UIC-I-__005___

ANNUAL REPORTS (1)

2009



Key Energy Services 6 Desta Drive Suite 4400 Midland, Texas 79705

Telephone: 432.620.0300 Facsimile: 432.571.7173 www.keyenergy.com

June 28, 2010

Mr. Daniel Sanchez UIC Director State of New Mexico 1220 S. St. Francis Drive Santa Fe, New Mexico 87505

VIA FEDERAL EXPRESS

Re:

Sunco Well

Permit UICI-005

Dear Mr. Sanchez:

Enclosed you will find the Annual Class I Well Report for 2009 for the Sunco well.

If you have any questions, please contact Daniel K. Gibson at 432 571-7536.

Sincerely,

Robyn Miller, CLA

Enclosure

cc:

Mr. Wayne Price

Price LLC

312 Encantado Ridge CT NE Rio Rancho, New Mexico 87124

(Federal Express)

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson

Governor

Jon Goldstein Cabinet Secretary

Jim Noet Deputy Cabinet Secretary Mark Fesmire
Division Director
Oil Conservation Division



NOTICE OF VIOLATION

April 1, 2010

Mr. Dan Gibson Key Energy Services, LLC 6 Desta Drive, Suite 4400 Midland, Texas 79705

VIA CERTIFIED MAIL

RETURN RECEIPT NO: 7001 1940 0004 7923 4887

Re:

Discharge Plan Permit Notice of Violation(s) (VICI-005 [1-005])

Key Energy Services, LLC Class I Non-Hazardous Oil Field Waste Disposal Well

SUNCO Disposal Well No. 1, (API No. 30-045-28653) 1595 FNL and 1005 FWL UL: E Section 2, T29 N, R 12W

San Juan County, New Mexico

Dear Mr. Gibson:

The New Mexico Oil Conservation Division (OCD) has not received an Annual Report or any of the various, other reporting documentation required by the reporting provisions of the discharge permit for the Key Energy Services, LLC (hereafter "Key") SUNCO Disposal Well No. I (UICI-005). The discharge permit, issued under the New Mexico Underground Injection Control (UIC) Program, established a deadline of January 31, 2010 for Key to submit an annual report to the OCD. Because Key has failed to meet this deadline, the OCD has determined that Key is in violation of the OCD Discharge Permit (UICI-005); Water Quality Control Commission (WQCC) Regulations 20.6.2.5208 NMAC, and Federal Underground Injection Control Regulations § 40 CFR 144 & 146, et seq.

New Mexico WQCC 20.6.2.1220 NMAC provides that, where an operator violates the terms of a discharge permit issued pursuant to the Water Quality Act, the operator may be subject to enforcement actions including but not limited to a compliance order, penalty assessment, and action filed in District Court. You were advised via e-mail correspondence dated September 25, 2009 from OCD Environmental Engineer Carl Chavez reminding Key of the submittal due-date of its Annual Report for this site. Mr. Chavez specifically informed Key at that time that OCD was implementing a better report tracking system to monitor reports received by UIC Class I disposal well operators.

By this Notice, the OCD is hereby advising Key that is required to submit the delinquent Annual Report and any other reporting required by the terms and conditions of discharge permit UICI-005



Mr. Gibson Key Energy Services, LLC April 1, 2010 Page 2

to the OCD on or before June 30, 2010. The OCD is required to report the violation(s) to the EPA under the Federal Fiscal Year Quarter 2 (January – March) period. Failure to comply with the June 30, 2010 deadline referenced above will result in escalated enforcement under the Federal "Significant non-Compliance" designation. If the Key does not satisfy the reporting requirements by the June 30, 2010 date, it shall immediately shut-in the referenced facility and shall be required to submit a C-103 to the OCD for plugging and abandoning the well no later than September 30, 2010.

Please contact Carl Chavez of my staff at (505) 476-3490 or <u>carlj.chavez(a)state.nm.us</u> within 14 days of receipt of this NOV to arrange for compliance and enforcement meeting at the OCD office in Santa Fe, New Mexico. It is imperative that you promptly make arrangements to meet with us if you wish to not only resolve the compliance issue, but also wish to pursue the renewal of your discharge permit for this facility. If Key fails to contact the OCD within 14 days of receipt as indicated, the OCD will assume that Key no longer wishes to seek renewal of the discharge permit for the SUNCO Disposal Well No. 1, designated UICI-005.

Sincerely,

Daniel Sanchez UIC Director

DS/cc

xc: OCD District 3 Office, Aztec

Mikal Altomare, Mikal.altomare@state.nm.us

ANNUAL CLASS I WELL REPORT FOR 2009

Key Energy Services, Inc.

Permit UICI-005

API No. 30-045-28653

June 28, 2010



Submitted by:

Daniel K. Gibson, P.G.

Corporate Environmental Director Key Energy Services, Inc. 6 Desta Drive, Suite 4400 Midland, Texas 79705 (432) 571-7536 ph

(432) 571-7173 fax

Section 1 - Summary of Operations

The Oil Conservation Division (OCD) issued a Notice of Violation (NOV) to Key Energy Services, Inc. (Key) dated April 1, 2010. The NOV was issued in response to Key's failure to submit the annual report for UICI-005 located in San Juan County, New Mexico as required by the facility's Discharge Plan Permit. As a result of the NOV, a resolution meeting was held at OCD office in Santa Fe, NM on May 6, 2010. This report is prepared to resolve the issues identified in the April 1, 2010 NOV related to UICI-005 and to meet the annual reporting requirement. These issues and their resolution are detailed in the following sections.

The preparation of this report required an extensive review of both Key and OCD files. Data reported to Key as 'missing' was located in both sets of files. Key has attempted to reconstruct, to the extent possible, a report representative of the operational history of UICI-005. This includes a history of operational changes that have occurred regarding modifications to the methods used to collect operational data.

In 2009, Key modified the configuration of the Murphy safety switches in response to an injection pressure exceedance that occurred on June 7, 2009. The new configuration is expected to remedy this issue.

During the resolution meeting and in discussing the discharge permit requirements with Key operations personnel, it became apparent that the current annual training should be augmented to include permit-specific training. As a result, Key will prepare a compliance plan for this site and provide additional instruction to operations personnel before December 31, 2010.

The issues described above and other permit-required information are further detailed in the following sections.

Section 2 – Production Volumes

Recent Activity

During the May 6, 2010 resolution meeting OCD pointed out that Key had not submitted the 2009 annual report pursuant to the permit condition 22.L. In addition, it appeared that annual reports for the year 2007-2008 were also missing from the OCD imaging system files. OCD gave Key a deadline of June 30, 2010 for the 2009 report submittal and requested a comprehensive search and record submittal for the entire well history since inception. Key pointed out that most of this data should already be in the OCD records or may no longer exist.

OCD pointed out that Key should make a commitment to finding this information, and if not available, provide OCD an explanation and signed statement indicating its efforts to collect this information.

During the meeting, OCD appeared to place a higher emphasis on the historical technical information such as past injection volumes, pressures, chemical analysis and the area-of-review (AOR) for the well, notwithstanding also supplying the required information requested in permit condition 22.L.

Chronological History

Key has compiled a historic chronologic report beginning from inception of the well to the current operating status and conditions. Appendix A contains a copy of the "Key UICI-005 Class I Disposal Well Chronological Report" for this facility.

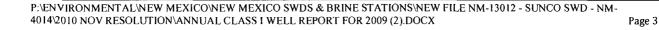
Historic Injection Data and Methodology

Historical injection data was located by researching OCD on-line files, paper files, computer files (with OCD approval and assistance), and Key files. Key also made searches at the New Mexico Records and Archives. As a result of this comprehensive search, Key has attempted to re-create the "lifetime injection data" from the inception of the well in 1992 to date.

Coleman (Sunco) AMD Order SWD-457 and GW-235 permits were originally issued as a Class II SWD (Salt Water Disposal Well) with a pond. It should be pointed out that the records for GW-235 are missing from the OCD files and could not be located in the New Mexico Records and Archives.

Coleman (Sunco) during the period of 1992-1997 was required to submit reports pursuant to current OCD rules. Generally, these were C-115 water injection reports, and/or other similar forms required at the time. Key contacted Jane Prouty-(OCD) to determine if copies of these records were scanned or maintained. No records were located.

In 1996, Coleman (Sunco) submitted an application to re-classify the well from a Class II to a Class I injection well. Coleman (Sunco) was given a temporary permit and one of the conditions was to maintain records for five years. This may explain the lack of record retention for the years prior to 1996. In addition, when Key purchased the operations in 1997 the existing permit conditions did not include a condition for retaining the quarterly pressure and volume injection data.



Since Key assumed the operation of the well, records for the total injected volume have been maintained and updated. In addition, Key has maintained the required injection pressure records.

Appendix B contains the Monthly Well Injection Reports for the period from October 1997 through December 2006. This data starts with the lifetime data carried over from the Coleman (Sunco) operations. The reports show the following logged data:

- Period, Year and months broken down into quarters;
- Injection Pressures, (Maximum psi, Minimum psi, Average psi);
- Flow Rates, (Maximum bbls, Minimum bbls, Average bbls);
- Flow Volumes/Day, (Month bbls, Year to Date bbls, Life of Well bbls);
- Annular Pressures, (Maximum psi, Minimum psi, Average psi);
- Class I, (Volumes in bbls).

During this period, the injection pressures were interpolated from the continuous monitoring pressure charts. The minimum pressure was obtained from the initial spike right after the injection pump started. The maximum pressure of the month was obtained from the highest reading observed from the chart. The average pressure was a visual interpolation of average pressures observed during the daily pump cycles over the entire month.

The well annulus pressure was taken from the pressure-recording chart in a similar manner as described above. Due to extreme pressure variation problems, Key requested an exception to maintaining pressure on the annulus. OCD granted the exception. Later permits required pressure maintenance, but the condition was not enforced due to the noted previous problems experienced.

Flow meter readings were taken from a flow meter installed on the wellhead-tubing inlet. Daily, monthly, quarterly, yearly and lifetime accumulations were recorded.

The average monthly flow rates were determined by taking the monthly total injected volumes divided by the number of days in the month. Records could not be found regarding how the maximum or minimum flow rates were obtained.

Class I waste (i.e. non-exempt waste) volumes were recorded every month. Form C-138s (OCD non-exempt waste tracking form) were required for all Class I waste.

Recent Injection Data and Methodology

In 2007 the methodology of tracking and recording data was changed slightly and the following

is an explanation of how the data were collected. Also, sometime during the period of 2007 to date, a new Halliburton flow sensor was installed. This meter measures and provides the total volume and instantaneous flow rate (volume/time) in barrels/day.

Appendix C contains Key's Disposal Monthly Totals and Tubing and Casing Monitoring Log Sheets for the period January 2007 through December 2009. These reports show the following data:

Monthly Volume Sheets

- Date: year, month, day.
- Bbls/Hr, Bbls/Day, Bbls/Month, Cumulative.

Tubing and Casing Monitoring Log Sheet:

- Date: year, month, day.
- Tubing Pressure psi
- Casing Pressure psi
- Observer initials.

The procedure for recording the data was as follows:

The Monthly Total Sheet is a summary of the loads received at the facility (Barrels Taken In), barrels injected (Barrels Pumped Away), and the difference. Key and non-Key hauled loads, exempt and non-exempt loads; total loads taken in (received at the facility), and average bbl/load are also provided. Pricing structure charged for non-exempt and exempt barrels, and totals are provided.

The bbls/day is the difference between the starting and ending flow meter reading when the pump operated. The bbls/hr is calculated by taking the total bbls/day and dividing it by the number of hours the pump actually operated. The bbls/month and cumulative is a daily running total of the injected waste for the month.

The procedure for recording the pressure data was as follows:

- The tubing pressure was recorded from the Murphy pressure switch right after the injection pump was started. If the pump did not run during the day, either zero or the well tubing static pressure was recorded.
- Casing pressure was taken from the casing pressure gauge or recording pressure chart.

2007-2009 Monthly Pressure Charts:

Monthly Pressure Charts are provided in Appendix D. The recording meter ID # number is 74571 where the red line on the chart shows the tubing press and blue line shows the casing pressure. The charts are 31day charts with a range of 0-3,000 psig.

2009 Pressure Monitoring Methodology Change:

Starting in January of 2009, the way pressure reading was recorded was modified to enhance the quality of the readings. A new pressure gauge was installed in parallel to the pressure-recording chart. The chart and gauge were calibrated to read the same within their respective tolerances.

Pressures readings are now taken hourly from the tubing pressure gauge and recorded in a daily log sheet. In addition, the pressure recording charts are maintained.

The 2009 daily log sheets are included for reference as Appendix E. The maximum and average pressures are now calculated from these readings. The maximum pressure observed for the month is noted and the average pressures are calculated by summing all of the hourly pressure readings for the month divided by the number of hours the pump actually ran.

2007-2009 Key UIC-CLI-005 Injection Well Summary Reports:

Please find attached a new Excel spreadsheet form that will be used to submit the annual report data required by the permit (Appendix F). There are additional columns added to monitoring the annular volumes (required pursuant to permit condition 22.G), Murphy pressure switch cut-off test (required pursuant to permit condition 22.D), and general operational notes for each month.

These forms are retroactive for the pressures and injection volumes and provide the annual report data required for 2007-2009 years including the total lifetime injected volumes. The annular pressure injection switch and notes were not carried back, except for an occurrence on June 07, 2009. These columns will be part of the 2010 and other future reports. On June 7, 2009 the Murphy pressure switch malfunctioned and allowed pump pressure to creep up to 2,500 psig. Switch has since been replaced and redesigned.

Future Monitoring:

Key will continue to evaluate the best method of obtaining quality data and will investigate installing a data logger. OCD will be consulted if a monitoring change is proposed.

2009 Recap Summary:

The 2009-year total injected wastewater was 390,809 bbls, with 24,900 bbls being non-exempt wastewater, and a lifetime total injection volume of 12,374,617 barrels. The small amount of water injected in 2009 had a direct relationship to the current recession and downturn in the industry.

The maximum injection pressure was 2,400 psig, except as noted above on June 7, 2009. This reading exceeded the injection permit level. The minimum injection pressure is generally 100 psi above the observed wellhead static press of which ranges from about 1,700-1,850 psig dependent upon how long the pump has been idle. The average injection pressure for the year was calculated to be 2,207 psig.

1998-2009 Injection Chart:

Please find attached Key's injection volume chart (Appendix G) showing the annual injection volumes per year from 1998-2009.

Section 3 – Chemical Analyses

Historic Injection Chemical Analysis: 1997-2006:

Historical Injection chemical analysis was found by researching OCD on-line files, paper files, computer files (with OCD approval and assistance), and Key files. Key also made searches at the New Mexico Records and Archives.

As a result of this comprehensive search, Key has discovered all of the injection chemical analysis dating from 1997 to 2006. These records are several hundred pages and can now be found on OCD on-line under the UICI-005 permit "Quarterly Injection Reports" banner page, and "Monitoring Injection Reports" banner page marked 2006, 2005, 2004. Key will copy and submit these at the request of OCD.

More Recent Activity: 2007 to 2009:

After researching the files mentioned above, Key discovered that several of the chemical analysis were actually located in another file. They were located in Key's Surface Waste Management file, NM1-9, which is an associated facility of the injection well.

OCD has always had different permit writers for the two facilities. Some time ago, Key had requested they be allowed to send in one submittal for the both facilities. OCD allowed this approach and the internal OCD "SOP" was for the permit writer of the SWM facility to break out the injection reports and give it to the UICI-005 permit writer. Apparently, this system broke down and some of the chemical injection records were not transferred to the proper file.

Key was able to find the following records, attached herein as Appendix H, for the period between 2007 and 2008.

Chemical Analysis:

April 13, 2007	Injection Well water sample report by EnviroTech Labs.
July 3, 2007	Injection Well water sample report by EnviroTech Labs.
April 23, 2008	Injection Well water sample report by EnviroTech Labs.
June 3, 2008	Injection Well water sample report by EnviroTech Labs.
June 17, 2008	West Leak Detector, TCLP Main Pond.
July 29, 2008	Injection Well water sample report by EnviroTech Labs.

This data is summarized in Tables 1 through 3 of Appendix H.

In addition, Key did an extensive search of C-138 records, which is a non-exempt waste tracking form and mechanism to make sure Class I non-exempt waste accepted at the facility is non-hazardous. Key and OCD have literally hundreds of these documents demonstrating the characteristics of the injection fluids.

Once Key discovered there was an issue of required submittals, it immediately collected injection water samples on April 12, 2010 and had them analyzed. The tabulated results and supporting laboratory reports are contained in Appendix H.

In the 2008 and 2009 years, over 66% of all the waste injected at the facility was non-exempt waste that was accompanied by a C-138, with extensive analytic data demonstrating the characteristics of the waste. While the permit only required four, it is obvious that the amount of analytical testing performed was considerably more than what was required in the permit.

Key feels it is important to supply some selected examples demonstrating that the characteristics of the injection fluids are well represented and meets the intent of the permit. Therefore, please find attached copies of several C-138's with analyticals for the years 2007-2010. These reports are included as Appendix I.

Section 4 – Mechanical Integrity Testing

The Mechanical Integrity Test (MIT) for 2009 was conducted on September 19, 2009. Appendix J contains the Bradenhead Test Report and the MIT Report and chart. The MIT test duration was 30 minutes at 620 psi. During the Bradenhead test, the tubing pressure was 1,550 psi. The casing pressure was 310. No pressure was recorded at the Bradenhead.

Section 5 – Deviations from Normal Production Methods

The only reported deviation for 2009 was the annual Fall-Off Test performed on September 8, 2009. The Fall-Off Test is further discussed in Section 9.

Section 6 – Expansion Tank Monitoring, Fluid Removal/Addition, Well Problems, Drinking Water Impacts, and Leak and Spill Reports

Expansion tank monitoring pressure, fluid removals/additions

A pressure gage and the continuous pressure recording chart meter monitor the injection well annulus. The results are included in the annular summary, see Section 3. Currently, this well does not have a pressure controlled volumetric measuring tank. Plans are being developed to install this device.

Well Problems

On June 7, 2009 the Murphy pressure switch malfunctioned and allowed the injection well tubing pressure to oscillate up to 2,500 psig. The switch has since been redesigned and replaced. Previously, the Murphy switch was connected to the pump discharge by ridged pipe. Vibrations through the pipe allowed the high level cut off pressure switch to oscillate above the permit level of 2,400 psi. The Murphy switch has been replaced and is now connected to the pump discharge by a hose to reduce vibration. Appendix K contains three photographs of the new configuration. The first photograph shows the Murphy switch/hose configuration. The second photograph provides a close up of the new Murphy switch indicating the pressure limits. The last photograph shows the case for the Murphy switch. The case can be closed and secured to prevent tampering.

Drinking water impacts

There are no known drinking water impacts caused by the UICI-005 Injection well operations.

Leaks and spill reports;

In 2009 there were no reportable leaks or spills. Any reportable or non-reportable spill is cleaned up pursuant to OCD guidance and rules. Liquid wastewater is disposed of down-hole in the injection well. Any solid or oily waste is disposed of at an approved OCD site.

De-minimis drips are currently being handled by placing portable catch buckets under hose connections. When the temporary storage tanks are cleaned out, they are purged into a temporary catch tank and then pumped out for disposal.

Section 7 – Groundwater Monitoring

The UICI-005 injection facility does not have groundwater monitoring at this site. There are no planned or intentional discharges of water contaminants that may move directly or indirectly into groundwater. Any unintentional discharge, leak, spill, or drip is handled pursuant to the permit conditions.

Section 8 - Area of Review Update Summary

An extensive one mile AOR update review was conducted for the Key Farmington "Old Sunco" Class I Injection well, OCD permit # UIC-CLI-005 (I-005), located in UL E (1595 FNL & 1005 FWL) of Section 2-Ts29n-R12w. The well presently injects into the Point Lookout formation of the Mesa Verde Group at an interval of 4380-4480 ft bgl. Supporting documentation for the AOR summary is contained in Appendix L.

Key used OCD records and limited field verification to confirm wells in the adjacent sections, which were in, or located in close proximately to the one mile AOR of the Key injection well.

Using OCD on-line downloads, a well status list was constructed, listing wells meeting the above criteria. The list shows API#, Operator well name, UL, Section, Township and Range, footages, wells within one mile, well depth (ft) i.e. Injection/Production interval, casing program status, casing/cementing status, and corrective action required status.

There were 43 wells located within these adjacent sections. Within a one-mile radius of the injection well, there were 31 wells found, while seven of the 31 identified actually penetrated the Point Lookout Formation injection zone. Please refer to the 2009 UICI-005 AOR Annual Review-Section Plot Plan attached herein. This comprehensive list was formulated to provide a baseline for future AOR studies.

Every well identified was researched using OCD online records. Wells that did not penetrate the injection zone were given a cursory review to determine if the well depth had changed, and to determine the current well status, i.e. were the wells active or plugged and abandoned.

Wells that did penetrate the injection zone were studied in greater detail. Each of the seven well's casing programs was studied and the following are the findings of these studies.

