BW - 6

GENERAL CORRESPONDENCE

YEAR(S):

2007 - 2010

Chavez, Carl J, EMNRD

From:Porter, Jodi, EMNRDSent:Friday, October 15, 2010 10:01 AMTo:EMNRD-DIV. DIRECTORSCc:EMNRD-OCD - HOBBS; EMNRD-OCD - AZTEC; EMNRD-OCD - ARTESIA; EMNRD-OCD -
SANTA FE; Gallegos, Gilbert, GOV; Ray-Garcia, Alarie, GOVSubject:Carlsbad-Argus story on Brine Well Collapse

Legislators receive report on brine well collapse

By Tom Schneider Current-Argus City Editor Posted: 10/14/2010 09:14:43 PM MDT

CARLSBAD — State legislators meeting in Carlsbad were informed Thursday about two major issues concerning the South "Y" brine well where a collapse had been feared earlier this year, one geological and one economic.

Concerning the site of the brine well, near the intersection of U.S. Highways 285 and 62/180, there is the matter of nearly 6 million cubic feet of salt that geological information indicates should have been displaced. Tests conducted over the summer led the Brine Well Working Group to believe that there were two separate voids under the well, and while the first void proved to be empty as expected, the lower cavern proved to contain anhydrites, a carbonate-based rock.

"There is no large-extent cavern below the upper cavern," Ned Elkins, a member of the working group's technical subcommittee, told the state legislature's assembled Radioactive and Hazardous Materials Committee during the first day of a two-day meeting held at the Pecos River Village Conference Center.

That leaves the equivalent of about 1 million barrels of salt close to 6 million cubic feet unaccounted for, said Mark Fesmire of the state Oil Conservation Division.

"We know there's a million barrels of voidage that we can't explain," he said. "We can't say definitively there isn't a large cavern beneath where we stopped drilling."

Elkins, however, offered a possible alternative theory.

"More and more people are beginning to buy into the theory there is a thin void, maybe 6 inches to a foot deep, that goes for a large distance in any direction," he said.

It could also be "honeycombed" over a large area, he said.

There does not appear to be any threat of imminent collapse as earlier was thought possible, though established plans remain in place just in case.

The "scrambled geology" of the area raises more questions that it answers, Fesmire said, noting that the OCD has adopted a three-pronged plan to deal with the ongoing issue.

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The plan calls for the agency to maintain and pay for the existing early detection/public warning system that will detect if a collapse is imminent and activate the county's in-place emergency plan to safely evacuate the area around the potential sink hole. It also calls for continued participation in a dialogue with the city in planning to prevent a collapse and to plan for "what ifs".

"We want to start planning for 'what if'," said Fesmire. "What if we have to move the canal?"

The OCD is also meeting with the city to negotiate a written agreement to clearly define the process the city must go through to deal with ongoing fiscal issues.

"The city is tapped out on this," Elkins told the committee. "It's more than tapped out the \$1.3 million fund established; we are into it \$1.7, \$1.8 million."

Rep. John Heaton, D-Carlsbad, pointed out that a bill already passed in the legislature should generate \$2 million per year toward expenses as long as oil stays above \$70 a barrel.

"OCD has the money," he said.

"How does that move efficiently and effectively for the purpose for which it was intended?" he asked Fesmire, who responded that attorneys are currently negotiating the memorandum of understanding between the OCD and the city of Carlsbad.

"That memo of understanding needs to be in place; that needs to be clear so they know what the process is," Heaton continued. "There needs to be a very clear, firm understanding and I and the committee charge you with making that happen."

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Chavez, Carl J, EMNRD

From:Chavez, Carl J, EMNRDSent:Thursday, January 21, 2010 10:51 AMTo:Macquesten, Gail, EMNRDSubject:FW: Preliminary BW C&E EvaluationAttachments:Class III Well C-E Preliminary Assessment10-9-2008.xls; BW Form 2008_08_01_08 final.doc

Survey form was sent out 8/1/2008 and requested by 11/5/2008. As of 10/9/2008, OCD had not received I&W's Survey Form. Check w/ Glenn and Jim to make sure they never received the questionnaire form to be complete. Wayne Price spun the collapse issue and all record keeping responsibilities with the remediation guys in Env. Burea. Thanks.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

From: Chavez, Carl J, EMNRD
Sent: Thursday, October 09, 2008 3:46 PM
To: Price, Wayne, EMNRD
Cc: Sanchez, Daniel J., EMNRD
Subject: Preliminary BW C&E Evaluation

FYI, please find attached the preliminary operator responses to the OCD questionnaire or information request subsequent to the BW-5 collapse and this preliminary OCD C&E evaluation.

Permit Conditions:

In general, none of the operators have geophysical or subsidence monitoring on site. Many of the operators stopped reporting several years back; however, some of the operators continued to report on a quarterly basis, but not consistently. None of them provided annual reports. Sonar testing was conducted by only one operator ((I&W) at BW-6 near Carlsbad (voluntarily shut down on 7/21/2008 after BW-5 collapse) before the collapse of BW-5. One operator (Gandy) attempted sonar testing after the BW-5 collapse at 2 BWs, but had trouble completing the sonars because the sonar w/ centralizer got stuck in BW-22 (Quality Brine- Tatum) and they couldn't pull the tubing out of the casing in BW-4 (Eidson/Wasserhund at Buckeye).

Of the respondents, only 2 BWs have their casing shoe set into the salt: BW-27 (4 ft.) and BW-30 (55 ft.). The rest have casing shoes set just above the salt where fresh water is currently being injected into the top of the salt cavern and brine is being extracted through the tubing. Consequently, most of the operators are actively expanding the size of the salt cavern roofs.

BWs that appear to be at least 4 active brine wells that have reached their life expectancy (see attachment) based on Wayne's total volume of brine produced algorithm and the depth to the casing shoe (see table below):

BW-2	Basic Energy Services, LLC	Eunice #1	30-025- 26884	N 32 25' 47" W 103 8' 58"	(UL-O)34-21S- 37E	
BW-5	JIMS WATER	JIMS WATER SERVICE (State 24)	80-015-	N 32 73199	(UL-1)24-18S-0	
	SERVICE	Well #1) -LOCO HILLS	02036	W 104 12791	285	

BW-6	I & W INC	I & W EUGENIË Well # 001 BRINE -CARLSBAD	30-015- 22574	N 32:38813 W 104:21817	(UL-M)17- 22S-27E	Ē
BW-12	The Permian Corporation	SCURLOCK/PERMIAN -HOBBS (Saline #1 Well)	30-025- 12803	N 32.69825 W 103.21043	(UL-M)36- 18S-37E	E E
BW-25	Basic Energy Services, LLC.	SALADO BRINE WELL NO. 2	30-025- 32394	N 32.12093 W 103.18388	(UL-A) 20- 25S-37E	
BW-27	MESQUITE SWD (Dunaway No. 2), INC	Mesquite-CARLSBAD	30-015- 28084	N 32.38160 W104.16210	(UL-F) 23- 22S-27E	E
et et en	Collapsed 7/16/08					F
	Voluntary Shut-Down 7/21/2008					

In conclusion, I am working to get information forms from Jims Water Service, Zia Transports, Key Energy Services and Loco Hills to complete the C&E evaluation. It appears that the OCD may have some Notice of Violations with fines on the reporting (annual reports) and lack of sonar testing and subsidence monitoring by most of the operators. Wayne, you verbally informed me today to begin work on the NOV for BW-5 and this could also be used and modified for any of the other operators that OCD decides to issue NOVs to. Most importantly, based on your (Wayne's) Algorithm (last queston on attached OCD info. form) and brine well life expectancy, the OCD may want to proceed to issue notice for the PA of BWs 2, 12, 25 and 27 or immediately require the operators to conduct sonar testing to evaluate salt cavern size. Also, the general rule-of-thumb (50 ft overburden for 178,100 bbl. of produced brine) for produced brine and overburden coincides with your algorithm. Note that many of the operators (info. form completed by Eddy Seay) did not appear to use accurate total brine production figures; consequently, the OCD had to review the records to derive a more accurate total production estimate based on flow rate info. in the files in order to calculate brine well life expectancy.

I'll keep you posted as we receive the final information forms (hopefully by October 20, 2008). Please contact me if you have questions or if we need to have a meeting to discuss penalties, etc. for the NOV.

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Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3491 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

