

BW - 33

**GENERAL
CORRESPONDENCE**

2010-2011

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. 154665 dated 3/19/12

or cash received on _____ in the amount of \$ 1700⁰⁰

from Key Energy Services

for BW-33

Submitted by: Lawrence Romero Date: 3/26/12

Submitted to ASD by: Juan Rom Date: 3/26/12

Received in ASD by: _____ Date: _____

Filing Fee _____ New Facility _____ Renewal _____

Modification _____ Other Permit Fee

Organization Code 521.07 Applicable FY 2010

To be deposited in the Water Quality Management Fund.

Full Payment _____ or Annual Increment _____

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

Kathy McCarroll, being first duly sworn,
on oath says:

That she is the Classified Supervisor of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

September 17 2011

That the cost of publication is **\$128.47** and that payment thereof has been made and will be assessed as court costs.

Kathy McCarroll

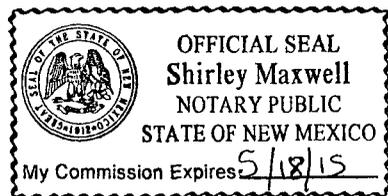
Subscribed and sworn to before me th

20th day of September, 2011

Shirley Maxwell

My commission Expires on May 18, 2015

Notary Public



September 17, 2011
NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106 NMAC), the following discharge permit application has been submitted to the New Mexico Oil Conservation Division (OCD), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(BW-33)-Key Energy Services, LLC, 6 Desta Drive, Suite 4300, Midland, Texas 79705 has submitted an application for installation and operation of a brine well to be located in Unit Letter E of Section 31, Township 22 South, Range 27 East, NMPM, Eddy County, NM. It is proposed that fresh water be injected into the subsurface at a rate less than 71,400 gallons per day to an approximate depth of 1,300 to 1,500 feet thereby solution mining salt. The extracted brine would have

an approximate dissolved solids concentration of 320,000 mg/l. The brine would be stored in above-ground tanks for use by the oil and gas industry. Ground water possibly affected by an unintentional spill or leak is at depths of approximately 30 to 60 feet and 100 to 250 feet with a total dissolved solids concentration of 1,500 to 2,000 mg/l.

Any interested person may obtain further information from the OCD and may submit written comments to the Division Director at the address given above. The application and draft permit with conditions may be viewed at the above

address between 8:00 a.m. and 4:00 p.m., Monday through Friday or via OCD's website at www.emnrd.state.nm.us/ocd. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest. If no public hearings are held, the Director

will approve or disapprove the permit based on information available, including all comments received. If public hearings are held, the director will approve or disapprove the proposed permit based on information in the application along with information submitted at the hearings.

Para obtener más información sobre esta solicitud en español, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerales y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservación Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New Mexico (Contacto: Dorothy Phillips, 505-476-3461)

DONE at Santa Fe, New Mexico, on this 14th day of September, 2011.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
Jami Bailey,
Director

Griswold, Jim, EMNRD

From: Legals [legals@sfnewmexican.com]
Sent: Friday, September 16, 2011 11:44 AM
To: Griswold, Jim, EMNRD
Subject: Re: Legal notice
Attachments: proofad #356109.pdf; receipt.pdf

Thank you.

*Thank You,
Valerie Wright
Legal Clerk
The New Mexican
(505)995.3818*

On 9/15/11 4:45 PM, "Griswold, Jim, EMNRD" <Jim.Griswold@state.nm.us> wrote:

Laura,

Attached you will find an MSWord file containing the text of a legal notice we wish to run in your newspaper. Please mail or email an affidavit verifying publication along with the invoice to my attention at the address provided below.
Thank you.

Jim Griswold
Senior Hydrologist
EMNRD/Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
direct: 505.476.3465
email: jim.griswold@state.nm.us

**NOTICE OF
PUBLICATION**

**STATE OF
NEW MEXICO
ENERGY, MINERALS
AND NATURAL
RESOURCES
DEPARTMENT
OIL CONSERVATION
DIVISION**

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DONE at Santa Fe, New Mexico, on this 14th day of September, 2011.

STATE OF
NEW MEXICO
OIL CONSERVATION
DIVISION
Jami Bailey, Director
Legal # 91511
Pub. Sept. 22, 2011

Griswold, Jim, EMNRD

From: Griswold, Jim, EMNRD
Sent: Thursday, September 15, 2011 10:50 AM
To: 'psisneros@nmag.gov'; 'r@rthicksconsult.com'; 'sric.chris@earthlink.net'; 'nmparks@state.nm.us'; Dantonio, John, OSE; 'peggy@gis.nmt.ed'; 'seligman@nmoga.org'; Fetner, William, NMENV; 'lazarus@glorietageo.com'; Winchester, Jim, NMENV; 'ron.dutton@xcelenergy.com'; 'cgarcia@fs.fed.us'; Kieling, John, NMENV; 'bsg@garbhall.com'; 'Jerry.Schoepper@state.nm.us'; 'claudette.horn@pnm.com'; 'ekendrick@montand.com'; 'staff@ipanm.org'; Dade, Randy, EMNRD; Bratcher, Mike, EMNRD; Stevenson, Tod, DGF; Wunder, Matthew, DGF; Allison, Arthur, DIA; Gonzales, Miley; Harry Burgess; Mayor Janway; 'wayne price'; Dan Gibson
Subject: Notice and draft permit regarding new brine well in Carlsbad
Attachments: BW-33 notice.pdf

See attached.

Jim Griswold
Senior Hydrologist
EMNRD/Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
direct: 505.476.3465
email: jim.griswold@state.nm.us

NOTICE OF PUBLICATION

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DONE at Santa Fe, New Mexico, on this 14th day of September, 2011.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
Jami Bailey, Director





New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez

Governor

John H. Bemis
Cabinet Secretary-Designee

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division



September 14, 2011

Daniel K. Gibson, P.G.
Corporate Environmental Director
Key Energy Services
6 Desta Drive, Suite 4300
Midland, Texas 79705

RE: Discharge Permit BW-33 for Brine Well in Unit E of Section 31, Township 22 South, Range 27 East NMPM; Eddy County, New Mexico

Dear Mr. Gibson,

Pursuant to all applicable parts of the Water Quality Control Commission regulations 20.6.2 NMAC and more specifically 20.6.2.3104 thru.3999 discharge permit, and 20.6.2.5000 thru .5299 Underground Injection Control, the Oil Conservation Division hereby approves the discharge permit and authorizes operation and injection for the Key Energy Services LLC (owner/operator) brine well BW-33 (API# XX-XXX-XXXXX) at the location described above and under the conditions specified in the attached Discharge Permit Approval Conditions.

Enclosed are two copies of the conditions of approval. Please sign, date, and return one copy to the Oil Conservation Division office in Santa Fe within 30 working days of receipt of this letter including the required permit fee of \$1,700.00.

Be advised that approval of this permit does not relieve the owner/operator of responsibility should operations result in pollution of surface water, groundwater, or the environment. Nor does this permit relieve the owner/operator of any responsibility or consequences associated with subsidence or cavern failure. This permit does not relieve the owner/operator of its responsibility to comply with any other applicable governmental rules or regulations.

If you have any questions, please contact Jim Griswold of my staff at (505) 476-3465 or by email at jim.griswold@state.nm.us. On behalf of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this permit review.

Respectfully,

Jami Bailey
Director

JB/JG/jg
Attachment – Discharge Permit Approval Conditions

cc: OCD District II, Artesia

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

* Phone: (505) 476-3440 * Fax (505) 476-3462* <http://www.emnrd.state.nm.us>



DRAFT

DISCHARGE PERMIT APPROVAL CONDITIONS
Key Energy Services LLC Carlsbad Brine Well #2 (BW-33)
Unit E of Section 31, Township 22 South, Range 27 East NMPM
(API # to be determined)

September 14, 2011

All discharge permits are subject to Water Quality Control Commission regulations.

1. Payment of Fees. Every facility that submits a discharge permit application is assessed a filing fee of \$100.00. The Oil Conservation Division (OCD) has received the required filing fee from Key Energy Services LLC (hereafter referred to as the "owner/operator"). The owner/operator is now required to submit the required permit fee for a Class III brine well. Please remit a check in the amount of \$1,700.00 made payable to:

Water Quality Management Fund
C/O: Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

2. Permit Expiration and Renewal. This permit is valid for a period of five years and will expire on September 14, 2016. If the owner/operator desires to continue operation of the brine well beyond the expiration date, an application for renewal should be submitted to the OCD no later than 120 calendar days before the expiration date. If a renewal application is submitted in a timely fashion as described above and the owner/operator is otherwise in compliance with the conditions of this permit and all pertinent regulations, then the permit will not expire until the application for renewal has been approved or denied. The maximum permitted operational life on this brine well will be 20 years, following appropriate renewals after 2016. Continued operation with an expired permit is a violation of the Water Quality Act and civil penalties may be assessed.

3. Owner/Operator Commitments. Once a permit is issued, the owner/operator must ensure all operations are consistent with the terms and conditions of the permit and in conformance with all pertinent rules and regulations under both the Water Quality Act and the Oil & Gas Act. The owner/operator shall abide by all commitments submitted in its discharge permit application including any attachments and/or amendments along with these approval conditions. Applications which reference previously approved plans on file with the OCD will be incorporated into this permit and the owner/operator will abide by all commitments of such plans.

4. Modifications. The owner/operator must notify the OCD in advance of any facility expansion, production increase, or change in process. As a result, the OCD Director may require a modification in the permit conditions.

5. Waste Disposal and Storage. The owner/operator will dispose of all waste at an OCD-approved facility. Oilfield RCRA-exempt liquid or gaseous waste may only be disposed in a permitted Class II injection well. RCRA non-hazardous, non-exempt oilfield wastes may be disposed at an OCD-approved facility upon proper waste determination pursuant to 40 CFR Part 261. Generation and disposal of any waste stream not listed in the discharge permit application must be approved by the OCD on a case-by-case basis. Disposal of certain non-domestic waste without notification to the OCD is allowed at New Mexico Environment Department (NMED) permitted solid waste facilities if the waste stream has been identified in the discharge permit application and existing process knowledge of the waste stream does not change. The owner/operator must store all waste in an impermeable and bermed area, except waste

generated during an emergency response operation and then only for less than 72 hours. All waste storage areas must be identified in the permit application. The owner/operator must not store oilfield waste on-site for more than 180 days unless approved by the OCD.

6. Chemical Storage. The owner/operator must store all materials other than fresh water in proper containers (such as drums, totes, sacks, or buckets) on an impermeable pad with curbing to provide secondary containment.

7. Process, Maintenance, and Yard Areas. The owner/operator must either pave and curb or incorporate some type of spill collection device into the design of all loading, process, maintenance, and yard areas which otherwise have the potential for the release of water contaminants to the ground surface.

8. Aboveground Tanks and Lines. The existing water station incorporates five aboveground fiberglass tanks for the storage of brine and four aboveground fiberglass tanks for the storage of fresh water, each with a capacity of 500 barrels along with a 210 barrel aboveground fiberglass tank for the storage of precipitation and overfills from the loading area. These tanks must incorporate automated level controls and isolation valves. The owner/operator must ensure all aboveground tanks, except those containing fresh water or fluids that are gases at atmospheric pressure and temperature, have impermeable secondary containment (i.e. liners and berms) which will contain a volume of at least one and one-third the volume of the largest tank or all interconnected tanks. Accumulated rainwater may be discharged on-site if the water has been previously verified to have chloride concentrations less than 250 mg/l, a TDS of less than 1000 mg/l and no oil sheen.

9. Labeling. The owner/operator must clearly label all tanks, drums, and other containers to identify their contents along with other emergency notification information. The owner/operator may use a tank coding system if it is incorporated into their emergency response plans.

10. Below Grade Tanks, Sumps, Pits, and Ponds. All below grade tanks and sumps must be approved by the OCD prior to their installation and incorporate secondary containment with leak detection. All existing tanks and sumps without secondary containment and leak detection must be retrofitted or replaced before permit renewal and must be tested annually in the interim. Leak detection systems must be inspected monthly. Sumps must have all accumulated fluids removed automatically or within 72 hours. All pits and ponds must be designed by a registered professional engineer. Any pit or pond containing any liquid other than fresh water must incorporate a primary and secondary liner with leak detection. Monitoring plans for the leak detection and closure plans for the pit or pond must be provided to the OCD. Any pit, pond, or open top tank with a diameter of eight feet or greater which contains anything other than fresh water must be rendered non-hazardous to wildlife including migratory birds. Inspection records must be maintained at the facility and be available for review. Any system which has been found to have lost integrity must be reported to the OCD within 72 hours of discovery.

11. Underground Process and Wastewater Lines. All buried process and wastewater piping must be tested at least once every five years to demonstrate mechanical integrity, except those only containing fresh water or fluids which are gases at atmospheric pressure and temperature. Pressure-rated piping must be tested at a pressure at least 1.5 times normal operating pressure. Atmospheric drain piping must be tested at a pressure of at least three pounds per square inch. In both cases, testing pressure must hold for at least 30 minutes with no more than a one percent loss in pressure. Alternative testing methods may be used, but only with OCD approval. Underground lines may incorporate secondary containment and eliminate the need for regular pressure testing, but only with adequate means for leak detection. Schematic diagrams or plans of all underground lines must be maintained showing all drains, vents, risers, and valves along with piping type, size, and rating. The results of all integrity testing must be maintained for inspection. Any system which has been found to have lost integrity must be reported to the OCD within 72 hours of discovery. The line from the injection water source must incorporate either an air-break or check valve to prevent backflow. Any underground line normally containing brine must incorporate secondary containment.

12. Class V Wells. All Class V wells (i.e. septic systems, leach fields, dry wells) that might introduce non-hazardous industrial waste or a mixture of industrial and domestic waste must be closed unless it can be demonstrated that groundwater will not be adversely impacted. Class V wells that handle only domestic waste must be permitted by the NMED.

13. Housekeeping. All systems designed for spill collection/prevention and leak detection must be inspected monthly to ensure proper operation. All spill collection and secondary containment must be emptied of fluids within 72 hours of discovery.

14. Spill Reporting. All discharges, spills, leaks, and releases must be reported to the OCD within 24 hours and a written report detailing the cause, estimated volume, and corrective action taken must be filed within 15 days.

15. Inspections. The OCD has the authority to inspect the facility at any time. The OCD may impose additional requirements on the owner/operator based on those inspections. The owner/operator has committed in its application to daily facility inspections by its employees, and weekly logged inspections by a safety supervisor.

16. Stormwater. The owner/operator must implement and maintain stormwater run-on and runoff plans and controls. No water contaminant may be discharged as part of a runoff event at a concentration in excess of WQCC standards including any oil sheen. The OCD must be notified within 24 hours of the discovery of such a discharge and the owner/operator must take immediate action to stop the discharge.

17. Unauthorized Discharges. The owner/operator must not allow or cause water pollution or discharge any contaminant that might result in groundwater contamination unless specifically listed in the permit application and approved herein. An unauthorized process discharge is a violation of this permit. Any unintended spills are not violations.

18. Vadose Zone and Water Pollution. The owner/operator must address any contamination of vadose zone soils, groundwater, or surface water. The OCD may require a modification to this permit to investigate, remediate, and monitor such pollution. Failure to perform such investigation, remediation, or monitoring is a violation of this permit.

19. Setbacks and Site Control. As recommended in the owner/operator's application, at the time of well installation a minimum 900 foot setback must be established in all directions from the brine well to any existing residence, public building, park, or public road. Thereafter, and during the life of the well, a minimum distance of 1000 feet to the west, 500 feet to the south, 300 feet to the east, and 300 feet to the north of the well shall be in the direct control of the owner/operator. This area around the well must be fenced with signs as approved by the OCD.

The owner/operator will review the ownership status of adjacent lands on a yearly basis and provide notice to those landowners, the Eddy County Commission, and the City of Carlsbad describing the brine well operations, the estimated size and extents of the solution mined cavern, as well as any anticipated issues with the status of adjacent lands. These findings will also be provided to the OCD as part of the required annual report.

Every five years during permit renewal, the owner/operator must provide an updated contingency plan which takes into consideration any changes in adjacent land use within 1000 feet of the brine well. If warranted, the OCD, Eddy County, or the City of Carlsbad may request at that time additional land be acquired by the owner/operator, the installation of warning systems where reasonably feasible, or for increased financial assurances to cover future contingencies.

