

BW - _____ 28 _____

**SUBSIDENCE
MONITORING
REPORTS**

DATE:

Chavez, Carl J, EMNRD

From: Wayne Price <wayneprice@q.com>
Sent: Thursday, January 17, 2019 10:07 AM
To: Chavez, Carl J, EMNRD
Cc: Wayne Price; Boone, Teresa; Jill Best; Terry Asel
Subject: [EXT] Key Bw-028 Subsidence Report
Attachments: State #1 (Eunice) Vertical Subsidence Table 1-15-19.pdf.pdf; ATT00001.txt

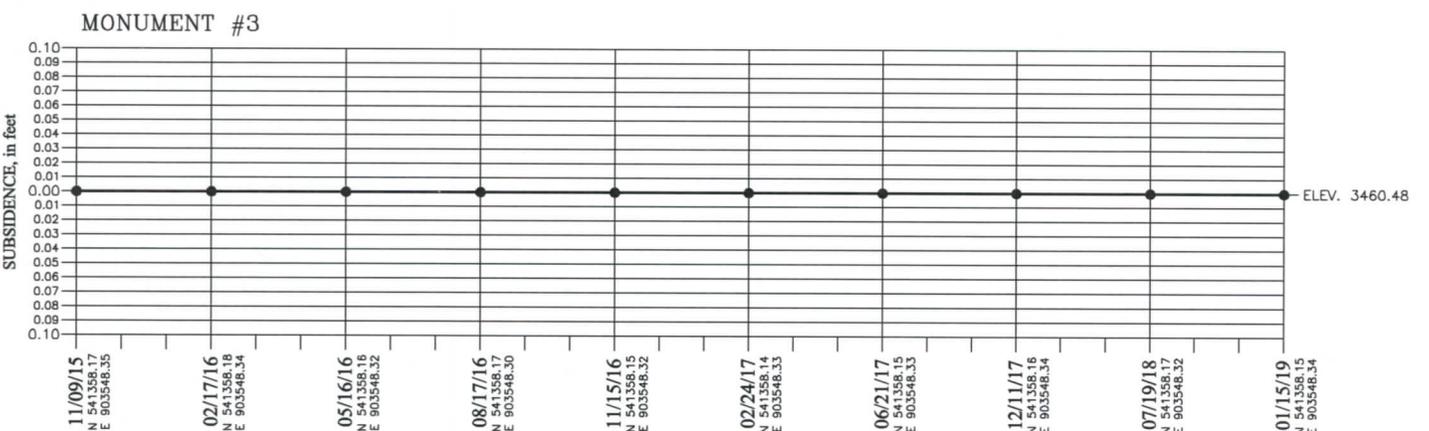
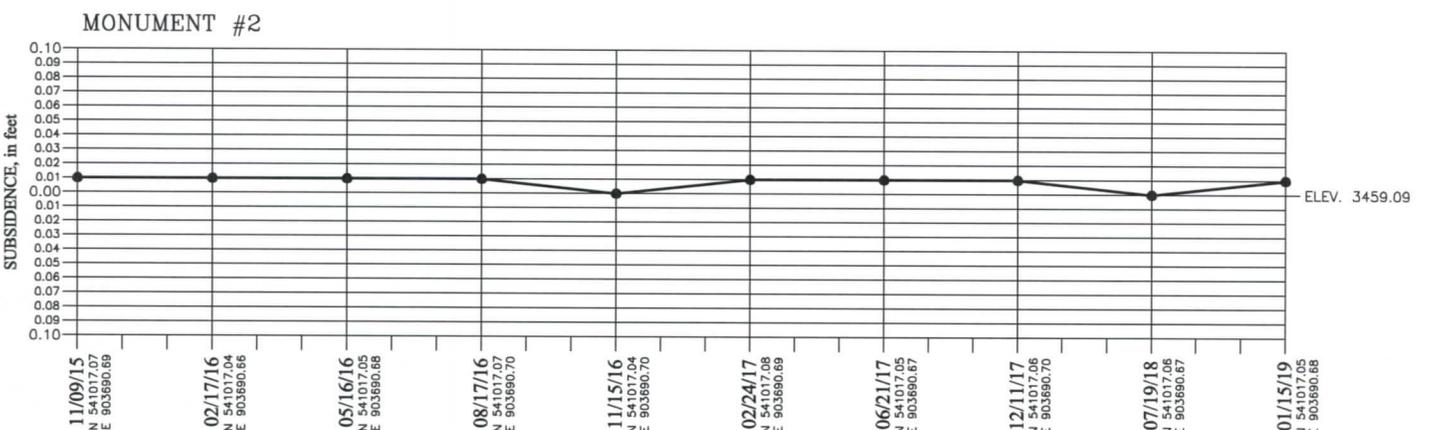
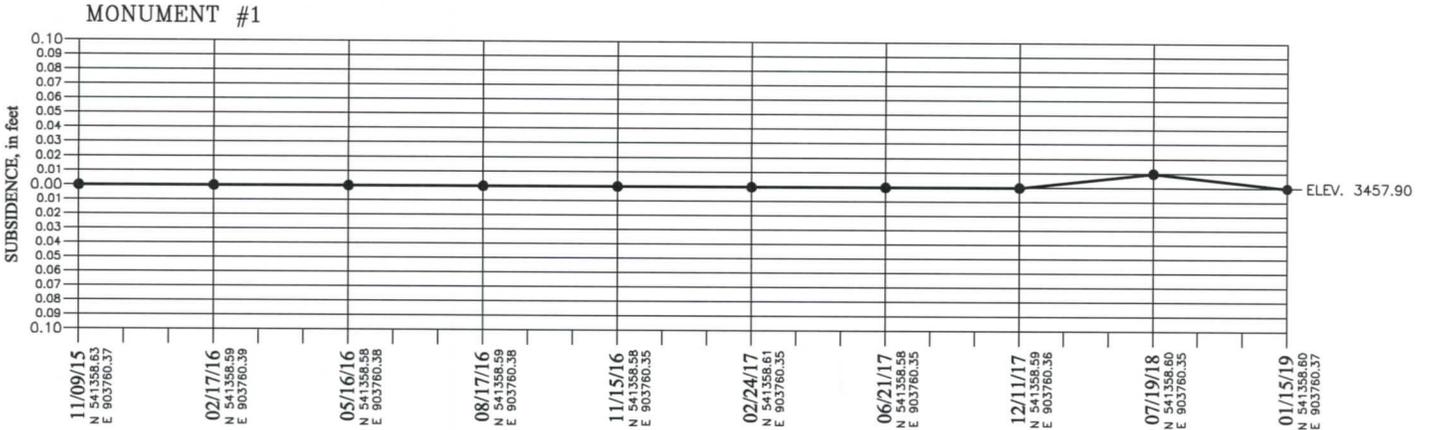
Dear Carl,

Please find attached the latest subsidence report. From my evaluation I see no issue at this time. Please include in our OCD file.

VERTICAL SUBSIDENCE TABLE

KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83



SURVEYORS CERTIFICATE BASIS OF ELEVATIONS: US C & GS BENCH MARK
"L-98 1935" – CVO320
ELEV. = 3434.37

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 1/16/2019
Terry J. Asel N.M. R.P.L.S. No. 15079



KEY ENERGY SERVICES, LLC.

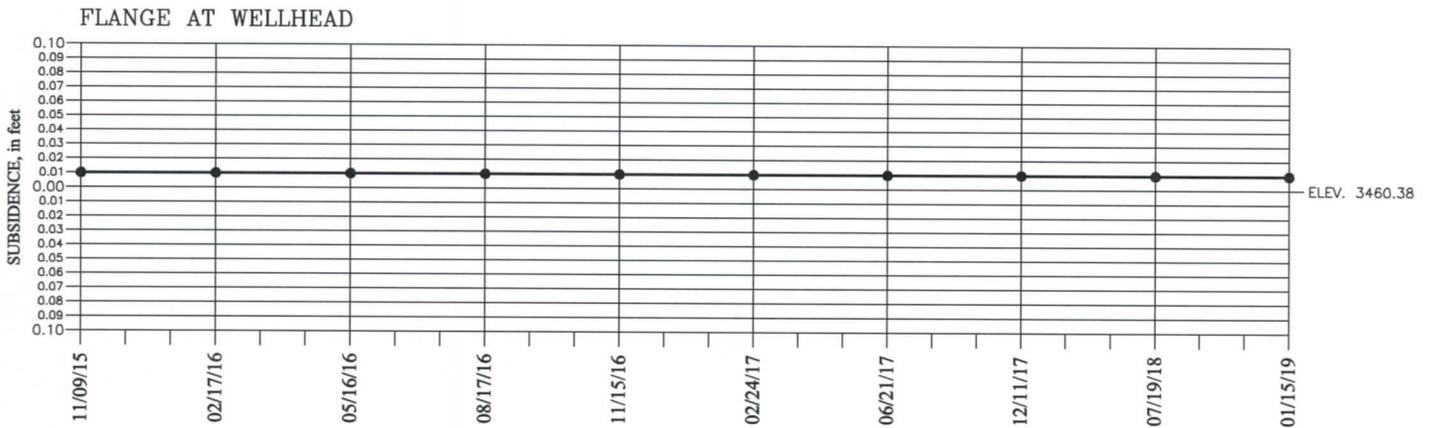
SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – EUNICE STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Asel Surveying
P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146



Survey Date: 01/15/19	Sheet 1 of 2 Sheets
W.O. Number: 190115MS	Drawn By: KA Rev:
Date: 01/16/19	190115MS Scale: 1"=1000'

VERTICAL ELEVATION TABLE KEY ENERGY SERVICES, LLC. – STATE #1



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 1/16/2019
Terry J. Asel N.M. R.P.L.S. No. 15079

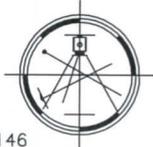
BASIS OF ELEVATIONS: US C & GS BENCH MARK
"L-98 1935" – CVO320
ELEV. = 3434.37

KEY ENERGY SERVICES, LLC.

ELEVATIONS FOR THE KEY ENERGY SERVICES, LLC.
– EUNICE STATE #1 WELL IN SECTION 15,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146



Survey Date: 01/15/19	Sheet 2 of 2 Sheets	
W.O. Number: 190115MS	Drawn By: KA	Rev:
Date: 01/16/19	190115MS	Scale: 1"=1000'

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, June 23, 2017 8:10 AM
To: 'Ramirez, Ana O'
Cc: Griswold, Jim, EMNRD; Brown, Maxey G, EMNRD
Subject: BW-28 (Key Energy Services, L.L.C. State Brine Well #1 API# 30-025-33547) Q2 2017 Subsidence Monitoring Report
Attachments: State #1 (Eunice) Vertical Subsidence Table 6-21-17.pdf

Ms. Ramirez:

The New Mexico Oil Conservation Division (OCD) is in receipt of the above subject subsidence monitoring report.

Based on an evaluation of the report, OCD believes the historical data warrants a reduced survey frequency schedule.

Please propose a new schedule to OCD for evaluation and approval.

Thank you.

Mr. Carl J. Chavez, CHMM (#13099)
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us

“Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?” (To see how, go to: <http://www.emnrd.state.nm.us/OCD> and see “Publications”)

From: Ramirez, Ana O [mailto:aramirez01@keyenergy.com]
Sent: Friday, June 23, 2017 7:27 AM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Subject: State Brine Well # 1 Q2 2017 Subsidence monitoring report - Key Energy Services

Good morning Mr. Chavez,

On behalf of Key Energy Services, I would like to submit the 2nd quarter 2017 subsidence monitoring report for the State # 1 Brine Station in Section 15, Township 21S, range 37e, NMPM, Lea County, New Mexico.

Feel free to contact me if you have further comments or questions,

Respectfully,

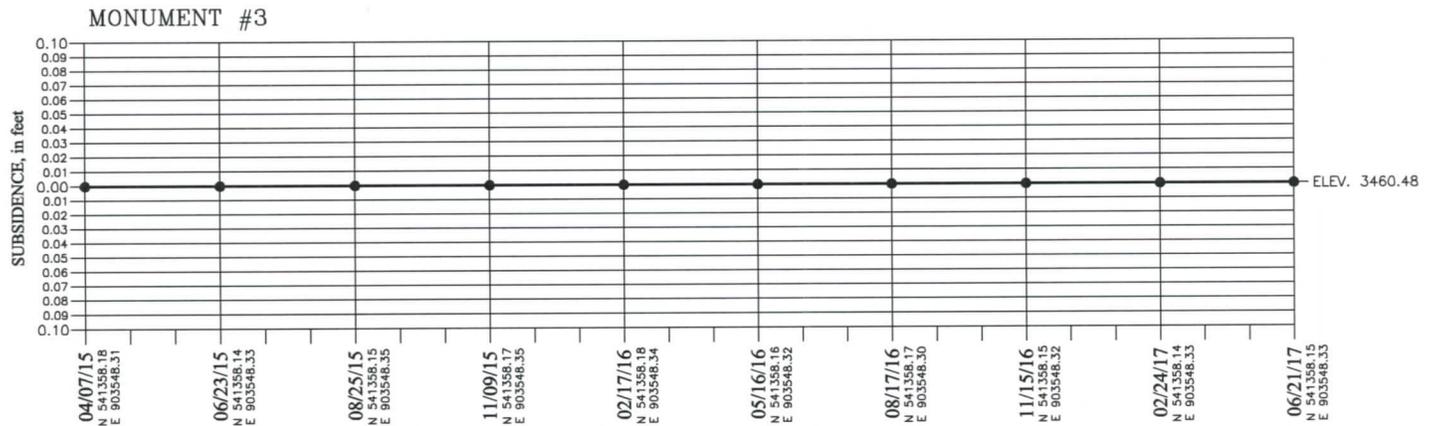
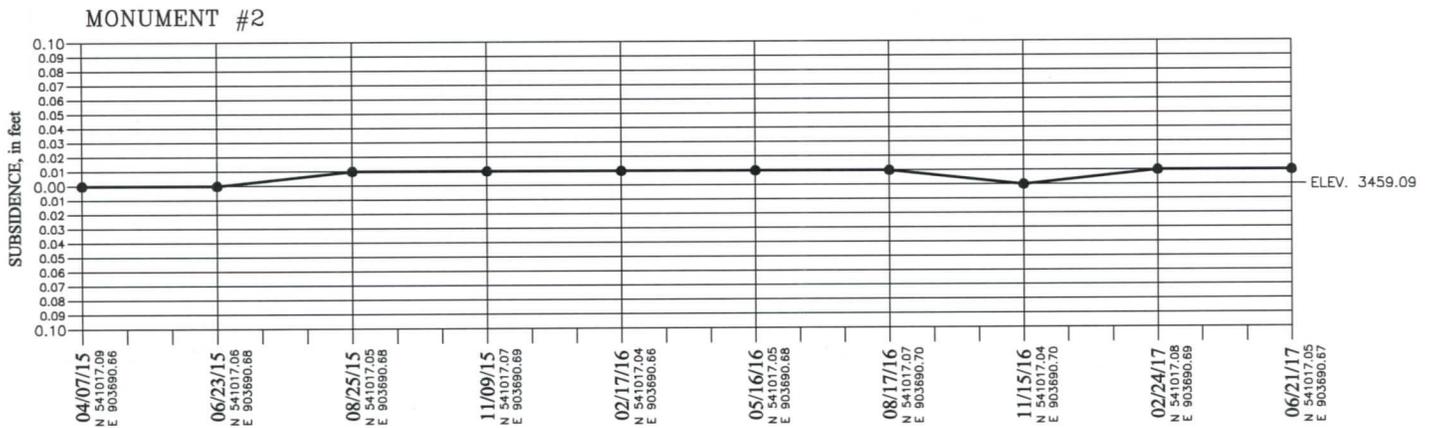
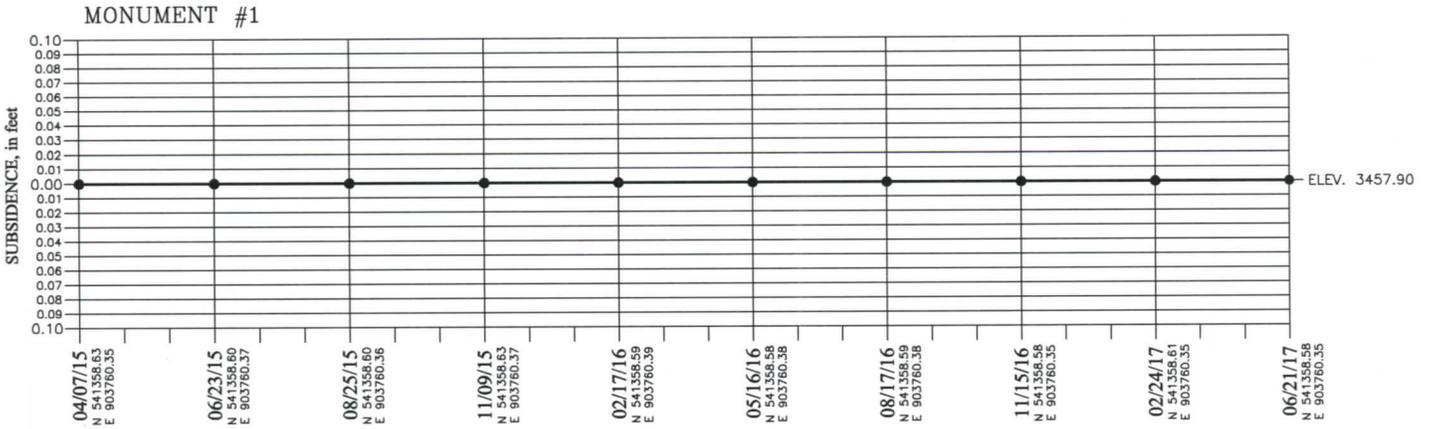
Ana Ramirez | **Key Energy Services** | Environmental Specialist
12400 W. Interstate 20 E. Odessa, TX 79765
o: 432.571.7203 | m: 432.234.6959 | aramirez01@keyenergy.com

Doing it the right way. *theKeyWay*. Every time.

