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STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

	APPLICATION FOR AUTHORIZATION TO INJECT
I.	PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage Application qualifies for administrative approval? X Yes No
II.	OPERATOR: Chesapeake Operating, Inc.
	ADDRESS: <u>P.O. Box 18496 Oklahoma City, OK 73154-0496</u>
	CONTACT PARTY: Bryan Arrant PHONE: (405)935-3782
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project? Yes X No If yes, give the Division order number authorizing the project:
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
VII	Attach data on the proposed exercises including:
V11.	Attach data on the proposed operation, including: G-19-24S -29E
	1. Proposed average and maximum daily rate and volume of fluids to be injected; EDDY CO., N.M. 2. Whather the system is open or closed. API # 30-015-24292
	2. Whether the system is open or closed; AI 1 # 50-015-24292
	4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected
	produced water; and,
	5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
*VIII.	Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	NAME: Bryan Arrrant
	SIGNATURE: DATE: 02/09/2012
	F-MAIL ADDRESS: https://www.amont@able.com
* 0	If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

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III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

			,	· · · · · · · · · · · · · · · · · · ·) ,										WELLBORE SCHEMATIC	WELL LOCATION: <u>1950' FNL & 1980' FEL</u> FOOTAGE LOCATION	WELL NAME & NUMBER: QUEEN LAKE 19 FEDERAL 1	OPERATOR: Chesapeake Operating, Inc.	Side 1 INJEC
(Pe	2788'		Total Depth: <u>11190'</u>	Top of Cement: 5902	Cemented with: <u>1275</u>	Hole Size: <u>8 1/2"</u>		Top of Cement: 0'	Cemented with: 1300	Hole Size: 12 1/4"		Top of Cement: <u>Surface</u>	Cemented with: 500	Hole Size: <u>17 1/2"</u>		G UNIT LETTER			TION WELL DATA SHEET
rforated or Open H	fee	Injection		020	SX.		Productio		SX.		Intermedia		SX.		<u>WELL C</u> Surface	19 SECTION			
fole; indicate which)	t to 2821 (Perforated)	Interval		Method Determined:	0r	Casing Size: 7"	<u>n Casing</u>	Method Determined:	or	Casing Size: 9 5/8"	<u>te Casing</u>	Method Determined:	or	Casing Size: 13 3/8"	<u>ONSTRUCTION DATA</u> Casing	24 S TOWNSHIP			
				Calentated				Circulated	ft ³			Circulated	ft ³			29 E RANGE			,

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INJECTION WELL DATA SHEET

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Autic of Ficha of Fichappicaete, <u>SWD, DELA WAIR</u>	Vame of Field or Pool (if annlicable). SWD: DELAWARE	Vame of the Injection Formation: Ramsey Sands of the Delaware Mountain Group	f no, for what purpose was the well originally drilled? <u>Oil & Gas Production</u>	s this a new well drilled for injection? Yes X No	Additional Data		Time of Tubine (Opping Cool (if and isoble): A 10" line out 13500' TOO 10007'	xr Setting Depth: 2750'	of Packer: Baker Loc-Set	g Size: <u>3 1/2"</u> Lining Material: <u>Plasttic</u>

intervals and give plugging detail, i.e. sacks of cement or plug(s) used. Yes. Atoka: 12154-12163'

Bone Spring: 7520'-8910' (OA); Delaware: 4299'-6513' (OA); Plugging Details on W.D.

S. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: <u>DELAWARE: 4921'-6503' (OA); BONE SPRING: 6503'-8910' (OA); ATOKA: 12</u>154'-12163'

NMOCD (C-108) Application for Authorization to Dispose

Queen Lake 19 Federal 1 Section 19, T-24-S R-29-E 1950' FNL & 1980' FEL, NMPM Eddy County, New Mexico API # 30-015-24292

Chesapeake Operating, Inc. proposes to convert the above captioned well and convert to salt water disposal in the Ramsey Sands of the Delaware Mountain Group. Please find the following application for authorization to dispose along with attachments and item information.

Item I	The purpose of this application is for disposal.
Item II	Chesapeake Operating, Inc. (OGRID # 147179) P.O. Box 18496 Oklahoma City, OK 73154-0496 Bryan G. Arrant, Contact phone # 405-935-3782
Item III	See attached data sheets.
Item IV	This is not an existing project.
Item V	See attached maps showing ½ mile and 2 mile radius.
Item VI	See attached tabulation of wells within the $\frac{1}{2}$ mile area of review (AOR) which penetrate the proposed disposal zone. There is one other well within the AOR. This well is producing 3493' below the lower most perforations of the proposed disposal zone.

Item VII

- 1) The average daily disposal rate is expected to be 650 BWPD. The maximum daily rate is expected to be approximately 2000 BWPD.
- 2) This system will be closed.
- 3) The proposed average disposal pressure is expected to be 550 psig and the maximum disposal pressure is expected to be 550 psig.
- 4) The source of water to be disposed is produced salt water from surrounding wells which produce from the Delaware and Bone Spring formations.
- 5) Disposal of fluids will be in the Ramsey Sands of the Delaware Mountain Group. The Delaware is productive at much deeper intervals. The Ramsey formation is regionally non-productive; therefore there are no water samples available.

Item VIII

The Ramsey Sands of the Delaware Mountain Group can be described as: light gray, clear to frosted, fine to very fine crystalline, mostly sub-rounded sand grains with some subangular, well sorted, and unconsolidated sand grains. The grains are predominantly quartz and feldspar with some carbonates present that are cementing agents. This zone proved non-productive as efforts to recomplete this well were unsuccessful. Activity reports are attached to support that this zone is non-productive.

Primary geological tops of the Queen Lake 19 Federal 1 directly above and below disposal zone:

Lamar Limestone:	2732'
Top of Bell Canyon	2764'
Top of Cherry Canyon	3638'
Top of Brushy Canyon	4400'
Top of Bone Spring	6530'

There are no known underground sources of drinking water overlying the proposed injection zone as well as any such sources underlying the disposal interval.

Item IX	Acidize perfs w/3250 gals 15 % NeFe Acid, dropping 75 ball sealers through-out job. Displace acid to perfs.
Item X	An electric log is available for public record on NMOCD's web-site.
Item XI	There are no active fresh water wells within one mile of the AOR. All wells have had their pumps pulled; therefore we could not get any samples. Please see documentation from the New Mexico Office of the State Engineer's web-site regarding any record of water wells.
	This well is located over 3 1/2 miles south-southwest of the secretary's potash boundary of R-111-P, and is over 17 miles east of the Capitan Reef aquifer.
Item XII	There are no evidence of open faults or any other hydrological connection between the disposal zone and any underground sources of drinking water.
Item XIII	Proof of Notice
	Copies of the C-108 application have been furnished by certified mail. A list is provided. A copy of the legal advertisement in the county in which the well is located is attached.

Additional information:

Procedure to convert well to SWD.

Actual & proposed well bore diagram.

Geological formation tops.

Approved BLM permit to convert well to SWD.

Operational daily activity reports in Ramsey Sand interval.

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CURRENT WELLBORE SCHEMATIC

WELL: QUEEN LAKE 19 FED 1 STATUS: T/A FIELD: Pierce Crossing COUNTY: EDDY STATE: NEW MEXICO LOCATION: 1,950.0 FNL & 1,980.0 FEL SEC 19, BLK , ELEVATION: 2,956.0 GR -- 2,976.0 RKB TD: 13,499.0 PBTD: Original Hole - 10809.0

PROP #: 891238	Ch
API: 3001524292	
SPUD DATE: 10/20/1982	
RIG RELEASE: 12/20/1982	
FIRST SALES: 7/1/1983	
WELLBORE TYPE: VERTICA	L