20. Brine Well Installation and Completion. The owner/operator must file completed OCD Forms C-101 (*Application for Permit to Drill, Re-enter, Deepen, Plugback or Add a Zone*) and C-102 (*Well Location*

and Acreage Dedication Plat) with the OCD District II office and receive approval before commencing drilling activities. Given the proximity of the proposed brine well to the Carlsbad airport, the owner/operator must obtain a special use permit from the Federal Aviation Administration along with the issuance of a *Notice to Airmen* 60 days prior to beginning drilling operations. The owner/operator will install the single brine well (proposed name *Carlsbad Brine Well #2* with API number to be assigned) to be located in Unit E of Section 31 in Township 22 South, Range 27 East NMPM (Eddy County, outside the city limits of Carlsbad) 2160 FNL, 1000 FWL, to a total depth of between 1300 and 1500 feet beneath ground surface into a salt interval within the Castile Formation with an overbearing interval of anhydrite. The bore associated with this well must be cored and/or geophysically logged (gamma ray, caliper, resistivity, density, and sonic) to provide adequate lithologic determination of overbearing intervals and the intended solution mining zone. A minimum 40 foot length of 16 inch diameter conductor pipe will be cemented to surface by circulating a mixed cement volume of at least twice the annular volume. A water protection casing with an approximate length of 500 feet and 13-3/8 inch diameter will be fully cemented to surface by circulating a mixed cement volume of at least twice the annular volume. A 10-3/4 inch diameter casing will be installed with its shoe at least 50 feet into the salt mining interval and cemented back to surface with a salt-resistant product by circulating a mixed cement volume of at least twice the annular volume. Cement bond logging will be independently undertaken on both the 13-3/8 inch water protection casing and the 10-3/4 inch casing. Perforation and squeezing of additional cement will be required as indicated by the logs. The injection and production tubing strings will be installed concentrically, one within the other. The outer string will be seven inches in diameter, set approximately 50 feet below the 10-3/4 inch casing shoe, and initially act as the brine production tubing. The innermost tubing will be 4-1/2 inches in inner diameter, set 250 feet below the outer tubing, and initially be used to inject salt un-saturated water. The concentric tubing strings can be moved to facilitate cavern shaping. A blanket fluid will be introduced via the 10-3/4 inch casing to provide added protection by inhibiting salt removal at the cavern roof. The owner/operator must undertake pressure integrity testing of all tubing and casing before initiation of solution mining. OCD Forms C-103 (*Sundry Notices and Reports on Well*) and C-105 (*Well Completion or Recompletion Report and Log*) must also be filed with the District office at the appropriate times.

Installation of a second well to facilitate brine production via a two-well system (one well for water injection and the other for brine production) is considered a major modification to this permit. Implementation of such an approach requires pre-approval by the OCD after consideration of a detailed request from the owner/operator.

21. Brine Production Method. During the initial cavern development process, water injection will occur through the innermost tubing string and brine production through the outer string to promote cavern development at depth. Injection and production flow through the concentric tubing strings can be reversed as required to achieve optimal cavern shaping, mine salt most efficiently, and to periodically clean the tubing and annulus. Injection must only occur in the intended solution mining interval.

22. Blanket Monitoring. The pressure of the blanket fluid will be monitored continuously with fluid added as required. The depth of the blanket should be equivalent to 50 feet beneath the 10-3/4 inch casing shoe and verified at least twice annually with an interface log or when the difference between blanket and brine production pressure significantly varies. Whenever a blanket interface log is undertaken, a verification of the bottom of tubing and cavern floor depth should be completed to gauge the accumulation of insoluble materials at the bottom of the cavern. If during the running of an interface log the blanket/brine interface cannot be determined, injection of additional blanket material can be undertaken but of a volume equivalent to no more than one foot of additional depth for the estimated cavern diameter. If the interface is still not determined after the injection of additional blanket material, brine production must be suspended and cannot resume until the cause is determined and a solution implemented. The owner/operator must monitor the produced brine in the surface storage tanks for the presence of blanket fluid on a regular basis. If what appears to be blanket material appears at any time in the produced brine, the owner/operator must determine the cause and remedy the situation, including the possible removal and replacement of damaged tubing.

23. Brine Well Workovers. OCD approval must be obtained prior to the unseating of any packers, movement of any tubing strings, performing remedial work, or pressure testing using Form C-103 filed with both the District and Santa Fe offices. Properly completed Forms C-103 and/or C-105 must be filed with the OCD upon completion of workover activities and copies included in that year's annual report.

24. Wellhead Pressure Limitation. The owner/operator must have a functioning pressure limiting device or control at all times. The operational dynamic or static wellhead pressure must not reach a level which could cause fracturing of the solution mining interval. It is recommended that the maximum fracture pressure gradient in this instance must not exceed 0.75 psi/ft. Given an anticipated minimum depth to the solution mined interval of approximately 1300 feet, the maximum downhole cavern pressure must always be less than 975 psi to minimize fracturing. The associated hydrostatic head for brine at that depth would be 650 psi (0.5 psi/ft for brine compared to 0.4 psi/ft for fresh water). Therefore, the maximum operating surface injection and/or test pressure measured at the wellhead must not exceed 325 psig unless pre-approved by the OCD.

25. Mechanical Integrity Testing. The wellhead must be equipped with gauges for the continuous monitoring of injection, production, and blanket pressures. The owner/operator stated as part of their application concern that annual integrity testing via pressurizing of the formation may inadvertently result in fracturing as well as during pressure cycling. As an alternative, the owner/operator must monitor and maintain records of the continuous applied pressure on the formation and isolated well annulus. That information will be provided as part of the owner/operator's annual reporting. At least once every five years and as part of every well workover, the owner/operator must isolate the main casing from all tubing and the mined cavern for integrity testing of the casing using either liquid or gas at a pressure of at least 350 psig for at least 30 minutes with less than 10% pressure loss.

26. Cavern Volume/Geometry. The owner/operator must annually provide information on the size and shape of the resulting solution cavern along with geologic and engineering information which demonstrates that continued salt extraction will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment. While the anticipated cavern diameter as represented in the owner/operator's application is only 150 feet, the cavern diameter must not exceed 300 feet without prior OCD approval and in no instance will be allowed to exceed 650 feet at any depth, or one half the depth from ground surface to the top of the cavern, whichever is less. Furthermore, despite the measured or inferred cavern geometry, brine production at this facility will not be allowed to continue beyond 20 years. At least 90% of the calculated volume of salt removed based upon injection and production volumes must be accounted for by geophysical methods that determine cavern geometry. Such methods must be implemented by the owner/operator at least once every three years during the brine well's operational life.

27. Surface Subsidence Surveys. The owner/operator is required to establish multiple surface benchmarks within 100 feet of the new well. These benchmarks along with those previously established in the vicinity of the nearby historic brine well (City of Carlsbad #1, API #30-015-21842) must be surveyed on a regular basis to monitor subsidence associated with both brine caverns. If the monitored surface subsidence at any measuring point reaches 0.10 feet compared to a baseline elevation established prior to solution mining, continued operation must be terminated. If the owner/operator cannot demonstrate the integrity of the cavern and well to the satisfaction of the OCD, they will be required to shutdown brine production and implement corrective action.

28. Brine Production and Water Injection Volumes. The volumes of fluid injected and produced must be continuously metered at or near the wellhead. Monthly totals of injection and production must be reported to the OCD by the 10th of the following month. Solution mining operations must be suspended if the monthly injection volume is less than 110% or greater than 120% of associated brine production. If such an event occurs, the OCD must be notified immediately.

29. Analysis of Injection Fluid and Brine. It is understood the owner/operator intends to use either or both fresh water or treated water from otherwise non-potable sources. The owner/operator must have an

analysis undertaken of both the injection fluid and produced brine each calendar quarter. The brine samples must be analyzed by a qualified third party for density and pH along with the concentrations of hydrocarbons, total dissolved solids, chloride, and sodium using accepted methods. The injection water samples must be analyzed for density and pH along with the concentrations of total dissolved solids and chloride.

30. Area of Review. The owner/operator must report within 24 hours of discovery, any new wells, conduits, or any other device which penetrates or may penetrate the fluid injection zone anywhere within ½ mile of the brine well.

31. Loss of Mechanical Integrity. The owner/operator must report any failure of the casing, tubing, packers, or any movement of fluids outside of the injection zone within 24 hours of discovery. Operations must be terminated until proper repairs are completed and approval is received from the OCD.

32. Groundwater Monitoring. The owner/operator must install at least three groundwater monitoring wells no more than 200 feet laterally of the brine well, with at least two of the wells in the nominal downgradient direction of groundwater flow. Depth to water measurements and water samples from these wells must be taken on an annual basis and submitted to a qualified third party for analysis of total dissolved solids, diesel range hydrocarbons, chloride, sodium, potassium, calcium, and sulfate with detection limits less than the applicable WQCC groundwater standards.

33. Financial Assurance. The owner/operator must maintain a surety bond in the minimum amount of \$1,000,000.00 (One Million Dollars) to cover potential costs associated with plugging and abandonment of the well, restoration of the surface, along with five years of surface subsidence monitoring thereafter.

34. Reporting. In addition to the monthly injection and production reporting along with any incident reporting otherwise required, the owner/operator must submit an Annual Report to the OCD no later than January 31st of each year. Each Annual Report must minimally include the following:

- Owner/operator's name.
- Permit number for the facility along with the name and API number of the brine well.
- Date of the report and who prepared the report.
- A summary of operations for the year including descriptions and reasons for any remedial work.
- Monthly injection and production volumes along with a running total for both since the beginning of injection.
- The maximum and average injection and production pressures.
- Copies of the chemical analyses for both injection water and brine.
- Average blanket fluid pressure and volume of blanket material injected or removed.
- Copies of testing for mechanical integrity (formation and/or casing) including calibrations.
- Descriptions and explanation for any deviation from normal production methods.
- Copies of any spill or leak reports.
- Results of groundwater monitoring.
- Information regarding cavern volume and geometry.
- An analysis and determination of probable cavern stability
- Survey data for surface subsidence.
- A summary of any subsurface activity within ½-mile of the brine well.
- An update on the ownership of property within 1000 feet of the brine well.
- Signature by an authorized executive officer, partner, or proprietor certifying the Annual Report is accurate, and complete.

35. Permit Transfer. Both the current and any new owner/operator must provide to the OCD written notice of any transfer of the permit at least 30 days prior to any transfer of ownership, control, or possession of the facility. The new owner/operator must also provide a written commitment to the OCD of their intent to comply with all terms and conditions of the existing permit. The OCD also reserves the right

to require a modification of the permit during transfer. The new owner/operator must provide adequate financial assurance before the OCD will approve a transfer.

36. Closure. The owner/operator must notify the OCD when operations at the facility are to be discontinued for more than six months. Prior to closure of the facility, the owner/operator must submit a closure plan to the OCD for approval which includes a final geophysical determination of cavern volume and geometry. Closure and waste disposal will be in accordance with the statutes, rules, and regulations in effect at the time of closure. The owner/operator has committed in its application to grading of the facility back to its original contours when closed unless the land has a future beneficial use as is and will not adversely impact the environment. The owner/operator also provided as part of their application a proposed procedure for plugging of the brine well and an option for possibly backfilling the cavern with solid wastes. The OCD is not approving either scenario within this permit. Such issues need to be reviewed at an appropriate time in the future in light of possible advances in technology and overall knowledge.

37. Certification. Key Energy Services LLC (owner/operator) by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments including the terms and conditions contained herein. The owner/operator further acknowledges the OCD may, for good cause shown, as necessary to protect fresh water, public health, safety, and the environment, change the conditions and requirements of the permit administratively and may also order an immediate cessation of operations.

"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." 20.6:2-5101 G.(2) NMAC

Company Name (print above)

Company Representative (print name)

Company Representative (signature)

Title

Date

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Wednesday, June 29, 2011 7:22 PM
To: Griswold, Jim, EMNRD
Subject: Proof of Public Notice-Key Carlsbad Brine Well BW-33
Attachments: Name of Landowners within 13 mi.docx; PN-1.pdf

Dear Jim,

Please find attached the List of Land Owners that Public Notice was sent, a copy of the PO Certified Mail Receipt and return cards.

Due to the size, I will send other proof of Notice in different E-mails.

SUNENM Land Dev. LLC
12500 Baltimore Ave.
Bettsville Md. 20705

Nelda Howl
P.O. Box 112
Carlsbad, NM 88221

Danny C. Stafford
5501 Old Cavern Hyw.
Carlsbad, NM 88220

James W. Stafford
209 Placitas RD.
Albq. NM 87107

Mr. Will Brantley
Merland Inc.
P.O. 548
Carlsbad, NM 88220

Raul Quitana & Dela Trust
1608 N. Mission
Carlsbad, NM 88220

D&C Properties LLC.
P.O. 1735
Eunice, NM 88231

Riverside Transportation
P.O. Box 1898
Carlsbad NM 88221

Mathew & Suzanna Lavery
26 Abajo Dr.
Edgewood, NM 87105

Advance Metal Processing
P.O. 5182
Carlsbad, NM 88220

Greer Construction
P.O. Box 1148
Carlsbad NM 88221

Roger K. Van Natta
P.O. Box 1221
Carlsbad NM 88221

Irene Krotzer
Sandra Anderson
68 Heritage Dr.
Galesburg IL 61401

Raylene M. Spencer
P.O. 1086
Carlsbad, NM 88221

Richard A. Eshe LLC
9850 Havard
Henderson Co. 80640

Bhakta, Bhupendr & Pravinaben
3910 Nat Park HWY
Carlsbad, NM 88220

SRichard S. Mari A uma s. Dara
1711 Crenshaw
Carlsbad, NM 88220

Larry & Lyn J. Pulis
P.O. 102
Carlsbad, NM 88220

Ron & Jeanno Mitchell
American Metals
P.O. 1357
Carlsbad, NM 88221

Bruce Hall
2006 Connie Rd.
Carlsbad, NM 88220

Precious Lady Holdings
6018 Nat Park HWY
Carlsbad, NM 88220

7011 0470 0002 1602 1602 5774

U.S. Postal ServiceTM
CERTIFIED MAILTM RECEIPT
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For delivery information visit our website at www.usps.com.

ALBUQUERQUE NM 87107 OFFICIAL USE

Postage	\$ 0.64
Certified Fee	\$2.85
Return Receipt Fee (Endorsement Required)	\$2.30
Restricted Delivery Fee (Endorsement Required)	\$0.00
Total Postage & Fees	\$ 5.79



Sent To **JAMES W STAFFORD**
 Street, Apt. No., or PO Box No. **209 PLACITAS RP**
 City, State, ZIP+4 **ALBUQUERQUE NM 87107**

PS Form 3800, August 2006 See Reverse for Instructions

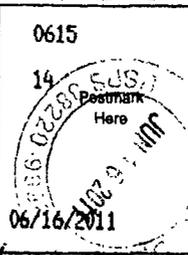
7011 0470 0002 1602 1602 5804

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CARLSBAD NM 88220 OFFICIAL USE

Postage	\$ 0.64
Certified Fee	\$2.85
Return Receipt Fee (Endorsement Required)	\$2.30
Restricted Delivery Fee (Endorsement Required)	\$0.00
Total Postage & Fees	\$ 5.79



Sent To **DANNY C STAFFORD**
 Street, Apt. No., or PO Box No. **5501 RD CAVERN HAY**
 City, State, ZIP+4 **CARLSBAD NM 88220**

PS Form 3800, August 2006 See Reverse for Instructions

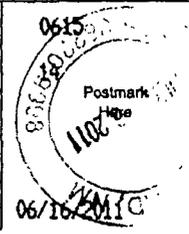
7011 0470 0002 1602 1602 5828

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Postage	\$ 0.44
Certified Fee	\$2.85
Return Receipt Fee (Endorsement Required)	\$2.30
Restricted Delivery Fee (Endorsement Required)	\$0.00
Total Postage & Fees	\$ 5.59



Sent To **RICHARD S. MARIAMMA S. PARA**
 Street, Apt. No., or PO Box No. **174 CRENSHAW**
 City, State, ZIP+4 **CARLSBAD, NM 88220**

PS Form 3800, August 2006 See Reverse for Instructions

5835 2012 1602 2602 5835

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Postage	\$	\$0.44
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

0615
14
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06/16/2011

Sent To **BRUCE HALL**
Street, Apt. No., or PO Box No. **2006 COMPIE RD**
City, State, ZIP+4 **CARLSBAD NM 88220**

PS Form 3800, August 2006 See Reverse for Instructions

5835 2012 1602 2602 5835

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Postage	\$	\$0.44
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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Sent To **RAUL QUIJANA & DELA REV TRUST**
Street, Apt. No., or PO Box No. **1608 N MISSION AVE**
City, State, ZIP+4 **CARLSBAD NM 88220**

PS Form 3800, August 2006 See Reverse for Instructions

9895 2011 1602 2602 9895

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Postage	\$	\$0.44
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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Sent To **PRECIOUS LADY HOLDINGS**
Street, Apt. No., or PO Box No. **6018 NAT PARK HWY**
City, State, ZIP+4 **CARLSBAD NM 88220**

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5895 2011 1602 2602 5895

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Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.79

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Sent To **MATHEW S & M SUZANNE LAVERY**
Street, Apt. No., or PO Box No. **26 K.B.A.S.O. DR**
City, State, ZIP+4 **EDGEWOOD NM 87105**

PS Form 3800, August 2006 See Reverse for Instructions

9895 2011 1602 2602 9895

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Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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Sent To **SAVENIM LAND DEV LLC**
Street, Apt. No., or PO Box No. **12500 BALTIMORE AVE**
City, State, ZIP+4 **BETHS VILLE MD 20705**

PS Form 3800, August 2006 See Reverse for Instructions

5811 2011 1602 2602 5811

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Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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Sent To **MR WILL BRANTLEY-MERLAND**
Street, Apt. No., or PO Box No. **P.O. 578**
City, State, ZIP+4 **CARLSBAD NM 88220**

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7011 0470 0002 1602 5745

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Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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BAD NM
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Sent To **IRENE SANDRA ANDERSON - KROTZER**
Street, Apt. No., or PO Box No. **68 HERITAGE DR.**
City, State, ZIP+4 **GALESBURG IL 61401**

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7011 0470 0002 1602 5767

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Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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Sent To **DVC PROPERTIES LLC**
Street, Apt. No., or PO Box No. **PO 1735**
City, State, ZIP+4 **EUJICE NM 88231**

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7011 0470 0002 1602 5910

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Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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Sent To **GREER CONSTRUCTION CO. INC**
Street, Apt. No., or PO Box No. **P.O. BOX 1148**
City, State, ZIP+4 **CARLSBAD, NM 88221**

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7011 0470 0002 1602 5897

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Postage	\$	\$0.44
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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Sent To **RIVERSIDE TRANSPORTATION**
Street, Apt. No., or PO Box No. **P.O. Box 1898**
City, State, ZIP+4 **CARLSBAD NM 88221**

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7011 0470 0002 1602 5860

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Postage	\$	\$0.44
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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14
Postmark Here
06/16/2011

Sent To **ROGER K VAN MATER**
Street, Apt. No., or PO Box No. **P.O. BOX 1221**
City, State, ZIP+4 **CARLSBAD NM 88221**

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7011 0470 0002 1602 5927

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Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

0615
146
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06/16/2011

Sent To **RON + JENNIFER MITCHELL - MEX. MEX.**
Street, Apt. No., or PO Box No. **P.O. 1357**
City, State, ZIP+4 **CARLSBAD NM 88221**

PS Form 3800, August 2006 See Reverse for Instructions

5903 2092 0002 1602 0470 7011

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Postage	\$	\$0.44
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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14
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06/16/2011

Sent To **RICHARD A. ESHE LLC**
Street, Apt. No., or PO Box No. **9850 HAVANA**
City, State, ZIP+4 **HERNDEN CO. 80640**

PS Form 3800, August 2006 See Reverse for Instructions

5875 2022 0002 1602 0470 7011

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Postage	\$	\$0.44
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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06/16/2011

Sent To **BIANKA, BHUPENDRA & PRAVINABEN**
Street, Apt. No., or PO Box No. **13910 NAT PARK HWY**
City, State, ZIP+4 **CARLSBAD, NM 88220**

PS Form 3800, August 2006 See Reverse for Instructions

5781 2022 0002 1602 0470 7011

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Postage	\$	\$0.44
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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Postmark Here
06/16/2011

Sent To **NELDA HOWL**
Street, Apt. No., or PO Box No. **P.O. Box 112**
City, State, ZIP+4 **CARLSBAD NM 88221**

PS Form 3800, August 2006 See Reverse for Instructions

5750 2022 0002 1602 0470 7011

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For delivery information visit our website at www.usps.com.