VERTICAL SUBSIDENCE TABLE

KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 6/22/2017
 Terry J. Asel N.M. R.P.L.S. No. 15079



BASIS OF ELEVATIONS: US C & GS BENCH MARK
 "L-98 1935" – CV0320
 ELEV. = 3434.37

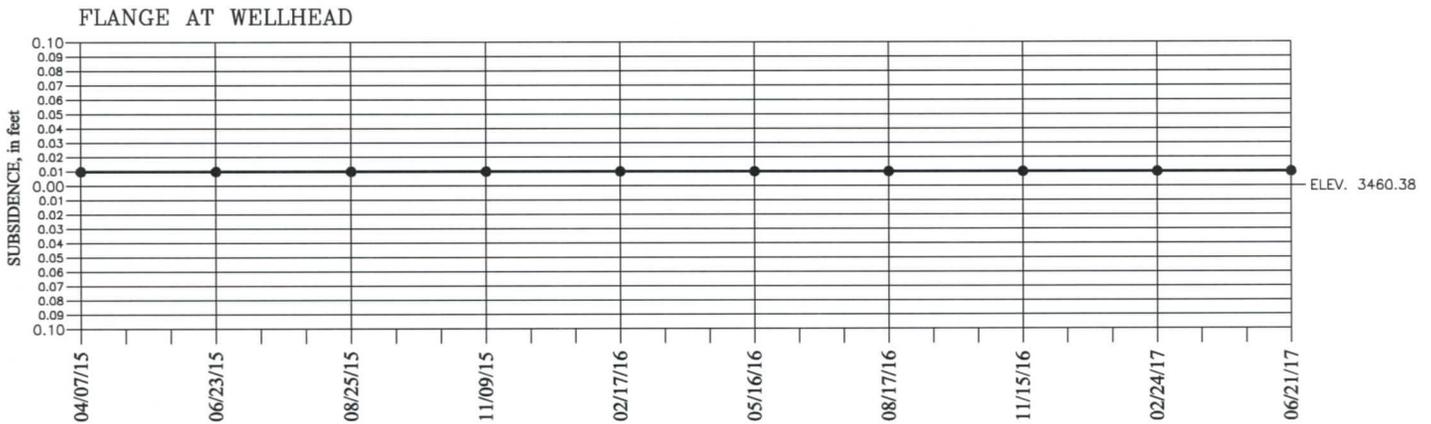
Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
 HOBBS, NEW MEXICO – 575-393-9146



KEY ENERGY SERVICES, LLC.			
SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – EUNICE STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO			
Survey Date:	06/21/17	Sheet	1 of 2 Sheets
W.O. Number:	170621MS	Drawn By:	KA Rev:
Date:	06/21/17	170621MS	Scale: 1" = 1000'

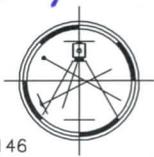
VERTICAL ELEVATION TABLE KEY ENERGY SERVICES, LLC. – STATE #1



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 6/22/2017
 Terry J. Asel N.M. R.P.L.S. No. 15079



Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
 HOBBS, NEW MEXICO – 575-393-9146

BASIS OF ELEVATIONS: US C & GS BENCH MARK
 "L-98 1935" – CVO320
 ELEV. = 3434.37

KEY ENERGY SERVICES, LLC.		
ELEVATIONS FOR THE KEY ENERGY SERVICES, LLC. – EUNICE STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO		
Survey Date: 06/21/17	Sheet 2 of 2 Sheets	
W.O. Number: 170621MS	Drawn By: KA	Rev:
Date: 06/21/17	170621MS	Scale: 1" = 1000'

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, June 27, 2017 7:22 AM
To: 'Coligan, Maren'
Cc: Griswold, Jim, EMNRD
Subject: RE: BW-28 (Key Energy Services, L.L.C. State Brine Well #1 API# 30-025-33547) Q2 2017 Subsidence Monitoring Report

Maren:

Approved.

Thank you.

From: Coligan, Maren [mailto:mcoligan@keyenergy.com]
Sent: Monday, June 26, 2017 10:45 AM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>; Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; Brown, Maxey G, EMNRD <MaxeyG.Brown@state.nm.us>
Cc: Houston, Ken <KHouston@keyenergy.com>; Ramirez, Ana O <aramirez01@keyenergy.com>; Environmental <Environmental@keyenergy.com>
Subject: RE: BW-28 (Key Energy Services, L.L.C. State Brine Well #1 API# 30-025-33547) Q2 2017 Subsidence Monitoring Report

Key proposes a semiannual schedule for subsidence monitoring at the State #1 Brine Well based on past monitoring data. Please let us know if the OCD approves of this schedule.

Thanks!

Maren Coligan | **Key Energy Services** | Environmental Director
1301 McKinney Street, Suite 1800, Houston, Texas 77010
o: 713.651.4825 | m: 281.979.4734 | mcoligan@keyenergy.com

From: Ramirez, Ana O
Sent: Friday, June 23, 2017 9:43 AM
To: Coligan, Maren <mcoligan@keyenergy.com>
Cc: Houston, Ken <KHouston@keyenergy.com>
Subject: FW: BW-28 (Key Energy Services, L.L.C. State Brine Well #1 API# 30-025-33547) Q2 2017 Subsidence Monitoring Report

Maren,

After submitting the Q2 subsidence monitoring for the State S, I received the communication below where they asking us to propose a new schedule for the NM subsidence monitoring. Currently is quarterly so we can propose a semiannual schedule for evaluation approval.

Please let me know if you have further comments or questions,

Thanks,

Ana Ramirez | **Key Energy Services** | Environmental Specialist

12400 W. Interstate 20 E. Odessa, TX 79765
o: 432.571.7203 | m: 432.234.6959 | aramirez01@keyenergy.com

Doing it the right way. *theKeyWay*. Every time.

From: Chavez, Carl J, EMNRD [
Sent: Friday, June 23, 2017 9:10 AM
To: Ramirez, Ana O <aramirez01@keyenergy.com>
Cc: Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; Brown, Maxey G, EMNRD <MaxeyG.Brown@state.nm.us>
Subject: BW-28 (Key Energy Services, L.L.C. State Brine Well #1 API# 30-025-33547) Q2 2017 Subsidence Monitoring Report

Ms. Ramirez:

The New Mexico Oil Conservation Division (OCD) is in receipt of the above subject subsidence monitoring report. Based on an evaluation of the report, OCD believes the historical data warrants a reduced survey frequency schedule. Please propose a new schedule to OCD for evaluation and approval.

Thank you.

Mr. Carl J. Chavez, CHMM (#13099)
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us

“Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?” (To see how, go to: <http://www.emnrd.state.nm.us/OCD> and see “Publications”)

From: Ramirez, Ana O [<mailto:aramirez01@keyenergy.com>]
Sent: Friday, June 23, 2017 7:27 AM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Subject: State Brine Well # 1 Q2 2017 Subsidence monitoring report - Key Energy Services

Good morning Mr. Chavez,

On behalf of Key Energy Services, I would like to submit the 2nd quarter 2017 subsidence monitoring report for the State # 1 Brine Station in Section 15, Township 21S, range 37e, NMPM, Lea County, New Mexico.

Feel free to contact me if you have further comments or questions,

Respectfully,

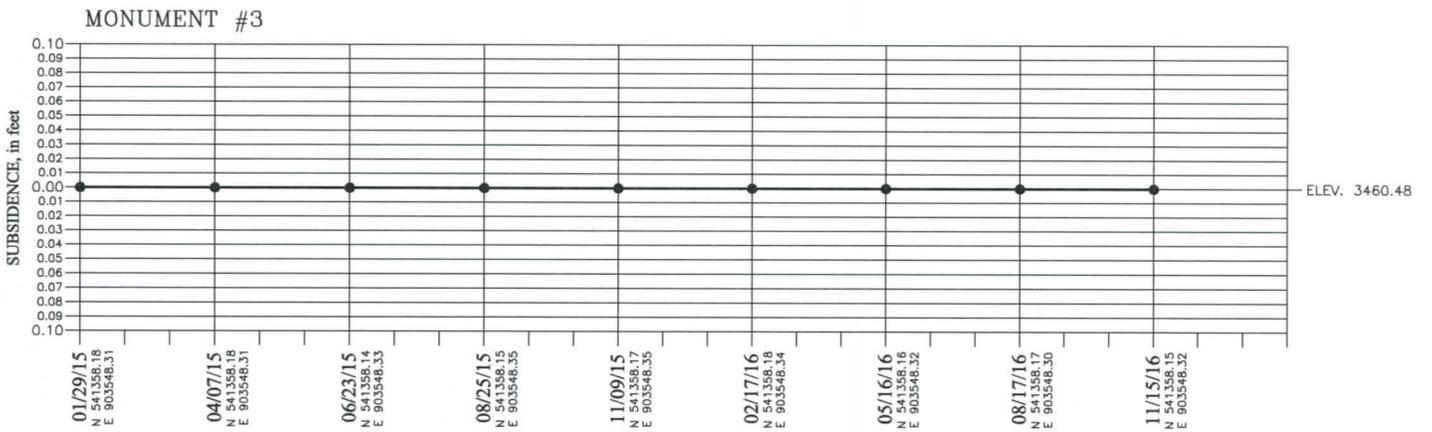
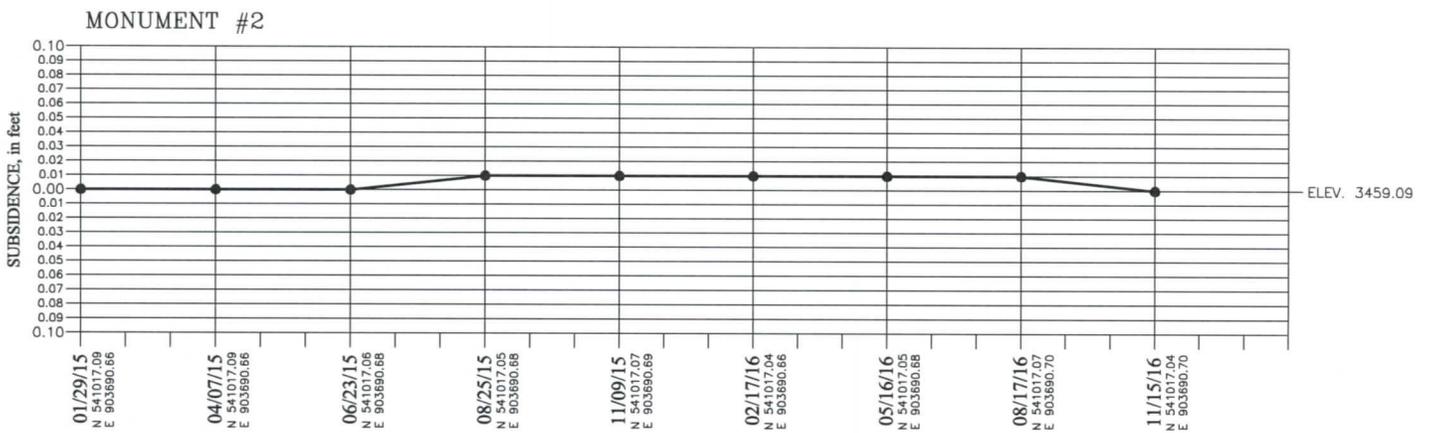
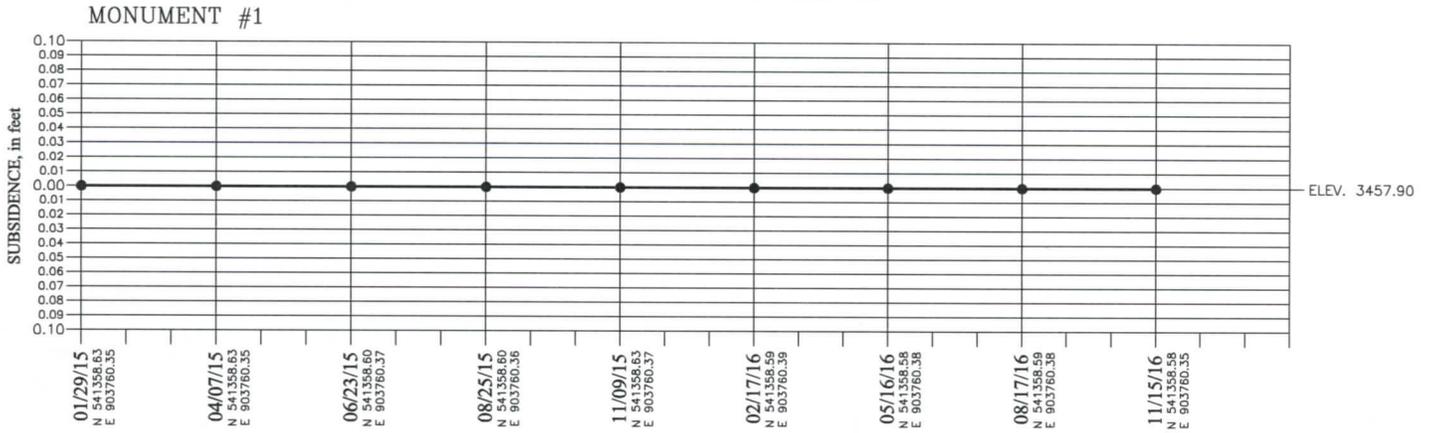
Ana Ramirez | **Key Energy Services** | Environmental Specialist
12400 W. Interstate 20 E. Odessa, TX 79765
o: 432.571.7203 | m: 432.234.6959 | aramirez01@keyenergy.com

Doing it the right way. *theKeyWay*. Every time.

VERTICAL SUBSIDENCE TABLE

KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 11/16/2016
 Terry J. Asel, N.M. R.P.L.S. No. 15079

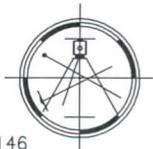


BASIS OF ELEVATIONS: US C & GS BENCH MARK
 "L-98 1935" – CV0320
 ELEV. = 3434.37

KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – EUNICE STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Asel Surveying
 P.O. BOX 393 – 310 W. TAYLOR
 HOBBS, NEW MEXICO – 575-393-9146



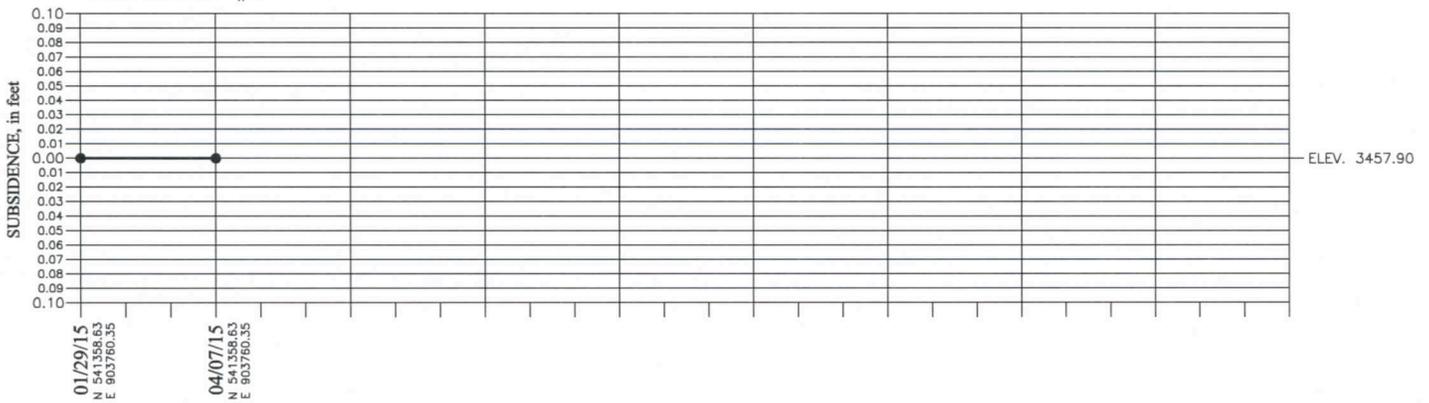
Survey Date: 11/15/16	Sheet 1 of 1 Sheets
W.O. Number: 161115MS	Drawn By: KA
Date: 11/16/16	161115MS
	Scale: 1"=1000'

VERTICAL SUBSIDENCE TABLE

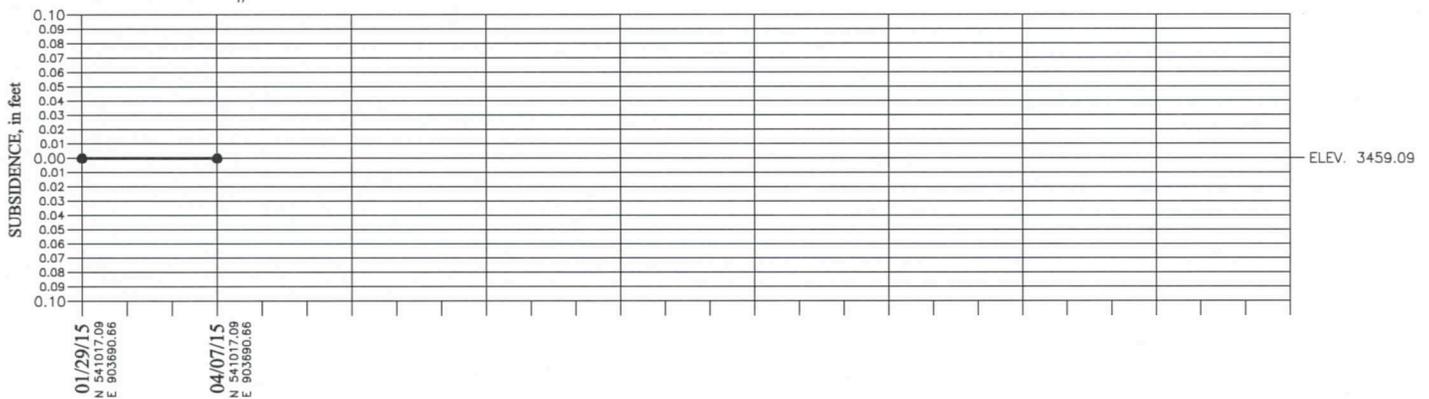
KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83

