritchard 3 A

## Procedure to Complete into the Chacra & the Fruitland Coal & DHC with the Pictured Cliffs & Mesaverde March 30, 2005

- 1. Perform pre-rig site inspection. Check for: size of location, Gas Taps, other wells, other operators, running equipment, wetlands, wash (dikes req.), H2S, barriers needed for equipment, Landowner issues, location of pits (buried lines in pits), Raptor nesting, critical location, check anchors. Check ID wellhead, if earth pit is required have One Call made 48 hours prior to digging.
- 2. Perform second site visit after lines are marked to ensure all lines clear marked pit locations. Planning and Scheduling to ready location for rig.
- 3. RU slickline unit or wireline unit. Pressure test lubricator and equipment. RIH and set **two** barriers (CIBP, tbg collar stop w/plug, or plug set in nipple) for isolation in tubing strings.
- 4. Check and record tubing, casing, and bradenhead pressures. Ensure production casing has double casing valves installed. Double valve all casing strings.
- 5. MIRU workover rig. LO/TO all necessary equipment including but not limited to: meter run, Automation, Separators and water lines.
- 6. Blow down well. Kill with 2% KCL water ONLY if necessary.
- 7. Check all casing strings to ensure no pressure exist on any annulus. The operations of removal of wellhead and installation of BOP's will be performed under a dispensation for one (1) barrier on the backside.
- 8. Nipple down Wellhead. NU BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. Pressure test BOPs to 200 psi above BHP. Monitor flowing casing pressure with gauge (with casing flowing to blow tank) throughout workover.
- 9. Install stripping rubber.
- 10. TOH and LD 1-1/4" production tubing currently set at 2,335'. Using approved "Under Balance Well Control Tripping Procedure".
- 11. TOH w/ packer and 2-3/8" production tubing currently set at 4695'. Using approved "Under Balance Well Control Tripping Procedure".
- 12. TIH w/ scraper for 4-1/2". Check the distance between the top of the blind rams and the length of the bottom hole assembly that is being run. If the BHA is too long then the well has to be top killed and monitored prior to opening bind rams. RIH to PBTD at 4,770'. POOH.
- 13. Set bridge plug at 3,900'. Fill casing to PC w/ 2%KCl.
- 14. RU E-line equipment. Pressure test lubricator and equipment. Log well w/ CBL from PBTD to TOL. If TOC is below Chacra, contact engineer to discuss need for remedial cement squeeze.

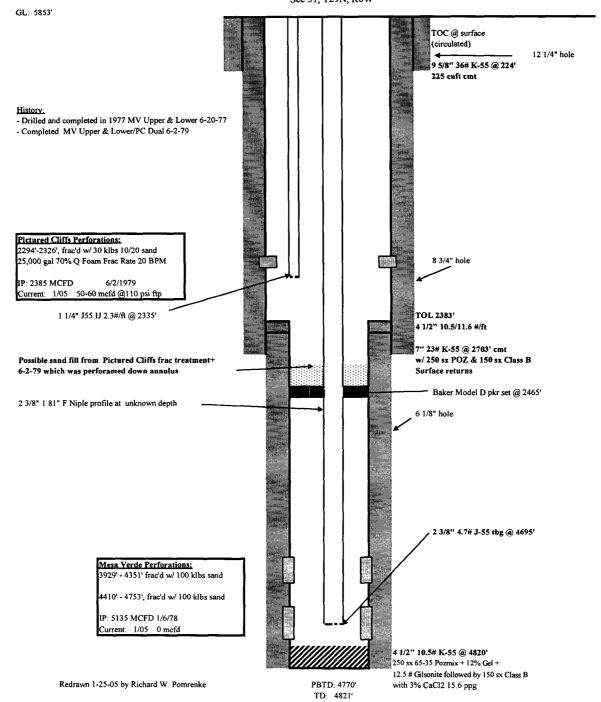
- 15. TIH w/ workstring and blow well dry.
- 16. Prepare for explosive operations. Follow Schlumberger Explosive SOP including radio silence, suspension of welding operations, and isolation of electrical devices from the work area. Perform Pre-job Safety Meeting to review JSA and procedures.
- 17. RIH with 3-1/8" casing guns w/lubricator. Perforate Chacra formation w/ 4 SPF.
- 18. RIH w/ packer and 3-1/2" by 2-7/8" frac string. Set packer at 2,450'.
- 19. Install and monitor production casing and treating pressure during entire job in frac van via pressure transducers on production casing and treating line. Spearhead 500 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule. Maintain surface pressures, less than 5,000 psi during frac job. Flush frac with foam.
- 20. Flowback frac immediately. Flow well through choke manifold on ¼", ½" and ¾" chokes increasing drawdown until well dies or stabilizes. This is to aid in reducing sand flowback. Recommend 8 hours of flow for each choke size.
- 21. Rig up air package/unit, pressure test all lines (Testing procedure to be supplied from air company), TIH with tubing and bit for 4-1/2" casing. Cleanout fill to top of BP set at 3,900'. Perform well test on Chacra for regulatory and document well test in DIMS.
- 22. Set bridge plug at 2,280'
- 23. RIH with 3-1/8" casing guns w/lubricator. Perforate Fruitland Coal formation w/ 4 SPF.
- 24. Install and monitor production casing and treating pressure during entire job in frac van via pressure transducers on production casing and treating line. Spearhead 500 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule. Maintain surface pressures, less than 3,000 psi during frac job. Flush frac with foam.
- 25. Flowback frac immediately. Flow well through choke manifold on ¼", ½" and ¾" chokes increasing drawdown until well dies or stabilizes. This is to aid in reducing sand flowback. Recommend 8 hours of flow for each choke size.
- 26. Rig up air package/unit, pressure test all lines (Testing procedure to be supplied from air company), TIH with tubing and bit for 7" casing. Cleanout fill to top of BP set at 2,280'. Perform well test on Fruitland Coal for regulatory and document well test in DIMS.
- 27. Cleanout fill and BP's set at 2,280' and 3,900'. Cleanout to PBTD at 4,770'. Blow well dry.
- 28. Rabbit tubing and RIH with 2-3/8" production tubing (with muleshoe, F-nipple with plug, 4 ft pup, X-nipple with plug).
- 29. Land 2-3/8" production tubing at +/-4,700'. Lock down hanger.
- 30. Pressure test tubing to 500 psi with air unit, make sure tubing spool valves are open. Care should be taken during pressure testing of the tubing due to potential problem caused if