OFFICIAL USE

Postage	\$	\$0.64
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.79

0615
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06/16/2011

Sent To **ADVANCE METAL PROCESSING**
Street, Apt. No., or PO Box No. **P.O. 5182**
City, State, ZIP+4 **CARLSBAD NM 88220**

PS Form 3800, August 2006 See Reverse for Instructions

5736 2022 0002 1602 0470 7011

U.S. Postal ServiceTM
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For delivery information visit our website at www.usps.com.

OFFICIAL USE

Postage	\$	\$0.44
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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06/16/2011

Sent To **RAYLENE SPENCER**
Street, Apt. No., or PO Box No. **P.O. 1086**
City, State, ZIP+4 **CARLSBAD NM 88221**

PS Form 3800, August 2006 See Reverse for Instructions

5729 2022 0002 1602 0470 7011

U.S. Postal ServiceTM
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OFFICIAL USE

Postage	\$	\$0.44
Certified Fee		\$2.85
Return Receipt Fee (Endorsement Required)		\$2.30
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$5.59

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06/16/2011

Sent To **LARRY & LYN J PULIS**
Street, Apt. No., or PO Box No. **P.O. 102 W HOPE**
City, State, ZIP+4 **CARLSBAD NM 88220**

PS Form 3800, August 2006 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ADVANCE MAIL PROCESSING
P.O. 5182
CARLSBAD NM 88220

COMPLETE THIS SECTION ON DELIVERY

A. Signature
 Agent
 Addressee
X Kay Hood

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery Yes

2. Article Number
(Transfer from service label)

7011 0470 0002 1602 5750

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MR WILL BRANTLEY
MEFLAND INC.
P.O. 548
CARLSBAD NM 88220

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X *Walter J. Brown* Agent Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number

(Transfer from service label) 7011 0470 0002 1602 5811

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

D&C PROPERTIES LLC
P.O. 1735
EVANS NM 88231

2. Article Number

(Transfer from service label) 7011 0470 0002 1602 5767

PS Form 3811, February 2004

Domestic Return Receipt

102595-02

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X *Walter J. Brown* Agent Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

BHAKTA, BHUPENDRA J PRANAV
3910 NAT PARK HWY
CARLSBAD NM 88221

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X *Rachelle DeWald* Agent Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number

(Transfer from service label) 7011 0470 0002 1602 5873

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ROGER K VAN MATTA
P.O. Box 1721
CARLSBAD NM 88221

2. Article Number

(Transfer from service label)

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X *Rachelle DeWald* Agent Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

7011 0470 0002 1602 5880

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

GREEN CONSTRUCTION
P.O. Box 1148
CARLSBAD NM 58221

2. Article Number

(Transfer from service label) 7011 0470 0002 1602 5910

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Nichols* Agent Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MATHEW & SUZANNA LAVRY
26 ADAJO DR.
ERGE WOOD, NM 87105

2. Article Number

(Transfer from service label) 7011 0470 0002 1602 5842

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Matthew Lavry* Agent Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

SRICHARD S. J. MAR. A. MAR. S. MAR.
174 CREN SHAW
CARLSBAD, NM 58220

Article Number

(Transfer from service label) 7011 0470 0002 1602 5828

Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Melvin S. Davis* Agent Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

JAMES W. STAFFORD
209 PLACITAS RD
ALBUQ NM 87107

2. Article Number

(Transfer from service label) 7011 0470 0002 1602 5774

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *James Stafford* Agent Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

RAUL QUINTANA + DELA TRUSSI
1603 N. MISSOURI
CARLSBAD NM 88220

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5859

PS Form 3811, February

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *[Signature]* Agent Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

RIVERSIDE TRANSPORTATION
P.O. Box 1898
CARLSBAD, NM 88221

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5897

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *[Signature]* Agent Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

NELDA HOWL
P.O. Box 112
CARLSBAD NM 88221

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5781

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *[Signature]* Agent Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

DANNY C. STALLARD
5501 OLD CAVEAU HWY
CARLSBAD NM 88221

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5804

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *[Signature]* Agent Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

IRENE KRITZER
SANDRA ANDERSON
68 HERITAGE DR.
SALES BORG IL 61901

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5743

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

x Vicki McVeety Agent
 Addressee

B. Received by (Printed Name)

Vicki McVeety

C. Date of Delivery

6-21-11

D. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5743

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

RAYLENE M. SPENCER
P.O. 1086
CARLSBAD NM 88221

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5736

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M

COMPLETE THIS SECTION ON DELIVERY

A. Signature

x Raylene M. Spencer Agent
 Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5736

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

SUNENM LAND DEV LLC
12500 BALTIMORE AVE.
BETHESVILLE M.D. 20705

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5798

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

x Kelly Sauer Agent
 Addressee

B. Received by (Printed Name)

Kelly Sauer

C. Date of Delivery

6/21/11

D. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5798

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

RICHARD A. ESHE LLC
9350 HAVANA
HENDERSON CO. 20640

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5903

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M

COMPLETE THIS SECTION ON DELIVERY

A. Signature

x R. Eshe Agent
 Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes

2. Article Number

(Transfer from service label)

7011 0470 0002 1602 5903

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M

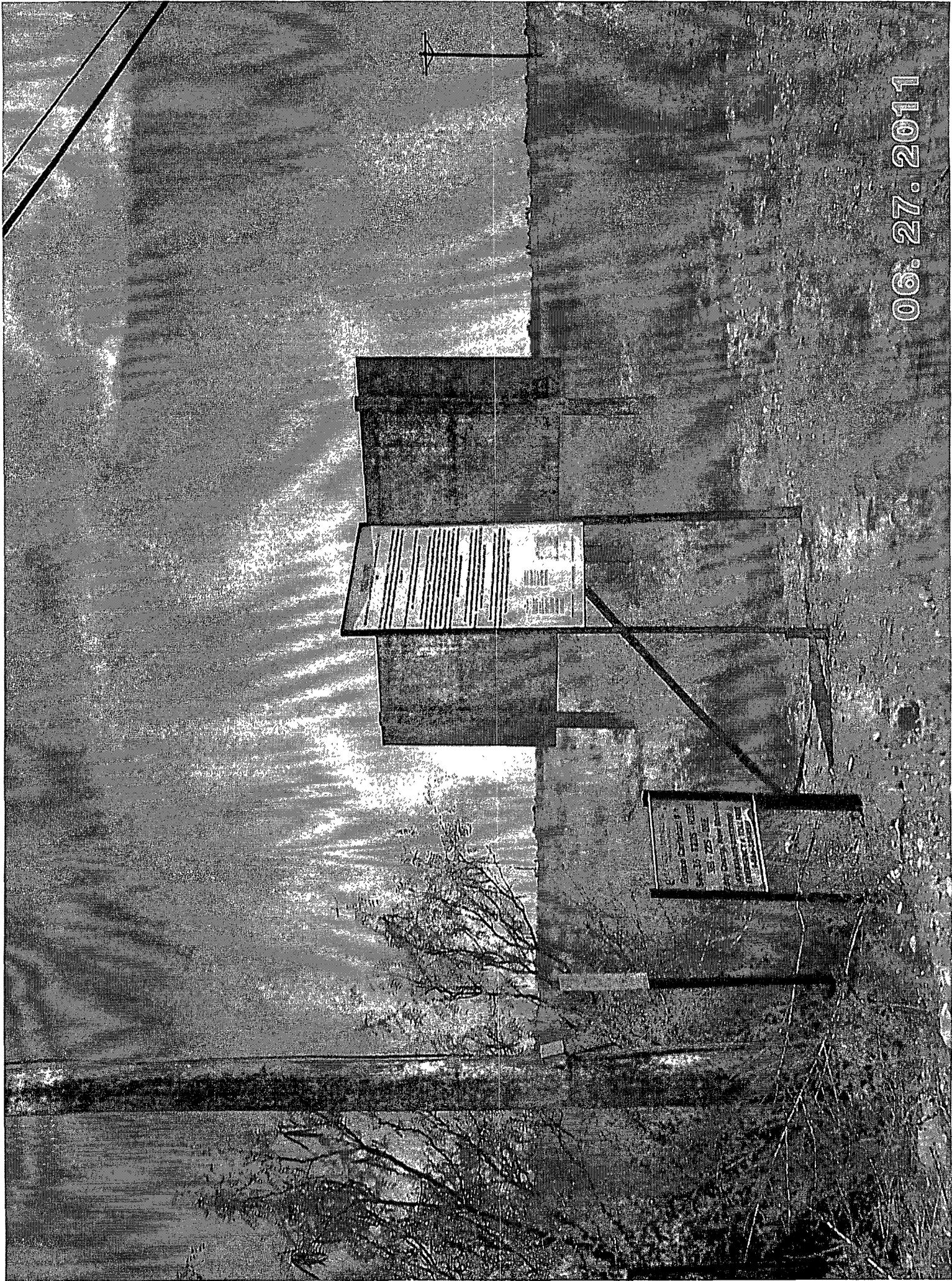
Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Wednesday, June 29, 2011 7:32 PM
To: Griswold, Jim, EMNRD
Subject: Proof of Public Notice-Key Carlsbad Brine Well BW-33
Attachments: PICT sign 1-A.JPG; ATT00001.txt

Dear Jim,

This is E-mail #2

Attached is a picture of the on-site sign. We actually put up two signs, one at the entrance to the Brine Station off of Nat Parks HWY. The other one is actually located at the station.



06.27.2011

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Wednesday, June 29, 2011 7:34 PM
To: Griswold, Jim, EMNRD
Subject: Fwd: Proof of Public Notice-Key Carlsbad Brine Well BW-33

The sign at the station

Begin forwarded message:

From: wayne price <wayneprice77@earthlink.net>
Date: June 29, 2011 7:31.50 PM MDT
To: Jim Griswold@state.nm.us
Subject: Proof of Public Notice-Key Carlsbad Brine Well BW-33

Dear Jim,

This is E-mail #2

Attached is a picture of the on-site sign. We actually put up two signs, one at the entrance to the Brine Station off of Nat Parks HWY. The other one is actually located at the station.

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Wednesday, June 29, 2011 7:37 PM
To: Griswold, Jim, EMNRD
Subject: Fwd: Proof of Public Notice-Key Carlsbad Brine Well BW-33
Attachments: PN Paper.pdf; ATT00001.htm

Attached is the Public Notice of the newspaper article

Begin forwarded message:

From: wayne price <wayneprice77@earthlink.net>
Date: June 29, 2011 7:33:40 PM MDT
To: Jim.Griswold@state.nm.us
Subject: Fwd: Proof of Public Notice-Key Carlsbad Brine Well BW-33

The sign at the station

Begin forwarded message:

From: wayne price <wayneprice77@earthlink.net>
Date: June 29, 2011 7:31:50 PM MDT
To: Jim.Griswold@state.nm.us
Subject: Proof of Public Notice-Key Carlsbad Brine Well BW-33

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This is E-mail #2

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Public Notice

Key Energy Services LLC, 6 Desta Drive Suite 4300 Midland, TX 79705, Dan Gibson Corporate Environmental Director, has filed an application with the New Mexico Oil Conservation Division (OCD) to install and operate a replacement class III brine well for its existing brine and fresh water station previously permitted by the OCD as BW-19. This well site will be located approximately 3 miles southwest of Carlsbad, New Mexico, Eddy County, in the Carlsbad ET Zone, located east of the airport and US highway 62-180. The portion of the land is actually part of the east side of the Old Carlsbad Army Airbase, currently used for commercial and industrial activity.

The existing water station is located in (SE/4 NE/4 UL H of Section 36 -Township 22 South-Range 26 East) on private land. The new replacement brine well will be located approximately 1000 feet east of the existing facility in (SW/4 NW/4 UL E of Section 31-Township 22 South-Range 27 East) on private land

Brine water is used in the Oil and Gas industry to supply a "heavy pure sodium chloride" concentrated salt water (i.e. brine water) with a total dissolved solids concentration of approximately 320,000 mg/l and a density that is 20% higher than fresh water. Heavy brine water is essential in preventing blow-outs in high pressure gas wells and prevents loss of circulation when drilling through salt zones typically found in the Carlsbad area.

Fresh water will be injected deep into the Castile salt formation at a depth ranging from 1300 to 1500 feet below the surface to produce brine water. The Castile formation is the same deep stable formation found under the WIPP site. The formation is known to contain a pure "Sodium" salt that is preferred in the oil and gas drilling operations. Other salts typically found, in the potash area, playa lakes and salt-water aquifers, can interfere with the drilling mud programs, thus causing significant control problems and added cost.

The Castile formation contains thick continuous anhydrite rock layers, that act a lot like natural concrete beams, that overly the targeted salt section. These layers have been identified and geo-engineering calculations show they will provide a natural support and barrier for the cavern created as a result of solution mining. An engineering model that included safety factors was developed to verify the long-term stability of the site

The brine well will be designed to produce at a rate of less than 1700 barrels per day, which equates to approximately 12 million barrels of brine water over a 20-year life period. The anticipated cavern radius will be approximately 150 feet. The well has been located on private land to generally provide a minimum of approximately 1000 foot separation from all existing significant features, such as houses, roads, utilities, pipelines, water supplies, buildings, schools, businesses, etc.

All land owners within 1/3 mile (i.e. 1760 ft) of the site will receive a special written notice

This site has no public water supplies that may be impacted, and ground water in this area is somewhat limited, with some dry holes being encountered while in other wells groundwater may be present, both in shallow lenses 30-60 feet deep and in deeper horizons i.e. 100-250 feet. The shallow groundwater in this area is typically not used for drinking water and when found is in very limited quantity. The deeper zone is considered usable as an irrigation water source, when sufficient quantities are found, with an average quality concentration of 500-2000 mg/l of total dissolved solids.

This facility will be designed and permitted to have no intentional water contaminants discharged to the surface or subsurface for the protection of groundwater. The system will have concrete and synthetic liners to prevent any spills or leaks from reaching the ground surface. The brine well will have double-cemented casing and tubing pipes to protect groundwater.

Key Energy has determined that bulk mixing of purchased pure salt is neither, economically feasible or environmentally safe. The volumes required during drilling programs cannot be met other than using brine caverns that can safely store large volumes of brine water

If you have any questions or concerns please do not hesitate to contact Key Energy at the address above or you may contact Wayne Price 505-715-2809 or E-mail wayneprice77@earthlink.net. Key welcomes your input.

The New Mexico Oil Conservation Division (OCD) will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Interested persons may contact Jim Griswold, Oil Conservation Division (OCD) 505-476-3465 or by writing 1220 South Saint Francis, Santa Fe, New Mexico, 87505.

Para obtener más información sobre esta solicitud en español, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservación Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Dorothy Phillips, 505-476-3461)

MAKING THE GRADE

Sunset Good Citizens, 3-5



Submitted photo

Sunset Elementary School third, fourth and fifth grade students received Good Citizen awards for the six-week grading period. Back row: Teagon Jojola, Nicholas Drybread, Carsyn Boswell, Janelle Almanza, Haley [unclear] and Alexia Alvarez. Front row: Haley Thomas, Michael Houglan, Bryce Ramsey, Angel Hernandez and [unclear] Calderon. Not pictured is Ruth Christensen.