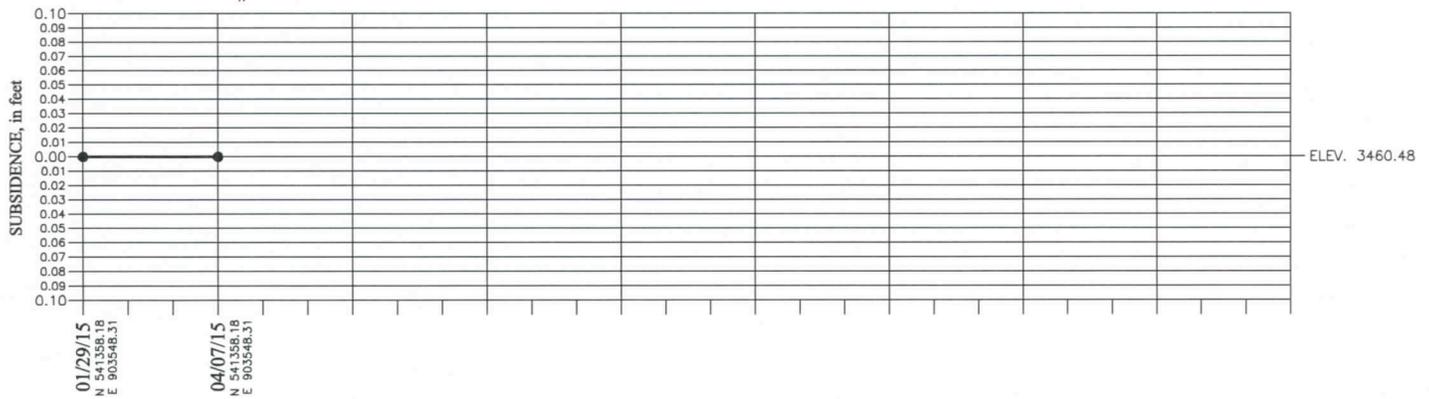
MONUMENT #1



MONUMENT #2



MONUMENT #3

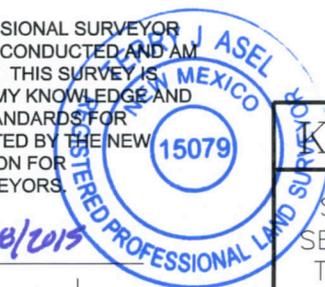


SURVEYORS CERTIFICATE

BASIS OF ELEVATIONS: US C & GS BENCH MARK
"L-98 1935" – CV0320
ELEV. = 3434.37

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 4/28/2015
Terry J. Asel N.M. R.P.L.S. No. 15079



Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146



KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 04/07/15	Sheet 1 of 1 Sheets
W.O. Number: 150129MS-b	Drawn By: KA Rev:
Date: 04/28/15	150129MS-b Scale: 1"=1000'

Griswold, Jim, EMNRD

From: Crenshaw, Desiree <dcrenshaw@keyenergy.com>
Sent: Wednesday, June 24, 2015 1:51 PM
To: Griswold, Jim, EMNRD
Cc: Stauffer, Brad; Bach, Daniel
Attachments: State #1 (Eunice) Vertical Subsidence Table 6-23-15.pdf

Jim –

Attached is the second quarter subsidence data for the Key Energy Services Eunice State # 1. The current readings show no movement. Please call me if you have any questions.

Thanks,

Desireé Crenshaw | **Key Energy Services** | Environmental Specialist
6 Desta Dr. Suite 4300 Midland, TX 79705
o: 432.488.2934 | m: 432.258.1044 | dcrenshaw@keyenergy.com

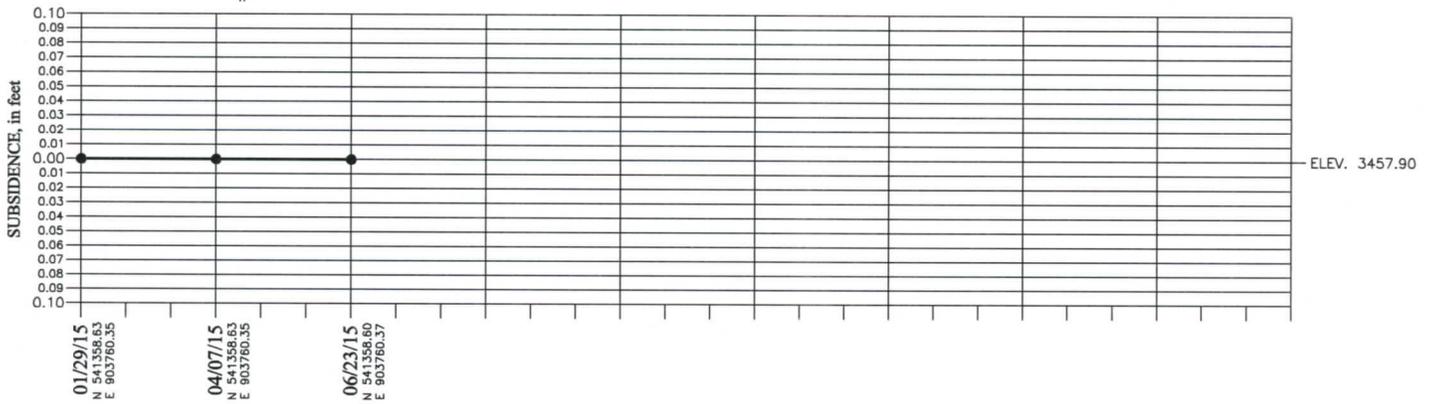
Doing it the right way. *theKeyWay*. Every time.

VERTICAL SUBSIDENCE TABLE

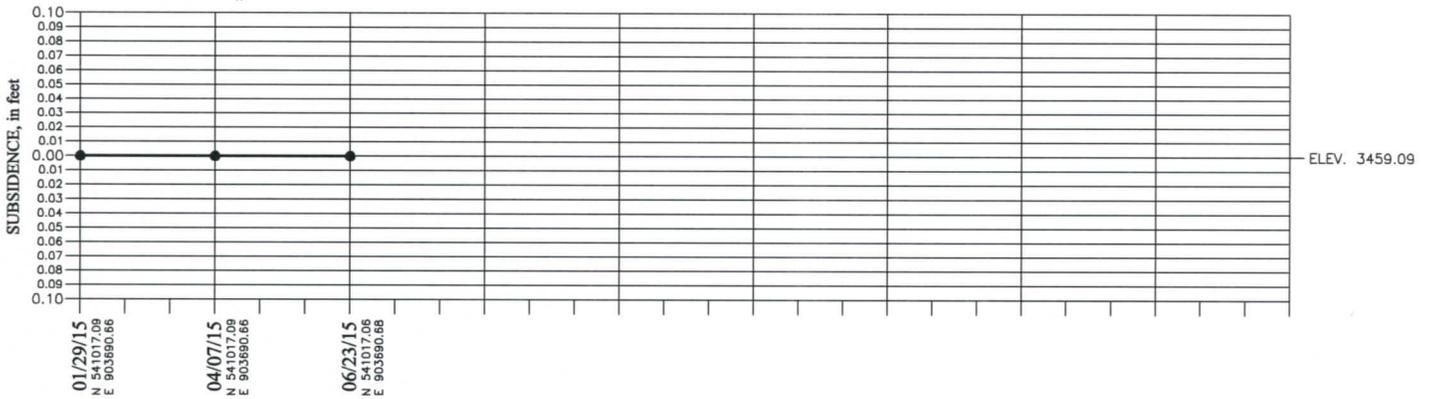
KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83

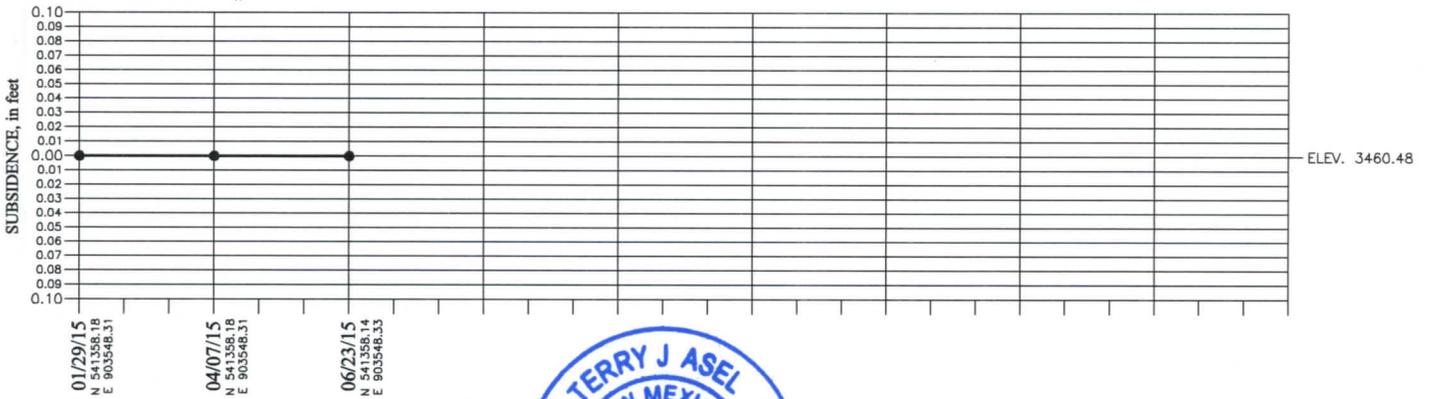
MONUMENT #1



MONUMENT #2



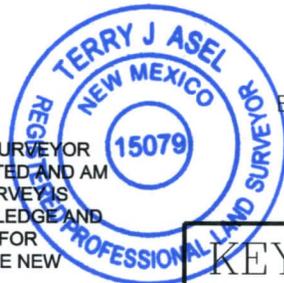
MONUMENT #3



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 6/24/2015
 Terry J. Asel N.M. R.P.L.S. No. 15079



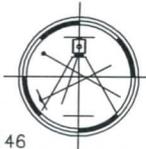
BASIS OF ELEVATIONS: US C & GS BENCH MARK
 "L-98 1935" – CVO320
 ELEV. = 3434.37

KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
 HOBBS, NEW MEXICO – 575-393-9146



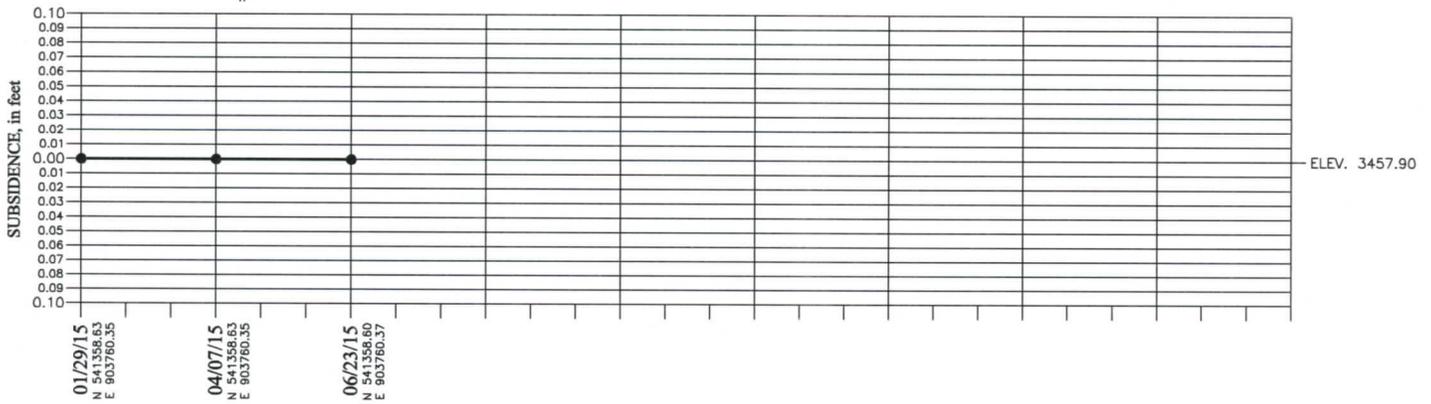
Survey Date: 06/23/15	Sheet 1 of 1 Sheets
W.O. Number: 150129MS-b	Drawn By: KA Rev:
Date: 06/23/15	150129MS-b Scale: 1"=1000'

VERTICAL SUBSIDENCE TABLE

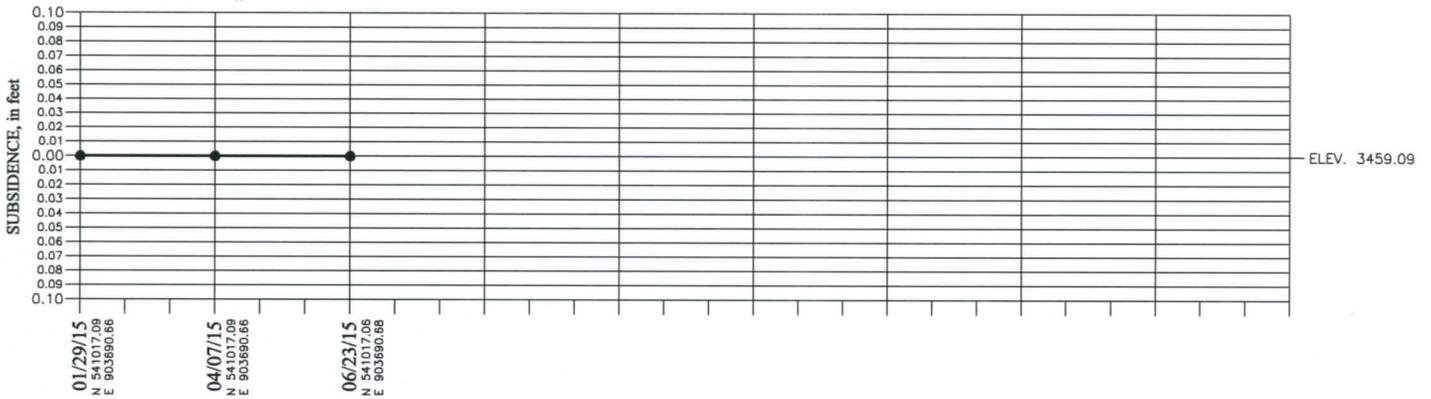
KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83

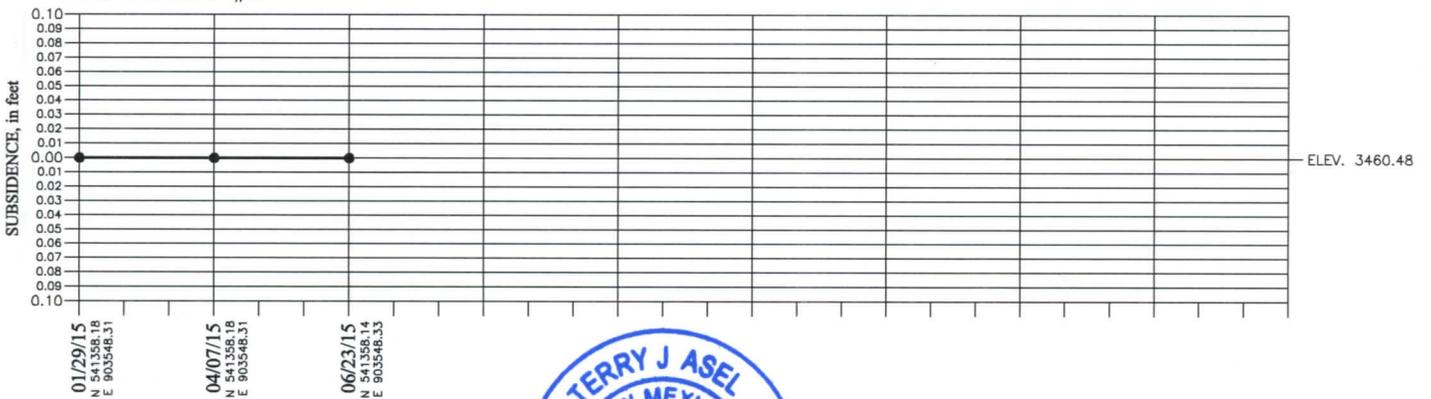
MONUMENT #1



MONUMENT #2



MONUMENT #3



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 6/24/2015
 Terry J. Asel N.M. R.P.L.S. No. 15079



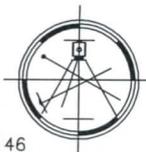
BASIS OF ELEVATIONS: US C & GS BENCH MARK
 "L-98 1935" – CVO320
 ELEV. = 3434.37

KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
 HOBBS, NEW MEXICO – 575-393-9146



Survey Date: 06/23/15	Sheet 1 of 1 Sheets	
W.O. Number: 150129MS-b	Drawn By: KA	Rev:
Date: 06/23/15	150129MS-b	Scale: 1"=1000'

Griswold, Jim, EMNRD

From: Ramirez, Ana 0 <aramirez01@keyenergy.com>
Sent: Thursday, October 15, 2015 8:52 AM
To: Griswold, Jim, EMNRD
Subject: Subsidence monitoring (Q3) State Brine Well # 1. NM
Attachments: State #1 (Eunice) Vertical Subsidence Table 8-25-15.pdf

Good morning,

This is Ana Ramirez with the environmental department at Key Energy Services.

Please find attached the third quarter Subsidence monitoring for Eunice State Brine Well #1 Well in Section 15, Township 21S, range 37e, NMPM, Lea County, New Mexico.

Feel free to contact me if you have any comments or questions.