The AOR findings are as follows:

API # 30-045-08851: The BP-Allen A-1, according to OCD records, is located 790 FNL & 790 FWL of Section 1-Ts29n-R12w. It is shown to be located approximately one mile to the ENE of the UICI-005 injection well. This well was drilled in 1961 with surface casing set at 265 ft bgl and cement circulated to the surface. A production string was run and set at 6786 ft bgl and cemented with 250 sacks.

In 1993 and 2002, substantial remedial work was performed to seal the production casing at different depths. The 2002 report shows that the casing was sealed in a zone between 4,023 ft bgl and 4,055 ft bgl. In addition, the Picture Cliffs Formation was sealed off above. The well reports and remedial procedures are attached for review.

<u>Conclusions:</u> The OCD reports indicate that the well casing was squeezed off inside and outside of the production string slightly above the Point Lookout Formation which appears to start at about 4,250 ft bgl in this location. The 2007 UICI-005 permit originally had a corrective action requirement for this well. That requirement has since been rescinded by OCD. There have been no reported or noted issues concerning this well in reference to the UICI-005 injection well. Corrective actions: While physical corrective actions are not required at this time, Key proposes to continue the scrutiny on this well and will report again in 2010.

API # 30-045-08712: The Burlington-McGrath A-1, according to OCD records, is located 1720 FSL & 990 FEL of Section 3-Ts29n-R12w. It is shown to be located approximately 1/2 mile to the SW of the UICI-005 injection well. This well was drilled in 1964 with surface casing set at 300 ft bgl and cemented with 250 sacks. A production string was run and set at 6,710 ft bgl and cemented with 500 sacks. The well reports and remedial procedures are attached for review.

<u>Conclusions</u>: The OCD reports indicate that the intent was to set a DV tool at the base of Mesa Verde and cement through the Picture Cliffs using 800 sacks. The completion reports indicated the production string used only 500 sacks of cement, while this would be enough cement to cover the Point Lookout Formation injection zone there is some question as to where the TOC

(top of cement) is actually located. There have been no reported or noted issues concerning this well in reference to the UICI-005 injection well.

<u>Corrective actions:</u> None Required.

API # 30-045-13092: The BP-Cornell C-1, according to OCD records, is located 990 FNL & 990 FWL of Section 11-Ts29n-R12w. It is shown to be located approximately 1 mile to the south of the UICI-005 injection well. This well was drilled in 1962 with surface casing set at 250 ft bgl and cemented with 150 sacks. A production string was run and set at 6,604 ft bgl and cemented with 300 sacks. A casing leak was repaired in 2006 at about 2,017 ft bgl. The well reports and remedial procedures are attached for review.

<u>Conclusions:</u> The 2007 UICI-005 permit originally had a corrective action requirement for this well. That requirement has since been rescinded by OCD. The OCD reports shows a well diagram indicating this well is cemented to the surface on all casing strings. The drawing should be correlated with the cement calculation. There have been no reported or noted issues concerning this well in reference to the UICI-005 injection well.

<u>Corrective actions</u>: While physical corrective actions are not required at this time, Key proposes to continue the scrutiny on this well and will report again in 2010.

API # 30-045-08945: The Burlington-McGrath C-1, according to OCD records, is located 870 FSL & 1190 FEL of Section 34-Ts29n-R12w. It is shown to be located approximately 1/2 mile to the NW of the UICI-005 injection well. This well was drilled in 1963 with surface casing set at 323 ft bgl and cemented with 225 sacks. A production string was run and set at 6,637 ft bgl and cemented with 925 sacks. The well reports and remedial procedures are attached for review.

<u>Conclusions</u>: The OCD reports indicate this well is cemented to the surface on all casing strings. There have been no reported or noted issues concerning this well in reference to the UICI-005 injection well.

Corrective actions: None required.

API # 30-045-08946: The Holcomb O&G-Carnahan, according to OCD records, is located 990 FSL & 990 FEL of Section 35-Ts29n-R12w. It is shown to be located approximately 3/4 mile to the NE of the UICI-005 injection well. This well was drilled in 1960 with surface casing set at 301 ft bgl and cemented with 200 sacks. A production string was run and set at 6760 ft bgl and cemented with 250 sacks. The well was plugged and abandoned in 1971. The well reports and remedial procedures are attached for review.

<u>Conclusions</u>: The OCD reports indicate the casing was cut and pulled with several plugs placed in the open hole. There have been no reported or noted issues concerning this well in reference to the UICI-005 injection well.

<u>Corrective actions:</u> No physical corrective actions are required at this time; however, Key will consult with OCD concerning the adequacy of the well plugs.

API # 30-045-11770: The Burlington-Hudson J-3, according to OCD records, is located 1750 FNL & 990 FWL of Section 35-Ts29n-R12w. It is shown to be located approximately 1 mile to the north of the UICI-005 injection well. This well was drilled in 1966 with surface casing set at 306 ft bgl and cemented with 250 sacks. A production string was run and set at 6750 ft bgl and cemented with 700 sacks. This well has been recompleted as a Basin-Fruitland Coal well in 2001. The well reports and remedial procedures are attached for review.

<u>Conclusions</u>: The OCD reports indicate this well was originally permitted and drilled to a depth of 6750 ft bgl and more recently, re-completed as a Basin-Fruitland Coal well in 2001. There have been no reported or noted issues concerning this well in reference to the UICI-005 injection well.

<u>Corrective actions:</u> Key will contact OCD to determine if the Point Lookout Formation was properly cemented off during the re-completion.

API # 30-045-25844: The Marrion O&G-Carnaham COM #2, according to OCD records, is located 1090 FSL & 1070 FEL of Section 35-Ts29n-R12w. It is shown to be located approximately 3/4 mile to the NE of the UICI-005 injection well. This well was drilled in 1984 with surface casing set at 230 ft bkb (below kelly bushing) and cemented with 170 sacks. A production string was run and set at 6,777 ft bkb and cemented with 1100 sacks.

<u>Conclusions</u>: The OCD reports indicate this well is cemented to the surface on all casing strings. There have been no reported or noted issues concerning this well in reference to the UICI-005 injection well.

Corrective actions: None required.

2009 AOR Summary:

There were no new wells installed in the Area of Review (AOR) that penetrated the injection zone during 2009.

Section 9 - MIT and Fall-Off Tests

Summary and Interpretation – There were no well interventions performed between 2008 and 2009. The pressure tests confirmed that the casing, tubing and packer have good mechanical integrity and thus all injected fluids are being contained within the permitted injection interval. The Fall-Off data, based on the log-log pressure derivative plot "match", showed the best fit of the test data matched a "homogeneous reservoir with a finite conductivity fracture and a constant pressure boundary". This match is reassuring considering that this well was initially hydraulically fractured and the well has had good Injectivity since 1994. The test was dominated by radial flow. The reservoir is quite homogeneous as there are no anomalous pressure diversions seen in the pressure data. The increase in slope seen at 25-hours after shut-in was also observed in the 2008 test. This slope change is indicative of a boundary where radial flow is limited in some particular direction. Although there is not sufficient subsurface control to determine the extent or shape of the injection zone surrounding the well the indicated boundary is not restricting injection into the remainder of the reservoir's storage volume. The subsequent flattening of the derivative slope indicates no other reservoir limits were seen during the test.

<u>Conclusions</u> – the calculated reservoir parameters from the 2007- 2009 tests are shown below. The results are very reasonable and congruent with the operating history of the well. To date over 13 million barrels have been disposed into the permitted zone. Based on these annual tests we believe that the reservoir volume is sufficiently large to hold many more millions of barrels before fill-up would occur. The stability of the calculated reservoir pressure since 2007 supports this conclusion.

Parameter	2009 Results	2008 Results	2007 Results
Reservoir pressure	3242 psig	3176 psig	3258 psig
Permeability	10.2 md	20.7 md	17.5 md
Skin	-7.23	-6.79	-6.93
Fracture half-length	926 ft	596 ft	688 ft
Boundary	755 ft	987 ft	None seen
Radius of Investigation	1250 ft	1760 ft	1620 ft

<u>Recommendations</u> - The fall-off data from the last three annual tests has essentially been an overlay. The shape of the log-log derivative plots in each case have matched and indicated the same reservoir model type. Nothing alarming – to indicate a potential for out-of-zone injection – has been discovered from the reservoir interpretation. Surface injection pressures are kept below the apparent fracture initiation point seen in the 2007 Step-Rate Test.

Section 10 - Annual Facility Training

Key provides annual training for facility operation personnel on an annual basis. This annual training is not specific to the operation of this facility and covers requirements for Spill Prevention, Control, and Countermeasures (SPCC), elements required by National Pollutant Discharge Elimination System (NPDES) permits, and Key environmental policies. Key will prepare a compliance plan designed specifically for this facility and implement training by the end of 2010. A copy of this plan will be provided in the 2010 Annual Report.

Section 11 - Certification

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.

Dennis Douglas

Vice President - Fluids Management Services

Date: June 28, 2010

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APPENDICES

Appendix A

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APPENDIXA

Key UIC-5 Class I Disposal Well Chronologic Report

Jan 13, 1992:

Coleman Oil & Gas Inc. ADM Order SWD-457 permit issued for the Sunco Disposal Well #1 located UL E-Sec 2-Ts29N-Rg12W San Juan Co. NM.

Conditions:

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

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

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

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 868 psi.

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

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

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

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule 706 and 1120 of the Division Rules and Regulations.

Approved at Santa Fe, New Mexico, on this 13th day of January, 1992.

Jan 19, 1993:

OCD approved pressure increase to 1350 psig.

Dec 22, 1993:

OCD approved pressure increase to 2850 psig.

Jan 24, 1996

OCD notifies Coleman Oil and Gas C/o Sunco Trucking that accepting Class I refinery waste is prohibited unless the facility obtains a Class I permit for the well.

Feb 01, 1996:

Coleman Oil and Gas C/o Sunco Trucking (GW-235) applies for reclassification of Injection well from Class II to Class I.

Site has noted Evaporation pond.

Feb 07, 1996

OCD issues temporary approval of Class I waste injection without permit, but with conditions:

- 1) <u>Maximum Injection Pressure:</u> The maximum operating pressure at the wellhead will be 2,850 psi in accordance with OCD Order SWD-457. A minimum of 100 psi will be maintained on the casing-tubing annulus.
- 2) <u>Continuous Monitoring:</u> Continuous monitoring and recording devices will be installed and records made of injection pressure, flow rate, flow volume, and annular pressure. Records are to be maintained at Coleman for a period of not less than five years.
- Wastes Permitted for Injection: Injection will be limited to fluids as permitted under OCD Order SWD-457, and a one time injection of the non-exempt fluids accepted by Giant Refining Company-Bloomfield. No other Class I non-exempt fluids will be accepted for injection unless a discharge plan reclassifying the Class II well to a Class I well is approved by the OCD.

Aug 26, 1996

OCD issues to Coleman Oil and Gas Inc. C/o Sunco Trucking (GW-235) UIC-5 discharge permit with conditions:

The discharge plan UIC-CLI-005 for the Coleman Oil and Gas (Coleman) Class I non-exempt non-hazardous oil field waste disposal well located in unit letter E, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico, is hereby approved under the conditions contained in the enclosed attachment. The application consists of the original New Mexico Oil Conservation Division (OCD) Order SWD-457 issued January 13, 1992, the discharge plan application for a Class I disposal well dated May 6, 1996, and supplemental information dated May 13, 1996 and June 21, 1996. Enclosed are two copies of the conditions of approval. Please sign and return one copy to the OCD Santa Fe Office within five working days of receipt of this letter.

ATTACHMENT TO DISCHARGE PLAN UIC-CLI-005 APPROVAL COLEMAN OIL AND GAS, INC., CLASS I WELL DISCHARGE PLAN REQUIREMENTS

- 1. Payment of Discharge Plan Fees: The \$50 dollar filing fee is due upon receipt of this approval. The \$1,380 flat fee shall be submitted upon receipt of this approval. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.
- Coleman Commitments: Coleman will abide by all commitments submitted in the discharge plan application dated May 6, 1996, and supplemental information dated May 13, 1996 and June 21, 1996, and OCD Order SWD-457.
- Maximum Injection Pressure: The maximum operating injection pressure at the wellhead will be 2,850 psi in accordance with OCD Order SWD-457. The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 2,850 psi. The pressure limiting device shall annually be demonstrated to operate to the satisfaction of the OCD.

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

- 4. Mechanical Integrity Testing: In accordance with OCD testing procedures, a mechanical integrity test will be conducted on the well annually and any time the tubing is pulled or the packer is reseated. A pressure recorder will be used and copies of the chart submitted to the OCD Santa Fe Office and the OCD Aztec District Office within 30 days following the test date. The OCD will be notified prior to the test so that they may witness the test. Mechanical integrity testing charts will be maintained at Coleman for the life of the well
- 5. <u>Annulus:</u> The casing-tubing annulus will be filled with an inert fluid and a minimum pressure of 100 psi maintained.
- 6. Continuous Monitoring and Recording: Continuous monitoring and recording devices will be installed and mechanical charts made of injection pressure, flow rate, flow volume, and annular pressure. Mechanical charts are to be maintained at Coleman for the life of the well.

- 7. Maintenance Records: All routine maintenance work on the well will be recorded and maintained at Coleman for the life of the well.
- 8. Wastes Permitted for Injection: Injection will be limited to fluids as permitted under OCD Order SWD-457, and non-exempt non-hazardous oil field wastes as permitted under the OCD 711 facility for Sunco Trucking Water Disposal Company. All non-exempt non-hazardous oil field waste will be tested for the constituents listed below in number 9. Under the OCD 711 permit, all non-exempt non-hazardous oil field waste require approval from the OCD prior to acceptance and disposal. OCD Form C-138 shall be used to request prior approval for acceptance and disposal.
- 9. <u>Chemical Analysis of Injection Fluids:</u> The following analyses of injection fluids will be conducted on a quarterly basis:
 - Aromatic and halogenated volatile hydrocarbon scan by either EPA method 8010/8020 or EPA method 8240.
 - b. General water chemistry to include calcium, potassium, magnesium, sodium, bicarbonate, carbonate, chloride, sulfate total dissolved solids (TDS), pH, and conductivity.
 - Heavy metals using the ICAP scan (EPA method 6010) and Arsenic and Mercury using atomic absorption (EPA methods 7060 and 7470).

Records of all analyses will be maintained at Coleman for the life of the well.

- 10. <u>Quarterly Reporting:</u> The following reports will be signed and certified in accordance with WQCC section 5101.H. and submitted quarterly to both the OCD Santa Fe and Aztec Offices:
 - a. Results of the chemical analysis of the injection fluids (number 9).
 - Monthly average, maximum and minimum values for injection pressures; flow rate and flow volume; and, annular pressure.
 - c. Monthly volumes of injected Class I non-exempt non-hazardous oil field waste (OCD Form C-138).
- 11. Monthly Reporting: Monthly reporting of the disposal of produced water will be in accordance with OCD Rule 1115 which requires monthly submittal of OCD Form C-115 to the OCD Santa Fe Office.

Mr. George Coleman August 26, 1996 Page 5

- 12. <u>Drum Storage:</u> All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
- 13. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
- 14. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities associated with the well or modifications to existing facilities associated with the well must place the tank on an impermeable type pad within the berm.
- 15. <u>Above Ground Saddle Tanks:</u> Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
- 16. <u>Labeling:</u> All tanks, drum, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.
- 17. <u>Below Grade Tanks/Sumps</u>: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps.
- 18. <u>Underground Process/Wastewater Lines</u>: All underground process/wastewater, and brine transfer pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years there after. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD.
- 19. Well Workover Operations: OCD approval will be obtained from the Director prior to performing remedial work or any other workover. Approval will be requested on OCD Form C-103 "Sundry Notices and Reports on Wells" (OCD Rule 1103.A.) with appropriate copies sent to the OCD Aztec District Office.

- 20. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected daily to ensure proper operation and to prevent overtopping or system failure.
- 21. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203. to the OCD Aztec District Office.

Coleman shall immediately notify the Supervisor of the Aztec District Office and the Environmental Bureau of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

- 22. <u>Transfer of Discharge Plan</u>: The OCD will be notified prior to any transfer of ownership, control, or possession of the well. A written commitment to comply with the terms and conditions of the previously approved discharge plan and a bond must be submitted by the purchaser and approved by the OCD prior to transfer.
- 23. <u>Closure</u>: The OCD will be notified when operations of the well are discontinued for a period in excess of six months. Prior to closure of the well a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
- 24. Plugging Bond and /or Letter of Credit: Coleman shall have in effect, for the life of the well, a Division approved plugging bond and/or letter of credit for the estimated amount required to plug the well according to the proposed closure plan and adjusted for inflation. The required plugging bond and/or letter of credit shall be adjusted at the time of discharge plan renewal.
- 25. <u>Training:</u> All personnel associated with operations at the Coleman Class I disposal well will have appropriate training in accepting, processing, and disposing of Class I non-exempt non-hazardous oil field waste to insure proper disposal. All training documentation shall be maintained at Coleman for the life of the well.
- 26. <u>OCD Inspections:</u> Additional requirements may be placed on the well and associated facilities based upon results from OCD inspections.

Mr. George Coleman August 26, 1996 Page 7

27. <u>Certification:</u> Coleman Oil and Gas, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Coleman Oil and Gas, Inc. further acknowledges that these conditions and requirements of this permit modification may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:	
COLEMAN OIL AND GAS, INC.	
by	

Mar 20, 1997:

OCD approves an amendment #4.

4. Annulus: Until the facility operates 24 hours per day, the casing-tubing annulus will be completely filled with an inert fluid and connected to a casing differential tank with the same inert fluid to maintain a constant casing-tubing fluid level in the annulus at all times. A sight glass will be installed on the casing differential tank to monitor and record, on a daily basis, for tubing or casing leaks. Once 24 hour operation begins, the casing-tubing annulus will be completely filled with an inert fluid and a minimum pressure of 100 psi maintained. Any loss or gain of inert fluid will be documented and reported to the OCD Aztec District Office immediately.

Sept 08, 1997:

OCD approves transfer of facility UIC-5 from Coleman Oil and Gas C/o Sunco Trucking to Key four Corners Inc. (Key).

GW-235 is now missing? No OCD records are available. GW-235 may have been for the Evaporation Pond which may have became part of the SWM -9.

Same conditions with:



Please be advised that all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted or otherwise rendered nonhazardous to migratory birds. Upon written application by the permittee, an exception to screening, netting, or covering may be granted by the district supervisor upon a showing that an alternative method will protect migratory birds or that the facility is not hazardous to migratory birds. In addition, OCD Rule 310 prohibits oil from being stored or retained in earthen reservoir, or in open receptacles.

Jan 15, 2002:

OCD issues Key a DP renewal for UIC-5 with conditions:

The original Order SWD-457 was issued January 13, 1992, the discharge plan was approved on August 26, 1996 by the OCD with an expiration date of August 26, 2001. The discharge plan renewal application dated April 18, 2001 submitted pursuant to Section 5101.B 3. of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals. The discharge plan renewal application was submitted pursuant to Section 5101.B 3 of the New Mexico Water Quality Control Commission (WQCC) Regulations. The discharge plan is renewed pursuant to Section 5101 A and 3109 C Please note Section 3109.G, which provides for possible future amendment of the plan Please be advised that approval of this plan does not relieve Key of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does it relieve Key of its responsibility to comply with any other governmental authority's rules and regulations.

Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered non-hazardous to wildlife including migratory birds

Mr Mike Talovich January 15, 2002 Page 3

ATTACHMENT TO DISCHARGE PLAN UIC-CLI-005 APPROVAL KEY ENERGY SERVICES, INC., CLASS I WELL API No. 30-045-28653 SW/4 NW/4 Section 2, Ts 29 N, R 12 West SAN JUAN COUNTY, NEW MEXICO DISCHARGE PLAN APPROVAL CONDITIONS January 15, 2002

- Payment of Discharge Plan Fees The \$100 dollar filing fee has been paid. The \$4500.00 flat fee shall be submitted upon receipt of this approval. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval
- 2. <u>Commitments</u> Key will abide by all commitments submitted in the discharge plan renewal application dated April 18, 2001, all previous commitments including OCD Order SWD-457 and these conditions for approval
- Maximum Injection Pressure The maximum operating injection pressure at the wellhead will be 2850 psi in accordance with OCD Order SWD-457. The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 2850 psi. The pressure limiting device shall annually be demonstrated to operate to the satisfaction of the OCD.

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

- Mechanical Integrity Testing: In accordance with OCD testing procedures, a mechanical integrity test will be conducted on the well annually and any time the tubing is pulled or the packer is reseated. An approved pressure recorder will be used and copies of the chart submitted to the OCD Santa Fe Office and the OCD Aztec District Office within 30 days following the test date. The OCD will be notified prior to the test so that they may witness the test. Mechanical integrity testing charts will be maintained at Key for the life of the well.
- 5 <u>Annulus</u> Key shall install and maintain pressure controls and continuous monitoring devices pursuant to WQCC NMAC 20 6 2 5207 B.2.
- 6 Continuous Monitoring and Recording Continuous monitoring and recording devices will be installed and mechanical charts made of injection pressure, flow rate, flow volume, and annular pressure Mechanical charts are to be maintained at Key for the life of the well.