Perfect

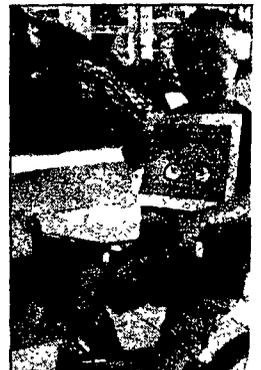


Early Childhood Education incentive fund son had perfect attendance and earned himself a new incentive awards.

Sunset Good Citizens, 1-2



Perfect



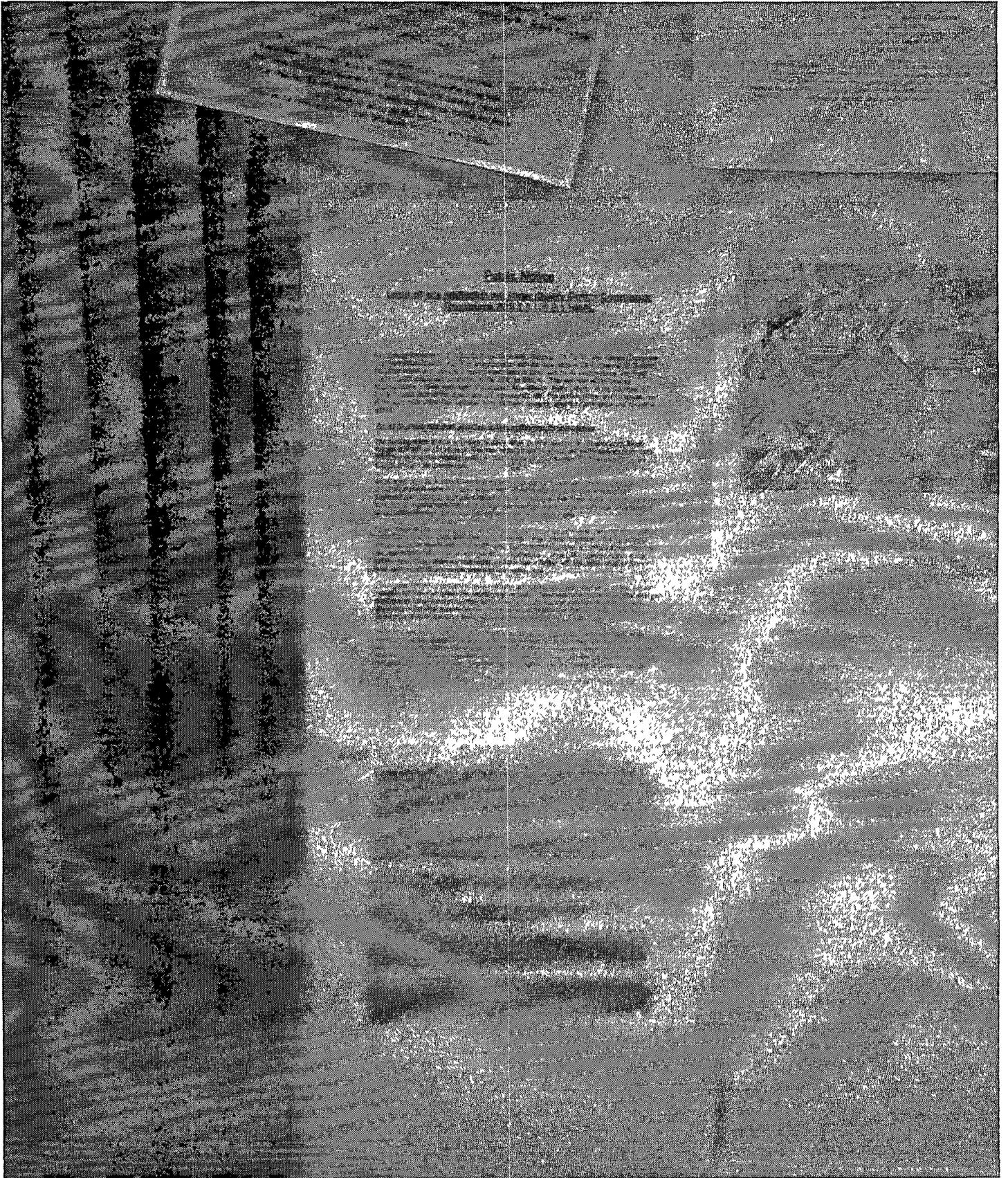
Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Wednesday, June 29, 2011 7.40 PM
To: Griswold, Jim, EMNRD
Subject: Fwd: Proof of Public Notice-Key Carlsbad Brine Well BW-33

We put the off-site notice in four locations:

The PO
The County Bldg.
The City Admin Bldg
The Public Library

I have a typical picture that was put up at these location:



Begin forwarded message:

From: wayne price <wayneprice77@earthlink.net>
Date: June 29, 2011 7:36:44 PM MDT
To: Jim.Griswold@state.nm.us
Subject: Fwd: Proof of Public Notice-Key Carlsbad Brine Well BW-33

Attached is the Public Notice of the newspaper article

Begin forwarded message:

From: wayne price <wayneprice77@earthlink.net>
Date: June 29, 2011 7:33:40 PM MDT
To: Jim.Griswold@state.nm.us
Subject: Fwd: Proof of Public Notice-Key Carlsbad Brine Well BW-33

The sign at the station

Begin forwarded message:

From: wayne price <wayneprice77@earthlink.net>
Date: June 29, 2011 7:31:50 PM MDT
To: Jim.Griswold@state.nm.us
Subject: Proof of Public Notice-Key Carlsbad Brine Well BW-33

Dear Jim,

This is E-mail #2

Attached is a picture of the on-site sign. We actually put up two signs, one at the entrance to the Brine Station off of Nat Parks HWY. The other one is actually located at the station.

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Wednesday, June 29, 2011 7:44 PM
To: Griswold, Jim, EMNRD
Subject: Fwd: Proof of Public Notice-Key Carlsbad Brine Well BW-33

The one at the County Bldg.

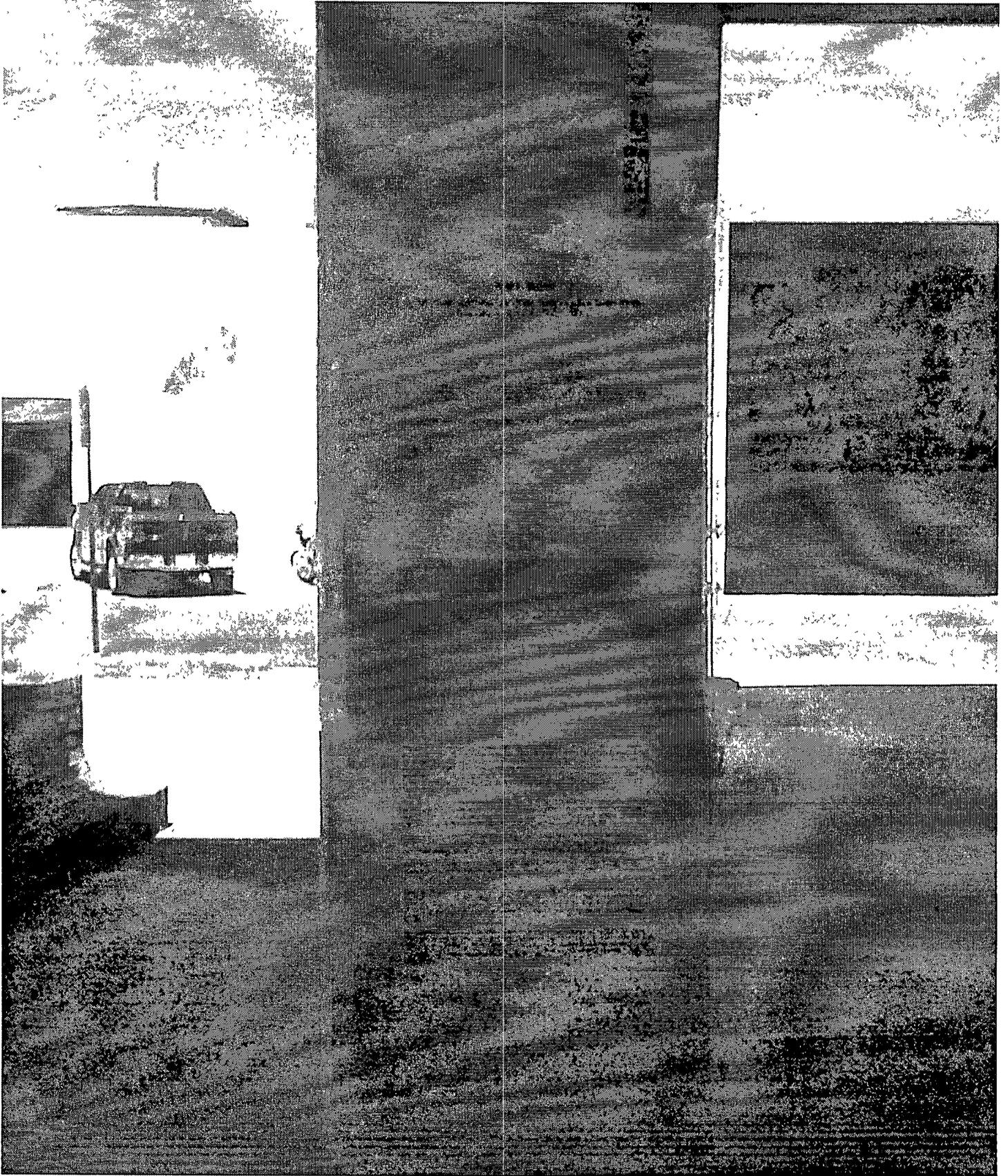
Begin forwarded message:

From: wayne price <wayneprice77@earthlink.net>
Date: June 29, 2011 7:39:52 PM MDT
To: Jim.Griswold@state.nm.us
Subject: Fwd: Proof of Public Notice-Key Carlsbad Brine Well BW-33

We put the off-site notice in four locations:

The PO
The County Bldg.
The City Admin Bldg
The Public Library

I have a typical picture that was put up at these location:



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From: wayne price <wayneprice77@earthlink.net>
Date: June 29, 2011 7:36:44 PM MDT
To: Jim.Griswold@state.nm.us
Subject: Fwd: Proof of Public Notice-Key Carlsbad Brine Well BW-33

Attached is the Public Notice of the newspaper article

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From: wayne price <wayneprice77@earthlink.net>
Date: June 29, 2011 7:33:40 PM MDT
To: Jim.Griswold@state.nm.us
Subject: Fwd: Proof of Public Notice-Key Carlsbad Brine Well BW-33

The sign at the station

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From: wayne price <wayneprice77@earthlink.net>
Date: June 29, 2011 7:31:50 PM MDT
To: Jim.Griswold@state.nm.us
Subject: Proof of Public Notice-Key Carlsbad Brine Well BW-33

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Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Wednesday, April 20, 2011 2:40 PM
To: dale.janway@cityofcarlsbadnm.com; Harry Burgess; Allen R. Sartin; Gary Perkowski; Judi Waters; pecosvalleybackflow@yahoo.com; lutman@carlsbadnm.com; Regina Ballard; jwaters@developcarlsbad.org; raguilar@carlsbadnm.com; nsalcido@cityofcarlsbadnm.com; dossward4@live.com
Cc: Bailey, Jami, EMNRD; Griswold, Jim, EMNRD; Dade, Randy, EMNRD; Will Brantley; Britt Power; Imolleur@keyenergy.com; Dan Gibson; Brian Luckianow; Marcos Hernandez
Subject: Brine Well Field Trip

Dear Mayor Janway, City and County officials, Water Board Members, City Council, Brine Well Work Group, Eddy Commission, Carlsbad Development, Pecos Valley Water users and any interested party.

Key Energy plans on being in Carlsbad Tuesday of next week on April 26, 2011. Sometime in the afternoon we are planning on making a field visit to the site. The time will be dependent upon when two of the County Commissioners are available after the meeting. If you or anyone else would like to go along please let me know. Since I am not sure when the County Commission will let out, I might have to call you and we can meet at the County building.

Since I do not have all of the members E-mail, It would be greatly appreciated if some of you could spread the word to your other members or any other interested party. Also, I understand that for policy reasons, the number of members may have to be limited, so we can make different trips to the site. I can even include Monday, Tuesday or Wednesday. Also, if this time frame doesn't work for some members, Key Energy will accommodate anyone on a one-on-one basis.

If you are interested in visiting the site, please E-mail me or call Wayne Price 505-715-2809.

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Sunday, March 20, 2011 8:00 PM
To: Harry Burgess
Cc: Imolleur@keyenergy.com; Brian Luckianow; Dennis Powers; Dan Gibson; dale janway@cityofcarlsbadnm.com; Allen R. Sartin; Britt Power; Will Brantley; Griswold, Jim, EMNRD
Subject: Re: Key Energy Proposed Replacement Brine Well Meeting

Dear Harry,

Key Energy would like to confirm and accept your offer for the technical meeting on April 6, 2011. We are working on the summary and will have it to you no later than the March 25th. I would like to recommend two meetings as follows:

1st Meeting: April 6, 2011. Estimated time 6 hours (Food, snacks and drinks will be provided by Key.)

1. Introduction.
2. Location, siting and land issues.
3. History and overview of brine wells in New Mexico.
4. Failure issues.
5. Brine well roof stability and modeling.
6. Geology and associated issues.
7. Brine well bore and cavity development.
8. Q&A Session
9. Possible field trip to the site.

2nd Meeting: Date to be determined (Estimated time 4 hours)

1. Water supply and protection issues.
2. Area of Reviews.
2. Financial Assurance, Closure, Monitoring, and Safety issues.
3. Key Energy Business Model.
4. Q&A session.
5. Possible field trip to the site.

Key's upper management personnel have a conflict on April 06, 2011 and is requesting the business model be presented at a second meeting. A second meeting will also provide the committee an opportunity to re-frame or ask additional specific questions not previously covered.

If you have any questions please do not hesitate to call or write.

On Mar 16, 2011, at 5:19 PM, Harry Burgess wrote:

- > Hi Wayne,
- >
- > I met with the committee appointed by the Mayor to review Key Energy's
- > proposed brine well today, and they had the following requests:
- >
- > 1. The committee would like to meet with you and/or other Key Energy
- > representatives on Wednesday, April 6 at 1 pm, here in City Hall.

> 2. The committee asks that prior to this date, but no later than March
> 25, that you/Key produce a 3-4 page summary of your proposal,
> highlighting all pertinent facts (reviewing the 300+ page document is
> onerous and is not the forte of the committee members, unlike OCD who
> sees such more regularly).
> Such pertinent items would include (but are not limited to) geology,
> purpose of facility, # of employees, water usage, water source, choice
> of location, etc.
>
> I hope this works for you, please let me know if you have any
> questions.
>
> -h
>
>

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Sunday, March 20, 2011 1:26 PM
To: Griswold, Jim, EMNRD
Subject: Draft Well Bore Design
Attachments: Draft Well Design.pdf

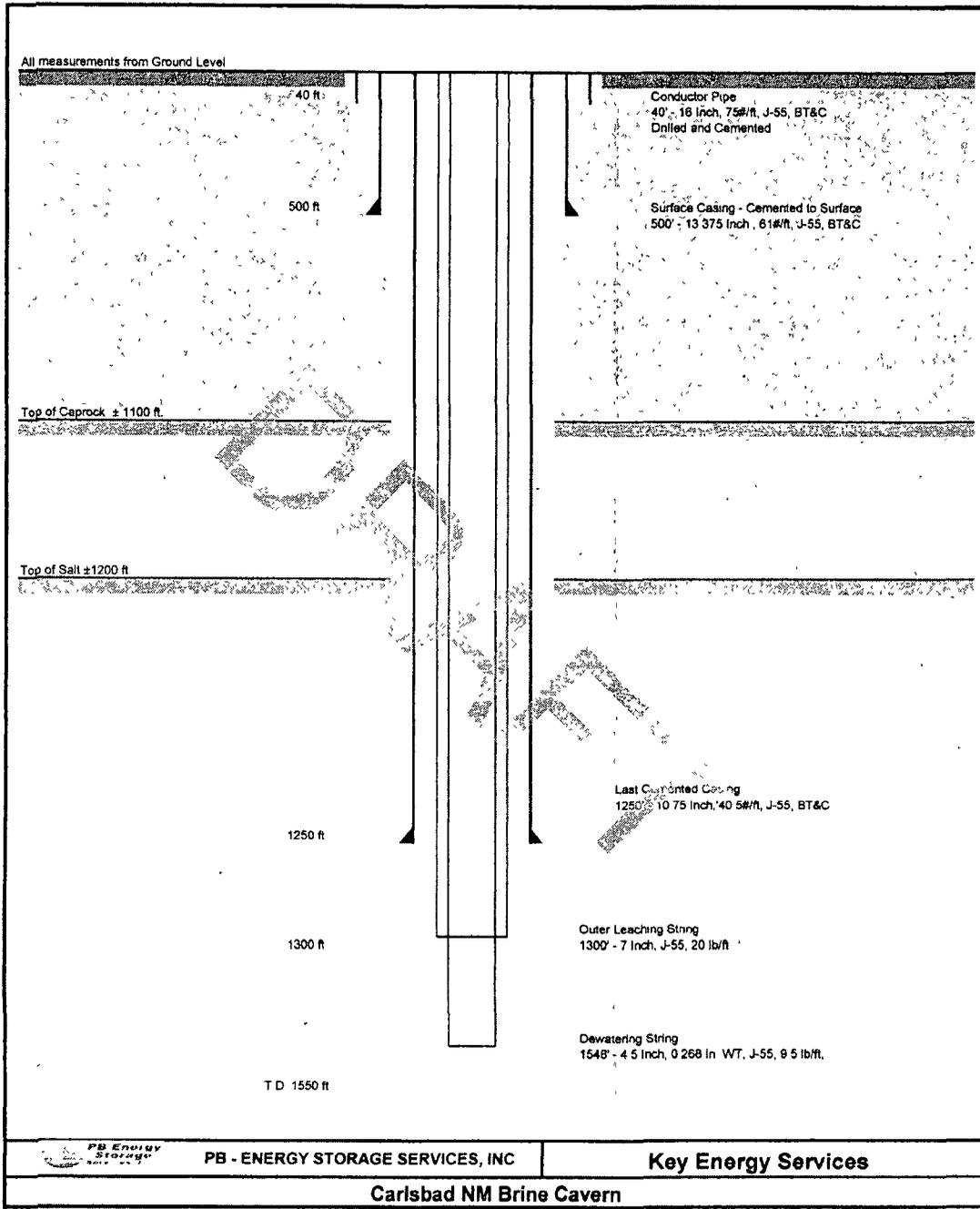
Dear Jim,

Please find attached a copy of the new draft well bore design and write-up by PB energy. This is not official so please do not scan into our files. As mentioned to you, we want to build the best mouse trap. During the Brine well workshop, it was discussed that wells should have a double tubing arrangement and additional casing. Our first design met those requirements, however, this design provides for better maintenance and allows an oil or diesel blanket.