Regards,

Ana Ramirez | **Key Energy Services** | Environmental Specialist
6 Desta Dr. Suite 4300 Midland, TX 79705
o: 432.571.7203 | m: 432.234.6959 | aramirez01@keyenergy.com

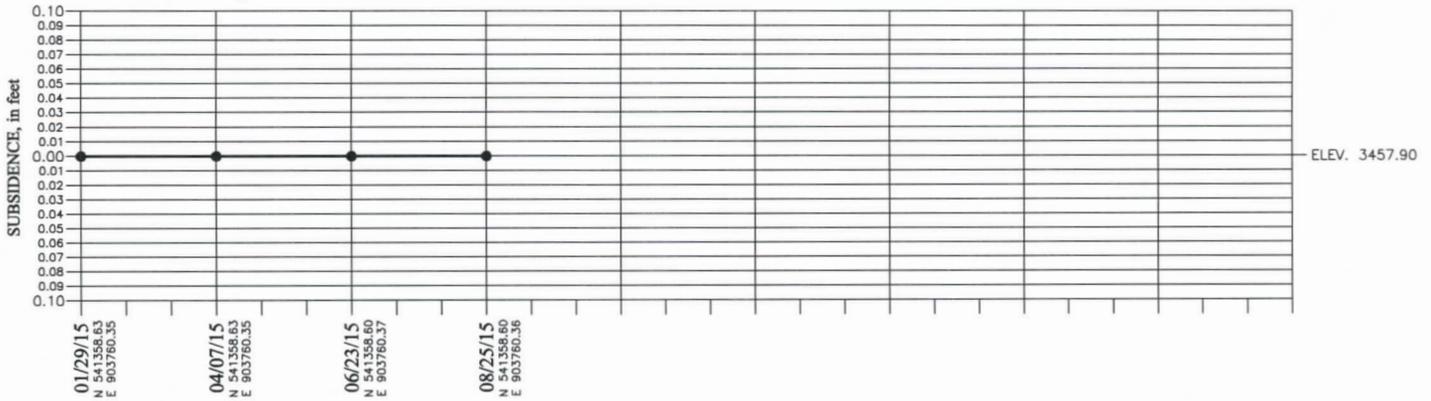
Doing it the right way. *theKeyWay*. Every time.

VERTICAL SUBSIDENCE TABLE

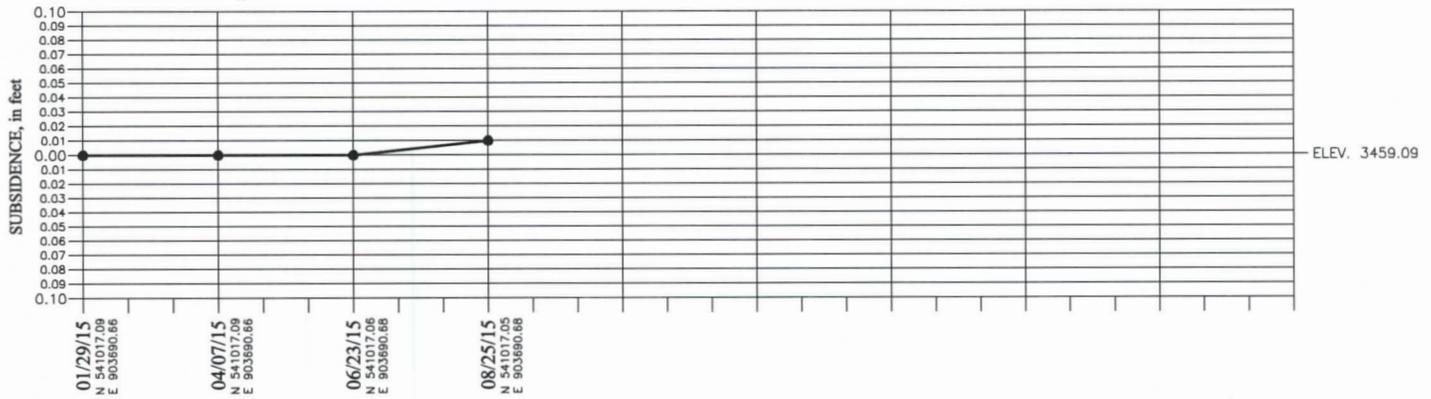
KEY ENERGY SERVICES, LLC. - STATE #1

NEW MEXICO EAST NAD 83

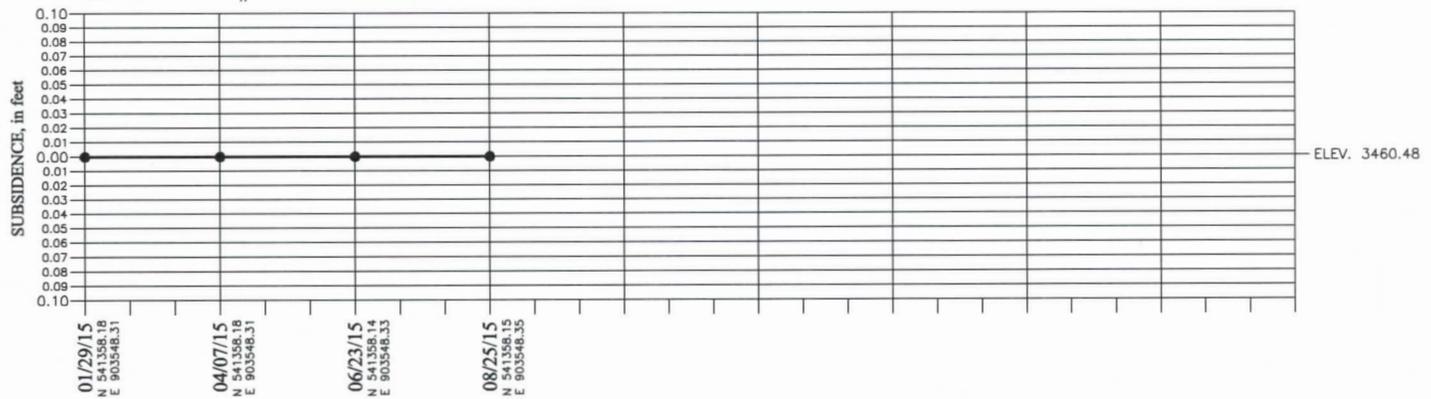
MONUMENT #1



MONUMENT #2



MONUMENT #3



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 8/26/2015
 Terry J. Asel N.M. R.P.L.S. No. 15079



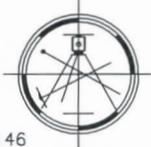
BASIS OF ELEVATIONS: US C & GS BENCH MARK
 "L-98 1935" - CVO320
 ELEV. = 3434.37

KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. - EUNICE STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
 HOBBS, NEW MEXICO - 575-393-9146



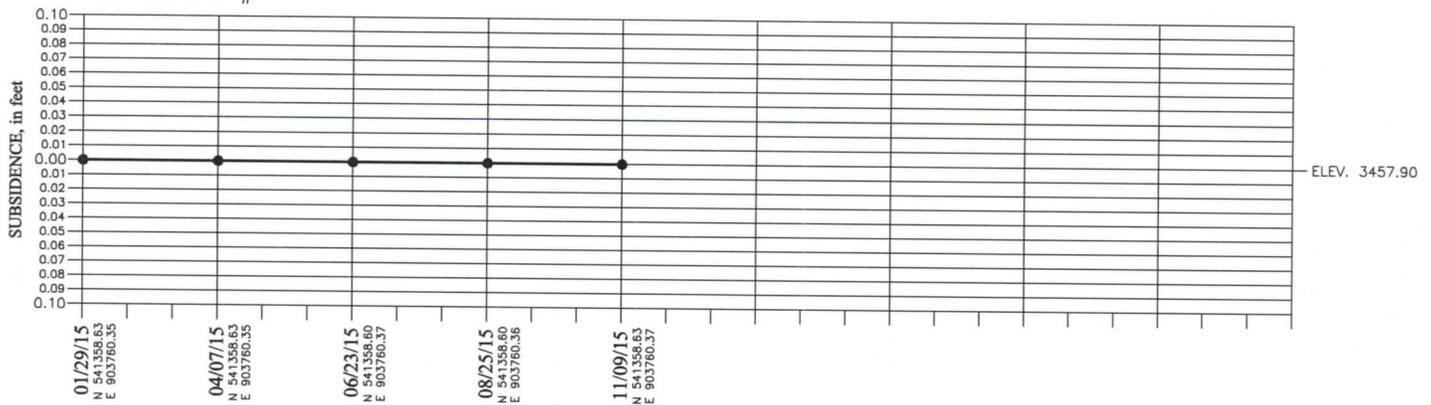
Survey Date: 08/25/15	Sheet 1 of 1 Sheets
W.O. Number: 150825MS	Drawn By: KA Rev:
Date: 08/26/15	150825MS Scale: 1"=1000'

VERTICAL SUBSIDENCE TABLE

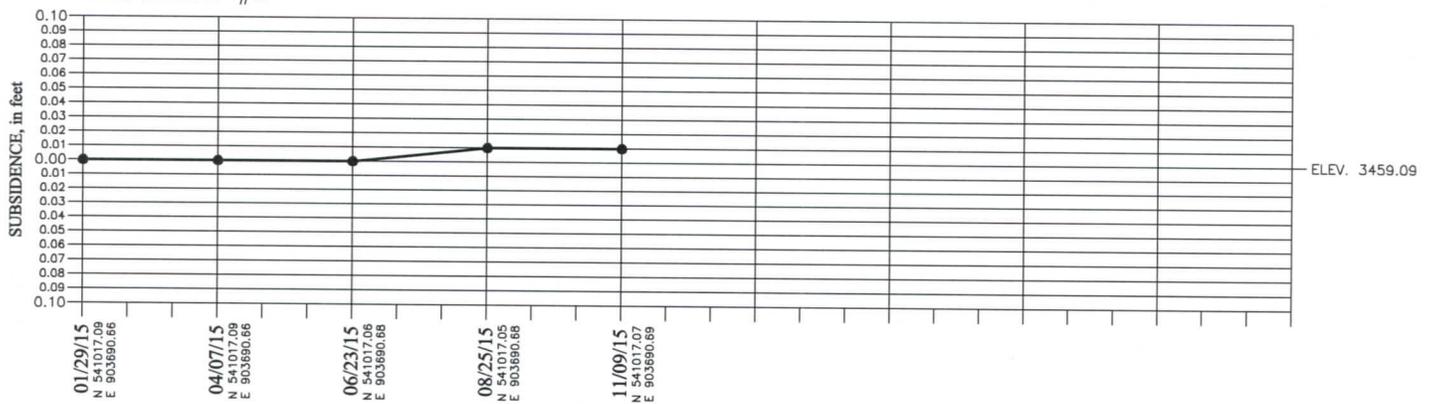
KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83

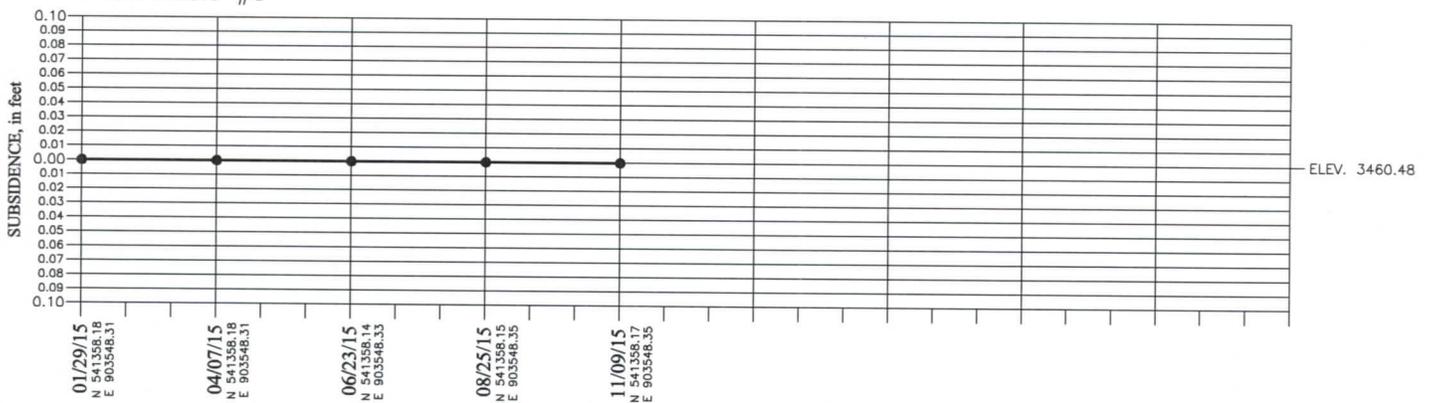
MONUMENT #1



MONUMENT #2



MONUMENT #3



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 11/10/2015
 Terry J. Asel N.M. R.P.L.S. No. 15079



BASIS OF ELEVATIONS: US C & GS BENCH MARK
 "L-98 1935" – CVO320
 ELEV. = 3434.37

KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – EUNICE STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Asel Surveying
 P.O. BOX 393 – 310 W. TAYLOR
 HOBBS, NEW MEXICO – 575-393-9146



Survey Date: 11/09/15	Sheet 1 of 1 Sheets
W.O. Number: 151109MS	Drawn By: KA Rev:
Date: 11/09/15	151109MS Scale: 1"=1000'

Chavez, Carl J, EMNRD

From: Griswold, Jim, EMNRD
Sent: Tuesday, August 23, 2016 8:06 AM
To: Chavez, Carl J, EMNRD
Subject: FW: State Brine Well # 1 Q3 2016 Subsidence monitoring report - Key Energy Services
Attachments: State #1 (Eunice) Vertical Subsidence Table 8-17-16.pdf

Jim Griswold

Environmental Bureau Chief
EMNRD/Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505.476.3465
email: jim.griswold@state.nm.us

From: Ramirez, Ana O [mailto:aramirez01@keyenergy.com]
Sent: Monday, August 22, 2016 3:48 PM
To: Griswold, Jim, EMNRD
Subject: State Brine Well # 1 Q3 2016 Subsidence monitoring report - Key Energy Services

Good afternoon Mr. Griswold,

On behalf of Key Energy Services, I would like to submit the 3rd. quarter 2016 subsidence monitoring report for the State # 1 Brine Station in in Section 15, Township 21S, range 37e, NMPM, Lea County, New Mexico.

Feel free to contact me if you have further comments or questions,

Respectfully,

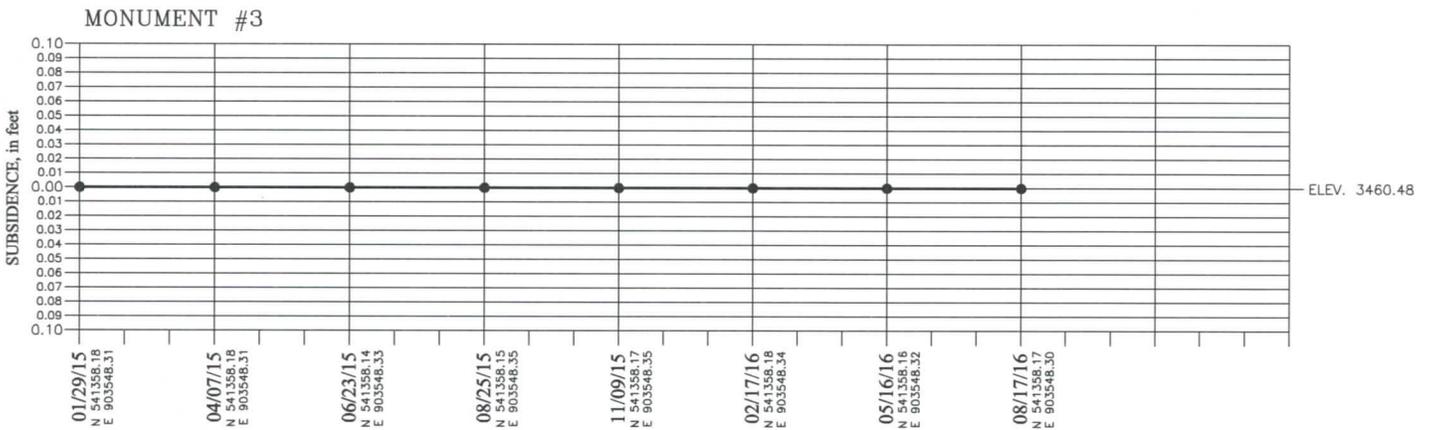
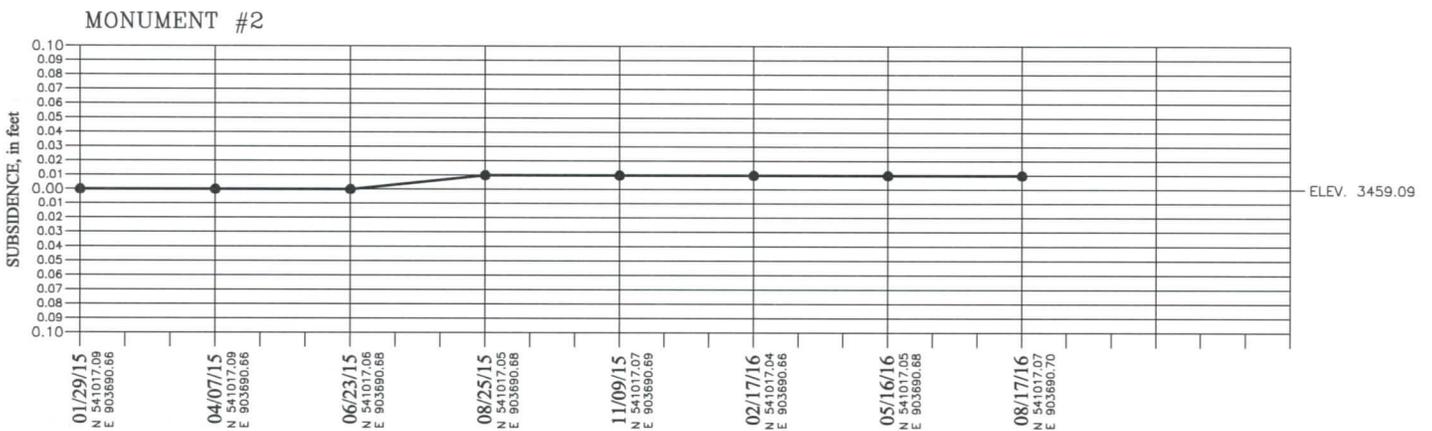
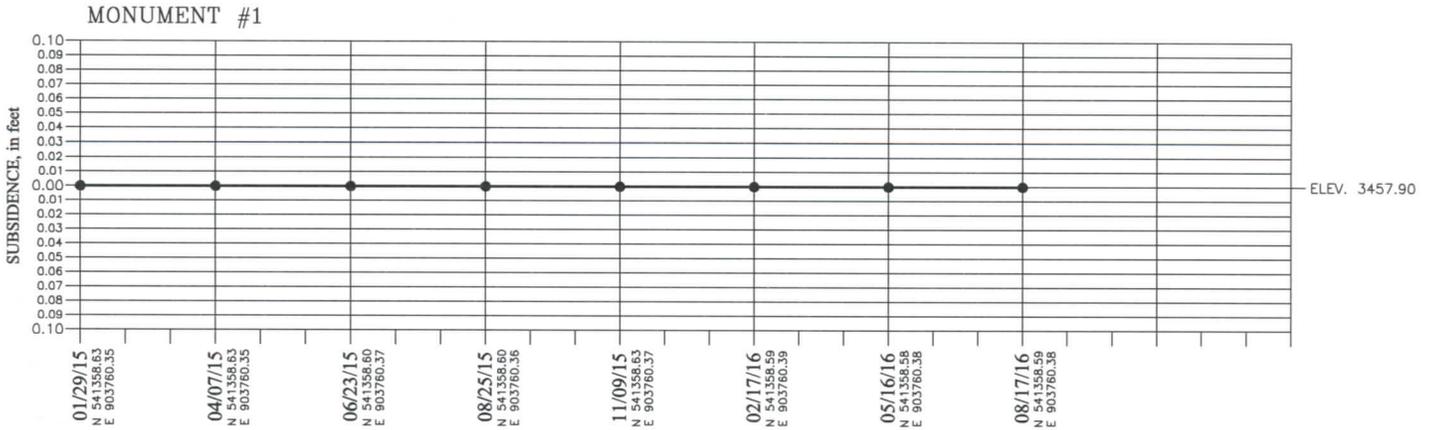
Ana Ramirez | **Key Energy Services** | Environmental Specialist
12400 W. Interstate 20 E. Odessa, TX 79765
o: 432.571.7203 | m: 432.234.6959 | aramirez01@keyenergy.com

Doing it the right way. *theKeyWay*. Every time.

