Southern Union Gas Services

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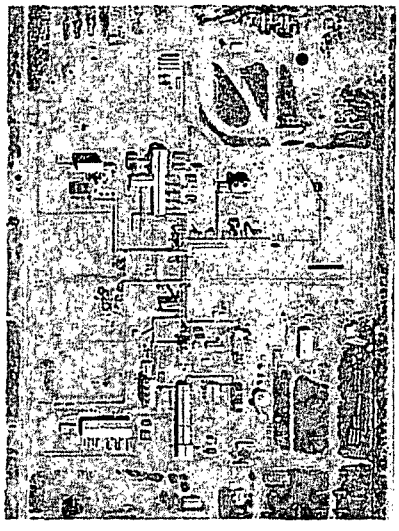
C-108 Application For Approval to Drill and Operate a New Well For The Combined Injection of Acid Gas and Plant Wastewater SUGS Jal #3 Natural Gas Processing Plant

(Unit E Section 33, Township 24 S, Range 37 E)



December 18, 2007

Prepared For:

Southern Union Gas Services, Ltd.
301 Commerce Street, Suite 700
Fort Worth, Texas 76102
Telephone: (817)-302-9400

Submitted To:

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

Prepared By:

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GEOLEX® INCORPORATED

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance __X__Disposal _____Storage
Application qualifies for administrative approval? __X__Yes _____No

II. OPERATOR: **Southern Union Gas Services, Ltd.**
ADDRESS: **301 Commerce Street; Suite 700; Ft. Worth, TX 76102**
CONTACT PARTY: **Alberto A. Gutierrez, R.G.** PHONE: **(505)-842-8000**

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary. **A CROSS REFERENCE TO THE APPLICABLE SECTIONS OR APPENDICES IN THE ATTACHED C108 APPLICATION FOR EACH ROMAN NUMERAL BELOW IS SPECIFIED BY SECTION AND/OR APPENDIX NUMBERS.**

IV. Is this an expansion of an existing project? _____Yes __X__No
If yes, give the Division order number authorizing the project: **N/A**

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. **SECTIONS. 5 AND 6; APPENDICES A, B, C AND D.**

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
SECTIONS 4 AND 5; APPENDICES A, B, C AND D.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected; **SECTIONS 1, 2, AND 3**
2. Whether the system is open or closed; **SECTIONS 1, 2, AND 4**
3. Proposed average and maximum injection pressure; **SECTIONS 1 AND 3**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, **SECTIONS 1, 3, 4, AND 5; APPENDIX A**
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). **SECTIONS 3 AND 4; APPENDIX A**

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval. **SECTION 4**

IX. Describe the proposed stimulation program, if any. **N/A**

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). **WELL IS NOT YET DRILLED; SECTION 4 AND APPENDIX A (FOR EXISTING WELL)**

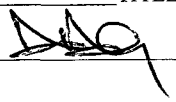
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken. **SECTION 4 AND JAL #3 DISCHARGE PLAN GW-010**

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water. **SECTION 7**

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. **APPENDICES C AND D**

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Alberto A. Gutierrez, C.P.G. TITLE: President, Geolex, Inc.®; Consultant to SUGS

SIGNATURE:  DATE: 12/18/07

E-MAIL ADDRESS: aag@geolex.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: **SEE ATTACHED APPLICATION AND PREVIOUSLY SUBMITTED RENEWAL OF NMOCD DISCHARGE PLAN GW-010**

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section. **SECTIONS 1, 3 AND 4; APPENDIX A**

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined. **SEE SECTION 3 FOR PROPOSED WELL DESIGN AND APPENDIX A FOR DESIGN OF EXISTING WELL. FINAL DESIGN WILL BE SUBMITTED WHEN PROPOSED WELL IS DRILLED AND COMPLETED.**

(3) A description of the tubing to be used including its size, lining material, and setting depth. **SECTION 3**

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used. **SECTION 3**

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

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

(1) The name of the injection formation and, if applicable, the field or pool name. **SECTIONS 1 AND 4**

(2) The injection interval and whether it is perforated or open-hole. **SECTION 3**

(3) State if the well was drilled for injection or, if not, the original purpose of the well. **N/A**

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations. **N/A**

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any. **SECTIONS 4 AND 5; APPENDICES A, B AND C**

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location. **SECTION 5; APPENDICES C AND D**

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include: **SEE APPENDIX C FOR FORM OF PUBLIC NOTICE – ACTUAL NOTICE WILL BE PUBLISHED WHEN HEARING DATE IS SET**

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

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

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

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

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

SEE SECTION 3 AND FIGURE 5 FOR PROPOSED WELL DESIGN SCHEMATIC; AND APPENDIX A FOR EXISTING WELL INFORMATION

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1.0 EXECUTIVE SUMMARY

On behalf of Southern Union Gas Services Ltd. (SUGS), Geolex, Inc.® (Geolex) has prepared and is hereby submitting a complete C-108 application for approval to drill, complete and operate a combined acid gas and plant wastewater injection well at the SUGS Jal #3 Natural Gas Processing Plant (Plant), which is located on approximately 70 acres in the SW4NW4 and NW4SW4 of Section 33, Township 24 South, Range 37 East, Lea County, New Mexico (Figure 1). This proposed combined acid gas and plant wastewater injection well (Jal#3AGI) will replace the currently operating, permitted plant wastewater disposal well (Woolworth Estate WD #1E/API#30-025-27081).

The Jal#3AGI is anticipated to have a total depth of approximately 5200' at the base of the San Andres Formation. The proposed injection zone will be within the San Andres Formation for all or part of its thickness of approximately 850' in this location (4350'-5200'). The San Andres Formation in this area is a closed system separated from the overlying Grayburg Formation by low porosity carbonates and shales in the Grayburg-San Andres transition zone located at a depth of approximately 4300' in the proposed location. Geologic studies conducted for the selection this location combined with a 27-year history of operating a permitted Class II wastewater injection well at this location demonstrate that the proposed injection zone is readily capable accepting and containing the proposed combined acid gas and wastewater injection volumes well within NMOCD's recommended maximum injection pressures.

Initially the proposed total volume of injected fluid (acid gas and plant wastewater) will be approximately 2318 bbl/day with the possibility of injecting a maximum of up to approximately 7929 bbl/day at a maximum surface pressure of 986 pounds per square inch (psi). The characteristics of the plant wastewater will not change from the currently permitted stream which consists strictly of Class II wastewater from the plant operations. The acid gas which will be combined with the wastewater is a by-product of the treatment of natural gas that flows through the Plant for sweetening and dehydration.

In preparing this C-108 application Geolex conducted a detailed examination of all of the elements required to be evaluated in order to prepare, and obtain approval for, this application for injection. The elements of this evaluation include:

- Identification and characterization of all hydrocarbon-producing zones of wells that surround and are present on the Plant site
- The depths of perforated pay intervals in those wells relative to the depth of the target injection zone (San Andres Formation)
- The past and current use of the San Andres as a water injection zone
- Total feet of net porosity in the San Andres
- The stratigraphic and structural setting of the San Andres relative to any nearby active San Andres wells
- The identification and notification of all surface owners within a 1 mile radius of the proposed injection well
- The identification and notification of all wells within a 2-mile radius and of all operators within a 1 mile radius of the proposed injection well
- Identification and characterization of all plugged wells within a 1 mile radius of the proposed injection well
- The details of the proposed injection operation including general well design and average and maximum daily rates of injection and injection pressures
- Sources of injection fluid and compatibility with the formation fluid of the injection zone

- Location and identification of any fresh water bearing zones in the area, the depths and quality of available groundwater in the vicinity of the proposed well including a determination that there are no structures which could possibly communicate the disposal zone with any known sources of drinking water
- The preliminary revision of the existing Rule 118 plan for the facility to accommodate the proposed changes in operation and the new AGI facility (to be submitted in final form before commencing injection of acid gas)

Based upon this detailed evaluation, as summarized in this application, SUGS has determined that the proposed injection well is a safe and environmentally-sound project for the continued disposal of Class II plant wastewater in combination with the proposed volumes of acid gas from the Plant.

Furthermore, the project provides additional environmental benefit by permanently sequestering a significant volume of CO_2 which would otherwise continue to be released to the atmosphere through the operation of the existing sulfur reduction unit (SRU) at the Plant. Analysis of the reservoir characteristics of the San Andres in this area, and the experience gained from 27 years of operation of the existing plant wastewater injection well, confirms that it is an excellent closed-system reservoir in this area that should easily accommodate the future needs of SUGS for disposal of acid gas and wastewater from the Plant. The estimated total net porosity (over 6%) of the San Andres Formation in the area of the Plant disposal well exceeds 350 feet. This fact is confirmed by the ease with which the well has taken nearly 27 years of wastewater injection from the Plant. The San Andres Formation in the area is bounded vertically by tight carbonates, sandstones and shales of the Grayburg-San Andres transition, which serve to isolate the formation as a closed system from the overlying production in the Yates/Queen interval and the underlying potential production in the Blinebry zone, which only occurs outside the area of review to the east.

There are no wells within several miles of the Plant site that produce hydrocarbons from the San Andres or from the immediately overlying Grayburg or underlying Glorieta Formations. Therefore, the proposed AGI completed into the San Andres would not impact any offset operator's production. The only San Andres well within a one-mile radius of the proposed location is the SUGS Jal #3 Plant's own injection well. All other production or injection wells located within the area of review are associated with waterflood activity in the Yates-Seven Rivers-Queen producing zones well above the San Andres, and are perforated in those formations. The status of all the wells in the area of review that have been plugged has been confirmed and all the data on those wells is included as a part of this C-108 application.

All surface owners and operators within a one-mile radius of the proposed injection well have been provided notice pursuant to the requirements of NMOCD and the confirmation of those notices are included as part of this application.

2.0 INTRODUCTION AND ORGANIZATION OF THIS C-108 APPLICATION

The completed NMOCD Form C-108 is included before the Table of Contents of this document and references appropriate sections where data required to be submitted are included herein.

This application organizes and details all of the information required by NMOCD to evaluate and approve the submitted Form C-108 – Application for Authorization to Inject. This information is presented in the following categories:

- A detailed description of the location, construction and operation of the proposed injection well (Section 3.0)
- A summary of the regional and local geology, the hydrogeology, and the location of drinking water wells within the area of review (Section 4.0)
- The identification, location, status, production zones, and other relevant information on oil and gas wells within the area of review (Section 5.0)
- The identification and required notification for operators and surface land owners that are located within the area of review (Section 6.0)
- An affirmative statement, based on the analysis of geological conditions at the site, that there is no hydraulic connection between the proposed injection zone and any known sources of drinking water (Section 7.0), and

In addition, this application includes the following supporting information:

- Appendix A: Maps and spreadsheets showing all oil and gas wells included within the one-mile radius area of review of the proposed injection well These spreadsheets show the locations, producing status, and producing formations of all wells included in the one-mile area of review. Data on existing SUGS injection well..
- Appendix B: Maps and spreadsheets showing all plugged oil and gas wells included within the one mile area of review and associated plugging diagrams.
- Appendix C: Maps and spreadsheets showing operators in the one-mile radius area of review including copies of notification letters and registered mail receipts
- Appendix D: Maps and spreadsheets showing land ownership in the one-mile radius area of review including copies of notification letters and registered mail receipts
- Appendix E: Draft Revised Rule 118 Plan for Jal #3 and AGI

It is anticipated that this application shall be the subject of a NMOCD hearing in early February 2008.

3.0 PROPOSED CONSTRUCTION AND OPERATION OF JAL#3 AGI WELL

The proposed injection well will be drilled approximately 200 feet east of the existing disposal well (Woolworth Estate WD #1; see Figure 1). The new well (Jal #3 AGI #1) will be positioned such that it is sufficiently far from the existing well so as not to encounter that well in the new borehole or to in any way impede the successful plugging and abandonment of the current disposal well. Figure 2a is a general plot plan of the northern portion of the Jal #3 Plant that shows the proposed location of the new well and compression facilities relative to existing features at the site including the existing disposal well. Figure 2b is a schematic process and piping diagram that shows the AGI/wastewater injection system components from tie-ins to current Jal #3 Plant facilities. The proposed location for the Jal #3 AGI #1 is 1570 feet FNL and 1050 feet FWL of Section 33, T24S, R37E.

SUGS will apply for an operator number and file the required plugging bond for the proposed Jal #3 AGI #1 upon approval of this C-108 prior to commencement of drilling.

The new well will be designed and constructed such that it will serve as the injection conduit for a mixed stream of treated acid gas in addition to the Class II plant wastewater which is currently being injected into the San Andres Formation via the Woolworth Estate WD#1. The treated acid gas stream (TAG) will be approximately of the following composition:

- 78% CO_2
- 20% H_2S
- 2% C_1-C_7

The wastewater to be injected with the treated acid gas consists of the exempt plant wastewater stream that has been characterized in the facility's NMOCD discharge plan (GW-010) and which is currently approved for injection into the San Andres via the existing disposal well. Chemical and physical parameters of the currently injected wastewater are summarized in the discharge plan and in the information on the current injection well included in Appendix A.

The initial plan for the injection of acid gas is to inject approximately 1.5MMCF/D (578 bbl/d at operating injection pressure) and to ultimately scale up to inject 5MMCF/D (1929 bbl/d at operating injection pressure) when the additional capacity is required based on sulfur recovery unit (SRU) operating constraints.

Figure 3 is a process flow diagram for the injection process of both treated acid gas (TAG) and wastewater at a 1.5 MMCF/D rate. The figure shows that the total volume of fluid to be injected under this scenario is 2318 bbl/d (578bbl/d TAG and 1740 bbl/d wastewater). Figure 4 is a process flow diagram for the injection process of both treated acid gas (TAG) and wastewater at a 5 MMCF/D rate. The figure shows that the total volume of fluid to be injected under this scenario is 7929 bbl/d (1929 bbl/d TAG and 6000 bbl/d wastewater). Pressure reduction valves will be incorporated to assure that maximum surface injection pressure allowed by NMOCD will not be exceeded.

The calculated maximum allowable injection pressure would be approximately 986 psi (depending on specific gravity of final TAG/H_2O stream). It is likely that the average injection pressure will be significantly less based on the demonstrated performance of the existing well. The injection pressure for the existing Woolworth Estate WD#1 well has been running between 480-550psi; however, the well has a

NMOCD-permitted maximum injection pressure of 940 psi (see information on current well in Appendix A).

We have used the following method approved by NMOCD to calculate the preliminary proposed maximum injection pressure. The final maximum permitted surface injection pressure should be based on the final specific gravity of the injection fluid according to the following formula:

$IP_{max} = PG(D_{top})$ where: IP_{max}= maximum surface injection pressure (psi)
PG = pressure gradient of mixed injection fluid (psi/ft)
D_{top} = depth at top of perforated interval of injection zone (ft)

and $PG = 0.2 + 0.433\ (1.04 - SG_{bif})$ where: SG_{bif} = specific gravity of blended injection fluid

and $$SG_{bif} = \frac{[(SG_{ww})(WW_{vol})] + [(SG_{tag})(TAG_{vol})]}{WW_{vol} + TAG_{vol}}$$

where: SG_{ww} = specific gravity of wastewater
SG_{tag} = specific gravity of treated acid gas
WW_{vol} = volume of wastewater in mix
TAG_{vol} = volume of treated acid gas in mix

For the maximum requested injection volume, case it is assumed that:

$SG_{ww} = 1.04$
$SG_{tag} = 0.80$
$WW_{vol} = 6000$
$TAG_{vol} = 1929$
$D_{top} = 4375$

Therefore:

$$SG_{bif} = \frac{[(SG_{ww})(WW_{vol})] + [(SG_{tag})(TAG_{vol})]}{WW_{vol} + TAG_{vol}} = \frac{6240 + 1543}{7929} = 0.9816$$

$$PG = 0.2 + 0.433\ (1.04 - SG_{bif}) = 0.2 + 0.433\ (1.04 - 0.9816) = 0.22529$$

$$IP_{max} = PG(D_{top}) = .22529(4375) = 985.6$$

Based on the performance of the existing injection well, it is anticipated that the average injection pressure would not exceed 900-950 psi. Based on the above calculations, SUGS is requesting approval of a maximum injection pressure to be 986 psi at the surface.

Due to the corrosive nature of the injected fluid, the line that will convey the combined TAG/water stream to the well from the compression facilities will be a 3" stainless steel line (304 or 316). The final design for the compression facilities and associated piping and layout of H_2S alarms and other safety equipment

will be submitted for NMOCD review prior to commencement of injection operations. The schematic of the new AGI facilities and the tie-in to existing Jal #3 Plant are shown in Figures 2a and 2b and the preliminary well design for the injection well is shown on Figure 5. The well will have each string of the telescoping casing cemented to the surface and will include a subsurface safety valve on the production tubing to assure that fluid cannot flow back out of the well in the event of a failure of the injection equipment. In addition, the annular space between the production tubing and the well bore will be filled with an inert fluid such as diesel fuel as a further safety measure which is consistent with injection well designs which have been previously approved by NMOCD for acid gas injection.

It is anticipated that the existing disposal well will be used for the continued injection of plant wastewater while the new well is being drilled. After the new well is drilled and tested to assure that it will be able to accept the volume of injection fluid (without using acid gas), it will be completed with the approved injection equipment for the new combined stream of acid gas and plant wastewater. The new well will then be used only for injection of the plant wastewater while the acid gas compression facilities are constructed. At that time the existing plant wastewater disposal well (Woolworth Estate WD #1) will be plugged and abandoned prior to when injection of acid gas commences in combination with plant wastewater in the new well.

The draft revised Rule 118 plan, which is included as Appendix E to this application, will be finalized when the compression facility design and well connection design is complete and will be submitted for NMOCD review and approval prior to commencement of mixed TAG/wastewater injection into the Jal #3 AGI #1.