It is a better design. Please take a look at it and let me know if you have any questions. Please do not release until we actually modify the permit.

copies.

Key Energy L...pdf (419 KB)



Draft 1a - 3/14/11

To: B Luckianow
Cc: J. McHenry, C. Mendonca
From: T. Eyermann
Subject: Conceptual Solution Mining Plans for Key Energy at Carlsbad, NM

Introduction

This memo presents alternate solution mining plans for the development of the Key Energy (KE) Well. This well will be used for production of saturated brine for use in drilling operations in the Southeast New Mexico area. The well will be used only as brine demand from oil field services requires it.

The well has not been drilled. For this study the final cemented casing string was assumed to be set at 50 feet in the Lower Castile Salt. The top of the cavern will be about 50 feet below the last cemented casing. The total depth of the well will be about 1,550 feet based on cross-sections developed from nearby wells.

This report presents two conceptual plans to accommodate the development of saturated brine from the KE Well. The report also discusses the possibility of using two wells to produce saturated brine more quickly than with a single well.

Methodology

The study utilized the SANSMIC cavern simulation model to project the development of the cavern utilizing a single well. SANSMIC is a two-dimensional numerical simulation code which approximates the dissolution of salt by water. SANSMIC is a widely used cavern-modeling program developed by Sandia National Laboratories.

The basic input for the model consists of average radii of the well, the depth of the water injection and brine production strings, the depth of the product level, water injection rates, and duration of mining. If a cavern exhibits a region of abnormal or non-symmetric growth, SANSMIC cannot fully evaluate continued growth in such a region.

As with all numerical models, SANSMIC does not fully represent the actual salt caverns. This is due to 1) the axisymmetric assumption in the model (that the cavern will develop evenly about the central wellbore) and 2) limitations in the equations for flow within the cavern.

The axisymmetric assumption is not necessarily a significant limitation to modeling the development of salt caverns in bedded salts. Most caverns developed in *flat lying* bedded salt deposits tend to be uniform in horizontal cross-sections when developed by means of a single well. There are localized exceptions to the symmetry. The limitations in the hydraulic equations result in over-estimation of development near the bottom of the injection tubing in both reverse and direct mining and a corresponding underestimation of mining in the upper portions of the cavern. This limitation becomes more evident at high water injection rates (over 4,000 gpm), which were not utilized in this study, and at prolonged stage durations (over one year) which were used in the simulations.

SANSMIC and other commercially available cavern simulation models cannot simulate development of two-well caverns. Discussion of two well caverns will rely on anecdotal experience.

For this model, the cavern interval from total depth of the well at 1,550 feet to the top of the lower Castile Salt at about 1,200 feet depth was divided into fourteen 25-foot tall cells. The final cemented casing was assumed to be 10-3/4 inches. The inner string was assumed to be 4-1/2" tubing and the outer string to be 7-5/8" tubing. The casing sizes do not impact the final solution mining plan, although they have some influence on the very early days of mining. The roof was kept below 1,200 feet depth.

The production flow rate was modeled at numerous injection rates of between 20 gpm and 210 gpm. The insoluble content of the salt was set at 2%. A normal dissolution factor of "1" was used for the salt. The SANSMIC simulations were carried out until saturated brine can be produced at a maximum rate from a single well configuration without recycling.

Cavern Development Plan

General

Several plans were developed for mining of the Carlsbad KE Well. The plans for initial development of the cavern differed in the height of salt available for mining, the amount of the recycling of the brine to increase saturation, the flow rates and the direction of flow.

The mining plans begin from a borehole completed in the salt in the Lower Castile at a depth of about 1,550 feet. The initial mining method for all the plans is direct – water injected in the deeper, inner tubing and brine produced from the outer, shallower tubing. The inner tubing string should be set within a few feet of the total depth of the wellbore. This is necessary to develop a sump at the bottom of the cavern for accumulation of material that will fall to the bottom of the cavern.

The final 10-3/4" casing is cemented at about 1,250 feet, 50 feet above the proposed roof of the cavern. The tubing strings used for solution mining are assumed to be 4-1/2" inside of 7-5/8". The sizes of the tubing are immaterial to the mining plan after the first few tens of barrels of salt have been mined. Solution mining rates vary between plans and during mining.

Direct Mining Solution Mining Plan

Mining begins with the inner tubing string set close to the bottom of the borehole as shown in Table 1. The outer string is set about 1,350 feet depth, about 150 feet below the top of the lower salt. The blanket in the plan is set at about 1,300 feet depth or about 50 feet below the final cemented casing.

Mining in this combined sump and chimney stage develops a sump near the bottom of the cavern for accumulation of the insolubles that will be freed during mining of the salt and begins development of the chimney throughout the exposed length of the salt. This direct mining continues for all mining of the salt. The setting depths and cavern volumes for the various stages of the plan are shown in Tables 1 and 2.

Table 1 Setting Depths for Development of KE Well in Direct Flow

Mining Step	Blanket Setting - Feet	Production Setting - Feet	Injection Setting - Feet	Insoluble Depth - Feet
Sump/Chimney	1350	1400	1550	1547
Mining	1350	1400	1540	1547
Mining	1350	1400	1540	1547
Mining	1350	1400	1540	1547
Mining	1350	1400	1540	1547

Table 2 Duration and Volumes for Development of KE Well in Direct Mining

Mining Step	Mining Rate - gpm	Total Mining Time - Days	Gross Cavern Volume - barrels	Cumulative Brine Produced - Barrels	Brine Specific Gravity
Sump/Chimney	Cycling at 75	280	45,000	279,000	1.202
Mining	20	780	100,000	612,000	1.204
Mining	40	930	132,000	809,000	1.204
Mining	60	1,080	178,000	1,097,000	1.204
Mining	50	1,230	218,000	1,344,000	1.203

During the mining, the inner tubing may need to be cut one or more times to keep it above the building insoluble pile. In order to maintain the maximum height of the cavern and exposure of salt to water, the inner tubing should be kept as near to the floor during the mining as is practical.

During the sump/chimney stage, which develops the cavern to about 45,000 barrels, the brine will need to be cycled through above ground storage tanks with a total capacity of 2,500 barrels and back into the well to bring the saturation to 10 pounds per gallon (specific gravity of 1.201). For this study, this was assumed to be done at a rate of 75 gpm until saturation was achieved. Initially, five days of pumping through the well at 75 gpm are required. As the cavern grows in size, exposing more salt surface for dissolution, the recycling time drops to about 3 days after about 70 water-brine cycles.

After the cavern volume reaches about 45,000 barrels (about 279,000 barrels of produced brine) the cavern will be able to produce saturated brine without recycling at a rate of 20 gpm. The sustainable saturation rate will slowly increase as the cavern grows in size, but will peak at around 60 gpm with mining in the direct mode.

During mining no workover is required. However, the inner tubing string will need to be cut to be above the insolubles on the floor. In conformance with New Mexico regulations, a sonar calliper survey should be run every three years. This will most likely require a workover to remove one or both strings so that the entire cavern can be surveyed. The shape of the cavern during development as simulated by SANSMIC is shown in Figure 1.

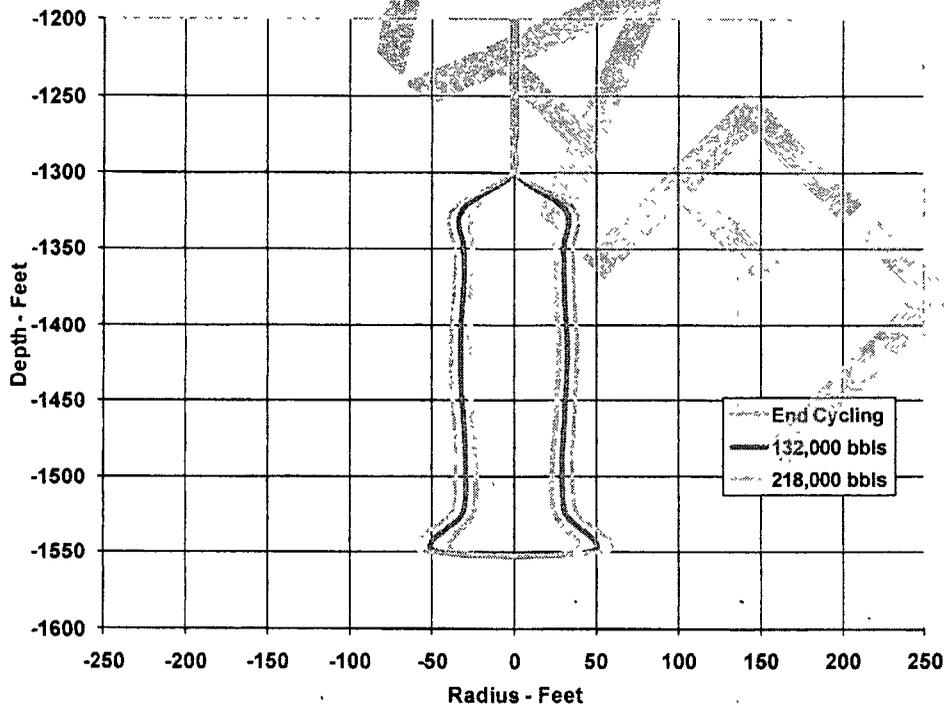


Figure 1 SANSMIC Simulation of KE Well during Mining

Reverse Mining Solution Mining Plan

Mining begins with the inner tubing string set close to the bottom of the borehole as shown in Table 3. The outer string is set about 1,400 feet depth, about 200 feet below the top of the lower salt. The blanket in the plan is set at about 1,300 feet depth or about 50 feet below the final cemented casing.

Mining in this combined sump and chimney stage develops a sump near the bottom of the cavern for accumulation of the insolubles that will be freed during mining of the salt and begins development of the chimney throughout the exposed length of the salt. This direct mining continues for all mining of the initial 45,000 barrels of salt. The setting depths and cavern volumes for the various stages of the plan are shown in Tables 3 and 4.

Table 3 Setting Depths for Development of KE Well in Reverse Mining

Mining Step	Blanket Setting – Feet	Production Setting – Feet	Injection Setting – Feet	Insoluble Depth – Feet
Sump/Chimney	1300	1400	1550	1547
Reverse Mining	1300	1540	1400	1537
Reverse Mining	1300	1525	1400	1532
Reverse Mining	1300	1525	1400	1525

Table 4 Duration and Volumes for Development of KE Well in Reverse Mining

Mining Step	Mining Rate – gpm	Total Mining Time – Days	Gross Cavern Volume – barrels	Cumulative Brine Produced - Barrels	Brine Specific Gravity
Sump/Chimney	Cycling at 75	280	45,000	277,000	1.202
Reverse Mining	125	630	282,000	1,703,000	1.204
Reverse Mining	175	780	405,000	2,446,000	1.203
Reverse Mining	200	930	547,000	3,303,000	1.202

During the mining, the inner tubing will need to be cut one or more times to keep it above the building insoluble pile. In order to maintain the maximum height of the cavern, the inner tubing should be kept as near to the floor during this stage as is practical.

During the sump/chimney stage, which develops the cavern to about 45,000 barrels, the brine will need to be cycled through above ground storage tanks with a total capacity of 2,500 barrels and back into the well to bring the saturation to 10 pounds per gallon (specific gravity of 1.201). For this study, this was assumed to be done at a rate of 75 gpm until saturation was achieved. Initially, five days of pumping through the well at 75 gpm are required. As the cavern grows in size, exposing more salt surface for dissolution, the recycling time drops to about 3 days after about 70 water-brine cycles.

After the cavern volume reaches about 45,000 barrels (about 277,000 barrels of produced brine) the cavern will be able to produce saturated brine at least 125 gpm without recycling *if the flow is*

switched to reverse - water injected in the outer shallower tubing and brine produced from the deeper inner tubing. The sustainable saturation rate will continue to increase as the cavern grows in size, reaching a sustainable saturation rate of 200 gpm once the cavern is about 400,000 barrels in size. The shape of the cavern during development as simulated by SANSMIC is shown in Figure 2.

During mining no workover is required. However, the inner tubing string will need to be cut to be kept above the insolubles on the floor, especially after reverse mining begins. In conformance with New Mexico regulations, a sonar calliper survey should be run every three years. This will most likely require a workover to remove one or both strings so that the entire cavern can be surveyed.

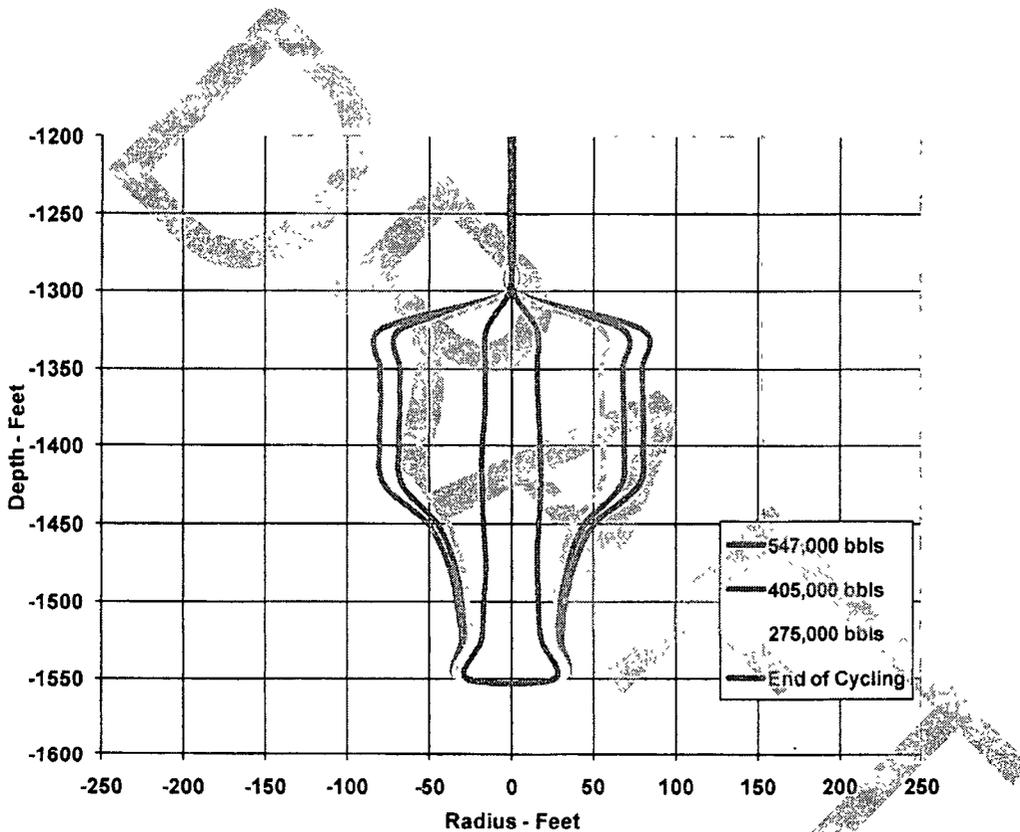


Figure 2 SANSMIC Simulation of KE Well during Reverse Mining

Two Well System

Salt producers in bedded salt regions (Kansas, Northeast U.S.) frequently use two or more wells to produce saturated brine. The wells are connected either by directional drilling of one well or by hydro-fracturing between wells. One well is then used for water injection and the other well or wells are used for brine production. The multiple-well concept allows production of saturated brine at much greater rates than could be produced from a single-well setup.