- Maintenance Records. All routine maintenance work on the well will be recorded and maintained at Key for the life of the well.
- 8 Wastes Permitted for Injection Injection will be limited to approved fluids as permitted under OCD Order SWD-457 and non-hazardous oil field waste fluids as permitted under OCD 711 permit NM-01-009 All non-exempt non-hazardous oil field waste will be tested for the constituents listed below in condition number nine (9)
- 9 <u>Chemical Analysis of Injection Fluids</u> The following analyses of injection fluids will be conducted on a quarterly basis:
 - a Aromatic and halogenated volatile hydrocarbon scan by EPA method 8260C GC/MS including MTBE. Semi-Volatile Organics GC/MS EPA method 8270B including 1 and 2-methylnaphthalene
 - b. General water chemistry to include calcium, potassium, magnesium, sodium, bicarbonate, carbonate, chloride, sulfate total dissolved solids (TDS), pH, and conductivity
 - c Total heavy metals using the ICAP scan (EPA method 6010/ICPMS) and Mercury using Cold Vapor (EPA method 7470)
 - d EPA RCRA Characteristics for Ignitability, Corrosivity and Reactivity

Records of all analyses will be maintained at Key for the life of the well

- 10 Quarterly Reporting. The following reports will be signed and certified in accordance with WQCC section 5101.G and submitted quarterly to both the OCD Santa Fe and Aztec Offices
 - a Results of the chemical analysis of the injection fluids (number 9)
 - b Monthly average, maximum and minimum values for injection pressures, flow rate and flow volume, and, annular pressure
 - c Monthly volumes of injected fluids pursuant to OCD Rule 1115

- Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.
- Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design
- 13. Above Ground Tanks All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.
- Above Ground Saddle Tanks Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure
- 15. <u>Labeling</u>: All tanks, drums and containers should be clearly labeled to identify their contents and other emergency notification information
- Below Grade Tanks/Sumps All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must be tested to demonstrate their mechanical integrity no later than March 15, 2002 and every year from tested date, thereafter Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD 30 days after test has been conducted
- 17 <u>Underground Process/Wastewater Lines</u> All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity no later than March 15, 2002 and every 5 years, from tested date, thereafter Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD 30 days after test has been conducted.

- 18 Well Workover Operations OCD approval will be obtained from the Director prior to performing remedial work or any other workover Approval will be requested on OCD Form C-103 "Sundry Notices and Reports on Wells" (OCD Rule 1103 A) with appropriate copies sent to the OCD Aztec District Office
- 19. Housekeeping All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure A record of inspections will be retained on site for a period of five years
- 20. Spill Reporting All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203. to the OCD Aztec District Office Key shall immediately notify the Supervisor of the Aztec District Office and the Environmental Bureau of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.
- Transfer of Discharge Plan The OCD will be notified prior to any transfer of ownership, control, or possession of the well and associated facilities. A written commitment to comply with the terms and conditions of the previously approved discharge plan and a bond must be submitted by the purchaser and approved by the OCD prior to transfer.
- 22. <u>Closure</u> The OCD will be notified when operations of the well are discontinued for a period in excess of six months. Prior to closure of the well and associated facilities a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
- 23. Plugging Bond and /or Letter of Credit Key shall have in effect a Division approved plugging bond and/or letter of credit for the estimated amount required to plug the well according to the proposed closure plan and adjusted for inflation The required plugging bond and/or letter of credit shall be adjusted at the time of discharge plan renewal.
 - Key shall submit a proposal to amend Bond No. U272355 to reflect the current owner and adjust for inflation Please submit for OCD approval by April 15, 2002.
- Training All personnel associated with operations at the Key Class I disposal well will have appropriate training in accepting, processing, and disposing of Class I non-exempt non-hazardous oil field waste to insure proper disposal All training documentation shall be maintained at Key for the life of the well
- 25 OCD Inspections Additional requirements may be placed on the well and associated facilities based upon results from OCD inspections.
- 26 Storm Water Plan Submit a Stormwater run-off plan for OCD approval by April 15, 2002

- Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield 27 exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261 Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis
 - Rule 712 Waste. Pursuant to Rule 712, disposal of certain non-domestic waste is allowed at solid waste facilities permitted by the New Mexico Environment Department as long as the waste stream is identified in the discharge plan, and existing process knowledge of the waste stream does not change without notification to the Oil Conservation Division
- 28. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future Leach fields and other wastewater disposal systems at OCD regulated facilities which inject nonhazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
- 29 Certification. Key Energy Services, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Key Energy Services, Inc further acknowledges that these conditions and requirements of this permit modification may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment

Conditions accepted by:

KEY ENERGY SERVICES, INC

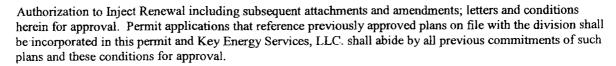
Title Vice President Trucking Division

Aug 14, 2007:

OCD issues Key a DP renewal for UIC-5 with conditions:

Santa Fe, New Mexico 87505

- 1. Payment of Discharge Plan Fees: All discharge permits are subject to WQCC Regulations. Every billable facility that submits a discharge permit application will be assessed a filing fee of \$100.00, plus a renewal flat fee (see WQCC Regulation 20.6.2.3114 NMAC). The Oil Conservation Division ("OCD") has received the required \$100.00 filing fee and Key Energy Services, LLC. still owes the required \$4500.00 permit fee for the Class I Well.
- 20.6.2.3109.H.4 NMAC, this permit is valid for a period of five years. The permit will expire on June 1, 2012 and an application for renewal should be submitted no later than 120 days before that expiration date. Pursuant to WQCC Regulation 20.6.2.3106.F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved. Expired permits are a violation of the Water Quality Act (Chapter 74, Article 6, NMSA 1978) and civil penalties may be assessed accordingly.
- 3. Permit Terms and Conditions: Pursuant to WQCC Regulation 20.6.2.3104 NMAC, when a permit has been issued, Key Energy Services, LLC. must ensure that all discharges shall be consistent with the terms and conditions of the permit. In addition, all facilities shall abide by the applicable rules and regulations administered by the OCD pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-1 through 70-2-38. All injection operations related to oil and natural gas production in New Mexico are regulated under the provisions of the Oil and Gas Act, NMSA 1978, Sections 70-2-1 et seq. and the Water Quality Act, NMSA 1978, Sections 74-6-1 et seq. These Acts delegate authority for enforcement of their provisions relating to oil and natural gas drilling, production, processing, and transportation to the Oil Conservation Division (OCD) of the New Mexico Energy, Minerals and Natural Resources Department, and to the Oil Conservation Commission (OCC) and the Water Quality Control Commission (WQCC). To carry out its authority, the OCC has promulgated rules (19 NMAC) and numerous orders. Key Energy Services. LLC. shall comply with WQCC Regulations 20.6.2 et seq. NMAC relating to Class I Waste Disposal Wells.
- 4. Key Energy Services, LLC. Commitments: Key Energy Services, LLC. shall abide by all commitments submitted in its February 27, 2007 Discharge Plan Application and C-108 Application for



- 5. Modifications: WQCC Regulation 20.6.2.3107.C, 20.6.2.3109 and 20.6.2.5101.I NMAC addresses possible future modifications of a permit. Key Energy Services, LLC. (discharger) shall notify the OCD of any facility expansion, production increase or process modification that would result in any significant modification in the discharge of water contaminants. The Division Director may require a permit modification if any water quality standard specified at 20.6.2.3103 NMAC is or will be exceeded, or if a toxic pollutants as defined in WQCC Regulation 20.6.2.7 NMAC is present in ground water at any place of withdrawal for present or reasonably foreseeable future use, or that the Water Quality Standards for Interstate and Intrastate streams as specified in 20.6.4 NMAC are being or may be violated in surface water in New Mexico.
- 6. Waste Disposal and Storage: Key Energy Services, LLC. shall dispose of all other non-injected wastes at an OCD-approved facility. Only oil field RCRA-exempt and non-exempt non-hazardous wastes may be disposed of by injection in an OCD Class I well. RCRA non-hazardous, exempt and non-exempt oil field wastes may be disposed of at an OCD-approved facility upon proper waste determination pursuant to 40 CFR Part 261. Any waste stream that is not listed in the discharge permit application must be approved by the OCD on a case-by-case basis.
- A. OCD Rule 712 Waste: Pursuant to OCD Rule 712 (19.15.9.712 NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change.
- B. Waste Storage: Key Energy Services, LLC. shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. Key Energy Services, LLC. shall not store oil field waste on-site for more than 180 days unless approved by the OCD.
- 7. **Drum Storage:** Key Energy Services, LLC. must store all drums, including empty drums, containing materials other than fresh water on an impermeable pad with curbing. Key Energy Services, LLC. must store empty drums on their sides with the bungs in place and lined up on a horizontal plane. Key Energy Services, LLC. must store chemicals in other containers, such as tote tanks, sacks, or buckets on an impermeable pad with curbing.
- 8. Process, Maintenance and Yard Areas: Key Energy Services, LLC. shall either pave and curb or have some type of spill collection device incorporated into the design at all process, maintenance, and yard areas which show evidence that water contaminants from releases, leaks and spills have reached the ground surface.
- 9. Above Ground Tanks: Key Energy Services, LLC. shall ensure that all aboveground tanks have impermeable secondary containment (e.g., liners and berms), which will contain a volume of at least one-third greater than the total volume of the largest tank or all interconnected tanks. Key Energy Services, LLC. shall

retrofit all existing tanks before discharge permit renewal. Tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt from this condition.

10. Labeling: Key Energy Services, LLC. shall clearly label all tanks, drums, and containers to identify their contents and other emergency notification information. Key Energy Services, LLC. may use a tank code numbering system, which is incorporated into their emergency response plans.

11. Below-Grade Tanks/Sumps and Pits/Ponds.

- A. All below-grade tanks and sumps must be approved by the OCD prior to installation and must incorporate secondary containment with leak detection into the design. Key Energy Services, LLC. shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal. All existing below-grade tanks and sumps without secondary containment and leak detection must be tested annually or as specified herein. Systems that have secondary containment with leak detection shall have a monthly inspection of the leak detection system to determine if the primary containment is leaking. Small sumps or depressions in secondary containment systems used to facilitate fluid removal are exempt from these requirements if fluids are removed within 72 hours.
- B. All pits and ponds, including modifications and retrofits, shall be designed by a certified registered professional engineer and approved by the OCD prior to installation. In general, all pits or ponds shall have approved hydrologic and geologic reports, location, foundation, liners, and secondary containment with leak detection, monitoring and closure plans. All pits or ponds shall be designed, constructed and operated so as to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future. Key Energy Services, LLC. shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal.
- C. Key Energy Services, LLC. shall ensure that all exposed pits, including lined pits and open top tanks (8 feet in diameter or larger) shall be fenced, screened, netted, or otherwise rendered non-hazardous to wildlife, including migratory birds.
- D. Key Energy Services, LLC. shall maintain the results of tests and inspections at the facility covered by this discharge permit and available for OCD inspection. Key Energy Services, LLC. shall report the discovery of any system which is found to be leaking or has lost integrity to the OCD within 15 days. Key Energy Services, LLC. may propose various methods for testing such as pressure testing to 3 pounds per square inch greater than normal operating pressure and/or visual inspection of cleaned tanks and/or sumps, or other OCD-approved methods. Key Energy Services, LLC. shall notify the OCD at least 72 hours prior to all testing.

12. Underground Process/Wastewater Lines:

A. Key Energy Services, LLC. shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more

than a 1% loss/gain in pressure. Key Energy Services, LLC. may use other methods for testing if approved by the OCD.

B. Key Energy Services, LLC. shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. All new underground piping must be approved by the OCD prior to installation. Key Energy Services, LLC. shall report any leaks or loss of integrity to the OCD within 15 days of discovery.

Key Energy Services, LLC. shall maintain the results of all tests at the facility covered by this discharge permit and they shall be available for OCD inspection. Key Energy Services, LLC. shall notify the OCD at least 72 hours prior to all testing.

- 13. Class V Wells: Key Energy Services, LLC. shall close all Class V wells (e.g., septic systems, leach fields, dry wells, etc.) that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes unless it can be demonstrated that ground water will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD-regulated facilities that inject non-hazardous fluid into or above an underground source of drinking water are considered Class V Waste Disposal Wells under the EPA UIC program. Class V wells that inject domestic waste only, must be permitted by the New Mexico Environment Department (NMED).
- 14. Housekeeping: Key Energy Services, LLC. shall inspect all systems designed for spill collection/prevention and leak detection at least monthly to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices shall be emptied of fluids within 72 hours of discovery. Key Energy Services, LLC. shall maintain all records at the facility and available for OCD inspection.
- 15. Spill Reporting: Key Energy Services, LLC. shall report all unauthorized discharges, spills, leaks and releases and conduct corrective action pursuant to WQCC Regulation 20.5.12.1203 NMAC and OCD Rule 116 (19.15.3.116 NMAC). Key Energy Services, LLC. shall notify both the OCD District Office and the Santa Fe Office within 24 hours and file a written report within 15 days.
- 16. OCD Inspections: The OCD may place additional requirements on the facility and modify the permit conditions based on well emergencies, OCD inspections, and/or quarterly reporting information.
- 17. Storm Water: Key Energy Services, LLC. shall implement and maintain run-on and runoff plans and controls. Key Energy Services, LLC. shall not discharge any water contaminant that exceeds the WQCC standards specified in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) including any oil sheen in any stormwater run-off. Key Energy Services, LLC. shall notify the OCD within 24 hours of discovery of any releases and shall take immediate corrective action(s) to stop the discharge.
- 18. Unauthorized Discharges: Key Energy Services, LLC. shall not allow or cause water pollution, discharge or release of any water contaminant that exceeds the WQCC standards listed in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) unless specifically listed in the permit application approved herein.

An unauthorized discharge is a violation of this permit.

19. Vadose Zone and Water Pollution: Key Energy Services, LLC. shall address any contamination through the discharge permit process or pursuant to WQCC 20.6.2,4000-.4116 NMAC (Prevention and Abatement of Water Pollution). The OCD may require Key Energy Services, LLC. to modify its permit for investigation, remediation, abatement, and monitoring requirements for any vadose zone or water pollution. Failure to perform any required investigation, remediation, abatement and submit subsequent reports will be a violation of the permit.

20. Additional Site Specific Conditions:

- A. Key Energy Services, LLC. shall notify the OCD within 24 hours after having knowledge of ground water pollution complaints or well problems within a 1-mile radius of SUNCO Disposal Well #1.
- B. The operator shall complete the following "Required Corrective Action" on the following two wells by February 15, 2008, and submit written verification of completion to the Environmental Bureau in the Santa Fe office of the Division. If this required work and written verification is not completed by said date, the owner/operator shall immediately shut-in this injection well, submit to the Aztec district office of the Division a sundry notice of intent to plug and abandon with a proposed procedure and submit to the Environmental Bureau a valid closure plan.

Required Corrective Action:

Allen "A" Well No. 1 (API No. 30-045-08851) operated by BP America Production Company and located 790 feet from the North line and 790 feet from the West line of Section 1, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico.

Cornell "C" Well No. 1 (API No. 30-045-13092) operated by BP America Production Company and located 990 feet from the North line and 990 feet from the West line of Section 11, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico.

Within each of above wells, remedial cementing shall be completed, placing cement across any equivalent injection interval in the well and/or across the Point Lookout member of the Mesaverde Group, whichever is at a shallower depth. Prior to work, a cement bond log shall be run to verify all existing cement and, after completion of any work involving cementing, another cement bond log shall be run showing placement of remedial cement. All cement bond logs shall be supplied to the Division and also to BP America.

21. Class I Injection Well(s) Construction Conditions.

All wells, except those municipal wells injection of non-corrosive wastes, shall inject fluids through tubing with a packer set immediately above the injection zone, or tubing.

A. <u>Construction:</u> The tubing and packer shall be designed and maintained for the duration of expected service.

otherwise approved by the OCD. The pressure-limiting device shall monthly be demonstrated and reported quarterly to the OCD. Key Energy Services, LLC. shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the ground surface. Any pressure that causes new fractures or propagation in existing fractures or causes damage to the system shall be reported to OCD within 24 hours of discovery.

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

E. Mechanical Integrity Testing (MIT):

The owner/operator shall complete an annual casing-tubing annulus pressure test from the surface to the approved injection depth and below the depth of fresh ground water (< 10,000 ppm TDS) to assess casing and tubing integrity. The MIT shall consist of a 30-minute test at a minimum pressure from 300 to 500 psig measured at the surface. A Bradenhead test(s) shall also be performed annually along with the casing-tubing annulus test. A Bradenhead test(s) shall be performed in all annular spaces including surface casing if not cemented.

The owner/operator shall complete an annual pressure fall-off test to monitor the pressure buildup in the injection zone. The well shall be shut down for the time sufficient to conduct the test and shall be submitted to the OCD in the annual report (see Section 22K (11)).

All testing shall be performed annually or shall also be performed whenever the tubing is pulled or the packer reseated or when the injection formation will be isolated from the casing/tubing annuals. The operator shall notify the supervisor of the Santa Fe Office of the Division of the date, time and time of the installation of disposal equipment and of any MIT so that it may be inspected and witnessed.

1. General Requirements:

- a. If the testing requires a packer then casing-tubing annulus must be loaded with inert fluid 24 hours prior to testing.
- b. Have manpower and equipment available for pressure test. Wellhead shall be prepared for test and all valves and gauges should be in good working order.
- c. Pumps, tanks, external lines etc. must be isolated from the wellhead during test.
- d. A continuous recording pressure device with a 4-hour clock shall be installed on the casing-tubing annulus. The pressure range shall not be greater than 500 psig. The operator must provide proof that the pressure-recording device has been calibrated within the past 6 months.
- e. A minimum of one pressure gauge shall be installed on the casing/tubing annulus.

- f. OCD must witness the beginning of test (putting chart on) and ending of test (removing chart). At the end of test, the operator may be required to bleed-off well pressure to demonstrate recorder and gauge response.
- g. The Operator shall supply the following information on the pressure chart that the inspector will file in the well records:
 - 1. Company Name, Well Name, API #, Legal Location.
 - 2. Test Procedure with "Pass/Fail" designation..
 - 3. Testing Media: Water, Gas, Oil, Etc.
 - 4. Date, time started and ending.
 - 5. Name (printed) and signature of company representative and OCD Inspector

2. Test Acceptance:

The OCD shall use the following criteria in determining if a well has passed the Mechanical Integrity Test:

- a. Passes if Zero Bleed-Off during the test.
- b. Passes if Final Test Pressure is within \pm 10% of Starting Pressure, if approved by the OCD inspector.
- c. Fails if any Final Test Pressure is greater than ± 10% of Starting Pressure. Operators must investigate for leaks and demonstrate that mechanical integrity of the well(s) by ensuring there are no leaks in the tubing, casing, or packer, and injected/produced fluids are confined within the piping and/or injection zones. Wells shall not resume operations until approved by OCD.

Note: OCD recognizes that different operations, well designs, formation characteristics and field conditions may cause variations in the above procedures. If the operator wishes to make or discuss anticipated changes, please notify the OCD for approval. All

operators are responsible to notify OCD of any procedure that may cause harm to the well system or formation. Please be advised that OCD approval does not relieve any operator of liability should operations result in pollution of surface water, groundwater, or the environment.

- d. When the MIT is not witnessed by an OCD Representative and fails, the owner/operator shall notify the OCD within 24 hours after having knowledge of well MIT failure.
- F. Loss of Mechanical Integrity: The operator shall report within 24 hours of discovery any failure of the casing, tubing or packer, or movement of fluids outside of the injection zone. The operator shall cease operations until proper repairs are made and receive OCD approval to re-start injection operations. In addition, any associated fresh ground water monitor wells, which exhibit anomalous static water levels, detection of elevated general chemistry constituents, public health issues, etc. shall be immediately reported to the OCD.

G. <u>Injection Record Volumes and Pressures:</u> The owner/operator shall submit quarterly reports of its disposal, operation and well workovers provided herein. The minimum, maximum, average flow waste injection volumes (including total volumes) and annular pressures of waste (oil field exempt/non-exempt non-hazardous waste) injected will be recorded monthly and submitted to the OCD Santa Fe Office on a quarterly basis.

The casing-tubing annulus shall contain fluid and be equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The SUNCO DISPOSAL WELL #1 shall be equipped with an expansion tank under constant 100 psig pressure connected to the casing-annulus and maintained under constant pressure. The expansion tank shall initially be filled half-full (250 gallon expansion tank) with an approved fluid to establish an equilibrium volume and fluid level. Weekly monitoring of fluid levels in the expansion tank coupled with documented additions/removals of fluids into or out of the expansion tank is required to maintain the equilibrium volume. Any loss or gain of fluids in the expansion tank shall be recorded, and if significant, reported to the OCD within 24 hours of discovery. The owner/operator shall provide the following information on a quarterly basis: weekly expansion tank volume readings shall be provided in a table in the cover letter of each quarterly report. Key shall monitor, record and note any fluid volume additions or removals from the expansion tank on a quarterly basis. In addition, any well activity (i.e., plugging, changing injection intervals, etc.) shall be conducted in accordance with all applicable New Mexico Oil Conservation Division regulations.