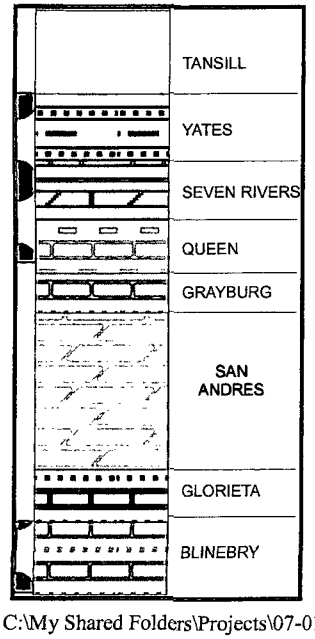
4.0 REGIONAL AND LOCAL GEOLOGY AND HYDROGEOLOGY

4.1 GENERAL GEOLOGIC SETTING

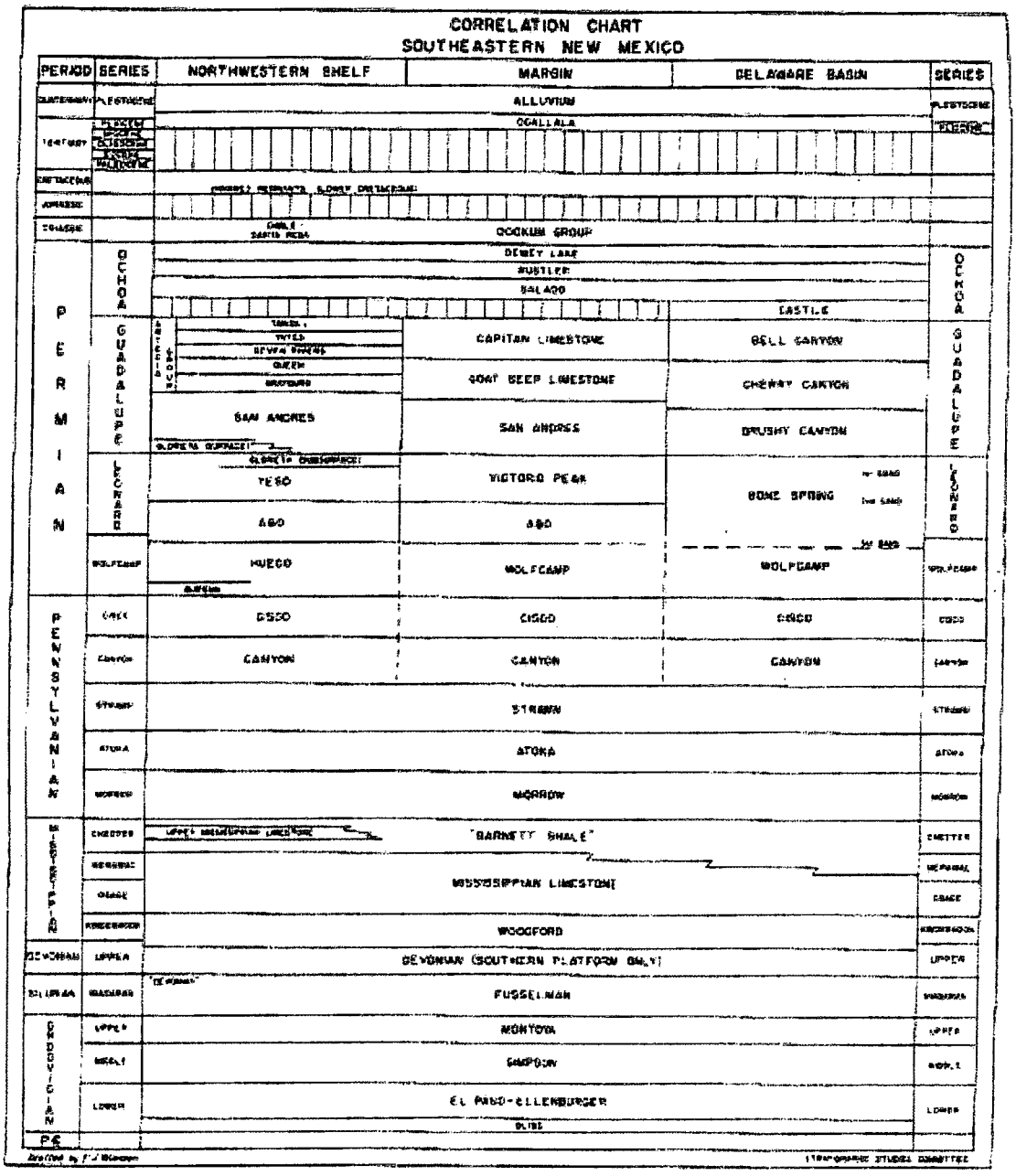
The SUGS Jal #3 Plant (the Plant) is located in the western half of Section 33, T 24 S, R 37 E, in Lea County, New Mexico, approximately 3.5 miles north of Jal (Figure 1). The Plant is located within a physiographic area which has been referred to as the Eunice Plain by various authors including Nicholson & Clebsch (1961). This area is almost entirely covered at the surface by Holocene reddish brown dune sand underlain by a hard caliche surface or calcareous silts which may be found in buried valleys or internally drained Quaternary playas. These dune sands are largely stabilized with shin oak, mesquite and some bur-grass. There are no surface bodies of water or groundwater discharge sites within one mile of the Plant and where drainages exist in interdunal areas, they are ephemeral, discontinuous, dry washes. These Quaternary and Holocene deposits are underlain by the discontinuous Ogallala Formation and the underlying Triassic redbeds of the Dockum Group. The Triassic units are in turn underlain by the Rustler Formation and followed by the Ochoa series of evaporites including the Castile and the Salado Formations. Beneath these formations is the Permian sequence of the Central Basin Platform described generally below.

4.2 PERMIAN BEDROCK GEOLOGY

The figure shown below is a generalized stratigraphic column showing the Permian Formations that underlie the Plant site. The Plant is located on the west side of the Central Basin Platform province of the Permian Basin, where Permian rocks generally dip to the west as they transition from a sequence of shelf and shelf-edge carbonates and sandstones to basinal-equivalent shale, sandstones, and limestones to the west. The perforation symbols on the left of this column show the formations that have produced oil and gas in the general vicinity of the Plant, and include the Yates, Seven Rivers, Queen Formations which overlie the San Andres injection target. The Blinebry Formation which underlies the San Andres and Glorieta Formations has only been productive along a north south line located approximately two miles east of the proposed location of Jal#3 AGI and well outside the one-mile radius area of review (see Appendices A and B for additional information on oil and gas wells within the area of review, and unitization maps for the area are included in Appendix C).



The Yates through Queen interval lies at depths ranging between 3,000 and 3,750 feet beneath the Plant surface. The San Andres is approximately 850 feet thick under the Plant, at depths between 4,350 and approximately 5,200 feet. The Blinebry, which does not produce within the area of review but rather approximately 2 miles east of the Plant site, is found at over 5,400 feet below the surface and the tight Glorieta Formation is between the base of the San Andres and the top of the Blinebry. The remainder of the Permian and older section below the Blinebry consists of rocks ranging in age to Ordovician deposited above Precambrian basement. A generalized stratigraphic section of the area taken from "The oil and gas fields of Southeastern New Mexico, 1960 Supplement" (Roswell Geological Society, 1960) is included below.



4.3 LITHOLOGIC AND RESERVOIR CHARACTERISTICS OF SAN ANDRES FORMATION

The San Andres Formation in the area of the Plant is composed largely of dolomites and shaly dolomites deposited in deeper water adjacent to basinal-transitional depositional environments. Porosity in these rocks is developed throughout the entire formation, where penetrated, but appears to be greater in the thicker-bedded portion of the upper half to two-thirds of the formation. Because of its high porosity and permeability, the San Andres has been used as a salt water disposal zone in a few wells in the area, and also as a source of water for secondary recovery operations in the nearby Yates-Queen fields. Formation fluids in the San Andres have total dissolved solids as high as 160,000 mg/l (Nicholson and Clebsch, 1961, Table 9, pp. 97-98). Only one well within the area of review in the vicinity of the Plant remains active in the San Andres; the Plant's own Class II disposal well (Woolworth Estate WD #1: API 3002527081)). This well will be plugged and abandoned when it is replaced by the proposed Jal #3 AGI as described above in section 3.

Figure 6 is a map of net porosity greater or equal to 6% in the San Andres Formation, based on the limited number of wells that penetrated at least $^2/_3$ of the way through the unit. This map was generated from modern porosity logs (either density/neutron, sidewall neutron porosity, or sonic). Porosity generally increases to the west. The Woolworth Estate WD #1 well (existing Jal#3 wastewater disposal well) has over 330 feet of porosity (estimated at 355 feet because that well does not go all the way through the San Andres), and has been used as a wastewater disposal well for the Plant since it was drilled in 1980. The black arrow on Figure 6 points to the only water supply well that is still active in the San Andres, as determined from the records available from the New Mexico Oil Commission - this well is clearly outside the area of review of the proposed injection well and far from any area that might be affected by the proposed injection.

Figures 7 and 8 are representative structural cross-sections that illustrate the pay and injection zones typical of the area (red bars). The cross-sections are referenced on the location map (Figure 9). The yellow shading denotes porosity in the San Andres. The porous San Andres is separated from the Yates-Queen interval by tight carbonates, sandstones, and shale in the Grayburg and uppermost San Andres. The tight carbonates provide a barrier between the active hydrocarbon reservoirs above, and the wet San Andres dolomites below. Similarly, the underlying tight Glorieta Formation separates the San Andres from the lower, productive Blinebry. Therefore the San Andres is a closed system ideally suited for an injection zone.

Figure 10 is a structure map drawn on the top of the Grayburg, which is the nearest horizon above the San Andres that has enough wells that penetrated its top to construct a reliable structure map (the preceding cross-sections show that the tops of the San Andres and Grayburg generally track each other structurally). This map shows that the Jal #3 Plant site lies above a structurally low trough (outlined by a yellow dashed line), which is deepest under the area of the existing Class II disposal well (Woolworth WD #1E). This structural trough is nearly 500 acres in area. Class II wastewater currently injected into this well is most likely accumulated in the area of this trough as would the proposed combined wastewater and acid gas injection fluids. When combined with net porosity in excess of 6% over 350 feet in the San Andres, this structural trough will provide all the needed capacity for combined wastewater and AGI from the proposed Jal #3 AGI. Figure 11 shows the anticipated maximum extent of 30 years of injection through the proposed Jal#3 AGI #1 based on a conservative 350 feet of San Andres Formation with greater than 6% net porosity. The figure includes the anticipated maximum extent and of both the initial scenario of total blended TAG/Wastewater fluid injection of 2318 bbl/d and the maximum scenario of total blended TAG/Wastewater fluid injection of 7929 bbl/d.

4.4 GROUNDWATER HYDROLOGY IN THE VICINITY OF THE PROPOSED INJECTION WELL

The Ogallala aquifer is the principal source of potable water in the area. The depth to groundwater is approximately 90 feet below ground surface. The background total dissolved solids (TDS) concentration for groundwater in the area is approximately 2,200 mg/l. See also Figure 12 for the location of the single water well within the area of review. Table 1 below summarizes all available information on other water wells located near the area of review shown on Figure 12 including the wells which the Jal #3 Plant uses for potable and fire water supply. The plant receives its water from water wells located in Section(s) 5 and 7, Township 25S, Range 38E (Hubb 1 through 5) and Section(s) 25 and 36, Township 24S, Range 37E (Cooper 1through 8). Other water wells are located in the vicinity of Crawford Ranch in Section 31, Township 24S, Range 37E. For more information, see Section 11.2 of the Application for Renewal of New Mexico Oil Conservation Division – Jal #3 Discharge Plan (GW-010) dated August 17, 2007. The Ogallala groundwater in the area of the Jal #3 plant ranges from 600 to 2,000 mg/l (Nicholson and Clebsch, 1961, Table 8, pp. 94-95).

The Ogallala aquifer slopes to the southeast with a gradient of approximately 10-12 feet per mile and imparts an easterly or southeasterly movement to the groundwater. References: Cronin, 1969; El Paso Natural Gas Company, Discharge Plan, March 1981; Jal # 3 Approved Discharge Plan GW-010; Nicholson and Clebsch, 1961, Geology and Ground-water Conditions in Southern Lea County, NM; GW Report 6, NM Bureau of Mines and Mineral Resources, Socorro, NM. Based on the analysis of groundwater in the vicinity the certification that there is no evidence of potential communication between the proposed injection zone and any drinking water aquifer is included in Section 7.0 of this application.

Table 1: Wells From New Mexico State Engineers' Files Near The Area of Review of Proposed AGII

DB File Nbr	Use	Owner	Tws	Rng	Sec	q	q	q	Easting	Northing	Drill Date	Completion Date	Well Depth	Water Depth
CP 00304	DOM	J.J. SMITH	24S	37E	27	1	4		674118	3563008	N/A	N/A	N/A	N/A
CP 00309	NON	J.J. SMITH	24S	37E	27	1	3	2	673815	3563100	N/A	N/A	N/A	N/A
CP 00310	NON	J.J. SMITH	24S	37E	27	1	1	1	673608	3563502	N/A	N/A	N/A	N/A
CP 00311	NON	J.J. SMITH	24S	37E	34	3	4	2	674260	3560694	N/A	N/A	N/A	N/A
CP 00312	NON	J.J. SMITH	24S	37E	34	4	1	1	674455	3561103	N/A	N/A	N/A	N/A
CP 00501	SAN	AMERADA HESS CORPORATION	24S	37E	28	4	1	4	673019	3562484	3/13/1972	3/14/1972	110	70
CP 00299	DOM	J.J. SMITH	25S	37E	3	2	4	2	675081	3559901	N/A	N/A	N/A	N/A
CP 00549	N/A	N/A	24S	37E	31	3	3	4	669102	3560195	N/A	N/A	N/A	N/A
CP 00846	N/A	N/A	25S	37E	6	2	4		670203	3559513	N/A	N/A	N/A	N/A
CP 00300	STK	J.J. SMITH	25S	37E	3	4	2	1	674889	3559499	N/A	N/A	N/A	N/A
CP 00507	SAN	UNION TEX PETE CO.	25S	37E	5	4	2		671769	3559347	7/26/1973	8/16/1973	N/A	N/A

5.0 OIL AND GAS WELLS IN THE JAL #3 AGI #1 AREA OF REVIEW AND VICINITY

5.1 ACTIVE OIL AND GAS WELLS

Appendix A contains a complete list based on NMOCD records of all active and temporarily abandoned oil and gas wells within two miles (Figure A-1, Table A-1) and the one-mile radius (area of review) of the proposed AGI/wastewater disposal well. Information on the wells in the area of review includes their total depth, production or injection interval and current status. Figure A-2 and Table A-2 in Appendix A shows the location of all the active and temporarily abandoned wells within the area of review. This figure shows that only the existing SUGS SWD penetrates the San Andres section within the area of review. All available information on the existing SUGS injection well (Woolworth Estate WD#1), including pressure monitoring data, is included in Appendix A.

An earlier well (Langlie Mattix Woolworth Unit #009, API# 3002525373) in Section 28 was originally drilled to 4700 feet in the San Andres in 1976 as a water supply well. This well was plugged back to 4000 feet (above the Grayburg and San Andres) in April 1985, and recompleted as an oil production well in the Langlie Mattix pool. The well is currently an active producer.

The majority of the wells in this area are drilled to produce oil from the Yates-Queen interval. Deeper production from the Blinebry is only found well outside the area of review in an old and well-defined field (Justis Blinebry Field) located 2-3 miles east of the proposed Jal #3 AGI #1. The San Andres, which is a prolific producing zone higher up on the Central Basin Platform, is uniformly wet in the Plant area, and has been used for injection Class II wastewater from the Jal #3 Plant since 1980 and in other some other locations outside the area of review for the disposal of produced water from other zones. The Grayburg is tight and non-productive in this area and provides an excellent seal for the proposed injection in the San Andres Formation. Similarly, the tight Glorieta Formation below the San Andres isolates the proposed injection zone from lower formations.

5.2 PLUGGED OIL AND GAS WELLS

Appendix B contains a complete list based on NMOCD records of all plugged and abandoned and temporarily abandoned oil and gas wells within the one-mile radius (area of review) of the proposed AGI/wastewater disposal well (Table B-1) and includes plugging diagrams for each well. Appendix B also contains a CD with the complete NMOCD file on every plugged or temporarily-abandoned well within the area of review. Figure B-1 in Appendix B shows the location of all plugged and abandoned and temporarily abandoned wells within the area of review. Examination of all the available data shows that none of these wells ever reached the San Andres or even the Grayburg. These data show that there is no evidence of improperly plugged or abandoned wells within the area of review which might cause communication between the proposed injection zone in the San Andres and any other unit.

6.0 IDENTIFICATION AND REQUIRED NOTIFICATION OF OPERATORS AND SURFACE OWNERS WITHIN AREA OF REVIEW

Appendix C includes the data on the leases, units, and operators in the area of review. Figures C-1 to C-4, taken from NMOCD internet files, show the unitized leases in the area surrounding the location of the proposed SUGS AGI well. The circles shown in these figures correspond to the 2-mile circle depicted in Figure A-1.

Production in the area of review is controlled by 12 operators as currently listed by the NMOCD internet database (see Table A-2). These operators' addresses are listed in Table C-2.

Since all leases and production in the area of interest is controlled by the listed lease operators, all of these entities have been noticed, along with the land owners, according to the requirements of Section XIV of the C-108. The proposed public notice for publication and copies of actual individual notices for operators within area of review are included in Appendix C.

Appendix D includes a map (Figure D-1) showing the locations of surface land ownership in the area of review, and Table D-1 summarizes the landowners of record in the area of review, as available from the Lea County land records. Copies of actual individual notices to surface owners within the area of review are also included in Appendix D.

7.0 AFFIRMATIVE STATEMENT OF LACK OF HYDRAULIC CONNECTION BETWEEN PROPOSED INJECTION ZONE AND KNOWN SOURCES OF DRINKING WATER

As part of the work performed to support this application, a detailed investigation of the structure, stratigraphy and hydrogeology of the area surrounding the proposed Jal#3 AGI #1 injection well has been performed. This investigation included the analysis of available geologic data and hydrogeologic data from wells and literature identified in Sections 3, 4 and 5 above including related appendices. Based on this investigation and analysis of these data, it is clear that there are no open fractures, faults or other structures which could potentially result in the communication of the proposed injection zone with any known sources of drinking water in the vicinity as described above in Sections 4 and 5 of this application.

FIGURES

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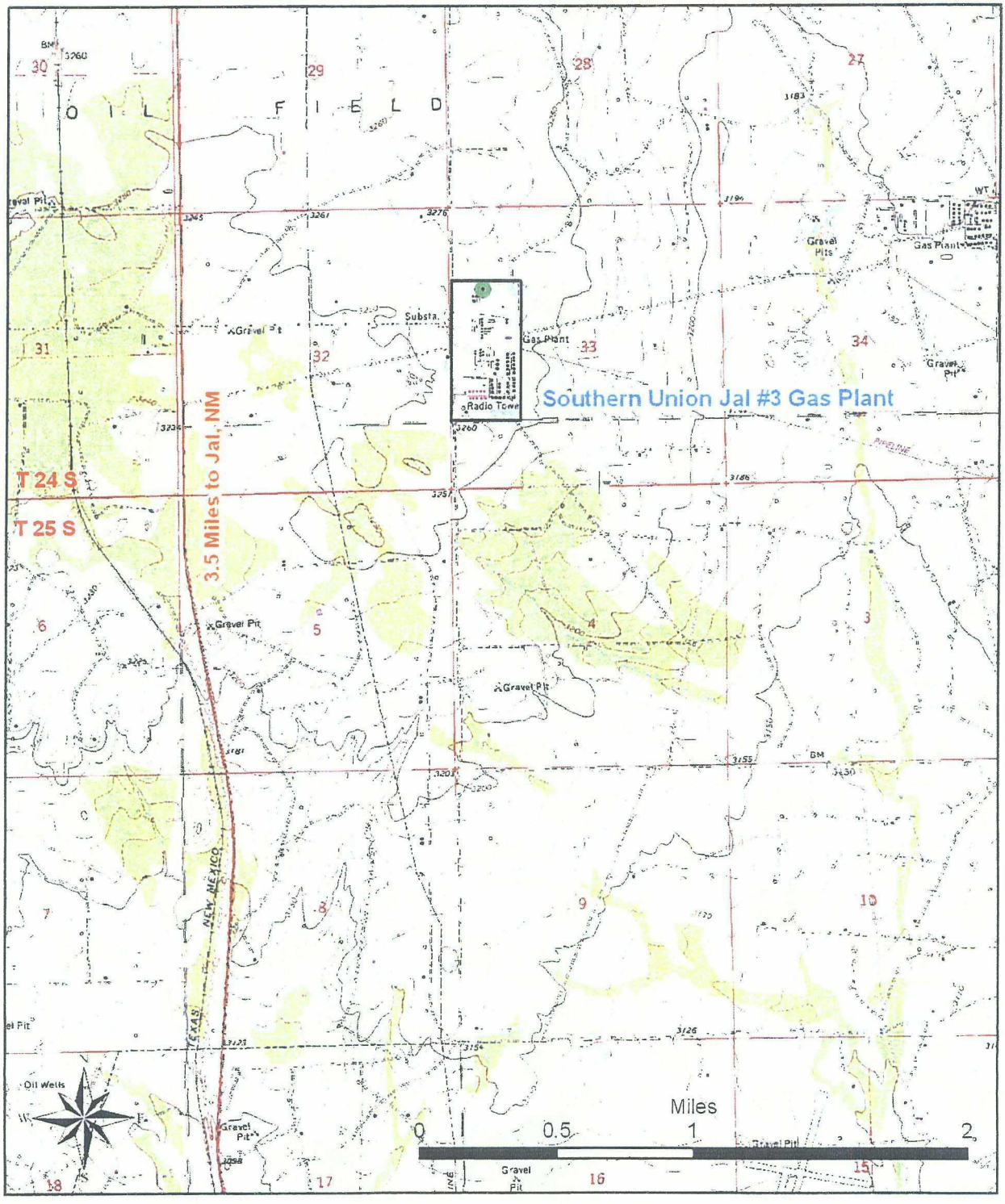
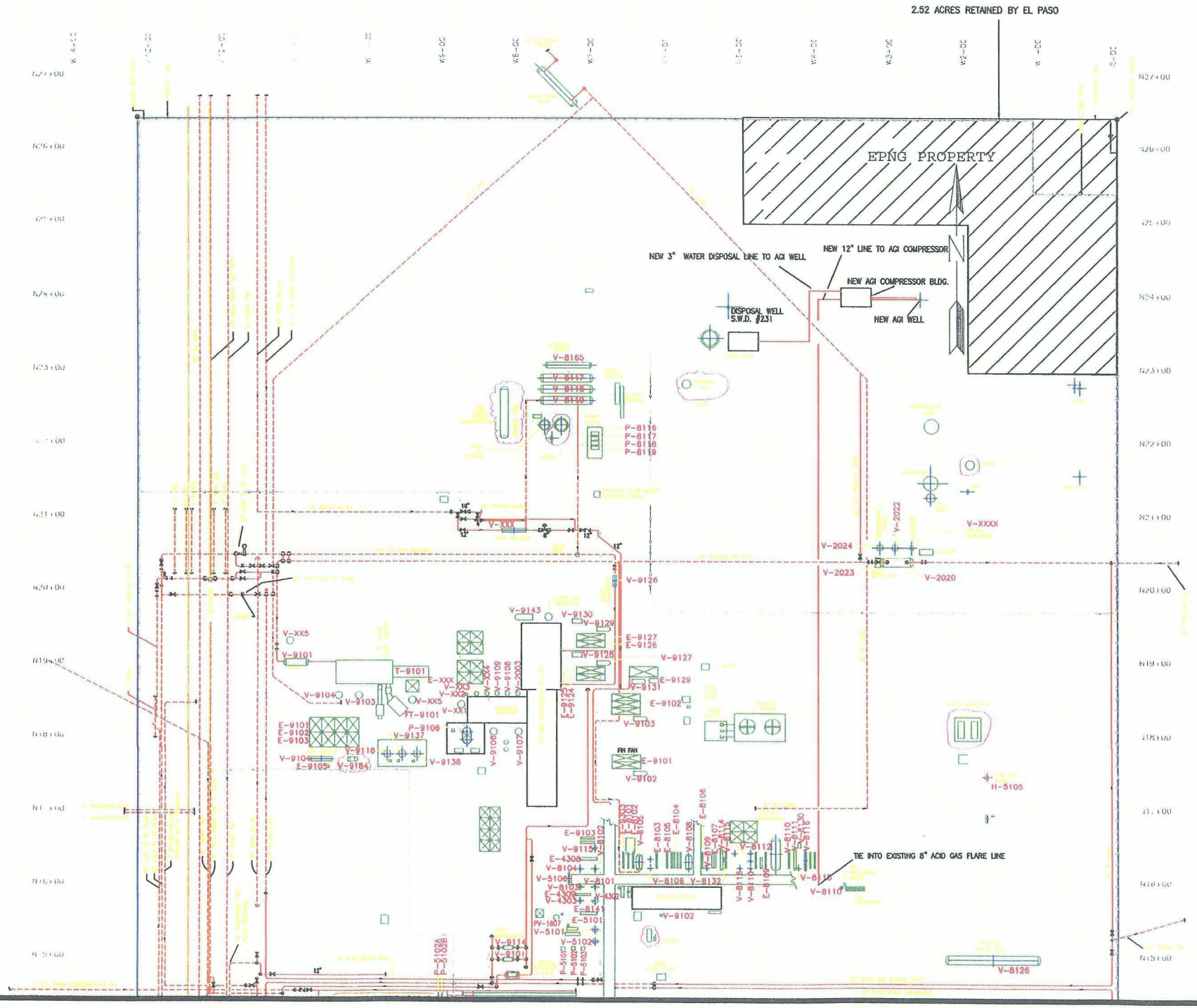