tubing parts close to surface or above the hanger. Check all casing string for pressure. The operations of removal of wellhead and installation of BOP's will be performed under a dispensation for one (1) barrier on the backside.

- 31. ND BOP's. NU Wellhead. During Master valve placement ensure the top of hanger has spacer nipple in place to bottom of bonnet flange so plunger equipment will not hang up through tree. Pressure test Wellhead.
- 32. RU WL unit. Run gauge ring for 2-3/8" tubing. Pull plugs and set tubing stop for plunger. Communicate plunger equipment status to IC room personnel.
- 33. RD slickline unit.
- 34. Test well for air. Return well to production and downhole quad-mingle FT, PC, Chacra and Mesaverde.

## Pritchard 3A API # 300452234500

Sec 31, T29N, R8W



# Pritchard 3A Future Production Decline Estimate

# Pictured Cliffs

## Daily Rates

Sas Volume

In(Qf/Qi) = -dt

Gas Volume

Month Jan-2004 Feb-2004 Mar-2004

Q L

Qi= rate= time=

54

Apr-2004 May-2004 Jun-2004 Jul-2004

decline=

36 44 53

55 53

Jan-2005 Feb-2005 Mar-2005

Sep-2004 Oct-2004

Nov-2004 Dec-2004

Aug-2004

888888

Gas Volume 65	65	65	65	64	64	64	64	64	64	63	63	63	63	63	63	62	62	62	62	62	62	61	61	61	61	61	61	09	09	09	09	09	09	29	59
Month Feb-2010		Apr-2010	May-2010	Jun-2010	Jul-2010	Aug-2010	Sep-2010	Oct-2010	Nov-2010	Dec-2010	Jan-2011	Feb-2011	Mar-2011	Apr-2011	May-2011	Jun-2011	Jul-2011	Aug-2011	Sep-2011	Oct-2011	Nov-2011	Dec-2011	Jan-2012	Feb-2012	Mar-2012	Apr-2012	May-2012	Jun-2012	Jul-2012	Aug-2012	Sep-2012	Oct-2012	Nov-2012	Dec-2012	Jan-2013