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GPS	N 32 25' 47" W 103 8' 58"	N 32 52' 22.5" W 103 30' 16.67"	N 32.73199 W 104.12791	N 32 38813 W104.21817	N 32.68854 W 103.37449	N 32.44152 W103.17691	N 32.69825 W 103.21043	N 33 29' 53.67" W 103 20' 24.45"	N 32.70210 W 103.15557	N 32 20 56.71 W 104 14' 12.93	N 32.82899694 985 W - 103.9848541 87961	N 32.82899694 985 W - 103.9848541 87961	N 33.25868 W 103.33275	N 32.12093 W 103.18388
AP #	30-025-26884	30-025-26883	30:015-02036	30-015-22574	30-025-26307	30-025-25525	30-025-12803	30-025-35702	30-025-07551	30-015-21842	30-015-32068 (To Be PA'd)	New Well: 30-015- 36119	30-025-28162	30-025-32394
Facility	Eunice #1	WASSERHUND EIDSON BRINE	JIMS WATER SERVICE (Sima 24 Well #1) 30:015-02036 N 32.73189 (UL:J)24-185-28E Edioy 12/18/2006 W 104-12791 LOCO HILLS WILLS W 104-12791	14.W EUGENIE Meil # 001 BRINE - CARLSBAD	SALTY DOG -ARKANSAS JUNCTION (Brine Supply Well #1)	SIMS-MCCASLAND BRINE -EUNICE (GP- Sims #2)	SCURLOCK/PERMIAN -HOBBS (Saline #1 Well)	STEARNS TANK SERVICE-CROSSROAD	KEY HOBBS TRUCKERS #2	KEY TRUCKERS BRINE - CARLSBAD	LOCO HILLS BRINE -LOCO HILLS	LOCO HILLS BRINE -LOCO HILLS	QUALITY BRINE No. 2 - TATUM	SALADO BRINE WELL NO. 2
Applicant	Basic Energy Services, LLC	GANDY CORP	JIMS WATER SERVICE	I & W.INC		KEY ENERGY SERVICES, LLC	The Permian Corporation	STEARNS	KEY ENERGY SERVICES, LLC.	KEY ENERGY SERVICES, LLC.	RAY WESTALL OPERATING (Loco Hills Brine Company) : P.O. Box 4, Loco Hills, NM 88255	RAY WESTALL OPERATING (Loco Hills Brine Company) : P.O. Box 4, Loco Hills. NM 88255	GANDY CORP	Basic Energy Services, LLC.
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Response to OCD Questionnaire	08/30/08	08/30/08					09/05/08	09/03/08					08/30/08	08/30/08
Comments	Original bond approved via OCD correspondence by William Lemay	001 12/19/09.	Replaces Bond 58 45 54	02/1307 US Specially insurance Bood No. 58 90.30 (Eugenie # 1) Company exists in file Another Bond No. 59 9029 (Eugenie #2) exists in the file 9029 (Eugenie #2) exists in the file 9029 (Eugenie #2) exists in the file	Approval letter sent to Peter Bergstein on 6-19-08	One well plugging bond.		Blanket plugging bond	See BW-19 Blanket Bond	New bond requirements effective 1/1/08	Bond & Financial Assurance signed by Ray Westall (President). Mary Maloney (Guarantor). Thomas E, Jannings (Guarantor). & James Maloney (Guarantor). & Lames Maloney (Guarantor) received 3-12-7. Cash bond issued w no bond #. Approval letter to be mailed out. Ok.	Bond & Financial Assurance signed by Ray Westall (President). Mary Maloney (Guarantor). Thomas E. Jennings (Guarantor). & James Matoney (Guarantor) Larese Matoney (Guarantor) received 3-12-7. Cash bond issued w no bond #. Approval letter to be mailed out. Ok.		
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Bond Date	12/20/2006; 12/28/2007	12/4/2000; 11/23/07	70/11/20	10/E 1/20	04/23/08	12/18/07	09/26/85	07/20/99	06/01/01	12/18/07	12/11/1985 (4/29/2008)	12/11/1985 (4/29/2008)	11/21/2000:	2/7/2007; 12/28/2007
- ud Amt.	1	\$50,000 \$600; \$50,000	\$50,000 00	55 ,000.00	\$50,000.00	\$50,000.00	\$5,000.00	\$50,000.00		\$50,000.00	5000 (New Well: \$50,000.00)	5000 (New Vvell: S50,000.00)	5000; 550,000	5000 + 45.000= \$50.000
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Comments	Brine production value seems too low. Five O&G Wells very close to well.	8/30/2008 Operates BGTs or pits.		Water well 0.19 mi. NE. Well is currently idled after recent MIT resolved down hole plugging problem. Plains does not desire to continue brine sales and is actively pursuing selling this well site. Plains requests to suspend all well ops. While pursuing a potential purchase and sales adreement.				N (strould 8/30/2008 Didn't answer some 7s.	8/29/2008 Didn't answer ? About being deficient of any condition of permit. BGTs or pits are at the site. Well is near waters of the state wf drainage into city limits of Jal.
Signed?				9/5/2008	8/29/2008			8/30/2008	8/29/2008
I lo calc. I No. in 1 > /? than 2 ?	z	Z		z	Z contraction of the second se	-		N (should be Y)	
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Concern about pulling tubing & re-entry into hole?	7	Y		>	>	-		>	>
Past 5 yrs- notice any dif. in fresh H2O vol pump in vs. BW prod.?	z	z		z	z			z	z
<u>5 υ - +</u>	z	z		z	z			z	z
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Any minor/major crack/tk settlement, line break, subsidence?	z	z		z	z		1	z	z

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				Estimated cavern size from production. but diagram is questionable. Willing to provide fly-over pictures and install seismic monitoring.	
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Bond Date	12/20/2006; 12/28/2007	12/4/2000: 11/23/07	<i>10111/8</i> 0	02/13/07	04/23/08	12/18/07	09/26/85	07/20/99	06/01/01	12/18/07		(4/29/2008)
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Bond No.	RLB 0009792/ RLB0001564 (Bond Rider No. 3 \$45K)	RLB 69089833; LOC No. NZS608368	B001433 \$50,000 0917/07	06/19/2006 *A Eugenie #1 B003278 \$5,000.00 Eugenie #2 B003379 * ************************************	RLB0006628	RLB0011065	BO 9286877	RLB0001215	RLB0003249	RLB0011064		Financial Assurance/Bond
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Expires	01/06/2014	06/11/2006	12/19/2008	06/19/2006	04/18/2009	04/06/2009	0118/2009	07/15/2010	07/18/2008	12/19/2006		0102/81/21
County	Lea	Lea	Eddy	Eddy	Lea	Lea	Lea	Lea	Lea	Eddy	9 	Eddy
Location	(UL-0)34-21S-37E	(UL-M) 31-16S-35E	30-015-02036 N 32-72199 (UL-J)24-185-28E Eddy 12/192009 W 104-12791	(UL-M)17225-27E	(UL-J)5-19S-36E	(UL-A)32-21S-37E	(UL-M)36-18S-37E	(UL-P) 27-19S-35E	(UL-K)33-18S-38E	(UL-H)36-22S:26E		New Well: UL:L 16- 175-30E
	N 32 25' 47" W 103 8' 58"	N 32 52' 22.5° W 103 30' 16.67	N 32 73199 W 104 12791	N 32 38813 W 104 21817	N 32.68854 W 103.37449	N 32.44152 W103.17691	N 32.69825 W 103.21043	N 33 29' 53.67° W 103 20' 24.45°	N 32.70210 W 103.15557	N 32 20 56.71 W 104 14, 12.93	A Construction	N 32.8289694 385 W 9 103.9848541 87961
API #	30-025-26884	30-025-26883	30.015.02036	30-015:22574	30-025-26307	30-025-25525	30-025-12803	30-025-35702	30-025-07551	30-015-21842		New Well: 30-015- 36119 36119
Facility	Eunice #1	WASSERHUND EIDSON BRINE	JIMS:WATER/SERVICE (Siale 24 Well #1) 38 JLOCO HILLS	Ч	SALTY DOG -ARKANSAS JUNCTION (Brine Supply Well #1)	SIMS-MCCASLAND BRINE -EUNICE (GP-	SCURLOCK/PERMAN -HOBBS (Saline #1 Well)	STEARNS TANK SERVICE-CROSSROAD	KEY HOBBS TRUCKERS #2	KEY TRUCKERS BRINE -CARLSBAD		LOCO HILLS BRINE -LOCO HILLS
Applicant	Basic Energy Services, LLC	GANDY CORP	JIMSWATER SERVICE JIMS WATER SERVICE (State 24 W	13 W INC	ZIA TRANSPORTS INC	KEY ENERGY SERVICES, LLC	The Permian Corporation	STEARNS	KEY ENERGY SERVICES, LI.C.	KEY ENERGY SERVICES, LLC.	In the Part of the Link of the Constraint of the	RAY WESTALL OPERATING (Loco Hais Brine Company) ; P.O. Box 4, Loco Hills, NM 88255
ā	0	0	0	0	0	A	0	0	0	0		• •
Permit ID	BW-2	BW-4	BW-5	BW:6	BW-8	BW-9	BW-12	BW-13	BW-18	BW-19		BW-21

11/21/2000; 11/23/07	2/7/2007; 12/28/2007	07/31/07	207/31/07	7/29/2005 : 12/28/07	12/21/2004; 3/6/2008	10/04/85
5000; \$50,000	5000 + 45,000= \$50,000	\$5,000.00 \$50,000.00 \$50,000.00	\$50,000.00 \$50,000.00	69	\$7,500/ \$50,000	SS: 000:000
RLB 68978440; LOC No. NZS608564	RL B0001564 (Bond Rider No. 4 \$45K)	BO.4382	にたって、「また」の105855500000000000000000000000000000000	RLB0011112	RLB0011388	AR71407-11
				243571		
A	4		A		۷	
03/11/2007	09/01/2008	6002/1/2/60	09/21/2009	05/21/2009	6/22/2011	
Lea	Lea	Lea	Eddy	Eddy	Lea	
(UL-M)20-12S-36E	(UL-A) 20-25S-37E	(UL-A)32-235-33E (UL-A)32-235-33E 38160 (UL-F) 23-228-27E 1 (6210	(UL-E)15-215-27E) (UL-E)15-215-37E	(UL-F)29-16S-38E	(UL-J)7-19S-39E	14,258,37E
N 33.25868 W 103.33275	N 32.12093 W 103.18388	N 32	W104:16325 W104:16325 N 32.48248 W 103.15842	32.71861875 15337 W - 103.1716279 00737	N 32'40' 37.02" W 103 5' 3.98"	
30-025-28162	30-025-32394	30-025-32395.	30-015-28083 30-025-33547 30-025-33547	30-015-31998	30-025-36781	
QUALIFY BRINE No. 2 -TATUM	SALADO BRINE WELL NO. 2		EUNICE BRINE STATION (State #1)	MARBOB ENERGY CORP. (M. Dodd "A" BW#1) HOBBS STATE #10	Schubert #7	dba.XL.Transportation.
GANDY CORP	Basic Energy Services, LLC.	SALADO BRINE SALES Salado Brine Well #3 MESOUITE SWD (Dunaway No. 2), Mesquite-CARLSBAD INC	0 SOURLOOK PERMAN LLC 0 C C 0 KEY ENERGY SERVICES, LLC	MARBOB ENERGY CORP LIQUID RESOURCE SERVICES. LLC	HRGINC	0 William H. Brininstool dba XL Trans PAd Collapsed JWS 7/16/08 & Loco Hills 11/08 dba XL Trans 0.0 Days to PA Volumary Shur-Down https://doi.org/10.0000 Performing test due to receipt of questionnaire Sonar festing not recommended due to downhole Ishing & lost pipe in the hole.
o	٥	O SAL	0	0	0	0 PA/d Collapsed JWS 7/16/ 90 Days to PA Volutary Shut-Down Performing test due 1 Sonar lesting not recc
BW-22	BW-25	BW-26 8 BW-27	BW-27	BW-29	BW-31	