Generally the distance between the wells is on the order of hundreds of feet to allow a long exposure of salt for high-rate brine production. Some wells, primarily storage wells in salt domes, have been developed less than 100 feet separation.

Based on experience with multiple well caverns, use of two wells at the Key facility in Carlsbad will likely reduce the time that cycling is needed from about 280 days (70 cycles) to about 70 days (15 cycles or total production of about 37,500 barrels of brine), assuming that the wells are hydraulically connected almost from the start. After this initial recycling, the pair of wells will probably be able to produce saturated brine at a rate of 60 gpm. The sustained rate of saturated brine production will increase to over 125 gpm after producing about 300,000 barrels of brine.

Discussion

Development of the KE Well will require an extensive period of recirculating brine to increase its saturation to near 100%. The actual mechanics of this recycling will be difficult to accomplish. Essentially, it involves water injected, brine production to the tanks until filled, then discontinuing water injection and switching to injecting the brine in the tanks until the desired saturation is achieved. SANSMIC modeling indicates this will take 5 days at 75 gpm to saturate 2500 barrels of brine in this method at the very beginning of production.

This method of cycling 2500 barrels of brine would likely need to continue for about 70 cycles. The duration of each cycle will decrease slightly with time as the cavern enlarges, but the total time will approach 280 days before the well is capable of producing brine without recirculating. Each cycle of five days (eventually decreasing to about three days) will produce 2,500 barrels of saturated brine, or an average of 500 barrels per day.

SANSMIC simulation indicates that the cavern will not be capable of producing saturated brine from injected fresh water at a rate of 100 gpm until the cavern size is at least 39,000 barrels (about 240,000 barrels of saturated brine production) in size for the short cavern (roof 100 feet below the top of the lower salt) or about 35,000 barrels (about 215,000 barrels of saturated brine production) for the tall cavern. The production of saturated brine at this point requires that flow be changed to reverse at those cavern volumes with prior mining done in direct (using recycled brine) to create a sump.

SANSMIC modeling indicates that saturated brine from sustained fresh water injection of 50 gpm in the direct mode cannot be produced until the cavern volume is about 128,000 barrels.

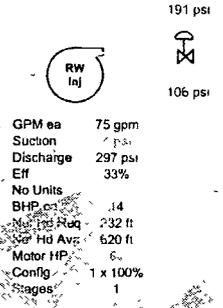
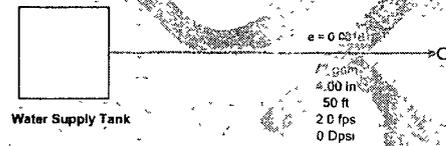
The actual production from the well will be intermittent although the modeling in the report has continuous production. Intermittent production will result in slightly higher saturation of produced brine when mining is first resumed. As the cavern increases in size and as the idle period increases in duration, the amount of saturated brine initially produced from the well will increase.

If Key Energy proceeds with development of a brine well at Carlsbad, the mining simulations should be updated after each sonar survey of the cavern.

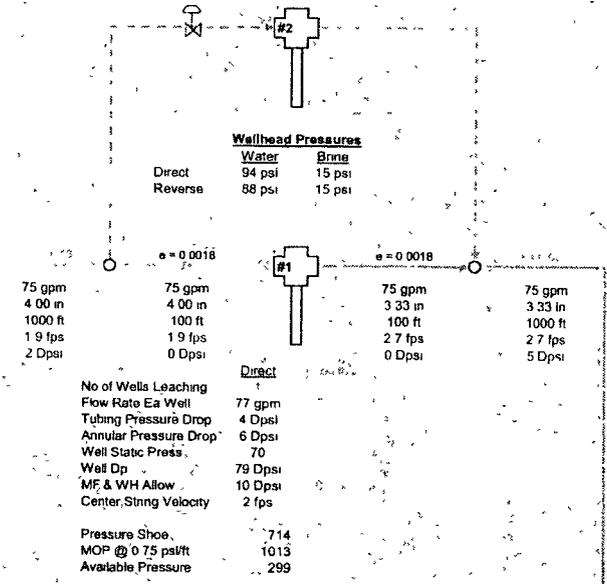
System Hydraulics - (1) Cavern Direct Leaching - Recirculation

Fluid Properties			
Temp at Wellhead			
	Water	Brine	Wk Brine
BPH	110	107	103
GPM	77	75	75
Viscosity (cp)	1.147	1.820	1.270
Specific Gravity	1.115	1.24	1.396

Well Configuration	
Inner String	
OD (in)	4.50
ID (in)	4.30
Setting Depth (feet)	850
Roughness	0.0001
Outer String	
OD (in)	6.00
ID (in)	5.50
Setting Depth (feet)	4
Roughness	0.0001

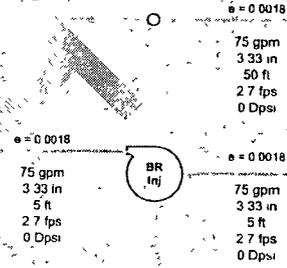
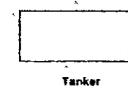


GPM ea	75 gpm
Suction	7.31
Discharge	297 psi
Eff	33%
No Units	
BHP ea	.14
Motor Req	232 ft
Net Hd Ave	620 ft
Motor HP	6
Config	1 x 100%
Stages	1



Wellhead Pressures	
Water	94 psi
Brine	15 psi
Reverse	88 psi
	15 psi

No of Wells Leaching	
Flow Rate Ea Well	77 gpm
Tubing Pressure Drop	4 Dpsi
Annular Pressure Drop	6 Dpsi
Well Static Press	70
Well Dp	79 Dpsi
MF & WH Allow	10 Dpsi
Center String Velocity	2 fps
Pressure Shoe	714
MOP @ 0.75 psi/ft	1013
Available Pressure	299

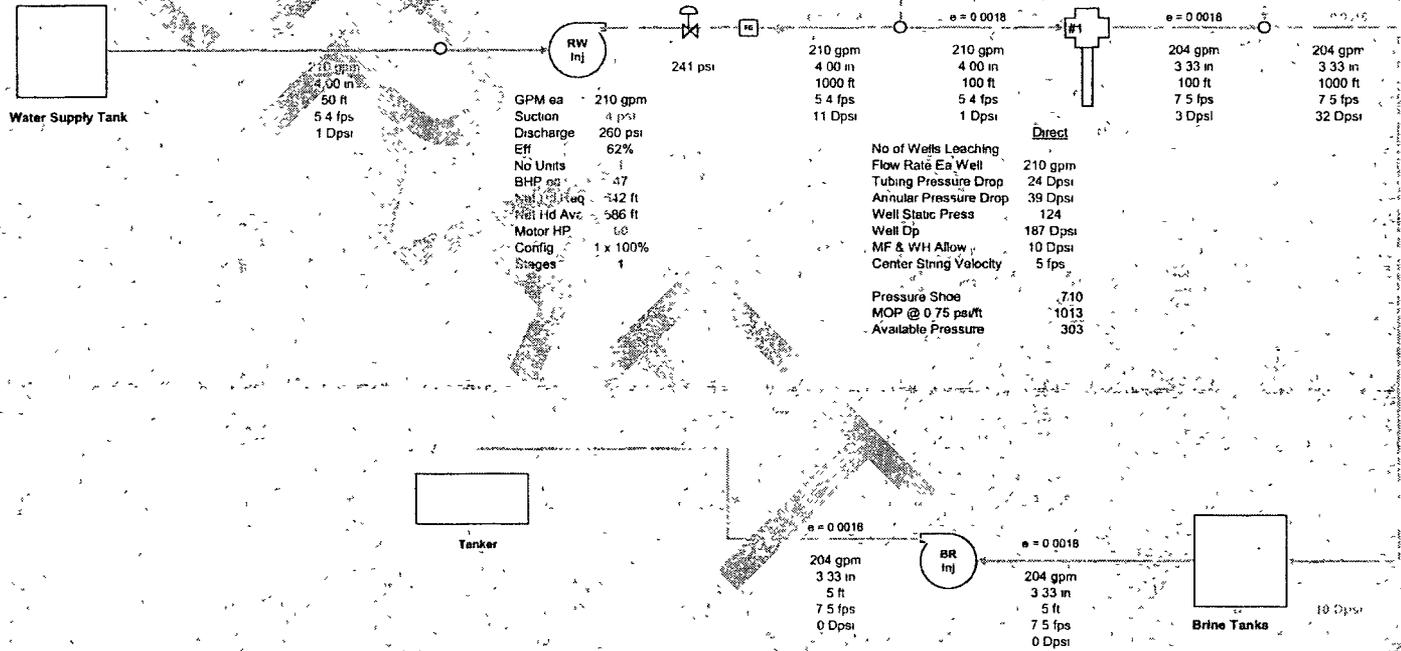


Flow Rate Ea Well	75 gpm
Tubing Pressure Drop	4 Dpsi
Annular Pressure Drop	6 Dpsi
Well Static Press	70
Well Dp	79 Dpsi
MF & WH Allow	10 Dpsi
Center String Velocity	2 fps
Pressure Shoe	714
MOP @ 0.75 psi/ft	1013
Available Pressure	299

System Hydraulics - (1) Cavern Reverse Leaching

Fluid Properties		
	Water	Brine
BPH	300	291
GPM	210	204
Viscosity (cp)	1.46	1.87
Specific Gravity	1.0	1.15

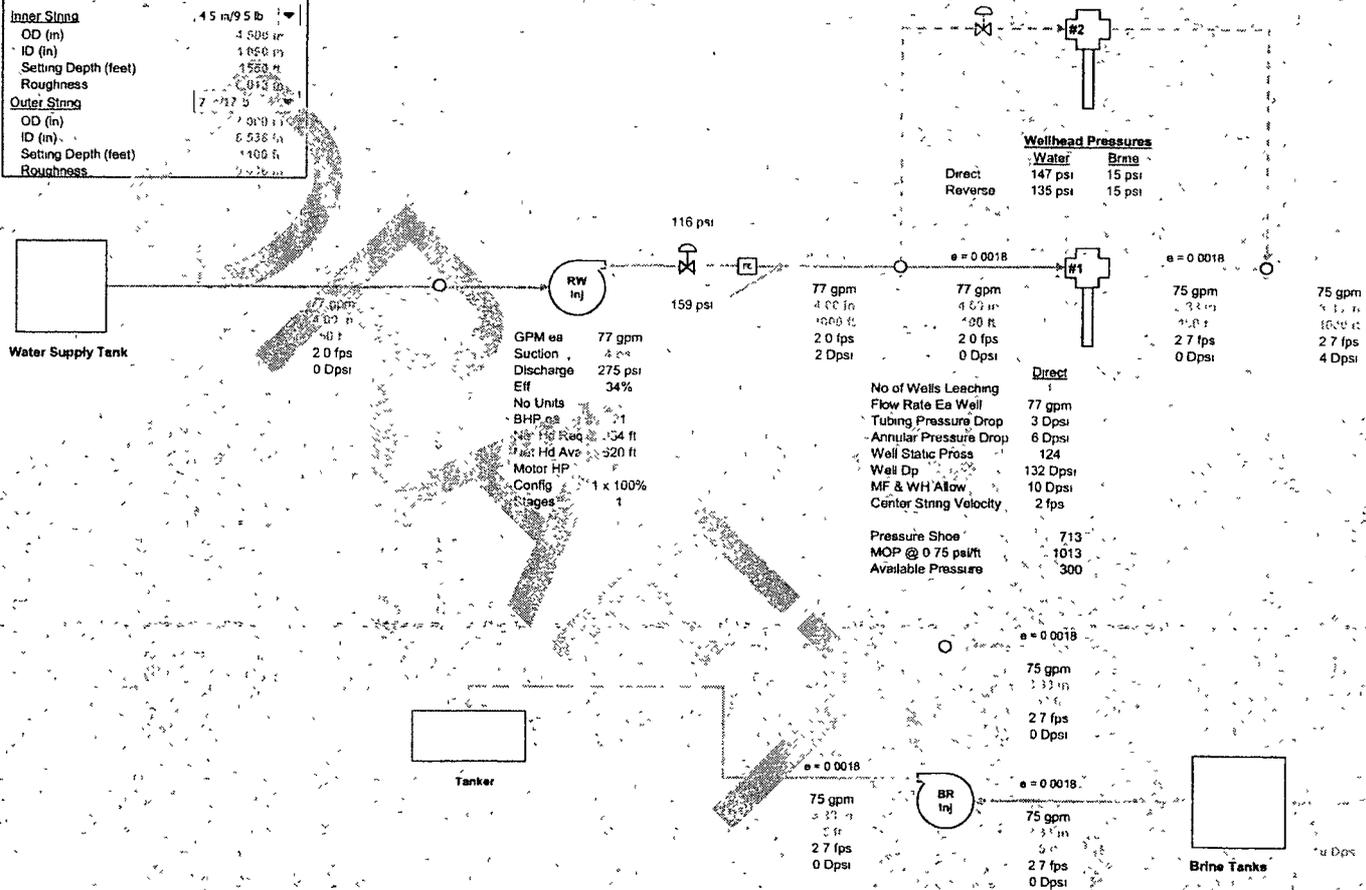
Well Configuration	
Inner String	
OD (in)	4.00
ID (in)	3.33
Setting Depth (feet)	1000
Roughness	0.0001
Outer String	
OD (in)	5.0
ID (in)	4.5
Setting Depth (feet)	1000
Roughness	0.0001



System Hydraulics - (1) Cavern Direct Leaching - Initial Water Injection

Fluid Properties			
Input Values			
	Water	Brine	Wk Brine
BPH	110	107	103
GPM	77	75	75
Viscosity (cp)	1.49	1.60	2.30
Specific Gravity	1.018	1.194	1.18

Well Configuration	
Inner String	.45 in/9.5 lb
OD (in)	4.508 in
ID (in)	1.658 in
Setting Depth (feet)	1550 ft
Roughness	0.013 ft
Outer String	7 in/17.5 lb
OD (in)	7.0 in
ID (in)	6.538 in
Setting Depth (feet)	1100 ft
Roughness	0.015 ft



Wellhead Pressures		
Water	Brine	
Direct	147 psi	15 psi
Reverse	135 psi	15 psi

Direct	
No of Wells Leaching	1
Flow Rate Ea Well	77 gpm
Tubing Pressure Drop	3 Dpsi
Annular Pressure Drop	6 Dpsi
Well Static Press	124
Well Dp	132 Dpsi
MF & WH Allow	10 Dpsi
Center String Velocity	2 fps
Pressure Shoe	713
MOP @ 0.75 psi/ft	1013
Available Pressure	300

Griswold, Jim, EMNRD

From: Harry Burgess [hburgess@cityofcarlsbadnm.com]
Sent: Thursday, March 17, 2011 9:13 AM
To: Griswold, Jim, EMNRD
Subject: RE: Key's new brine well application

At this time, I would advise against attending. This committee was established by the mayor to meet with Key in order to gather information. Given that this is their first meeting, I anticipate their need for one-on-one communications, and they have only invited Key. There will likely be a time for your/OCD's participation with this committee, but not for this initial meeting.

In that same vein, can you advise me regarding this process. Have any dates/timelines been set for OCD's consideration of the permit application?

Thanks,

-h

From: Griswold, Jim, EMNRD [<mailto:Jim.Griswold@state.nm.us>]
Sent: Thursday, March 17, 2011 8:40 AM
To: Harry Burgess
Subject: Key's new brine well application

Harry,

I received an email from Wayne Price this morning asking if I could make a meeting in Carlsbad on April 6 regarding Key Energy's application for a new brine well south of town. Do you and the city want me to attend? I don't have any particular problem coming, but I don't want to step on any toes.

Jim Griswold
Senior Hydrologist
EMNRD/Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
direct: 505.476.3465
email: jim.griswold@state.nm.us

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Wednesday, March 16, 2011 6:59 PM
To: Imolleur@keyenergy.com; Brian Luckianow; Dennis Powers
Cc: Griswold, Jim, EMNRD; Harry Burgess; Allen R. Sartin
Subject: Fwd: Key Energy Proposed Replacement Brine Well Meeting

The March 22 meeting in Carlsbad has been re-scheduled. The city is requesting we have the first technical meeting on Wednesday, April 6, 2011 in Carlsbad, NM. I would like to confirm with all that you can make it.

Please let me know so I can confirm with the City.

Thanks!

Begin forwarded message:

From: "Harry Burgess" <hburgess@cityofcarlsbadnm.com>
Date: March 16, 2011 5:19:08 PM MDT
To: "wayne price" <wayneprice77@earthlink.net>
Subject: RE: Key Energy Proposed Replacement Brine Well Meeting

Hi Wayne,

I met with the committee appointed by the Mayor to review Key Energy's proposed brine well today, and they had the following requests:

1. The committee would like to meet with you and/or other Key Energy representatives on Wednesday, April 6 at 1 pm, here in City Hall.
2. The committee asks that prior to this date, but no later than March 25, that you/Key produce a 3-4 page summary of your proposal, highlighting all pertinent facts (reviewing the 300+ page document is onerous and is not the forte of the committee members, unlike OCD who sees such more regularly). Such pertinent items would include (but are not limited to) geology, purpose of facility, # of employees, water usage, water source, choice of location, etc.

I hope this works for you, please let me know if you have any questions.