	matic - A	ctual	Set Depth (ftKB)	3,488.0	Well	^{bore} ginal Hole			String Top Co	onnection	
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mt w/ 300 sx. tail w/			Casing Joint	S	4 1/2	3.920	13.50 N	1-80	10	,992.0	13,487.0
200 sx. Circ			Shoe		4 1/2				13	,487.0	13,488.0
9 5/8in, 47.00lbs/ft.			Perforation	S	and Contractor	Charles States		3357		1.500.00	
P-110, 20-2,630 ftKB			Date	DAMOET	Zone/Formati	ion	Top (II	KB)	Btm (#KB)	Curr	ent Status
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400 sx. Circ	6 📫		11/5/2010	DAMOE	V SAND		3,	200.0	4 300	0 Squee	zed
AMSEY SAND, 2,788			11/5/2010	DAMOE	V SAND		4,	299.0	4,300	O Squee	zed
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	10		4/27/1995	BONE S	PRING	1917-2012-201	7.	630.0	7,636	6.0 Isolate	d
pot 40 sxs @ 4,700' -			12/10/1990	BONE S	PRING		8,	856.0	8,884	1.0 Isolate	d
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and and a state of the second			NE-212	11000	and the second second		S. C. S. C.			1000	6.0 gai
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LU IIIIUIIIIUI	B		Туре	Date	FUOIDOOF	Zone	DING	Top (ft)	(B)	Bottom (fi	KB)
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nt w/ 750 sx, tail w/ 525 sx BP, 4in, 12,040 ftKB ATOKA, 12,154 Cmt w/ 400 sx			Stim Details	Date	8/4/1999	Zone BONE SP	RING,	1.00 (10	6,503.0	6.	513.0
ht w/ 750 sx, tail w/ 525 sx BP, 4in, 12,040 ftKB ATOKA, 12,154 Cmt w/ 400 sx 1, 13,50lbs/ff, N-80, 10,987 12,460 ftKB			Stim Details Type Sand Frac	Date	8/4/1999	Zone BONE SP Original H	RING, lole	1.00 (6,503.0	6,	513.0
nt w/ 750 sx, tail w/ 525 sx BP, 4in, 12,040 ft/B ATOKA, 12,154 Cmt w/ 400 sx n, 13.50lbs/ft, N-80, 10,987-13,488 ft/B D 13,409			Stim Details Type Sand Frac	Date	8/4/1999	Zone BONE SP Original H	RING, lole	1.00 (6,503.0	6,	513.0
nt w/ 750 sx, tail w/ 525 sx IBP, 4in, 12,040 ftK8 ATOKA, 12,154 Cmt w/ 400 sx n, 13.50lbs/ft, N-80, 10,987-13,488 ftK8 TD, 13,499			Stim Details Type Sand Frac	Date	8/4/1999	Zone BONE SP Original H	RING, lole		6,503.0	6,	513.0
nt w/ 750 sx, tail w/ 525 sx IBP, 4in, 12,040 ftK8 ATOKA, 12,154 Cmt w/ 400 sx n, 13.50lbs/ft, N-80, 10,987-13,488 ftK8 TD, 13,499 History Event			Stim Details Type Sand Frac	Date	8/4/1999	BONE SP Original H	RING, lole		6,503.0	6,	513.0
nt w/ 750 sx, tail w/ 525 sx IBP, 4in, 12,040 fft8 ATOKA, 12,154 Cmt w/ 400 sx n, 13.50lbs/ft, N-80, 10,987-13,488 fft8 TD, 13,499 History Event 2006 TA			Stim Details Type Sand Frac	Date	8/4/1999	Zone BONE SP Original H	RING, lole		6,503.0	6,	513.0
nt w/ 750 sx, tail w/ 525 sx IBP, 4in, 12,040 fik8 ATOKA, 12,154 Cmt w/ 400 sx n, 13,50lbs/ft, N-80, 10,987-13,488 fik8 TD, 13,499 History Event 2006 TA 010 DO 5' cmt & CIE	P @ 4837'.		Stim Details Type Sand Frac	Date	8/4/1999	Zone BONE SP Original H	RING, lole		6,503.0	6,	513.0
nt w/ 750 sx, tail w/ 525 sx IBP, 4in, 12,040 fikB ATOKA, 12,154 Cmt w/ 400 sx in, 13,50lbs/ft, N-80, 10,987-13,488 fikB TD, 13,499 History Event 2006 TA 010 DO 5' cmt & CIE 010 CR @ 4821'.	P @ 4837'.		Stim Details Type Sand Frac	Date	8/4/1999	Zone BONE SP Original H	RING, lole		6,503.0	6,	513.0
nt w/ 750 sx, tail w/ 525 sx IBP, 4in, 12,040 fik8 ATOKA, 12,154 Cmt w/ 400 sx in, 13,50lbs/ft, N-80, 10,987-13,488 fik8 TD, 13,499 History Event 2006 TA 2010 DO 5' cmt & CIE 010 CR @ 4821'. 010 SQZD Delaware 010 DO CR and fail	P @ 4837'.	1-4935 w/ 150 sx, tail w/	Sand Frac	Date	8/4/1999	Zone BONE SP Original H	RING, lole		6,503.0	6,	513.0
nt w/ 750 sx, toil w/ 525 sx IBP, 4in, 12,040 ftRb ATOKA, 12,154 Cmt w/ 400 sx in, 13.50lbs/ft, N-80, 10,987-13,488 ftRb TD, 13,499 History Event 2006 TA 010 D0 5' cmt & CIE 010 CR @ 4821' 010 S02D Delaware 010 D0 CR and fell 010 Tag @ 5100'. 010 Tag @ 5100'.	P @ 4837'. Perfs @ 492 put. RiH to 42 Junk for 5 hr	1-4935 w/ 150 sx, tail w 942'. Test SQZ to 800# s to 5105'.	Stim Details Type Sand Frac 50 sx. for 10 min. Tested	Date	8/4/1999	Zone BONE SP Original H	PRING, lole		6,503.0	6,	513.0
mt w/ 750 sx, tail w/ 525 sx JBP, 4in, 12,040 fftk9 ATIOKA, 12,154 Cmt w/ 400 sx in, 13.50lbs/ft, N-80, 10,987-13,488 ftk8 10,987-13,488 ftk8 10,987-13,488 ftk8 10,987-13,489 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,997-13,499 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,987-13,499 ftk8 10,997-13,499 ftk8 10,997-13,497 ftk8 10,997-13,499 ftk8 10,997-13,497 ft	IP @ 4837'. IPerfs @ 492 put. RIH to 45 D junk for 5 hr and fell out @	1-4935 w/ 150 sx, tail w. 942'. Test SQZ to 800# 's to 5105'. 0 5145'. DO cmt and CIE	Stim Details Type Sand Frac	Date	8/4/1999	Zone BONE SP Original H	PRING, lole		6,503.0	6,	513.0
nt w/ 750 sx, tail w/ 525 sx 18P, 4in, 12,040 fit8 ATOKA, 12,154 Cmt w/ 400 sx in, 13,50lbs/ft, N-80, 10,987-13,488 fit8 TD, 13,499 History History History 2006 TA 010 DO 5' cmt & CIE 010 CR @ 4821'. 010 SQ2D Delaware 010 DO CR and fell 010 DO CR and fell 010 DO CR and cmu	IP @ 4837'. Perfs @ 492 put. RiH to 49 Junk for 5 hn and fell out @ @ 6356-89 w/	1-4935 w/ 150 sx, tail w. 942'. Test SQZ to 800# 's to 5105'. 9 5145'. DO cmt and CIE / 100 sx, tailed w/ 50 sx.	Stim Details Type Sand Frac '50 sx. for 10 min. Tested 3P @ 6293'.	Date	8/4/1999	Zone BONE SP Original H	RING, lole		6,503.0	6,	513.0
mt w/ 750 sx, tail w/ 525 sx 5/8P, 4in, 12,040 fik8 ATOKA, 12,154 Cmt w/ 400 sx in, 13,50lb5/ft, N-80, 10,987-13,488 fik8 TD, 13,499 History Event 2006 TA 2010 DO 5' cmt & ClE 010 CR @ 4821'. 010 DO CR and fell 010 DO CR and fell 010 DO CR and mit 010 DO CR and cmt 010 SQZD csg leak. 010 DO cmt & CR. 010 DO cmt & CR.	IP @ 4837'. IP Perfs @ 492 out. RIH to 45) Junk for 5 hr and fell out. @ 6356-89 wl # 460 erd 6 ll	1-4935 w/ 150 sx, tail w 942'. Test SQZ to 800# 's to 5105'. 0 5145'. D0 cmt and Clf 100 sx, tailed w/ 50 sx.	Sim Details Type Sand Frac / 50 sx. for 10 min. Tested 3P @ 6293'.	Date	8/4/1999	Zone BONE SP Original H	RING, lole		6,503.0	6,	513.0