VERTICAL SUBSIDENCE TABLE

KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83

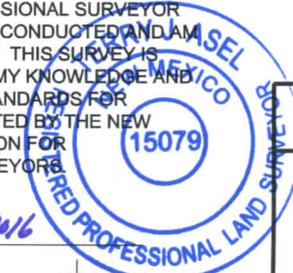


SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

BASIS OF ELEVATIONS: US C & GS BENCH MARK
"L-98 1935" – CVO320
ELEV. = 3434.37

Terry J. Asel 8/22/2016
Terry J. Asel N.M. R.P.L.S. No. 15079



Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
HOBBES, NEW MEXICO – 575-393-9146



KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – EUNICE STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 08/17/16	Sheet 1 of 1 Sheets
W.O. Number: 160817MS	Drawn By: KA Rev:
Date: 08/18/16	160817MS Scale: 1" = 1000'

Chavez, Carl J, EMNRD

From: Griswold, Jim, EMNRD
Sent: Tuesday, August 23, 2016 8:06 AM
To: Chavez, Carl J, EMNRD
Subject: FW: State Brine Well # 1 Q3 2016 Subsidence monitoring report - Key Energy Services
Attachments: State #1 (Eunice) Vertical Subsidence Table 8-17-16.pdf

Jim Griswold

Environmental Bureau Chief
EMNRD/Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505.476.3465
email: jim.griswold@state.nm.us

From: Ramirez, Ana O [mailto:aramirez01@keyenergy.com]
Sent: Monday, August 22, 2016 3:48 PM
To: Griswold, Jim, EMNRD
Subject: State Brine Well # 1 Q3 2016 Subsidence monitoring report - Key Energy Services

Good afternoon Mr. Griswold,

On behalf of Key Energy Services, I would like to submit the 3rd. quarter 2016 subsidence monitoring report for the State # 1 Brine Station in in Section 15, Township 21S, range 37e, NMPM, Lea County, New Mexico.

Feel free to contact me if you have further comments or questions,

Respectfully,

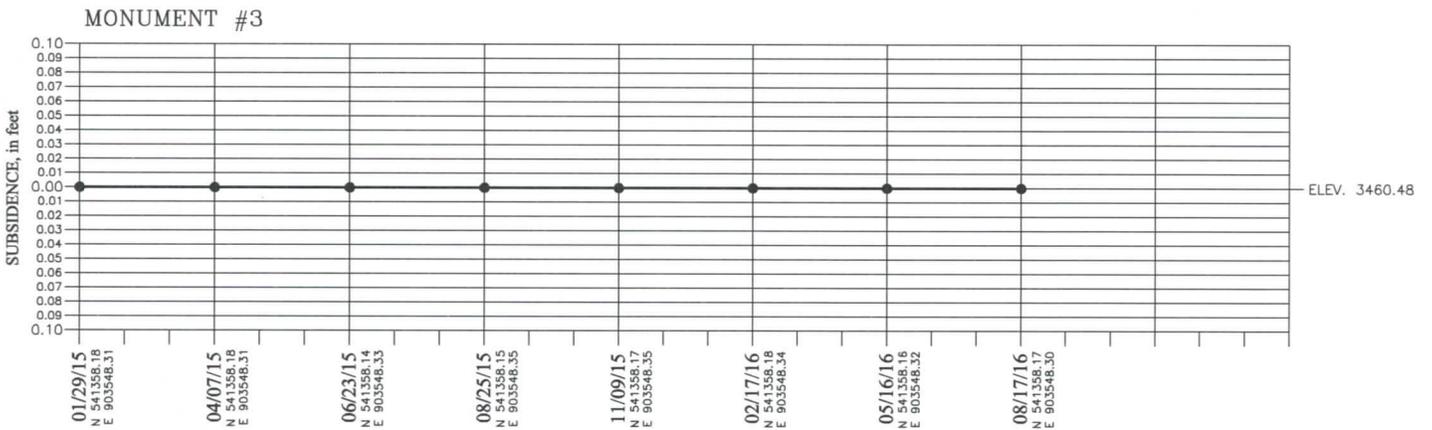
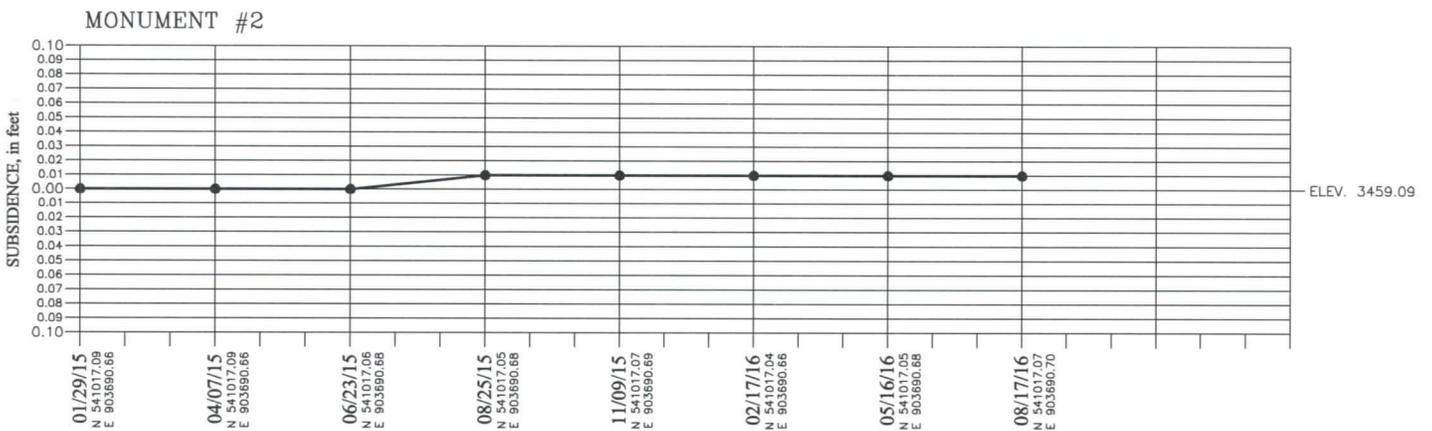
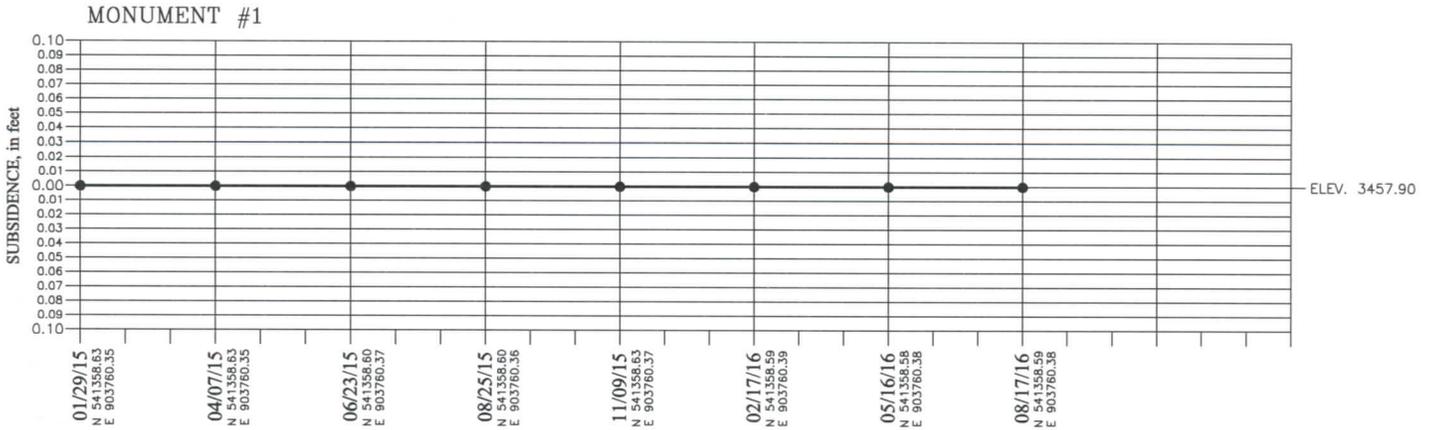
Ana Ramirez | **Key Energy Services** | Environmental Specialist
12400 W. Interstate 20 E. Odessa, TX 79765
o: 432.571.7203 | m: 432.234.6959 | aramirez01@keyenergy.com

Doing it the right way. *theKeyWay*. Every time.

VERTICAL SUBSIDENCE TABLE

KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83

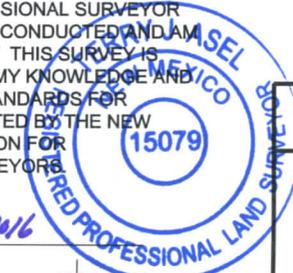


SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

BASIS OF ELEVATIONS: US C & GS BENCH MARK
"L-98 1935" – CVO320
ELEV. = 3434.37

Terry J. Asel 8/22/2016
Terry J. Asel N.M. R.P.L.S. No. 15079



Asel Surveying
P.O. BOX 393 – 310 W. TAYLOR
HOBBES, NEW MEXICO – 575-393-9146



KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – EUNICE STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 08/17/16	Sheet 1 of 1 Sheets
W.O. Number: 160817MS	Drawn By: KA Rev:
Date: 08/18/16	160817MS Scale: 1" = 1000'

Chavez, Carl J, EMNRD

From: Griswold, Jim, EMNRD
Sent: Tuesday, August 23, 2016 8:06 AM
To: Chavez, Carl J, EMNRD
Subject: FW: State Brine Well # 1 Q3 2016 Subsidence monitoring report - Key Energy Services
Attachments: State #1 (Eunice) Vertical Subsidence Table 8-17-16.pdf

Jim Griswold

Environmental Bureau Chief
EMNRD/Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505.476.3465
email: jim.griswold@state.nm.us

From: Ramirez, Ana O [mailto:aramirez01@keyenergy.com]
Sent: Monday, August 22, 2016 3:48 PM
To: Griswold, Jim, EMNRD
Subject: State Brine Well # 1 Q3 2016 Subsidence monitoring report - Key Energy Services

Good afternoon Mr. Griswold,

On behalf of Key Energy Services, I would like to submit the 3rd. quarter 2016 subsidence monitoring report for the State # 1 Brine Station in in Section 15, Township 21S, range 37e, NMPM, Lea County, New Mexico.

Feel free to contact me if you have further comments or questions,

Respectfully,

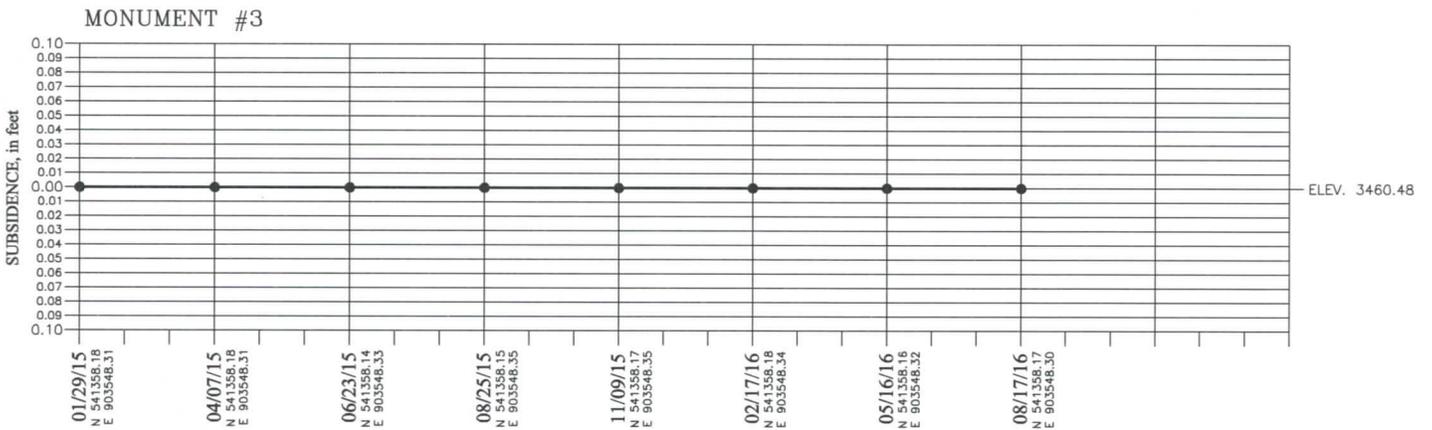
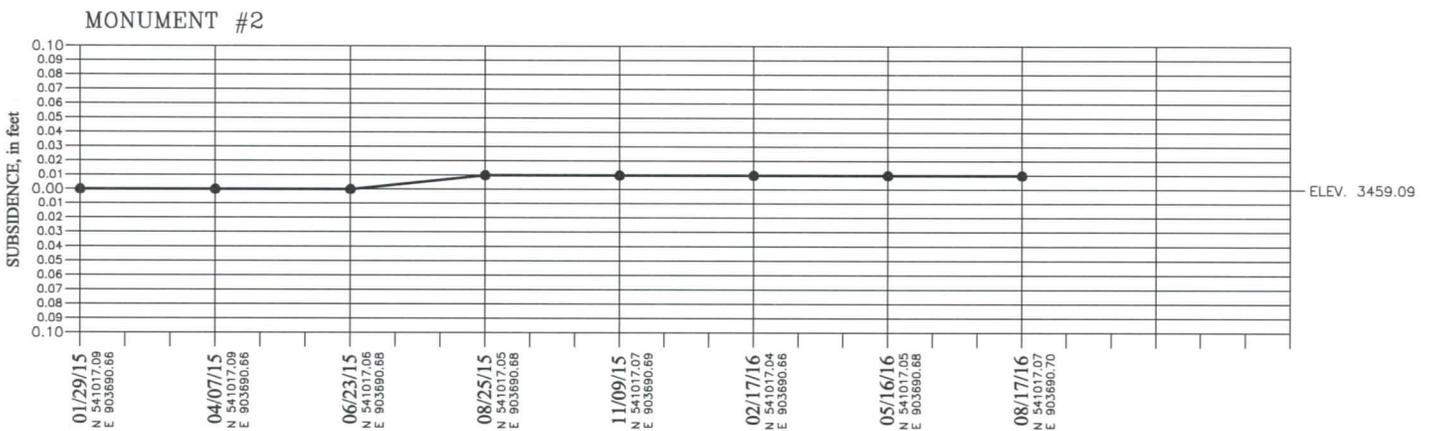
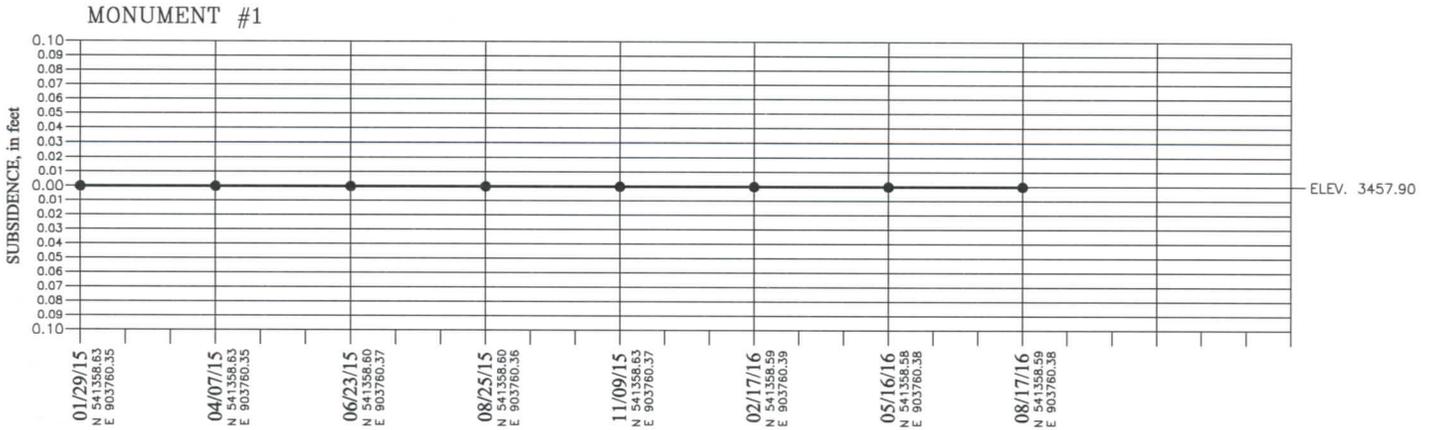
Ana Ramirez | **Key Energy Services** | Environmental Specialist
12400 W. Interstate 20 E. Odessa, TX 79765
o: 432.571.7203 | m: 432.234.6959 | aramirez01@keyenergy.com

Doing it the right way. *theKeyWay*. Every time.