- H. Analysis of Injected Waste: Provide an analytical data or test results summary of the injection waste water with each annual report. The analytical testing shall be conducted on a quarterly basis with any exceedence reported to the OCD within 24 hours after having knowledge of an exceedence(s).
- I. Records shall be maintained at Key for the life of the well. The required analytical test methods are:
 - a. Aromatic and halogenated volatile hydrocarbon scan by EPA Method 8260C GC/MS. Semi-volatile Organics GC/MS EPA Method 8270B including 1 and 2-methylnaphthalene.
 - b. General water chemistry (Method 40 CFR 136.3) to include calcium, potassium, magnesium, sodium, bicarbonate, carbonate, chloride, sulfate, total dissolved solids (TDS), pH, and conductivity.
 - c. Heavy metals using the ICP scan (EPA Method 6010) and Arsenic and Mercury using atomic absorption (EPA Methods 7060 and 7470).
 - d. EPA RCRA Characteristics for Ignitability, Corrosivity and Reactivity (40 CFR part 261 Subpart C Sections 261.21 261.23, July 1, 1992).
- J. Area of Review (AOR): The operator shall report within 24 hours of discovery of any new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius from the Class I Well. Documentation of new wells shall be added to the existing AOR information in the well file within 30 days of the discovery.
- K. Bonding or Financial Assurance: The operator shall maintain at a minimum, a one well plugging bond in the amount of \$95,000 or the actual amount required to plug/abandon the well pursuant to

OCD and WQCC rules and regulations. If warranted, OCD may require additional financial assurance to ensure adequate funding to plug and abandon the well or for any corrective actions.

- L. <u>Annual Report:</u> All operators shall submit an annual report due on January 31 of each year. The report shall include the following information:
 - Cover sheet marked as "Annual Class I Well Report, name of operator, permit #, API# of well(s), date of report, and person submitting report.
 - 2. Brief summary of Class I Well(s) operations including description and reason for any remedial or major work on the well with a copy of OCD Form C-103.
 - 3. Production volumes as required above in 22.G. including a running total should be carried over to each year. The maximum and average injection pressure.
 - 4. A copy of the chemical analysis as required above in 22.H.
 - 5. A copy of any mechanical integrity test chart, including the type of test, i.e. duration, gauge pressure, etc.
 - 6. Brief explanation describing deviations from normal production methods.
 - A copy of any expansion tank monitoring pressure, fluid removals/additions, well problems, drinking water impacts, leaks and spills reports.
 - 8. If applicable, results of any groundwater monitoring.
 - 9. An Area of Review (AOR) update summary.
 - 10. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.
 - 11. A summary with interpretation of MITs, Fall-Off Tests, etc., with conclusion(s) and recommendation(s).
 - 12. Annual facility training.
- 23. Transfer of Discharge Permit: Pursuant to WQCC 20.6.2.5101.H Key Energy Services, LLC. and any new owner/operator shall provide written notice of any transfer of the permit in accordance with WQCC 20.6.2.3104 (Discharge Permit Required), 20.6.2.3111 (Transfer of Discharge Permit), 20.6.2.5101 (Discharge Permit and Other Requirements for Class I Non-Hazardous Waste Waste Disposal Wells, and Class III Wells). Both parties shall sign the notice 30 days prior to any transfer of ownership, control or possession of a Class I

Well with an approved discharge permit. In addition, the purchaser shall include a written commitment to comply with the terms and conditions of the previously approved discharge permit. OCD will not transfer Class I Well operations until: correspondence between the transferor and transferee is submitted along with a signed certification of acceptance by the transferee, and proper bonding or financial assurance is in place and approved by the division. OCD reserves the right to require a major modification of the permit during the transfer process.

- 24. Training: All personnel associated with operations at the Key Class I Disposal Well shall have appropriate training in accepting, processing, and disposing o Class I non-exempt non-hazardous oil field waste to insure proper disposal. Key or the new owner/operator for the life of the well shall maintain all training documentation.
- 25. Closure: The Key Energy Services, LLC. shall notify the OCD when operations of the facility are to be discontinued for a period in excess of six months. Prior to closure of the facility, the operator shall submit for OCD approval, a closure plan including a completed C-103 form for plugging and abandonment of the well(s).

Closure and waste disposal shall be in accordance with the statutes, rules and regulations in effect at the time of closure.

26. Certification: Key Energy Services, LLC. by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments, including these terms and conditions contained here. Key Energy Services, LLC. further acknowledges that 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 this permit administratively.

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

Key Energy Services, LLC Key Energy Services, LLC. print name above

Jim D. Flynt
Company Representative-print name

Company Representative- signature

Title Senior Vice President

Date: 7/14/08

April 01, 2010:

OCD issues a Notice of Violation (NOV) for failing to report the required 2009 annual report.

Bill Richardson

Live on France

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St St O Disposid Soch No. 1 (API No. 9) 34 (248) 14941N1 and 1004 PM F 11:1 Section 2, 729 N. R 12W

Nan Juan Counts, New Mexico

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The New Mexico Old Consequence Disassing OR Dislassing required at Nichael Report of any of the s a coast orbin repeating descapantal on responsed by the reporting processing of the discharge permit for the Rey Energy Services, Ed. (thoreafter "Rey") St. N. F. Disposal Well No. 1 (11) 14815, The discharge permit, moved under the New Mexico Conseguence Tenchen Control of Ten Program explicit had a deadline of Jamary 31. 2010 for key to submit an penual report to the CRTF. Heraum Key has toiled to tract this dead me, the CRID has determined that her win violation of the CRID hechoise Perind (CA: 1415), Water Quality Control Commission (WER C) Regulations 20 to 2.52th, 55th ye , and I colored to redespose and lapse some constant Regulations of Act of R 144 & 146 or way

New Mexico MQCC 2000 1 (220 NMAC provides that in time an operator violates for permit of a discharge period couled pursuant to the Water Quality. Not, the operator may be solved to entineerism. actions including his time financed to a compliance order pecusy assessment, and across bled in Diggrey I work. You wate advised his erraid correspondence dided September 25, 2009 from the D I numericansera. Engineer Cold Change reministrict New of the submittal due date of its Annual Report for this soil. Me-Charles specifically informed here if that time that Ot D was implementing a better report that him; existing the more than reports received by UK. Class I disposal well approaches

By this Notice, the OCD is bereby advising Key that is required to submit the debuguent Annual Report and on other remains remained by the terror and conditions of discharge person UTC14005 M. Genson Reschier a Service (11) April 120 och Page 1

to the OPD and Indian Indian In 2010. The OPD is required to report to conditionise to the PA condition the CON and Danier Telancing. More his research from the congress of the Indian International Conference of the PA conference of the PA conditions of the Park to the Park of the Park to the

These consults a titles of one size states of the MSO of a lateral process of the winner that we of recent of the NOV to arrange the computative and enforcement meeting at the CCD office in Santa be, then Mexico I is imperative that you promptly make arrangements to meet with as at you was no too or y condite the completine essent by a not wasters parson, the renewes of your discharge period to this tradition. If Key tally to you that the OCD within 18 cases of recent to order and the OCD with assume that become onlying withing a yeek received of the discharge period for the SCO Disposal Well No. 1, designated UK 1800.

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May 06, 2010:

Key met with OCD staff to determine a path forward for resolution of issue. OCD requested a copy of the 2009 annual report and a comprehensive chronologic review of the permit file from the inception. OCD gave a deadline of June 30, 2010 for submittal of report.

Closure and waste disposal shall be in accordance with the statutes, rules and regulations in effect at the time of closure.

26. Certification: Key Energy Services, LLC. by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments, including these terms and conditions contained here. Key Energy Services, LLC. further acknowledges that 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 this permit administratively.

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

Key Energy Services, LLC Key Energy Services LLC. print name above

Jim D. Flynt Company Representative-print name

Company Representative- signature

Title Senior Vice President

Date: 7 14 08

January 17, 2008:

OCD approves pressure increase from 1580 psig to 2400 psig. See attached E-mail.

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

Office: (505) 476-3491 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

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

From: Philliber, Mark [mailto:mphilliber@keyenergy.com]

Sent: Friday, January 18, 2008 2:55 PM

To: Chavez, Carl J, EMNRD

Subject: RE: Minor Modification to UIC-CLI-005 (I-005) Discharge Plan

Thank you, Carl, we appreciate it.

Mark Philliber SWD Compliance Coordinator Key Energy Services, Inc. 6 Desta Drive, Suite 4400 Midland, Texas 79705 (432) 571-7203 Office (432) 770-5064 Blackberry

----Original Message----

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 17, 2008 1:48 PM

To: Patterson, Bob

Cc: Philliber, Mark; EverQuest@nts-online.net; Jones, William V., EMNRD; Price,

Wayne, EMNRD; Perrin, Charlie, EMNRD

Subject: Minor Modification to UIC-CLI-005 (I-005) Discharge Plan

Dear Mr. Patterson:

Re: Class I Injection Well Discharge Permit SUNCO Disposal Well #1 UIC-CLI-005 (I-005)

Class I Non-Hazardous Oil Field Waste Disposal Well SUNCO Disposal Well #1, API No. 30-045-28653

1595 FNL and 1005 FWL UL: E Section 2, T 29 N, R 12 W

San Juan County, New Mexico

The New Mexico Oil Conservation Division (NMOCD) hereby approves this "Minor Modification" to Key Energy Services, LLC.'s current Discharge Plan with the following conditions:

- 1) The additional corrective actions under Section 20(B) is hereby changed from February 15, 2008 to June 21, 2008.
- 2) The daily rate of injection volume under Section 22(C) shall not exceed 4,000 bbl. per day of injected wastes into the Point Lookout Formation, which is considered to be in a "fractured flow" condition. The operator shall not increase growth in the existing Fracture(s).
- 3) The maximum injection pressure under Section 22(D) is hereby increased from 1580 psig to 2,400 psig.

The NMOCD will attach this "Minor Modification" to the current Discharge Plan. Thank you for your cooperation in this matter. Please contact me if you have questions.

January 20-21, 2009:

OCD Aztec office inspects injection well and notifies Santa Fe Office that well shut-in pressure (1800-1875 psig) is above allowed permit injection limit of 1580 psig.

OCD Santa Fe Environmental Bureau requested Key to shut-in well. See attached E-mail.

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Thursday, January 22, 2009 8:21 AM

To:

'Gibson, Dan'

Monica, EMNRD

Cc:

Jones, William V., EMNRD; Price, Wayne, EMNRD; Perrin, Charlie, EMNRD; Kuehling,

Subject:

Key Energy Services, LLC Key-Sunco Trucking Company Well No. 1 (UICI-005)

KEY ENERGY SERVICES,	Key-SUNCO TRUCKING	30-045-	-2-29 N-12 W	I-5	San
LLC.	COMPANY Well #1 CLASS I	28653			Juan
	(GW -235)				

Dan:

Re: Injection Pressure Problem

Inspector Kuehling (OCD-Aztec) contacted OCD Santa Fe during an inspection on 1/20/2009, and after noticing the shutin injection pressure of the above well was at about 1875 psig.

Per our telephone conversation yesterday, Key Energy Services, LLC (Key) has voluntarily shut-in the well to determine the cause of the pressure problem. The well is permitted for a maximum surface injection pressure of 1580 psiq. However, the well shut-in pressure range is currently from 1800 - 1875 psig. It is the OCD's understanding that Key operates the injection well during the evening hours.

Please notify the OCD to discuss the cause of the problem when determined, and in advance of start-up of injection operations. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

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

Office: (505) 476-3491 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

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

January 22, 2009

Key re-starts injection well after OCD acknowledges that the allowed permitted injection pressure was 2400psig.

or the environment. In addition, NMOCD approval does not relieve Key Energy Services, LLC. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3491 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

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

From: Kuehling, Monica, EMNRD

Sent: Thursday, January 22, 2009 7:48 AM

To: Chavez, Carl J, EMNRD **Subject:** Key-Sunco disposal well

Good morning Carl,

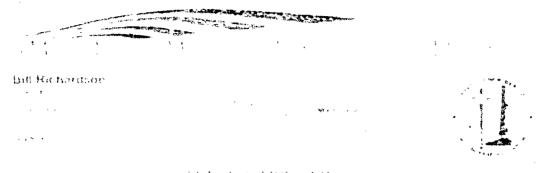
This is just to show that an e-mail was sent in January of last year giving Key the ability to inject up to 2400 lbs.

Have a great day

Monica

April 01, 2010:

OCD issues a Notice of Violation (NOV) for failing to report the required 2009 annual report.



Western Service Services 1935

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May 06, 2010:

Key met with OCD staff to determine a path forward for resolution of NOV issue. OCD requested a copy of the 2009 annual report and a comprehensive chronologic review of the permit file from the inception. OCD gave a deadline of June 30, 2010 for submittal of report.

June 02, 2010

OCD issues a minor modification to the existing permit UIC-5. E-mail attached.



"Gibson, Dan" <dgibson@kayenergy.com>
RE: Key Energy Services, L.L.C. OCD Discharge Permit "Minor Modification" (UICI-005)
June 3, 2010 12:03:30 PM MDT 0.523

**C'havez, Carl J, EMNRD* Carl J.Chavez@state.nm.us>
**Molker, Loren* <mrsieur@keyenergy.com>, **VonGonten, Glenn, EMNRD* <Glenn.VonGonten@state.nm.us>, **Altomare, Mikal, EMNRD* <Mikal.Altomare@state.nm.us>, **Perrin, Charlie, EMNRD*
**Molker, Loren* <mrsieur@keyenergy.com>, **VonGonten, Glenn, EMNRD* <Glenn.VonGonten@state.nm.us>, **Altomare, Mikal, EMNRD* <Mikal.Altomare@state.nm.us>, **Perrin, Charlie, EMNRD*

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Mr. unavec

" will review this and call you it thave any questions.

Daniel K. Gibson, P.G. | Key Energy Services, Inc. | Corporate Environmental Manager

6 Desta Drive, Suite 4400, Midland, TX 797051 o: 432.571,7536 | c: 432.638-6134 | e: dqibson@keyenergy.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, June 03, 2010 12:46 PM

To: Gibson, Dan

Cc: Molleur, Loren; VonGonten, Glenn, EMNRD; Altornare, Mikal, EMNRD; Perrin, Charlie, EMNRD Subject: FW: Key Energy Services, L.L.C. OCD Discharge Permit "Minor Modification" (UICI-005)

Mr Gibson

Please find below the OCD's "Minor Modification" for the current discharge permit (UICI-005) subsequent to the Notice of Viciation (NOV) meeting of May 6, 2010.

This correspondence will be placed with the permit under the Administrative Record on OCD Online. Please contact me if you have questions. Thank you

Carl I Chavez CHMM

New Mexico Energy, Minerals & Natural Resources Dept Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490

Fax: (505) 476-3462

E-mail: CarlJ Chavez@state nm.us

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

From: Altomare, Mikal, EMNRD Sent: Wednesday, June 02, 2010 4:12 PM To: Chavez, Carl J, EMNRD Subject: Key Minor Modification -- Final Draft

Dear Mr. Gibson:

The New Mexico Oil Conservation Division (OCD) hereby approves this "Minor Modification" of Key Energy Services, L.L.C.'s current Discharge Permit (UICI-005) for the following sections:

Section 20B:

o Pursuant to the previously-issued "Minor Modification" of this permit (UICI-005) issued on July 11, 2008, compliance with this section, "corrective action" is no longer required by the discharge permit unless well problems associated with the injection well occur within the 1 mile Area of Review.

- o The first sentence of this Section is hereby amended to read as follows, with the portions of the sentence designated with line-strikethrough hereby being eliminated from the permit, and the portion designated by underlining hereby being added:
 - "Injected oil field exempt/non-exempt non-hazardous wastes shall may be injected into the Point Lookout Formation from the interval 4380 ft to 4480 ft at a daily rate of 2,000 to 4,000 barrels per day.

Section 22D:

o Clarification: The originally designated maximum surface injection pressure of 1,580 psig was increased to 2,400 psig in a previously issued "Minor Modification" of the discharge permit dated January 17, 2008.

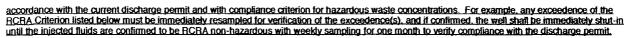
Section 22G:

- o The language of this Section will be amended as follows, with strike-through indicating eliminated portions and underlining indicating additions/new language:
 - The owner/operator shall submit quarterly Annual Reports of its disposal, operation and well workovers provided herein. The minimum, maximum, average flow waste injection volumes (including total volumes) and annual pressures of waste (oil field exempt, non-exempt, non-hazardous waste) injected will be recorded monthly and submitted to OCD Santa Fe Office on an quarterly annual basis in the Annual Report.
 - The casing-tubing annulus shall contain fluid and be equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The SUNCO DISPOSAL WELL #1 shall be equipped with an expansion tank under constant 100 psig-pressure connected to the casing annulus and maintained under at a constant pressure of 100 psig. The expansion tank shall initially be filled half-full (250 gallon expansion tank) with an approved fluid to establish an equilibrium volume and fluid level. Weekly monitoring of fluid levels in the expansion tank coupled with documented additions/removals of fluids in or out of the expansion tank is required to maintain the equilibrium volume. Any loss or gain of fluids level in the expansion tank shall be recorded and if significant, reported to the OCD within 24 hours of discovery. The owner/operator shall provide the following information on an querterly annual basis: weekly expansion tank volume readings with date and time shall be provided in a table in the cover letter of each quarterly Annual Report. Key shall monitor, record and note dates of any fluid volume additions or removals to maintain the established equilibrium level from the expansion tank en a quarterly basis on a weekly basis and report these weekly readings annually in the Annual Report. In addition, any well activity (i.e., plugging, changing injection intervals, etc.) shall be conducted in accordance with all applicable New Mexico Oil Conservation Division regulations.

Section 22H:

- o The language of this Section will be amended as follows, with strike-through indicating eliminated portions and underlining indicating additions/new language;
 - Provide an quarterly analytical laboratory data or test results with associated data summary reports of the injected RCRA (non-hazardous) wastewater with each Annual Report. The analytical testing shall be conducted on a quarterly basis with any exceedence of the RCRA Characteristically Hazardous Criteria listed below reported to the OCD within 24 hours after having knowledge of an any such exceedence(s). All testing shall be in





RCRA Characteristically Hazardous Waste Criterion or Parameters:

o Ignitability:

 Characteristic of Ignitability as defined by 40 CFR. Subpart C. sec. 261.21 (i.e., Sample Ignition upon direct contact with flame or flash point < 60C or 140F)

o Corrosivity:

Characteristic of Corrosivity as defined by 40 CFR. Subpart C. Sec. 261.22 (i.e., pH less than or equal to 2, or pH greater than or equal to 12.5)

o Reactivity:

 Characteristic of Reactivity as defined by 40 CFR. Subpart C. Sec. 261.23. (i.e., Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference: 40 CFR part 261 Subpart C sections 261,21 - 261,23, July 1, 1992.