Figure 1:
Location of Southern Union Gas Services' Jal #3 Gas Plant

FIGURE 2a NORTH PORTION OF JAL #3 GAS PLANT SHOWING LOCATION AND TIE-IN OF PROPOSED AGI WELL AND COMPRESSION FACILITIES TO EXISTING PLANT



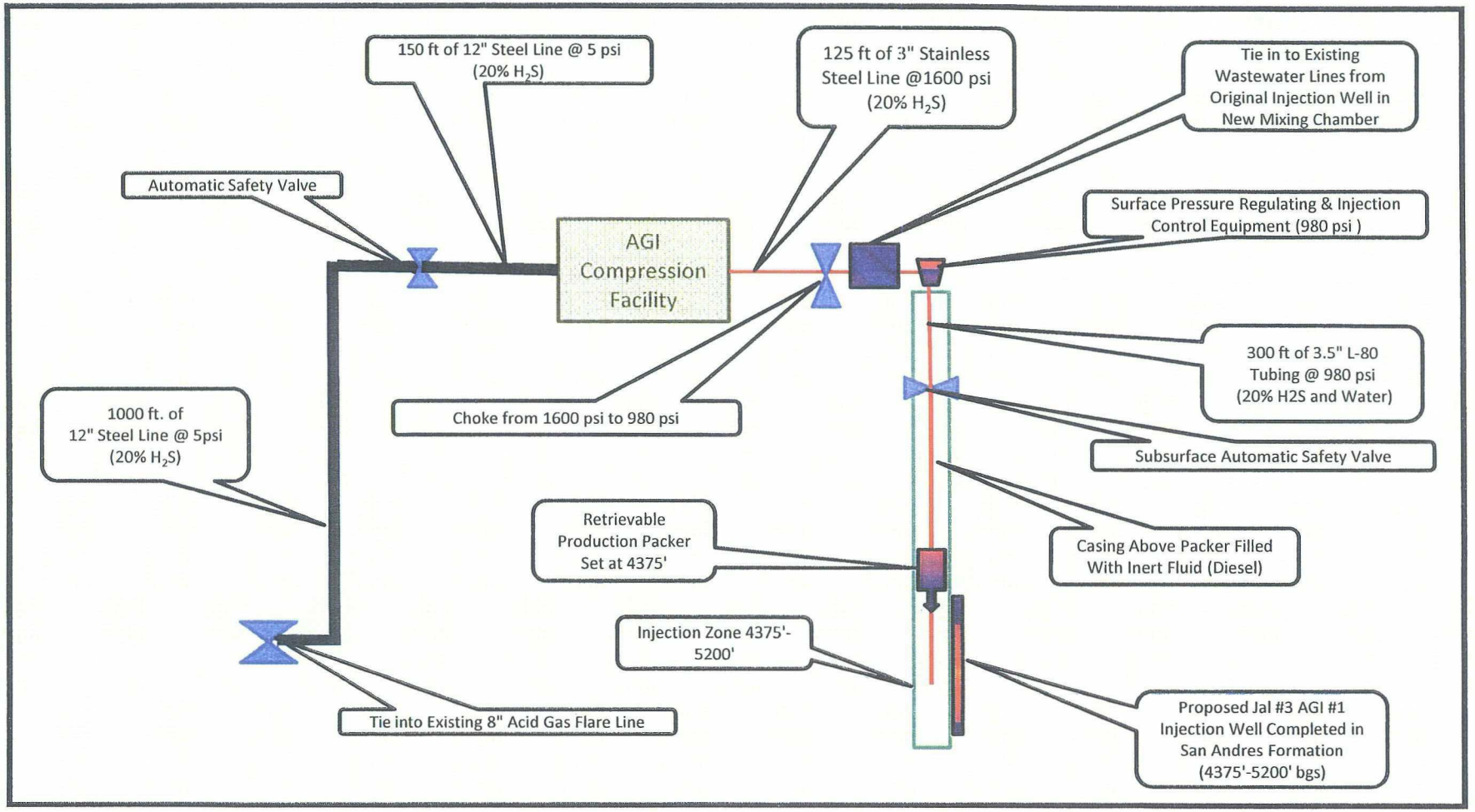


Figure 2b Schematic of SUGS Jal #3 Gas Plant Acid Gas Injection System Components

Figure 3
Southern Union Gas Services
Jal 3 Gas Plant
1.5 MMCFD Acid Gas Injection Compressor Process Flow Diagram

Names	Units	100	1st Stg Disch	2nd Stg Suction	2nd Stg Disch	3rd Stg Suction	3rd Stg Disch	4th Stg Suction	4th Stg Disch	5th Stg Suction	5th Stg Disch	Final
Pressure	psig	5.37	37#	34	109#	106	292#	287	738#	733	1.61e+003	1.6e+003*
Temperature	F	113	285	120	285	120	285	120	285	120	259	105*
Std Vapor Volumetric Flow	MMSCFD	1.63	1.62	1.56	1.56	1.52	1.52	1.51	1.51	1.51	1.51	1.51
Compressibility		0.988	0.993	0.985	0.983	0.962	0.959	0.903	0.901	0.738	0.772	0.273
Vapor Volumetric Flow	ft^3/h	5.84e+004	2.81e+004	2.21e+004	1.1e+004	8.38e+003	4.18e+003	3.09e+003	1.58e+003	1.01e+003	606	169
Mass Flow	lb/h	7.08e+003	7.06e+003	6.93e+003	6.93e+003	6.87e+003	6.87e+003	6.84e+003	6.84e+003	6.83e+003	6.83e+003	6.83e+003

Names	Units	Dry TAG	Wet TAG	1st Stg In
Temperature	F	120*	120	113
Pressure	psig	6*	6	5.37
Std Vapor Volumetric Flow	MMSCFD	1.5*	1.63	1.62
H2O(Mole Fraction)	%	0*	8.08	7.59
H2S(Mole Fraction)	%	20*	18.4	18.5
CO2(Mole Fraction)	%	78.2*	71.9	72.2
N2(Mole Fraction)	%	0*	0	0
C1(Mole Fraction)	%	1.78*	1.64	1.64
C2(Mole Fraction)	%	0.0061*	0.00561	0.00564
C3(Mole Fraction)	%	0.0045*	0.00414	0.00416
iC4(Mole Fraction)	%	0.0015*	0.00138	0.00139
nC4(Mole Fraction)	%	0.0015*	0.00138	0.00139
iC5(Mole Fraction)	%	0.003*	0.00276	0.00277
nC5(Mole Fraction)	%	0.0045*	0.00414	0.00416
C6(Mole Fraction)	%	0.03*	0.0276	0.0277
C7(Mole Fraction)	%	0*	0	0

Names	Units	1st Stage	2nd Stage	3rd Stage	4th Stage	5th Stage
Power	hp	110	100	94.6	85.7	59.1

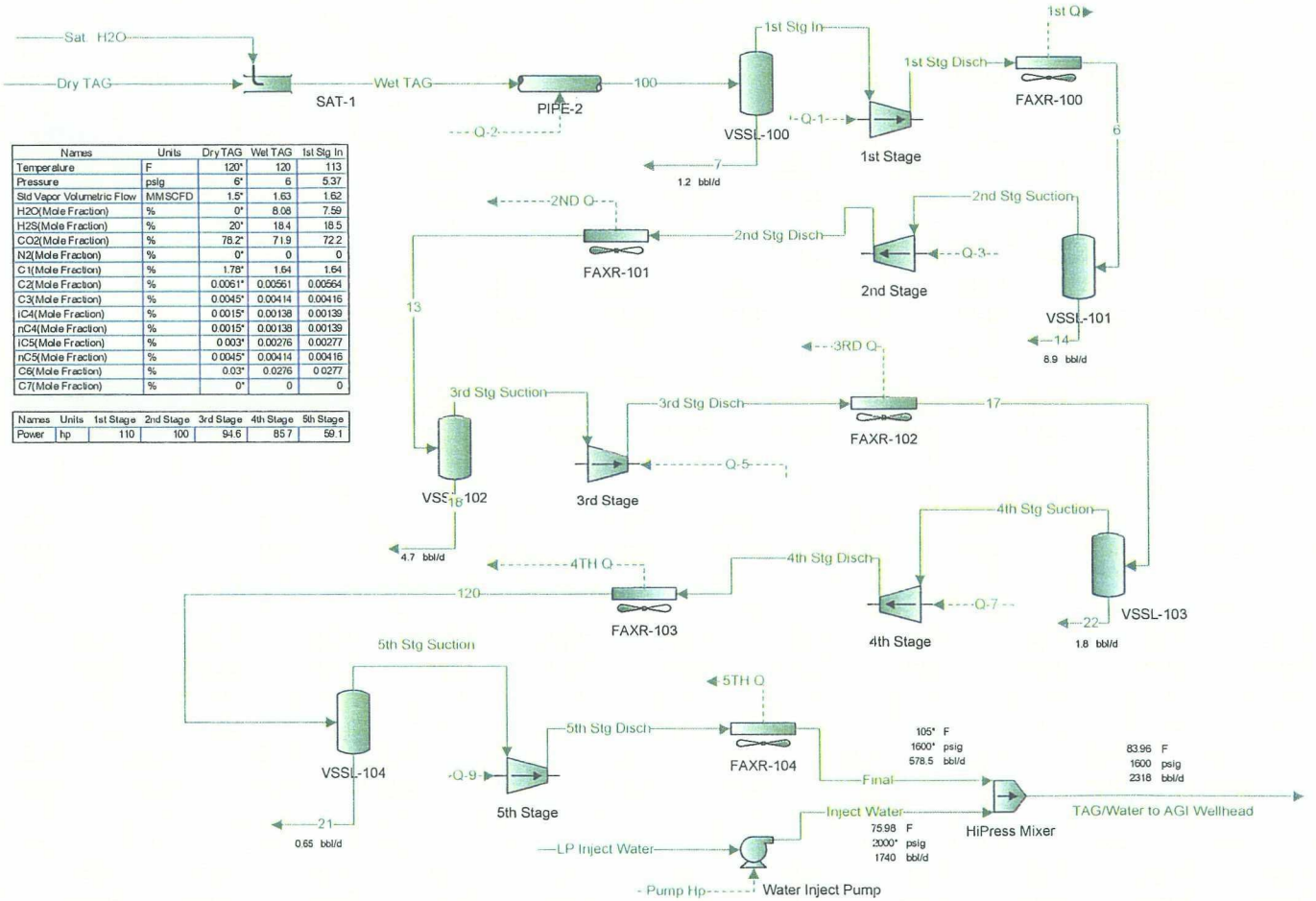
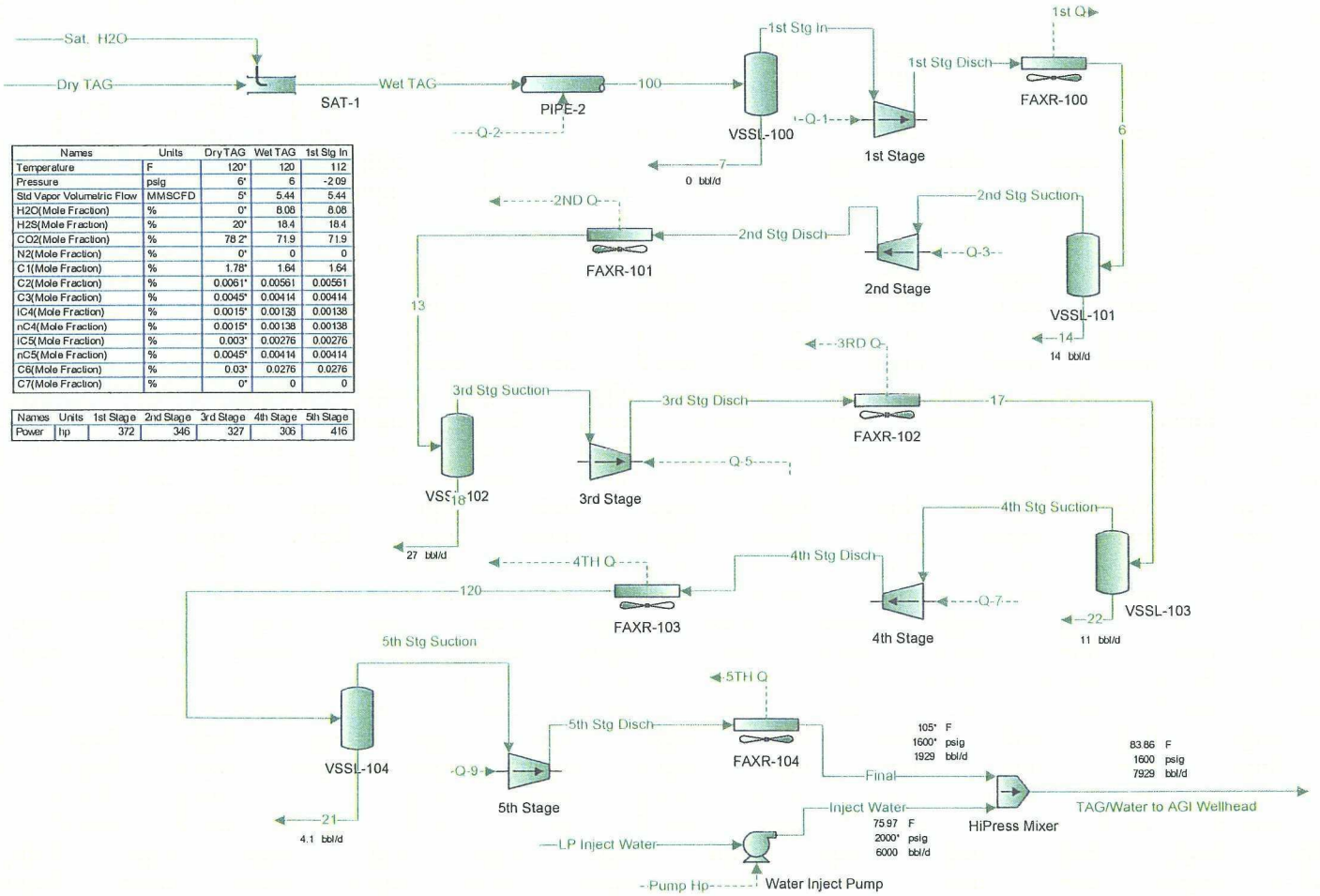


Figure 4
Southern Union Gas Services
Jal 3 Gas Plant
5 MMCFD Acid Gas Injection Compressor Process Flow Diagram

Names	Units	100	1st Stg Disch	2nd Stg Suction	2nd Stg Disch	3rd Stg Suction	3rd Stg Disch	4th Stg Suction	4th Stg Disch	5th Stg Suction	5th Stg Disch	Final
Pressure	psig	-2.09	17.2#	14.2	57.7#	54.7	162#	157	420#	415	1.61e+003	1.6e+003*
Temperature	F	112	285	120	285	120	285	120	285	120	371	105*
Std Vapor Volumetric Flow	MMSCFD	5.44	5.44	5.33	5.33	5.13	5.13	5.05	5.05	5.02	5.02	5.02
Compressibility		0.996	0.996	0.991	0.99	0.978	0.976	0.946	0.942	0.859	0.882	0.272
Vapor Volumetric Flow	ft^3/h	3.27e+005	1.56e+005	1.31e+005	6.51e+004	5.04e+004	2.5e+004	1.91e+004	9.61e+003	6.86e+003	2.67e+003	562
Mass Flow	lb/h	2.36e+004	2.36e+004	2.34e+004	2.34e+004	2.3e+004	2.3e+004	2.28e+004	2.28e+004	2.28e+004	2.28e+004	2.28e+004



Names	Units	Dry TAG	Wet TAG	1st Stg In
Temperature	F	120*	120	112
Pressure	psig	6*	6	-2.09
Std Vapor Volumetric Flow	MMSCFD	5*	5.44	5.44
H2O(Mole Fraction)	%	0*	8.08	8.08
H2S(Mole Fraction)	%	20*	18.4	18.4
CO2(Mole Fraction)	%	78.2*	71.9	71.9
N2(Mole Fraction)	%	0*	0	0
C1(Mole Fraction)	%	1.78*	1.64	1.64
C2(Mole Fraction)	%	0.0061*	0.00561	0.00561
C3(Mole Fraction)	%	0.0045*	0.00414	0.00414
iC4(Mole Fraction)	%	0.0015*	0.00138	0.00138
nC4(Mole Fraction)	%	0.0015*	0.00138	0.00138
iC5(Mole Fraction)	%	0.003*	0.00276	0.00276
nC5(Mole Fraction)	%	0.0045*	0.00414	0.00414
C6(Mole Fraction)	%	0.03*	0.0276	0.0276
C7(Mole Fraction)	%	0*	0	0

Names	Units	1st Stage	2nd Stage	3rd Stage	4th Stage	5th Stage
Power	hp	372	346	327	305	416