Depth top of sait (ft)	1245	1895	160	8			1750	2000				
Tailer	Santa Rosa	Ogallala		and the second se			Ogaliaia	Ogallala				
OSE (Avg. depth to water table) Ft	144	73			dad if at 199 seath in the		ى ئى					
SWL (ft)	715						O G	125				
Do you know what causes collapse?	>	<u>}</u>					>	>				
Guidance Requested?	>	×					>	z				
th Compliance?	>	0.					Z	~				
GW Monitoring	z	N (only from fresh water supply well)					z	>				
Monitoring	z	z					z	z				
ence oring	z	z					z	z				
Sonar Testing	z	Y (but was unsucce ssfut)					÷z	z				
Аллиа Верог	z	~					z	*				
MITs Quarterly Report	z	>					z	~				
MITS	>	~					>	>				
Understand your permit conditions?	7	>					>	×				
Response to OCD Questionnaire	08/30/08	08/30/08	8				80/50/60	80/03/08	and a second sec			
Comments	Original bond approved via OCD correspondence by William Lemay on 12/19/89.		eplaces Bond 58 45	ond No. 58 30 30 (Eugenia #1) xats in the Anonher Bond No. 58 0 29 (Eugenia #2) exits in the Ille 0 CD records shows plugged in 1/2000	Approval letter sent to Peter Bergstein on 6-19-08	One well plugging bond.		Blanket plugging bond	See BW-19 Blanket Bond	rance Company New bond requirements effective	10 2 2 0 2 1 6 C	Satisficancial Assurance signed by Ray Westall (President), Mary Maloney (Guarantor). & Thomas E. Jennings (Guarantor). & James Maloney (Guarantor) anes Maloney (Guarantor) received 3-12-7. Cash bond issued w/ no bond #. Approval letter to be mailed out. OA.
Bond Co.	RLI Insurance Company	Western Surety Company: Wells Fargo	US Specialty Insurance Company	US Specially Insurance B Company 3 3 4 4 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3	RLI Insurance Company	RLI Insurance Company	American Casualty Company of Reading Pennsylvania	RLI Insurance Company	RLI Insurance Company	RLI Insurance Company		Loco Hills Brine Company

Western Surety Company: Wells Fargo		08/30/08	>-	<u>≻</u>		z z	ż	z	z	N (only fresh water from supply well)	¢.	>	>	60	56	Ogailala	2250
ALI Insurance Company		08/30/08	>-	>		z	z	z	z	N (only fresh water from supply well)		~	Y (generally)	330	e.	Santa Rosa	1120
Underwriters Indemnity	Well was never drilled. Bond cancelled by OCD in letter dated. 5/16/2000				1 1 1 X												
RLI Insurance Company		09/05/08	Y		z	z	z	z	z		6	>	٨	180	44	Rustler	1060
RLI Insurance Company	RLI Insurance Company Réplaced expired LOC	09/05/08															
RLI Insurance Company	One well plugging bond.																
US Specialty Insurance Company																	
RLI Insurance Company	Bond transferred from HRC Inc. to Liquid Resources LLC 8/23/06.	09/02/08	>	λ. 	5	2 >> 1/1	z	z	z	· .	≻	*	~	330	58	Santa Rosa	1645
First National Bank; RLI Insurance Company	Savings Account No. 280219933. RLB0011388 (One Well Plugging Bond)	09/02/08	>	- 	z	z	z	z	z	>	z	>	>	80	80	Ogaitala	1880
American Employers' Insurance Company	OCD letter dated 9/19/97 approves cancellation of bond: 9/19/97 letter from Chiris Brininstooi indicates that the well was plugged.					· , ·											
											-						
						-							· ·				

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		B		Notation and a local			
Inspect for cracks/fis sures on ground surface?	>	·>	di.		>	≻ .	
v to to calc. maar. pressure ?	Ý (SRT)	z			o.	>	
Exceed cavern fracture pressure?	z	z			0.	z	
Cavern leak?	ć	c.	0		с.	z	
Casing leak?	z				z	Z	
MIT failure?	z	z		2.22	Z	z	
	z	>			z	>	
Notice Submitted fluid/air/g all reports as (mo/qtly/a bubbling nnual)? up at casing test/norm ops.?	z	z			z	Z	
Maintain Notice Ig. surf pres. amts. Air die times bld. Up @ pres. up.	z	z			z	z	
Maintain Notice Ig. surf pres. amts. Air Idle times bld. Up @ pres. up.	>	>			z	×	
	z	٨			>		
Tot Vol Brine Water Prod To Date (bbls)	960.000	5,282,480			3.883.459	975,000	
Tot Vol Fresh Water Inject To Date (bbls)	6.720.000	36,977,360			3.883.459		
Well Op Start Date	08-IuL	1980			May-63	1961	
Suspect cavern partial cave in?	ć	ć			z	z	
Depth to tubing (tt)	1489	2461			2144	2585	and the second sec
Casing Depth to shoe set tubing (ft) into sait? If so, how far?	z	z	tin second transferred transfe	Z	z	z	
Shoe set in inhyd/oth er layer above salt	z	×		Y	>	>	
spin to casing shoe (ft) a	1200	1895		455	1660	2000	
Anhydr Thick (t.	06	62		8			
Depth bottom salt (ft)	2355	2900			р.	2800	

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(¿ 11:		2 2 3 3 1		<u> </u>		 	
N (SH1:2)	z	Z		Y (SRT)	>		
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z	z	Z		Z	z		
Z.	Y (tubing leak 2005)			z	z		
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(per yr.)	00 (avg. 5 yrs in ttion)	3.028,788		197,792	110		
2561250 (per yr.)	1,700,000 (avg. over 15 yrs in operation)	3,028,788		197,792	561,110		
750	000) 000	1 - 2 - 2 - 5 		450	00		
17.928.	Don't know (7 x 1700006= 11,900,000	C C		1,382,450	556,600		
с		4.3			 		
1983	Sep-93	1994		2002	Jul-06		
¢.	c.	6		z	ć		
				0			
2800	1385	1024		5300	2300		
Y (Iop)	Y (top)	Y (4 11)		Y (55 ft)	z		
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	0			8	35		
2250	1220	 		1700	1865		
80	110	μı		115	105		
				8	 		
2950	2605	130		2400	2900		

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Comments	 - 600 bb//day (18,000 bb//mo - 216,000 bb//yr) over 28 yrs. + 3 mo. Dephi to casing since 1200 ft. Brine production value seems too low. Five O&G Wells very close to well. 	- 475 bbl/day (14,250 bbl/mo - bbl/yr) over 28 yrs. Depth to ca 1895. Operates BGTs or pits.	-200 bbl/day (6000 bbl/mö ö /72 000 bbl/yr) over 29 yrs + 11 mo - 2154 000 bbls (Iotal) Depth io Casing Shoe - 456 ft		 - 400 bbl/day (12,000 bbl/m) - 144,000 bbl/y) vever 45 yrs, + 5 mo 6,540,000 well 0.19 mi. NE., Well is currently idled after tecent miT resolved down hole plugging problem. Plains does not desite to continue problem. Plains does not desite to continue problem actively pursuing selling this well site. Plains requests to suspend all well ops. While pursuing a potential purchase and sales agreement. 	 - 3285 bbl/mo (39,420 bbl/yr) over 40 yrs - 1,576,800 bbls. Depth to casing shoe 2000 1, Last Otty, reports 2000. 				
Signed?	8/30/2008	8/30/2008			9/5/2008	8/29/2008		and and a second se		
OCD Calculation	(6, 102,000/180,000)*50 8/30/2008 = 1695	(4,788,000/180000) ⁵⁰⁼ 8/30/2008 1330	(2:154.000/180.000):50=		(6.540,000/180000)`50= 1816.7	(1,576,800/180.000)*50= 438				
5 calc. 	>	z	×	-	>	z				
Op ca No. in 1 than 2?	z	z			z	z				
Conduct fly over of BW?	z	z			z	>				
Concern w/ sonar run & loss of toot downhole due to due to due to due to hole?	~	7			>	≻	, ·			
Concern about pulling tubing & re-entry into hale?	×	>			>	<u>≻</u>				
Unexp. P Past 5 yrs H- in notice cavern? If any dif. in yes, was fresh there a H2O vol dif. In pump in norm y.s. BW norm yrs. BW	z	z			z	z		la de la composition de la composition la composition de la composition de la composition de la composition de la composition de la composition de la c		
Unexp. P Past 5 yrs H- in noice cavern? If any dif. in yes, was there a H20 vol dif. In pump in norm vs. BW flow rate? prod.?	z	z			z	z			1	
Ground movement after open/shut valves, pumps, etc.?	z	z			z	z				
Any minor/major cracks, tk settlement, line break, subsidence?	z	z			z	z		an a		

(3.000.000/190000)'50= 8/30/2008 - 10.000 bb/mo (120.000 bb/ty) over 25 yrs - 3.000.000 bbls. Casing shoe depth 2250 tl. Didn't answer some 7s. Quarterly reports were found in the file.	 (5,430,000/180000)'50= 8/29/2008 1000 bbl/day (30,000 bbl/mo - 360,000 bbls. 1508 1508 bbl/yr) over 15 yrs + 1 mo 5,040,000 bbls. Casing shoe depth 1220 ft. Didn't answer? About being deficient of any condition of permit. BGT s or pils are at the site. Well is near waters of the state w drainage into city limits of Jal. 		1000 bbl/day (30,000 bbl/mo ~ 360,000 bbl/yr) over 14 yrs~ 5,040,000 bbls. Casing shoe depth 1064 ft.		560 bb//day (17,400 bb//mo - 208,800 bb//yr) over 6 yrs 1,252,800 bbls. Casing shoe depth 1700 ft.	 12,000 bbl/mo (144,000 bbl/yr) over 2 yrs. 3 mo. = 324,000 bbls. Casing shoe depth 1865 ft. Willing to provide fly-over pictures and install seismic monitoring. 		
8/30/2008	8/29/2008	8	9/1/2008		9/1/2008	9/3/2008		
(3.000.000/180000)`50= 833	(5.430.000/1508 1508		(5,040,000/180000)*50= 9/1/2008 1400		(1,252,800/180,000) 50= 348	(324,000/180000) 50= 90		
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N (should be Y)			z		z	z		
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Bond Date	12/20/2006; 12/28/2007	(0/1/e0	02/13/07	09/26/85	2/7/2007; 12/28/2007	07/31/07	
j	5,000 + 45,000= \$50,000	\$20,000.00	\$5,000.00)	\$5,000.00	5000 + 45,000= \$50,000	\$50,000.00	
	RLB 0009792/ RLB 0009192/ RLB0001564 (Bond Rider No. 3 545K)	1 <u>8</u> 001493	Eugénie #18003278 \$5,000.00 021307 Eugénie #2 8003279 \$5,000.00 021307	BO 9286877	RL B000 1564 (Bond Rider No. 4 \$45K)	ALB0010585	
Active or I= Inactive Inactive	×	V	Y	۷	V	A	
EX	01/06/2014	12/19/2006	06/19/2006	07/18/2009	09/01/2008	Eddy 09/21/2009	
County	Lea	Eddy	Eddy	Lea	Lea	Eddy	
Location	(UL-O)34-21S-37E	(UL-J)24-185-228E	(UL-M)17:225:27E	(UL-M)36-185-37E	(UL-A) 20-25S-37E	(UL-F) 23-22S-27E	
GPS	N 32 25 ⁴ 77 W 103 8'58	N 32 73 199 N 104 12791	N:32:38813	N 32.69825	N 32.12093 W 103.18388	N 32.38160 W104.16210	
API #	30-025-26884	all 30-015-02036	30-015-22574	30-025-12803	30-025-32394 N 32.12093 W 103.18388	30-015-28084	
Facility	Eunice #1	IIMS WATER SERVICE (Sate 24 Well	I.a. EUGENIE Weil #.0018PRINE: 30-015-2257.4 N.32.3881.3 (ULI-M)17:225.27.E Eddy 06/192006 CARLESAD CARLESAD M.104.2181.7 M.104.2181.7	SCURLOCK/FERMAN -HOBBS (Saline 30-025-12803) N 32.56825 #1 Well) W 103.21043	SALADO BRINE WELL NO. 2	Mesquite-CARLSBAD	
Applicant	Basic Energy Services, LLC	JIMS WATER SERVICE	ris winc	The Permis Corporation	Basic Energy Services, LLC.	MESQUITE SWD (Dunaway No. 2), INC	
4	0	0	0 0		0	×	Collapsed 7/16/08 Voluntary Shut-Down 7/21/2008
Permit ID	BW-2	BWS	BW-6	BW-12	BW-25	BW-27	