mt w/ 750 sx, tail w/ 525 sx ClBP, 4in, 12,040 ftKB ATOKA, 12,154 Cmt w/ 400 sx in, 13,50lbs/ft, N-80, 10,987-13,488 ftKB TD, 13,499 History Event 2006 TA 2006 TA 2010 DO 5' cmt & CIE 010 CR @ 4821' 2010 SQZD Delaware 010 DO CR and cmt 010 DO CR and cmt 010 DO cmt & CR. 010 DO cmt & CR. 010 DO cmt & CR.	P @ 4837'. Perfs @ 492 Dunk. RiH to 45 D junk for 5 hr and fell out @ @ 6356-89 w/ 6450 and fell	1-4935 w/ 150 sx, tail w/ 942'. Test SQZ to 800# 's to 5105'. 2 5145'. DO cmt and CIE '100 sx, tailed w/ 50 sx. out @ 6460' & tag	Sim Details Type Sand Frac 750 sx. for 10 min. Tested 3P @ 6293'. DO remains of Cl	Date	8/4/1999 nt to 6464'. t	Zone BONE SP Original H	RING, lole	rs w/ n	6,503.0	6,	513.0
mt w/ 750 sx, tail w/ <u>525 sx</u> ClBP, 4in, 12,040 ftKB \ <u>ATOKA, 12,154</u> <u>Cmt w/ 400 sx</u> in, 13.50lbs/ft, N-80, 10,987-13,488 ftKB <u>TD, 13,499</u> History <u>Event</u> 2006 TA 2006 TA 2006 TA 2010 DO 5' cmt & ClE 2010 SQZD Delaward 2010 DO CR and fell 2010 DO CR and fell 2010 DO CR and reft 2010 DO CR and reft	P @ 4837'. Perfs @ 492 D junk for 5 hr and fell out @ @ 6356-89 w/ 6450 and fell nin and fell ou	1-4935 w/ 150 sx, tail w. 942'. Test SQZ to 800# s to 5105'. 2 5145'. DO cmt and CIE 100 sx, tailed w/ 50 sx. out @ 6460' & tag t. Tag @ 7845'.	Stim Details Type Sand Frac 50 sx. for 10 min. Tested 3P @ 6293'. DO remains of Cl	Date	8/4/1999 nt to 6464'. 1	Zone BONE SP Original H	RING, lole	rs w/ n	6,503.0	6,	513.0
mt w/ 750 sx, tail w/ 525 sx SIBP, 4in, 12,040 fit8b ATOKA, 12,154 Cmt w/ 400 sx in, 13.50lbs/ft, N-80, 10.987-13,488 ftKB 10.987-13,488 ftKB 10.987-13,488 ftKB 10.987-13,489 ftKB 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 10.997-13,489 1	P @ 4837'. Perfs @ 492 out. RiH to 45 0 junk for 5 hr and fell out @ 0 6356-89 w/ 6450 and fell nin and fell ou IZD perfs @ 6	1-4935 w/ 150 sx, tail w. 942'. Test SQZ to 800# 's to 5105'. 9 5145'. DO cmt and CIE '100 sx, tailed w/ 50 sx. out @ 6460' & tag it. Tag @ 7845'.	Stim Details Type Sand Frac 50 sx. for 10 min. Tested 3P @ 6293'. DO remains of Cl 25 sx.	Date	8/4/1999 	Zone BONE SP Original H	RING, lole	rs w/ n	6,503.0	6,	513.0
mt w/ 750 sx, tail w/ S25 sx ClBP, 4in, 12,040 ftKB ATOKA, 12,154 Cmt w/ 400 sx in, 13,50lbs/ft, N-80, 10,987-13,488 ftKB TD, 13,499 History History History Event 2006 TA 010 DO 5' cmt & ClE 010 CR @ 4821'. 010 SQZD Delaware 010 DO CR and fell. 010 Tag @ 5100'. Di 10 DO CR and cmt 010 DO CR fa CR. 010 DO CHP in 30 r 10 CR @ 6480'. SC 10 DO Cmt & CR.	IP @ 4837'. IP @ 4837'. IP Perfs @ 492 Dut. RIH to 45 D Junk for 5 H and fell out @ @ 6356-89 w/ 6450 and fell nin and fell ou ZD perfs @ 6 6515'. Fell ou	1-4935 w/ 150 sx, tail w 942'. Test SQZ to 800# 's to 5105'. 0 5145'. DO cmt and ClE '100 sx, tailed w/ 50 sx. out @ 6460' & tag t. Tag @ 7845'. 5503-13 w/ 75 sx, tail w/ it.	Stim Details Type Sand Frac 50 sx. for 10 min. Tested 3P @ 6293'. DO remains of Cl 25 sx.	Date	8/4/1999 	Zone BONE SP Original H	RING, lole	rs w/ n	6,503.0	6.	513.0
mt w/ 750 sx, tail w/ 525 sx 3/BP, 4in, 12,040 fik8 ATOKA, 12,154 Cmt w/ 400 sx in, 13,50lbs/ft, N-80, 10,987-13,488 fik8 TD, 13,499 History Event 2006 TA 010 DO 5' cmt & ClE 010 CR @ 4821'. 010 S02D Delaware 010 DO CR and fell 010	IP @ 4837'. Perfs @ 492 out. RiH to 45 D junk for 5 hr and fell out. @ 6356-89 wl 6450 and fell nin and fell out. [ZD perfs @ 6 6515'. Fell ou. into perfs @ 1	1-4935 w/ 150 sx, tail w 942'. Test SQZ to 800# s to 5105'. 0 5145'. DO cmt and Clf 100 sx, tailed w/ 50 sx. out @ 6460' & tag out @ 6460' & tag it. Tag @ 7845'. 5503-13 w/ 75 sx, tail w/ it. 7520-7636 @ 5 bpm 70	Stim Details Type Sand Frac 50 sx. for 10 min. Tested 3P @ 6293'. DO remains of Cl 25 sx. D# w/ 50 bw bleed	Date Date	8/4/1999 nt to 6464'. 1 5 min.	Zone BONE SP Original H	RING, lole	rs w/ n	6,503.0	6.	513.0
nt w/ 750 sx, toil w/ 525 sx IBP, 4in, 12,040 fitkb ATOKA, 12,154 Cmt w/ 400 sx n, 13.50lbs/ft, N-80, 10,987-13,488 ftkB 10,987-13,488 ftkB 100 CF @ 4821' 100 SQZD Delaware 100 DO 5' cmt & CIE 100 CR @ 4821' 101 Tag @ 5100' 101 DO CR and fell 101 DO CR @ 6480'. 101 DO CIBP in 30 r 102 CR @ 6480'. 102 CR @ 6480'. 103 DO CR & CR to 103 DO CR Pump 104 CR @ 7490'. 105 CR @	P @ 4837'. Perfs @ 492 Dunk for 5 hr and fell out @ @ 6356-89 w/ 6450 and fell nin and fell out [ZD prefs @ 16 6515'. Fell ou 12D pr520-36 hr 7540'	1-4935 w/ 150 sx, tail w/ 942'. Test SQZ to 800# 's to 5105'. 2 5145'. DO cmt and CIE '100 sx, tailed w/ 50 sx. out @ 6460' & tag it. Tag @ 7845'. 3503-13 w/ 75 sx, tail w/ it. 7520-7636 @ 5 bpm 70 w/ 200 sx, tail w/ 50 sx.	Stim Details Type Sand Frac 50 sx. for 10 min. Tested 3P @ 6293'. DO remains of Cl 25 sx. 0# w/ 50 bw bleed	Date 1 good. BP & 2' cr to 0# in 1	8/4/1999 mt to 6464'. t 5 min.	Zone BONE SP Original H	RING, lole	rrs w/ n	o progress		513.0
nt w/ 750 sx, toil w/ 525 sx IBP, 4in, 12,040 fftk A ATOKA, 12,154 Cmt w/ 400 sx n, 13.50lbs/ft, N-80, 10,987-13,488 ftkB 10,987-13,488 ftkB 10,987-13,488 ftkB 10,987-13,488 ftkB 100 CR @ 4821' 101 CR @ 4821' 101 CR @ 4821' 101 SQZD Delaward 101 DO CR and fell 101 Tag @ 5100'. 101 DO CR and fell 101 DO CR and fell 101 SQZD csg leak. 101 DO CR and fell 101 DO CR and fell 101 DO CR and fell 101 DO CR and fell 101 DO CR and fell 100 DO CR & CR and cmt 100 DO CR @ 6480'. 100 DO CHB / ung 100 DO CR @ 6480'. 100 DO CR @ 7450'. 100 DO cmt & CR to 100 DO Cmt & CM to 100 DO Cmt & CM to 100 DO Cmt	P @ 4837'. Perfs @ 492 D unk for 5 hr and fell out @ @ 6356-89 w/ 6450 and fell nin and fell ou iZD perfs @ 6 6515'. Fell ou iZD 7520-36 tr 7540'. aut @ 7858'	1-4935 w/ 150 sx, tail w/ 942'. Test SQZ to 800# s to 5105'. 9 5145'. DO cmt and CIE / 100 sx, tailed w/ 50 sx. out @ 6460' & tag tt. Tag @ 7845'. 3503-13 w/ 75 sx, tail w/ it. 7520-7636 @ 5 bpm 70 w/ 200 sx, tail w/ 50 sx.	Stim Details Type Sand Frac Sand Frac 50 sx. for 10 min. Tested 3P @ 6293'. DO remains of Cl 25 sx. 0# w/ 50 bw bleed 8. CIBP @ 7946'	Date 1 good. BP & 2' cr to 0# in 1	8/4/1999 nt to 6464'. 1 5 min.	Zone BONE SP Original H	RING, lole	rs w/ n	o progress	6.	513.0

