Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD**OFFE** #gbbs

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

Expires. s	
Lease Serial No.	
NMNM27570	

,	SUNDRY NOTICES AND REPORTS ON WELLS	٠	OCD Hobbs
o i	not use this form for proposals to drill or to re-enter an		

Do Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRI	PLICATE - Other İnstruc	ctions on reverse side.		7. If Unit or CA/Agr	eement, Name and/or No.
1. Type of Well ☑ Oil Well ☐ Gas Well ☐ Oth				8. Well Name and No DIAMANTE 21 F	EDERAL 001
Name of Operator CIMAREX ENERGY CO. OF	Contact: COLORA D\O ail: nkrueger@	NATALIE E KRUEGER cimarex.com		9. API Well No. 30-025-34445	
3a. Address 600 N. MARIENFELD ST., ST MIDLAND, TX 79701	E. 600	3b. Phone No. (include area Ph: 432-620-1936 Fx: 432-620-1940	code)	10. Field and Pool, o GEM; WOLFC	r Exploratory AMP, NORTH .
4. Location of Well (Footage, Sec., 1	C., R., M., or Survey Description	i)		11. County or Parish	, and State
Sec 21 T19S R33E Mer NMP	SESW 1650FSL 1650FV	VL /		LEA COUNTY,	NM /
12. CHECK APPI	ROPRIATE BOX(ES) TO) INDICATE NATURE (OF NOTICE, RE	EPORT, OR OTHE	ER DATA
TYPE OF SUBMISSION		TYPI	E OF ACTION		
Notice of Intent ☐ Subsequent Report ☐ Final Abandonment Notice	☐ Acidize ☐ Alter Casing ☐ Casing Repair ☐ Change Plans ☐ Convert to Injection	☐ Deepen ☐ Fracture Treat ☐ New Construction ☐ Plug and Abandor ☐ Plug Back	Reclama	lete urily Abandon	☐ Water Shut-Off ☐ Well Integrity ☐ Other
13. Describe Proposed or Completed Opt If the proposal is to deepen directions Attach the Bond under which the wor following completion of the involved testing has been completed. Final Abdetermined that the site is ready for fi Cimarex Energy Co. of Colora	Illy or recomplete horizontally, k will be performed or provide operations. If the operation res andonment Notices shall be file nal inspection.)	give subsurface locations and m the Bond No. on file with BLM ults in a multiple completion or ed only after all requirements, in	neasured and true ver l/BIA. Required sub- recompletion in a n neluding reclamation	rtical depths of all perti- sequent reports shall be sew interval, a Form 310	nent markers and zones. e filed within 30 days 60-4 shall be filed once.
Cimarex Energy Co. of Colora Diamante 21 Federal No. 1 pe SEE ATTACHED CONDITIONS OF	FOR APPROVAL	HOBBS OCD JUN 0 2 2011 RECEIVED	rmation.	MAY <i>JON</i> BUREAU OF LA	ROVED 2 6 2011 RYD MANAGEMENT 0 FIELD OFFICE
14. Thereby certify that the foregoing is	Electronic Submission #1	08701 verified by the BLM RGY CO. OF COLORADO,	Well Information sent to the Hobb	System s	
Name(Printed/Typed) NATALIE [KRUEGER	Title REG	SULATORY ANA	LYST	
Signature (Electronic S		· · · · · · · · · · · · · · · · · · ·	0/2011		
	THIS SPACE FO	R FEDERAL OR STAT	E OFFICE US	E	
Approved By Conditions of approval, if any, are attached	Approval of this notice does	Title			Date
certify that the applicant holds legal or equ which would entitle the applicant to condu	itable title to those rights in the ct operations thereon	Subject lease Office			
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent s	U.S.C. Section 1212, make it a tatements or representations as	crime for any person knowingly to any matter within its jurisdic	and willfully to ma tion.	ke to any department or	r agency of the United

WATER PRODUCTION & DISPOSAL INFORMATION

In order to process your disposal request, the following information must be completed:

1.	Name(s) of all formation(s) producing water on this lease.	
	Gem; Morrow, Gas	
2.	Amount of water produced from all formations in barrels per day.	
	1.75 bbls per day	
3.	Attach a current water analysis of produced water from all zones showing at least the total d	issolved
	solids, pH, and the concentrations of chlorides and sulfates.	
4.	How water is stored on the lease.	
	1 210 bbl fiberglass tank	
5.	How water is moved to the disposal facility.	
	Trucked	_
6.	Identify the disposal facility by:	
	A. Facility Operator's Name: P&W Resources, LLC	
	B. Name of facility or well name and number: Kaiser State No. 9	·
	C. Type of facility or well (WDW, WIW), etc.: <u>SWD</u>	
	D. Location by ¼ ¼, Section, Township, and Range: SWNW 13-21S-34E	
7.	Attach a copy of the state-issued permit for the Disposal Facility.	