Anhydrite Thick (ft)	30	ន	8	0 2 2	110	777	
Depth bottom salt (ft)	2355	680		c	2605	1300	
Depth top of salt (ft)	1245	3	456	1750	1120	1060	
Aquifer	Santa Rosa		Santa Rosa	Ogallala	Rosa	Rustler	
OSE (Avg. depth to water table) Ft	144	190 200 2007	64	ŝ	e e	44	
SWL (ft)	715			50	330	180	
Do you know what causes collapse?	<u>ک</u>			>	>	7	
Guidance Requested?	>			>	>	×	
In Compliance?	z			z	z	с.	
Monitoring	z			z	N (only fresh water from supply well)	z	
Geophysical Monitoring	z	3		z ·	Z	z	
Subsidence Monitoring	z	P		Z	z	z	
Sonar Testin g	z	z		ź	z	z	
Annual Report	z	2		z .	z	z	
Лиалтелу Верол	z	2		z	z	z	
s 1 0	>	λ		>	>-	>	
Understand MTS Quarterly Annual your permit Report Report conditions?	>			>	>	*	
Response to OCD Questionnaire	08/30/08			09/02/08	08/30/08	09/05/08	
Comments	ind a lence	Haplaces Bond 58.45.54	US Specialty Insurance Bond No: 58 90 30 (Eugenie #1) Comtany 90 29 (Eugene #2) exists in the 10 40 CD Fractions shows inte A OCD Fractions shows			Replaced expired LOC.	
Bond Co.	1.1 Insurance Company 1	us Specially Insurance Company	US Specially insurance i Company (ting ling	RLI Insurance Company	RLI Insurance Company Replaced expired LOC	

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z		>	z	
960,000 8,161,714		3,883,459	1,700,000 (avg over 15 yrs in operation)	3.028.788
6.720,000		3.883.459	Don't know (7 × 170000= 11,900,000)	n/a
68-Inf	82-6nv	May-63	Sep-93	1994
с.		z	с.	6
1489 660		2144	1385	1024
z Z		z	Y (top)	Y (4 tt)
z S		~	>	z
1200	83	1660	1220	1064
	Z Z (SH1)	2 2 2 2 2 2 3 3 4 3 2 3 2 3 2 3 2 3 3 3 2 3 2 3 3 3 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3 4 3 5 3 5 3 5 3 5 3 5 3 5 3 6 3 5 3 6 3 6 3 5 3 6 3	z z	10100 0010

Comments	 - 600 bbi/day (18,000 bbi/mo ~ 216,000 bbi/yr) over 28 yrs. + 3 mo. Depihi to casing shoe 1200 ft. Brine production value seems too low. Five O&G Wells very close to well. 	- 1028.6 boliday (30.357 bbolmo - 370,285.7 boliyn) over 22 yrs + 15 days - 8,161.714 bbis Casing shoe deph 397 ft Last giy, Report 2001.	- 200 bbi/day (6000 bbi/mo or 72.000 bbi/yr) ovar 29 yrs + 11 mo- 21.64.000 bbis (total) Depth to Casing Shoe - 456 ft	 400 bbl/day (12,000 bbl/mo - 144,000 bbl/y) voer 45 yrs, +5 mo 6,540,000 bbl/y) voer 45 yrs, +5 mo 6,540,000 well 0.19 mJ. KE. Well is currently ided after recent MIT resolved down hole plugging problem. Plains does not desire lo continue brine sales and is actively pursuing selling this well site. Plains requests to suspend all well ops. While pursuing a potential purchase and sales agreement. 	(5,430,000/180000)'50= 8/29/2008 1000 bbl/day (30,000 bbl/mo ~ 360,000 bbl/yr) over 15 yrs + 1 mo. ~ 5,040,000 bbls. Casing shoe depth 1220 ft. Didn't answer ? About being deficient of any condition of permit, BGTs or pits are at the site. Well is mear waters of the state w/ drainage into city ifmils of Jal.	1000 bb/(day (30,000 bb//mo - 360,000 bb/yr) over 14 yrs- 5,040,000 bbls. Casing shoe depiti 1064 ft.
Signed?	8/30/2008			9/5/2008	8/29/2008	9/1/2008
OCD Calculation	(6.102.000/180.000)*50 8/30/2008 = 1695	(8,151,714/180000)*50= 2267	(2:154.000/180.000)*50 =598.3	(6. 540.000/180000)`50= 1816.7	(5.430,000/180000)`50= 1508	(5, 040, 000/180000)
OCD calc. No. in 1 > than 2?		λ		λ		
Op catc. No. in 1 > than 2?	z			z		z
Conduct hy over of BW?	z			Z	z	z
Concern w/ sonar run & loss of tool downhole due to due to debris in hole?	~			>	~	z
Concern about pulling tubing & re-entry into hole?	>			>	>	z
Past 5 yrs- notice any dif. in fresh H2O vol pump in vs. BW prod.?	z			z	z	z

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Bond: A= Active or I= Inactive	A	A	×	X	<	
so 	12/19/2006	04/18/2009	04/06/2009	12/19/2006 09/18/2006	12/18/2005	
County	Eddy Eddy	Lea 0	Lea	Eddy	Eddy	
Location	(UL-V)24-185-28E (JUL-M)77-225:27E	. 5	(UL-K)32-215-37E	(UL-H)36-225,26E	(UL-M) 16-17S-30E	
2	N 32.73199 W 104.12791 N 32.26813 W 104.21813	N 32.68854 W 103.37449	N 32.44152 W103.17691 N 32.70210 W 103.15557	56.71°W 104 56.71°W 104 14°12.93° N 32.48248 W 103.15942	N 32.82899694 985 W - 103.9848541 87961	
* 	30-015-02035 N 32.73193 N (04.7273) 30-015-22574 N 104.21817 N 104.21817	0-025-26307		30-015-21842 30-025-33547	30-015-32068 (To Be PA'd)	
Гасніту	224	SALTY DOG -ARKANSAS JUNCTION 3 (Brine Supply Well #1)	SIMS:MCCASEXND BRINE EDWICE (GP - 390-055-5555 - 30 32: 44152, 	KEY ENERGY SERVICES. LLC JLK KEY TRUCKERS BRINE -CARLSBAD 139-015-21842 KEY ENERGY SERVICES. LLC JLC EUNICE BRINE STATION (State #1) 30-025-33547	LOCO HILLS BRINE -LOCO HILLS	
Applicant	JIMS WATER SERVICE	ZIA THANSPOHTS INC	KEY ENERGY SERVICES LLC	KEY ENERGY SERVICES, LLC	RAY WESTALL OPERATING (Loco Hills Brine Company) : P.O. Box 4. Loco Hills. NM 88255	
And #				0 0	a	Collapsed 7/16/08.6. currently working to get completed questionnaire form from operator 90 Days to PA Volumary Shur, Down 7/21/2008
Permit ID	BW5 BW5	BW-8	- BW-9 BW-18	BW-19 BW-28	BW-21	0000

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Очател) Report	2				z	Z S	z	z	
MITs	> >		≻ ·		z	z, S	z	>	•
Understand MITs Quarterly your permit conditions?									
Response to Understand OCD your permit Questionnaire conditions?	z		z	z	z	z	z	Z	
Comments	US Specially insurance Replaces Bond 68:45.54 Company US Specially Insurance Bond No.: 58:90.30 (Eugenie # 1)	exists in file. Another: Bond No. 58 90 29 (Eugenie #2) exists in the file & OCD records shows plugged in 2/1/2000.	Approval letter sent to Peter Bergstein on 6-19-08	One well plugging bond:		PLB0011064 \$250.000.00 1/2/18/07 RLI Iñsurance Company New bond requisinents effective PLB0011064 1 1/1/05 1/1/05 1/1/05	One well plugging bond.	Bond & Financial Assurance signed by Ray Westall (President), Mary Maloney (Guarantor), Thomas E, Jenning (Guarantor), & James Maloney (Guarantor) received 3-12-7. Cash bond issued w no bond #. Approval letter to be mailed out. Ok.	
Bond Co.	US Specially Insurance Company US Specially Insurance		Insurance Company	Insurance Company		RLI Insurance Company	RLI Insurance Company One well plugging bond.	Loco Hills Brine Company	
Bond Date	09/17/07 02/13/07		04/23/08	712/18/07 FRU	10/10/00	12/18/07	\$50,000.00 12/18/2007	12/11/1985 (4/29/2008)	
Bond Amt.	\$50,040,00 \$5:000.00		\$50,000.00	\$50,000.00		\$50,000.00	\$50,000.00	5000 (New Well: Well: \$50,000.00)	
Bond No.	Eugenie #1 8003278.	Eugene #2 B0032/9	RLB0006628	PI BOOG 1065	647000001L	Rueboortoe4	RLB0011066	Financial Assurance/Bond	
OGRID									

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Chavez, Carl J, EMNRD

From: Sent: To: Subject: lland@nckri.org Tuesday, July 28, 2009 9:16 AM Chavez, Carl J, EMNRD RE: Carlsbad Story

Thanks for the update Jodi. I see that OCD is planning to conduct a seismic survey over the site of the I&W brine well in the near future. Would it be possible for me to tag along and observe the operation, assuming it hasn't already happened? Thanks.