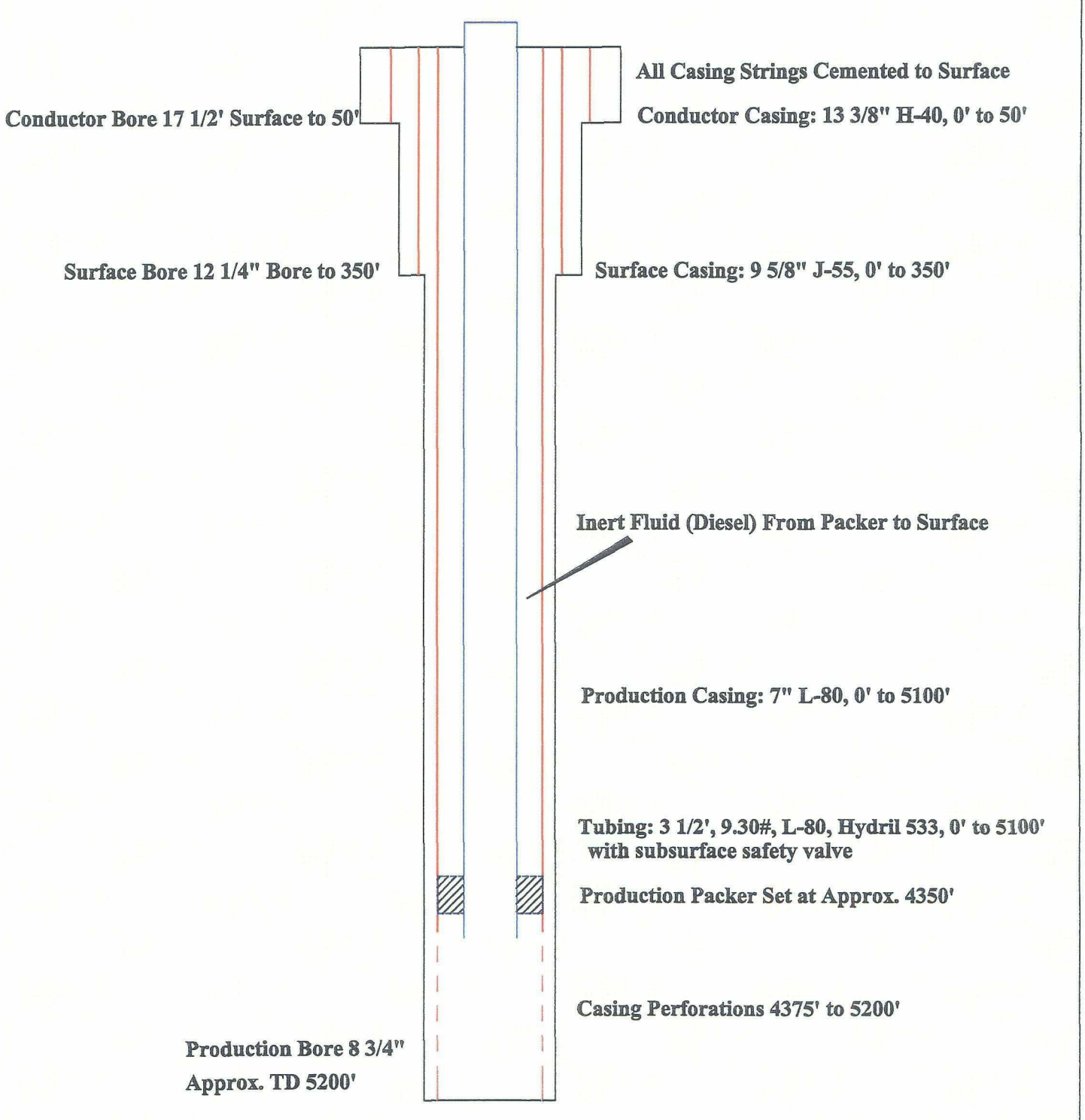
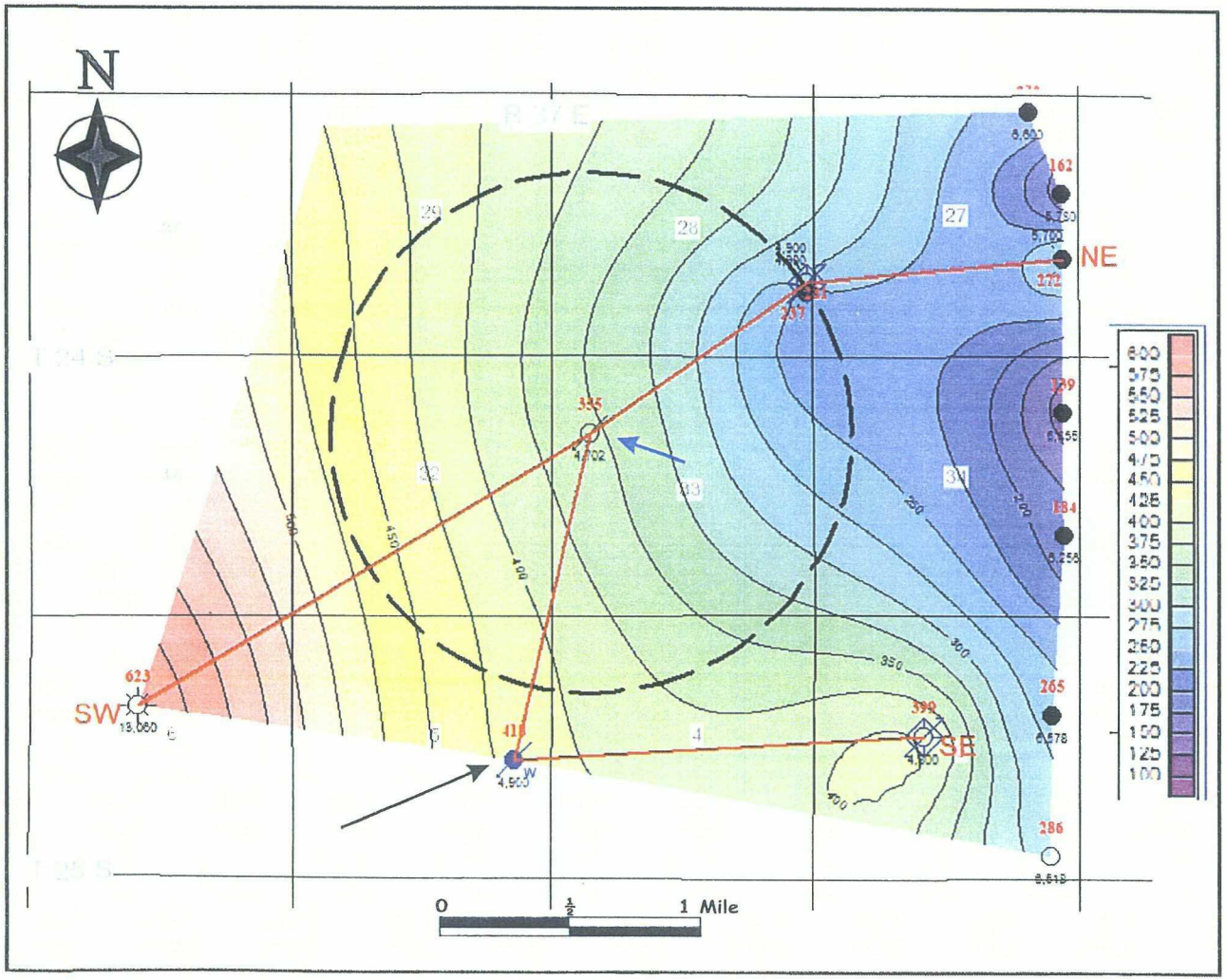


Figure 5:
Jal #3 AGI #1 Design



THE BLUE ARROW POINTS TO THE SUBJECT WATER INJECTION WELL ON THE PLANT SITE; THE BLACK ARROW POINTS TO THE ONLY OTHER NEARBY, ACTIVE SAN ANDRES INJECTION WELL.

NET POROSITY IS ESTIMATED IN THE NORTHWEST CORNER OF THE STUDY AREA BECAUSE OF THE ABSENCE OF ANY WELLS THERE THAT PENETRATED THE SAN SAN ANDRES. WARMER COLORS DENOTE AREAS OF HIGHER NET POROSITY.

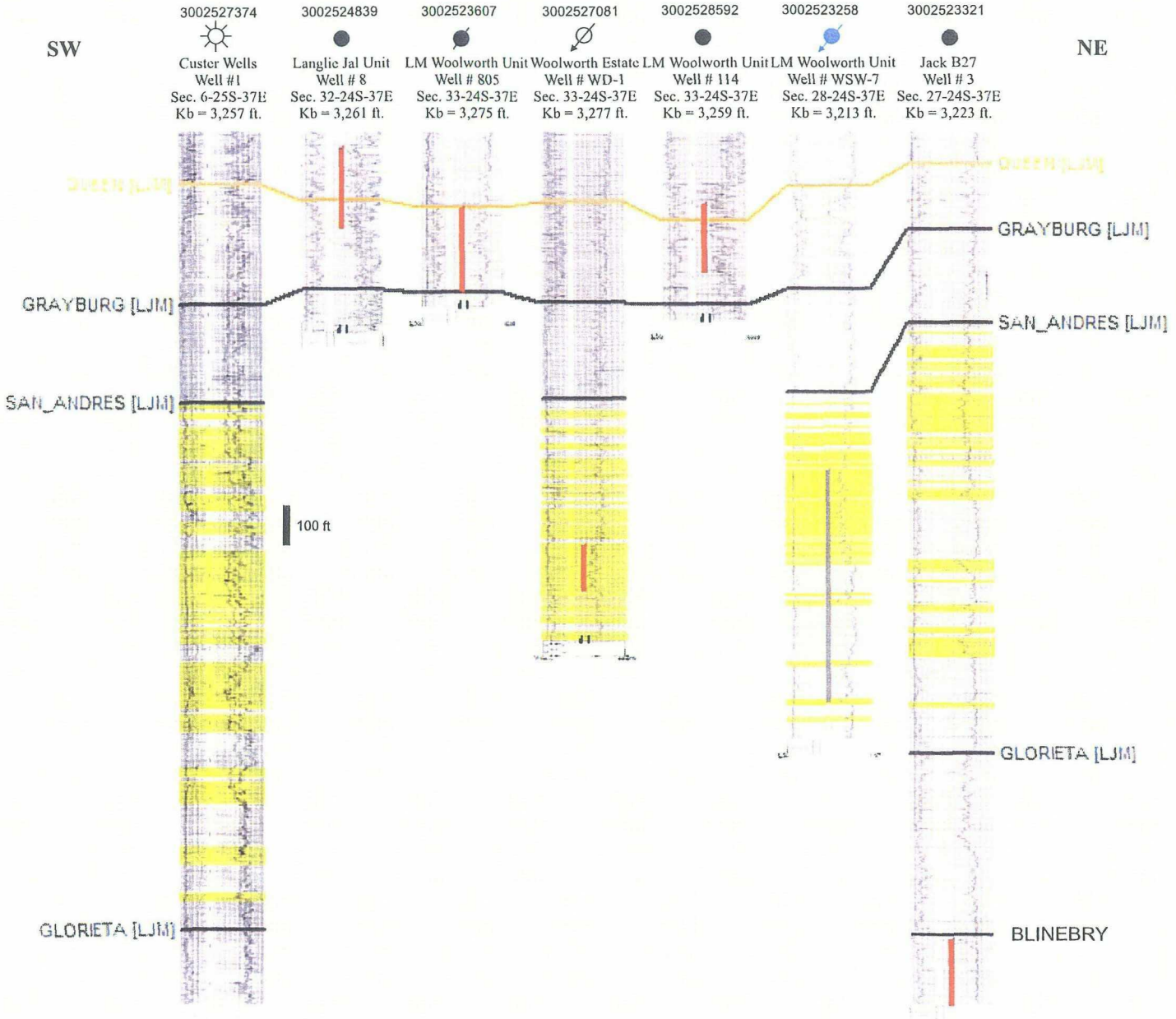
FIGURE 6

Geolex, Inc®

SUGS JAL #3 PLANT
Lea County, New Mexico

San Andres Net Porosity
>6%

CLIENT: Southern Union Gas Services DATE: 081907



San Andres porosity >6% shown in yellow

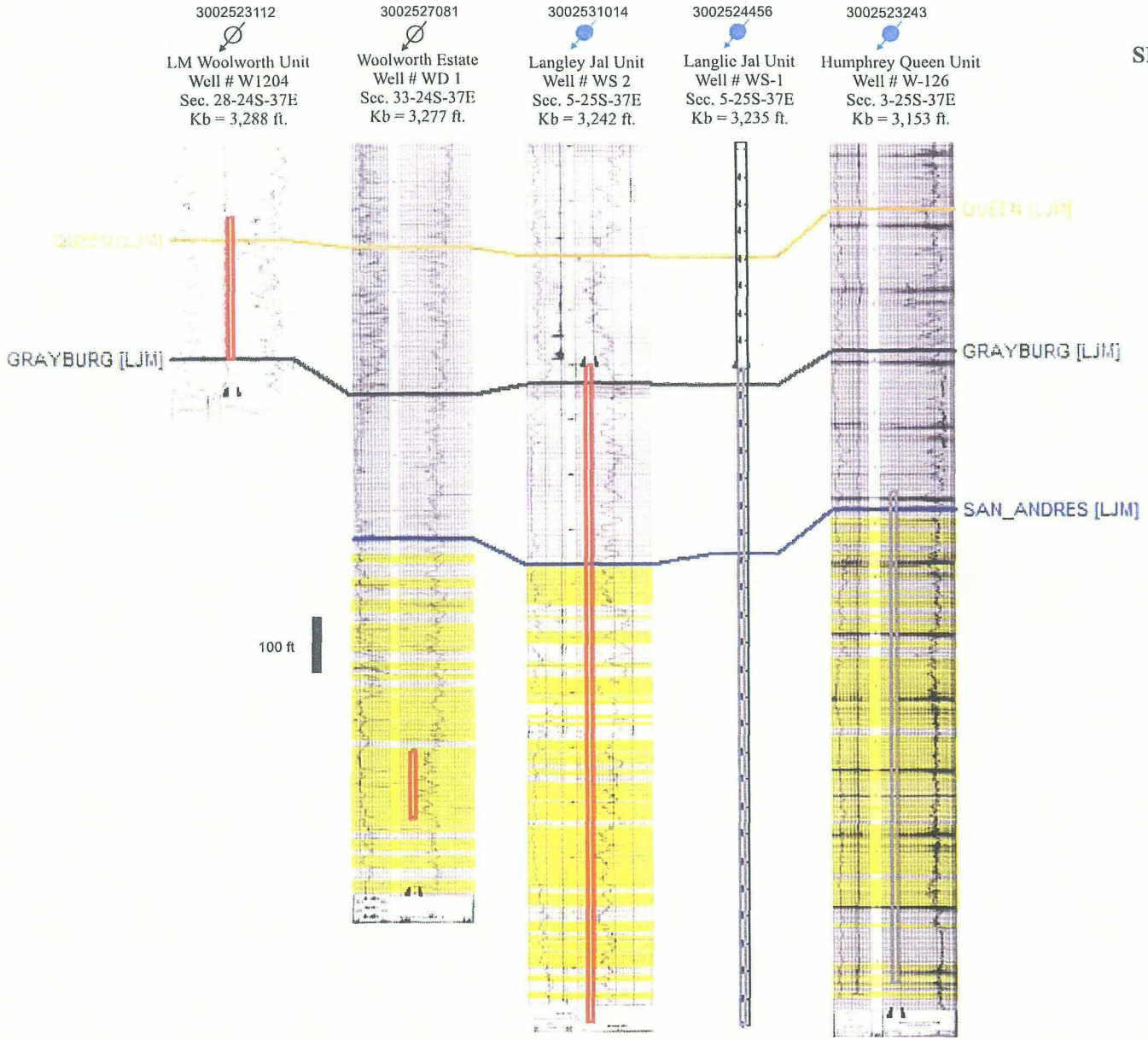
FIGURE 7

Geolex, Inc®

SUGS JAL #3 PLANT
Lea County, New Mexico

TYPE STRUCTURE
SECTION 1

CLIENT: Southern Union Gas Services DATE: 081407



San Andres porosity >6% shown in yellow

FIGURE 8

Geolex, Inc®

SUGS JAL #3 PLANT
Lea County, New Mexico

TYPE STRUCTURE
SECTION 2

CLIENT: Southern Union Gas Services DATE: 081407

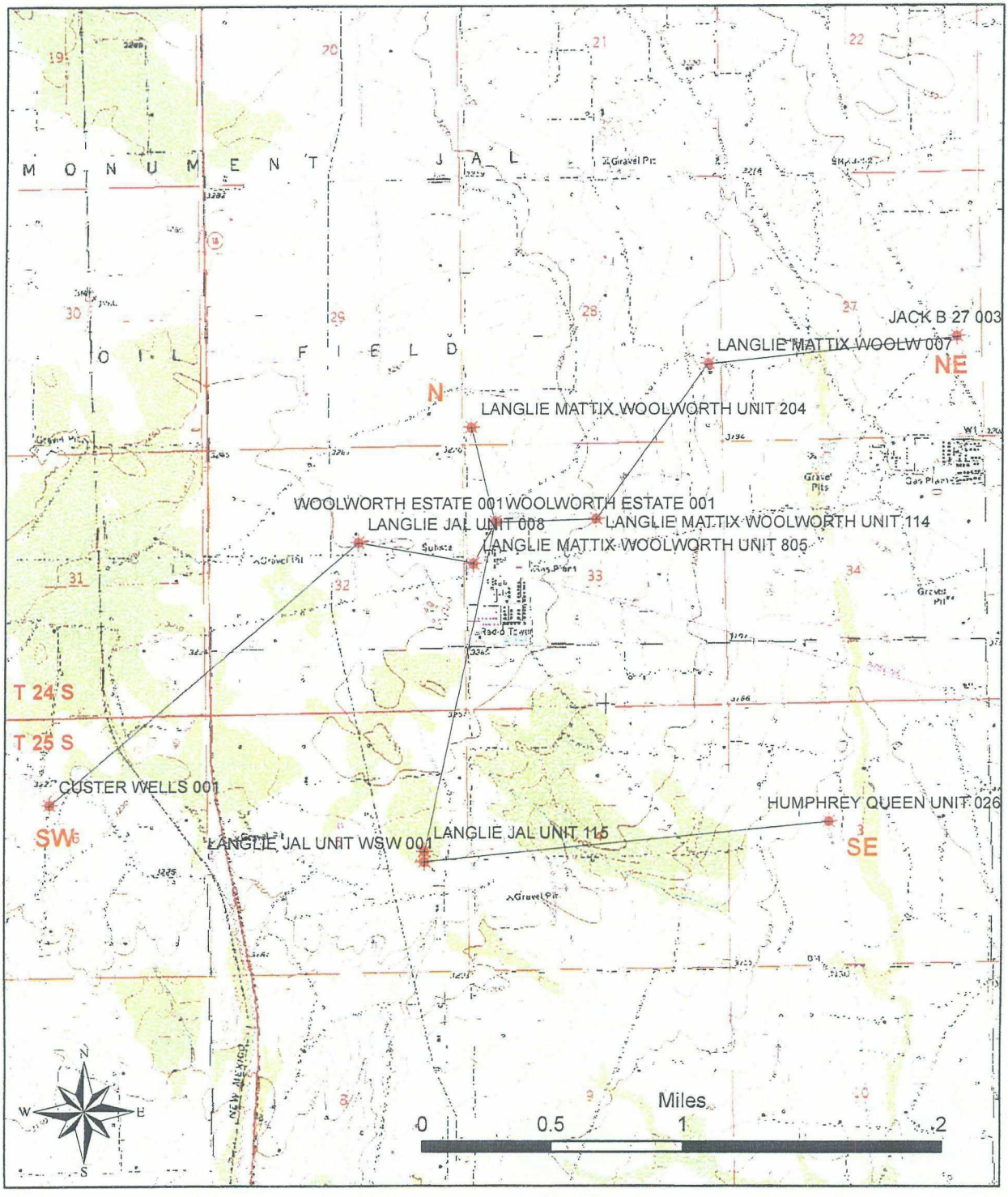
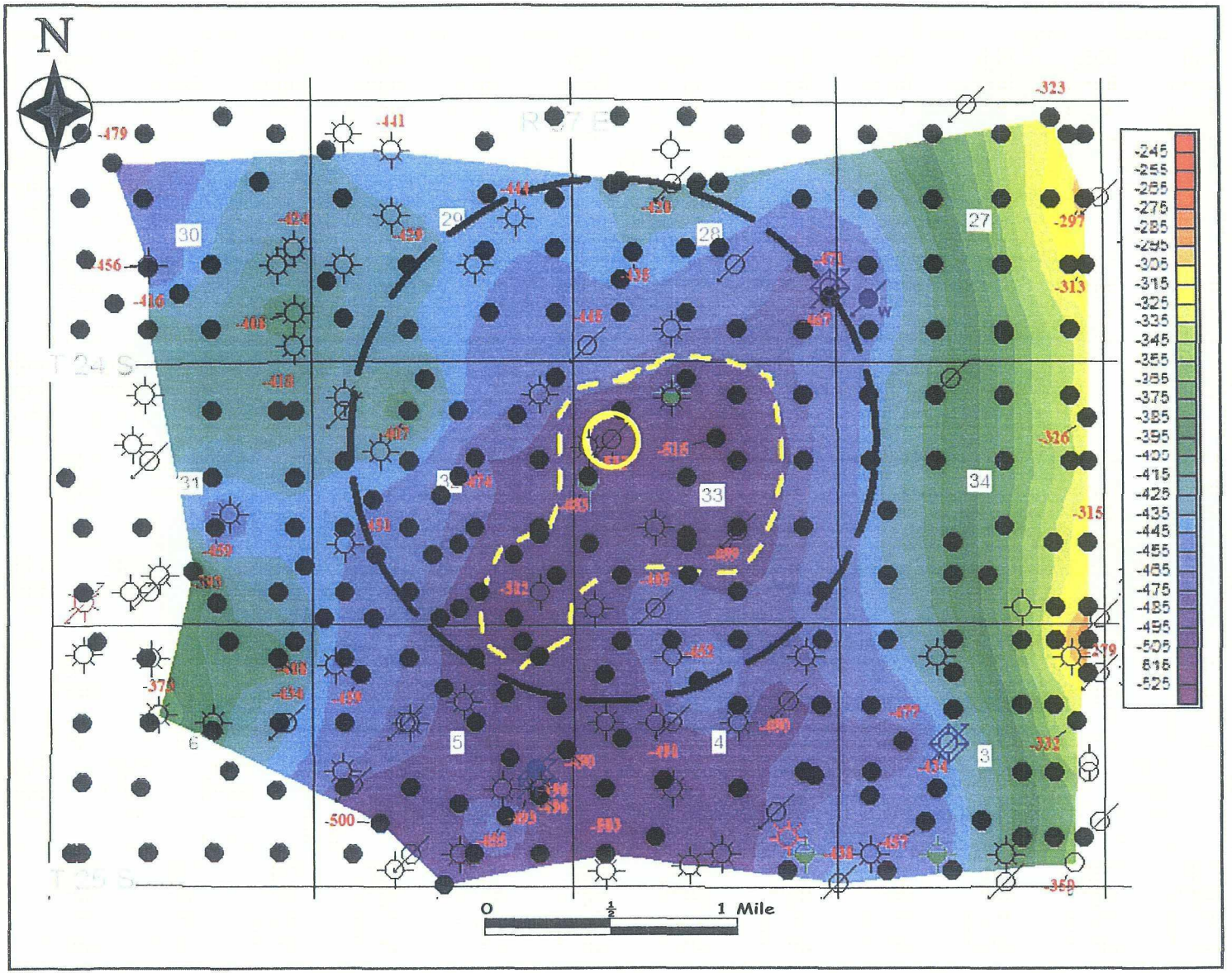


Figure 9:
Location of Cross-Sections Shown in Figures 7 and 8

Wells Used in Cross-Sections



Cooler (blues) colors are lower; location of subject WIW indicated by yellow circle. The dashed yellow line outlines the deepest part of the structural trough under the plant site.