hesapeake

CURRENT WELLBORE SCHEMATIL

WELL: QUEEN LAKE 19 FED 1 STATUS: T/A FIELD: Pierce Crossing COUNTY: EDDY STATE: NEW MEXICO LOCATION: 1,950.0 FNL & 1,980.0 FEL SEC 19, BLK, ELEVATION: 2,956.0 GR -- 2,976.0 RKB TD: 13,499.0 PBTD: Original Hole - 10809.0

PROP #: 891238 Chesapeake API: 3001524292 SPUD DATE: 10/20/1982 RIG RELEASE: 12/20/1982 FIRST SALES: 7/1/1983 WELLBORE TYPE: VERTICAL

Well Cor	nfig: VERTIC	AL - Original Hole, 12/16/2	Additive Resin Coated Sa	Note	Sand 3	Size	Amount Units 15.000.0 lb
	Scher	matic - Actual	Stimulations				
13 3/8	in 48.00lbs/ft		Stim Details	States and	Star and Street	The state of the second	and the second
H-4	40, 20-530 ftKB 300 sx, tail w/		Type Sand Frac	Date 4/29/1995	Zone BONE SPRING, Original Hole	Тор (ftKB) 7,520.0	Bottom (ftKB) 7,636.0
	200 sx. Circ		Additive	Note	Sand S	Size	Amount Units
9 5/8 P-110	3in, 47.00lbs/ff,		Bulk Sand		20/40		200,640.0 lb
Cmt w/	900 sx, tail w/		Stim Details	Date	Zone	Top (ftKB)	Bottom (ftKB)
RAMSE	400 sx. Circ Y SAND, 2,788		Acidizing	12/12/1990	BONE SPRING, Original Hole	8,856.0	8,910.0
			Stim Details	IData	17000	Tan (8)(D)	Detters (BKD)
			Acidizing	12/12/1990	BONE SPRING, Original Hole	6,503.0	8,910.0
		TT	Stim Details	19-1	2	17 (8)(5)	
		-	Sand Frac	12/12/1990	BONE SPRING, Original Hole	8,856.0	8,910.0
			Additive	Note	Sand S	Size	Amount Units
			Bulk Sand		16/30		80,000.010
Spot 40) sxs @ 4,700' -		Type	Date	Zone	Top (ftKB)	Bottom (ftKB)
			Acidizing	12/31/1982	BONE SPRING, Original Hole	12,154.0	12,163.0
BONE Spot 5	SPRING, 7,520 55 sxs @7,412 - lown drill bit in hole PBTD, 10,809 TOLI						
Cibp, 4	.00lbs/ft, N-80, 20-11,190 ftKB 750 sx, tail w/ 525 sx in, 12,040 ftKB \TOKA, 12,154 Cmt w/ 400 sx						
4 1/2in, 13. 10,9	50lbs/ft, N-80, 87-13,488 ftKB						
Well Histo	10, 13,499						
Date	Event					And the second	
3/15/2010	CR @ 8770' SO	BP. 2D 8856-8910 w/ 150 sx tail w/ 50 sx					
3/19/2010	DO cmt & CR an	d fell out @ 8926'.			11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 5 4 Car	State La State
3/22/2010	DO to 9755'.					Salata Sa	
3/24/2010	Tag @ 10700' D	II CIBP for 3 1/2 hrs and CO to 10790'.	or 25 min w/ no rea	arace		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
3/29/2010	Drill on CIBP	10792'.	or 25 min w/ no pro	gress.			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
3/30/2010	Drill on CIBP rem	nains & junk to 10791'.					1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
3/31/2010	DO CIBP to 1079	93'. DO to 10795'.	-				
4/1/2010	Tag @ 10810'.		an alda in the	hat a second	0.78		
4/2/2010	RIH W/ downhole	camera to 10809', Found junk. Bit botto	TON PLS DVD W	Detween 2 3/8" tbg	E ON/OFE TOOL A		E 2 7/8" TRO TO
	SPOT DEPTH @ BALL SEALERS. OFF. ESTABLISH ATP: 1737 PSI L	2819'. MIRU CUDD ACID SER TO ACID SPOT 250 GALS @ 2819'. PU TO 2684 H INJECTION RATE @ 1.3 BPM @ 1632 TR: 102 BBLSSWI. SD	DIZE RAMESY PER AND REVERSE S PSI. ISIP: 975 PS	RFS FROM 2788-2 SPOT HCL. SET P I. 5 MIN: 929 PSI.	2821' W/ 3000 GALS KR. LOAD AND TES 10 MIN: 882 PSI. 15	S OF 15% NEFE H ST ANNULUS TO MIN: 859 PSI. AIR	ICL DROPPING 75 500 PSI. NO LEAK R RATE: 6.8 BPM
		a the second					

CURRENT WELLBORE SCHEMATIL

STATUS: PRODUCING

WELL: QUEEN LAKE 20 FEDERAL 1 FIELD: PIERCE CROSSING BONE SPRING COUNTY: EDDY STATE: NEW MEXICO LOCATION: 1,750.0 FNL & 660.0 FWL SEC 20, BLK , ELEVATION: 2,958.0 GR -- 2,979.5 RKB TD: 12,390.0 PBTD: Original Hole - 9715.0 PROP #: 891209 Ch API: 3001525829 SPUD DATE: 10/14/1993 RIG RELEASE: 10/14/1993 FIRST SALES: WELLBORE TYPE: VERTICAL

Well Config: VERTICAL - Original Hole, 12/20/2	Casing String:	Liner	lu.	Vallbase			le	tains Ton C	anna than	
Schematic - Actual	12,38	7.0	C	Driginal H	ole		5	tring top C	onnection	
	Item Description	0	D (in)	ID (in)	Wt (lbs	s/ft) (Grade	Top (1	tKB)	Btm (ftKB)
	Casing joints	and the second	3 1/2	2,992		9.20 C-1	75	10	934.0	12,386.0
	Float Shoe		3 1/2					12	,386.0	12,387.0
	Perforations		63.3	n ale be				-		(19) (19) (19) (19) (19) (19) (19) (19) (19) (19) (19)
	Date 8/10/2002	2	one/Form	nation		Top (ftKE	B) 14.0	Btm (ftKB	6.0 Squee	ezed
	10/8/1993	731255		1100		7,52	22.0	7,53	2.0	
	10/19/1989	SNS12				8,96	66.0	8,98	8.0	222
[FST TOC]	3/1/1988	22.0.0		-		9,88	34.0	9,89	3.0	In the second
11 3/4in, 42.00lbs/ft,	3/1/1988		12.5	1 51.6.7		12,26	69.0	12,28	2.0 Squee	zed
H-40, 22-577 ftKB	Tubing String:	Tubing -	Produ	ction		1999	1999			
Cmt w/ 1567 sx. Circ	Set Depth (ftKB) 9 050	0.0	W	Vellbore	ole		R	tun Date	10/23/200	08
	Item Descriptio	on	OD (in)	ID (in)	Wt (lbs/ft)	Grade	Тор	(ftKB)	Btm (ftKB)	Len (ft)
22-2 758 ft/KB	Tubing		27/8	and states			-	21.5	7,287.0	7,265.50
Cmt w/ 880 sx	Tubing		27/8		14400		7	290.0	8.964.0	1.674.00
	Seat Nipple		2 7/8		19.9	1	8	,964.0	8,965.0	1.00
	Tubing Sub		27/8	1.00			8	,965.0	8,967.0	2.00
	Desander		27/8	0.000		1000	8	,967.0	8,987.0	20.00
	Bull Plug		27/8		1	1.2.5	9	049 0	9,049.0	0 1.00
	Stimulations	1910	2110		5/122	-	-		100010	1.00
BONE SPRING 7 522	Stim Details	le :	e tonk				1	States !	1	61/D)
	Type Sand Frac	Date 8/1	18/2002	Zone		T	op (ftKB) 9.1) 884.0	Bottom (ftKB)
	Stim Details	12000	2002		1000	02565	1.5		Contraction of	
	Type Sand Erec	Date	10/2002	Zone		T	op (ftKB))	Bottom (ftKB)
	Stim Details	0/	10/2002	-	100000		0,	900.0	0	,900.0
	Туре	Date		Zone		T	fop (ftKB))	Bottom (ftKB)
	Sand Frac	8/1	18/2002	2	-		7,	522.0	1 7	,532.0
	Туре	Date		Zone		Т	fop (ftKB))	Bottom (ftKB)
	Sand Frac	8/	18/2002	2			6,	314.0	6	,446.0
	Stim Details Type	Date	140.000	Zone		T	fop (ftKB))	Bottom (ftKB)
	Acidizing	8/	10/2002	2			8,	966.0	8	,988.0
Cemented Bridge Plug	Stim Details	Date		Zone	1200	T	on (ftKB)	1	Bottom	ftKB)
5 1/2in, 9,715 ftKB	Acidizing	8/	10/2002	2			7,	522.0	7	,532.0
CIBP w/ 35' cmt	Stim Details	Data	23123	17000	Sale in	17			Rottom	ek/D)
	Acidizing	8/	10/2002	2 20110			7,	522.0	8	,988.0
	Stim Details			1. A. 19		987.980	51339		Sec.	182 49 10
	Type Acidizing	Date 8/1	10/2002	Zone		T	fop (ftKB)) 314.0	Bottom (RKB)
	Rod - Convention	onal on t	5/13/20	10	32.87	11.563	-	STOP 20	No. Com	
	Rod Description	nal	1.12		2.0	Run	Date 5/13/	2010	Set Depti	h (ftKB) 965.0
Top of Liner	Rod Componer	its	17		-	12	01101	2010		,000.0
5 1/2" 17# N-80 LT&C	Polished Pod	Item Descri	ption	1.5		OD (in)	Jt	s To	12 0	Btm (ftKB)
1/2in, 17.00lbs/ft, N-80,	Rod Sub	C. C	1000	21.33.55	231 410	7/	8	255 255	38.0	42.0
22-11,268 ftKB	Rod Sub		1			7/	8		42.0	46.0
Cmt w/ 1050 sx	Rod Sub	1223/2	5.033	Sec. Sec.	100	7/	8	22 20	46.0	50.0
	Rod Sub		10.00	the second		7/	8	ALC: 1997	50.0	56.0 64.0
Cmt w/ 168 sx	Sucker Rod			1001		7/	8	135	64.0	3,439.0
3 1/2in, 9.20lbs/ft, C-75,	Sucker Rod			22-2-		3/4	4	211	3,439.0	8,714.0
ID. 12.390	Sucker Rod					7/	8	10	8,714.0	8,939.0
ell History									1000	1
ite Event 21/1088 Set 3 1/2" 10 3# Liner @ 12387 w/ TOL @ 10924 Cmt w/	1168 cv		HIGH			Ster Adapte	- States	and stands	in and the second	All Street Provide
/1/1988 PERF @ 12269-282, 10026-10034. SQZD 12269-282 w/	35 sx. Spot cmt pl	ug @ 10	709-109	900 w/ 25	SX. PER	RF @ 98	884-98	99. FRA	C 9884-10	0034 w/
40000 gal 40# delayed xlg w/ 49500 Santrol Super HS 20)/40 sd.	7 11/ 200	0.0017	5% NoEo	EDAC	w/ 2500	00 col	25# \/ore	a col w/ C	0000#
20/40 sd.	-oo wi 2 Jspi. ACD	2 W/ 200	o yai 7.	.5% Nere	. FRAU	W/ 3300	ou yai .	35# vers	a yei w 9	0000#
0/8/1993 PERF @ 7522-7532 w/ 4 jspf, 40 holes. ACDZ w/ 2500 ga	al 7.5% HCL. FRA	C w/ 277	00 gal 3	30# gel w	/ 59340	# 20/40	sd.			1252275
/2/2002 ACDZ w/ 1000 gal.	100 100 100 100 100 100 100 100 100 100	+	1			100	-	-		-
/10/2002 PERF @ 6438-6446, 6370-6384, 6314-34 w/ 2 jspf. ACD2	Z w/ 1500 gal 7.5%	6 acid.						4 33 3		1997
0/4/2003 SQZD Perfs @ 6314-6446 w/ 100 sx.										
0/23/2008 RU hot oiler. Ppd 130 bbls 2% 35 gal PAW 3900 for para	ffin. Ppd 1000 gal	NeFe ad	id.							19 Carl
										1.19