VERTICAL SUBSIDENCE TABLE

KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83

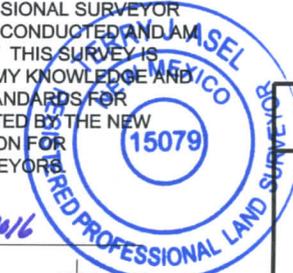


SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

BASIS OF ELEVATIONS: US C & GS BENCH MARK
"L-98 1935" – CVO320
ELEV. = 3434.37

Terry J. Asel 8/22/2016
Terry J. Asel N.M. R.P.L.S. No. 15079



Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
HOBBES, NEW MEXICO – 575-393-9146



KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – EUNICE STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 08/17/16	Sheet 1 of 1 Sheets
W.O. Number: 160817MS	Drawn By: KA Rev:
Date: 08/18/16	160817MS Scale: 1" = 1000'

Chavez, Carl J, EMNRD

From: Griswold, Jim, EMNRD
Sent: Monday, June 20, 2016 3:17 PM
To: Chavez, Carl J, EMNRD
Subject: FW: Key Energy Services - State Brine Well # 1 - Subsidence monitoring 2nd Quarter 2016
Attachments: Subsidence Monitoring Eunice State #1 5-16-16.pdf

Jim Griswold

Environmental Bureau Chief
EMNRD/Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505.476.3465
email: jim.griswold@state.nm.us

From: Ramirez, Ana O [<mailto:aramirez01@keyenergy.com>]
Sent: Tuesday, May 17, 2016 4:07 PM
To: Griswold, Jim, EMNRD
Subject: Key Energy Services - State Brine Well # 1 - Subsidence monitoring 2nd Quarter 2016

Mr. Griswold,

Please find attached the 2nd quarter 2016 Subsidence monitoring survey for Key Energy Services, LLC – State Brine Well # 1 in Section 15, Township 21 South, Range 37 east, NMPM, Lea County, New Mexico. Permit No. BW-28.

Please feel free to contact me if you have further comments or questions,

Regards,

Ana Ramirez | **Key Energy Services** | Environmental Specialist
6 Desta Dr. Suite 4300 Midland, TX 79705
o: 432.571.7203 | m: 432.234.6959 | aramirez01@keyenergy.com

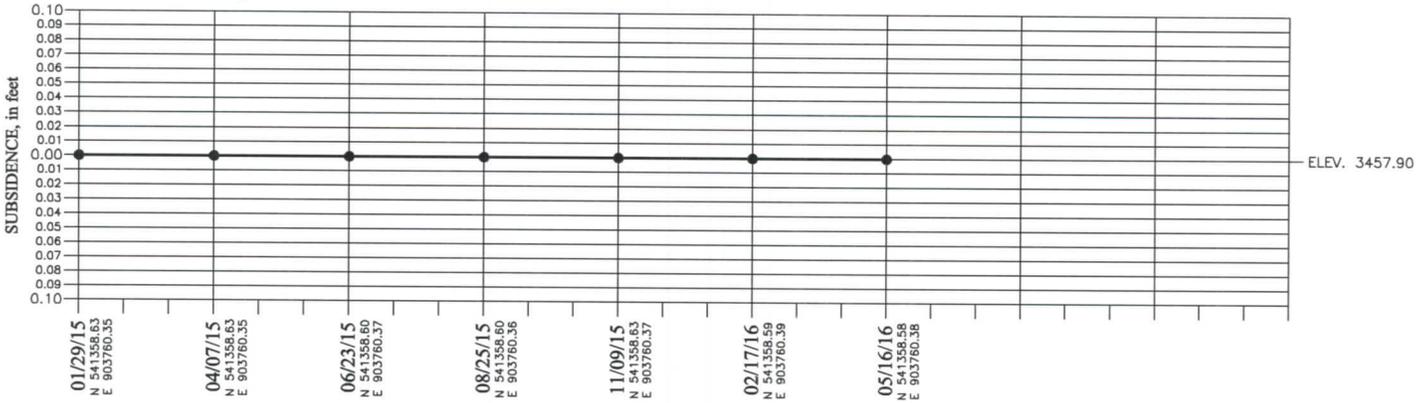
Doing it the right way. *theKeyWay*. Every time.

VERTICAL SUBSIDENCE TABLE

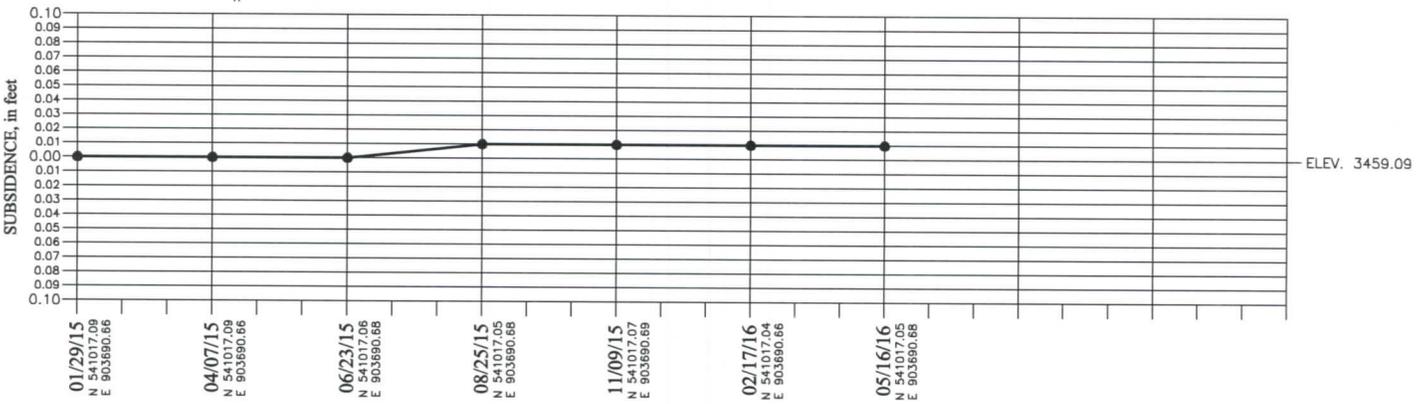
KEY ENERGY SERVICES, LLC. – STATE #1

NEW MEXICO EAST NAD 83

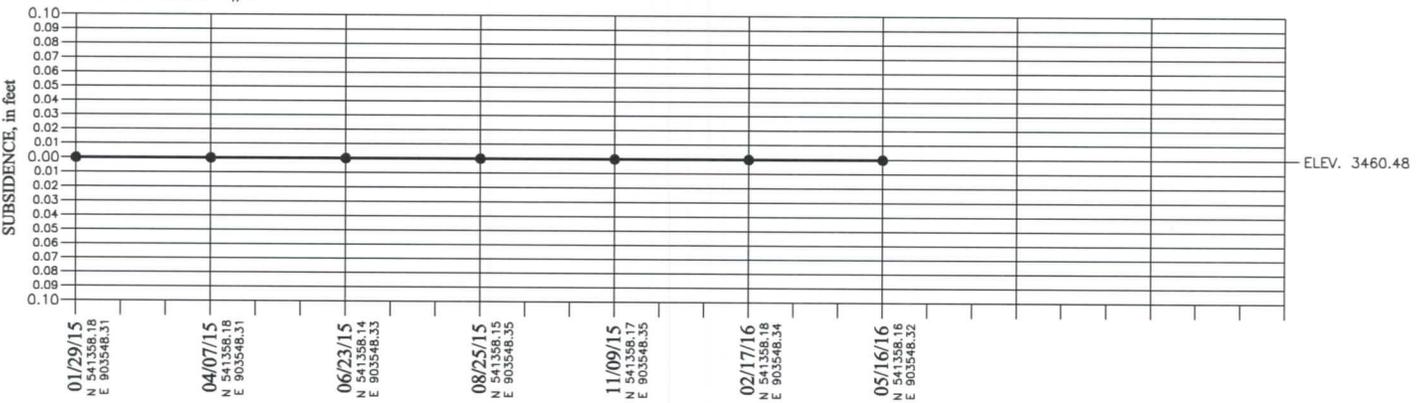
MONUMENT #1



MONUMENT #2



MONUMENT #3



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

BASIS OF ELEVATIONS: US C & GS BENCH MARK
 "L-98 1935" – CVO320
 ELEV. = 3434.37

Terry J. Asel 5/17/2016
 Terry J. Asel N.M. R.P.L.S. No. 15079



KEY ENERGY SERVICES, LLC.

SUBSIDENCE MONITORING FOR THE KEY ENERGY SERVICES, LLC. – EUNICE STATE #1 WELL IN SECTION 15, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Asel Surveying



P.O. BOX 393 – 310 W. TAYLOR
 HOBBS, NEW MEXICO – 575-393-9146

Survey Date: 05/16/16	Sheet 1 of 1 Sheets
W.O. Number: 160516MS	Drawn By: KA Rev:
Date: 05/17/16	160516MS Scale: 1"=1000'

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, November 14, 2008 4:38 PM
To: 'ziatransports@gmail.com'; 'jrmillett@gmail.com'; 'rharrisnm@aim.com'; 'gandy2@leaco.net'; 'seay04@leaco.net'; 'iwcarlsbad@plateautel.net'; 'Patterson, Bob'; 'Dimas Herrera'; 'gil@mull.us'; 'David Pyeatt'; 'Wayne E Roberts'; Dennis L Shearer; 'garymschubert@aol.com'; 'dgibson@keyenergy.com'; 'Clay Wilson'; 'Prather, Steve'; Ronnie D Devore
Cc: Hill, Larry, EMNRD; Gum, Tim, EMNRD; Price, Wayne, EMNRD
Subject: Brine Well Moratorium Press Release Today
Attachments: PR-OCD Brine Well Moratorium.pdf

FYI, please see the attached NM OCD Press Release issued today. Thank you.

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: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/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



November 14, 2008

NEWS RELEASE

Contact: Jodi McGinnis Porter,
Public Information Officer 505.476.3226

Energy, Minerals and Natural Resources Cabinet Secretary Prukop Orders a Six Month Moratorium on New Brine Wells *Oil Conservation Division to Investigate Brine Well Collapses and Provide Recommendations*

SANTA FE, NM – Secretary Joanna Prukop today ordered the Oil Conservation Division to place a six month moratorium on any new brine well applications located in geologically sensitive areas. Secretary Prukop's action comes following the second brine well collapse in less than four months in southeastern New Mexico. The Secretary has also directed the Oil Conservation Division to work with the Environmental Protection Agency, other states, technical experts and oil and gas industry representatives to examine the causes of recent collapses, and provide a report with recommendations to the Oil Conservation Commission for a safe path forward. The report should be completed by May 1, 2009.

"I am deeply concerned by these two serious incidents and we are taking action to ensure the safety of our citizens and to protect the environment," stated Secretary Prukop.

Brine wells are an essential part of the oil and gas drilling industry, particularly in the southeastern part of the state. Oil and gas operators use brine water in the drilling process. Brine is saturated salt water which can be more salty than sea water. Brine is created by injecting fresh water into salt formations, allowing the water to absorb the salt and then pumping it out of the well. This method creates an underground cavity.

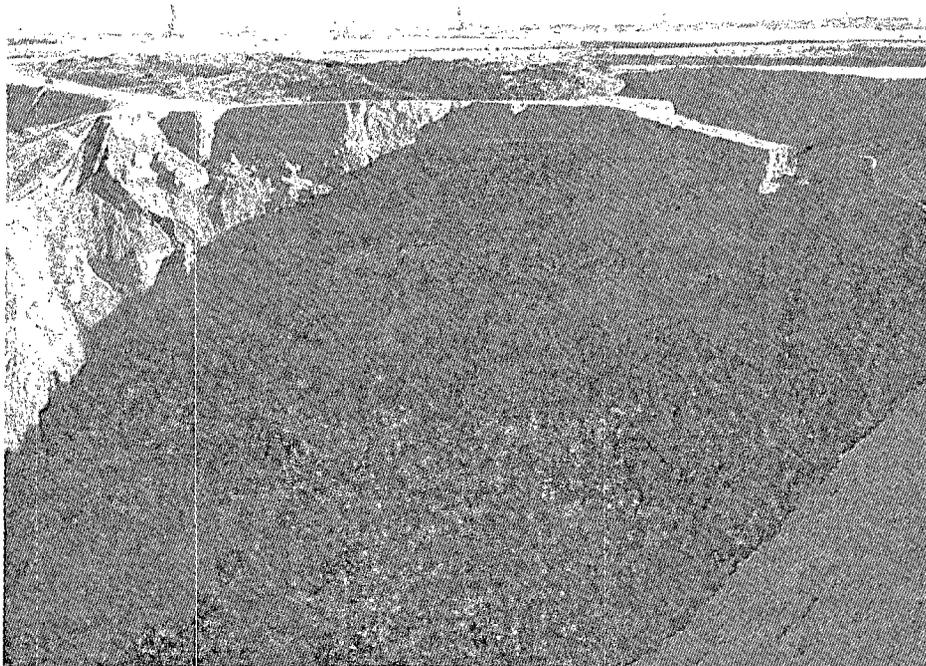
"The moratorium will provide time to properly evaluate the causes of the recent collapses and to discuss the development of new rules or guidelines to ensure the safety and stability of brine well systems," added Secretary Prukop.

The moratorium will only affect new wells and will not impact existing wells and facilities.

Below are photographs of the two recent collapses:



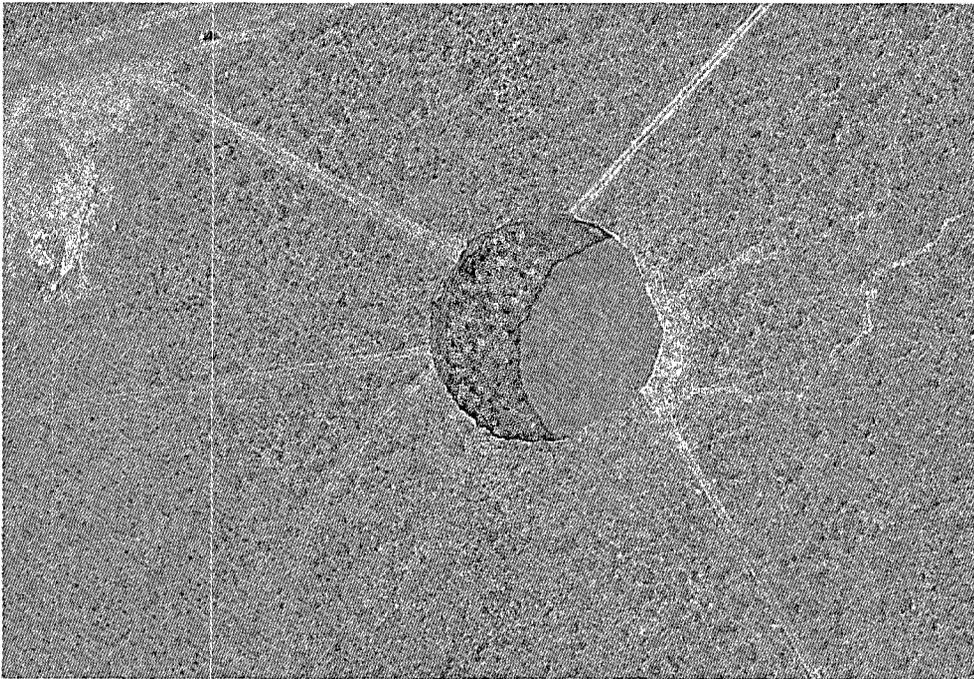
Loco Hills brine well collapse, morning, November 7, 2008, sinkhole with fresh water pond in foreground.
Photo courtesy of Oil Conservation Division



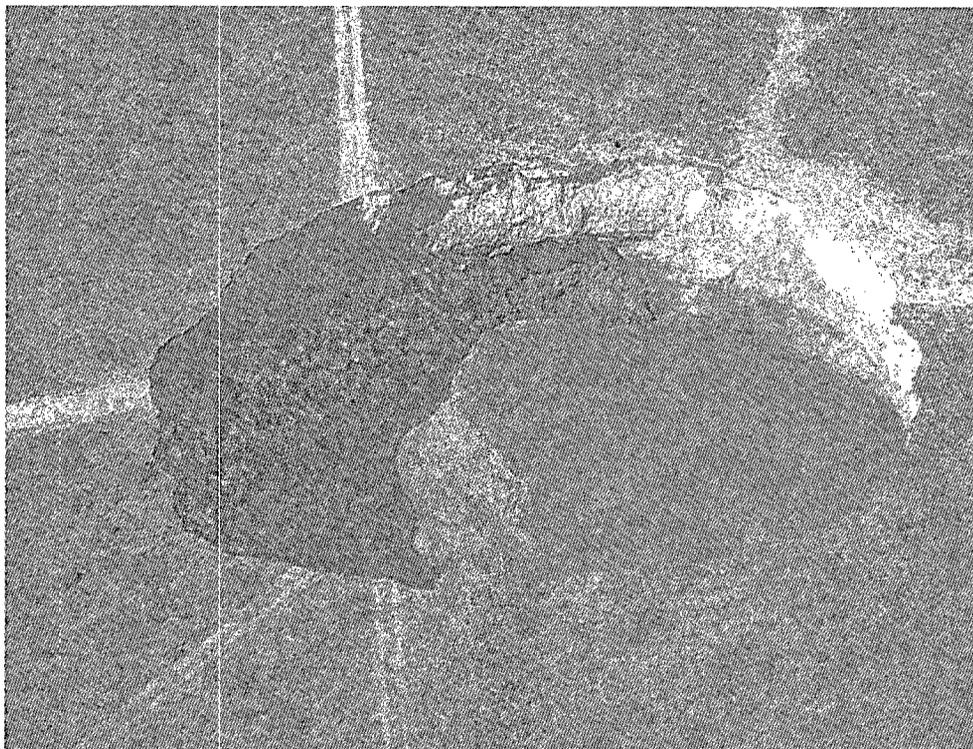
Loco Hills brine well collapse, morning, November 7, 2008 sinkhole.
Photo courtesy of Oil Conservation Division



Loco Hills brine well collapse, morning, November 7, 2008 status of fresh water pond.
Photo courtesy of Oil Conservation Division



Artesia brine well collapse, morning, July 20, 2008 at 10:44 am.
Photo courtesy of National Cave and Karst Research Institute



Artesia brine well collapse morning, July 22, 2008
Photo courtesy of National Cave and Karst Research Institute

#30#

*The Energy, Minerals and Natural Resources Department provides resource protection
and renewable energy resource development services to the public and other state agencies.*

Oil Conservation Division
1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3440 • Fax (505) 476-3462 • www.emnrd.state.nm.us/OCD



Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, November 12, 2008 11:50 AM
To: 'ziatransports@gmail.com'; 'jrmillett@gmail.com'; 'Patterson, Bob'; Philliber, Mark; 'rharrisnm@aim.com'; 'gandy2@leaco.net'; 'David Pyeatt'; 'garymschubert@aol.com'
Cc: Price, Wayne, EMNRD; Sanchez, Daniel J., EMNRD; Hill, Larry, EMNRD; Gum, Tim, EMNRD
Subject: Brine Well Sonar Testing Requirement with this season's upcoming MIT Schedule 2009

Gentlemen:

Re: MITs and OCD Sonar Test Requirement

Good morning. It is that time of season when the OCD requests your proposed MIT schedule. The OCD is requiring a sonar test in addition to the MIT this season. The OCD objective is to complete the MITs on or before July 31, 2009. If circumstances require it, the deadline for MITs may be extended to on or before October 31, 2009. Please contact me within 30 days to schedule your MIT and sonar test with date and time that you prefer. Note that brine well operators scheduled for the annual OCD 4-hr. formation MIT may conduct the EPA 5-Yr. 30 minute MIT (+/- 10% to pass) at 300 – 500 psig on casing in lieu of the OCD annual formation MIT this season.