Mikal M. Altomare

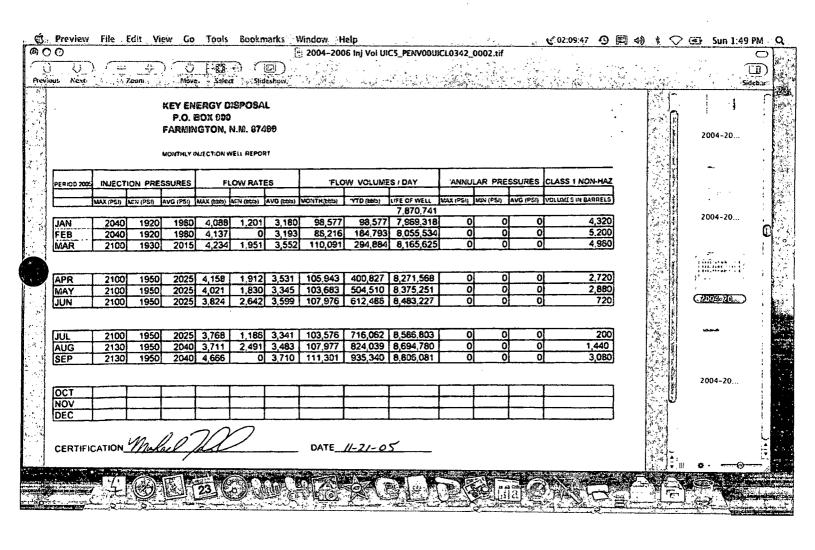
Assistant General Counsel
Off Conservation Division
Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
Tel 505.476.3480 - Fax 505.476.3462
mikal.altomare@state.nm.us

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APPENDIX B

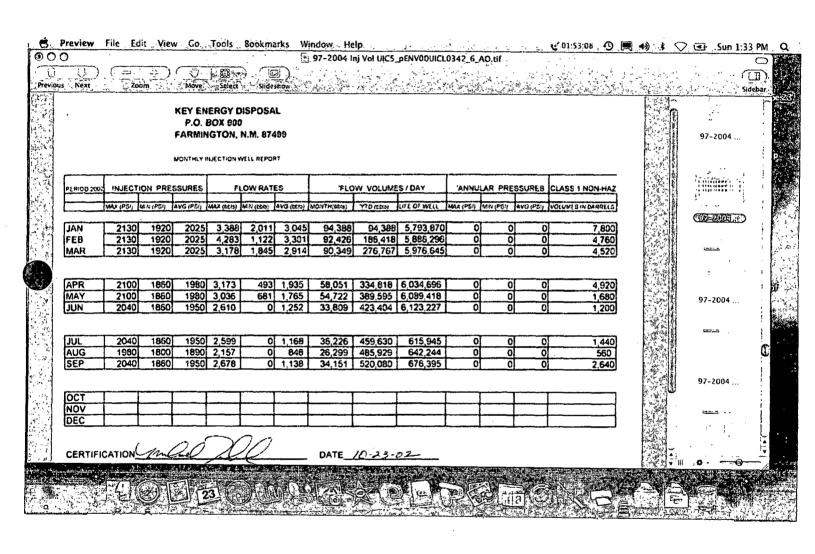
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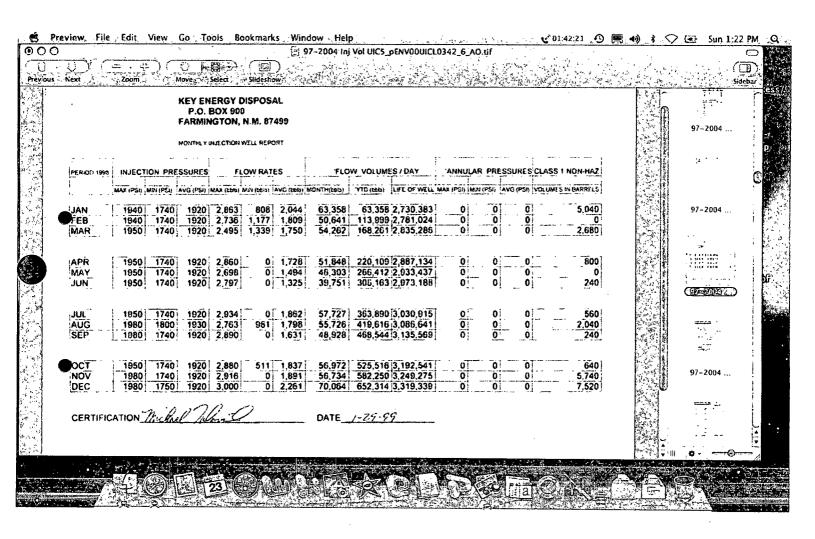
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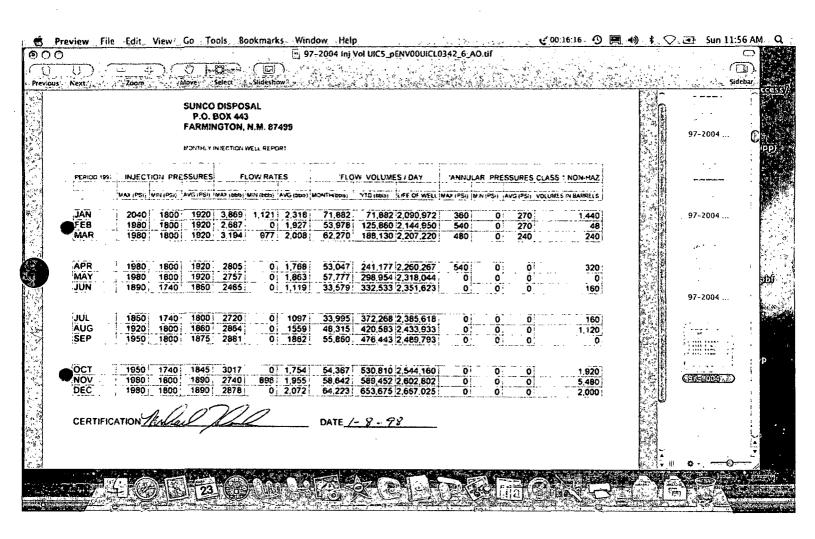


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														97-2004
JÁN	2040	1800	1920	4,020		2,148	66,589	66,589 3,385,928	0	0	0	7,200		37-2004
FEB MAR	2040 2050	1860	1920	2,923	1.259	2,110 1,873	59,096 ¹ 58,065	125,685 3,445,024 183,750 3,503,089	0	0	0	4,280 7,000		;
1917373	2030	1000	1530	2,335	1,231	1,013	30,003	103,730 3,303,003		v	0 ;	1,000;	777	
														4 11 11
APR	2070	1860	1965	2,950	978	2,044	65,540	249,290 3,568,629	. 0	0	0 :	6,840		
MAY	2070	1860	1965	2,975	702	2,053	63,462	312,752 3,632,091	0	0	0'	3.640	1.30	
NUL	2070	1860	1965	2.962	1,097	1,935	58,042	370,794 3,690,133	0	0	Ü	1,520		(DE2013)
JUI.	2050	1830	1940	2,965	1306	1,974	59,224	430,018 3,749,357	0	0	0	2,160	201	
AUG	2070	1860	1985		1311	2,530	78.424		0	0	0	5,640		11
SEP	2070	1860	1985	3,029	562	1,916	57,481	565,923 3,885,262	0	0	0	4,720	2. C	<u> </u>
														#*-
OCT	2070	1860	1965	2,969	1,374	2.033	63,029	628,952 3,948,291	0.	0	0	5.520		97-2004
NOV	2070	1860	1965	3,173		1,929	57,881	686,833 4,006,172	0;	0	0	3.680	海影響	37-2004
DEC	2070	1850	1965	2.885	0	2,017	62,534	749,367 4,068,706	1		i .	5,640,		
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PERIOD	1656	INJEC	TION PR	ESSURES	: "" = 5: F	LOW RATE	es Es	ፑኒ	ow volu	MES / DAY	'ANN	LAR PR	ESSURES	CLASS 1 NON-HA			e.	
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SEP	.:		L	<u>t.</u>	i	i		• -	L	!		i	L		ا ند			
OCT	Ţ	2040	1800	1920	2788	0	1394	46,071	512.52	0 1,915,325	1200	0	600		ū _			
NOV	· · - •	2040					1905 1825	46,762	562,08	1 1,982,170	720	0	360			្នូម	97-2004	
DEC	. 1		ienn	[ıáşō	2010		1025	20,302	018,07	0 2,019,090	540	. 0	270	5,480				
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APPENDIX C

2007 to 2009 Key Energy Disposal Monthly Totals

& Press Monton Loss

Key Energy Disposal Monthly Totals - TAMUARY 2009

Barrels Taken In	44,480
Barrels Pumped Away	5/ 7/7
Barrels Difference	7, 237
Key Hauled Loads	
Non Key Hauled Loads	<u>5.37</u>
Total Exempt Loads Hauled	9
rotal Exchipt Edads Fladied	546
NON EXEMPT LOADS (Key Hauled)	4
NON EXEMPT LOADS (NOT Key Hauled)	
Total NON EXEMT Loads Hauled	<u> </u>
	9
Total Loads Taken In	9
Average BBL Per Load	80
NON EXEMPT LOADS Per BBL	+ 3,00
Exempt Loads Per BBL	* 6
Exempt Loads Fet DDL	175
Non Exempt Loads	# 2160
Exempt Loads	F1157611
Total For Month \$	70, 174

JANUARY 09

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
	ļ			
01	193	2125	2125	2)25
02	19)	1049	3174	3174
03	181	2557	573	573
04	158)977	7.708	7708
05	189	1887	9515	9595
06	189	1880	11475	11475
07	185	1,477	12952	12,952
08	185	1,6 68	14620	1,4,620
09	186	1,491	16111	1,6,111
10	180	1,797	17908	17,908
11	179	1,608	19516	19,516
12	184	1,4109	20985	20985
13	209	1,045	22030	22030
14	207	1,868	23898	23898
15	208	2,188	26086	26086
) 16	208	2,257	28,373	28,373
17	205	1,438	21/8/1	29,811
18	203	1,321	31,132	31,132
19	204	1,426	32,558	32,558
20	207	1,036	33594	33594
21		2288	35882 828	35882
22		3215927	36809	36809
23	184	1848	38657	38657
24	0	0	38657	38657
25	205	2457	41116	41116
26	186	931.	42047	42047
27	157	1966	43913	437/3
28	182	1271	45184	45,184
29	184	1652	46836	46,836
30	212	2,970	49806	49806
31	212	1911	51717	51717
		······································		

TUBING AND CASING MONITORING LOG SHEET YEAR 2009 MONTH JANUARY

	TUBING PSI
DAY 1	2300
2	
3	2300
4	2300
5	2300
6	2300
7	2200
8	2260
9	2200
10	2200
11	23.00
12	2300
13	2300
14	2300
15	2300
18	2300
17	2300
18	2300
19	2300
20	2300
21	2380
22	2050
23	2300
24	0
25	2100
26	2200
27	2100
28	-2200
29	2100 2100
30	2250
31	1700

CASING PSI	OBSERVER INT.
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February 09

Barrels Taken In Barrels Pumped Away Barrels Difference	31,020
Key Hauled Loads	
Non Key Hauled Loads	368
Total Exempt Loads Hauled	6
Alohi Burnan	374
NON EXEMPT LOADS (Key Hauled)	6
NON EXEMPT LOADS (NOT Key Hauled)	5
Total NON EXEMT Loads Hauled	- 1/
Total Loads Taken In	5.05
· · · · · · · · · · · · · · · · · · ·	385
Average BBL Per Load	80.571
NON EXEMPT LOADS Per BBL	3,00
Exempt Loads Per BBL	, 95
- Addings Educad) of DDL	·

Non Exempt Loads Exempt Loads Total For Month 7-B09

	70	36 07		51,717
DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	2/0	1052	1052	52,769
02	184	946	1998	53,715
03	197	2,170	4168	55,885
04	196	9.78	5146	56,863
05	191	1,148	6254	58,011
06	192	962	7256	35,973
07	189	1,325	8,581	60,298
80	185	52-403	10,984	62,70
09	151	1,627	12,611	64,328
10	181	1430	14,241	65,958
11	163	1,311	15,552	67,269
12	160	1,287	16839	68,556
13	170	1,358	18197	69,514
14	173	1,209	19406	71/123
15	166	1,344	20750	72,467
16	783	639	21389	73/106
17	207	1656	23045	74,762
18	21/	1693	24,738	76,455
19	201	1817	26,555	78,272
20	0	0	0	0
21	198	11984	28,5-39	10,256
22	0	10	0	0
23	0	0	0	0
24	207	1,863	31554	82,119
25	192	1,152	31554	83,27/
26	201	1,203	32757	83,473
27	183	1,097	33,856	8 5 57 B
28	156	1/25)	35/107	86,824
29		'		
30		·		
31		-		
			35107	35,107
				34-4-5

TUBING AND CASING MONITORING LOG SHEET YEAR 2009 MONTH JEB

720	
,	TUBING PSI
DAY 1	1800
2	1650,200
3	2300 2200
4	2100 -
5	2100,
6	2100,
7	2075
8	2100/
9	2100/
10	2106,2150
11	1800
12	2150
13	2050
14	2050
15	2025
16	2000
17	2200
18	2250 2400
19	2200
20	
21	2150
22	1700
23	1700
24	1600
25	1800
26	1800
27	1800,2100,200
28	2050/
29	
30	
31	
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CASING PSI	OBSERVER INT.
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March 09

Barrels	Taken In
Barrels	Pumped Away
Barrels	Difference

Key Hauled Loads Non Key Hauled Loads Total Exempt Loads Hauled

NON EXEMPT LOADS (Key Hauled)
NON EXEMPT LOADS (NOT Key Hauled)
Total NON EXEMT Loads Hauled

Total Loads Taken In

Average BBL Per Load

NON EXEMPT LOADS Per BBL Exempt Loads Per BBL

Non Exempt Loads Exempt Loads Total For Month

30,440
25, 999
4441
380
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379
5
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385
79.064

	1440
	28,320 ==
;	79,76000

ATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	152	10630	1063	87,887
02	163	11.38	220	89/025
03	179	896	3097	89,921
04	0	Ð	0	0
05	8	0	0	2
06	177	2,476	5573	92,397
07	82	2,364	2937	94,761
08	18)	1,451	9388	96/212
09	0	0	0	96,212
10	152	912	10,300	97,124
11	143	1003	11,303	98,127
12	136	1225	12,528	99,352
13	171	1710	14,238	101,062
14	193	1157	15,317	102,221
15	183	1461	16,858	103,682
16				103,682
17	0	.0	6	0
18	-0	0	Ð	.0
19	. 166	1,331	18,189	105,013
20	202	1,619	19,508	108,25 1066
21	304	1020	868,06	109371 10765
22	Ø	10	0	0
23	201	802	24630	170573 1080
24	187	562	22,192	120 635 1090
25	. 0	0	Ð	0
26	189	400	22592	109
27				
28	25%	1809	24401	112,444 1112
29	200	1578	25999	14/092
30				//282
31			25,999	1128

TUBING AND CASING MONITORING LOG SHEET YEAR 2009 MONTH MARCH

	<i> </i>	T 15140 DOI
		TUBING PSI
	DAY 1	2050
	2	2050
	3	1800
	4	0
	5	0
	6	2050
	7	2200
	8	2/50
	9	1800
	10	2150
	11	2000
	12	2000
	13	2000
	14	2200
)	15	22∞
,	16	1800
	17	1800
	18	1650
	19	2100
	20	2200
•	21	2200
	22	1700
	23	2100
	24	2100
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	26	2/00
	27	1700
	28	2050-2100
-	29	1700
	30	1600, 2050
	31	1700
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April, 2009

Barrels Taken In Barrels Pumped Away Barrels Difference

Key Hauled Loads Non Key Hauled Loads Total Exempt Loads Hauled

NON EXEMPT LOADS (Key Hauled) NON EXEMPT LOADS (NOT Key Hauled) Total NON EXEMT Loads Hauled

Total Loads Taken In

Average BBL Per Load

NON EXEMPT LOADS Per BBL Exempt Loads Per BBL

Non Exempt Loads Exempt Loads Total For Month

18,485
16,016
2469
240
234
6
3
. 9
251
73.645
3.00 • 95

2160 = 16,100 = 18,26

TUBING AND CASING MONITORING LOG SHEET YEAR 2009
MONTH APRIL

.,	TUBING PSI
DAY 1	1600,
2	Ð
3	•
4	1650
5	1600, 2000
6	1600
7	1550, 2000
8	1650
9	2000
10	1550,2000
11	1600
12	1550, 2000
13	1600 - 2050
14	1600
15	1600
18	2000
17	1550
18	1550, 2000, 2050
19	iteo 2050
20	1600, 2050
21	160,2050
22	1550
23	2000
24	1550
25	1550, 2000
26	1600
27	1550
28	1550,1950
29	1550,1950 1550,1950
30	1550
31	,

CASING PSI	OBSERVER INT.
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MAY 09

Barrels Taken In Barrels Pumped Away	16,640
Barrels Difference	7,385
Key Hauled Loads	
Non Key Hauled Loads Total Exempt Loads Hauled	
Total Exemple Loads Fladica	164
NON EXEMPT LOADS (Key Hauled)	22
NON EXEMPT LOADS (NOT Key Hauled)	5
Total NON EXEMT Loads Hauled	27
Total Loads Taken In	191
Average BBL Per Load	87.120
NON EXEMPT LOADS Per BBL Exempt Loads Per BBL	

Non Exempt Loads Exempt Loads Total For Month 8160 13,822 <u>50</u> 21,982 <u>00</u>

24,025

24,025

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH

•	TUBING PSI
DAY 1	1550,1900
2	1550, 1500
3	1550,
4	1550,1950
5	1550
6	1500, 1900
7	1500, 1900
8	7900
9	1600,2000
10	1650,
11	1550, 1950,
12	1600
13	1550, 1900
14	
15	1550, 1900 2000, 2200
16	1650
17	1550,1950
18	1650
19	1600,2050
20	2000,2250
21	1550,
22	1700, 2100 1700, 2050
23	1700,2050
24	1700
25	1650
26	1600, 2050
27	1550,1900
27	1 / .
27 28	2000, 2200
	2000, 2200
28	1550, 1900 2000, 2200 2000, 2700 1700, 2150

OBSERVER INT.
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June 09

Barrels Taken In Barrels Pumped Away Barrels Difference 17, 751 Key Hauled Loads Non Key Hauled Loads Total Exempt Loads Hauled NON EXEMPT LOADS (Key Hauled) NON EXEMPT LOADS (NOT Key Hauled) Total NON EXEMT Loads Hauled Total Loads Taken In 83,190 Average BBL Per Load NON EXEMPT LOADS Per BBL 97,142 Exempt Loads Per BBL 81,879 Non Exempt Loads Exempt Loads

Total For Month

DATE | BRISHONTH | CUMILIATIVE |

				135,061
DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	179	1254	1254	154,118
02	173	1904	3158	156,022
03	173	1558	4716	157,580
04	146	1466	6187	159,046
05	215	1288	7470	160,334
06	172	2059	9529	162,393
07	173	3/19	12,648	165,512
08			-	165,512
09	180	1979	14,627	167,491
10	187	1870	16,497	169,361
11	184	553	17050	169,914
12		\leftarrow		169.914
13	174	868	17918	170,782
14	_	-		170,782
15	156	389	18307	171,171
)_16	181	1269	19576	172,440
17	181	1267	20843	173,707.
18	/85	1480	22323	175,187
19	Ð	Ð	0	175,187
20	195	1954	24,277	177,141
21	. =-			177,141
22	202	1,816	26,093	178.957
23	-			178,957 180,753 181,562 181,562 183,066
24	200	1,796	27,889	180,753
25	202	809	28,698	181,562
26	1-1	_		181,562
27	188	1,504	30,202	183,066
28			_	183,066
29	_			183 06 6 183 06 6
30	185	1709	31,311	184,175
31				
			31,311	31,311

30,20

TUBING AND CASING MONITORING LOG SHEET

YEAR MONTH

JUNE

09

	TUBING PSI
DAY 1	1650, 2000
2	1700, 2000
3	1700,2250
4	1650, 2250
5	1650, 2300
6	1700,2250 1650,2250 1650,2300 1700,2200
7	1708, 2200
8	1800,
9	1700, 2100
10	1750, 2400 1700, 2350
11	1700, 2350
12	1750
13	1700 , 2000
14	1700,
15	1650, 2050
18	1650, 2100, 2200
17	1700,2350
18	1700, 2150
19	1700,
20	1700, 2/00
21	1750
22	1700,2150
23	1750,
24	1700, 2150
25	1700,2300
26	1700,
27	1450, 2050
28	1750,
29	1700;
30	1650, 2050
31	

CASING PSI	OBSERVER INT.	
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0	RK.	
8 8	Sw, sw	
0	SW	
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O D	5w 5w	

July 2009

Barrels Taken in Barrels Pumped Away Barrels Difference	29,655 36,656 7,001
Key Hauled Loads Non Key Hauled Loads Total Exempt Loads Hauled	. 284 18 270
NON EXEMPT LOADS (Key Hauled) NON EXEMPT LOADS (NOT Key Hauled) Total NON EXEMT Loads Hauled	17 15 32
Total Loads Taken In	302
Average BBL Per Load	98,195
NON EXEMPT LOADS Per BBL Exempt Loads Per BBL	103.437
Non Exempt Loads Exempt Loads Total For Month	9,930°° 31,695°° 41-625°°

July 09

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	194	969	969	185,144
02				185,144
03	198	1389	2358	186,633
04		<i>-</i>	,	186,533
05	204	613	2971	187,146
06		_		187,146
07		-	<u>ج</u> .	187,146
08	194	1,742	4713	188,888
09	198	792	5,505	189680
10		-		189,680
11	195	0-2145	7,650	191,825
12		<u>-</u>	-	191,825
13	189	2,075	9,725	193,900
14	198	1783	11508	195,683
15	164	1147	12655	196,830
) 16	194	1360	14015	198,190
17	189	947	14962	199,137
18	183	1.831	16,793	200,968
19	181	725	17,518	201,693
20	164	986	18,504	202,679
21	163	1465	19,969	204,144
22	160	1,918	21,887	206,062
23		1,632	2,3519	207,694
24	181	1,348	24867	209,042
25	/81	1,348	26863	211,038
26	180	1,258	28121	212,296
27	183	1,646	29767	213,942
28	1.83	2,013	31780	215,955
29	177	1329	33,109	217, 284
30	181	1,448	34,557	218,732
31	174	2,099	36,656	220,831
	1///	XIVIT		
		1		36656

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH July 09

	TUBING PSI
DAY 1	1700, 2050
2	1700,
3	1700, 2300
4	1700
5	1680, 2000
6	1650,
7	1600
8	1600,1950
.9	1600,
10	1700,
11	1600,1950
12	1750
13	1700,2050
14	1750, 2050, 2100
15	1750,2050,2050
16	1700,1900,2000
17	1700,
-18	1750, 2150
19	1750,2100
20	1750,2100
21	1750, 2050
22	1800, 2050
23	1800, 2/00, 2200
24	1800, 2200, 2300
25	1800,2150
26	1800 2150
27	1900, 2150
28	1800, 2200
29	1800,2200,2200
30	1800, 2300, 2350
31	1800, 2200, 2350 1800, 2200,
	1 /