-h

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Wednesday, March 09, 2011 10:25 AM
To: Imolleur@keyenergy.com; Brian Luckianow; Dan Gibson; Marcos Hernandez; Dennis Powers
Cc: Griswold, Jim, EMNRD; Allen R. Sartin; Harry Burgess
Subject: Carlsbad City Council Meeting March 8, 2010

Good Morning,

Last night the City Council addressed Key Energy's brine well proposal and formed a committee for Key to present the application to. The committee co-chair indicated they would be contacting us to set the time and place for the first meeting. So it appears that the March 22, 2010 city council meeting is taken off the agenda.

However, I do think our first meeting will still be around that time frame. I am starting to put together a power point and will send it out hopefully by next week. I will also make up a meeting agenda and discuss talking points. Brian has contracted with PB Energy (the folks that designed and constructed the national petroleum reserves) so we will want them to attend at least one of the meetings. Dr. Dennis Powers will be on board, and will most likely cover the geology and correct or update any geological aspects of the submitted application.

The committee is made up of the following people:

Janell Whitlock-	City Council- Key Committee Co-Chair
Nick Salcido-	City Council-Key Committee Co-Chair
Roxanne Lara-	Eddy Co. Commissioner
Dave Perini-	
Ned Elkins-	Presently on City Brine Well Technical Group
Regina Ballard-	Presently on City Brine Well Technical Group
Raul Quintana-	



Key Energy Services
1301 McKinney
Suite 1800
Houston, Texas 77010

Telephone 713 651 4300
Facsimile 713 652 4005
www.keyenergy.com

Date: February 28, 2011

To: Eddy County Commission
101 W. Greene ST, Suite 110
Carlsbad, NM 88220

From: Key Energy Services, LLC

Subject: Request to make statement @ March 01, 2011 County Commission Meeting
Reference: Proposed Key Energy Brine Well

Attention: Mr. Allen Sartin-County Manager

Dear Mr. Sartin:

Key Energy is requesting it have an opportunity to present a brief statement at the County Commission Meeting schedule for March 01, 2011. The following is the brief:

Dear Mr. Sartin and Honorable Commission:

Thank you for allowing Key Energy Services, LLC., to present a brief statement for your consideration.

Key Energy is a medium-large vertically integrated oilfield service company with operations both domestic and international. Brine wells are an integral and necessary part of the oilfield and Key would like to take this opportunity to inform the commission that Key would like to open an official dialog with the County concerning this project. Currently Key is planning on presenting a detail overview for the proposed brine well operation to the city council on March 22, 2011, pending input from the city.

Key Energy would like to provide the county with the same presentation or arrange to combine these events. There may also be an opportunity for the city and county to set up a technical work group to evaluate this process.

As of to date, Key Energy has followed proper protocol with the Federal USEPA and the State of New Mexico and has filled an application with those agencies to permit a brine well operation in this area.

Key has provided the application to both Eddy County and the City of Carlsbad for review. Key stands ready now to continue the process with both the County and City with great emphasis being on transparency and local input.

Key wants the citizens of this area to know that Key Energy stands ready to provide the necessary and proper long-term protection standards for such an operation.

At this time we encourage anyone to provide input into this process. In addition, several public notices are required and Key stands ready to meet with any citizen or group who has concerns.

We are here today to simply request that the Eddy County Commission give Key Energy an opportunity to present its case to the local governments and provide proper public notice before any decisions or outcome from the Commission is made at this time.

We "Thank You" for this opportunity to present this request and stand ready to answer any questions the commission may have.

Sincerely,

A handwritten signature in black ink, appearing to read "Wayne Price-Price". The signature is fluid and cursive, with a long horizontal stroke at the end.

Wayne Price-Price LLC
Agent for Key Energy Services, LLC
505-715-2809
Email: wayneprice77@earthlink.net

CC: Loren Molleur-Director of Fluids Services Management
Dennis Douglas- Sr. Vice President-Key Energy Services, LLC.

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Monday, February 28, 2011 2:44 PM
To: Griswold, Jim, EMNRD
Subject: Fwd: Brine Well
Attachments: RESOLUTION_KEY_ENERGY.doc; ATT00001.htm

I will be at the Eddy Co. Commission in the morning.

Begin forwarded message:

From: "Allen R Sartin" <asartin@co.eddy.nm.us>
Date: February 28, 2011 2:32.22 PM MST
To: "wayne price" <wayneprice77@earthlink.net>
Subject: RE: Brine Well

Wayne,

The Commissioners will consider a resolution regarding a request to NMOCD and want me to also forward that request to the City of Carlsbad.

The attached resolution is only a draft and is subject to any changes desired by the Commission. Once the Commission has finalized and approved the resolution, I will send a copy to the City Administrator requesting that he give each Councilor a copy.

Allen R. Sartin

-----Original Message-----

From: wayne price [mailto:wayneprice77@earthlink.net]
Sent: Monday, February 28, 2011 11:53 AM
To: Allen R. Sartin
Cc: dale.janway@cityofcarlsbadnm.com; Harry Burgess
Subject: Brine Well

Hi Allen,

Just got a copy of article in the newspaper. I wanted to make sure I understand the process, is the county going to present this to the city council on March 08, 2011 or is it in front of the County. I am going to try and be there and would like to get a copy of your proposal. Could you forward me a copy so Key Energy may review?

Thanks!

**STATE OF NEW MEXICO
COUNTY OF EDDY**

RESOLUTION NO: R-11-19
REQUEST FOR PERMIT CONDITIONS ON
THE KEY ENERGY BRINE WELL PROJECT

IN THE MATTER OF the Board of County Commissioners requesting conditions be placed on the permit for the Key Energy brine well project located in the County east of highway 62/180 on the south side of the City of Carlsbad.

WHEREAS, Key Energy's brine well project is located in the unincorporated portion of the County; and

WHEREAS, the County supports both the oil & gas industry and mineral extraction industries; and,

WHEREAS, the County has experienced catastrophic collapses of brine wells in the Loco Hills area; and,

WHEREAS, the County prefers that brine wells be located outside the urban corridor; and,

WHEREAS, Key Energy's brine well project is proposed to be inside the urban corridor; and,

WHEREAS, the Board of County Commissioners is concerned about the potential costs to the taxpayers of the County to mitigate a future brine well collapse; and,

WHEREAS, the proposed business is subject to the City's ETZ planning, zoning, and permitting regulations and the brine well is subject to NMOCD's permitting process.

BE IT THEREFORE RESOLVED that the Board of County Commissioners requests that the County manager notify the City of Carlsbad that the County intends to request that the State of New Mexico Oil Conservation Division (OCD), as part of its permitting process, require prefunding of a mitigation reserve in the amount of at least \$30 million dollars or a bond to cover mitigation costs in the same amount that will be held for ten (10) years after production has ceased.

APPROVED AND ADOPTED this 1st day of March, 2011.

EDDY COUNTY BOARD OF COMMISSIONERS

ATTEST:

Tony Hernandez, Chairperson

Darlene Rosprim, County Clerk



Key Energy Services
1301 McKinney
Suite 1800
Houston, Texas 77010

Telephone 713 651 4300
Facsimile 713 652 4005
www.keyenergy.com

Date: February 28, 2011

To: City of Carlsbad, NM
P.O. Box 1569
Carlsbad, NM 88221-1569

From: Key Energy Services, LLC

Subject: Request to Present Testimony @ March 08, 2011 City Council Meeting
Reference: Proposed Key Energy Brine Well

Attention: Mr. Mayor Janway-City of Carlsbad Mayor
Mr. Harry Burgess-City Administrator

Dear Gentlemen:

Key Energy is requesting it have an opportunity to present a brief statement at the City Council Meeting schedule for March 08, 2011. The following is the brief:

Dear Mr. Mayor and Honorable Council:

Thank you for allowing Key Energy Services, LLC. to present a brief statement for your consideration.

Key Energy is a medium-large vertically integrated oilfield service company with operations both domestic and international. Key would like to take this opportunity to inform the council that on March 22, 2011 Key is planning on presenting a detail overview for a proposed brine well operation to be located in Eddy County and in the Outer ET zone of the City of Carlsbad.

As of to date, Key Energy has followed proper protocol with the Federal USEPA and the State of New Mexico and has filled an application with those agencies to permit a brine well operation in this area.

Key has submitted the application to both Eddy County and the City of Carlsbad for review. Key stands ready now to continue the process with both the County and City with great emphasis being on transparency.

Key wants the citizens of this area to know that Key Energy stands ready to provide the necessary and proper long-term protection standards for such an operation. Key is planning on presenting a detail technical overview of the program on March 22, 2011 to this council

At that time we encourage anyone to provide input into this process. In addition, several public notices are required and Key stands ready to meet with any citizen or group who has concerns.

We are here today to simply request that the city give Key Energy an opportunity to present its case and provide proper public notice before any decisions or outcome from the City Council is made at this time.

We "Thank You" for this opportunity to present this request and stand ready to answer any questions the council may have.

Sincerely,

A handwritten signature in cursive script, appearing to read "Wayne Price-Price".

Wayne Price-Price LLC
Agent for Key Energy Services, LLC
505-715-2809
Email: wayneprice77@earthlink.net

CC: Loren Molleur-Director of Fluids Services Management
Dennis Douglas- Sr. Vice President-Key Energy Services, LLC.



1301 McKinney
Suite 1800
Houston, Texas 77010

Telephone 713 651 4300
Facsimile 713 652 4005
www.keyenergy.com

February 17, 2011

Mr. Dale Janway-Mayor
City of Carlsbad, NM
P.O. Box 1569
Carlsbad, NM 88221-1569

Dear Mayor Janway:

Thank you for the recent meeting concerning Key Energy's proposed plan to install a (replacement) brine well at Key Energy's existing water station, presently located just east of the Carlsbad industrial airport complex. As discussed during the meeting, the proposed brine well is to be sited in the SW/4 NW/4 (UL E) of Section 31-Township 22 south- Range 27 east, in Eddy County, New Mexico. This site is on private land located within Carlsbad's Extraterritorial Zone

During our meeting the topic of proper protocol, procedure and notice was discussed. Key Energy would like to take this opportunity to layout our understanding of the permitting process

Current federal law, the USEPA Safe Drinking Water Act (SDWA), regulates all underground injection wells, including class III brine wells, through the Underground Injection Control (UIC) regulations listed in the Code of Federal Regulations (CFR) under Chapter 40, Parts 144, 145, 146, 147, and 148

USEPA has granted New Mexico primacy to administer such activities with federal oversight. New Mexico has been delegated these responsibilities through the New Mexico Water Quality Control Commission regulations, currently administered in part by the New Mexico Environment Department and the New Mexico Oil Conservation Division.

Pursuant to those regulations, specifically 20.6 2.1201 NMAC "NOTICE OF INTENT TO DISCHARGE", Key Energy was required to notify the state agency of our intent. Failure to file proper notice could have resulted in both a federal and state decision of unknown consequences, and possibly provide parties without standing a mechanism to challenge the required procedure in a court of law.

The Oil Conservation Division notified Key Energy that a permit was required. Therefore, an application was submitted to the state agency on January 31, 2011, with copies to the City of Carlsbad, Eddy County and certain landowners. In order for the local governments and concerned citizens to fully understand our intentions and technical criteria, we felt it was imperative that we have an application in hand that specifically spells out the intentions and technical details of the proposed plan.

Key Energy understands the next step in the process is to provide the citizens of Carlsbad and Eddy County the opportunity to hear and understand what Key Energy is proposing.

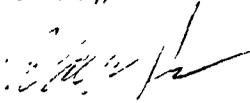
In order to take this next step, Key Energy is requesting an opportunity to present an overview of the application to the City of Carlsbad at your March 22, 2011 city council meeting. Due to the complexity of the application we are requesting at least one hour of allotted time, if possible.



We would appreciate a confirmation and ample notification of our attendance on March 22, 2011, so we may prepare a power-point presentation with handouts. Also, please indicate how many hard and electronic copies of the handout are required.

We look forward to presenting our proposal and opening a transparent dialog between Key Energy and the City of Carlsbad. If you have any questions please do not hesitate to call me at 505-715-2809 or E-mail wayneprice77@earthlink.net

Sincerely,



Wayne Price-Price LLC
Agent for Key Energy Services LLC.

cc: Jim Griswold-NMOCD
Loren Molleur- Director of Fluid Management Services-Key Energy Services LLC.

Griswold, Jim, EMNRD

From: Griswold, Jim, EMNRD
Sent: Tuesday, February 01, 2011 8:31 AM
To: 'wayne price'; VonGonten, Glenn, EMNRD
Subject: RE: Meeting with City of Carlsbad-

Wayne,

The lead guy with PB on this stuff is Joe Ratigan. He is in Rapid City, SD and works closely with Leo vanSambeek who is the lead "salt head" for RESPEC. Joe is one of the people Leo and I turned to in helping figure out what was going on when the deep water table began to drop (but not the shallow) during the 1st re-entry of Eugenie #1 at I&W in Carlsbad last July when the well was allowed to flow back. He is the one that coined the term "elasto-porostic response" to explain the phenomenon. Ratigan and vanSambeek were the two guys recommended to the OCD by Mark Cartwright of United Brine Services (also the incoming head of SMRI) back in March of 2009 at the meeting of the working group you and Carl put together. Mark was the guy who strongly advised we move in on I&W. We went with vanSambeek at the time because RESPEC is one of our pre-approved contractors for Reclamation Fund work under the NMDOT piggyback so we didn't have to go out for bids.

The primary difference between what you have below and what appears to have been submitted yesterday (I have only preliminarily reviewed it) is the inclusion of a blanket fluid to protect from salt solution at the roof. There are a number of ways to potentially configure this. A third tubing string thru a packer to service the blanket would allow the casing to be filled with something more compatible with groundwater if a leak were to develop, but this would probably require a larger casing than the 9-5/8" you have currently specified.

Jim

From: wayne price [<mailto:wayneprice77@earthlink.net>]
Sent: Monday, January 31, 2011 10:09 PM
To: VonGonten, Glenn, EMNRD; Griswold, Jim, EMNRD
Cc: lmolleur@keyenergy.com; Brian Luckianow; Dennis Powers; Dan Gibson
Subject: Meeting with City of Carlsbad-

Glenn and Jim,

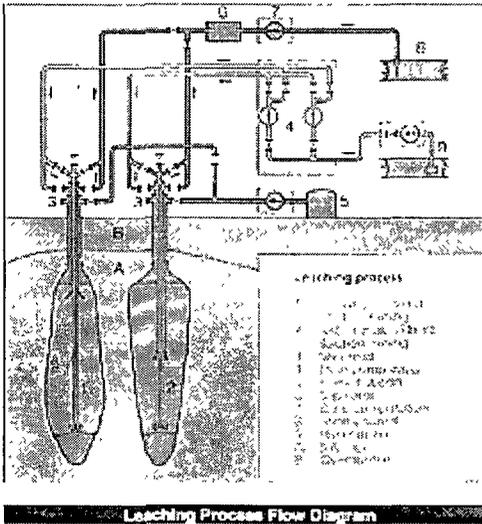
Key Energy is planning on presenting an overview of the new proposed replacement brine well at a City council meeting on March 22, 2011, and we would like for you to attend. I will let you know the place and time in the next few days. Also, as discussed during our conversations today, Key will mostly likely make some modifications during the review process, which is normal for any permit, especially one that has such a high profile as this one.

Dr. Dennis Powers will have some tweaking on the geology topics, and we are in discussions with PB Energy Storage Services, an engineering company that helped developed the US petroleum reserve caverns. We will seek their professional advise concerning brine well development. The double tubing packer design has been discussed with your agency and others. While it is a viable design that would meet the needs and concerns of the OCD, Key Energy will always be looking for a better "mouse trap". Please find attached an alternate design, realizing of course there are a number of ways this can be done. This particular design would probably not meet your standards since there is no groundwater protection casing

string. For example, if the pressurized annulus developed a leak it would discharge oil. However, that could be modified.

We would like to have your comments concerning this design, versus the one currently in the application. If you have any questions please do not hesitate to call or write.

PS: To enlarge just click on it and increase view size.



Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Wednesday, October 20, 2010 11:14 AM
To: Dade, Randy, EMNRD, Gum, Tim, EMNRD; Bratcher, Mike, EMNRD; Griswold, Jim, EMNRD; VonGonten, Glenn, EMNRD; Sanchez, Daniel J., EMNRD
Cc: Mark Perry; lmolleur@keyenergy.com
Subject: Brine Flows

Dear Randy:

As you probably heard Key Energy is in the process of submitting a new brine well permit application for the Carlsbad area. We will be located 1100 feet east of the existing brine well, new location in UL E Sec 31-Ts 21S-R 27E, which is located in the Carlsbad industrial Air park ETZ area. From my experience and research, it does not appear that high pressure brine pockets have been experienced in this area. However, I do know that west and northwest of Artesia, the Loco Hills and Cedar Lake areas, and near the WIPP site, there have been large brine flows encountered. I had also heard possibly the queen formation.

If you have any information concerning if brine flows have been experienced in this immediate area Ts 21s-R27e could you share that with us.

Also, we have had meetings with the City, County, and Otis, Loving, Malaga and CID folks recently. We would like to include your office in this loop for future meetings.

Thank You!