After reviewing the site files and your responses to the recent OCD questionnaire following the Jims Water Service (BW-5) brine well collapse SE of Artesia in Eddy County on 7/16/2008, and the more recent collapse at Loco Hills (BW-21) in Eddy County on 11/3/2008, the OCD is requiring Sonar Testing along with your MIT this season to assess the configuration of your brine well cavern and any threats to public health and safety in your areas. The OCD is focused on the maturity of brine wells and the "Calculation" from the recent questionnaire attempts to assess brine well maturity by comparing the total brine production relative to the depth of the brine well casing shoe. This is one of the reasons why fresh water and brine well production record reporting to the OCD is so critical. Any operators that are planning to plug and abandon their brine wells are required by the OCD to conduct a sonar test of the well in advance of plugging and abandonment. Also, the OCD requires that the brine cavern be filled with brine fluid as this adds structural stability to the cavern and well. This will be required in a C-103 approved with conditions by the OCD. Currently, 3 brine well operators have been required by the OCD to conduct sonar testing within 30 days due to the maturity issue mentioned above. The OCD is continuing to assess its EPA Class III Brine Well program and will keep you updated on improvements and/or changes as needed.

If you feel that your brine well is too new to require sonar testing or a sonar was recently completed at your brine well, please provide the basis for requesting an exemption to this OCD sonar test requirement ASAP for OCD approval.

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: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

11/12/2008

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 INFORMATION:	
Operator Name <u>Key Energy Services</u>	Well Name(s) <u>State 5</u>
API Number <u>30 025 33547</u>	Brine Well Permit # <u>028</u>
Date Permit Expires? <u>September 2012</u>	
Location: Section <u>15</u>	Ts <u>21S</u> Rg <u>37E</u>
FNL <u>1340'</u>	FSL _____ FEL _____ FWL <u>330'</u>
GPS of well(s): Lat: <u>32° 29' 0.25"</u>	Long: <u>103° 09' 30.8"</u>
Have you reviewed and understand all of your permit conditions? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Are you presently deficient of any condition in your permit? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Don't know <input type="checkbox"/> Do you operate below grade tanks or pits at the site? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Do all tanks, including fresh water tanks, have secondary containment? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Do you think you have the expertise, knowledge and general understanding of what causes a brine well to collapse? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Do you think OCD should provide guidelines on subsidence and collapse issues? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
SITING INFORMATION: Please provide the following information and depict on 7.5 minute (1" = 2000') USGS Quad Map. Limit search to one mile radius.	
Is the brine well located within a municipality or city limits? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Distance and direction to nearest permanent structure, house, school, etc. if less than one mile: <u>More than 1 mile</u>	
Distance and direction to nearest water well if less than one mile: <u>More than 1 mile</u>	
Distance to nearest watercourse(s), floodplain, playa lake(s), or man-made canal(s) or pond(s) if less than one mile: <u>N/A</u>	
Distance and direction to nearest known karst features or mines if less than one mile: <u>N/A</u>	



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

Provide API Number: 300'E
Chevron USA States #1 API 30 025 06586

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

East .2 mile

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

City of Eunice water line 200' west

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

250' west

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

Approx 100'

Name of aquifer(s):

Alluvium

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 not Available

Depth of the top of the salt below ground surface (feet):

1390'

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

2445'

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

1262' to 1390' 128'

Depth of casing(s) shoe below ground surface (feet): 1344'

Is the casing shoe set in the anhydrite or other layer above the salt? Yes No

Is the casing shoe set into the salt? Yes No If yes, how far into the salt? _____

Depth of tubing(s):

2074'

Do you suspect that your cavern has partially caved in? Yes No Don't know

OPERATIONS: Please provide the following information.

Start date of brine well operation:

10-4-1996

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

Estimated 3,000,000 bbls

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

From 1996-2001 Not Available

From July 2001 to September 2008 2,057,329 bbls

Have you ever lost casing or tubing? If yes, please provide details.

Document attached

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 No

Visually

Have you ever run a sonar log? Yes No

If yes, please provide last date: _____

Provide cavern configuration (dimensions and volume) and method(s) used to estimate:

If sonar report please attach If other, please specify and provide a sketch of cavern:

Data Not Available

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

Visual

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

Have you submitted all of your monthly, quarterly, or annual reports to the OCD?

Yes No

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

No

Have you ever had a casing leak? Yes No

Have you ever had a cavern leak? Yes No Don't know

Have you ever exceeded the cavern fracture pressure? Yes No Don't know

Do you know how to calculate your maximum pressure? Yes No Don't know

Have you routinely looked for cracks or fissures in the ground surface around your brine well?

Yes No

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

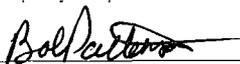
During operations have you experienced any ground vibration, ground movement, or well movement after opening or shutting valves, pump start-up, shut-down, etc.? Yes No

Have you ever experienced unexpected pressure gain or loss in the cavern? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, was there a difference in your normal flow rate? Yes <input type="checkbox"/> No <input type="checkbox"/>
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>
Are you concerned about pulling the tubing due to the fact it may be difficult to re-enter the hole? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Are you concerned about running a sonar tool in fear of losing tool because of debris in hole? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Have you ever conducted a fly over of your well site? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> if yes, please provide photo. <input type="checkbox"/> 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 $18,000,000/180,000 = 100 \times 50 = 5000$. <i>Based on incomplete data</i> 1. Provide the calculated number above here: <u>571.48</u> 2. Now provide the depth (ft) from the surface to your casing shoe: <u>1344</u>
Is the calculated number found in #1 above greater than #2? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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."

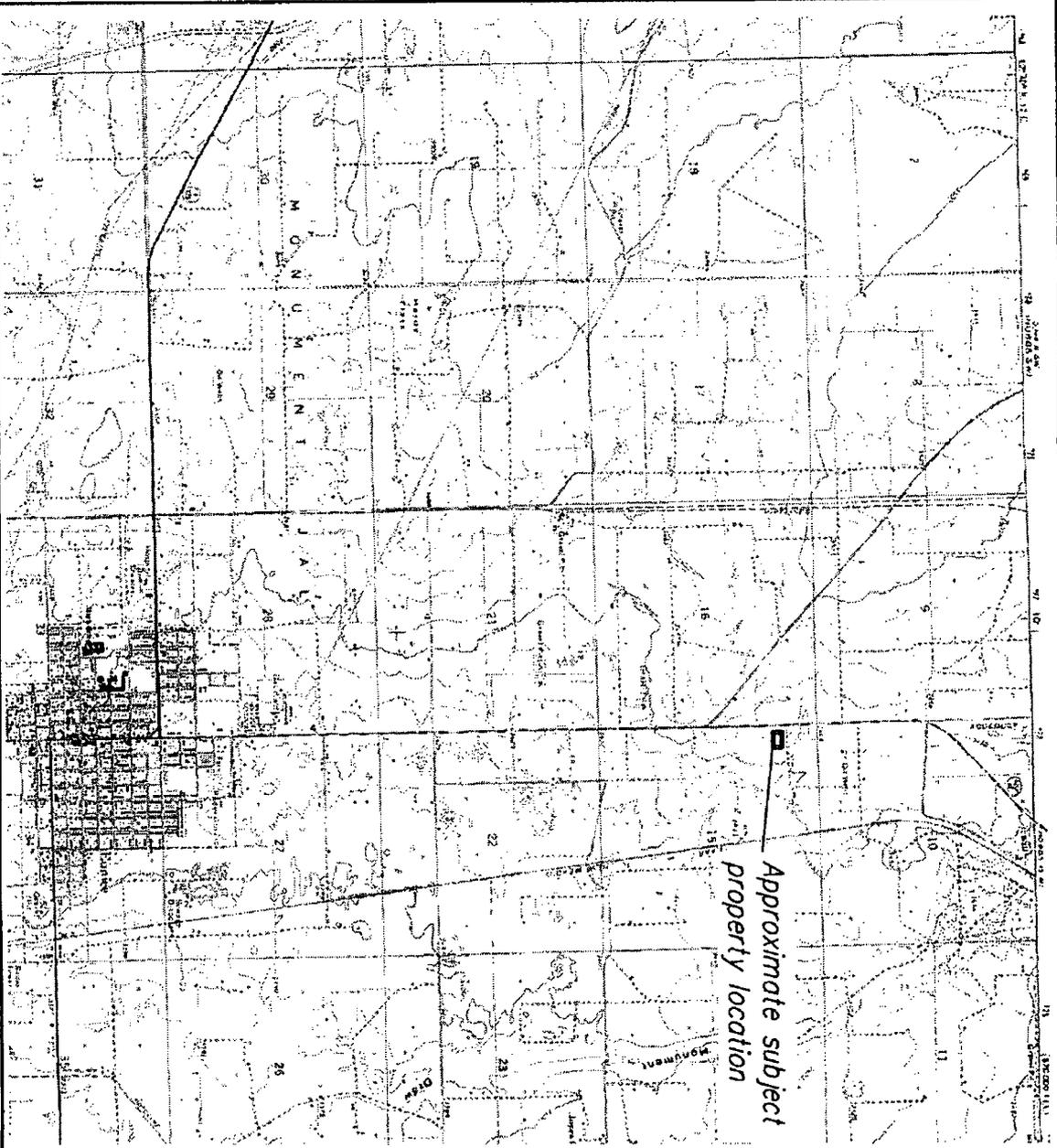
Key Energy Services LLC
Company Name- print name above

Bob Patterson
Company Representative- print name

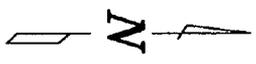

Company Representative- Signature

Title: Area Manager

Date: 11-6-8



Approximate subject property location



0 2,000 4,000

Scale: 1"=4,000'

Note:
 Base map is the Eunice, New Mexico
 USGS 7.5 minute series topographic
 maps (1969; photorevised 1979)

Site Location Map
Key Energy Discharge Plan BW-028
Near Eunice, New Mexico

Figure 1

5317308
 08-07
 By: _____ Date: _____
 Descr.: _____
 Copyright 2007 Souder, Miller & Associates - All Rights Reserved

Drawn _____ M.V.
 Checked _____ D.E.
 Approved _____ D.E.



401 North Seventeenth Street, Suite 4
 Las Cruces, New Mexico 88005-8131
 (505) 647-0789 / 647-0680 (Fax)
 www.soudermiller.com
 Serving the Southwest & Rocky Mountains

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL API NO.
30-025-33547

5. Indicate Type of Lease
STATE FEE

6. State Oil & Gas Lease No.
MS 0004

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.)

7. Lease Name or Unit Agreement Name
State

1. Type of Well:
OIL WELL GAS WELL OTHER Brine

8. Well No.
1

2. Name of Operator
Gold Star SWD Ltd Company

9. Pool name or Wildcat
BSW-Salado

3. Address of Operator
Box 1480 Eunice, N.M. 88231

4. Well Location
Unit Letter E : 1340 Feet From The N Line and 330 Feet From The W Line
Section 15 Township 21S Range 37E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
DF 3469

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input checked="" type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input checked="" type="checkbox"/>	
OTHER: _____ <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

9-28-96 Spudded 4 Pm. Derrick Floor 11'. Drilled 12 1/4" hole.
9-29-96 TD 1360' at 4:30 Pm. Ran 1344' 8 5/8" new 32# J55 casing, Float collar and Float Shoe, 5 Centralizers. Cement with 500 sx class C Premium W/ 4% Gel Mix and 300 sx class C Premium W/2% Calcium Chloride.
9-29-96 Circulated 236 sx cement to pit.
9-30-96 Pump cement plug down 12:30 AM.
10-1-96 WOC 18 Hr. 7:30 PM. Start drilling 7 7/8" hole.
10-2-96 TD 2200' at 6:00 AM.
10-3-96 Move rig. Run 2074' 2 7/8" Fiberglass tubing.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Royce Crowell TITLE Mgr - Member DATE 10-4-96
TYPE OR PRINT NAME Royce Crowell TELEPHONE NO. 394250

(This space for State Use) ORIGINAL SIGNED BY FRANCIS SEXTON
SENIOR SUPERVISOR

APPROVED BY _____ TITLE _____ DATE OCT 11 1996

CONDITIONS OF APPROVAL, IF ANY:

Submit to Appropriate District Office
 State Lease - 6 copies
 Fee Lease - 5 copies
DISTRICT I
 P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
 P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
 1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
 Energy, Minerals and Natural Resources Department

Form C-105
 Revised 1-1-89

OIL CONSERVATION DIVISION
 2040 Pacheco St.
 Santa Fe, NM 87505

WELL API NO.
 30-025-33547

5. Indicate Type of Lease
 STATE FEE

6. State Oil & Gas Lease No.
 MS0004

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:
 OIL WELL GAS WELL DRY OTHER Brine

b. Type of Completion:
 NEW WELL WORK OVER DEEPEN FLUO BACK DIFF RESRV OTHER

2. Name of Operator
 Gold Star SWD Ltd Co.

3. Address of Operator
 Box 1480 Eunice, N.M. 88231

7. Lease Name or Unit Agreement Name
 State

8. Well No.
 1

9. Pool name or Wildcat
 BSW-Salado <96173>

4. Well Location
 Unit Letter E : 1340 Feet From The North Line and 330 Feet From The West Line

Section 15 Township 21S Range 37E NMPM Lea County

10. Date Spudded 9-28-96	11. Date T.D. Reached 10-2-96	12. Date Compl. (Ready to Prod.) 10-4-96	13. Elevations (DF& RKB, RT, GR, etc.) DF 3469	14. Elev. Casinghead 3458
15. Total Depth 2200'	16. Plug Back T.D.	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By Rotary Tools X Cable Tools	
19. Producing Interval(s), of this completion - Top, Bottom, Name Top 1390 Bottom 2445 BSW Salado				20. Was Directional Survey Made Yes
21. Type Electric and Other Logs Run N/A				22. Was Well Cored NO

23. **CASING RECORD (Report all strings set in well)**

CASING SIZE	WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	32#	1360'	12 1/4	800 Sx.	
2 7/8	Fiberglass	2074	7 7/8		

24. LINER RECORD				25. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8	2074	

26. Perforation record (interval, size, and number) N/A	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
	1360'	500 Sx Class C 4 1/2 Gal 300 Sx Class C 2 1/2 Gal CI

28. **PRODUCTION**

Date First Production _____ Production Method (Flowing, gas lift, pumping - Size and type pump) _____ Well Status (Prod. or Shut-in) _____

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)	

29. Disposition of Gas (Sold, used for fuel, vented, etc.) _____ Test Witnessed By _____

30. List Attachments _____

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Royce Crowell Printed Name Royce Crowell Title Mgr. Member Date 10-4-96

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-dri or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all spt tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt _____	T. Strawn _____	T. Kirland-Fruitland _____	T. Penn. "C" _____
B. Salt _____	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____	T. Ignacio Otzie _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Delaware Sand _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Bone Springs _____	T. Entrada _____	T. _____
T. Abo _____	T. _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn "A" _____	T. _____

OIL OR GAS SANDS OR ZONES

No. 1, from.....to..... No. 3, from.....to.....
 No. 2, from.....to..... No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology
0	95	95	Caliche and Sand				
95	1262	1167	Red Bed				
1262	1390	128	Anhydrite				
1390	2200	810	Salt and Anhydrite				

RECEIVED
 1996
 Hobbs
 200

Submit 3 Copies
to Appropriate
District Office

STATE OF NEW MEXICO
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL API NO. 30-025-33547
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. MS-0004

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.)