CASING PSI	OBSERVER INT.
00	5W, SW
0	RK,
8-8	RK, RK
0	SW
8 3	SWSW
ø	SW
B	sw
0 0	RK, SU
8	PK,
D	sú ·
BB	SW SW
Ø	sω
8 8	SW, SW
000	SW, SW, SW
88	SW SW SW
0,0,0	RK, RK, RK
0	RK,
0,0	รพ,รเช
0,8	SW SW
8,8	SW SW
0,0	SW SW
0,0	SW SW
9 9 8	SW SWSW
0.00	RIC, RK, RK
8, 0	SW, SW,
r, 0	Sw, SW
5, 5	SW SW
	5w.5w
8,20	SW SW SW
00	ex, RK, RK
D	ek, RK, RK
	, , , , , , , , , , , , , , , , , , ,

August 09

Barrels Taken In				
Barrels Pumped Away	,			
Barrels Difference				
Key Hauled Loads	EXEMPT	nit	NOY	Ene

NON EXEMPT LOADS (Key Hauled)
NON EXEMPT LOADS (NOT Key Hauled)
Total NON EXEMT Loads Hauled

Total Loads Taken In

Total Exempt Loads Hauled

Average BBL Per Load

NON EXEMPT LOADS Per BBL Exempt Loads Per BBL

Non Exempt Loads Exempt Loads Total For Month

29, 289
28,124
1.165
. 298
7
286
18
19
305
96.029
-115 -78 9 94.716

25,100.55 -31,700.55

1

		st 09	مهانسي والمنافق والمستبرة والمنافية والمنافق وال	, 22 0 , 831
DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	190	760	760	221,591
02	173	1,382	2,142	222,973
03	160	641	2,783	223,614
04	165	1,482	4,265	225,096
05	169	1,690	5955	226,786
06	174	1571	7526	228,357
07	175	879	8405	229,236
- 08	170	1870	10,275	231,106
09	179	895	11,170	23/2,001
10	156	780	11,950	232781
11	161	1,291	13,241	234,072
12	182	1,276	14,517	235,348
13	171	1,199	15,710	236,547
14	150	1,200	16,916	233, 747
15	150	8	16,916	237,747
) 16	168	1,179	18,095	238,926
17	202	1,826	19,921	280,752
18	186	933	20854	281.685
19	0	8	0	211.685
20	168	1,515	22,369	243, 308 244,646
21	180	1446	23815	241646
22	0	0	0-	24,646
23	171	684	24,499	245,330
24			_	245,330
25	158	792	25,291	246,122
26	170	680	25,971	246,802
27	180-	542	26513	247,344
28				
29	181	1269	27,782	248,613 27,7
30	-			248,6/3
31	171	342	28,124	248,955
	1			28, 124

TUBING AND CASING MONITORING LOG SHEET

YEAR August 09

	TUBING PSI
DAY 1	1800,2100
2	1800,2850
3	1800, 2050
4	1400, 2100
5	1800, 2380
6	1800, 2300, 2200, 2300
7	1800, 2250, 2250
8	1750, 2050
9	1800, 2100
10	1800, 2050
11	1800, 2050
12	1800, 2300
13	1800, 2350
14	1800, 2300
15	\$ Bno, 27 €
18	18-0, 2502200
17	1800, 2200
18	1800, 2200
19	1900, 1800
20	1800, 2050, 2050, 2050
21	1800, 2050
22	19bc #
23	1700,2000
24	17:50
25	1700, 1950
26	1700, 1950
27	1700, 2150
28	1700
29	1800, 1750, 1700,1950
30	1750,
31	1700,1950

CASING PSI	OBSERVER INT.
8 8	SW,SW
00	SW, SW
00	SW, SW
e e	SW, SW
00	SW, RK
080	RK, RK, RK, RK
8 28	RK, RK, RK
00	SW, SW
00	SWSW
00	5W 50W
0.0	ક્ય ડ્રહ્ય
0 2	RK, RK
8 8	RK, TS
00	ex, TS
40	
00	15, TS 16, TS
00	RKI RK
00	RK, RK
& &	RK, RK
2000	RK, RK, RK, TS
00	RKIRK
00	78:75
00	SW 5W
Ø	sω
80	SW TM
00	รม รม
8-8	RK, RK
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₽	RK'
Ø	sω [']
00	5W 5W

September 09

Barrels Taken In 22, 395
Barrels Pumped Away 28, 749
Barrels Difference 6, 354

EXEMPT LOADS (Key Hauled)	188	
EXEMPT LOADS (NOT Key Hauled)	14	
Total EXEMPT Loads Hauled	202	
NON EXEMPT LOADS (Key Hauled)	18	
NON EXEMPT LOADS (NOT Key Hauled)	8	
Total NON EXEMPT Loads Hauled	26	76.4
Total Loads Taken In	228	

Non Exempt Loads	\$ 7800 00
Exempt Loads	\$ 19,509.25
Total For Month	\$ 27.309.25

September 09 248,955 DATE BBLS/MONTH CUMULATIVE BBLS/HR BBLS/DAY 248,955 01 02 248,955 03 248,955 248, 955 04 248, 955 05 248, 955 90 07 248,955 1497 166 1497 80 250, 452 09 250,452 250, 452 10 250,452 11 12 13 340 14 345 173 250 797 15 186 743 1283 251,540 16 251,540 17 251,540 18 185 3/41 4424 254,681 45 40 259,221 19 189 8964 190 245,54 13,518 20 263,775 268323 21 45.48 18,866 190 22 1915 270, 238 19,981 192 23 270,238 24 270,238 194 20,564 583 270,821 25 190 272,348 26 1,526 22,090 23.839 194 274,096 27 6749 274,920 206 824 24663 28 219 26,196 276,453 29 1533 277,704 27,447 30 1251 [']31 28,749 28,749 + 1302

13

7-1-1-1

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH September 09

, ,	
	TUBING PSI
DAY 1	1700
2	1700
3	1700
4	1700
5	1700
6	1700
7	1700
8	1700,1900
9	1750
10	1750
11	1750
12	1750,1950,2100
13	1750,1900,
14	1700 1400
15	1700, 1850
16	1700,
17	1600,
18	1600, 1800,
19	2200,
20	2250
21	2250
22	2250
23	1800
24	1800
25	1800,2000
26	1800, 2000
27	1700, 2000
28	1800, 2050
29	1750, 1950
30	1750 1950
31	

CASING PSI	OBSERVER INT.
.e	SW
8	TS
-e	RK .
8	TS
8	RIC
e	sω
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8	Sω
Ð	RK .
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000 000	RK, RK, RK
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80	SW SW
00	SW SW SW SW
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0 4	SW SW

October 09

Barrels Taken In
Barrels Pumped Away
Barrels Difference

30, 960
40, 952
10, 262

EXEMPT LOADS (Key Haulec)	294
EXEMPT LOADS (NOT Key Hauled)	5
Total EXEMPT Loads Hauled	249
NON EXEMPT LOADS (Key I auled)	5
NON EXEMPT LOADS (NOT (ey Hauled)	5
Total NON EXEMPT Loads He uled	10
Total Loads Taken in	309

Non Exempt Loads	\$ 27,800,40
Exempt Loads	\$ 2400
Total For Month	\$ 30,200.40

October 09

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	210	1,889	1889	279593
02	215	1,292	3181	280,885
03				
04	208	1459	4640	282,344
05	201	15/1	6,151	283,835
06	201	2014	8/65	285,869
07	218	653	8818	286,522
08	212	2/21	10,939	288,643
09	218	1,967	12,906	B01,5491 290610
10	211	1481	14,387	3/5,936 292091
11	251	1,508	15,895	3/7, 4/14 293,599
12	257	2,055	17,950	3/9,4/99 295654
13	246	1,720	19,670	321,219 29737
14	240	2399	22,069	328,618 299,77
15	238	2,148	24,217	32/5766 301,92
) 16	245	1,957	26,174	327,723 30387
17	211	1,271	27,445	328,994 305,14
18	189	1,5 15	28,960	3/30,509 306,66
19	205	615	29,575	331,124 307279
20	140	700	30,275	331,824 307979
21	156	938	31,213	332,762 30891
22	165	1,159	32,372	365,134 31007
23	177	1,416	33788	398,922 31149
24	177	1,472 1,472 728	35,210	HOO,392 312,911
25	182	728	3 5 ,938 36,400	401,072 313,64
26	154	462		401,534 314,104
27	153	534	36934	402,068 314,639
28	150	824	37,758	402,892 315,46
29	168	1010	38,768	403,901 316,472
30	162	649	39,417	317,121 3941
31	171	/535	40 952	318,656
				40,952

TUBING AND CASING MONITORING LOG SHEET

YEAR October 09

	TUBING PSI
DAY 1	1800, 2 3 00
2	1800, 2200
3	1800;
4	2000;
5	1700, 1900, 1900
6	1750, 1900
7	1758, 2050
8	1700, 1950
9	1700, 2300 2000, 2200 19 5 0, 2050
10	2000, 2200
11	1950, 2050
12	1800, 2000
13	\$750,2050
14	1800, 2000
15	2000/ 2200
16	1800, 2300
17	1800, 2100
18	1750, 1950,
19	1750, 1900
20	1750,1850
21	1750 1850
22	1750,2200
23	2050, 2150
24	2000, 2200
25	1750,2150
26	1750,
27	1750,1850
28	1750, 1850
29	1750,
30	1750,1950
31	1750, 1950

CASING PSI	OBSERVER INT.
E D	PK, PK
4-6	RK, RK
-0	RK
0	EK'
oee	Sw Sw Sw
0 €	SW SW,
E 6	su su
8 6	SW SW .
0-0	RK, RK
00	RK, RK-
00	SW'SW
00	SW SW
c e	SW SW
A &	5W 5W
60	RK, PK
0.0	ex, TS
\$.0	RK, RK
00	swsw
AU	swi sw
a o	sw. sw
D, Er	SUSW
80	RK, RK
0 0 0 0	RK, RK
Ø &	RK, RK
0.0	RK, RK
2	NA.
D . O	NA, NA, NA
00	Sw
ð.	RK,
80	SW SW
B E	RK, Sω sω Sώ, sω

November 09

Barrels Taken in 38,6人0	
Barrels Pumped Away 39, 263	
Barrels Difference 6 4 3	
EXEMPT LOADS (Key Hauled)	274
EXEMPT LOADS (NOT Key Hauled)	46
Total EXEMPT Loads Hauled	314
NON EXEMPT LOADS (Key Hauled)	12
NON EXEMPT LOADS (NOT Key Hauled)	66
Total NON EXEMPT Loads Hauled	78
Total Loads Taken In	392

Non Exempt Loads	\$ 25,625,00
Exempt Loads	\$ 22.173.20
Total For Month	\$ 52 798,20

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
.01	165	988	988	3/9,644
02		796	1784	320,440
03	159	935	27/9	321, 375
04	156	1296	4015	325390 32267
05	161	1450	5465	3-30,855 324,12
06	157	942	6407	337262 325,0
07	161	645	7,052	325 908
08	163	8/4	7,866	326,522
09	153	1.072	8,938	327,594
10	161	1448	10,386	329,042
11	156 156	934	11,320	329,976
12	155	1397	12,717	331, 3.73
13	157	784	13,501	• 332,157
14	165	826	14327	332,983
15	-	-		3 32, 9 83
	162	1/36	15,463	334,119
17	163	1303	16,766	335,422
18	163	1399	18065	335,422 336 7
19	170	1526	19,591	338, 247
20	167	149 9	27,090	339,746
21	165	1323	22413	341,069
22	159	797	23,210	341,866
23	160	1680	24,890	343,546
24	159	3194	28,064	346,720
25	155	2953	31,017	349,673
26	173	1558	32575	351, 231 353,747 35,0°
27	144	2,516	35091	353,747 35,0
28	124	1,423	36,514	3.55,170
29	124	1/16	37,630	356, 286
30	126	1633	39,263	357,919
31			,	
				39,263

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH NOVEMBER 09

	TUBING PSI
DAY 1	1750,1900
2	1750,1900
3	1750 1950
4	1750,1950
5	
6	
. 7	1750, 1950
8	1750 1950
9	1750 1450
10	1750, 1950
11	
12	
13	
14	1750, 1950
15	1750,
16	1700, 1950, 2050
17	1750, 1950,
18	
19	
20	
21	1750, 2000
22	17501 2000
23	1750, 1950
24	1800, 2050
25	1950, 2000
26	1 ,
27	
28	1950, 2000
29	1800, 1900
30	1850, 1950
31	

CASING PSI	OBSERVER INT.
e e	50, SW
& B	5W, SW
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·	,
0	SW-5W
e e	Sul Sul
00	5W, SW).
0 0	5W 5W
00	SWISW
Ø-	SW
800	SW, SW, SW
00	SW,SW
	· ,
00	SW, SW
00	SW, SW
00	Sw, SW
00	5W SW
20	ςω, ςω
0 0	sw, sw
00	5W, SW
0.0	5W, SW

December 09

Barrels Taken In 32,767
Barrels Pumped Away 32,890
Barrels Difference 123

EXEMPT LOADS (Key Hauled)	240	
EXEMPT LOADS (NOT Key Hauled)	26	
Total EXEMPT Loads Hauled	266	
NON EXEMPT LOADS (Key Hauled)	9	
NON EXEMPT LOADS (NOT Key Hauled)	60	
Total NON EXEMPT Loads Hauled	69	
Total Loads Taken In	335	

Non Exempt Loads	\$ 20,617,50
Exempt Loads	\$ 23, 771,00
Total For Month	\$ 44,388,50

December 09

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	/30	1,816	1816	35 9,735
02	192	3,274	5090	363,069
03	197	373 Gen	8826	366,745
04	201	1,608	10 434	368,353
05				368,353
06	165	1/58	11,592	369,511
07	187	1680	13,272	371,191
08		<u></u>	_	371:191
09	192	1152	14,4,24	372,343
10	180	901	15 325	373, 244
11	184	1286	16,611	374,530
12	187	[123	17,734	375,653
13	186	929	18,663	• 376,582
14		_		376,582
15	182	1273	19936	377,855
16				377,858
17	17/	1197	211.33	379,052
18	185	926	22059	379978
19	143	1,142	23,201	381/20
20				381.120
21	160	1/122	24,323	382,242
22	156	1405	25,728	383,647
23	159	957	26685	384,604
24	166	1326	28011	385 930
25	~	_	28.051	385,970
26	-	_	· -	385970
27	160	1,043	29,094	387,013
28	157	705	29,799	387,718
29	155	1240	31,039	388,958
30	154	926	31,965	389,884
31	154	925	32,890	390,809
			<u>'</u>	
				32,890

1034

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH December 09

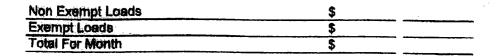
	TUBING PSI
DAY 1	1950, 1950
2	
3	
4	·
5	1850
6	1800,2050
7	1800, 2050
8	1800
9	
10	
11 .	1800, 2050
12	1800, 2000
13	1800 2000
14	1800,
15	1750,2000
18	
17	
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19	1750, 2000
20	
21	1700, 2000
22	1750, 1950
23	/
24	
25	
26	1750
27	1700, 1950
28	1750, 1400
29	1750, 1950
30	
31	

CASING PSI	OBSERVER INT.
00	50, SW
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0 0	SW, SW
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8 8	SWSU SW, SW
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o e	รพ.รพ
00	SW, SW
00	sw sw

JAH., 08

Barrels Taken In 47, 130
Barrels Pumped Away 86, 166
Barrels Difference 39, 036

EXEMPT LOADS (Key Hauled)	485
EXEMPT LOADS (NOT Key Hauled)	4
Total EXEMPT Loads Hauled	489
NON EXEMPT LOADS (Key Hauled)	9
NON EXEMPT LOADS (NOT Key Hauled)	B
Total NON EXEMPT Loads Hauled	9
Total Loads Taken in	498



JANUARY 08

DATE	BBLS/HF	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	180	·-[4324	4,324	4324
01 02	173	3910	8234	8,234
03	168	3,187	11,421	11.421
04	166	3,729	15,150	15,150
05	174	4,168	19318	19318
06	176	3,882	23200	23200
07	167	2,756	25956	25,956
08	156	2,969	28,923	28923
09	133	2263	31,186	31,186
10	86	1,943	33,129	33,129
11	84	2005	35,134	35,134
12	88	2/10	37,244	
13	86	1,886	39,/30	37,244 •39,130
14	89	1,612	40,742	46,742
15	88	2130	42,872	42,872
16	88	1,931	44,803	44,803
17	84	2026	46,829	46,829
18	83	1,997	48,826	48,826
19	8	1,953	50779	50,779
20	78	1,705	52,484	52,484
21	83	990	53,474	53,474
22	85	\$7.4	53,988	53,988
23	134	3073	57,061	57,061
24	160	3858	60919	60,919
25	160	3861	64,780	64,780
26	161	3,875	68,655 72,048	65,655
27	154	3/393	72,048	72,048
28	160	2861	74,909	74,909
29	160	3,829	78738	78,738
30	161	3,547	82,285	82,285
31	162	3,881	86,166	82,285
1				

TUBING AND CASING MONITORING LOG SHEET
YEAR

YEAR MONTH JANUARY 08

	•
	TUBING PSI
DAY 1	2150
2	2250
3	2250
- 4	2250
5	2250
6	2250
7	1900
8	2250 19/1
9	2260-1900
10	2000
11	2000
. 12	2000
13	2050
14	1850
15	2150
16	2050
17	2100
18	2160
19	2100
20	2100
21	1900
22	1900
23	2000
24	2300
25	2350
26	2350
27	2350
28	2150
29	2350
30	2350
31	2350

CASING PSI	OBSERVER INT.
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0	15
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0	25
0	25
. 0	124
0	12
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e	1> 55 RR
<u>0</u> 0	8
0	20
0	20



Feb., 08

Barrels Taken in
Barrels Pumped Away 62,617
Barrels Difference 13, 202

EXEMPT LOADS (Key Hauled)

EXEMPT LOADS (NOT Key Hauled)

Total EXEMPT Loads Hauled

NON EXEMPT LOADS (Key Hauled)

14

NON EXEMPT LOADS (NOT Key Hauled)

2

Total NON EXEMPT Loads Hauled /6

Total Loads Taken In 546

Non Exempt Loads \$
Exempt Loads \$
Total For Month \$

789-08

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
.01	159	3732	3732	89, 818
02	160	3,950	7582	93,748
03	162	3,317	10,899	97,065
04	163	2943	13,842	100,008
05	162	3875	17,719	103, 883
06	161	3863	21,590	107, 746
07	164	32.72	24,852	111,018
08	168	2017	26,869	113,035
09	195	2,529	29,398	115,564
10	85	1,775	3 8, 173	117,339
11	169	1017	32,190	118,356
12	162	2188	34,378	120,544
13	159	1747	36,125	• 122,291
14	167	2513	38,638	124, 804
15	168	2191	40,829	126, 995
16	166	2,238	43,067	129, 233
17	167	1167	44,234	130,400
18	169	/353	45,587	131,753
19	164	2144	47,731	133,897
20	132	1653	49,384	135,550
21	86	2069	51,453	137,619
22	79	/189	52,642	138,808
23	84	2011	54,653 55,603	140, 819
24	83	950	55,603	14/1,769
25	86	620	56,123	142,289
26	91	11.83	57,306	143, 472
27	29	9.53	58,259	144,425
28	121	1822	60,081	146,247
29	169	2536	62,617	148, 783
30				
) 31				
				62,617

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH

TUBING PSI
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1900
2083-
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CASING PSI	OBSERVER INT.
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March, 08

Barrels Taken in 86, 497
Barrels Pumped Away 71, 535
Barrels Difference 14, 962

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895
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940

Non Exempt Loads	\$
Exempt Loads	\$
Total For Month	\$

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	165	2315	2315	151,098
02	165	1,316-	3,631	152,414
03	/63	1,143	4,774	153,557
04	162	2,272	1046	155, 829
05	159	2224	9,240	158,053
06	162	2436	11,706	160,489
07		0		
08		TS .		
09	161	6103	17809	166,592
10	84	(85	18,394	167,177
11	82	1962	20,356	169, 139
12	81	775	21,131	169,914
13	83	1997	23,128	171,911
14	83	2013	25,141	173,924
15)14	2,676	25,141	176,602
16	154	3,360	31,199	129,982
17	165	1,159	32,358	181,141
18	161	2740	35,098	183,881
19	161	23862	38,960	187,743
20	159	3807	42,767 46,560 50,389 53,813 56,460	191,550
21	158	3793	46.560	195, 343
22	160	3,829	50,389	199,172
23	163	3,424	53,813	202,596
24	155	26,47	56,460	205,243
25	158	3,829 3,424 26,47 3,790	60,250	209, 033
26	117	2,747	62,997	211,780
27	82	1,713	64,710	213, 493
28	75	1,788	66,498	215,38
29	81	1,954	66,498	217, 235
30	83	1,747	70/199	28,882
31	59	11,336	71,535	220,388

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH

·	TUBING PSI
DAY 1	2250 - 2050
2	2275 -
3	1950
4	2050- 2000
5	2850-
6	2250 - 1950
7	2280-
8	2050 -
9	
10	1800- 1975
11	1975 - 2000
. 12	2000 - 2000
13	2000 - 2000
14	2000-2050
15	2050 - 2100
16	
17	1850- 2000
18	2050- 2100
19	2250- 2250
20	2250- 2350
21	2350 - 2350
22	2350 -2350
23	2350-
24	1900 -
25	2350- 2550
26	2350 - 2000
27	2000- 1950
28	2000-2000
29	2000 -
30	2050 -
31	2000