Chesapeake

IV motl

		Chesapeake	Chesappeake	Operator
		Queen Lake 20 Federal 1 Queen Lake 19 Federal 2	Queen Lake 19 Federal 1	
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		ddy	Eddy	ounty
		20 T24S R29E 19 T24S R29E	19 T24S R29E	Sec IWR Range
			<u>e</u>	1 advi
ı		Producing Not Drilled	TIA	Status
		10/14/1993	10/20/1982	opud Date
		3/1/1988	12/28/1982	Comp Date
		12,390	13,498	
)' 9,715'	9' 10,809'	TBID
		Bone Spring	Bone Spring	Comp Zone
		7,522'-7,532'	, , 7520'-7636'	Comp Interval
		11 3/4", 42# @577' w/ 1567 sxs 8 5/8", 24# @ 2,758' w/ 880 sxs 5 1/2", 17# @ 11,268' w/ 1050 sxs 3 1/2", 9.2# @ 12,387' w/ 168 sxs (13 3/8", 48# @ 530' W/300 sxs 9 5/8", 47# @ 2,630' W/ 900 sxs 7", 23# @ 11,190 W/ 750 sxs 4 1/2", 13.5# @ 13,488 W/ 400 sxs	Casing Program
	┢╋┼╋╋		×	loc
2		7,52-7,532 8,966-8,988 9,884-9,899 10,026-10,034 12,269-12,282	2,788-2,821 3,000-3,001 4,300-4,300 4,300-4,301 4,921-4,935 5,185-5,185 5,185-5,185 5,185-5,185 5,185-5,185 5,185-7,596 7,550-7,582 7,516-7,586 7,566-7,596 7,510-7,568 8,856-8,884 8,856-8,884 8,856-8,184 8,856-8,184	Perts

Queen Lake19 Federal 1



		(quarters are 1=NW 2=NE 3=SW (quarters are smallest to largest)	/ 4=SE) (NAD83 UTM in meters)	
		No records found.		
`			7	
PLSS Search:				
Section(s): 19	Township: 24S	Range: 29E		
The data is furnished by the NM implied, concerning the accuracy,	OSE/ISC and is accepted by completeness, reliability, usa	the recipient with the expressed under bility, or suitability for any particular purp	rstanding that the OSE/ISC make no warranties, expressed or pose of the data.	-
2/5/12 10:37 AM			WATER COLUMN/ AVERAGE DEPTH TO WATER	
		•		
			•	

Page 1 of 1



New Mexico Office of the State Engineer Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 592119

Northing (Y): 3563454

Radius: 880

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

2/5/12 10:43 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Item XI

Item XIII

PROOF OF NOTICE

Bureau of Land Management 620 E. Greene St. Carlsbad, NM 88220

OXY Permian 6 Desta Drive, Midland, TX 79705.

951.8	U.S. Postel Service CERTINFIED MAIL RECEIPT (Domeste Metionly; No Insurence Coverege Florities) Fordelivery information (Ethour vicibation vicibation) () F F C A L U S E									
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Affidavit of Publication
STATE OF NEW MEXICO
County of Eddy:
Danny Scott Nanny Acar
being duly sworn, says that he is the Publisher
of the Artesia Daily Press, a daily newspaper of general
circulation, published in English at Artesia, said county
and state, and that the hereto attached
Legal Notice
was published in a regular and entire issue of the said
Artesia Daily Press, a daily newspaper duly qualified
for that purpose within the meaning of Chapter 167 of
the 1937 Session Laws of the state of New Mexico for
1 Consecutive weeks/days on the same
day as follows:
First Publication February 5, 2012
Second Publication
Third Publication
Fourth Publication
Fifth Publication
Subscribed and sworn to before me this
8th day of Feburary 2012
OFFICIAL SEAL Latisha Romine NOTARY PUBLIC-STATE OF NEW MEXICO My commission expires: 51122015 Automa Romine Latisha Romine

• Щ

Copy of Publication:

Chesapeaké Operating' înc. Intends to covert the following well to disposal: Oueen Chesapeaké Operating' înc. Intends to covert the following well to disposal: Oueen Range 29 East, 1950; FNL 3: 1980; FEL, Eddy County, NM. This well is tocated approximately 5: 4 miles southeast of Loving, NM. The formation to be disposed is into the Ranisey Sands of the Delaware Mountain Group through perforsions 2786-2621. The average disposal rate is expected to be 650 BWPD with a maximum disposal rate of 2000 BWPD. The injection pressure is expected to be 550 psig with a maximum pressure to be 550 psig. Question or objections can be addressed to Chesapeake Operating, Inc. 6100 N. Western Ave., Oklahoma City, OK 73118 or call Bryan Arrant at: 405-935-3872. Any interested party that have objections or request a hearing must be filed within 15 days of this notice to the Oil Conservation Division 1220 South St. Francis Drive, Santa Fe, NM 87505.

Additional Information

- Procedure to convert to SWD
- Actual and proposed well-bore diagram.
- Geological formation tops.
- Approved BLM permit to convert to SWD.
- Operational daily activity reports in Ramsey Sand.