1. Type of Well:
 OIL WELL GAS WELL OTHER BRINE

2. Name of Operator
GOLD STAR SWD LTD. CO.

3. Address of Operator
BOX 1480 EUNICE NM 88231

4. Well Location
 Unit Letter E : 1340 Feet From The N. Line and 330 Feet From The W. Line
 Section 15 Township 21 S. Range 37 E. NMPM LEA County

7. Lease Name or Unit Agreement Name

STATE

8. Well No.
1

9. Pool name or Wildcat
BSW-SALADO

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: _____ <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

03-17-00 PULL TUB. LOST 140' 2 7/8 FG. TUB.
 03-18-00 RUN 7 1/2 OD CUT RITE SHOE TO 1357'
 03-19-00 RUN SHOE TO 1361'
 03-20-00 RUN 6 3/4 BIT TI 1375'
 03-21-00 DRILL TO 1405'
 03-22-00 SHUTDOWN
 03-23-00 DRILL TO 1419'
 03-24-00 DROP TUB AND FISHED
 03-25-00 RUN 1402' 2 7/8 F.G. TUB. RIGDOWN.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Raymond Lowell TITLE Manager DATE 4-20-00
 TYPE OR PRINT NAME Raymond Lowell TELEPHONE NO. 394-2300

(This space for State Use)

APPROVED BY _____ DATE _____
 CONDITIONS OF APPROVAL, IF ANY:

5
C

Submit 3 Copies
to Appropriate
District Office

STATE OF NEW MEXICO
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL API NO. 30-025-33547
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. MS-0004

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.)

1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> BRINE <input type="checkbox"/>	7. Lease Name or Unit Agreement Name STATE
2. Name of Operator GOLD STAR SWD LTD. CO.	8. Well No. 1
3. Address of Operator BOX 1480 EUNICE NM 88231	9. Pool name or Wildcat BSW-SALADO
4. Well Location Unit Letter <u>E</u> : <u>1340</u> Feet From The <u>N.</u> Line and <u>330</u> Feet From The <u>W.</u> Line Section <u>15</u> Township <u>21 S.</u> Range <u>37 E.</u> NMPM LEA County	

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
--

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: _____ <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

04-10-00 PULL TUB. LOST 82' TUB.
 04-11-00 TRIED TO FISH TUB. RUN 6 1/8 CUT RITE SHOE.
 04-12-00 MILL TO 1349' RUN BIT & COLLARS
 04-13-00 DRILL TO 1439'
 04-14-00 RUN 1410' 2 7/8 FG TUB.
 RIGDOWN

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Royce Crowell TITLE Mgr DATE 4-20-80
 TYPE OR PRINT NAME Royce Crowell TELEPHONE NO. 384-2500

(This space for State Use)

ORIGINAL SIGNED BY
 GARY WIK
 FIELD REP II
 TITLE _____ DATE _____

APPROVED BY _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.
30-025-33547

5. Indicate Type of Lease
STATE FEE

6. State Oil & Gas Lease No.
MS-0004

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.)

1. Type of Well:
OIL WELL GAS WELL OTHER BRINE

2. Name of Operator
GOLD STAR SWD LTD. CO.

3. Address of Operator
BOX 1480 EUNICE NM 88231

4. Well Location
Unit Letter E : 1340 Feet From The N. Line and 330 Feet From The W. Line
Section 15 Township 21 S. Range 37 E. NMPM LEA County

7. Lease Name or Unit Agreement Name
STATE

8. Well No.
1

9. Pool name or Wildcat
BSW-SALADO

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: _____ <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

04-18-00 PULL TUB PARTED 21 JTS FROM TOP.
04-19-00 FISHED TUB AND PULLED. CHANGE OUT FIBERGLASS TUB AND REPLACED WITH 2 7/8 STEEL IPC. SET AT 1410' RIGDOWN

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Royce Corrales TITLE MAN DATE 9-20-00
TYPE OR PRINT NAME Royce Corrales TELEPHONE NO. 394-2500

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

DISTRICT I P.O. Box 1980, Hobbs, NM 88240

DISTRICT II P.O. Drawer DD, Artesia, NM 88210

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION 2040 Pacheco St. Santa Fe, NM 87505

WELL API NO. 30-025-33547
5. Indicate Type of Lease STATE [X] FEE []
6. State Oil & Gas Lease No. MS-0004

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.)

1. Type of Well: OIL WELL [] GAS WELL [] OTHER BRINE
2. Name of Operator GOLD STAR SWD LTD. CO.
3. Address of Operator BOX 1480 EUNICE NM. 88231

7. Lease Name or Unit Agreement Name
8. Well No. 1
9. Pool name or Wildcat BSW- SALADO

4. Well Location Unit Letter E : 1340 Feet From The N. Line and 330 Feet From The W. Line
Section 15 Township 21 S. Range 37 E. NMPM LEA. County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data
NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK [] PLUG AND ABANDON [] TEMPORARILY ABANDON [] CHANGE PLANS [] PULL OR ALTER CASING [] OTHER: []
SUBSEQUENT REPORT OF: REMEDIAL WORK [X] ALTERING CASING [] COMMENCE DRILLING OPNS. [] PLUG AND ABANDONMENT [] CASING TEST AND CEMENT JOB [] OTHER: []

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.
7-6-98 RIG UP PULLING UNIT, PULLED TUBING, 46 JTS. + 8 FT. 1351 FT. RUN SINKER BAR TO 1366 FT.
7-7-98 RIG UP REVERS UNIT, RUN USED 7 5/8. BIT TO 1362 FT. . RETURNED METAL CUTTINGS. PULLED BIT, BIT NO GOOD.
7-8-98 RUN NEW 7 5/8 BIT. TIGHT PLACE AT 1329 FT. DRILLED FROM 1353 TO 1363 FT. .
7-9-98 RUN 6 1/8 SHOE AND DRILLED TO 1371 FT. .
7-10-98 RUN 6 1/8 BIT AND DRILLED TO 1475 FT. .
7-11-98 RUN 1461 FT. OF 2 7/8 FIBER GLASS TUBING . RIGGED DOWN.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.
SIGNATURE [Signature] TITLE MGR. DATE 7-25-98
TYPE OR PRINT NAME R.E. CROWELL TELEPHONE NO. 394-2504

(This space for State Use)
APPROVED BY [Signature] TITLE DATE
CONDITIONS OF APPROVAL, IF ANY:

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,

A handwritten signature in black ink, appearing to be "WP", written over a horizontal line.

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



Price, Wayne, EMNRD

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

Mark Fesmire
Division Director
Oil Conservation Division



July 23, 2008

NEWS RELEASE

Contact: Jodi McGinnis Porter,
Public Information Officer 505.476.3226

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.”

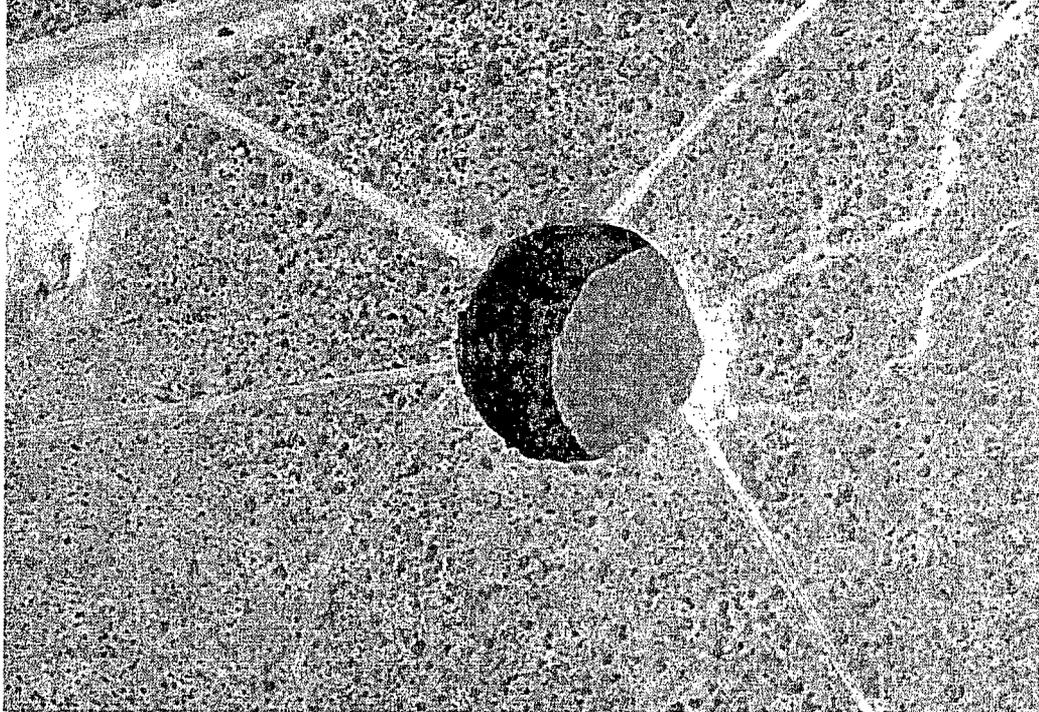
The Oil Conservation Division is continuing to monitor and investigate the collapse of the brine well, located on state trust land 17.3 miles southeast of Artesia, which is still active. The well is owned by Jim’s Water Service. County Road 217 remains closed as a safety precaution, and a command center 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.
courtesy 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 INFORMATION:	
Operator Name _____	Well Name(s) _____
API Number _____	Brine Well Permit # _____
Date Permit Expires? _____	
Location: Section _____ Ts _____ Rg _____	
FNL _____	FSL _____ FEL _____ FWL _____
GPS of well(s): Lat: _____ Long: _____	
<p>Have you reviewed and understand all of your permit conditions? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Are you presently deficient of any condition in your permit? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/></p> <p>Do you operate below grade tanks or pits at the site? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Do all tanks, including fresh water tanks, have secondary containment? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Do you think you have the expertise, knowledge and general understanding of what causes a brine well to collapse? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Do you think OCD should provide guidelines on subsidence and collapse issues? Yes <input type="checkbox"/> No <input type="checkbox"/></p>	
SITING INFORMATION: <i>Please provide the following information and depict on 7.5 minute (1"= 2000') USGS Quad Map. Limit search to one mile radius.</i>	
Is the brine well located within a municipality or city limits? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Distance and direction to nearest permanent structure, house, school, etc. <i>if less than one mile:</i>	
Distance and direction to nearest water well <i>if less than one mile:</i>	
Distance to nearest watercourse(s), floodplain, playa lake(s), or man-made canal(s) or pond(s) <i>if less than one mile:</i>	
Distance and direction to nearest known karst features or mines <i>if less than one mile:</i>	



Distance and direction to nearest producing oil or gas well(s) <i>if less than one mile:</i> Provide API Number:
Distance and direction to nearest tank battery(ies) <i>if less than one mile:</i>
Distance and direction to nearest pipeline(s), including fresh water pipelines <i>if less than one mile:</i>
Distance and direction to nearest paved or maintained road or railroad <i>if less than one mile:</i>
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 <input type="checkbox"/> Copy of formation record with tops: Attached <input type="checkbox"/> Copy of geophysical well logs if available: Attached <input type="checkbox"/> If not, well logs within one mile <input type="checkbox"/>
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 <input type="checkbox"/> No <input type="checkbox"/> Is the casing shoe set into the salt? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, how far into the salt? _____
Depth of tubing(s):
Do you suspect that your cavern has partially caved in? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>
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:

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 <input type="checkbox"/>
Do you maintain a surface pressure on your well during idle times? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you noticed large amounts of air built up during cavity pressurization? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you ever noticed fluids or air/gas bubbling up around the casing during testing or normal operations? Yes <input type="checkbox"/> No <input type="checkbox"/>
MONITORING: Please provide the following information.
Are you currently monitoring ground water contamination from your brine well or system? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you ever run a sonar log? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, please provide last date: _____
Provide cavern configuration (dimensions and volume) and method(s) used to estimate: If sonar report please attach <input type="checkbox"/> If other, please specify and provide a sketch of cavern: <input type="checkbox"/>
Do you have a subsidence monitoring program in place? Yes <input type="checkbox"/> No <input type="checkbox"/>
Do you have any geophysical monitoring devices, such as a seismic device positioned near your brine well? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you submitted all of your monthly, quarterly, or annual reports to the OCD? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you failed a brine well mechanical integrity test (MIT)? If yes, please attach details and results. Attached <input type="checkbox"/>
Have you ever had a casing leak? Yes <input type="checkbox"/> No <input type="checkbox"/> Have you ever had a cavern leak? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Have you ever exceeded the cavern fracture pressure? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Do you know how to calculate your maximum pressure? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>
Have you routinely looked for cracks or fissures in the ground surface around your brine well? Yes <input type="checkbox"/> No <input type="checkbox"/>
Do you have any minor or major cracks, fissures, tank settlement, line breakage from settlement or any minor subsidence. Yes <input type="checkbox"/> No <input type="checkbox"/>
During operations have you experienced any ground vibration, ground movement, or well movement after opening or shutting valves, pump start-up, shut-down, etc.? Yes <input type="checkbox"/> No <input type="checkbox"/>

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

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 No

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 No

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

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: _____

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, July 25, 2008 4:21 PM
To: Hansen, Edward J., EMNRD; Price, Wayne, EMNRD
Cc: Sanchez, Daniel J., EMNRD
Subject: RE: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide
Attachments: image001.jpg; image007.jpg

Ed, Wayne, et. al:

Based on my records and knowledge of current activities at NMOCD BWs, my tally is as follows:

There are a total of 15 active UIC Class III Brine Well Permits (excluding BW-5 JWS & BW-6 I&W)

There are currently 13 active UIC Class III Brine Wells in operation (BW-2; BW-4; BW-8; BW-9; BW-12; BW-13; BW-22; BW-25; BW-27 Wells-1 & 2; BW-28; BW-30; and BW-31)

There are currently 6 brine wells that have actually been PA'd including: BW-5 JWS Collapse w/ Site Closure; BW-6 Eugenie #2; BW-21 Loco Hills Well #1 recently PA'd; BW-26 Salado Brine Sales; BW-29 Marbob; & William Brininstool.

There are currently 3 pending PAs of BWs including: BW-6 Eugenie #1 w/ Site Closure; BW-18 Key w/ redrill; and BW-19 Key w/ redrill.

There are currently 5 inactive brine wells (BW-5 Collapse w/ Site Closure; BW-6 needs PA Eugenie #1 w/ Site Closure; BW-18 needs PA w/ redrill; BW-19 needs PA w/ redrill; and BW21 needs redrill)

Let me know how we need to straighten RBDMS out. Please contact me if you have questions. 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) 476-3491
 Fax: (505) 476-3462
 E-mail: CarlJ.Chavez@state.nm.us
 Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
 (Pollution Prevention Guidance is under "Publications")

From: Hansen, Edward J., EMNRD
Sent: Wednesday, July 23, 2008 5:56 PM
To: Price, Wayne, EMNRD
Cc: Chavez, Carl J, EMNRD
Subject: FW: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide

Wayne,
 Jane and I tallied these numbers off of RBDMS (you may want to double check).

From: Hansen, Edward J., EMNRD
Sent: Wednesday, July 23, 2008 5:54 PM
To: Porter, Jodi, EMNRD
Subject: RE: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide

Jodi,

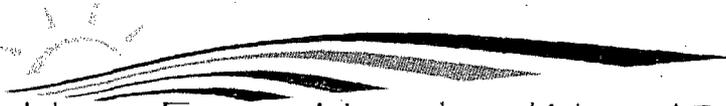
We counted (from our database: RBDMS):

16 Active Brine Wells

11 Plugged and Abandoned Brine Wells

2 Inactive Brine Wells

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



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



July 23, 2008

NEWS RELEASE

Contact: Jodi McGinnis Porter,
 Public Information Officer 505.476.3226

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.

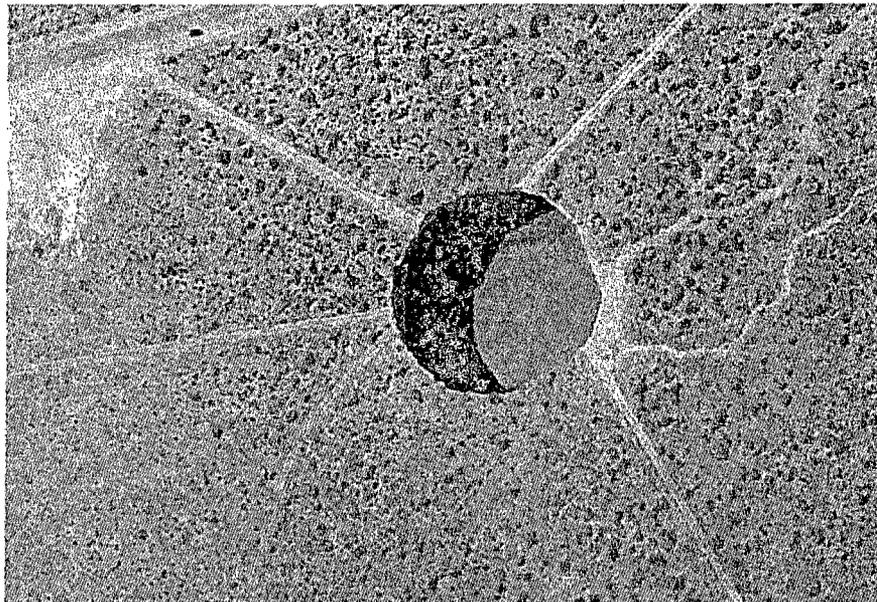
"There are several brine wells in New Mexico and we must ensure that they are all properly monitored to ensure safety and stability," stated Cabinet Secretary Joanna Prukop. "We have now seen that these wells can collapse and the extensive damage such a collapse can generate."

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.
courtesy of National Cave and Karst Research Institute



Morning, July 22, 2008
courtesy of National Cave and Karst Research Institute

#30#

The Energy, Minerals and Natural Resources Department provides resource protection and renewable energy resource development services to the public and other state agencies.

Oil Conservation Division
1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3440 • Fax (505) 476-3462 • www.emnrd.state.nm.us/OCD



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: jodi.porter@state.nm.us
Website: www.emnrd.state.nm.us