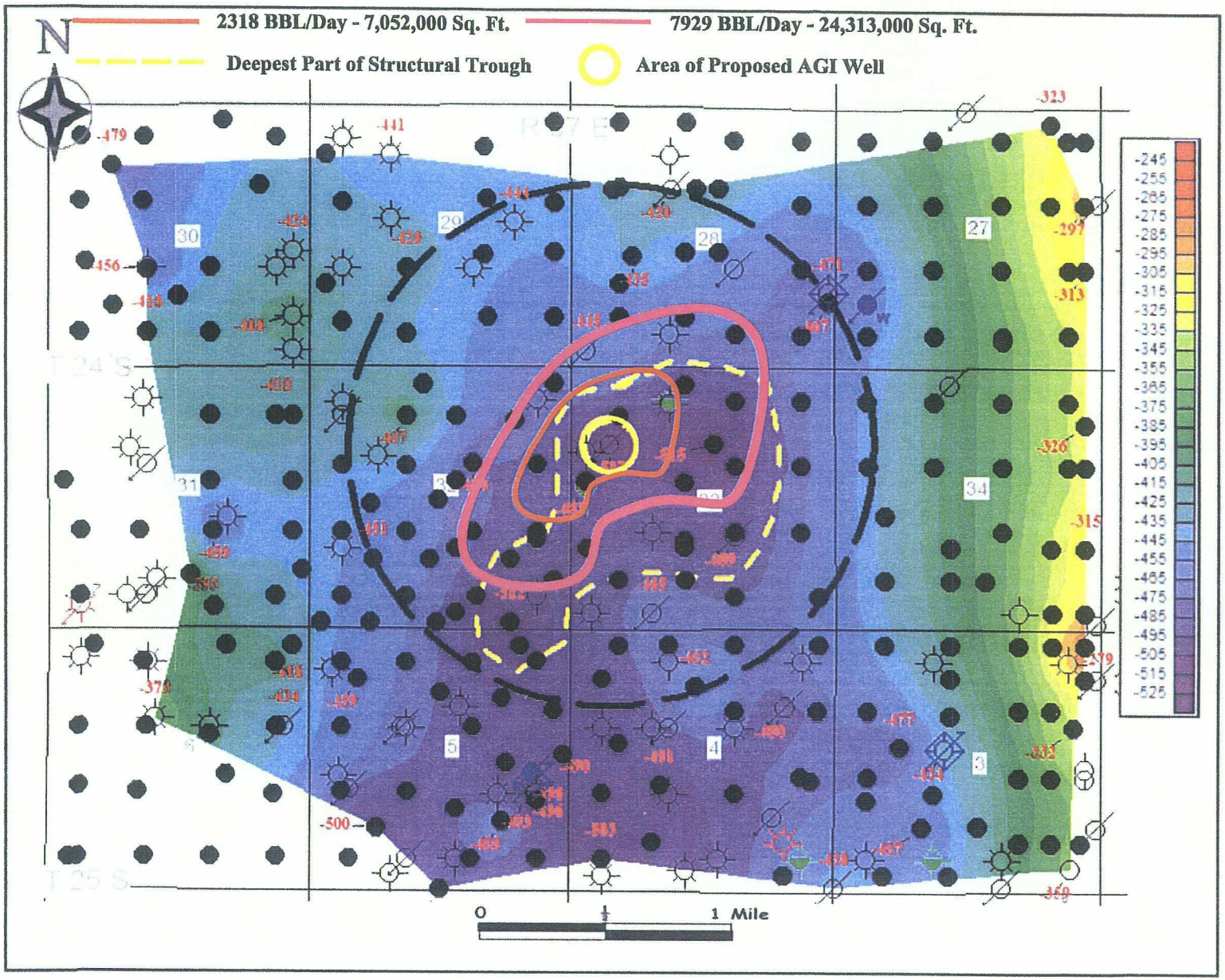
FIGURE 10

Geolex, Inc®

SUGS JAL#3 PLANT
Lea County, New Mexico

STRUCTURE, TOP OF GRAYBURG
C. I. = 10 Feet

CLIENT: Southern Union Gas Services DATE: R 081907



Cooler (blues) colors are lower; location of subject WIW indicated by yellow circle. The dashed yellow line outlines the deepest part of the structural trough under the plant site.

FIGURE 11

Geolex, Inc®

SUGS JAL#3 PLANT
Lea County, New Mexico

MAXIMUM EXTENT OF INJECTED FLUID
FOR 2318 and 7929 bbl/d AFTER 30 YEARS

CLIENT: Southern Union Gas Services DATE: 12/11/2007

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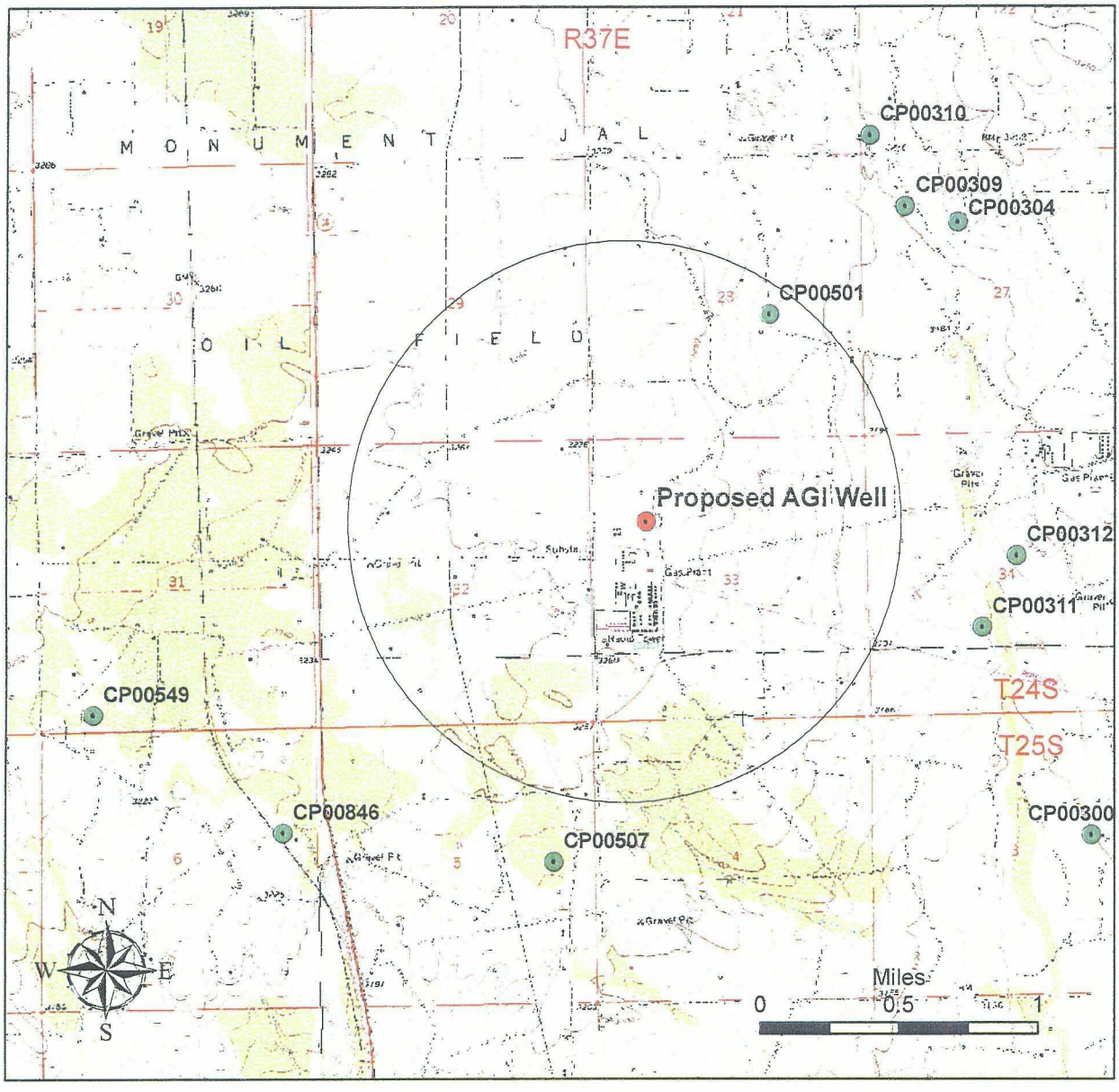

Figure 12:
Locations of Water Wells Adjacent to Southern Union Gas Services Jal #3 Plant

- Water Wells Listed in NM State Engineers' Files
- Proposed AGI Well

APPENDIX A

ACTIVE OIL & GAS WELL DATA
AND
DATA ON EXISTING SUGS INJECTION WELL

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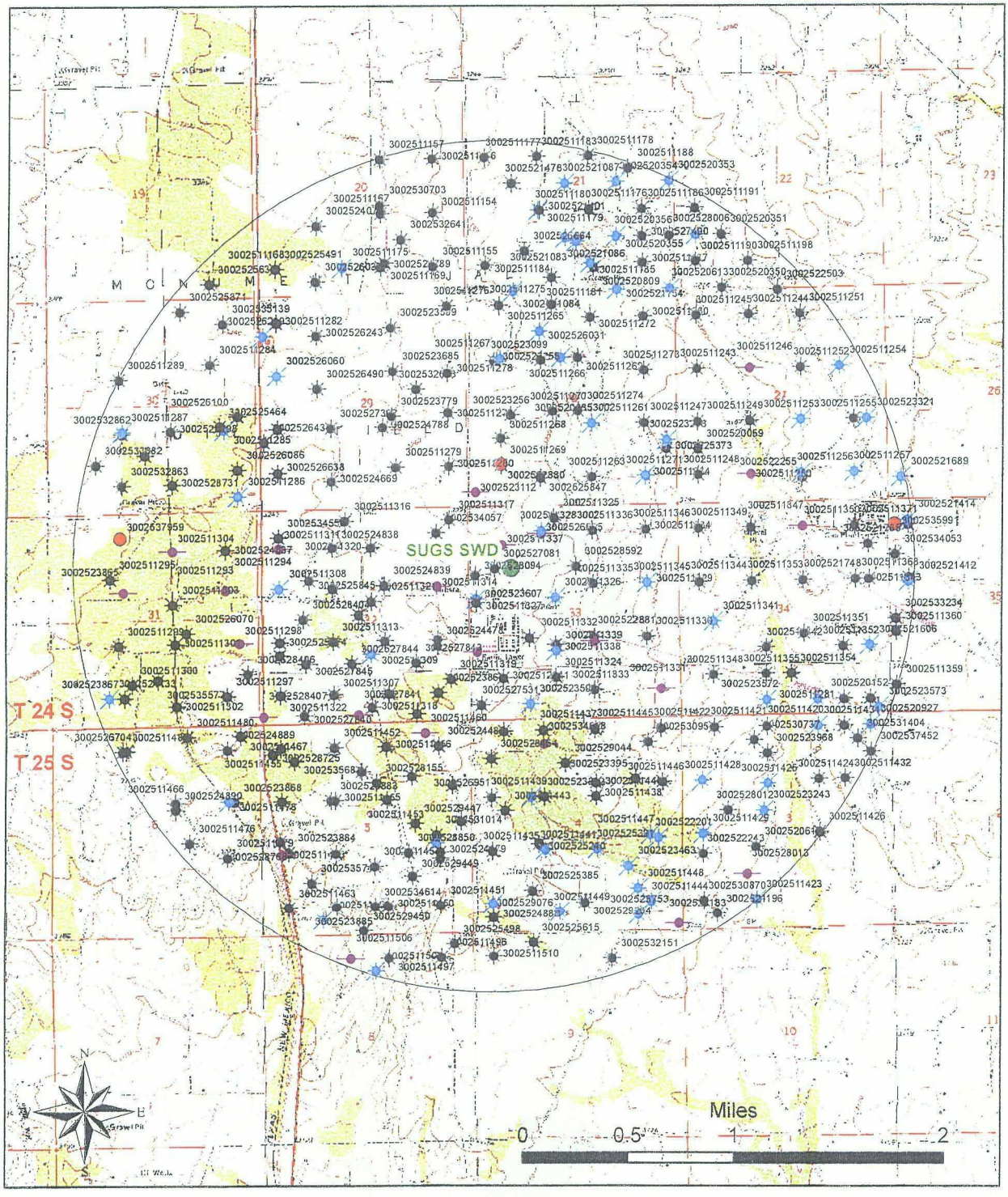


Figure A-1:
Locations of Wells Within Two Miles of SUGS SWD Well

Active
TA
Existing SUGS SWD
Plugged
Not Drilled

Table A-1: Identification of Wells Within Two Miles of Proposed SUGS AGI Well												
API #	Well Name	Status	Unit	Twp.	Rng.	Sect.	ftg_ns	ns_cd	ftg_ew	ew_cd	Operator	Well Type
3002511154	LANGLIE JACK UNIT 012	Active	I	24.0S	37E	20	1980	S	660	E	MCDONNOLD OPERATING INC	Injection
3002511155	LANGLIE JACK UNIT 015	Active	P	24.0S	37E	20	660	S	660	E	MCDONNOLD OPERATING INC	Oil
3002511156	LANGLIE JACK UNIT 009	Active	H	24.0S	37E	20	1980	N	660	E	MCDONNOLD OPERATING INC	Oil
3002511157	LANGLIE JACK UNIT 008	Active	G	24.0S	37E	20	1980	N	1980	E	MCDONNOLD OPERATING INC	Oil
3002511167	LANGLIE JACK UNIT 013	Active	J	24.0S	37E	20	1980	S	1980	E	MCDONNOLD OPERATING INC	Oil
3002511168	KING HARRISON C 003	Active	L	24.0S	37E	20	660	S	660	W	PRIMAL ENERGY CORPORATION	Gas
3002511169	LANGLIE JACK UNIT 014	Active	O	24.0S	37E	20	660	S	1980	E	MCDONNOLD OPERATING INC	Injection
3002511175	CALLEY A 001	Plugged	N	24.0S	37E	20	660	S	2310	W	WISER OIL CO (THE)	Gas
3002511176	LANGLIE JACK UNIT 011	Active	L	24.0S	37E	21	1980	S	660	E	MCDONNOLD OPERATING INC	Oil
3002511177	LANGLIE JACK UNIT 010	Active	E	24.0S	37E	21	1980	N	660	W	MCDONNOLD OPERATING INC	Injection
3002511178	J F BLACK 001	Active	G	24.0S	37E	21	1980	N	1980	E	PRONGHORN MANAGEMENT CORP	Oil
3002511179	J F BLACK 002	Plugged	K	24.0S	37E	21	1980	S	1980	W	TEXACO EXPLORATION	Gas
3002511180	BLACK 001	Active	J	24.0S	37E	21	1980	S	1980	E	BETWELL OIL & GAS CO	Injection
3002511181	BLACK 003	Active	N	24.0S	37E	21	330	S	2310	W	BETWELL OIL & GAS CO	Oil
3002511183	J F BLACK 004	Active	F	24.0S	37E	21	1980	N	1980	W	PRONGHORN MANAGEMENT CORP	Oil
3002511184	LANGLIE JACK UNIT 016	Active	M	24.0S	37E	21	660	S	660	W	MCDONNOLD OPERATING INC	Injection
3002511185	SHELL BLACK 002	Plugged	O	24.0S	37E	21	660	S	1980	E	MACK ENERGY CORP	Gas
3002511186	KNIGHT 001	Active	I	24.0S	37E	21	1980	S	660	E	WHITING OIL AND GAS CORPORATION	Oil
3002511187	KNIGHT 003	Active	P	24.0S	37E	21	660	S	660	E	WHITING OIL AND GAS CORPORATION	Oil
3002511188	JAMISON 001	Active	H	24.0S	37E	21	2310	N	990	E	WHITING OIL AND GAS CORPORATION	Oil
3002511190	KNIGHT 004	Active	M	24.0S	37E	22	660	S	660	W	WHITING OIL AND GAS CORPORATION	Oil
3002511191	KNIGHT 002	Active	L	24.0S	37E	22	1980	S	660	W	WHITING OIL AND GAS CORPORATION	Oil
3002511198	CORTLAND MYERS UNIT 004	Active	N	24.0S	37E	22	660	S	1980	W	WHITING OIL AND GAS CORPORATION	Oil
3002511243	LANGLIE MATTIX WOOLWORTH UNIT 502	Active	E	24.0S	37E	27	1980	N	660	W	BETWELL OIL & GAS CO	Oil
3002511244	LANGLIE MATTIX WOOLWORTH UNIT 503	Active	C	24.0S	37E	27	660	N	1980	W	BETWELL OIL & GAS CO	Oil
3002511245	LANGLIE MATTIX WOOLWORTH UNIT 501	Active	D	24.0S	37E	27	660	N	660	W	BETWELL OIL & GAS CO	Oil
3002511246	LANGLIE MATTIX WOOLWORTH UNIT 504	TA	F	24.0S	37E	27	1980	N	1980	W	BETWELL OIL & GAS CO	Injection
3002511247	LANGLIE MATTIX WOOLWORTH UNIT 601	Active	L	24.0S	37E	27	1980	S	660	W	BETWELL OIL & GAS CO	Injection
3002511248	LANGLIE MATTIX WOOLWORTH UNIT 602	Active	M	24.0S	37E	27	660	S	660	W	BETWELL OIL & GAS CO	Oil
3002511249	LANGLIE MATTIX WOOLWORTH UNIT 603	Active	K	24.0S	37E	27	1980	S	1980	W	BETWELL OIL & GAS CO	Oil
3002511250	LANGLIE MATTIX WOOLWORTH UNIT 604	TA	N	24.0S	37E	27	660	S	1980	W	BETWELL OIL & GAS CO	Injection
3002511251	LANGLIE MATTIX WOOLWORTH UNIT 701	Active	B	24.0S	37E	27	660	N	1980	E	BETWELL OIL & GAS CO	Oil
3002511252	LANGLIE MATTIX WOOLWORTH UNIT 702	Active	G	24.0S	37E	27	1980	N	1980	E	BETWELL OIL & GAS CO	Oil
3002511253	LANGLIE MATTIX WOOLWORTH UNIT 703	Plugged	J	24.0S	37E	27	1980	S	1980	E	BETWELL OIL & GAS CO	Injection
3002511254	JACK B 27 004	Plugged	H	24.0S	37E	27	1980	N	990	E	CONTINENTAL OIL CO	Oil
3002511255	LANGLIE MATTIX WOOLWORTH UNIT 705	Active	I	24.0S	37E	27	1980	S	660	E	BETWELL OIL & GAS CO	Oil
3002511256	JACK B 27 006	Plugged	O	24.0S	37E	27	660	S	1980	E	CONTINENTAL OIL CO	Oil
3002511257	LANGLIE MATTIX WOOLWORTH UNIT 707	Plugged	P	24.0S	37E	27	660	S	660	E	BETWELL OIL & GAS CO	Injection
3002511260	LANGLIE MATTIX WOOLWORTH UNIT 401	Active	A	24.0S	37E	28	660	N	660	E	BETWELL OIL & GAS CO	Oil
3002511261	LANGLIE MATTIX WOOLWORTH UNIT 304	Active	I	24.0S	37E	28	1980	S	660	E	BETWELL OIL & GAS CO	Oil
3002511262	LANGLIE MATTIX WOOLWORTH UNIT 305	Active	G	24.0S	37E	28	1650	N	2310	E	BETWELL OIL & GAS CO	Oil
3002511263	LANGLIE MATTIX WOOLWORTH UNIT 306	Active	O	24.0S	37E	28	660	S	1980	E	BETWELL OIL & GAS CO	Oil
3002511264	LANGLIE MATTIX WOOLWORTH UNIT 307	Active	P	24.0S	37E	28	660	S	660	E	BETWELL OIL & GAS CO	Injection
3002511265	LANGLIE MATTIX WOOLWORTH UNIT 102	Active	D	24.0S	37E	28	330	N	990	W	BETWELL OIL & GAS CO	Oil
3002511266	LANGLIE MATTIX WOOLW 103	Plugged	F	24.0S	37E	28	1650	N	2510	W	AMERADA HESS CORP	Oil
3002511267	WOOLWORTH 004	Plugged	E	24.0S	37E	28	1650	N	990	W	BP AMERICA PRODUCTI	Gas
3002511268	LITIE WOOLWORTH 004	Active	L	24.0S	37E	28	1650	S	990	W	MCDONNOLD OPERATING INC	Gas
3002511269	LITIE WOOLWORTH 003	Active	M	24.0S	37E	28	990	S	990	W	MCDONNOLD OPERATING INC	Gas
3002511270	LANGLIE MATTIX WOOLWORTH UNIT 201	Active	K	24.0S	37E	28	2310	S	2310	W	BETWELL OIL & GAS CO	Oil
3002511271	LANGLIE MATTIX WOOLWORTH UNIT 202	Plugged	N	24.0S	37E	28	660	S	660	E	BETWELL OIL & GAS CO	Injection
3002511272	LANGLIE MATTIX WOOLWORTH UNIT 301	Active	B	24.0S	37E	28	660	N	1980	E	BETWELL OIL & GAS CO	Oil
3002511273	LANGLIE MATTIX WOOLWORTH UNIT 302	Active	H	24.0S	37E	28	1980	N	660	E	BETWELL OIL & GAS CO	Injection
3002511274	WOOLWORTH 003	Active	J	24.0S	37E	28	2310	S	2310	E	WESTBROOK OIL CORP	Gas
3002511275	LANGLIE MATTIX WOOLWORTH UNIT 101	Active	C	24.0S	37E	28	330	N	2310	W	BETWELL OIL & GAS CO	Oil
3002511276	LANGLIE JACK UNIT 017	Active	A	24.0S	37E	29	330	N	330	E	MCDONNOLD OPERATING INC	Injection
3002511277	JACK A 29 002	Active	I	24.0S	37E	29	2310	S	330	E	MCDONNOLD OPERATING INC	Injection
3002511278	JACK A 29 003	Active	H	24.0S	37E	29	1970	N	330	E	MCDONNOLD OPERATING INC	Oil
3002511279	JACK A 29 004	Active	O	24.0S	37E	29	990	S	1650	E	MCDONNOLD OPERATING INC	Injection
3002511280	JACK B 29 001	Active	P	24.0S	37E	29	990	S	330	E	MCDONNOLD OPERATING INC	Oil
3002511281	LANGLIE MATTIX WOOLWORTH UNIT 164	Active	P	24.0S	37E	34	330	S	990	E	BETWELL OIL & GAS CO	Oil