Chesapeake Operating, Inc. Queen Lake 19 Fed 1 (891238) SWD Conversion Procedure Section 19-24S-29E 1950 FNL & 1980 FEL Eddy County, New Mexico

June 30, 2011

Status:	Shut in
Perforations:	2,788'- 2,821'(Ramsey Sand); 4,299'- 4,301' (Ramsey Sand) (SQZ
·	HOLES); 4,721', 4,921'- 4,935', 5,185' (Bone Spring) (ALL SQZD);
	6,503'- 6,513', 7,520'- 7,636', 8,856'- 8,910' (Bone Spring) (ALL SQZD);
	12,154'- 12,163' (Atoka) (BELOW CIBP)
TD:	13,488'
PBTD:	4,700'
KB/KB Height:	2,976'/20'
Fluid in Well:	Production Fluid

Casing Details

OD (in)	Weight (Ib/ft)	Grade	Depth (ft)	ID (in)	Drift (in)	Capacity (bbls/ft)	Burst (100%/80% psi)	Collapse (100%/80% psi)
4 1/2	13.5	N-80	10,987- 13,488	3.92	3.795	.0149	9,020/7,216	8,540/6,832
7	23.0	N-80	0-11,190	6.366	6.241	.0393	6,430/5,144	3,830/3,064
9 5/8	47.0	P-110	0-2,630	8.681	8.525	.0732	9,440/7,552	5,310/4,248
13 3/8	48.0	H-40	0-530	12.715	12.559	.1570	1,730/1,384	770/616

Production Tubing Details

OD	Weight	Grade	Depth	ID	Drift	Capacity	Burst	Со‼а́рзе
(in)	(lb/ft)		(ft)	(in)	(in)	(bbls/ft)	(100%/70% psi)	(100%/70% psi)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

PROCEDURE:

- 1. MIRU PU. ND WH NU BOP. Test BOP. RU WL & lubricator. RIH w/CIBP & set @3,050'. Dump bail 35' cmt onto CIBP. RD WL.
- RIH w/ packer on 3 ½" tbg to 2,650'. Frac Ramsey Sand (2,788'- 2,821') down 3 1/2" tbg inside 7" N-80 23# prod. csg per frac recommendation. (anticipate 50,000# sand in X-linked fluid at 30 BPM). POH w/ packer.
- 3. TIH w/ tbg & bit to PBTD and check for fill. TOOH w/ tbg & bit.
- TIH w/2 3/8" plastic coated tbg & Loc-set pkr & set @2,750'. Load backside w/ pkr fluid. Run MIT test.
- 5. ND BOP NU WH. RDMO.

Chesapeake

Proposal Schematic

QUEEN LAKE 19 FED 1



Report Printed: 7/21/2011

GEOLOGICAL TOPS

API NumberULSTRFootages3001524292G-19-24S-29E1950 FNL & 1980 FELWell Name & Number: QUEEN LAKE 19 FEDERAL No. 001Operator: CHESAPEAKE OPERATING, INC.

Rustler	350'*
Top of Salado (Salt)	550'*
Base of Salt	2648'
Lamar Limestone	2732'
Bell Canyon	2764'
Cherry Canyon	3638'
Brushy Canyon	4400'
Bone Spring	6530'
Wolfcamp	9690'
Pennsylvanian	11448'
Strawn	11730'
Atoka	11850'
Morrow Limestone	12560'
Morrow Clastics	12840'
TD	13500'

*Depths estimated from offset wells

	-			, ,			
Form 3160-5 (August 2007)	UNITED STATES DEPARTMENT OF THE IN BUREAU OF LAND MANA	S NTERIOR	BC PERIN	AVA BY	FORM OMB N Expires:	APPROVED O. 1004-0135 July 31, 2010	
SUN	IDRY NOTICES AND REPO	RTS ON WEL	LS	E EPPY ZRI	MNNM17224		
Do not u abandon	ise this form for proposals to ed well. Use form 3160-3 (API	drill or to re-ei D) for such pro	posals.1.7	2011 (12)	6. II Indian, Allottee o	r Tribe Name	
SUBMITI	N TRIPLICATE - Other instruc	tions on reven	se side.		7. If Unit or CA/Agree	ement, Name and	for No.
Type of Well Gas Well	Π Other				8. Well Name and No. QUEEN LAKE 19	FEDERAL 1	Prostant of Society System Street
2. Name of Operator CHESAPEAKE OPERA	Contact: TING INC E-Mail: lyndee.son	LYNDEE SONO ger@chk.com	ER		9. API Well No. 30-015-24292-0	0-S3	
3a. Address OKLAHOMA CITY, OK	73154-0496	3b. Phone No. (i Ph: 405-935-	iclude area code 2411)	10. Field and Pool, or MALAGA	Exploratory	
4. Location of Well (Footage	Sec., T., R., M., or Survey Description)			11. County or Parish,	and State	
Sec 19 T24S R29E SW	NE 1950FNL 1980FEL				EDDY COUNTY	(, NM	
12. CHECK	APPROPRIATE BOX(ES) TO) INDICATE N	ATURE OF 1	NOTICE, R	L EPORT, OR OTHE	R DATA	
TYPE OF SUBMISSION	N		TYPE O	F ACTION	<u></u>		
	□ Acidize			D Product	ion (Start/Resume)	U Water Shi	ut-Off
Subsequent Report	Alter Casing		e Treat	□ Reclam	ation	Well Inter	grity
Final Abandonment No	tice Casing Repair	$\Box^{\text{New C}}$	d Abandon	Tempor	arily Abandon		
	Convert to Injection		ack		Disposal		
13. Describe Proposed or Complete If the proposal is to deepen di Attach the Bond under which following completion of the in testing has been completed. I determined that the site is real	ted Operation (clearly state all perfinen irectionally or recomplete horizontally, the work will be performed or provide nvolved operations. If the operation res Final Abandonment Notices shall be file dy for final inspection.)	t details, including give subsurface loc the Bond No. on fi sults in a multiple c ed only after all req	estimated startin ations and measu e with BLM/BL/ ompletion or recu uirements, includ	ng date of any p ured and true vo A. Required su ompletion in a ding reclamatio	roposed work and appro ertical depths of all pertin bsequent reports shall be new interval, a Form 310 n, have been completed,	ximate duration 1 hent markers and filed within 30 d 50-4 shall be filed and the operator	ays once has
CHESAPEAKE, RESPE ATTACHED IS THE SW	CTFULLY, ASKS TO CONVER	T THE QUEEN E ALONG WITH	FEDERAL 1 I A WELL BC	WELL TO A	SALT WATER DIS IATIC.	POSAL WELL	•
(CHK PN 891238)							
	CLB ATTA						
	CONDITIC	iched foi Ins of Api	roval.				
14. Thereby certify that the fore	going is true and correct. Electronic Submission #1 For CHESAPEAI	13463 verified b KE OPERATING	y the BLM We NC, sent to the	II Information	System		C. C
Name (Printed/Typed) LYN	DEE SONGER	T	tle REGUL	ATORY CO	MPLIANCE ANALY	ST	
Signature (Elec	tronic Submission)	D	ate 07/21/2	011			
	THIS SPACE FO	R FEDERAL	OR STATE	OFFICE U	SE		
Amound De Collegeorge in						Date 40	114/2014
Conditions of approval, if any, are	attached. Approval of this notice does	not warrant or	MEREIROLE	UM ENGIN			
certify that the applicant holds lega which would entitle the applicant to	l or equitable title to those rights in the o conduct operations thereon.	subject lease	office Carlsba	đ			
Title 18 U.S.C. Section 1001 and T States any false, fictitious or frau	itle 43 U.S.C. Section 1212, make it a dulent statements or representations as	crime for any perso to any matter with	n knowingly and n its jurisdiction	d willfully to m	ake to any department of	agency of the U	nited
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** BLM REVISED **

Chesapeake Operating, Inc. Queen Lake 19 Fed 1 (891238) SWD Conversion Procedure Section 19-24S-29E 1950 FNL & 1980 FEL Eddy County, New Mexico

June 30, 2011

Status:	Shut in
Perforations:	2,788'- 2,821'(Ramsey Sand); 4,299'- 4,301' (Ramsey Sand) (SQZ
	HOLES); 4,721', 4,921'- 4,935', 5,185' (Bone Spring) (ALL SQZD);
	6,503'- 6,513', 7,520'- 7,636', 8,856'- 8,910' (Bone Spring) (ALL SQZD);
	12,154'- 12,163' (Atoka) (BELOW CIBP)
TD:	13,488'
PBTD:	4,700'
KB/KB Height:	2,976'/20'
Fluid in Well:	Production Fluid

Casing Details

OD (in)	Weight (lb/ft)	Grade	Depth (ft)	ID (in)	Drift (in)	Capacity (bbls/ft)	Burst (100%/80% psi)	Collapse (100%/80% psi)
4 1/2	13.5	N-80	10,987- 13,488	3.92	3.795	.0149	9,020/7,216	8,540/6,832
7	23.0	N-80	0-11,190	6.366	6.241	.0393	6,430/5,144	3,830/3,064
9 5/8	47.0	P-110	0-2,630	8.681	8.525	.0732	9,440/7,552	5,310/4,248
13 3/8	48.0 ·	H-40	0-530	12.715	12.559	.1570	1,730/1,384	770/616

Production Tubing Details

OD	Weight	Grade	Depth	ID	Drift	Capacity	Burst	Collapse
(in)	(ib/ft)		(ft)	(in)	(in)	(bbls/ft)	(100%/70% psi)	(100%/70% psi)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

PROCEDURE:

- 1. MIRU PU. ND WH NU BOP. Test BOP. RU WL & lubricator. RIH w/CIBP & set @3,050'. Dump bail 35' cmt onto CIBP. RD WL.
- RIH w/ packer on 3 ½" tbg to 2,650'. Frac Ramsey Sand (2,788'- 2,821') down 3 1/2" tbg inside 7" N-80 23# prod. csg per frac recommendation. (anticipate 50,000# sand in X-linked fluid at 30 BPM). POH w/ packer.
- 3. TIH w/ tbg & bit to PBTD and check for fill. TOOH w/ tbg & bit.
- TIH w/2 3/8" plastic coated tbg & Loc-set pkr & set @2,750'. Load backside w/ pkr fluid. Run MIT test.
- 5. ND BOP NU WH. RDMO.