-Lewis Land New Mexico Bureau of Geology National Cave & Karst Research Institute

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us] Sent: Tuesday, July 21, 2009 8:39 AM

To: James_Rutley@blm.gov; byrum.charles@epa.gov; Leissner.Ray@epamail.epa.gov; hugh.harvey@intrepidpotash.com; Imolleur@keyenergy.com; gveni@nckri.org; Jones, Brad A., EMNRD; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD; Griswold, Jim, EMNRD; Kostrubala, Thaddeus; balch@prrc.nmt.edu; leo.vansambeek@respec.com; rlbeauh@sandia.gov; grkirke@sandia.gov; reitze@socon.com; mcartwright@unitedbrine.com; dave.hughes@wipp.ws; Allen.Hains@wnr.com; ken.parker@wnr.com; Ron.Weaver@wnr.com; Veronica.Waldram@wipp.ws; RichardM@intrepidpotash.com; cgherri@sandia.gov; dwsnow@lotusllc.com; lyn.sockwell@basicenergyservices.com; dwpowers@evaporites.com; Sanchez, Daniel J., EMNRD

Cc: jhand@kdhe.state.ks.us; khoeffner@kdheks.gov; mcochran@kdheks.gov; jvoigt@solutionmining.org; douglas.johnson@rrc.state.tx.us; joeb@dnr.state.la.us; psbriggs@gw.dec.state.ny.us; david_herrell@blm.gov; lland@gis.nmt.edu; douglas.johnson@rrc.state.tx.us; gary.wallace@crihobbs.com; Hall, John, NMENV; Olson, Bill, NMENV; kdavis@subsurfacegroup.com; Overbay.Michael@epamail.epa.gov; eric@lonquist.com Subject: FW: Carlsbad Story

FYI.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

From: Porter, Jodi, EMNRD
Sent: Monday, July 20, 2009 10:56 PM
To: Prukop, Joanna, EMNRD; Leach, Carol, EMNRD; Fesmire, Mark, EMNRD; Macquesten, Gail, EMNRD; James, Brian, EMNRD; VonGonten, Glenn, EMNRD; Sanchez, Daniel J., EMNRD; Noel, Jim, EMNRD; Griswold, Jim, EMNRD
Cc: EMNRD-OCD - SANTA FE; Perrin, Charlie, EMNRD
Subject: Carlsbad Story

FYI-

Carlsbad brine well is subsiding, expert says

By Stella Davis Current-Argus Staff Writer CARLSBAD — Monitoring data for two brine wells inside the city limits indicates subsidence is occurring above the brine well cavern, a hydrologist with the state's Oil and Conservation Division said.

Jim Griswold said if the subsidence continues at the current rate, in a year's time the surface will have moved 1 to 2 inches vertically and tilted as much as 6 degrees in some areas.

In April, the OCD put Carlsbad brine operator I&W Trucking Inc. on notice for unsafe conditions that pose a serious risk to human life and property. The company has since moved its trucking operation to a new location in south Carlsbad, and has lost access to its local source for brine water.

OCD Chairman Mark Fesmire said the location of the company's former operation at 3005 S. Canal St. poses special danger in the event of a collapse. The two brine wells are located at a site between U.S. Highways 285 and 62-180 where they converge at an intersection commonly known as the South "Y".

The site is close to a Carlsbad Irrigation District canal that delivers water to farmers south of the city, a pecan orchard, a church, businesses and residences.

OCD officials said the next step will be to conduct a seismic survey to determine the size and shape of the brine well cavern at the site, and OCD will continue to work with the owners, making suggestions to them about possible solutions or remedies to stabilize the brine well they own and for which they are responsible.

Griswold told community leaders and concerned residents last week that movement of the ground, buildings, sub surface utilities and/or roadways may become visibly apparent.

OCD officials said certain aspects of the Carlsbad facility such as the shallow depth and length of time in service are similar to the two wells that collapsed last year in the north part of Eddy County; thus the Carlsbad site poses serious risk to human life and property.

"The Oil Conservation Division regulates brine wells to keep salt and other contaminate out of the ground water," Fesmire said. "We will continue working to reduce the potential threat from another brine well collapse and to protect human health and the environment."

Griswold explained that two of the 34 brine facilities in New Mexico have collapsed, which amounts to a failure rate of 6 percent.

"If you consider only shallow brine wells in New Mexico those wells with a depth to bottom of casing less that 500 feet you are looking at five facilities, including the Carlsbad facility," he said. "Two of those five have collapsed, for a failure rate of 40 percent. And if you consider only shallow brine wells that have produced a large amount of brine, you are looking at three facilities, including the Carlsbad facility. The two other shallow brine facilities with high production volume have already collapsed, for a failure rate of 67 percent."

To address the problem of the two brine wells inside the city limits, the OCD formed a brine well evaluation work group that consists of experts from the OCD, brine and oil and gas industry, national labs, the Environmental Protection Agency, the Waste Isolation Pilot Plant, the National Cave and Karst Research Institute located in Carlsbad and other organizations.

The group has met several times and has expressed concern that any brine well operation that had produced large volumes of brine from a shallow salt bed was subject to collapse and needed to be heavily scrutinized.

Joel Arnwine, Eddy County emergency manager, said his office has developed an initial incident action plan and is working with the New Mexico Highway Department and the New Mexico Department of Homeland Security and Emergency Management.

Arnwine said an early warning system has been designed to automatically contact the Eddy County Emergency Office in the event a collapse is imminent. He noted that Eddy County would be the first responders and implement its emergency response plan.

Residents, business owners and member of the agriculture community left the informational meeting last week with more questions than answers. Residents voiced concern about declining property values around the brine well site, while farmers

worried about the loss of their irrigation water if the brine wells were to collapse. The irrigation canal that delivers water to farmers south of the city is near.

Jerry Calvani, whose family pecan orchard and associated businesses are close by, said everyone who obtains water from the CID canal system is concerned about the possibility of a sinkhole occurring as a result of the brine wells collapsing.

"I would say it is a grave concern," Calvani said.

James Walterscheid, who farms in Otis, said although good information was presented at the meeting, he believes the seismic survey must be conducted to get a better handle on the problem.

"The concern I have is the salt in the brine well. What will happen if there is a collapse and the heavy salt water gets into the irrigation canal when we are running water to our fields?" he said.

Eugene and Lowell Irby, owners of I&W said they have fully cooperated with the OCD. They said they too, are concerned about public health and safety.

The Irbys said they consented to cap the wells and move I&W's operations, although it has resulted in lost revenue.

The Irby's purchased the site and wells in 1997 from B&E Trucking. They said they have been a responsible company from day one.

OCD officials have conceded that they do not know the actual size of the cavernous area created by the wells. They said the seismic survey has to be done to get a better idea of what they are facing. They also noted that in order to do that, a different method will have to be used to avoid a potential collapse at the site.

The survey is expected to be conducted in about two weeks.

Mayor Bob Forrest, who attended the meeting thanked all the agencies for their work thus far and added, "We are preparing for the worst and hoping for the best."

For more information and to read the brine well collapse evaluation report, visit the website http://www.enmrd.state.nm.us/ocd/BrineWells.htm.

Jodi

Jodi McGinnis Porter Public Information Officer Energy, Minerals and Natural Resources Department (EMNRD) 1220 South St. Francis Drive Santa Fe, NM 87505 Phone: (505) 476-3226 Fax: (505) 476-3220 Cell: (505) 690-1689 E-mail: <u>jodi.porter@state.nm.us</u> Website: www.emnrd.state.nm.us

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Chavez, Carl J, EMNRD

From: Sent:	Chavez, Carl J, EMNRD Wednesday, October 08, 2008 3:52 PM
То:	'iwcarlsbad@plateautel.net'
Cc:	Price, Wayne, EMNRD
Subject:	I & W Eugenie Well No. 1 (BW-6) Oil Conservation Division Brine Well Information Request
	Form Status of Submittal

Mr. Wilson

Re:

BW-	1 & W	1& W	30-	N 32.38813		(UL-	Eddy
6	INC	EUGENIE	015-		W	M)17-	
		Well # 001	22574	104.21817		22S-	
		BRINE -				27E	
		CARLSBAD					

Good afternoon. The New Mexico Oil Conservation Division (NMOCD) has yet to receive brine well information from the request form mailed to you on 8/6/2008 (via certified mail: article no. 7001 1940 0004 7923 0902).

The information is crucial to the NMOCD's EPA Underground Injection Control Program evaluation of potential public health threats from brine wells in New Mexico. Please submit the information for the above listed well by October 22, 2008.

Please contact me if you have questions. Thanks in advance for your cooperation in this matter.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3491 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications") New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson Governor

Joanna Prukop Cabinet Secretary Reese Fullerton Deputy Cabinet Secretary Mark Fesmire Division Director Oil Conservation Division



Certified Receipt/Return Requested:

August 01, 2008

Attention Brine Well Operator(s):

One of the permitted brine wells has experienced a total collapse and created an enormous sinkhole. The well was located approximately 17 miles SE of Artesia, NM. on State Trust Land. The operator was Jim's Water Service and the brine well permit is BW-005. OCD has enclosed a press release with photos of the event.

The magnitude of this event warrants an immediate investigation of all brine wells in the state. Therefore, please find enclosed a "BRINE WELL INFORMATION REQUEST" form to be filled out and returned to this office no later than September 05, 2008. Failure to properly fill out and return the form in a timely manner may result in OCD requesting you shut down your operations_until further notice. If you have any questions please do not hesitate to call me at 505-476-3490 or E-mail wayne.price@state.nm.us.

Sincerely.