Submit 1 original and 5 copies within the required time frame with 3160-5. This form may be used as an attachment to the sundry notice.

Form 3160-9 (December 1989)

BLM COPY

UNITED STATES

	Page of 1
	Identification
IID	
Lease	NMNM27570
CA	
Unit	

Number

KAH-054-11

Certified Mail - Return Receipt Requested 70090820000144000801		BUREAU OF LAND MANAGEMENT				IID	ntification NM27570			
Hand Delivered Received by	NOTICE (NOTICE OF INCIDENTS OF NONCOMPLIANCE				CA Unit PA				
Bureau of Land Management Office				Operat	ог	· · · · · · · · · · · · · · · · · · ·				
	SPECTION OFFI	CE			CIM	AREX ENER	RGY CON	MPANY OF C	0	
	VEST TAYLOR 3S NM 88240			Addres	s 600 N	MARIENFE MIDLAI	LD STRE	EET, SUITE 6 9701	000	
	5.393.3612			Attenti	on	ZEN	IO FARR	IS		
	HASTON			Attn Ac	^{ldr} 600 N	MARIENFE MIDLAI	LD STRI ND TX 7	EET, SUITE 6 9701	000	
Site Name	Well or Facility	1/4 I/4 Section	Townshi	•	Range	Meridian	County		State	
#1 DIAMANTE FED 21	A	NESW 21	19		33E	NMP		LEA	NM	
Site Name (FACILITY)	Well or Facility	1/4 1/4 Section	Townshi		Range	Meridian	County		State	
THE FOLLOWING VIOLATION	ON WAS FOUND BY I	BUREAU OF LAN	D MANA	GEME	NT INSPECTOR	S ON THE DAT	E AND AT	THE SITE LIST	ED ABOVE -	
Date	Time	(24 - hour clock)		Violation				Gravity of Violation		
03/18/2011		08:10			00G0 #7	.III,A	MINOR		R	
Corrective Action To Be Completed By	Da	te Corrected		,	Assessment for No	ncompliance	Assessment Reference		ference	
04/25/2011								43 CFR 31	63.1()	
Remarks METHOD OF WATER DISPOS FOR APPROVAL TO DISPOS ATTACHMENT). SUBMIT A C 1 ORIGINAL AND 5 COPIES T	E OF PRODUCE OPY TO THE HO	D WATER FRO BBS FIELD S	OM TH	IS WI N. 414	ELL ALONG 4 W. TAYLO	WITH ALL F R. HOBBS. I	REQUIRE NM 8824	D INFORMA IO AND SUBI	TION (SEE	
When violation is corrected, sign this notice	and return to above addr	ess.								
Company Representative Title	· ·		Signatu	re				Date ,		
Company Comments			-							
						,				
		v	VARN	ING						
ncidents of Noncompliance correction arlier. Each violation must be corrected dress shown above. Please note that	ed within the prescrib	ames begin upon i	receipt o	f this N	ce and reported	to the Bureau o	of Land Ma	nagement office	at the	

not comply as noted above under "Corrective Action To Be Completed By" you may incur an additional assessment under (43 CFR 3163.1) and may also incur Civil Penalties (43 CFR 3163.2). All self-certified corrections must be postmarked no later than the next business day after the prescribed time for correction.

Section 109(d)(1) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3163.2(f)(1), provides that any person who "knowingly or willfully" prepares, maintains, or submits, false, inaccurate, or misleading reports, notices, affidavits, record, data, or other written information required by this part shall be liable for a civil penalty of up to \$25,000 per violation for each day such violation continues, not to exceed a maximum of 20 days.

REVIEW AND APPEAL RIGHTS

A person contesting a violation shall request a State Director review of the Incidents of Noncompliance. The State Director review of the Incidents of Noncompliance with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Lands Appeals, 801 North Quincy Street, Suite 300, Arlington VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land. Management office for further information.