Chesapeake

Proposal Schematic

QUEEN LAKE 19 FED 1



Report Printed: 7/21/2011

Conditions of Approval: Wells with Packers

Chesapeake Operating , Inc. Queen Lake 19 Fed 1 API 3001524292

October 13, 2011

- Modify Step 1 of the 06/30/2011 notice of intent procedure to: RIH w/open ended tbg plug set 11/04/2010 from 5016 at about 4700. Set a balanced plug from tagged depth to 3000 with about 100sx C neat cmt. POH, SDWOC 4hrs. Tag top of balanced plug. Proceed with NOI procedure.
- 2. Surface disturbance beyond the existing pad must have prior approval.
- 3. Closed loop system required.
- 4. 2000 2M BOP to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the workstring shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 (attachment 1, 2M diagrams of choke manifold equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.
- 5. The operator is required to tag fracture material with a tracer and run a tracer survey to verify that the fracture material is not placed out of zone. Results of the tracer to be reported on a workover subsequent sundry Form 3160-5.
- 6. Workover approval is good for 90 days (completion to be within 90 days).
- 7. One year after the fracture stimulation run a SWD tracer survey and submit the survey report in a subsequent sundry Form 3160-5.
- Conduct a Mechanical Integrity Test of the tubing/casing annulus after a tubing, packer or casing seal is established. Repair that seal any time more than five barrels of packer fluid is replaced within 30 days.
 - a. The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with 200 psig differentials between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need to be reduced). An alternate method for a BLM approved MIT is to have the fluid filled system open to atmospheric pressure and have a loss of less than five barrels in 30 days witnessed by a BLM authorized officer.
 - b. Document the pressure test on a calibrated recorder chart registering within 25 to 85 per cent of its full range. Greater than 10% pressure leakoff will be viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.
 - c. Notify Paul R. Swartz at 575-234-5985 and/or 575-200-7902 at least 24 hours before the test. If there is no response, notify the BLM on call drilling phone, 575-361-2822. In Lea County call 575-393-3612.

- d. Submit a subsequent Sundry Form 3160-5 relating the MIT activity. Include a copy of the recorded MIT pressure chart. List the name of the BLM witness, or the notified person and date of notification. NMOCD is to retain the original recorded MIT chart.
- e. Use of tubing internal protection, on/off tubing equipment just above the packer, and a profile nipple installation is required. The setting depths and descriptions of each are to be included in the subsequent sundry. List (by date) descriptions of daily activity of any previously unreported wellbore work.
- f. Submit the original subsequent sundry with three copies to BLM Carlsbad.
- 9. Compliance with a NMOCD Administrative Order is required, submit documentation of that authorization.
 - a. Approved injection pressure compliance is required.
 - b. If injection pressure exceeds the approved pressure you are required to reduce that pressure and notify the BLM within 24 hours.
 - c. When injection pressure is within 50 psig of the maximum pressure, install automation equipment that will prevent exceeding that maximum.
 - i. Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.
 - e. Other unexplained significant variations of rate or pressure to be reported within 5 days of notice.
- 10. The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity.
 - a. The annulus is to be maintained full of packer fluid at atmospheric pressure. Installation of equipment that will display on site, continuous open to the air fluid level is required. A BLM inspector may request verification of this fluid level at any time.
 - b. **Submit a subsequent report (Sundry Form 3160-5)** describing the installation of packer fluid level monitoring equipment within 30 days of this approval.
 - c. The operator shall keep monthly records documenting that the casing annulus is fluid filled.
 A suggested format for these records is available from the BLM Carlsbad Field Office.
 Copies of those records shall be furnished at the request of a BLM authorized officer.
 - d. Loss of packer fluid above five barrels per month requires notification of the BLM authorized officer within 5 days.
 - Gain of annular fluid requires notification within 24 hours. Cease injection and maintain a production casing pressure of Opsia. Notify the BLM's authorized officer (Paul R. Swartz at 575-200-7902). If there is no response, notify the BLM on call drilling phone, 575-361-2822. In Lea County call 575-393-3612.
 - Also submit to this office a (Sundry Form 3160-5) Notice of Intent (NOI) for approval by BLM and NMOCD with a detailed plan for correction and the anticipated date of correction. Verbal approval for the plan may be given by a BLM authorized officer, with the NOI filed within five business days.
 - f. After the repairs submit a (Sundry Form 3160-5) Subsequent report, describing the repair(s) and Mechanical Integrity Test as per item 8 above.

PRS 10131

OPERATED DAILY ACTIVITY REPORT

Queen Lake 19 Federal 1 Section 19, T-24-S R-29-E 1950' FNL & 1980' FEL, NMPM Eddy County, New Mexico API # 30-015-24292

11/09/2010:

MIRU WIRE LINE SER. PU CBL, TIH AND TAG @ 4212'. PULL LOG TO 1950'. TOC @ 3040'. TOOH. PICK UP AND TIH W/ PERF GUN.PRESSURE UP CSG TO 1000 PSI. PERF 4 SQUEEZE HOLES @ 3000'. LOST THE 1000 PSI ON CSG. GOOD FLOW OUT OF 7" ANNULUS. BREAK CIRCU @ 2 BPM @ 500 PSI. PU 6" HALLIBURTON CMT RETAINER AND TIH. SET @ 2949'. MIRU CMT SER & PUMP 383 SKS (90 BLS) OF CLASS "C" NEAT CMT @ 14.8 PPG W/ A 1.32 YEILD @ 3 BPM @ 1100 PSI. STING OUT OF RETAINER & REVERSE OUT 1/2 OF A BBL OF CMT. TOOH W/ TBG & RETAINER. SWI SD

11/10/2010:

MIRU WIRE LINE SER. TIH & PULL CBL FROM 2901' TO 750'. TOC @ 950'. GOOD CMT BOND. TIH AND PERFORATE RAMESY SAND FROM 2788-2821' W/ 2SPF, 60 DEG PHASED. SWI. SD

11/11/2010:

PU 4' SUB, 2.205 "XN" NIPPLE, 6' SUB, 6.01 HALLIBURTON PLS PKR W/ A 2.313 "X" NIPPLE, ON/OFF TOOL AND TIH 88 JTS OF 2 7/8" TBG TO SPOT DEPTH @ 2819'. MIRU CUDD ACID SER TO ACIDIZE RAMESY PERFS FROM 2788-2821' W/ 3000 GALS OF 15% NEFE HCL DROPPING 75 BALL SEALERS. SPOT 250 GALS @ 2819'. PU TO 2684' AND REVERSE SPOT HCL. SET PKR. LOAD AND TEST ANNULUS TO 500 PSI. NO LEAK OFF. ESTABLISH INJECTION RATE @ 1.3 BPM @ 1632 PSI. NO BALL ACTION. ISIP: 975 PSI. 5 MIN: 929 PSI.10 MIN: 882 PSI. 15 MIN: 859 PSI. AIR RATE: 6.8 BPM ATP: 1737 PSI LTR: 102 BBLSSWI. SD

11/12/2010:

SITP: 200 PSI. BWD. (ACID GAS). TIH W/ SWAB. IFL SURFACE. 1ST RUN ALL WATER. SWAB DRY IN 4 SWAB RUNS. MAKE HRLY SWAB RUNS AND SWAB PUMP WELL. 200' OF FLUID ENTRY. EFL 2300'. TLR: 24 BBLS OF WATER. NO SHOW OF OIL OR GAS. DAILY LOAD REC: 24 BBLSTLTR: 102 BBLSTLR: 24 BBLSLLTR: 78 BBLS

11/13/2010:

54 BBLSSITP 50 PSI. TIH W/ SWAB IFL 700'. **1ST RUN ALL WATER. SWAB DRY IN 4 SWAB RUNS. MAKE HRLY SWAB RUNS AND SWAB PUMP EACH RUN. TLR 30 BBLS OF WATER. EFL 2300'. NO SHOW OF OIL OR GAS. SWI SDDAILY LOAD RED. 30 BBLS. TLTR: 102** BBLSTLR: 54 BBLSLLYR: 48 BBLS

11/16/2010:

SITP: 50 PSI. BWD. TIH W/ SWAB, IFL 700'. **SWAB WELL DRY IN 4 RUNS. MAKE HRLY RUNS. EFL 2400'. TLR 10 BBLS.** RIG DOWN SWAB. RELEASE PKR & TOOH AND LAY DOWN 88 JTS OF 2 7/8" WORK STRING. ND BOP. NU WH. SWI. SD. RDMODAILY LOAD REC. 10 BBLSTLTR: 102 BBLSTLR: 64 BBLSLLTR: 38 BBLS

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From:	bryan Arrant [pryan.arrant@cnk.com]
Sent:	Tuesday, February 21, 2012 1:00 PM
To:	Jones, William V., EMNRD
Cc:	Shapard, Craig, EMNRD; Kautz, Paul, EMNRD
Subject:	QUEEN LAKE 19 FEDERAL 1 (3001524292; C-108)
Attachments:	20120221132740929_0001.pdf; 20120221132740929_0002.pdf; 20120221132740929_0003

fpd.