88888

68

Sep-2005 Oct-2005 Nov-2005

Jul-2005

Aug-2005

May-2005

Jun-2005

Apr-2005

Dec-2005 Jan-2006 Feb-2006 Mar-2006 Apr-2006 May-2006

67

67

67 67

99

Sep-2009 Oct-2009

Aug-2006

Jul-2006

Jun-2006

Sep-2006

Oct-2006 Nov-2006 Dec-2006

Nov-2009 Dec-2009 Jan-2010

## Future Production Decline Estimate Pictured Cliffs 3A

Pritchard

## **Daily Rates**

Gas Volu

Month

Feb-2013

May-2013
Apr-2013
May-2013
Jun-2013
Jul-2013
Sep-2013
Oct-2013

emi 59	Month Gas Volu	릥
20		l
20	Apr-2016	
29	May-2016	
59	Jun-2016	
28	Jul-2016	
28	Aug-2016	
28	Sep-2016	
28	Oct-2016	
28	Nov-2016	
28	Dec-2016	
22	201	
22	Feb-2017	
27	Mar-2017	
22	Apr-2017	
57	May-2017	Ì
57	-201	
57	Jul-2017	
26	Aug-2017	
26	-201	
26	-201	
26	Nov-2017	
26	Dec-2017	
26	Jan-2018	
22	2	
55	Mar-2018	
22	Apr-2018	
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55	Jul-2018	
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54	Sep-2018	
54	201	
54	Nov-2018	
54	<del>-</del>	
22	Jan-2019	

Aug-2014 Sep-2014 Oct-2014

Apr-2014 May-2014

Dec-2013 Jan-2014 Feb-2014 Mar-2014 Jun-2014 Jul-2014 Nov-2014 Dec-2014 Jan-2015 Feb-2015 Mar-2015 May-2015 Jun-2015

Aug-2015 Sep-2015

Jul-2015

Nov-2015 Dec-2015 Jan-2016

Oct-2015

District'l

1625 N. French Dr., Hobbs, NM 88240

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised August 15, 2000

District II

811 South First, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

## OIL CONSERVATION DIVISION

2040 South Pacheco Santa Fe, NM 87505 Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

AMENDED REPORT

District IV 2040 South Pacheco, Santa Fe, NM 87505

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-22345	<sup>2</sup> Pool Code 82329	³ Pool Name Otero Chacra				
Property Code 000959	<sup>5</sup> Property Name Pritchard	<sup>6</sup> Well Number 3A				
<sup>7</sup> OGRID No. 000778	<sup>8</sup> Operator Name BP America Production Company	<sup>9</sup> Elevation 5853'				

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from	North/South	Feet from	East/West	County			
Unit P	31	29N	08W		1000	South	800	East	San Juan			
Bottom Hole Location If Different From Surface												
UL or lot no.	Section	Township	Range	Lot idn	Feet from	North/South	Feet	East/West	County			
12 Dedicated Acres		<sup>13</sup> Joint o	r Infill		<sup>14</sup> Consolidation C	Code	<sup>15</sup> Order No.					
160	0											

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

1,01,01,11,12,	IND ONLY HAS BEEN	THE THOUSE DE STEEL	DIVIOIOIV
			17 OPERATOR CERTIFICATION
			I hereby certify that the information contained
			herein is true and complete to the best of my
			knowledge and belief.
			Signature Mary Corley
			Printed Name
			Sr. Regulatory Analyst
			Title 4/15/2005
			Date
			<sup>18</sup> SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat
			was plotted from field notes of actual surveys made by
		Ì	me or under my supervision, and that the same is true
			and correct to the best of my belief.
			2/14/1977
			Date of Survey
		O <del>4</del> 800' -	Signature and Seal of Professional Surveyor:
		<u>†</u>	
		1000'	James P Leeae 1463
			Certificate Number
		,	

District 1

1625 N. French Dr., Hobbs, NM 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102 Revised August 15, 2000

District II

811 South First, Artesia, NM 88210

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 Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-22345	<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name Basin Fruitland Coal				
<sup>4</sup> Property Code 000959	<sup>5</sup> Property Name Pritchard	<sup>6</sup> Well Number 3A				
<sup>7</sup> OGRID No. 000778	<sup>8</sup> Operator Name BP America Production Com	general graphs of Elevation 5853'				

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot ldn	Feet from	North/South	Feet from	East/West	County		
Unit P	31	29N	08W		1000	South	800	East	San Juan		
Bottom Hole Location If Different From Surface											
UL or lot no.	Section	Township	Range	Lot ldn	Feet from	North/South	Feet	East/West	County		
			<u> </u>								
12 Dedicated Acres		<sup>13</sup> Joint of	r Infill	<sup>14</sup> Consolidation Code			15 Order No.				
326	1			l			1				

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

Largo 31B 18 API 30-045-28659 1149' FNL & 1519' FEL		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and felief.
		Mary Corley Printed Name Sr. Regulatory Analyst
		Title 4/15/2005  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. 2/14/1977
	○ <del></del> 800' -	Date of Survey Signature and Seal of Professional Surveyor:
	1000'	James P Leeae 1463  Certificate Number