Wayne Price Environmental Bureau Chief Oil Conservation Division

Attachments: (2)

Cc: EMNRD Cabinet Secretary-Joanna Prukop OCD Director-Mark Fesmire NMSLO- Brian Henington SF, Jim Carr-Carlsbad BLM-Carlsbad Office- Dave Herrell Eddy Co. Emergency Management-Joel Arnwine NM State Police –Roswell Sgt. Les Clements National Cave and Karst Research Institute- Dr. George Veni NMOSE-John Stewart

Solution Mining Research Institute-John Voigt-

Oil Conservation Division * 1220 South St. Francis Drive * Santa Fe, New Mexico 87505 * Phone: (505) 476-3440 * Fax (505) 476-3462* <u>http://www.emnrd.state.nm.us</u>



Price, Wayne, EMNRD

From: Sent: Subject: Attachments: Porter, Jodi, EMNRD Wednesday, July 23, 2008 5:00 PM PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide PR-OCD.Brine.Wells07.23.08.pdf

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson Governor

Joanna Prukop Cabinet Secretary Reese Fullerton Deputy Cabinet Secretary

July 23, 2008

Contact: Jodi McGinnis Porter, Public Information Officer 505.476.3226

Oil Conservation Division

Mark Fesmire

Division Director



NEWS RELEASE

Energy, Minerals and Natural Resources Cabinet Secretary Joanna Prukop Proposes Stricter Conditions on Brine Wells State-wide

Artesia brine well collapse prompts statewide review

SANTA FE, NM – Secretary Joanna Prukop has directed the Oil Conservation Division (OCD) to conduct a complete evaluation of the rules and regulations concerning brine wells, a method of creating saturated salt water used in oil and gas production. The OCD evaluation will include an internal audit and inspection of all existing brine wells in New Mexico. Secretary Prukop is considering strengthening oversight of brine wells to protect against well failures such as the recent collapse in Artesia that created a huge sinkhole and forced the closure of an Eddy County road.

"There are several brine wells in New Mexico and we must ensure that they are all properly monitored to ensure safety and stability," stated Cabinet Secretary Joanna Prukop. "We have now seen that these wells can collapse and the extensive damage such a collapse can generate."

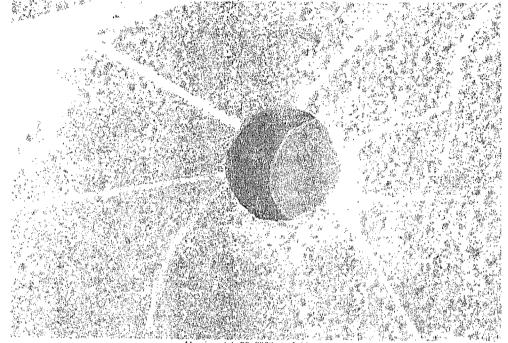
The Oil Conservation Division is continuing to monitor and investigate the collapse of the brine well, located on state trust land 17.3 miles southeast of Artesia, which is still active. The well is owned by Jim's Water Service. County Road 217 remains closed as a safety precaution, and a command center is on site. Division engineers estimate that the well is approximately 300 to 400 feet in diameter, 70 feet to the water level, and the actual depth to the bottom is unknown.

Scientists from the Oil Conservation Division, the Bureau of Land Management, State Land Office, the New Mexico

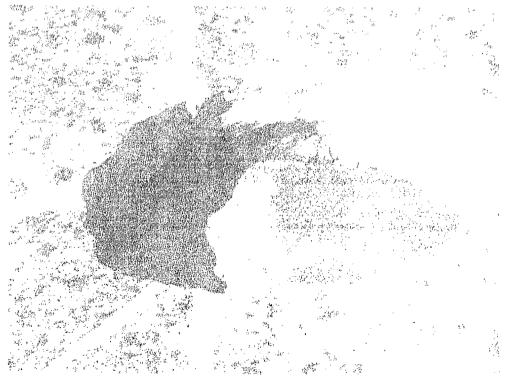
Bureau of Geology and Mineral Resources, and the National Cave & Karst Research Institute are all working together to assess horizontal and vertical movements to project any future subsidence. Work on a protective fence and keep-out signage began yesterday with completion expected on Friday.

In a related issue, the Oil Conservation Division has also been closely monitoring a brine well operated by I & W, Inc located in Carlsbad, NM. Yesterday, following ongoing inquiries from OCD the operator decided voluntarily to stop operation of the well The division will work with I & W, Inc. to ensure that the well is properly plugged, permanently abandoned, and monitored for the long term.

Images provided on the brine well collapse are courtesy of National Cave and Karst Research Institute:



Morning, July 20, 2008 at 10:44 am. courtosy of National Cave and Karst Research Institute



New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson Governor

Joanna Prukop Cabinet Secretary Reese Fullerton Deputy Cabinet Secretary Mark Fesmire Division Director Oil Conservation Division



OIL CONSERVATION DIVISION BRINE WELL INFORMATION REQUEST

GENERAL INFORMATIC	DN:							
Operator Name	Operator Name Well Name(s)							
API Number	Brine W	ell Permit #						
Date Permit Expires?		_						
	_							
Location: Section	Ts			_				
Location: Section FNLFSL GPS of well(s): Lat:	FEI	۰ <u></u>	FWL					
GPS of well(s): Lat:	Long:							
Have you reviewed and under	stand all of your perm	ut conditions	Yes D NoD					
Are you presently deficient of				t know 🗆				
Do you operate below grade t								
Do all tanks, including fresh v	1		ment? Yes No					
Do you think you have the ex-								
brine well to collapse? Yes□			-					
Do you think OCD should pro	ovide guidelines on su	bsidence and	collapse issues?	Yes⊡ No□				
SITING INFORMATION:				et on 7.5				
minute (1": 2000") USGS Qu	uad Map. Limit searc	ch to one mile	e radius.					
Is the brine well located withi	n a municipality or cit	y limits? Y	es No					
Distance and direction to near	est permanent structu	re house sch	ool etc if less the	an one mile.				
Distance and direction to near	est permanent structu	ie, neuse, sen	ooi, eie. ij iess in	an one mile.				
Distance and direction to near		, .,						
Distance and direction to near	est water well <i>if less t</i>	han one mile:						
Distance to nearest watercour	se(s), floodplain, play	a lake(s), or n	nan-made canal(s) or pond(s)				
if less than one mile:				,				
Distance and direction to near	est known karst featu	res or mines ij	fless than one mi	le:				

Oil Conservation Division * 1220 South St. Francis Drive * Santa Fe, New Mexico 87505 * Phone: (505) 476-3440 * Fax (505) 476-3462* <u>http://www.emnrd.state.nm.us</u>

Oil Conservation Division August 1, 2008 Page 2

Distance and direction to nearest producing oil or gas well(s) *if less than one mile:* Provide API Number:

Distance and direction to nearest tank battery(ies) if less than one mile:

Distance and direction to nearest pipeline(s), including fresh water pipelines *if less than one mile:*

Distance and direction to nearest paved or maintained road or railroad if less than one mile:

Depth to ground water found above the Salado (salt section), regardless of yield:

Name of aquifer(s):

WELL CONSTRUCTION: Please provide the following information and attach a diagram depicting the brine well. Check box if attached:

Copy of a current well diagram:Attached □Copy of formation record with tops:Attached □Copy of geophysical well logs if available:Attached □If not, well logs within one mile □Depth of the top of the salt below ground surface (feet):

Depth to the bottom of the salt below ground surface (feet):

Depth(s) to and thickness(es) of any anhydrite section(s) (located above the salt):

Depth of casing(s) shoe below ground surface (feet): Is the casing shoe set in the anhydrite or other layer above the salt? Yes \Box No \Box Is the casing shoe set into the salt? Yes \Box No \Box If yes, how far into the salt? Depth of tubing(s):

Do you suspect that your cavern has partially caved in? Yes Not Don't know

OPERATIONS: *Please provide the following information.*

Start date of brine well operation:

Total volume of fresh water injected into the brine well to date (bbls) and how determined:

Oil Conservation Division August 1, 2008 Page 3

Total volume of brine water produced (bbls) to date and how determined:

Have you ever lost casing or tubing? If yes, please provide details. Document attached \Box

Do you maintain a surface pressure on your well during idle times? Yes□ No□

Have you noticed large amounts of air built up during cavity pressurization? Yes□ No□

Have you ever noticed fluids or air/gas bubbling up around the casing during testing or normal operations? Yes No

MONITORING: Please provide the following information.

Are you currently monitoring ground water contamination from your brine well or system? Yes \Box No \Box

Have you ever run a sonar log? Yes \Box No \Box *If yes*, please provide last date:_____

Provide cavern configuration (dimensions and volume) and method(s) used to estimate: If sonar report please attach \Box If other, please specify and provide a sketch of cavern: \Box

Do you have a subsidence monitoring program in place? Yes □ No⊡

Do you have any geophysical monitoring devices, such as a seismic device positioned near your brine well? Yes \Box No \Box

Have you submitted all of your monthly, quarterly, or annual reports to the OCD? Yes \Box No \Box

Have you failed a brine well mechanical integrity test (MIT)? If yes, please attach details and results. Attached \Box

Have you ever had a casing leak? Yes \Box No \Box Have you ever had a cavern leak? Yes \Box No \Box Don't know \Box Have you ever exceeded the cavern fracture pressure? Yes \Box No \Box Don't know \Box Do you know how to calculate your maximum pressure? Yes \Box No \Box Don't know \Box Have you routinely looked for cracks or fissures in the ground surface around your brine well?

Yes \Box No \Box

Do you have any minor or major cracks, fissures, tank settlement, line breakage from settlement or any minor subsidence. Yes \Box No \Box

During operations have you experienced any ground vibration, ground movement, or well movement after opening or shunting valves, pump start-up, shut-down, etc.? Yes Not

Oil Conservation Division August 1, 2008 Page 4

Have you ever experienced unexpected pressure gain or loss in the cavern?Yes \Box No \Box If Yes, was there a difference in your normal flow rate?Yes \Box No \Box

Anytime during the past 5 years, have you experienced a noticeable difference between fresh water volume pumped into the well verses brine water produced? Yes \Box No \Box

Are you concerned about pulling the tubing due to the fact it may be difficult to re-enter the hole? Yes□ No□

Are you concerned about running a sonar tool in fear of losing tool because of debris in hole? Yes \Box No \Box

Have you ever conducted a fly over of your well site? No \Box Yes \Box if yes, please provide photo.

 \Box *Photo(s)* attached

Calculation: Please divide your estimated total volume of produced brine by 180,000 and multiply by 50. *Example:* If you have produced a total of 18,000,000 bbls of brine in the life time of the well then your calculation would be $18,000,000/180,000 = 100 \times 50 = 5000$.