Will,

Please find easier to read copies, the affidavit of publication and proof of notices for this well.

Craig,

The TOC is inside the intermediate string of casing. I'm going to UPS the log to you today. The OCD does not have a copy of the CBL that was ran on this well. The TOC is @ 950'. Last week I sent a copy of the C-108 application to your office.

This well is currently on COI's inactive well list. Please call or e mail me if any of you have questions or concerns,

Chesapeake Energy Corporation E-mail: bryan.arrant@chk.com Regulatory Specialist II Mobile: (903) 263-8984 Office: (405) 935-3782 Fax: (405) 849-3782 Bryan Arrant Thank you,

This email (and attachments if any) is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this email is not the intended recipient, or the employee or agent responsible for delivering this message to the intended prohibited. If you have received this communication in error, please notify the sender immediately by return email and recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly destroy all copies of the email (and attachments if any).

Affidavit of Publication
STATE OF NEW MEXICO
County of Eddy:
Danny Scott Nanny Cour
being duly sworn, says that he is the Publisher
of the Artesia Daily Press, a daily newspaper of general
circulation, published in English at Artesia, said county
and state, and that the hereto attached
Legal Notice
was published in a regular and entire issue of the said
Artesia Daily Press, a daily newspaper duly qualified
for that purpose within the meaning of Chapter 167 of
the 1937 Session Laws of the state of New Mexico for
1 Consecutive weeks/days on the same
day as follows:
First Publication February 5, 2012
Second Publication
Third Publication
Fourth Publication
Fifth Publication
Subscribed and sworn to before me this
6th day of Feburary 2012
OFFICIAL SEAL Lalisha Romina NOTARY PUBLIC-STATE OF NEW MEXICO
ay commission expires: 21-12.01.0
Katusta Romine
 Latisha Romine Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICE

Chesepeake Operating, Inc. Intends to covert the following well to disposal: Queen Lake 19 Federal # 1, which is located in Unit G of Section 19, Township 24 South, Range 29 East, 1950; FNL & 1980; FEL, Eddy County, NM. This well is located approximately 5 ½ miles southeast of Loving, NM. The formation to be disposed is into the Remsey Sands of the Delaware Mountain Group through perforations. 2788-2821; The average disposal rate is expected to be 650 BWPD with a maximum disposal rate of 2000 BWPD. The injection pressure is expected to be 550 psig with a maximum pressure to be 550 psig. Question or objections can be addressed to Chesepeake Operating, Inc. 6100 N. Western Ave., Oklahoma City, OK 73118 or call Bryan Arrant at: 405-935-3872; Any Interested party, that have objections of request a hearing must be filed within 15 days of this notice to the Oil Conservation Division; 1220 South St. Francis Drive, Santa Fe, NM 87505. Published in the Artesta Daily Press; Artesta, N.M., Feb. 5, 2012. Legel No 22011;

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ENDERCOMPLETENTIONSECTION Complete Items 1, 2, and 3. Also complete Item 4 If Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front If space permits. Article Addressed to: Buneau of Lend Mussement ZOE. Greene ST. Can(sbad, NM 882200	COMPUTERY A. Signature D'Agent X D'Agent X D'Addressee B. Received by (Printed Name) C. Date of Dolivery Y Y	
Article Numper Article Numper (mansfer from service label) 1000 3 Form 3811, February 2004 Domestic Ref	0000 0256 8138 3 atum Receipt 102595-02-M-1540	
NDER COMPLETE THIS SECTION Complete Items 1, 2, and 3. Also complete Item 4 If Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mallplece, or on the front if space permits. Article Addressed to: OXY Permian G Desta Drive Midland, TX79705	COMPLETENTISSECTION.ON.DELIVERY A. Signature X	
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Jones, William V., EMNRD
From: Bryan Arrant [bryan.arrant@chk.com] Sent: Fiiday, March 16, 2012 5:20 AM To: Jones, William V., EMNRD Cc: Shannon Glancy; Jeff Finnell; Lyndee Songer Subject: RE: Disposal application from Chesapeake Operating, Inc.: Queen Lake 19 Federal #1 30-015-24292 Ramsey Sand
Will, We would like to go ahead and leave the proposed perfs as is written on the application. Everything should be a go on this end.
Thanks very much for your help and will visit with you later,
Bryan Arrant Regulatory Specialist II Chesapeake Energy Corporation Office: (405) 935-3782 Mobile: (903) 263-8984 Fax: (405) 849-3782 E-mail: <u>bryan.arrant@chk.com</u>
 From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us] Sent: Tuesday, March 13, 2012 2:28 PM To: Bryan Arrant Cc: Jeff Finnell Subject: RE: Disposal application from Chesapeake Operating, Inc.: Queen Lake 19 Federal #1 30-015-24292 Ramsey Sand
Bryan and Jeff, To change it later would require re-noticing of the additional perfs to be added – a complete new C-108.
To extend the interval a bit deeper at this time: Send me a revised "post-conversion" wellbore diagram and quick note asking to add the bottom perfs. In addition, send a quick paragraph from a geologist or engineer explaining the possible hydrocarbon production capacity of the additional interval. If this is a "large" extension, copy this request letter to the BLM and to OXY (only parties noticed in this application). Let me know if they agree.
Will Jones

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New Mexico Oil Conservation Division <u>Images Contacts</u>
From: Bryan Arrant [mailto:bryan.arrant@chk.com] Sent: Tuesday, March 13, 2012 1:10 PM To: Jones, William V., EMNRD Cc: Jeff Finnell Subject: FW: Disposal application from Chesapeake Operating, Inc
Hello Will, Please see Jeff's question below. If we propose to extend the inter I would assume if we want to change the order at a later date, ther
Thanks, Bryan
From: Jeff Finnell Sent: Tuesday, March 13, 2012 1:35 PM To: Bryan Arrant; Jay Stratton; Shannon Glancy; Danny Hunt; Chris Cc: Lyndee Songer; Linda Good; David Godsey; Robert Martin; Jerri Subject: RE: Disposal application from Chesapeake Operating, Inc.
Bryan,
If we leave the C-108 as is right now, and determine that we want to
From: Bryan Arrant Sent: Tuesday, March 13, 2012 12:57 PM To: Jay Stratton; Shannon Glancy; Jeff Finnell; Danny Hunt; Chris G Cc: Lyndee Songer; Linda Good; David Godsey; Robert Martin; Jerri Subject: Disposal application from Chesapeake Operating, Inc.: Qu
Will is getting ready to approve our SWD. Please review his comments to see if we want to expand the intervi
Thank you, Bryan Arrant Regulatory Specialist II Chesapeake Energy Corporation Office: (405) 935-3782

Mobile: (903) 263-8984 Fax: (405) 849-3782 E-mail: <u>bryan.arrant@chk.com</u>
 From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us] Sent: Tuesday, March 13, 2012 12:42 PM To: Brenda Coffman; Bryan Arrant Cc: Shapard, Craig, EMNRD; Warnell, Terry G, EMNRD Subject: Disposal application from Chesapeake Operating, Inc.: Queen Lake 19 Federal #1 30-015-24292 Ramsey Sand
Hey Bryan and Brenda, Reviewed this application and it looks fine.
Since this is very shallow, I ran the resistivity numbers through Schlumbergers chart to see what implied Salinity the water may have – and it appears to be about 20,000 TDS or so. If you look at these numbers and see something fresher, let me know?
The 22 inactive wells Chesapeake has in New Mexico stopped me for a while – but our attorney says the Agreed Compliance Order is ready and Jami will likely sign it this week. They gave me the OK to release this SWD permit.
The only other thing is a comment. It appears you want to dispose into the same limited perforations used to production test this upper Bell Canyon interval. It seems the perforations were positioned to skim whatever oil existed from the top of that reservoir and stay away from the water leg. The swab test of this interval showed it to be wet, but also kind of tight. So my old engineering look at this would be that to use this Bell Canyon for disposal purposes, you may want to open up the water leg directly below - by perforating. You may be then able to put away more water?
Let me know ASAP if you want me to release this as-is, or you want to propose a revised scenario.
Take Care,
William V Jones, P.E. Engineering, Oil Conservation Division 1220 South St. Francis Drive, Santa Fe, NM 87505 Tel 505.476.3448 ~ Fax 505.476.3462

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	Injection Permit Checklist (11/15/2	010)			$\int dx$	$\left(\begin{array}{c} \\ \end{array} \right)$
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