CASING PSI	OBSERVER INT.
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April, 08

Barrels Taken In 83, 625
Barrels Pumped Away 86, 835
Barrels Difference 3,210

EXEMPT LOADS (Key Hauled)	410	
EXEMPT LOADS (NOT Key Hauled)	55	
Total EXEMPT Loads Hauled	465	
NON EXEMPT LOADS (Key Hauled)	1/2	
NON EXEMPT LOADS (NOT Key Hauled)	384	
Total NON EXEMPT Loads Hauled	496	
Total Loads Taken in	961	

Non Exempt Loads	\$
Exempt Loads	\$
Total For Month	\$

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	80	1916	1916	222,234
02	81	1945	3861	224, 179
03	68	1571	5432	225, 750
04	81	1963	7395	227, 713
05	80	1,928	9323	229,641
06	80	1,698	11,021	23/,339
07	94	1374	12,395	232,711
08	74	1792	14,187	234,503
09	119	2,447	16.634	236,950
10	167	4018	20,652	240, 968
11	/23	39/3	24,565	244, 861
12	17/	4121	28,686	249,002
13	158 172	3795	32481	· 2 52,797
14	173	3471	35,952	256, 268
15	172	4125	40,077	260,393
16	172	4129	44,206	264, 522
17	172	4/19	48,325	268, 641
18	172	4125	52,450	272,766
19	172	4,119	56,569	276,885
20	173	3,625	60,194	286,510
21	175	2724	62,918	283,234
22	175	3938	66,856	287, 172
23	172	4134	70,990	291, 306
24	172	3960	74,950	295,266
25		84141	79,091	299,407
26	172	4,138	83,229	303,545
27	172	3,608	96,637	307,153
28		3,608	1 7	1
29	_			
30			_	
31				

8 10837

86835

MAY, 08

Barrels Taken In 33, 685
Barrels Pumped Away 16, 967
Barrels Difference 16, 718

EXEMPT LOADS (Key Hauled)	360	
EXEMPT LOADS (NOT Key Hauled)	14	
Total EXEMPT Loads Hauled	374	
NON EXEMPT LOADS (Key Hauled)	14	
NON EXEMPT LOADS (NOT Key Hauled)	8	
Total NON EXEMPT Loads Hauled	22	
Total Loads Taken in	396	

Non Exempt Loads	\$	
Exempt Loads	\$	
Total For Month	\$	

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH APRIL 08

	TUBING PSI
DAY 1	2000 - 2050
2	2050- 2050
3	2050 - 2050
4	2050-2050
5	2000 - 2050
6	2050 -
7	1900 - 2150
8	2100 - 2050
9	2050-1950-2150
10	2350-2300
11	2300- 2350
. 12	2300-2350
13	2350-2100
14	2350-2150
15	2350-
16	2350-2350
17	2350-
18	2350-
19	3220
20	2350-
21	2100 -
22	2350-2200
23	2350-2350
24	2350 -2200
25	2350-
26	2350-
27	2350
28	OFF 1800
29	OFF 1700 OFF 1700
30	OFF 1700
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CASING	PSI	OBSERVE	R INT.	
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DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01		_		307,153
01				
03			_	307,153
04				307,153
05				307,153
06		(A)		307, 153
07	65	973	973	308,126
08	63	946	1919	309,072
09	57	8.54	2773	309, 926
10	54	915	3596	310,741
11	56	836	4,426	311,5>9
12	54	814	5,240	312,393
13	55	834	5,240	• 313, 227
14	61	655	6629	313,782
15	1.52	774	7,403	314,556
16	57	850	8,253	35,406
17	55	818	9,071	316,224
18	53	55)	9,922	317,075
19	52	825	10.747	317, 900
20	54	703	11,450	318,603
21	51 48 49 50	703 823 722	12,273	318, 603 319,426 320,148 320,922 321,718
22	48	722	12,995	320,148
23	148	774	13,769	320,922
24	50	796	14,565	1321/718
25		(See		X / L1
26	1-			
27	46	738 949 815	15,394	321, 718 322, 456 323, 305 324, 120 324, 120
28	53	949	16,243	323,305
29	5	915	17,05%	324/120
30				324,120
31				324,120
		16.967		

16,967

16,967

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH

	TUBING PSI
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15	1700 -
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18	1700.
19	1700-
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21	1700 -
22	1700
23	1700 -
24	1700 -
25	<u> </u>
26	
27	1650-
28	1700 -
29	1700-
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31	-

CASING PSI	OBSERVER INT.
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JUNE, 08

Barrels Taken in 38, 696
Barrels Pumped Away 17,925
Barrels Difference 20,771

EXEMPT LOADS (Key Hauled)	422
EXEMPT LOADS (NOT Key Hauled)	/5
Total EXEMPT Loads Hauled	437
NON EXEMPT LOADS (Key Hauled)	
NON EXEMPT LOADS (NOT Key Hauled)	5
Total NON EXEMPT Loads Hauled	
Total Loads Taken In	456

Non Exempt Loads \$	
Exempt Loads \$	·
Total For Month \$	

ATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	324 JAD CUMULATIVE
01	-	-		324,120
02	52	832	832	324, 952
03	MI	655	1487	325,607
04	173	2,589	4076	328,196
05		. 6		
06	172	2,753	6829	330,949
07	11	160	6789	331,109
08	10	158	7147	33/, 267
09	6	48	7195	331,315
10				331, 267 331, 315 331, 315
11	_	-		331,315
12	167	2,334	9,521	
13				333,649
14	175	2,270	11,799	335,919
15				335,919
16				335, 919
17				335,919
18			~	335,919
19	170	2.553	14,352	338, 472
20	170	2,464	16,816	14A 936
21	_			340,936 340,936 342,945
22				395,836
23	171	1109	17,925	342.045
24	_	_		11 11
25	-			342,045
26	_		7	<i>'</i>
27	_			342,049
28	_		-	342,045 342,045
29				The second section of the second second second second section
30		_		342,045
31	·			
			17,925	17,925

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH

TUBING PSI

	TUBING FOI
DAY 1	/5ec
2	1700
- 3	1700
4	1900 -
5	1.500
6	1900
7	1700
8	1700
9	1600
10	1500
11	1500
12	1850
13	1500
14	1850 -1850
15	1500
16	1500
17	1500
18	1500
19	1850
20	1850
21	1600
22	1700
23	1850
24	1700
25	1700
26	1700
27	1700
28	1500
29	1500
30	1700 1500 1500 1500
31	

CASING PSI	OBSERVER INT.
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0	SW
8	SW
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July , 08

Barrels Taken In 54, 175
Barrels Pumped Away 40,386
Barrels Difference 13, 789

EXEMPT LOADS (Key Hauled)	581	
EXEMPT LOADS (NOT Key Hauled)	8	
Total EXEMPT Loads Hauled	589	
NON EXEMPT LOADS (Key Hauled)		
NON EXEMPT LOADS (NOT Key Hauled)	11	
Total NON EXEMPT Loads Hauled	30	
Total Loads Taken In	619	

Non Exempt Loads	\$
Exempt Loads	\$
Total For Month	\$

July 08 342,045

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	_			342,045
01 02				342,045
03				342,045
04	-			342,045
05		-		342,045
06	— ,			342,045
07				342,045
08	_			342,045
09	_	_		342,045
10	_		-	342,645
11	17.1	2908	2908	344,953
12	171	4107	7015	347,060
13	17)	3,927	10942	• 352,987
14	170	4089	15031	357,076
15	170	1534	16565	358,610
16				358,610
17		Ö		358,610
18			_	358,610
19	170	€ 219 33	16594	358639
20	181	181	16,775	358,820
21	167	999	17,774	359, 819 362, 185 364, 582 366, 422 368, 802 371,320 373,405
22	167	2366	17,714 20,140 22,537 24377	362, 185
23	17)	2397	22,537	364,582
24	175	1840	24377	366, 422
25	170	2,380	26757	368,802
26	174	2,380 2514	29,275	371,320
27	174	2085	3/360	373,405
28		2,056	33,416	13/3,461
29	178	2,664	3/360 33/4/6 36,080	378,125
30	173	45/140	40/220	382,265
) 31	55	166	40, 386	38457 382,43
				,
				40,386

TUBING AND CASING MONITORING LOG SHEET

YEAR MONTH

July

08

TUBING PSI
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August, 08

Barrels Taken in 68, 582 Barrels Pumped Away 95, 294 Barrels Difference 26, 712

EXEMPT LOADS (Key Hauled)	725
EXEMPT LOADS (NOT Key Hauled)	29
Total EXEMPT Loads Hauled	754
NON EXEMPT LOADS (Key Hauled)	· 8
NON EXEMPT LOADS (NOT Key Hauled)	15
Total NON EXEMPT Loads Hauled	23
Total Loads Taken in	777

Non Exempt Loads	\$
Exempt Loads	\$
Total For Month	\$

August 2008 382,431

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
 		1,185		383,616
01 02	169	41.42	1/85	
Γ.	173		5327	387,758
03	172	4,117	9,444	391,875
04	171	4,112	13,556	395,987
05	171	4,107	17,663	400,094
06	171	4,115	21,778	404,209
07	177	6799	22577	405,008
80	168	2,524	25,101	407,532
09	172	2,935	28,036	410,467
10	170	3,066	31,102	413,533
11	170	2,888	33,990	416,421
12	170	3,165	37,155	419,586
13	172	2,747	39,902	• 422,333
14	170	3,236	43,138	425,569
15	172	3,604	46,742	429,173
16	174	3,396	50/138	432 \$69
17	168	3,365	53503	435,934
18	153	3,367	56,870	439,301
19	167	3695	60565	442,996
20	165	2488	63,053	445,484
21	166	3,974	47,027	449,458
22	168	4,021	71,048	453,479
23	168	3,870	74,918	457,349
24	170	3,905	78,823	457,349
25	144	2,738	81,561	463,992
26	166	2,486	84,047	466,478
27	168	1/343	85,390	467,821
28		1/2		467,821
29	166	2,401	87,791	470,222
30	166	3,486	91,277	473,708
31	167	9,017	95,293	477,7235
	1 4	7,54	1-1-1-1	101, led
		1		95,294
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TUBING AND CASING MONITORING LOG SHEET YEAR 2008 MONTH AUGUST

	TUBING PSI
DAY 1	1950
2	2100
3	2/00
4	2100
5	2100
6	2100
7	0
8	1950
9	1950
10	2100
11	1900
12	1900
13	1900
14	2100
, 15	2100
16	2/00
17	2,000
18	2100
19	2100
20	2000
21	2000
22	2100
23	2100
24	2/00
25	2100
26	. 2100
27	2100
28	2100 2100 1 5 00
29	1850
30	2100
31	2100

CASING PSI	OBSERVER INT.		
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September, 08

Barrels Taken in 65,821
Barrels Pumped Away 62,730
Barrels Difference 3,091

EXEMPT LOADS (Key Hauled)	704
EXEMPT LOADS (NOT Key Hauled)	. 14
Total EXEMPT Loads Hauled	7/8
NON EXEMPT LOADS (Key Hauled)	/6
NON EXEMPT LOADS (NOT Key Hauled)	8
Total NON EXEMPT Loads Hauled	24
Total Loads Taken In	742

Non Exempt Loads	\$	
Exempt Loads	\$	
Total For Month	 \$	

DATE		Tember (BBLS/MONTH	リクフ, 725 CUMULATIVE
	BBLS/HR	BBLS/DAT	DBL3/WOWTH	
01				477,725
02		-0		477,725
03				477, 225
04	9	955	43	477,768
05	175	877	920	477,768
06	175	877	920	478,645
07	143	3,425	4345	482,070
08	134	3,151	7504	485,229
09	134	3,155	10,659	488,384
10	114	1,819	12,478	490,203
11	102	2,455	14,933	492,658
12	100	1,805	16,738	494, 463
13	94	1,499	18,237	•495,942
14	95	2,269	20,504	498, 231
15	93	934	21,440	1499,165
16	98	1.919	23,359	501,084
17	93	2,225	25,584	503,309
18	85	2,048	27,632	505,357
19	147	2,418	30,050	507,775
20	183	2563	32,613	510, 338
21	184	1,654	34,267 37,222 39,907	511,992
22	185	12,955	37,222	1514 947
23	191	2,685	39,907	517,632
24	194	3,108	43,015	520,740
25	193	3,2/8/	46,496	520,740 524,221
26		2,917	46,496 49,413 52,321	527,138
27	182	2,908	52,321	530,046
28	204	3,258	55579	533,304
29	204	3,663	59,242	536,967
30	205	3,488	62,730	540, 455
) 31	1200	100	WUI I	
		_		
				62,730

TUBING AND CASING MONITORING LOG SHEET YEAR 08 MONTH SEPTEM bea

	TUBING PSI		
DAY 1	<i>150</i> 0		
2	1500		
3	1500		
4	1500		
5	1500		
6	1800		
7	2/00		
8	2100		
9	2100		
10	2100		
11	2100		
12	1900		
13	19.00		
14	2000		
15	1500 - 1850		
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19	2,000-2000		
20	2300		
21	21500		
22	2050		
23	2050		
24	2050		
25	2,150		
26	2,150		
27	2100		
28	2/00		
29	2100		
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CASING PSI	OBSERVER INT.		
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October, 08

Barrels Taken in 72, 203
Barrels Pumped Away 94, 482
Barrels Difference 22, 279

EXEMPT LOADS (Key Hauled)	<u> </u>		
EXEMPT LOADS (NOT Key Hauled)	15		
Total EXEMPT Loads Hauled	786		
NON EXEMPT LOADS (Key Hauled)	9		
NON EXEMPT LOADS (NOT Key Hauled)	6		
Total NON EXEMPT Loads Hauled	15		
Total Loads Taken In	801		

Non Exempt Loads	\$
Exempt Loads	\$
Total For Month	\$

October 08 540,455

- <u>1144</u> (4. \$1)	UC(00	EN UU		7,7,7,0
DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	214	3,214	3,214	543,669
02	227	4,089	7,303	547,758
03	235	4,234	11,537	551,992
04	234	4,324	15,861	556,316
05	226	2,709	18,570	559,025
06	212	2,654	21224	561,679
07	209	3,763	24,987	565,442
08	204	2,454	27,441	567,896
09	223	4.006	31,447	571,402
10	236	4,004	35451	575,906
11	204	3,987	39,438	579,893
12	176	3,722	43,160	583,615
13	188	1,879	45,039	585,494
14	185	3,051	48,090	588,545
15	169	3,798	51,888	592,343
) 16	158	3,786	55,674	596,129
17	150	3,145	58,819	517,274
18	134	2,675	61,494	601,949
19	125	3,005	64,499	604 954
20	104	1,985	66,484	606,939
21	1-	' -	<u> </u>	606,939
22			70292	606,939
23	272	3808	70292	610,747
24	270	3774	74.066	614521
25		2,989	77050	610,747 614521 617505
26	259	2,845	79,895	620,350 624,483 628,646
27	258	4,133	54.028 88.191	624,483
28	260	4/63	1	628,646
29	282	04,512	92,703	633,158
30				
31	_	1779	94,482	634,937
				94,482

TUBING AND CASING MONITORING LOG SHEET YEAR CCTOBER OB

	TUBING PSI
DAY 1	2/00
2	2200
3	2200
4	2250
5	2050
6	2100
7	2/00
8	2100
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10	2300
11	2350
12	2100
13	2050
14	2050
15	2100
16	2050
17	2150
18	2000
19	2100
20	2100
21	2000
22	1800
23	2/00
24	2100
25	2100
26	2100
27	2200
28	2200
29	2100
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CASING PSI	OBSERVER INT.
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NOVEMBER, 08

Barrels Taken in 64,044 Barrels Pumped Away 74,513 Barrels Difference 10,469

EXEMPT LOADS (Key Hauled)	723
EXEMPT LOADS (NOT Key Hauled)	•)
Total EXEMPT Loads Hauled	724
NON EXEMPT LOADS (Key Hauled)	22
NON EXEMPT LOADS (NOT Key Hauled)	8
Total NON EXEMPT Loads Hauled	22
Total Loads Taken In	746

Non Exempt Loads	\$
Exempt Loads	\$ · . ·
Total For Month	\$

TUBING AND CASING MONITORING LOG SHEET

TUBING PSI

YEAR COOR MONTH NOV

31

			•
DAY 1	ſ	2300	
	2	2250]
	3	1950-2050	
	4	2050	
	5	1900	
	6	2300 - 2500	}
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	9	2300	}
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10	8	2300	
1	7	2200	
11	В	2250-2000	
19	9	2200-2150	2150
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2	1	7250-2150	
2	2	2100,2100,2100	
23	3	2100,	
24	4	2750-2050	
2	5	7250-	
26	3	2050 -	
27	7	2300 - 2200	
28	3	2050-2200	
28	}	2400-2250	
30)	2300 -	

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December, 08

Barrels Taken In

Barrels Pumped Away 58, 922

Barrels Difference 1,807

EXEMPT LOADS (Key Hauled)	698	
EXEMPT LOADS (NOT Key Hauled)	4	
Total EXEMPT Loads Hauled	702	
NON EXEMPT LOADS (Key Hauled)	25	
NON EXEMPT LOADS (NOT Key Hauled)	Ч	
Total NON EXEMPT Loads Hauled	29	
Total Loads Taken in	731	

Non Exempt Loads	<u> </u>
Exempt Loads	\$
Total For Month	<u> </u>

	DEC-08					
DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE		
01)88	1413	1413	710,863		
02	153	2,071	3484	712/939		
03	187	1,871	5355	714805		
04	174	1914	7269	716,719		
05	187	1968	9237	718,687		
06	179	1967	11204	726,624		
07	172	1,631	2,535	722,255		
80	174	1/824	14,659	724.079		
09	157	2275	16,934	726,354		
10	150	1,945	18879	728,299		
11	134	2,082	20,961	730,381		
12	114	2/102	23063	732,483		
13	124	1802	24865	734,255		
14	210	2620	27465	736,905		
15	162	811	28296	737,716		
) 16	79	1,228	29524	738,944		
17	72	906	30430	739,850		
18	215	3012	33442	742,862		
19	178	1,483	34,125	477,345 744,345		
20	198	1,883	36,508	479,228 746,228		
21	1157	1,765	38,773	48/193 748 193		
22	205	11944	40,617	483,037 750 037		
23	190	1,903	42520	484,940 75/1940		
24	197	1,378	43898	786,318 753 318		
25	197	1,874	45,772	488, 192 755 19:		
26	201	1,006	116,778	489,198 756,19		
27	200	2,399	49,177	491,597 758,59		
28	199	2,583	51,760	494,180 761,189		
29	196	11,969	53,729	1496,149 763,149		
30	199	11,793	53,522	497,942 76494:		
, 31	200	3,100	58,922	501,342 768,34		
		. /	(
BOLS pum	ned on 12-16;17-08	75427 BBL	s #	58892		

TUBING AND CASING MONITORING LOG SHEET YEAR 2008 MONTH DEC

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	_	TUBING PSI	•	CASING PSI		OBSERVER IN	1T
DAY	1	2200		8		<i>Sω</i>	
	2	2300-2300-2	20052-00	8 0	Ð	SW \$2	2015
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	31	2300,2300	Ì	00	Ì	SW SW	

79,150

JAH, 07

Barrels Taken In Barrels Pumped Away 74, 571 Barrels Difference 4,579 831 EXEMPT LOADS (Key Hauled)
EXEMPT LOADS (NOT Key Hauled) Total EXEMPT Loads Hauled NON EXEMPT LOADS (Key Hauled)

NON EXEMPT LOADS (NOT Key Hauled) Total NON EXEMPT Loads Hauled 843 Total Loads Taken In

Non Exempt Loads **Exempt Loads** Total For Month \$

		AN-07	PO CAS LOCAL	O
DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	173	1209	1,209	1,209
02	X175	1223	2,432	2432
03	125	2641	5,073	5,013
04	170	2878	7.951	7,951
05	170	3055	11,006	11,00%
06	168	3027	14,033	14,033
07	170	2,472	16,505	16,505
08	172	2,069	18,574	18,574
09	17/	2,663	21, 237	21,237
10	170	3,384	24,621	24,621
11	171	4103	28,724	28,724
12	171	2740	31,464	31,464
13	171	2,132	33,596	* 33,596
14	168	×1,005	34,601	34,601
15	172	1720	36321	36,321
16	(176)	2917	39238	39, 238
) 17	166	3575	42,813	42,813
18	167	2921	45134	45,734
19	167	3256	48990	48,990
20	167	2,177	51,167	51,167
21	169	1,855 685	53,022	53,622
22	171	685	53,707	53,622 53,707
23	170	2977	56,684	56.684
24	170	2800	59.484	59,484
25	168	2501	61.985	59, 484 61, 985
26	170	2292	64,277	64,277
27		1322	65,599	65,599
28	173	2,419	64,277 65,599 68,018	64,277 65,599 68,018
29	172	1,296	69,314	69,314
30	168	2,357	71,671	71,671
31	166	2,900	74 571	74,571
)				