Signature of Buyeau of Lar	nd Management Authorized Officer 4 Hastor			3/18/11	7ime 0830
	\mathcal{O}	FOR OFFICE US	E ONLY		
Number	Date	Assessment	Penalty	Tenninatio	תכ
. 33					
Type of Inspection					
SP					



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON Governor Joanna Prukop
Cabinet Secretary
Acting Director
Oil Conservation Division

ADMINISTRATIVE ORDER SWD-923

APPLICATION OF P&W RESOURCES, LLC FOR PRODUCED WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), P&W Resources, LLC made application to the New Mexico Oil Conservation Division on April 27, 2004, for permission to utilize for produced water disposal its Kaiser State Well No. 9 (API No. 30-025-02538) located 1,980 feet from the North line and 1,980 feet from the West line of Section 13, Township 21 South, Range 34 East, NMPM, Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
 - (4) No objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED THAT:

The applicant is hereby authorized to utilize its Kaiser State Well No. 9 (API No. 30-025-02538) located 1,980 feet from the North line and 1,980 feet from the West line of Section 13, Township 21 South, Range 34 East, NMPM, Lea County, New Mexico, in such manner as to permit the injection of produced water for disposal purposes into the Yates and Seven Rivers formations from 3,590 feet to 3,668 feet through 2-7/8 inch plastic-lined tubing set in a packer located at 3,490 feet.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Within 60 days following the effective date of this permit, the operator shall submit water analysis to the Division in Santa Fe for waters from all pools to be disposed of into this well. In addition, the operator shall estimate the current reservoir pressure of the injection interval and supply this data in writing to the Division.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 718 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the injection formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

Administrative Order SWD-923
P&W Resources, LLC
May 13, 2004
Page 3 of 3

The operator shall provide written notice of the date of commencement of injection to the Hobbs district office of the Division. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 13th day of May 2004.

JOANNA PRUKOP, Interim Director

JP/wvjj

cc: Oil Conservation Division – Hobbs
State Land Office – Oil and Gas Minerals Division
Lee Engineering – Robert Lee
Case No. 4015

Analytical Laboratory Report for Cimarex



Account Representative: LAVELL HANSON

Production Water Analysis

Listed below please find water analysis report from: Diamonte Fed. 21, #1

 Lab Test Number
 Sample Date

 2011114991
 05/19/2011

[
]

Specific Gravity: 1.047

TDS:

70387

pH:

6.70

hu:	0,70		
Cations:	mg/L	as:	
Calcium	2350	(Ca ^{''})	
Magnesium	345	(Mg ^{**})	
Sodium	22130	(Na [†])	
Iron	140.00	(Fe ^{-†})	
Potassium	157.0	(K ⁺)	
Barium	1.07	(Ba ⁺⁺)	
Strontium	156.00	(Sr ⁺⁺)	
Manganese	2.43	(Mn ^{tf})	
Anions:	mg/L	as:	
Bicarbonate	305	(HCO ₃ ·)	
Sulfate	700	(SO ₄)	
Chloride	44100	(CI)	
Gases:	,		
Carbon Dioxide	60	(CO ₂)	
Hydrogen Sulfide	0.0	(H ₂ S)	

Analytical Laboratory Report for: Cimarex



Account Representative:

DownHole SAT[™] Scale Prediction @ 100 deg. F

[] Lab Test Number	Sample Date	Location	•
2011114991 Mineral Scale	05/19/2011 Saturation Index	#1 Momentary Excess (lbs/1000 bbls)	
Calcite (CaCO3)	2.08	0.16	1000-100-100
Strontianite (SrCO3)	0.21	-1.75	. *
Anhydrite (CaSO4)	0.19	-1681.64	
Gypsum (CaSO4*2H2O)	0.25	-1400.35	
Barile (BaSO4)	2.28	1.02	
Celestite (SrSO4)	0.32	-349.74	
Siderite (FeCO3)	187.62	0.36	
Halite (NaCI)	0.01	-496420.69	
Iron sulfide (FeS)	0.00	-0.04	

Interpretation of DHSat Results:

The Saturation Index is calculated for each mineral species Independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) to positive (precipitating) values. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.

BUREAU OF LAND MANAGEMENT Carlsbad Field Office 620 East Greene Street Carlsbad, New Mexico 88220 575-234-5972

Disposal of Produced Water From Federal Wells Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

- 1. This agency shall be notified of any change in your method or location of disposal.
- 2. Compliance with all provisions of Onshore Order No. 7.
- 3. This agency shall be notified of any spill or discharge as required by NTL-3A.
- 4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
- 5. All above ground structures on the lease shall be painted Shale Green (5Y 4/2), or as per approved APD stipulations. This is to be done within 90 days, if you have not already done so.
- 6. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
- 7. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
- 8. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.
- 9. Disposal at any other site will require prior approval.
- 10. Subject to like approval by NMOCD.

2/09/2011