Griswold, Jim, EMNRD

From: George Veni [gveni@nckri.org]
Sent: Tuesday, October 05, 2010 9:18 PM
To: 'wayne price'
Cc: Griswold, Jim, EMNRD
Subject: RE: Location of New Proposed Brine Well

Wayne,

Karst is a terrain, not a feature. The area of the proposed Key Energy brine well is covered with alluvium. I don't know how thick it is there, although at the I&W well it is roughly 50 m. With the alluvium covering the underlying bedrock, and not having well data at hand for the immediate area, I don't know if the underlying bedrock is karstifiable or karstified. I also don't know of any karst features in the immediate area.

George

***** **!***** **!*****

George Veni, Ph.D.
Executive Director
National Cave and Karst Research Institute
1400 Commerce Drive
Carlsbad, New Mexico 88220 USA
Office: 575-887-5517
Mobile: 210-863-5919
Fax: 413-383-2276
gveni@nckri.org
www.nckri.org

From: wayne price [mailto:wayneprice77@earthlink.net]
Sent: Tuesday, October 05, 2010 19:21
To: gveni@nckri.org
Cc: Jim.Griswold@state.nm.us
Subject: Fwd: Location of New Proposed Brine Well

Oh George, One more question: In area that we are proposing, is there any significant Karst that requires preservation to the best of your knowledge?

Begin forwarded message:

From: wayne price <wayneprice77@earthlink.net>
Date: October 5, 2010 5:54:43 PM MDT
To: <gveni@nckri.org>
Cc: Jim.Griswold@state.nm.us
Subject: Re: Location of New Proposed Brine Well

Thank You for your comments!

On Oct 5, 2010, at 5:50 PM, George Veni wrote:

Wayne,

Thank you for your message and interest in NCKRI's views. It is not our role to issue pro or con positions about this or other projects. Frankly, we don't have enough information about this site to take such a position even if we wanted to. However, I can provide the following basic information for your and the state's deliberation:

1) The location is rural. Based on the available Google Earth imagery, it appears to be about 500 m from the nearest home or notable structures. In the event of a catastrophic collapse on a scale similar to what we've seen so far in this region, those structures should be safe from any immediate damage and possibly from long-term damage. Our own recent aerial photos of Wink Sink in Texas, now more than 30 years since that collapse, show a ring of concentric subsidence fractures that extend more than 100 m from the edge of the collapse, for an approximate radius of 150 m from the collapse's center. However, we did not walk the surface to see if significant and potentially structure-damaging fractures extend beyond what was visible in the aerial photos. If they do, they could suggest an increased risk for long-term structural damage from a collapse at the proposed Key Energy brine well site.

2) While the location is currently rural, recent development in and around the city of Carlsbad is steadily moving southward, encroaching on that site. Potentially in roughly 30 years time, the time of the nearby I&W well's production, there could be significant infrastructure within the area that would be affected should a collapse occur. I don't know what regulations may exist to require long-term or effectively perpetual protection from development of the brine well area so no loss of infrastructure or life occurs. Likewise, I don't know what liabilities may result if Key Energy does not provide such protection.

3) The information you have provided is the proposed map location of the brine well and no details on any geologic site characterization that Key Energy may have conducted. I do not have my own site-specific details to

evaluate, which limits some of what I can say. The information I do have suggests the site geology is similar to that of the I&W well. Most geologists I know who have examined that site agree that it is a very shallow site for a brine well, and inappropriate for that volume of brine production. The salt is a relatively thin deposit. If the same or similar geologic conditions exist at the proposed Key Energy site, significant brine production cannot be achieved by solution mining that creates a cavity with structurally stable dimensions that are proportionally tall and small in diameter. Significant mining would instead lend itself to creating a proportionally short and large diameter cavity, which will be shallow in depth and more prone to collapse.

Please consider this as NCKRI's input. Lewis is out doing field work this week, is booked solid to the end of the month with deadlines (as I am), then we both leave town for a week for the Geological Society America Convention. If Lewis does have any significant additional information or insights to share, he will make the time to get them to you in the interest of public safety.

George

George Veni, Ph.D.
Executive Director
National Cave and Karst Research Institute
1400 Commerce Drive
Carlsbad, New Mexico 88220 USA
Office: 575-887-5517
Mobile: 210-863-5919
Fax: 413-383-2276
gveni@nckri.org
www.nckri.org

-----Original Message-----

From: wayne price [<mailto:wayneprice77@earthlink.net>]

Sent: Tuesday, October 05, 2010 15:52

To: [lland@nckri.org](mailto:liland@nckri.org); gveni@nckri.org

Cc: Jim.Griswold@state.nm.us

Subject: Location of New Proposed Brine Well

Good afternoon Gentlemen:

The proposed brine well is located .76 miles east and a little south of your office. Key Energy has an existing brine well at this site that I had recommended we P&A. The new location will be 1100 feet east of this well. This well will be completed in the Castile formation near the bottom. Dennis Powers will be assisting Key on the geology aspect. We have meet with the city, county, and state. We encourage your input, for or against.

We want this process to be most transparent.

As of to date, we have completed a lot of the technical information for this project and will share this with you. As expected, this application will probably actually be the new guidance for any new wells. That's why I would like you involved. Once again, if Key is turned down, then we know it will be for solid technical reasons and not political.

I would be interested in knowing your findings at Jim water service sink.

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Tuesday, October 05, 2010 3:52 PM
To: lland@nckri.org; gveni@nckri.org
Cc: Griswold, Jim, EMNRD
Subject: Location of New Proposed Brine Well
Attachments: Proposed Brine Well.pdf; ATT863727.txt

Good afternoon Gentlemen:

The proposed brine well is located .76 miles east and a little south of your office. Key Energy has an existing brine well at this site that I had recommended we P&A. The new location will be 1100 feet east of this well.

This well will be completed in the Castile formation near the bottom.

Dennis Powers will be assisting Key on the geology aspect. We have meet with the city, county, and state. We encourage your input, for or against. We want this process to be most transparent.

As of to date, we have completed a lot of the technical information for this project and will share this with you. As expected, this application will probably actually be the new guidance for any new wells. That's why I would like you involved. Once again, if Key is turned down, then we know it will be for solid technical reasons and not political.

I would be interested in knowing your findings at Jim water service sink.

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Friday, October 01, 2010 10:20 AM
To: Griswold, Jim, EMNRD
Subject: Brine Well Meetings

Good Morning,

I have scheduled a meeting with the Otis, Loving and Malaga water users for Oct 13, 6 pm. You are welcomed to attend. Sometime latter we are meeting with the Carlsbad city council, open public meeting, I would like for you to attend if possible.

Griswold, Jim, EMNRD

From: wayne price [wayneprice77@earthlink.net]
Sent: Tuesday, August 24, 2010 8:13 AM
To: Mariano, Michael F.
Cc: Griswold, Jim, EMNRD
Subject: Re: Key Brine Well Salt Mining lease

Thank You, I will be there!

On Aug 24, 2010, at 6:47 AM, Mariano, Michael wrote:

Wayne,

I was out of the office yesterday. I could meet with you on Thursday morning between 10:00am & 11:00am??

Regards,
Michael Mariano
827-5750

From: wayne price [mailto:wayneprice77@earthlink.net]
Sent: Monday, August 23, 2010 10:01 AM
To: Mariano, Michael
Cc: Jim.Griswold@state.nm.us
Subject: Key Brine Well Salt Mining lease

Good Morning Michael:

Is there any way you could meet this Wednesday or Thursday?

Dear Mr. Mariano:

Thank you for the call back. Key Energy currently has a salt mining lease #M19264 located in UL H Sec 36-Ts22s-R26e in Eddy Co. NM. This lease appears to be split estate with the surface private and minerals

being the state of NM. Because of the recent Brine Well Collapses, Key Energy In an over abundance of precaution elected to properly plug and abandon Key's Brine well API # 30-015-21842. This well has been

closed properly and is being monitored for any subsidence issues. Key does not anticipate any problems with this closed well and OCD as of this date concludes.

Key would like to set up a meeting with NMSLO and OCD concerning either transferring or obtaining a new salt mining lease for this area so a path forward for applying for a new brine well permit may proceed.

We would appreciate if you could meet with us so we can provide you our intent. Currently, Carlsbad area only has one remaining Brine Well. This area is beginning to experience a pick-up

in activity and if this continues The Oil and Gas Industry will certainly need a new Brine well to keep up.

If amenable, could you provide some dates that I could come to Santa Fe and meet with you and your staff. I will coordinate getting OCD there.

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For more information please visit <http://www.messagelabs.com/email>

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For more information please visit <http://www.messagelabs.com/email>



Key Energy Services
6 Desta Drive
Suite 4300
Midland, Texas 79705

Telephone: 432.620.0300
Facsimile: 432.571.7173
www.keyenergy.com

RECEIVED OCD
2010 NOV 29 P 2:32

November 23, 2010

Glenn vonGonten- Acting Environmental Bureau Chief
Jim Griswold- Senior Hydrologist
1220 South St. Francis
Santa Fe, New Mexico 87505

Subject: NOTICE OF INTENT TO DISCHARGE
WOCC 20.6.2.1201 NMAC

Dear Mr. vonGonten and Griswold:

Key Energy Services LLC is notifying the New Mexico Oil Conservation Division of its intent to permit a new brine well to be located in Eddy County, New Mexico. Pursuant to the Water Quality Control Commission Regulations (WQCC) 20.6.2.1201.B and C. NMAC the following information is provided:

(1) The name of the person making the discharge;

Key Energy Services LLC,

(2) The address of the person making the discharge;

Corporate office: 6 Desta Drive Suite 4400 Midland, TX 79705
Local: 1609 E. Green St. Carlsbad NM 88221

(3) The location of the discharge;

Brine Well Location: SW/4 NW/4 UL E- Section 31 - Township 22 South - Range 27 East.
Existing Water Station Location: SE/4 NE/4 UL H Section 36 -Township 22 South- Range 26 East.

(4) An estimate of the concentration of water contaminants in the discharge; and

Injection Water: Fresh water from City of Carlsbad <500 mg/l TDS.
Produced Brine Water: approximately 300,000 mg/l TDS.

(5) The quantity of the discharge.

Estimated Instantaneous flow rate: 3-5 barrels per minute.

Estimated monthly totals: 0-50,000 barrels per month.

According to WQCC 20.6.2.1201.D; Based on information provided in this notice of intent, the department will notify the person proposing the discharge as to which of the following apply: (1) a discharge permit is required; (2) a discharge permit is not required; (3) the proposed injection well will be added to the department's underground injection well inventory; (4) the proposed injection activity or injection well is prohibited pursuant to 20.6.2.5004 NMAC.

If OCD requires additional information concerning this notice of intent please do not hesitate to call me at 432-571-7536 or Wayne Price at 505-715-2809, or E-mail wayneprice77@earthlink.net.

Sincerely,

A handwritten signature in black ink, appearing to read "DK Gibson".

Daniel K. Gibson, P.G.
Corporate Environmental Director



New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Jim Noel
Cabinet Secretary

Karen W. Garcia
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



December 14, 2010

Daniel K. Gibson, P.G.
Corporate Environmental Director
Key Energy Services
6 Desta Drive, Suite 4300
Midland, Texas 79705

RE: Proposed Brine Well in Unit E of Section 31, Township 22 South, Range 27 East NMPM; Eddy County, New Mexico

Dan,

The Oil Conservation Division is in receipt of Key Energy's Notice of Intent to Discharge (dated 11/23/10) regarding possible installation of a brine well at the above-referenced location. New Mexico Water Quality Control Commission regulation 20.6.2.5101 B. states:

"Operation of a...Class III well must be pursuant to a discharge permit meeting the requirements of Sections 20.6.2.3000 through 20.6.2.3999 NMAC and Sections 20.6.2.5000 through 20.6.2.5299 NMAC."

A brine well injects fluids into the subsurface for the in situ extraction of salt and is thus considered a Class III well within the Underground Injection Control program. An approved discharge permit is therefore required for your proposed operation. Within 120 days of receipt of this notice, please submit a discharge plan in conformance with the provisions of 20.6.2.3106 C., 5000 through 5299 NMAC; and any other applicable requirements along with a filing fee of \$100.00. Make any check payable to the "Water Quality Management Fund." An *Application for Permit to Drill* (Form C-101) should also be filed at an appropriate date and, if approved, the well will be added to our underground injection inventory.

Respectfully,

Jim Griswold
Senior Hydrologist



Weather: CARLSBAD NM Now 53°F | High 69°F | Low 41°F | 5-Day Forecast

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County OK with well permit - with mitigation conditions

By Stella Davis Current-Argus Staff Writer Posted 02/26/2011 09:01:00 PM MST

CARLSBAD — The Eddy County Commission says it had no problem with the city of Carlsbad issuing a brine well permit to Key Energy outside city limits, but within the city's extra-territorial zone

That's the good news for the company. The bad news is that the county wants the city to require prefunding of a mitigation reserve of least \$30 million, or a bond to cover mitigation costs in the same amount

The proposed brine well, to be located in the county east of U.S. Highway 62-180 on the south side of the city, is subject to the city's ETZ planning, zoning and permitting regulations, but the county has some input because the location is in the county

At next week's regular commission meeting, a resolution stipulating the \$30 million mitigation reserve will be put before the commission for vote

Eddy County leaders say the county is a strong supporter of the oil and gas industry and mineral extraction industries, but experiences in recent years with catastrophic collapsed brine wells in the Loco Hills area north of Carlsbad have made the county a little more cautious

According to the wording of the resolution on the table for consideration, "the county prefers that brine wells be located outside the urban corridor (but) Key Energy's brine well project is proposed to be inside the urban corridor."

The resolution further states that the commission is concerned about the potential costs to the taxpayers to mitigate a future brine well collapse

Other items on the agenda include

Advertisement

Public hearings on proposed ordinances granting non-exclusive franchise rights to Dell Telephone Cooperative, Central Valley Electric Cooperative, El Paso Natural Gas Company and New Mexico Gas

Company Following the hearings the commission will deliberate and vote to approve or deny the franchise rights in Eddy County

Presentation of an annual report from Flood Commissioner Louise Tracy

Presentation on projects funded through the 60 percent fire excise tax

Code enforcement actions

Hear a request for county funding for lobbying efforts

Riverblitz update

Approval of resolutions, agreements and travel requests

Discussion of legislative issues

The commission will also go into a closed meeting to discuss personnel matters, threatened or pending litigation and real property

The Eddy County Commission will meet at 8:30 a.m. Tuesday in Room 211 at the Eddy County Administration Complex, 101 E. Greene St.

MORE NEWS

Updated February 28, 2011
2 area wildfires brought under control (10:00 a.m.)
King's Speech reigns with best-picture Oscar (6:42 a.m.)
Gov. could be hands-off on state investments

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New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John H. Bemis
Cabinet Secretary-Designee

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division



June 9, 2011

Daniel K. Gibson, P.G.
Corporate Environmental Director
Key Energy Services
6 Desta Drive, Suite 4300
Midland, Texas 79705

RE: Discharge Plan Application for Replacement Brine Well in Unit E of Section 31, Township 22 South, Range 27 East NMPM; Eddy County, New Mexico

Mr. Gibson,

The Oil Conservation Division (OCD) is in receipt of Key Energy's application and addendum regarding installation of a replacement brine well at the above-referenced location. After review, the OCD has determined your application is "*administratively complete*" per New Mexico Water Quality Control Commission regulations (20.6.2.3108 NMAC).

Key Energy's obligations to provide public notice should commence and be demonstrated to the OCD in a timely manner. The OCD will also provide notice to various governmental groups. Depending upon the level of public interest, a hearing may be scheduled on this matter. Regardless, the OCD will continue our review of the application and may request additional information.

If you have any questions, please do not hesitate to contact me by phone at (505) 476-3465, mail at the address below, or email at jim.griswold@state.nm.us. On behalf of the OCD, I wish to thank you and your staff for your continued cooperation in this process.

Respectfully,

Jim Griswold
Senior Hydrologist

cc: OCD District II, Artesia



NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106 NMAC), the following discharge permit application has been submitted to the New Mexico Oil Conservation Division (OCD), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(BW-33) Key Energy Services, LLC, 6 Desta Drive, Suite 4300, Midland, Texas 79705 has submitted an application for installation and operation of a brine well to be located in Unit Letter H of Section 36, Township 22 South, Range 26 East, NMPM, Eddy County, NM. It is proposed that freshwater be injected into the subsurface at a rate less than 71,400 gallons per day to an approximate depth of 1,300 to 1,500 feet thereby solution mining salt. The extracted brine would have an approximate dissolved solids concentration of 320,000 mg/l. The brine would be stored in above-ground tanks for use by the oil and gas industry. Ground water possibly affected by an unintentional spill or leak is at depths of approximately 30 to 60 feet and 100 to 250 feet with a total dissolved solids concentration of 1,500 to 2,000 mg/l.

The OCD has determined the application is administratively complete and is proceeding with technical review. The OCD will accept comments and statements of interest and create a facility-specific mailing list for persons who wish to receive future notices. Those interested in obtaining further information, submitting comments or requesting to be on the mailing list may contact Jim Griswold of the Oil Conservation Division at the address given above. The application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Persons interested in obtaining a copy of the application should contact the OCD. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request the OCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

If no public hearings are held, the Director will approve or disapprove the proposed permit based on information available, including all comments received. If public hearings are held, the director will approve or disapprove the proposed permit based on information in the application along with information submitted at the hearings.

Para obtener más información sobre esta solicitud en español, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservación Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Dorothy Phillips, 505-476-3461)

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 9th day of June, 2011.

S E A L

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
Jami Bailey, Director