1. Provide the calculated number above here:

2. Now provide the depth (ft) from the surface to your casing shoe:____

Is the calculated number found in #1 above greater than #2? Yes \square No \square

Comments or recommendations for OCD:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

Company Name-print name above

Company Representative- print name

Company Representative- Signature

Title_____

Date:_____

 SENDER COMPLETENTISSECTION 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: Mv: Kevin Wilson P.O. Box 98 Loco IIIIS, NM \$8255 		Agent Addressee Date of Delivery
	3. Service Type Certified Mail Detrified Mail Registered Return Receipt Insured Mail C.O.D.	t for Merchandise
	4. Restricted Delivery? (Extra Fee)	Yes
2. Article Number (Transfer from service label)	104 7923 0902	
PS Form 3811, August 2001 Domestic Rel	turn Receipt	102595-01-M-2509

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From:	Shallon Finkbone [shallon@iandwinc.com]
Sent:	Tuesday, December 23, 2008 10:43 AM
То:	Price, Wayne, EMNRD; Chavez, Carl J, EMNRD
Subject:	FW:
Attachments:	kevinocdstuff.tif

Mr. Wilson was concerned that you did not receive these back in October when we had originally sent them to you. Please let us know if you are having any problems opening the attachment.

Merry Christmas to you and your families. Thank you

From: Shallon Finkbone [mailto:shallon@iandwinc.com] Sent: Friday, October 31, 2008 9:28 AM To: 'wayne.price@state.nm.us'; 'carlj.chavez@state.nm.us' Subject:

I was asked by Mr. Kevin Wilson with I&W Inc. to send this to you. If you have any replies please send them to <u>iwcarlsbad@plateautel.net</u>.

Thank you

This inbound email has been scanned by the MessageLabs Email Security System.

		· .	· · · · · · · · · · · · · · · · · · ·
Submit 3 Copies To Appropriate District Office District I	State of New Me Energy, Minerals and Natu		Form C-103 June 19, 2008
1625 N. French Dr., Hobbs, NM 88240	ω,		WELL API NO.
<u>District II</u> 1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATION		30 -0/5 - 225 74 5. Indicate Type of Lease
District III 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Fra Santa Fe, NM 8		STATE FEE
<u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505	6. State Oil & Gas Lease No.		
SUNDRY NOTIC (DO NOT USE THIS FORM FOR PROPOSA DIFFERENT RESERVOIR. USE "APPLICA"		UG BACK TO A	7. Lease Name or Unit Agreement Name Eugenie
PROPOSALS.) 1. Type of Well; Oil Well G	as Well Other BRINE	Sugaly	8. Well Number
2. Name of Operator $\mathcal{I} \neq \mathcal{W}$ 2		Juppy	9. OGRID Number
3. Address of Operator		· · · · · · · · · · · · · · · · · · ·	10. Pool name or Wildcat
P.O. Boy 4. Well Location	C 1685, CARISDAD	NM 88220	
Unit Letter <u>M</u> : 9 Section 17	<u>195</u> feet from the <u>Sout</u> Township 225 Ri		
	11. Elevation (Show whether DR		
	3126 GL		
12. Check Ap	propriate Box to Indicate N	ature of Notice,	Report or Other Data
NOTICE OF INT			SEQUENT REPORT OF:
	PLUG AND ABANDON	REMEDIAL WOR	
		CASING/CEMEN	
OTHER:		OTHER:	<u>Q</u>
			d give pertinent dates, including estimated date tach wellbore diagram of proposed completion
Quilled all tuby	in and of well.	RANI CIRS	D IN ATARAMA AND
cot at uner'	Gut of weilt		PIN 7"CASING AND surface. Installed
JET HT 436.	Circulated ce	ment to	surtace. Installed
dry hole man	eker to compl	ete ope	RATION.
1	•	,	
Spud Date:	Rig Release Da	ite :	
	·····	. 	
I hereby certify that the information ab	ove is true and complete to the be	st of my knowledge	e and belief.
	1.1		
SIGNATURE Keun M		RATIONS NA	ANAGER DATE 10/31/08
Type or print name Kevin W	E-mail address		PHONE: 575-885-6663
For State Use Only			cell 575-903-2041
APPROVED BY: // /	TITLE EB	C	DATE 1/8/09
Conditions of Approval (if any):			
· · ·			
· · · ·		·	
	· .		
· · ·	· .		

3710 S. FM 303 (806) 229-2087 Sundown, TX 79372



410 East Main (505) 748-1372 Artenia, NM 88210-2173

					Date	10/01/2008
Company	18W Inc.	c	ompany Man	Kevin		
Well Name	Eugenie No.1	C	sg. Size & Wt.	7"		
Job Description	Set 7" C.t.B.P. at 458.0' with 14 joints.			^		
Directions	Go to carlabad then turn towards loving to I&W yard to location.	······································				
ool Type No. 1	7" setting tool		ength of Tools	4.11"	% Tool	
ooi Type No. 2		K	and the second sec		X/O	
ool Type No. 3		ĸ	BC		Tbg. Grad	la
Cool Type No. 4		S	N		Tbg. Size	
Services	Description	,	Cost	ł	, J	ts n
Service Man	10/1/2008		550.00	Jts. On Loc.	17	
lileage \$1.25/m	70 Miles r/t		\$ 87.50	Jts. In	14	
		-		Tailpipe		
ENTAL ENTAL	7" setting tool		\$ 400.00	Jts. Out	3	
ALE ale	Bucket of thread dope 7" C.I.B.P.		55.00 1,670.00	Average		2
			• •	Subs		
				Tbg. Tally [1] it beliow		
				pkr		-
				% Tool	ļ	
			· ·	Top Pkr.	456.0	
		b Total	•	Btm Pkr.		
		5% Tax	· · - +	BOTT. OF	[
	1	Total :	2,957.60	landing nippl	L	
omments					-	
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illing Invoice #				0		
erviceman	Јеггу Кларр		TD	0		
ompany Rep.			PBTD		- <u></u> .	
ign			PBID	0		
FE #			DV/T	0		

	· ·	· · ·	
Submit 3 Copies To Appropriate D	District State	of New Mexico	Form C-103
Office District I	Energy, Mine	rals and Natural Resources	May 27, 2004
1625 N. French Dr., Hobbs, NM 88 District II	8240		WELL API NO.
1301 W. Grand Ave., Artesia, NM.	88210 OLL CONSI	ERVATION DIVISION outh St. Francis Dr.	30-015-22574 5. Indicate Type of Lease
District III 1000 Rio Brazos Rd., Aztec, NM 8	- r220 Sc	outh St. Francis Dr.	STATE FEE
District IV 220 S. St. Francis Dr., Sania Fe, N		a Fe, NM 87505	6. State Oil & Gas Lease No.
1220 S. St. Francis Dr., Santa Fe, N 37505		·	
SUNDRY	NOTICES AND REPORT	S ON WELLS	7. Lease Name or Unit Agreement Name
DO NOT USE THIS FORM FOR DIFFERENT RESERVOIR. USE	PROPOSALS TO DRILL OR TO	DEEPEN OR PLUG BACK TO A	
PROPOSALS.)			Eugenie 8. Well Number 1
1. Type of Well: Oil Well	Gas Well 🛛 Other		
2. Name of Operator & W, Inc		AUG - 6 2008	9. OGRID Number
3. Address of Operator		OCDARTESIA	10. Pool name or Wildcat
P.O. Box 1685, Carlsbad, Nl	M 88220	AAR Sector	
. Well Location		······································	
Unit Letter <u>M</u>	: _995feet from	the <u>South</u> line and <u>641</u>	feet from the <u>West</u> line
Section	Township		NMPM County
		w whether DR, RKB, RT, GR, etc.	
t or Below-grade Tank Applicati		26 GL	
		n neurast frack water wall Die	tance from nearest surface water
t Liner Thickness:	mil Below-Grade Tank:		onstruction Material
12. Cl	leck Appropriate Box it	Indicate Nature of Notice,	Report of Other Data
NOTICE (OF INTENTION TO:	SUB	SEQUENT REPORT OF:
PERFORM REMEDIAL WOR			
EMPORARILY ABANDON	CHANGE PLANS	COMMENCE DR	ILLING OPNS. 🗍 – P AND A 👘 🗍
HILL OD ALTED CACINO			
ULL UN ALTER LASING	MULTIPLE COMPL		
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C-103 Eugenie Well No. 1 (BW-6) Conditions of Approval

1) Cement must be circulated back to surface under adequate pressure.

2) A plug and abandonment marker shall be set.

3) Final C-103 Form shall be submitted within 30 days of plug and abandonment with specific details.

From: Price, Wayne, EMNRD

Sent: Friday, October 31, 2008 10:06 AM

To: Chavez, Carl J, EMNRD

Subject: FW:

Attachments: kevinocdstuff.tif

From: Shallon Finkbone [mailto:shallon@iandwinc.com] Sent: Friday, October 31, 2008 9:28 AM To: Price, Wayne, EMNRD; Chavez, Carl J, EMNRD Subject:

I was asked by Mr. Kevin Wilson with I&W Inc. to send this to you. If you have any replies please send them to iwcarlsbad@plateautel.net.

Thank you

This inbound email has been scanned by the MessageLabs Email Security System.

Submit 3 Copies To Appropriate District State of New Mexico	Form C-103
Office Energy, Minerals and Natural Resources	June 19, 2008
1625 N. French Dr., Hobbs, NM 88240 District II	WELL API NO. 30-0/5-22574
(301 W. Grand Ave., Artesia, NM 88210 OIL CONSERVATION DIVISION	5. Indicate Type of Lease
District III 1220 South St. Francis Dr.	STATE FEE
District IV Santa Fe, NM 87505	6. State Oil & Gas Lease No.
220 S. St. Francis Dr., Santa Fe, NM 37505	
SUNDRY NOTICES AND REPORTS ON WELLS	7. Lease Name or Unit Agreement Name
DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH	Eugenie
ROPOSALS)	8. Well Number
. Type of Well: Oil Well Gas Well Other BRINE Supply	9. OGRID Number
It W INC.	
. Address of Operator	10. Pool name or Wildcat
P.O. BOX 1685, CARISDAD NM 8822	0
Well Location	
Unit Letter M : 995 feet from the South line and	64 feet from the West line
Section 17 Township 225 Range 27E	NMPM County Eddy
11. Elevation (Show whether DR, RKB, RT, GR, e	etc.)
3126 GL	
12. Check Appropriate Box to Indicate Nature of Notic	a Ronart or Other Data
12. Check Appropriate box to mulcate nature of notic	e, Report of Other Data
NOTICE OF INTENTION TO: SU	JBSEQUENT REPORT OF:
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CEMENT JOB REPORT