TUBING AND CASING MONITORING LOG SHEET YEAR 2007

MONTH JAN

JAN	TUBING PSI
DAY 1	2100
2	1750
3	2260
4	2260
5	2200
6	2280
7	2100
8	2100
9	2200
10	2300
11	2300
12	2300
13	2300
14	2100
15	2,100
16	2250
17	2300
18	2360
19	2350
20	2300
21	2100
22	2050
23	2250
24	2306
25	2300
26	2300
27	2300
28	2050
29	2100
30	2300
31	2200

CASING PSI	OBSERVER INT.
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AUJ 2200

Feb., 07

Barrels Taken In 75,880
Barrels Pumped Away 71, 279
Barrels Difference 4,601

EXEMPT LOADS (Key Hauled)	750	
EXEMPT LOADS (NOT Key Hauled)	85	
Total EXEMPT Loads Hauled	835	
NON EXEMPT LOADS (Key Hauled)	5	
NON EXEMPT LOADS (NOT Key Hauled)	0	
Total NON EXEMPT Loads Hauled	5	
Total Loads Taken In	840	

Non Exempt Loads \$	
Exempt Loads \$	
Total For Month \$	

7215-01 74,571 14,571					
DATE		BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01		169	2540	77///	77.111
02		173	22.59	2259	79 370
03		172	1293	3552	80,663
04		171	2,736	6,288	83,399
05		155	1,237	7.525	84,636
06		166	2247	9,772	86,883
07		/23	2220	11,992	89,103
08		116	2,773	14,765	91,876
09		168	2,605	17, 370	
10		168	3,184	20,554	94, 481
11		171	2,395	22,949	100,060
12		170	1,961	24,910	102,021
13		169	2.778	27,688	104, 199
14		168	2,945	30, 633	107,744
15		162	2,635	33,318	110, 429
16		169	2,615	35,933	113,044
) 17		168	3,944	39,877	116,988
18		170	2035	41,912	119,023
19		166	1,996	43, 908	121,019
20		170	3/55	47,063	124,174
21		169	2959	50,022 54,031	127, 133
22		167	4009	54,031	131, 142
23		170	2634	56665	136,885
24		168	3,109	59,774	136,885
25		_			
26		170	1872	61646	138, 757
27		171	.3079	64725	141, 836
28		167	3079	68739	138, 957 141, 836 145, 850
29		,			
30					
31					
)					
			71279		71,279

TUBING AND CASING MONITORING LOG SHEET YEAR 07 MONTH 388

	780	TUBING PSI
DAY	1 .	2200
	2	2300
	3	2100
	4	2/00
	5	2150
	6	2250
	7	2250
	8	2200
	9.	2300
	10	2370
	11	2200
	12	2150
	13	2300
	14	2300
	15	2350
	16	3350
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MARCH, 07

Barrels Taken In /09, 974
Barrels Pumped Away /09, 889
Barrels Difference 85

EXEMPT LOADS (Key Hauled)	1016	
EXEMPT LOADS (NOT Key Hauled)	2/0	
Total EXEMPT Loads Hauled	1219	
NON EXEMPT LOADS (Key Hauled)	7	
NON EXEMPT LOADS (NOT Key Hauled)	8	
Total NON EXEMPT Loads Hauled		
Total Loads Taken In	1226	

Non Exempt Loads	\$	
Exempt Loads	\$.	
Total For Month	\$	
		The second named in column 2 is not a second named in column 2 in

109 889

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH

MAKEN	TUBING	PSI

]	, , , , , , , , , , , , , , , , , , , ,
DAY 1	2350
2	2350
3	2350
4	2200
5	2000
6	2 350
7	2850
8	2375
9	2370
10	
11	2400
12	2400
13	2400
14	2400
15	2400
16	2350
17	2400
18	220c
19	2206
20	2350
21	2350
22	2350
23	2408
24	2400
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27	2350
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April, 07

Barrels Taken In 88, 043
Barrels Pumped Away 81, 868
Barrels Difference 6,175

EXEMPT LOADS (Key Hauled)	959	
EXEMPT LOADS (NOT Key Hauled)	27	
Total EXEMPT Loads Hauled	986	
NON EXEMPT LOADS (Key Hauled)	8	
NON EXEMPT LOADS (NOT Key Hauled)	Ð	
Total NON EXEMPT Loads Hauled	8	
Total Loads Taken In	994	

Non Exempt Loads	\$
Exempt Loads	\$
Total For Month	\$

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TUBING AND CASING MONITORING LOG SHEET YEAR 07 MONTH APRIL

,	TUDBIC DOL
*,	TUBING PSI
DAY 1	2200
2	2150
3	2150
4	1200
5	2350
6	2300
. 7	2300
8	2150
9	2150
10	2350
11	2350
12	2350
13	2350
14	2350
15	2200
16	2150
17	2300
18	2350
19	2350
20	2350
21	2350
22	2150
23	2200
24	2350
25	2100
26	2570
27	1400
28	2300
. 29	2200
30	2150
31	

CASING PSI	OBSERVER INT.
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86,346

Total Loads Taken In

May, 07

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Barrels Taken In Barrels Pumped Away 80,853 Barrels Difference 5, 493 976 **EXEMPT LOADS (Key Hauled) EXEMPT LOADS (NOT Key Hauled)** Total EXEMPT Loads Hauled 992 NON EXEMPT LOADS (Key Hauled) NON EXEMPT LOADS (NOT Key Hauled) Total NON EXEMPT Loads Hauled 9

Non Exempt Loads **Exempt Loads Total For Month**

MAYOT 337,607 CUMULATIVE BBLS/MONTH BBLS/DAY DATE BBLS/HR 3650 341, 251 3650 158 01 344,290 30 33 6683 159 02 10,429 348,036 3746. 156 03 3788 14,217 351,824 158 04 355, 159 17,552 3,335 155 05 357,892 733 61 20,285 06 2,601 366,493 22,886 07 362,598 24,991 156 2,105 80 26,368 1,397 363,995 186 09 3,855 367, 850 30,243 10 160 34,122 371, 729 3879 11 162 375,547 37,940 162 3/8/8 12 1974 377,521 39,914 165 13 379,864 42,257 2,343 162 14 **3**81,427 165 43,820 1.563 15 381,427 0 OFF OFF 16 45,744 160 3483, 351 1,924 17 164 939 384, 340 18 46,733 49,051 166 386,658 2,318 19 386,658 20 2,298 164 51,349 388,956 21 3965 55,314 392,921 22 165 162 2098 57,412 395,019 23 4040 61,452 £99,059 24 168 3839 402.898 160 65,291 25 \$04,224 166 1,326 66,617 26 **4**05,390 167 67,783 166 27 507,250 158 69,673 890 28 \$10. 874 149 3,594 29 13,267 \$14,675 3,801 30 158 77.068 37*85* #18 460. 80853 31 158 80,853

TUBING AND CASING MONITORING LOG SHEET

YEAR MAY 07

	TUBING PSI
DAY 1	2350
2	2350
3	2350
4	3350
5	3350
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JUNE, 07

Barrels Taken In 109, 910
Barrels Pumped Away 77, 504
Barrels Difference 32, 406

EXEMPT LOADS (Key Hauled)	1231
EXEMPT LOADS (NOT Key Hauled)	/0
Total EXEMPT Loads Hauled	1241
NON EXEMPT LOADS (Key Hauled)	8
NON EXEMPT LOADS (NOT Key Hauled)	æ
Total NON EXEMPT Loads Hauled	8
Total Loads Taken In	1249

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518,460 JUNE-07 DATE BBLS/DAY BBLS/MONTH CUMULATIVE BBLS/HR 3,757 522,219 3,759 157 01 524,969 2750 6,509 157 02 524969 03 336 8,845 527, 305 151 04 530,571 3,266 12/11 15,245 152 05 533, 705 3/34 142 06 OFF 07 534,281 576 144 15,821 80 148 19,310 537,770 3,489 09 540,268 21,808 147 10 542 668 24208 ROD 150 11 3474 12 27,682 546,142 2,345 13 548, 487 142 30,027 142 3,406 14 33433 551, 893 15 3,170 555,063 36,603 1991 39,584 16 55 8,044 41,909 2, 325 560,369 17 562, 370 18 43,910 143 2,001 3,261 47,171 19 142 565, 631 20 140 3,142 50,313 568,773 140 52,129 21 1,816 570,589 22 140 33*55* 55,484 573, 944 58,7.45 139 3,261 577,205 23 579,368 60,908 2/163 140 24 2,309 581,677 154 63,217 25 3,336 66,553 585,013 26 139 27 3347 69,900 588, 360 72,603 139 28 591,063 2703 142 638 74,241 29 592,701 77,504 139 3,263 595,964 30 31 77,504

TUBING AND CASING MONITORING LOG SHEET YEAR 200 T MONTH JUNE

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		TUBING PSI
DAY	1	2350
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	3	1950
	4	2000
	5	2200
	6	2300
	7	0 >200
	8	0 1900
	9	2150
	10	2100
	11	2100
	12	2100
	13	2350
	14	2350
	15	2300
	16	2350
	17	2100
	18	2100
	19	2100
	20	2300
	21	0 2100
	22	2250
	23	22.50
	24	2100
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i,	27	3400
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CASING PSI	OBSERVER INT.
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July, 07

Barrels Taken In 95, 850
Barrels Pumped Away 75, 386
Barrels Difference 20, 464

EXEMPT LOADS (Key Hauled)	1054
EXEMPT LOADS (NOT Key Hauled)	2
Total EXEMPT Loads Hauled	/056
NON EXEMPT LOADS (Key Hauled)	6
NON EXEMPT LOADS (NOT Key Hauled)	5
Total NON EXEMPT Loads Hauled	
Total Loads Taken In	1067

Non Exempt Loads	\$
Exempt Loads	\$
Total For Month	\$

DATE	Tu// BBL\$/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	141	2,476	2,476	598,440
) 02	141	2,040	4,516	600,480
03	139	3,342	7858	603, 822
04	138	3323	11181	407, 145
05	139	3341	14522	610,486
06	139	977	15499	611, 463
07	136	2,931	18,430	614, 394
08	MI	2,464	20,894	616,858
09	144	1153	22049	1018 011
10	/34	3210	25,257	621, 221
11	136	3116	28 373	624, 337
12	136	3261	31,634	627,598
13	/39	3061	34,695	630,659
14	138	3242	37,937	633,901
15	139	2760	40,697	636,661
16	143	1,871	42,568	6 3 6 532
) 17		- 7 TA		638,532
18		_		638,532
19	. –			638,532
20	_	_	€3-maning	638,532
21	124	1032	43,600	639,564
22	136	3271	46,871	640, 835
23	136	3257	50,128	646,092
24	/36	3/26	53,254	649,218
25	139	3349	56603	4525 le7.
26	135	3108	59711	65 5 , 675
27	137	3157	62 868	658, 832
28	135	3237	66105	662,069
29	140	3352	69,457	66 5 , 421
30	/37	3227	72,684	668,648
31	139	2702	75,386	674, 350
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TUBING AND CASING MONITORING LOG SHEET YEAR σ ? MONTH $\mathcal{J}\omega/y$

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CASING PSI

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August, 07

Barrels Taken in 81, 850 Barrels Pumped Away 89, 376 Barrels Difference 7,526

EXEMPT LOADS (Key Hauled)	878
EXEMPT LOADS (NOT Key Hauled)	3
Total EXEMPT Loads Hauled	881
NON EXEMPT LOADS (Key Hauled)	8
NON EXEMPT LOADS (NOT Key Hauled)	a.
Total NON EXEMPT Loads Hauled	10
Total Loads Taken In	891

Non Exempt Loads	\$	
Exempt Loads	\$.	
Total For Month	\$	

TUBING AND CASING MONITORING LOG SHEET YEAR $\ensuremath{\mathcal{O}}\ensuremath{\mathcal{T}}$ MONTH $\ensuremath{\textit{Au}\ensuremath{\mathcal{U}}}$

,,,,,	
	TUBING PSI
DAY 1	2050
2	2,100
3	2,100
4	2000
5	2,000
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. 7	2,000
8	1950
9	2000
10	2000
11	2000
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15	2000
16	2000
17	2000
18	2000
19	2050
20	2050
21	2050
22	2050
23	7050
24	2050
25	2050
26	2050
27	1900
28	1950
29	2050
30	2050
31	2050

CASING PSI	OBSERVER INT.	
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Sept, 07

Barrels Taken in 70, 570
Barrels Pumped Away 80, 650
Barrels Difference 10, 080

EXEMPT LOADS (Key Hauled)	767	
EXEMPT LOADS (NOT Key Hauled)	3	
Total EXEMPT Loads Hauled	770	
NON EXEMPT LOADS (Key Hauled)	8	
NON EXEMPT LOADS (NOT Key Hauled)	₽	
Total NON EXEMPT Loads Hauled	8	
Total Loads Taken In	778	

Non Exempt Loads	<u> </u>
Exempt Loads	\$
Total For Month	\$

ATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	CUMULATIVE
01	131	2355	2355	763,081
) 02	129	2273	5,128	765, 854
03	129	2,780	5908	768,634
04	129	(3)00	11,008	771,734
05	130	2202	13,210	773,936
06	129	1,309	15,019	775, 745
07	129	2335	17,354	778,080
08	127	3051	20,405	781, 131
09	127	3051	23,456	784,182
10	126	3,013	23,456	787,195
11	127	2661	29,130	789, 856
12	125	2249	31,379	192, 105
13	/23	2954	34,333	995,059
14	122	2320	36,653	797, 379
15	122	2,931	39,584	800,310
16	121	2,908	1 . /	803,28
17	120	2,881	45,373	806,099
18	118	2.623	47,496	808, 722
19	119	2859	50,855	811,581
20	117	2803	63,658	817, 384
21	118	2732	56,390	813, 116
22	119	2,738	59,128	819.854
23	116	2,782	61,910	822,636
24	116	2,790	64,700	82 3 , 636 82 3 , 426
25	116	2,436	67,136	929, 862
26	116	, ,	69,677	830, 403
27	114	2,541	12,424	833, 150
28	115	2,763	75,187	835, 913 7518
29	115	2,749	77,936	938,662
30	113	2,714	80,650	841,376
31		17.		1 /

TUBING AND CASING MONITORING LOG SHEET YEAR ON THE MONTH TUBING PSI

JE' 1	TUBING PSI
DAY 1	2050
2	2080
3	2000
4	2050
5	2050
6	1900
7	2000
8	2000
9	2050
10	2050
11	2050
12	2050
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14	2050
15	2060
16	2050
17	2100
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22	2058
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Oct., 07

Barrels Taken In 46,600
Barrels Pumped Away 53, 119
Barrels Difference 6,5 19

	*	
EXEMPT LOADS (Key Hauled)	481	
EXEMPT LOADS (NOT Key Hauled)	12	
Total EXEMPT Loads Hauled	493	
NON EXEMPT LOADS (Key Hauled)	8	
NON EXEMPT LOADS (NOT Key Hauled)	8	
Total NON EXEMPT Loads Hauled	8	
Total Loads Taken In	501	

Exempt Loads \$	
4XOMPLEOGOD 4	
Total For Month \$	

DATE	BBLS/HR	BER O'BBLS/DAY	BBLS/MONTH	SY1,326 CUMULATIVE
01)15	2,767	2,767	844,143
) 02	//3	2,609	5.376	846, 752
03	116	2792	8 168	849, 544
04	116	2681	10,849	852, 225
05	117	2695	13,544	854,920
06	117	2,733	16,277	857,653
07	114	2,731	19,00%	860,384
08	116	2,712	21,500	
09	115	2778	24,578	865,954
10	114	2111	26,689	868,065
11	113	2704	29,393	870.719
12	43	2605	31,988	873, 374
13	112	2,677	34,665	876,051
14	114	2,745	37,410	878,796
15	116	1,340	38,750	880,136
16	114	2747	41,497	882, 683
) 17	113	1914	43,411	884, 797
18	OFF	WAIT FOR WATER	R OFF	
19		WAIT FOR WAY	BR	
20	0€	wait For	water	
21	116	464	43875	885,261
22	,			
23	116	1741	45622	897,002
24	108	216	45,838	887,218
25	OFF	WAST FOR WA	TER	
26	120	1,020	46858	888,238
27	117	1,229	48,087	889,467
28	117	1,527	49,614	896,994
29		1,25.7	50/901	892,281
30	116	1164	52,068	893, 445
31	116	1,050	53,118	893, 445
				53,119

TUBING AND CASING MONITORING LOG SHEET

YEAR MONTH OCTOBER

07

•	TUBING PSI					
DAY 1	2100					
2	2100					
3	2100					
4	2100					
5	2100					
6	2100					
7	2100					
8	2100					
9	2000					
10	2100					
11	2100					
12	2100					
13	2100					
14	2150					
15	2800					
16	2100					
17	7100					
18	1900 UFF					
19	1800 05-5					
20	1800					
21	1800					
22	1950					
23	1750					
24	2006					
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26	1650					
27	1800					
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29	1850					
30	1850					
31	1800					

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Avg 1967

Nov. 07

Barrels Taken in 44, 728
Barrels Pumped Away 17, 943
Barrels Difference 26, 785

EXEMPT LOADS (Key Hauled)	423				
EXEMPT LOADS (NOT Key Hauled)	43				
Total EXEMPT Loads Hauled	466				
NON EXEMPT LOADS (Key Hauled)	14				
NON EXEMPT LOADS (NOT Key Hauled)	8				
Total NON EXEMPT Loads Hauled	14				
Total Loads Taken In	480				

Non Exempt Loads	\$
Exempt Loads	\$
Total For Month	\$

DATE	BBLS/HR		BBLS/DAY	*81	BBLS/MONTH	CUMULATIVE
01	114		1141		1141	895,636
02	114		1148		2289	896 184
03	116		1513		3802	898,297
04	110		1432		5234	 899,129
05	109		1306		6540	 901,035
06	111		1228		7768	 902, 263
07			NAT FOR	w	TER	
80	107		1071		8339	903,334
09	109		1204		10043	904, 538
10	110		1268		11311	 905,806
11	 110		1459		12800	 907,295
12	104		1295		14095	 908,590
13	 109		1314	<u> </u>	15409	 909, 904
14	85		941	<u> </u>	16350	 910,845
15	PUMP	BRE	KEN	ļ	0	910,845
16	0		0	ļ	0	 910,845
) 17	0		0		0	 910,845
18	0		0		0	910,845
19	0		0		\mathcal{O}	910,845
20	0	-	0	ļ	0	910,845
21	 0		0		0	910, 845
22	0	<u></u>	0	ļ	0	 910,845
23	0	<u>-</u>	0		0	9/0/845
24	0		0		0	910,845
25	0		0		0	 916,845
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28	 0	,, 	0		0	910,845 910,845 910,845 910,845 910,845 910,845 910,861 910,861 911,646 912,438
29	 93		185 792		17151	 911,646
30	121		792		17151	 912,438
31					·	
					17943	 17,943

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH

-	
	TUBING PSI
DAY 1	1800
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3	1880
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AUR 1739

Dec. 07

Barrels Taken in 56, 475
Barrels Pumped Away 21, 965
Barrels Difference 34, 570

EXEMPT LOADS (Key Hauled)	509
EXEMPT LOADS (NOT Key Hauled)	69
Total EXEMPT Loads Hauled	5 78
NON EXEMPT LOADS (Key Hauled)	9
NON EXEMPT LOADS (NOT Key Hauled)	9
Total NON EXEMPT Loads Hauled	9
Total Loads Taken In	587

Non Exempt Loads	\$
Exempt Loads	\$
Total For Month	\$

DATE	BBLS/HR	BBLS/DAY	BBLS/MONTH	912, 438 CUMULATIVE 913, 314 914, 425 915, 417 915, 417 915, 417 915, 417 915, 417 915, 417 915, 417 915, 417 915, 417 915, 417 915, 417 915, 681 915, 682 915, 682 917, 762
01	88	876	876	913,314
02	86),990	914,428
03	79	959	2,979	915/417
04	0	0	0	915, 417
05	0	0	0	915, 417
06	0	0		915,419
07	0	0	D	915,417
08	Ö	0	0	915,417
09	0	0	0	915,417
10	0	.e	P	915,417
11	0	0	0	915,417
12	0	0	0	915,417
13	Ø	0	0	•915,417
14	75	264	3243	915,681
15	U	0	O	915,681
16	.29	1	3244	915,682
) 17	0	Ø.	0	915,682
18 💥	70	350	350	916,032
19	173	1730	4974	917, 762
20	162	1948	6922	919,710
21	174	348 780	7270	919,710 920,058 920,938 922,846 924,521
22	173		\$050	920,838
23	167	2008	10,05%	922,846
24	167	1675		924,521
25	OF		OFF	924,521
26	163	2025	13758	926,546
27	161	1940	15698	926,546 928,486
28	OFF	off off	OFF	928,486
29		cft	off	928,486
30	186	1,579	17,277	928,486 930,065 m, 934,403
31	180	4338	21,615	934,403
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21,965

TUBING AND CASING MONITORING LOG SHEET YEAR MONTH DEC- 07

	TUBING PSI
DAY 1	170c
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20	1650
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22	1800
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26	1700
27	1860
28	OFF
29	OFF
30	1750
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<i>ਹ</i>	75
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æ	_SW
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OFF	
OFF	SW
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APPENDIX D

2007 to 2009 Key UIC-5 Monthly Pressure Charts