CUSTOMER	I & W Inc		1	DATE 01-O	CT-08 F	.R.# 526	110219			SERV. SUP	V. JUSTI	N L CARTY	RIGHT
LEASE & WEL	NAME			LOCATION	· <u> </u>						ARISH-BLO	ск	
EUGINE #1											w Mexica	<u> </u>	· ····
DISTRICT			1	DRILLING CO		R RIG #			1	TYPE OF J			
Arlesia	THOP OF			BG-HARDWA					UVRICAL I	Pipe & A NUMBER D			
	TYPE OF	LOND			<u> </u>	SACKS	i si	URRY	SLURR				86
}	··	<u> </u>	<u>-</u> -	·		OP	N	IGT	YLD FT ³	GPS	TIME	SLURR	Y MIX
		MATERIALS FL	IRNISHED BY	BJ				PG			HR:MI	•	WATER
C+2%CACL							5	14.8		34	6.34		22 13.92
Available Mix		130 вы.	Avallable Dis	 pl. Fluid	130 Bb	\	·			- •	TOTAL	<u> </u>	22 13.92
	HOLE				TBG-CSC	2.0.9					0011	R DEPTH	
	% EXCES	S DEPTH	SIZE	WGT.			DEPTH		GRADE	SHK		FLOAT	STAGE
7		456	2,875		BTBG			156 J-5		1			
L	AST CASIN			CMT RET-BF			ERF. D	<u>he.</u>		OP CONN	<u> </u>	WELL FL	UID
SIZE WO	T TYP	E DEPTH	BRA	ND & TYPE			Ç₽	BTM	\$IZE	THRE	D TYPE	···	WGT.
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J#9004

3710 S. FM 303 (806) 229-2087 Sundown, TX 79372



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410 East Main (506) 748-1372 Arteala, NH 88210-2173

						Date	10/01/2008
Company	1&W Inc		Com	pany Man	Kevin		
Well Name	Eugenie No.1	<u></u>	Csg.	Size & Wt.	7"	<u></u>	
Job Description	Set 7" C.t.B.P. at 456.0' with 14 joints.						
Directions	Go to carlsbad then turn towards loving to yard to location.	1&W					
Tool Type No. 1	7* setting tool			th of Tools	4.11"	% Tool	
Tool Type No. 2			KB			X/O	
Tool Type No. 3			KBC		-	Tbg. Grad	la
Tool Type No. 4			SN			Tbg. Size	
Services	Description		I	Cash	t	1 .	1. m
Service Man	Description 10/1/2008		\$	<u>Cost</u> 550.00	Jts. On Loc.	17	
Mileage \$1.25/m	70 Miles r/t		\$	87.50	Jts. in	14	
					Tailpipe		
RENTAL	7" setting tool		\$	400.00			*
RENTAL	_				Jbs. Out	3	
SALE	Bucket of thread dope		\$	55.00			
sale	7* C.I.B.P.		\$	1,670.00	Average	· · · ·	
					Suba		
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		Sub Total	\$	2,762.50	Btm Pkr.	456.0	
		7.0625% Tax	\$	195.10	BOTT. OF		
	Ī	Total	\$	2,957.60	landing nippk	[
Comments							
				hd Perfs			·
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Billing Invoice #				·			
Serviceman	Јеггу Кларр			TD	0		
Company Rep.				PBTD	0	·	
Sign					<u>v</u>		- <u>:</u>
AFE #				DV/T	0		

From: Price, Wayne, EMNRD

Sent: Monday, November 17, 2008 4:38 PM

To: Price, Wayne, EMNRD; VonGonten, Glenn, EMNRD; 'iwcarlsbad@plateautel.net'

Cc: Chavez, Carl J, EMNRD; Sanchez, Daniel J., EMNRD

Subject: RE: Contingency Plan for BW006

In addition, it appears your plan is reactionary, which is good, but you should anticipate other scenarios, such as the canal, highway, power lines, flooding, etc. I would recommend your hire a safety consultant to put together a plan that is reactionary and anticipates planned events. Are you concerned about your employees on site with heavy truck traffic over the wells?

From: Price, Wayne, EMNRD
Sent: Monday, November 17, 2008 4:29 PM
To: VonGonten, Glenn, EMNRD; 'iwcarlsbad@plateautel.net'
Cc: Chavez, Carl J, EMNRD; Sanchez, Daniel J., EMNRD
Subject: RE: Contingency Plan for BW006

Dear Kevin, about a week ago I E-mailed you to indicate that your plan may be deficient. I did not hear back from you. Let me know if you get this E-mail.

I did not see the Carlsbad Irrigation District on your list, did I miss that. What I want you to do is get an aerial photo, maybe from Google and draw a worst case scenario around your facility and supply us with it. Also, when we were there last we saw a lot of water over the site and some problems with containment. Please make sure those items are corrected before our next inspection. You should provide a plan to keep water off of the site, especially over the well cavity.

From: VonGonten, Glenn, EMNRD
Sent: Tuesday, November 04, 2008 1:20 PM
To: iwcarlsbad@plateautel.net
Cc: Price, Wayne, EMNRD; Chavez, Carl J, EMNRD; Sanchez, Daniel J., EMNRD
Subject: Contingency Plan for BW006

Lisa Rice, Kevin Wilson:

As we discussed, OCD is requiring I & W to submit a contingency plan for its brine well in Carlsbad by close of business on Friday, November 7, 2008 to both the Eddy County Emergency Management Service and to OCD. The contingency plan should include the following:

6652.6

1) Contact list with phone numbers and email addresses for all organizations that I & W would need to contact if it were to detect subsidence or collapse at its brine well, including the Eddy County EMS, State Police, Carlsbad Police and Fire Departments, OCD District II office in Artesia and OCD Santa Fe office, etc.

2) Daily surveillance plan, including a log, that records I & W's daily inspections of the brine well and vicinity.

3) Weekly monitoring plan, including a log, that records I & W's weekly survey of its survey points.

4) Action plan for decommission the brine well by disconnecting all power, plumbing, and supply and production pipelines, etc. so that if a collapse occurs, the damage to surrounding infrastructure is minimized.

The intent of these additional requirements is so that if a collapse occurs, I & W will already have gone the process of preparing lists for contacting the appropriate organizations and plans for monitoring the brine well.

If you have any questions, please contact me - Wayne Price and Carl Chavez will be out of the office for several days.

Glenn von Gonten Senior Hydrologist Environmental Bureau Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505 505-476-3488 fax -476-3462 glenn.vongonten@state.nm.us

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Sent:	Monday, November 17, 2008 4:29 PM
То:	VonGonten, Glenn, EMNRD; 'iwcarlsbad@plateautel.net'
Cc:	Chavez, Carl J, EMNRD; Sanchez, Daniel J., EMNRD
Subject:	RE: Contingency Plan for BW006

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Glenn von Gonten Senior Hydrologist Environmental Bureau Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505 505-476-3488 fax -476-3462 glenn.vongonten@state.nm.us

Submit 3 Copies To Appropriate District Office District 1 1301 W. Grand Ave., Artesia, NM 88240 District III 1301 W. Grand Ave., Artesia, NM 88240 District III 1300 Rio Brazos Rd., Aztec, NM 87410 District IV 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 1220 S. St. Francis Dr., Santa Fe, NM 87505 SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	Form C-103 May 27, 2004 WELL API NO. 30-015-22574 5. Indicate Type of Lease STATE
1. Type of Well: Oil Well Gas Well Other Brine Supply 2. Name of Operator AUG - 6 2008	9. OGRID Number
1 & W, Inc	3. OORID Number
3. Address of Operator P.O. Box 1685, Carlsbad, NM 88220	10. Pool name or Wildcat
4. Well Location	
Unit Letter <u>M</u> : <u>995</u> feet from the <u>South</u> line and <u>64</u>	1feet from the <u>West</u> line
Section Township Range	NMPM County
11. Elevation (Show whether DR, RKB, RT, GR, e 3126 GL	c.)
Pit or Below-grade Tank Application 🗌 or Closure 🗌	
Pit typeDepth to GroundwaterDistance from nearest fresh water wellI	,
Pit Liner Thickness: mil Below-Grade Tank: Volume bbls;	Construction Material
12. Check Appropriate Box to Indicate Nature of Notic	e, Report or Other Data
PERFORM REMEDIAL WORK 🔲 PLUG AND ABANDON 🛛 🛛 REMEDIAL WO	
OTHER: OTHER:	
 Describe proposed or completed operations. (Clearly state all pertinent details, of starting any proposed work). SEE RULE 1103. For Multiple Completions: or recompletion. 	and give pertinent dates, including estimated date Attach wellbore diagram of proposed completion
Will set CIBP at base of casing 7" casing 456' circulate cement from CIBP to surface w CuFt per sack. This plan verbally approved by Wayne Price OCD District IV, Santa Fe.	th approximately 80 sxs Class C 2% CaCl 1.32

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below- grade tank has been will be constructed up the according to NMOCD guidelines , a general permit] or an (attached) alternative OCD-approved plan].
SIGNATURE
Type or print name Randall/L Harris E-mail address: rharrisnm@aol.com Telephone No. 575.365.7747
For State Use Only APPROVED BY: TITLE FRC 9/2000 DATE 8/6/08
Accepted for record
NMOCD

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C-103 Eugenie Well No. 1 (BW-6) Conditions of Approval

1) Cement must be circulated back to surface under adequate pressure.

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2) A plug and abandonment marker shall be set.

3) Final C-103 Form shall be submitted within 30 days of plug and abandonment with specific details.



P.O. BOX 98 LOCO HILLS, NEW MEXICO 88255

Carl J. Chavez, CHMM Oil Conservation Division, Environmental Bureau 1220 S. St. Francis Dr. Santa Fe, NM 87505 December 11,2007

Re: Eugenie #1 Brine Well Subsidence Monitoring System

Attn: Mr. Carl J Chavez

In regards to our conversation Tuesday, 12/11/07 concerning I & W's progress on the subsidence monitoring of the Eugenie #1 Brine well. I & W has been in contact with The Dan R. Reddy Consulting and Engineering firm. We decided after visiting with this firm to wait for the completion of the cavern survey, so we would have a better idea of what monitoring points to use. The cavern survey was completed the 1st of September.

I & W's yard surrounding the brine well is in much need of repair due to all the rain in the last year. We finally received the fill material & are awaiting the road grader to level our yard. The fill material was very difficult to obtain, as there is only one place in production of this and they have been down.

However, we will be setting the monitoring points in the ground within the next few weeks. Before setting them we will contact you with our plan so you can review it before we get started. Thank you for all your help and information regarding this matter and we will be in contact with you soon. If you have any questions or need additional information, please contact me at (575)885-6663.

Sincerely,

Kevin Wilson Operations Manager

ARTESIA (505) 746-4214 1 (800) 748-1972 CARLSBAD (505) 885-6663 1 (800) 858-2739 LOCO HILLS (505) 677-2111 1 (800) 748-1972