Table A-1: Identification of Wells Within Two Miles of Proposed SUGS AGI Well												
API #	Well Name	Status	Unit	Twp.	Rng.	Sect.	ftg_ns	ns_cd	ftg_ew	ew_cd	Operator	Well Type
3002511282	W H HARRISON A WN COM 002	Active	D	24.0S	37E	29	660	N	660	W	BP AMERICA PRODUCTION COMPANY	Gas
3002511283	WM H HARRISON D WN COM 001	Active	L	24.0S	37E	29	1980	S	660	W	BP AMERICA PRODUCTION COMPANY	Gas
3002511284	JACK B 30 001	Active	H	24.0S	37E	30	1650	N	990	E	PLANTATION OPERATING LLC	Oil
3002511285	C D WOOLWORTH 001	Plugged	I	24.0S	37E	30	1980	S	660	E	GULF OIL CORP	Gas
3002511286	C D WOOLWORTH 002	Plugged	P	24.0S	37E	30	330	S	330	E	GULF OIL CORP	Gas
3002511287	C D WOOLWORTH 003	Plugged	K	24.0S	37E	30	1980	S	1980	W	GULF OIL CORP	Gas
3002511289	COOPER JAL UNIT 232	Active	F	24.0S	37E	30	1980	N	1917	W	SDG RESOURCES, L.P.	Oil
3002511293	LANGLIE JAL UNIT 011	TA	H	24.0S	37E	31	1980	N	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511294	MARTIN A 002	Active	A	24.0S	37E	31	990	N	660	E	LEWIS B BURLESON INC	Gas
3002511295	MARTIN B 001	Active	F	24.0S	37E	31	1650	N	1650	W	PLANTATION OPERATING LLC	Gas
3002511297	LANGLIE JAL UNIT 027	Active	P	24.0S	37E	31	660	S	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511298	LANGLIE JAL UNIT 018	TA	I	24.0S	37E	31	1980	S	330	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511299	LANGLIE JAL UNIT 016	Active	K	24.0S	37E	31	1980	S	1842	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511300	J W SHERRELL 005	Active	N	24.0S	37E	31	990	S	2172	W	PLANTATION OPERATING LLC	Gas
3002511301	LANGLIE JAL UNIT 017	Active	J	24.0S	37E	31	1980	S	1930	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511302	LANGLIE JAL UNIT 028	Active	O	24.0S	37E	31	440	S	1900	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511303	LANGLIE JAL UNIT 012	Active	G	24.0S	37E	31	2310	N	1977	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511304	LANGLIE JAL UNIT 001	TA	B	24.0S	37E	31	990	N	1977	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511307	LANGLIE JAL UNIT 025	Active	N	24.0S	37E	32	660	S	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511308	LANGLIE JAL UNIT 010	Plugged	E	24.0S	37E	32	1980	N	660	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511309	STATE B 32 001	Plugged	J	24.0S	37E	32	1650	S	2310	E	JOHN M KELLY	Oil
3002511310	LANGLIE JAL UNIT 009	Active	F	24.0S	37E	32	1980	N	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511311	LANGLIE JAL UNIT 003	TA	D	24.0S	37E	32	990	N	660	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511312	HUMBLE L STATE 003	Active	I	24.0S	37E	32	3300	N	660	E	MIRAGE ENERGY INC	Gas
3002511313	LANGLIE JAL UNIT 020	Active	K	24.0S	37E	32	1980	S	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511314	LANGLIE JAL UNIT 007	TA	H	24.0S	37E	32	1980	N	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511315	LANGLIE JAL UNIT 021	Active	J	24.0S	37E	32	1980	S	1980	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511316	PENROC STATE 001	Active	C	24.0S	37E	32	330	N	2310	W	WESTBROOK OIL CORP	Oil
3002511317	LANGLIE JAL UNIT 006	Active	A	24.0S	37E	32	330	N	330	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511318	JALMAT STATE GAS COM 003	Active	O	24.0S	37E	32	330	S	2310	E	BP AMERICA PRODUCTION COMPANY	Gas
3002511319	JALMAT STATE GAS COM 002	Active	P	24.0S	37E	32	990	S	330	E	BP AMERICA PRODUCTION COMPANY	Gas
3002511320	LANGLIE JAL UNIT 005	Active	B	24.0S	37E	32	990	N	2310	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511321	JALMAT STATE GAS COM 001	Active	G	24.0S	37E	32	2310	N	2310	E	BP AMERICA PRODUCTION COMPANY	Gas
3002511322	LANGLIE JAL UNIT 026	Active	M	24.0S	37E	32	660	S	660	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511323	LANGLIE JAL UNIT 019	Active	L	24.0S	37E	32	1980	S	660	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511324	LANGLIE MATTIX WOOLWORTH UNIT 001	Active	N	24.0S	37E	33	990	S	2310	W	BETWELL OIL & GAS CO	Oil
3002511325	LANGLIE MATTIX WOOLWORTH UNIT 801	Active	C	24.0S	37E	33	330	N	2310	W	BETWELL OIL & GAS CO	Oil
3002511326	LANGLIE MATTIX WOOLWORTH UNIT 802	Plugged	F	24.0S	37E	33	2310	N	2310	W	BETWELL OIL & GAS CO	Injection
3002511327	NORTH SHORE WOOLWORTH 003	Plugged	E	24.0S	37E	33	2310	N	330	W	BURLINGTON RESOURCES OIL & GAS CO	Gas
3002511328	C D WOOLWORTH 001	Plugged	C	24.0S	37E	33	660	N	1980	W	PHILLIPS PETROLEUM CO	Oil
3002511329	LANGLIE MATTIX WOOLWORTH UNIT 111	Plugged	H	24.0S	37E	33	1980	N	660	E	BETWELL OIL & GAS CO	Injection
3002511330	LANGLIE MATTIX WOOLWORTH UNIT 112	Active	I	24.0S	37E	33	1980	S	660	E	BETWELL OIL & GAS CO	Oil
3002511331	LANGLIE MATTIX WOOLWORTH UNIT 113	TA	P	24.0S	37E	33	660	S	330	E	BETWELL OIL & GAS CO	Injection
3002511332	M C WOOLWORTH 004	Active	J	24.0S	37E	33	1980	S	1980	E	SOUTHWEST ROYALTIES INC	Gas
3002511333	LANGLIE MATTIX WOOLWORTH UNIT 115	Active	O	24.0S	37E	33	660	S	1980	E	BETWELL OIL & GAS CO	Oil
3002511334	LANGLIE MATTIX WOOLWORTH UNIT 116	Active	A	24.0S	37E	33	660	N	660	E	BETWELL OIL & GAS CO	Oil
3002511335	LANGLIE MATTIX WOOLWORTH UNIT 117	Active	G	24.0S	37E	33	1980	N	1980	E	BETWELL OIL & GAS CO	Oil
3002511336	LANGLIE MATTIX WOOLWORTH UNIT 118	Active	B	24.0S	37E	33	660	N	1980	E	BETWELL OIL & GAS CO	Injection
3002511337	LANGLIE MATTIX WOOLWORTH UNIT 804	TA	D	24.0S	37E	33	990	N	990	W	BETWELL OIL & GAS CO	Injection
3002511338	LANGLIE MATTIX WOOLWORTH UNIT 903	Active	K	24.0S	37E	33	1800	S	2310	W	BETWELL OIL & GAS CO	Oil
3002511339	WOOLWORTH 001	Plugged	K	24.0S	37E	33	1650	S	2310	W	LEWIS B BURLESON INC	Gas
3002511340	LANGLIE MATTIX WOOLWORTH UNIT 902	TA	L	24.0S	37E	33	1650	S	330	W	BETWELL OIL & GAS CO	Injection
3002511341	LANGLIE MATTIX WOOLWORTH UNIT 142	Zone Plugged	L	24.0S	37E	34	2310	S	990	W	BETWELL OIL & GAS CO	Injection
3002511342	LANGLIE MATTIX WOOLWORTH UNIT 141	Active	K	24.0S	37E	34	1650	S	2319	W	BETWELL OIL & GAS CO	Oil
3002511343	LANGLIE MATTIX WOOLWORTH UNIT 121	Active	H	24.0S	37E	34	1980	N	660	E	BETWELL OIL & GAS CO	Injection
3002511344	LANGLIE MATTIX WOOLWORTH UNIT 122	Active	F	24.0S	37E	34	1980	N	1980	W	BETWELL OIL & GAS CO	Injection
3002511345	LANGLIE MATTIX WOOLWORTH UNIT 123	Active	E	24.0S	37E	34	1980	N	660	W	BETWELL OIL & GAS CO	Oil
3002511346	LANGLIE MATTIX WOOLWORTH UNIT 124	Active	D	24.0S	37E	34	660	N	660	W	BETWELL OIL & GAS CO	Injection
3002511347	LANGLIE MATTIX WOOLWORTH UNIT 125	TA	B	24.0S	37E	34	660	N	1980	E	BETWELL OIL & GAS CO	Injection
3002511348	LANGLIE MATTIX WOOLWORTH UNIT 163	Active	M	24.0S	37E	34	990	S	990	W	BETWELL OIL & GAS CO	Oil

Table A-1: Identification of Wells Within Two Miles of Proposed SUGS AGI Well												
API #	Well Name	Status	Unit	Twp.	Rng.	Sect.	ftg_ns	ns_cd	ftg_ew	ew_cd	Operator	Well Type
3002511349	LANGLIE MATTIX WOOLWORTH UNIT 126	Active	C	24.0S	37E	34	660	N	1980	W	BETWELL OIL & GAS CO	Oil
3002511350	LANGLIE MATTIX WOOLWORTH UNIT 127	Active	A	24.0S	37E	34	660	N	660	E	BETWELL OIL & GAS CO	Oil
3002511351	LANGLIE MATTIX WOOLWORTH UNIT 151	Active	J	24.0S	37E	34	1980	S	1980	E	BETWELL OIL & GAS CO	Injection
3002511352	LANGLIE MATTIX WOOLWORTH UNIT 152	Active	I	24.0S	37E	34	1650	S	990	E	BETWELL OIL & GAS CO	Oil
3002511353	LANGLIE MATTIX WOOLWORTH UNIT 131	Active	G	24.0S	37E	34	1980	N	1980	E	BETWELL OIL & GAS CO	Oil
3002511354	LANGLIE MATTIX WOOLWORTH UNIT 161	Active	O	24.0S	37E	34	990	S	2310	E	BETWELL OIL & GAS CO	Oil
3002511355	LANGLIE MATTIX WOOLWORTH UNIT 162	Active	N	24.0S	37E	34	990	S	2310	W	BETWELL OIL & GAS CO	Oil
3002511359	GEORGE L ERWIN 001	Active	M	24.0S	37E	35	660	S	330	W	MCDONNOLD OPERATING INC	Oil
3002511360	GEORGE L ERWIN 002	Active	L	24.0S	37E	35	1980	S	330	W	MCDONNOLD OPERATING INC	Injection
3002511368	C C FRISTOE A FEDERAL NCT 1 001	Active	E	24.0S	37E	35	1980	N	660	W	CHEVRON U S A INC	Oil
3002511371	C C FRISTOE A FEDERAL NCT 1 006	Active	D	24.0S	37E	35	660	N	660	W	CHEVRON U S A INC	Injection
3002511420	HUMPHREY QUEEN UNIT 004	Plugged	B	25.0S	37E	3	330	N	1650	E	PRIZE OPERATING COMPANY	Injection
3002511421	HUMPHREY QUEEN UNIT 003	Active	C	25.0S	37E	3	330	N	2310	W	KELTON OPERATING CORP	Oil
3002511422	HUMPHREY QUEEN UNIT 002	Active	D	25.0S	37E	3	330	N	990	W	KELTON OPERATING CORP	Injection
3002511423	J B HUMPHREY 001	Plugged	N	25.0S	37E	3	660	S	1980	W	CULBERTSON,IRWIN &	Oil
3002511424	HUMPHREY QUEEN UNIT 010	Active	G	25.0S	37E	3	1650	N	1650	E	KELTON OPERATING CORP	Oil
3002511425	HUMPHREY QUEEN UNIT 009	Plugged	F	25.0S	37E	3	1750	N	2310	W	PRIZE OPERATING COMPANY	Injection
3002511426	HUMPHREY QUEEN UNIT 017	Active	J	25.0S	37E	3	2310	S	1650	E	KELTON OPERATING CORP	Injection
3002511428	HUMPHREY QUEEN UNIT 008	Plugged	E	25.0S	37E	3	1650	N	660	W	MERIT ENERGY CO	Oil
3002511429	LIBERTY 003	Plugged	L	25.0S	37E	3	2310	S	660	W	MOBIL PRODUCING TEX	Gas
3002511431	HUMPHREY QUEEN UNIT 005	Active	A	25.0S	37E	3	330	N	990	E	KELTON OPERATING CORP	Oil
3002511432	HUMPHREY QUEEN UNIT 011	Active	H	25.0S	37E	3	1650	N	990	E	KELTON OPERATING CORP	Oil
3002511435	LANGLIE JAL UNIT 061	Active	L	25.0S	37E	4	1980	S	660	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511436	LANGLIE JAL UNIT 040	Active	C	25.0S	37E	4	330	N	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511437	LANGLIE JAL UNIT 041	Active	B	25.0S	37E	4	330	N	1980	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511438	LANGLIE JAL UNIT 042	Active	G	25.0S	37E	4	1650	N	1980	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511439	E J WELLS 012	Plugged	F	25.0S	37E	4	1980	N	1650	W	ANDERSON PRICHARD	Oil
3002511440	WELLS FEDERAL 002	Active	G	25.0S	37E	4	1980	N	1980	E	HERMAN L LOEB	Gas
3002511441	WELLS FEDERAL 003	Plugged	K	25.0S	37E	4	1980	S	1980	W	BURLINGTON RESOURCES OIL & GAS CO	Gas
3002511442	LANGLIE JAL UNIT 039	Active	D	25.0S	37E	4	330	N	990	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511443	LANGLIE JAL UNIT 044	Active	E	25.0S	37E	4	2310	N	990	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511444	GEORGE SMITH 001	Plugged	P	25.0S	37E	4	660	S	660	E	LEWIS B BURLESON IN	Oil
3002511445	HUMPHREY QUEEN UNIT 001	Active	A	25.0S	37E	4	330	N	330	E	KELTON OPERATING CORP	Oil
3002511446	HUMPHREY QUEEN UNIT 007	Active	H	25.0S	37E	4	1650	N	330	E	KELTON OPERATING CORP	Oil
3002511447	SMITH 003	Plugged	I	25.0S	37E	4	2310	S	660	E	MOBIL OIL CORP	Gas
3002511448	G A SMITH 004	Plugged	P	25.0S	37E	4	990	S	990	E	SAM WEINER ETAL	Oil
3002511449	WELLS FEDERAL 011	Plugged	N	25.0S	37E	4	430	S	2317	W	BURLINGTON RESOURCES OIL & GAS COMPANY LP	Gas
3002511450	LANGLIE JAL UNIT 064	Active	O	25.0S	37E	5	660	S	1980	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511451	LANGLIE JAL UNIT 063	Active	P	25.0S	37E	5	660	S	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511452	LANGLIE JAL UNIT 036	Active	C	25.0S	37E	5	660	N	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511453	LANGLIE JAL UNIT 046	Active	G	25.0S	37E	5	1980	N	1980	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511454	LANGLIE JAL UNIT 059	Active	J	25.0S	37E	5	1650	S	2310	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511455	LANGLIE JAL UNIT 035	Active	D	25.0S	37E	5	660	N	660	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511456	LANGLIE JAL UNIT 037	Active	B	25.0S	37E	5	660	N	1980	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511457	LANGLIE JAL UNIT 048	Active	E	25.0S	37E	5	1980	N	660	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511458	E J WELLS 013	TA	L	25.0S	37E	5	1980	S	660	W	HERMAN L LOEB	Gas
3002511459	E J WELLS 014	Plugged	N	25.0S	37E	5	330	S	1650	W	ANDERSON PRICHARD	Oil
3002511460	WELLS B 5 001	TA	A	25.0S	37E	5	330	N	990	E	HERMAN L LOEB	Gas
3002511461	LANGLIE JAL UNIT 045	Active	H	25.0S	37E	5	1650	N	330	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511462	WELLS FEDERAL 001	Active	I	25.0S	37E	5	1980	S	660	E	HERMAN L LOEB	Gas
3002511463	LANGLIE JAL UNIT 066	Active	M	25.0S	37E	5	660	S	810	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511464	LANGLIE JAL UNIT 058	Active	K	25.0S	37E	5	1980	S	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511465	WELLS FEDERAL 004	Active	F	25.0S	37E	5	1980	N	1980	W	HERMAN L LOEB	Gas
3002511466	WN WELLS 001	Active	G	25.0S	37E	6	1980	N	1980	E	MCRAE & HENRY, LTD.	Gas
3002511467	WELLS B 6 001	Active	A	25.0S	37E	6	330	N	330	E	PLANTATION OPERATING LLC	Oil
3002511476	LANGLIE JAL UNIT 055	Active	J	25.0S	37E	6	2310	S	1650	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511478	C D WOOLWORTH GROUP 3 002	Plugged	H	25.0S	37E	6	1963	N	643	E	PHILLIPS PETROLEUM CO	Gas
3002511479	LANGLIE JAL UNIT 056	Active	I	25.0S	37E	6	1930	S	710	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511480	LANGLIE JAL UNIT 033	Active	B	25.0S	37E	6	330	N	1650	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511481	LANGLIE JAL UNIT 032	Active	C	25.0S	37E	6	660	N	1920	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil

Table A-1: Identification of Wells Within Two Miles of Proposed SUGS AGI Well												
API #	Well Name	Status	Unit	Twp.	Rng.	Sect.	ftg_ns	ns_cd	ftg_ew	ew_cd	Operator	Well Type
3002511496	LANGLIE JAL UNIT 074	Active	A	25.0S	37E	8	660	N	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002511497	LANGLIE JAL UNIT 073	Active	B	25.0S	37E	8	660	N	1980	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511505	JAL D 003	Plugged	B	25.0S	37E	8	990	N	2310	E	EL PASO NATURAL GAS	Gas
3002511506	LANGLIE JAL UNIT 072	TA	C	25.0S	37E	8	660	N	2310	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002511510	LANGLIE JAL UNIT 075	Active	D	25.0S	37E	9	660	N	660	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002512541	LANGLIE MATTIX WOOLWORTH UNIT 002	Active	M	24.0S	37E	33	990	S	990	W	BETWELL OIL & GAS CO	Oil
3002520059	LANGLIE MATTIX WOOLWORTH UNIT 001	Active	M	24.0S	37E	27	1300	S	660	W	BETWELL OIL & GAS CO	Water Supply
3002520085	LANGLIE MATTIX WOOLWORTH UNIT 308	Zone Plugged	J	24.0S	37E	28	1980	S	1980	E	BETWELL OIL & GAS CO	Injection
3002520152	MOSLEY 001	Active	P	24.0S	37E	34	330	S	330	E	INFLOW PETROLEUM RESOURCES LP	Oil
3002520350	KNIGHT 011	Active	M	24.0S	37E	22	5	S	1315	W	WHITING OIL AND GAS CORPORATION	Injection
3002520351	KNIGHT 010	Active	M	24.0S	37E	22	1315	S	1315	W	WHITING OIL AND GAS CORPORATION	Injection
3002520353	KNIGHT 008	Plugged	L	24.0S	37E	22	2635	S	5	W	WHITING OIL AND GAS CORPORATION	Injection
3002520354	KNIGHT 007	Plugged	I	24.0S	37E	21	2635	S	1315	E	WHITING OIL AND GAS CORPORATION	Injection
3002520355	KNIGHT 006	Plugged	P	24.0S	37E	21	1315	S	1315	E	CELERO ENERGY, LP	Injection
3002520356	KNIGHT 005	Active	M	24.0S	37E	22	1315	S	5	W	WHITING OIL AND GAS CORPORATION	Injection
3002520520	MOSLEY 002	Plugged	O	24.0S	37E	34	330	S	1650	E	KINGREA & PENDLETON	Oil
3002520612	HUMPHREY QUEEN UNIT 016	Active	K	25.0S	37E	3	1980	S	1980	W	KELTON OPERATING CORP	Oil
3002520613	KNIGHT 013	Plugged	P	24.0S	37E	21	5	S	5	E	WHITING OIL AND GAS CORPORATION	Injection
3002520809	BLACK 002Y	Active	O	24.0S	37E	21	560	S	1880	E	BETWELL OIL & GAS CO	Oil
3002520927	C C FRISTOE A FEDERA 007	Plugged	A	25.0S	37E	3	330	N	330	E	TEXACO EXPLORATION	Oil
3002521083	BLACK WSW 001	Zone Plugged	O	24.0S	37E	21	1200	S	2320	E	BETWELL OIL & GAS CO	Water Supply
3002521084	BLACK 004	Plugged	N	24.0S	37E	21	5	S	1340	W	SHELL OIL CO	Injection
3002521086	BLACK 006	Plugged	O	24.0S	37E	21	1300	S	2660	W	SHELL OIL CO	Injection
3002521087	BLACK 007	Plugged	J	24.0S	37E	21	2620	S	2660	W	SHELL WESTERN E & P	Injection
3002521154	KNIGHT 012	Plugged	P	24.0S	37E	21	5	S	1315	E	WHITING OIL AND GAS CORPORATION	Injection
3002521196	HUMPHREY QUEEN UNIT 021	Active	M	25.0S	37E	3	330	S	990	W	KELTON OPERATING CORP	Oil
3002521401	J F BLACK 005	Active	K	24.0S	37E	21	1980	S	2030	W	PRONGHORN MANAGEMENT CORP	Oil
3002521412	C C FRISTOE A FEDERAL NCT 1 010	Plugged	E	24.0S	37E	35	2080	N	660	W	CHEVRON U S A INC	Oil
3002521414	C C FRISTOE A FEDERAL NCT 1 011	Plugged	D	24.0S	37E	35	560	N	660	W	TEXACO EXPLORATION & PRODUCTION INC	Oil
3002521478	J F BLACK 006	Active	F	24.0S	37E	21	2630	N	1340	W	PRONGHORN MANAGEMENT CORP	Injection
3002521606	R L MOSLEY 001	Plugged	I	24.0S	37E	34	1650	S	330	E	TENNECO OIL CO	Oil
3002521689	C C FRISTOE B FEDERAL NCT 1 002	Plugged	M	24.0S	37E	26	500	S	500	W	TEXACO EXPLORATION & PRODUCTION INC	Oil
3002521748	JOHN WILLIAMS 008	Active	H	24.0S	37E	34	1980	N	330	E	WESTBROOK OIL CORP	Oil
3002521765	JOHN WILLIAMS 009	Active	A	24.0S	37E	34	1120	N	330	E	WESTBROOK OIL CORP	Oil
3002522201	HUMPHREY QUEEN UNIT 014	Plugged	I	25.0S	37E	4	2230	S	467	E	PRIZE OPERATING COMPANY	Oil
3002522243	HUMPHREY QUEEN UNIT 015	Active	L	25.0S	37E	3	1830	S	660	W	KELTON OPERATING CORP	Injection
3002522255	LANGLIE MATTIX WOOLWORTH UNIT 709	Active	O	24.0S	37E	27	560	S	1980	E	BETWELL OIL & GAS CO	Oil
3002522503	LANGLIE MATTIX WOOLWORTH UNIT 505	Active	C	24.0S	37E	27	75	N	2540	E	BETWELL OIL & GAS CO	Injection
3002522880	LANGLIE MATTIX WOOLWORTH UNIT 203L	Unknown	L	24.0S	37E	28	999	S	999	W	BETWELL OIL & GAS CO	Oil
3002522881	LANGLIE MATTIX WOOLWORTH UNIT 119	TA	J	24.0S	37E	33	1880	S	1980	E	BETWELL OIL & GAS CO	Injection
3002523099	LANGLIE MATTIX WOOLWORTH UNIT 105	Active	F	24.0S	37E	28	1690	N	2020	W	BETWELL OIL & GAS CO	Injection
3002523112	LANGLIE MATTIX WOOLWORTH UNIT 204	TA	M	24.0S	37E	28	330	S	330	W	BETWELL OIL & GAS CO	Injection
3002523183	HUMPHREY QUEEN UNIT 020	TA	M	25.0S	37E	3	100	S	5	W	KELTON OPERATING CORP	Injection
3002523243	HUMPHREY QUEEN UNIT 026	Plugged	F	25.0S	37E	3	2420	N	2200	W	MOBIL PRODUCING TEX	Injection
3002523255	LANGLIE MATTIX WOOLWORTH UNIT 104	Active	E	24.0S	37E	28	1700	N	835	W	BETWELL OIL & GAS CO	Oil
3002523256	LANGLIE MATTIX WOOLWORTH UNIT 203	Active	L	24.0S	37E	28	2220	S	1250	W	BETWELL OIL & GAS CO	Oil
3002523258	LANGLIE MATTIX WOOLW 007	Plugged	I	24.0S	37E	28	1530	S	135	E	AMERADA HESS CORP	Water Supply
3002523321	JACK B 27 003	Plugged	I	24.0S	37E	27	1980	S	330	E	CONOCO INC	Oil
3002523395	HUMPHREY QUEEN UNIT 027	Active	H	25.0S	37E	4	1570	N	990	E	KELTON OPERATING CORP	Injection
3002523463	HUMPHREY QUEEN UNIT 013	Plugged	I	25.0S	37E	4	1540	S	1220	E	PRIZE OPERATING COMPANY	Oil
3002523572	LANGLIE MATTIX WOOLWORTH UNIT 165	Plugged	N	24.0S	37E	34	330	S	2310	W	BETWELL OIL & GAS CO	Injection
3002523573	LANGLIE MATTIX WOOLWORTH UNIT 166	Plugged	P	24.0S	37E	34	100	S	125	E	BETWELL OIL & GAS CO	Injection
3002523598	LANGLIE MATTIX WOOLWORTH UNIT 003	Zone Plugged	N	24.0S	37E	33	330	S	1650	W	BETWELL OIL & GAS CO	Injection
3002523599	JACK A 29 005	Active	B	24.0S	37E	29	825	N	1750	E	MCDONNOLD OPERATING INC	Oil
3002523607	LANGLIE MATTIX WOOLWORTH UNIT 605	Active	E	24.0S	37E	33	2400	N	330	W	BETWELL OIL & GAS CO	Oil
3002523685	JACK A 29 006	Active	G	24.0S	37E	29	1900	N	1700	E	MCDONNOLD OPERATING INC	Injection
3002523779	JACK A 29 007	Active	J	24.0S	37E	29	2250	S	1750	E	MCDONNOLD OPERATING INC	Oil
3002523865	LANGLIE JAL UNIT 013	TA	F	24.0S	37E	31	1980	N	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002523866	LANGLIE JAL UNIT 023	Active	P	24.0S	37E	32	660	S	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002523867	LANGLIE JAL UNIT 029	Active	N	24.0S	37E	31	660	S	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection

Table A-1: Identification of Wells Within Two Miles of Proposed SUGS AGI Well												
API #	Well Name	Status	Unit	Twp.	Rng.	Sect.	ftg_ns	ns_cd	ftg_ew	ew_cd	Operator	Well Type
3002523868	LANGLIE JAL UNIT 049	Active	H	25.0S	37E	6	1980	N	510	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002523882	LANGLIE JAL UNIT 043	Active	F	25.0S	37E	4	1980	N	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002523883	LANGLIE JAL UNIT 047	Active	F	25.0S	37E	5	1980	N	1885	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002523884	LANGLIE JAL UNIT 057	Active	L	25.0S	37E	5	2030	S	810	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002523885	LANGLIE JAL UNIT 065	Active	N	25.0S	37E	5	660	S	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002523968	HUMPHREY QUEEN UNIT 029	Active	C	25.0S	37E	3	990	N	2310	W	KELTON OPERATING CORP	Oil
3002524071	KING HARRISON C 005	Active	K	24.0S	37E	20	1700	S	1680	W	PRIMAL ENERGY CORPORATION	Gas
3002524133	SHERRELL 001	Plugged	N	24.0S	37E	31	660	S	1590	W	C W TRAINER	Oil
3002524456	LANGLIE JAL UNIT WSW 001	Plugged	I	25.0S	37E	5	2200	S	750	E	UNION TEXAS PETROLE	Water Supply
3002524478	LANGLIE JAL UNIT 022	Active	I	24.0S	37E	32	1830	S	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002524479	LANGLIE JAL UNIT 024	Active	O	24.0S	37E	32	660	S	1880	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002524484	LANGLIE JAL UNIT 038	Active	A	25.0S	37E	5	660	N	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002524669	WM H HARRISON D WN COM 006	Active	N	24.0S	37E	29	660	S	1980	W	BP AMERICA PRODUCTION COMPANY	Gas
3002524788	JACK A 29 008	Active	J	24.0S	37E	29	1980	S	1980	E	MCDONNOLD OPERATING INC	Gas
3002524789	JACK A 20 010	Active	O	24.0S	37E	20	760	S	1880	E	PLANTATION OPERATING LLC	Gas
3002524837	LANGLIE JAL UNIT 002	Active	D	24.0S	37E	31	990	N	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002524838	LANGLIE JAL UNIT 004	Active	C	24.0S	37E	32	990	N	1980	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002524839	LANGLIE JAL UNIT 008	Active	G	24.0S	37E	32	1930	N	1980	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002524879	LANGLIE JAL UNIT 060	Active	I	25.0S	37E	5	1830	S	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002524880	LANGLIE JAL UNIT 062	Plugged	M	25.0S	37E	4	660	S	660	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002524889	LANGLIE JAL UNIT 034	Active	A	25.0S	37E	6	660	N	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection
3002524890	LANGLIE JAL UNIT 050	Active	G	25.0S	37E	6	2150	N	1980	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002525240	WELLS 012	Active	K	25.0S	37E	4	2130	S	1830	W	CIMAREX ENERGY CO OF COLORADO	Oil
3002525373	LANGLIE MATTIX WOOLWORTH UNIT 009	Active	I	24.0S	37E	28	1330	S	135	E	BETWELL OIL & GAS CO	Oil
3002525385	WELLS 013	Active	N	25.0S	37E	4	990	S	1650	W	CIMAREX ENERGY CO OF COLORADO	Oil
3002525391	WELLS B 001	Plugged	J	25.0S	37E	4	1980	S	1980	E	PACIFIC ENTERPRISES	Oil
3002525429	WOOLWORTH 002	Active	K	24.0S	37E	33	1980	S	1650	W	INFLOW PETROLEUM RESOURCES LP	Gas
3002525464	C D WOOLWORTH 004	Active	L	24.0S	37E	30	2080	S	760	E	POGO PRODUCING CO	Oil
3002525491	FLUOR HARRISON 001	Active	M	24.0S	37E	20	660	S	660	W	BRECK OPERATING CORP	Gas
3002525498	LANGLIE JAL FEDERAL 001	Active	A	25.0S	37E	8	330	N	330	E	HERMAN L LOEB	Gas
3002525615	STUART 9 001	Active	C	25.0S	37E	9	330	N	1650	W	RALPH C BRUTON	Oil
3002525630	ADELE SOWELL 001	Active	P	24.0S	37E	19	330	S	990	E	CIMAREX ENERGY CO OF COLORADO	Gas
3002525753	SMITH 002	Plugged	P	25.0S	37E	4	330	S	990	E	LEWIS B BURLESON INC	Gas
3002525845	STATE A 32 004	Active	F	24.0S	37E	32	1780	N	1400	W	HERMAN L LOEB	Gas
3002525847	LITIE WOOLWORTH 005	Active	N	24.0S	37E	28	660	S	1980	W	MCDONNOLD OPERATING INC	Gas
3002525871	JACK B 30 002	Active	B	24.0S	37E	30	330	N	1725	E	PLANTATION OPERATING LLC	Oil
3002525974	SKELLY M STATE 004	Active	L	24.0S	37E	32	1650	S	660	W	PLANTATION OPERATING LLC	Gas
3002526031	WOOLWORTH 005	Plugged	C	24.0S	37E	28	990	N	1980	W	BP AMERICA PRODUCTI	Oil
3002526036	HENRY HARRISON 001	Active	N	24.0S	37E	20	330	S	1650	W	WESTBROOK OIL CORP	Gas
3002526060	HARRISON 001	Plugged	E	24.0S	37E	29	1980	N	660	W	JOHN YURONKA	Gas
3002526070	J W SHERRELL 009	Active	J	24.0S	37E	31	2250	S	1650	E	PLANTATION OPERATING LLC	Gas
3002526086	GULF EDDIE CORRIGAN 001	Active	P	24.0S	37E	30	990	S	330	E	CIMAREX ENERGY CO OF COLORADO	Gas
3002526100	GULF EDDIE CORRIGAN 002	Active	I	24.0S	37E	30	2310	S	330	E	CIMAREX ENERGY CO OF COLORADO	Gas
3002526239	HARRISON 002	Plugged	D	24.0S	37E	29	990	N	330	W	JOHN YURONKA	Oil
3002526243	KIMMY K 001	Active	C	24.0S	37E	29	990	N	1650	W	FULFER OIL & CATTLE LLC	Gas
3002526437	KIMMY 003	Active	L	24.0S	37E	29	1650	S	330	W	FULFER OIL & CATTLE LLC	Oil
3002526490	KIMMY K 002	Active	F	24.0S	37E	29	2310	N	1650	W	FULFER OIL & CATTLE LLC	SWD
3002526638	KIMMY 004	Active	M	24.0S	37E	29	890	S	660	W	FULFER OIL & CATTLE LLC	Oil
3002526664	EL PASO SMITH 001	Active	N	24.0S	37E	21	990	S	1650	W	LANEXCO INC	Gas
3002526665	NORTHSHORE WOOLWORTH 005	TA	C	24.0S	37E	33	730	N	1980	W	CIMAREX ENERGY CO OF COLORADO	Gas
3002526704	J W SHERRELL 010	Active	C	25.0S	37E	6	660	N	2000	W	PLANTATION OPERATING LLC	Gas
3002526951	EL PASO WELLS FEDERAL 001	Active	E	25.0S	37E	4	1980	N	660	W	HERMAN L LOEB	Gas
3002527081	WOOLWORTH ESTATE 001	Active	E	24.0S	37E	33	1570	N	800	W	SID RICHARDSON CARBON & GASOLINE CO	SWD
3002527367	WM H HARRISON D WN COM 007	Active	K	24.0S	37E	29	1980	S	1980	W	BP AMERICA PRODUCTION COMPANY	Gas
3002527490	KNIGHT 014	Active	P	24.0S	37E	21	1315	S	660	E	WHITING OIL AND GAS CORPORATION	Oil
3002527531	HUSKY WOOLWORTH 001	Active	M	24.0S	37E	33	330	S	430	W	CIMAREX ENERGY CO OF COLORADO	Gas
3002527840	LANGLIE JAL UNIT 095	Active	M	24.0S	37E	32	140	S	1250	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002527841	LANGLIE JAL UNIT 096	TA	N	24.0S	37E	32	140	S	2600	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002527842	LANGLIE JAL UNIT 097	Active	P	24.0S	37E	32	140	S	1200	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002527843	LANGLIE JAL UNIT 098	Active	I	24.0S	37E	32	1422	S	1200	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil

Table A-1: Identification of Wells Within Two Miles of Proposed SUGS AGI Well												
API #	Well Name	Status	Unit	Twp.	Rng.	Sect.	ftg_ns	ns_cd	ftg_ew	ew_cd	Operator	Well Type
3002527844	LANGLIE JAL UNIT 099	Active	K	24.0S	37E	32	1424	S	2450	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002527845	LANGLIE JAL UNIT 100	Active	L	24.0S	37E	32	1426	S	1300	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002528006	KNIGHT 017	Plugged	M	24.0S	37E	22	1315	S	660	W	WHITING OIL AND GAS CORPORATION	Oil
3002528012	HUMPHREY QUEEN UNIT 030	Active	E	25.0S	37E	3	2388	N	1300	W	KELTON OPERATING CORP	Oil
3002528013	HUMPHREY QUEEN UNIT 031	TA	N	25.0S	37E	3	1300	S	1750	W	KELTON OPERATING CORP	Injection
3002528094	STATE 28 006	Active	E	24.0S	37E	33	1720	N	310	W	CIMAREX ENERGY CO OF COLORADO	Gas
3002528155	WELLS B 5 002	Active	G	25.0S	37E	5	1552	N	2230	E	HERMAN L LOEB	Gas
3002528404	LANGLIE JAL UNIT 101	Active	L	24.0S	37E	32	2540	S	1250	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002528405	LANGLIE JAL UNIT 102	Active	K	24.0S	37E	32	2630	S	2630	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002528406	LANGLIE JAL UNIT 103	Active	P	24.0S	37E	31	1200	S	131	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002528407	LANGLIE JAL UNIT 104	TA	M	24.0S	37E	32	140	S	247	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002528454	LANGLIE JAL UNIT 105	Active	D	25.0S	37E	4	1000	N	660	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002528592	LANGLIE MATTIX WOOLWORTH UNIT 114	Active	G	24.0S	37E	33	1539	N	2407	E	BETWELL OIL & GAS CO	Oil
3002528725	WELLS FEDERAL 015	Active	D	25.0S	37E	5	810	N	460	W	HERMAN L LOEB	Gas
3002528731	C D WOOLWORTH 006	Active	O	24.0S	37E	30	660	S	1960	E	POGO PRODUCING CO	Oil
3002528768	E J WELLS 016	Active	L	25.0S	37E	5	2310	S	610	W	HERMAN L LOEB	Gas
3002528798	C D WOOLWORTH 007	Active	J	24.0S	37E	30	1980	S	1980	E	POGO PRODUCING CO	Oil
3002528850	WELLS FEDERAL 017	Active	J	25.0S	37E	5	1980	S	1450	E	HERMAN L LOEB	Gas
3002528963	LANGLIE JAL UNIT 106	Active	A	24.0S	37E	32	1075	N	1100	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002529044	LANGLIE JAL UNIT 107	Active	C	25.0S	37E	4	1142	N	2518	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002529076	WELLS FEDERAL 018	Active	M	25.0S	37E	4	330	S	660	W	HERMAN L LOEB	Gas
3002529264	WELLS FEDERAL 019	Active	O	25.0S	37E	4	660	S	2310	E	HERMAN L LOEB	Gas
3002529447	LANGLIE JAL UNIT 108	Active	I	25.0S	37E	5	2575	N	1275	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002529448	LANGLIE JAL UNIT 109	Active	I	25.0S	37E	5	2555	N	120	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002529449	LANGLIE JAL UNIT 110	Active	J	25.0S	37E	5	1400	S	1360	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002529450	LANGLIE JAL UNIT 111	Active	O	25.0S	37E	5	50	S	2600	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002530703	JACK A 20 011	Active	J	24.0S	37E	20	2180	S	1980	E	PLANTATION OPERATING LLC	Gas
3002530737	RED CLOUD 001	Active	C	25.0S	37E	3	660	N	1980	W	WESTBROOK OIL CORP	Gas
3002530870	RED CLOUD 002	Active	M	25.0S	37E	3	660	S	660	W	MCDONNOLD OPERATING INC	Gas
3002530871	LANGLIE JAL UNIT 113	Active	G	25.0S	37E	5	1400	N	1350	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002530883	LANGLIE JAL UNIT 114	Active	B	25.0S	37E	5	1270	N	2600	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002530957	RED CLOUD 004	Active	A	25.0S	37E	4	660	N	660	E	MCDONNOLD OPERATING INC	Gas
3002531014	LANGLIE JAL UNIT 115	Active	I	25.0S	37E	5	2400	S	750	E	PHOENIX HYDROCARBONS OPERATING CORP	Water Supply
3002531404	WHITE CLOUD 001	Active	A	25.0S	37E	3	660	N	660	E	WESTBROOK OIL CORP	Oil
3002532151	PRICHARD B 001	Active	B	25.0S	37E	9	760	N	1650	E	GUADALUPE OPERATING CO. LLP	Gas
3002532641	LANGLIE JACK UNIT 019	Active	J	24.0S	37E	20	1330	S	1460	E	MCDONNOLD OPERATING INC	Oil
3002532643	JACK A 29 009	Active	H	24.0S	37E	29	2364	N	1126	E	MCDONNOLD OPERATING INC	Gas
3002532862	C D WOOLWORTH 008	Active	K	24.0S	37E	30	1930	S	1980	W	POGO PRODUCING CO	Oil
3002532863	C D WOOLWORTH 009	Active	N	24.0S	37E	30	660	S	1980	W	POGO PRODUCING CO	Oil
3002533234	G L ERWIN A FEDERAL 008	Active	L	24.0S	37E	35	2310	S	330	W	CHEVRON U S A INC	Oil
3002533881	C D WOOLWORTH 010	Active	J	24.0S	37E	30	1400	S	2630	E	POGO PRODUCING CO	Oil
3002533882	C D WOOLWORTH 011	Active	N	24.0S	37E	30	1185	S	1330	W	POGO PRODUCING CO	Oil
3002534053	C C FRISTOE A FEDERAL NCT 1 013	Active	E	24.0S	37E	35	1400	N	330	W	CHEVRON U S A INC	Oil
3002534057	ENCO STATE 001	Active	A	24.0S	37E	32	660	N	660	E	LEWIS B BURLESON INC	Oil
3002534555	STATE A 32 005	Active	D	24.0S	37E	32	710	N	660	W	HERMAN L LOEB	Gas
3002534614	WELLS FEDERAL 021	Active	O	25.0S	37E	5	660	S	2310	E	HERMAN L LOEB	Gas
3002534618	EL PASO WELLS FEDERAL 002	TA	C	25.0S	37E	4	660	N	1980	W	HERMAN L LOEB	Gas
3002535139	JACK B 30 003	Active	A	24.0S	37E	30	660	N	660	E	PLANTATION OPERATING LLC	Oil
3002535577	LANGLIE JAL UNIT 120	Active	O	24.0S	37E	31	1100	S	2365	E	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002535681	LANGLIE JAL UNIT 126	Active	D	25.0S	37E	5	990	N	990	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002535749	LANGLIE JAL UNIT 127	Active	N	25.0S	37E	5	1270	S	1370	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil
3002535991	C C FRISTOE A FEDERAL NCT 1 014	Unknown	D	24.0S	37E	35	660	N	330	W	CHEVRON U S A INC	Oil
3002537452	TRANTULA 3 FEDERAL 001	Active	A	25.0S	37E	3	990	N	330	E	RANGE OPERATING NEW MEXICO INC	Oil
3002537959	MARTIN B 003	Unknown	C	24.0S	37E	31	660	N	1917	W	PLANTATION OPERATING LLC	Gas

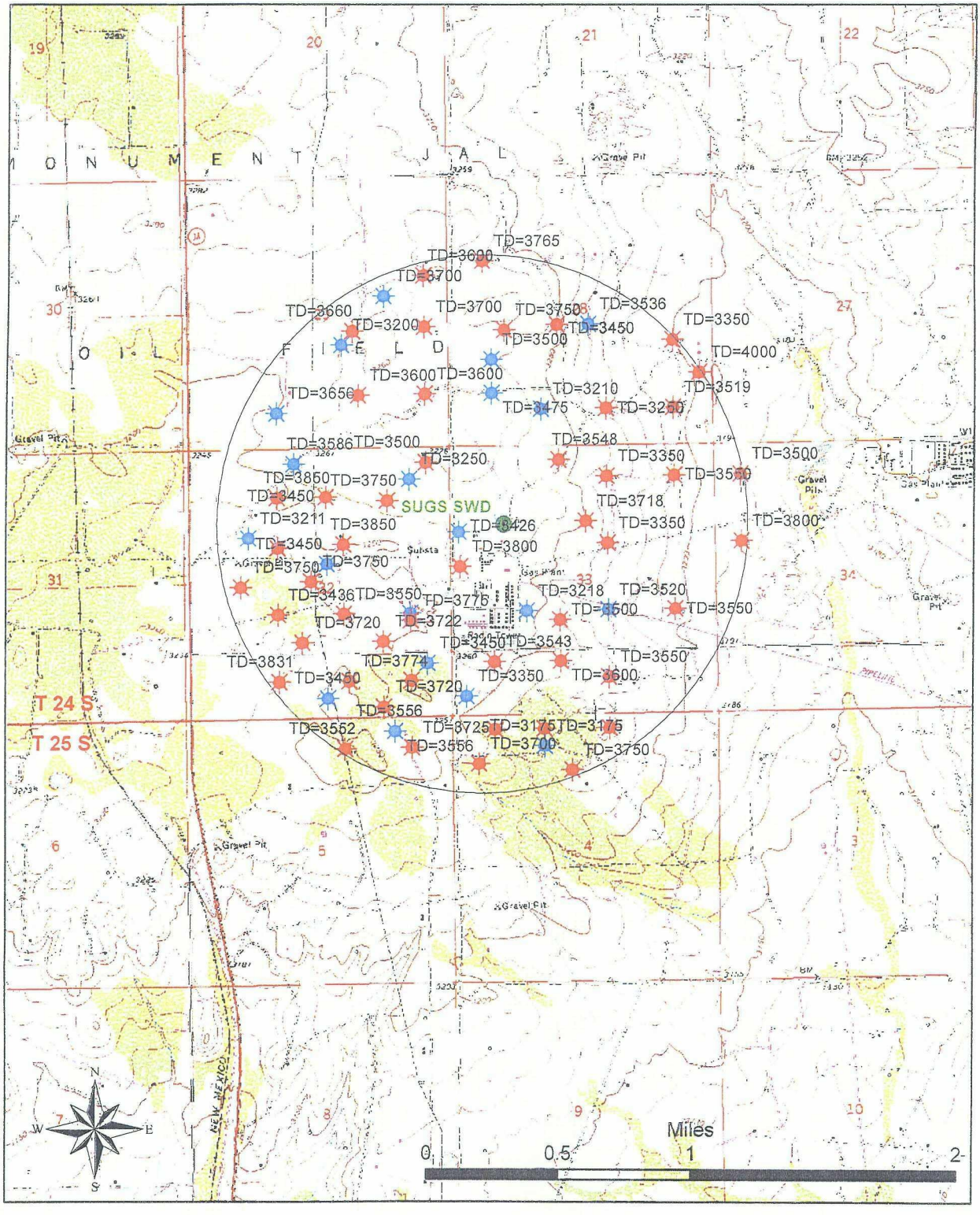


Figure A-2:
Locations of Active Wells Within One Mile Radius of Southern Union Gas Services' SWD Well

Existing SUGS SWD

JALMAT LANGLIE MATTIX

Table A-2: ACTIVE WELLS WITHIN ONE MILE OF SUGS PROPOSED AGI WELL									
API #	WELL NAME	TWN	SEC	RNG	UNIT	OPERATOR	Well Type	Total Depth	PRODUCING POOL
3002511261	LANGLIE MATTIX WOOLWORTH UNIT 304	24.0S	28	37E	I	BETWELL OIL & GAS CO	Oil	3350	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511263	LANGLIE MATTIX WOOLWORTH UNIT 306	24.0S	28	37E	O	BETWELL OIL & GAS CO	Oil	3250	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511264	LANGLIE MATTIX WOOLWORTH UNIT 307	24.0S	28	37E	P	BETWELL OIL & GAS CO	Inject.	3519	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511268	LITIE WOOLWORTH 004	24.0S	28	37E	L	MCDONNOLD OPERATING INC	Gas	3500	JALMAT;TAN-YATES-7 RVRS
3002511269	LITIE WOOLWORTH 003	24.0S	28	37E	M	MCDONNOLD OPERATING INC	Gas	3475	JALMAT;TAN-YATES-7 RVRS
3002511270	LANGLIE MATTIX WOOLWORTH UNIT 201	24.0S	28	37E	K	BETWELL OIL & GAS CO	Oil	3450	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511274	WOOLWORTH 003	24.0S	28	37E	J	WESTBROOK OIL CORP	Gas	3536	JALMAT;TAN-YATES-7 RVRS
3002511277	JACK A 29 002	24.0S	29	37E	I	MCDONNOLD OPERATING INC	Inject.	3700	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511278	JACK A 29 003	24.0S	29	37E	H	MCDONNOLD OPERATING INC	Oil	3600	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511279	JACK A 29 004	24.0S	29	37E	O	MCDONNOLD OPERATING INC	Inject.	3600	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511280	JACK B 29 001	24.0S	29	37E	P	MCDONNOLD OPERATING INC	Oil	3600	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511307	LANGLIE JAL UNIT 025	24.0S	32	37E	N	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3831	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511310	LANGLIE JAL UNIT 009	24.0S	32	37E	F	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	2450	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511312	HUMBLE L STATE 003	24.0S	32	37E	I	MIRAGE ENERGY INC	Gas	3500	JALMAT;TAN-YATES-7 RVRS
3002511313	LANGLIE JAL UNIT 020	24.0S	32	37E	K	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3436	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511315	LANGLIE JAL UNIT 021	24.0S	32	37E	J	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3550	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511316	PENROC STATE 001	24.0S	32	37E	C	WESTBROOK OIL CORP	Oil	3586	JALMAT;TAN-YATES-7 RVRS
3002511317	LANGLIE JAL UNIT 006	24.0S	32	37E	A	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3500	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511318	JALMAT STATE GAS COM 003	24.0S	32	37E	O	BP AMERICA PRODUCTION COMPANY	Gas	3450	JALMAT;TAN-YATES-7 RVRS
3002511319	JALMAT STATE GAS COM 002	24.0S	32	37E	P	BP AMERICA PRODUCTION COMPANY	Gas	3450	JALMAT;TAN-YATES-7 RVRS
3002511320	LANGLIE JAL UNIT 005	24.0S	32	37E	B	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3450	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511321	JALMAT STATE GAS COM 001	24.0S	32	37E	G	BP AMERICA PRODUCTION COMPANY	Gas	3450	JALMAT;TAN-YATES-7 RVRS
3002511324	LANGLIE MATTIX WOOLWORTH UNIT 001	24.0S	33	37E	N	BETWELL OIL & GAS CO	Oil	3600	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511325	LANGLIE MATTIX WOOLWORTH UNIT 801	24.0S	33	37E	C	BETWELL OIL & GAS CO	Oil	3548	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511330	LANGLIE MATTIX WOOLWORTH UNIT 112	24.0S	33	37E	I	BETWELL OIL & GAS CO	Oil	3550	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511332	M C WOOLWORTH 004	24.0S	33	37E	J	SOUTHWEST ROYALTIES INC	Gas	3520	JALMAT;TAN-YATES-7 RVRS
3002511333	LANGLIE MATTIX WOOLWORTH UNIT 115	24.0S	33	37E	O	BETWELL OIL & GAS CO	Oil	3550	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511334	LANGLIE MATTIX WOOLWORTH UNIT 116	24.0S	33	37E	A	BETWELL OIL & GAS CO	Oil	3550	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511335	LANGLIE MATTIX WOOLWORTH UNIT 117	24.0S	33	37E	G	BETWELL OIL & GAS CO	Oil	3350	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511336	LANGLIE MATTIX WOOLWORTH UNIT 118	24.0S	33	37E	B	BETWELL OIL & GAS CO	Inject.	3350	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511338	LANGLIE MATTIX WOOLWORTH UNIT 903	24.0S	33	37E	K	BETWELL OIL & GAS CO	Oil	3500	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511345	LANGLIE MATTIX WOOLWORTH UNIT 123	24.0S	34	37E	E	BETWELL OIL & GAS CO	Oil	3800	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511346	LANGLIE MATTIX WOOLWORTH UNIT 124	24.0S	34	37E	D	BETWELL OIL & GAS CO	Inject.	3500	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511436	LANGLIE JAL UNIT 040	25.0S	4	37E	3	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3552	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511437	LANGLIE JAL UNIT 041	25.0S	4	37E	2	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3530	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511442	LANGLIE JAL UNIT 039	25.0S	4	37E	4	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3543	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511456	LANGLIE JAL UNIT 037	25.0S	5	37E	2	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3552	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511460	WELLS B 5 001	25.0S	5	37E	1	HERMAN L LOEB	Gas	3556	JALMAT;TAN-YATES-7 RVRS
3002512541	LANGLIE MATTIX WOOLWORTH UNIT 002	24.0S	33	37E	M	BETWELL OIL & GAS CO	Oil	3543	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002523255	LANGLIE MATTIX WOOLWORTH UNIT 104	24.0S	28	37E	E	BETWELL OIL & GAS CO	Oil	3765	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002523256	LANGLIE MATTIX WOOLWORTH UNIT 203	24.0S	28	37E	L	BETWELL OIL & GAS CO	Oil	3750	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002523607	LANGLIE MATTIX WOOLWORTH UNIT 805	24.0S	33	37E	E	BETWELL OIL & GAS CO	Oil	3800	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002523779	JACK A 29 007	24.0S	29	37E	J	MCDONNOLD OPERATING INC	Oil	3660	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002523866	LANGLIE JAL UNIT 023	24.0S	32	37E	P	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3600	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002524478	LANGLIE JAL UNIT 022	24.0S	32	37E	I	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3775	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002524479	LANGLIE JAL UNIT 024	24.0S	32	37E	O	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3774	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002524484	LANGLIE JAL UNIT 038	25.0S	5	37E	1	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3725	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002524669	WM H HARRISON D WN COM 006	24.0S	29	37E	N	BP AMERICA PRODUCTION COMPANY	Gas	3656	JALMAT;TAN-YATES-7 RVRS
3002524788	JACK A 29 008	24.0S	29	37E	J	MCDONNOLD OPERATING INC	Gas	3200	JALMAT;TAN-YATES-7 RVRS
3002524838	LANGLIE JAL UNIT 004	24.0S	32	37E	C	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3850	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG

Table A-2: ACTIVE WELLS WITHIN ONE MILE OF SUGS PROPOSED AGI WELL									
3002524839	LANGLIE JAL UNIT 008	24.0S	32	37E	G	PHOENIX HYDROCARBONS OPERATING CORP	Inject.	3850	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002525373	LANGLIE MATTIX WOOLWORTH UNIT 009	24.0S	28	37E	I	BETWELL OIL & GAS CO	Oil	4000	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002525429	WOOLWORTH 002	24.0S	33	37E	K	INFLOW PETROLEUM RESOURCES LP	Gas	3218	JALMAT;TAN-YATES-7 RVRS
3002525845	STATE A 32 004	24.0S	32	37E	F	HERMAN L LOEB	Gas	3211	JALMAT;TAN-YATES-7 RVRS
3002525847	LITIE WOOLWORTH 005	24.0S	28	37E	N	MCDONNOLD OPERATING INC	Gas	3210	JALMAT;TAN-YATES-7 RVRS
3002527081	WOOLWORTH ESTATE 001	24.0S	33	37E	E	SOUTHERN UNION GAS SERVICES, LTD.	SWD	4702	DISPOSAL
3002527531	HUSKY WOOLWORTH 001	24.0S	33	37E	M	CIMAREX ENERGY CO OF COLORADO	Gas	3350	JALMAT;TAN-YATES-7 RVRS
3002527842	LANGLIE JAL UNIT 097	24.0S	32	37E	P	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3720	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002527843	LANGLIE JAL UNIT 098	24.0S	32	37E	I	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3722	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002527844	LANGLIE JAL UNIT 099	24.0S	32	37E	K	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3720	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002528094	STATE 28 006	24.0S	33	37E	E	CIMAREX ENERGY CO OF COLORADO	Gas	3426	JALMAT;TAN-YATES-7 RVRS
3002528404	LANGLIE JAL UNIT 101	24.0S	32	37E	L	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3750	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002528405	LANGLIE JAL UNIT 102	24.0S	32	37E	K	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3750	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002528454	LANGLIE JAL UNIT 105	25.0S	4	37E	4	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3700	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002528592	LANGLIE MATTIX WOOLWORTH UNIT 114	24.0S	33	37E	G	BETWELL OIL & GAS CO	Oil	3718	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002528963	LANGLIE JAL UNIT 106	24.0S	32	37E	A	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3750	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002529044	LANGLIE JAL UNIT 107	25.0S	4	37E	3	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3750	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002532643	JACK A 29 009	24.0S	29	37E	H	MCDONNOLD OPERATING INC	Gas	3700	JALMAT;TAN-YATES-7 RVRS
3002534057	ENCO STATE 001	24.0S	32	37E	A	LEWIS B BURLESON INC	Oil	3250	JALMAT;TAN-YATES-7 RVRS
3002534618	EL PASO WELLS FEDERAL 002	25.0S	4	37E	3	HERMAN L LOEB	Gas	3175	JALMAT;TAN-YATES-7 RVRS

APPENDIX B

PERMANENTLY PLUGGED OR TEMPORARILY-ABANDONED OIL & GAS WELL DATA

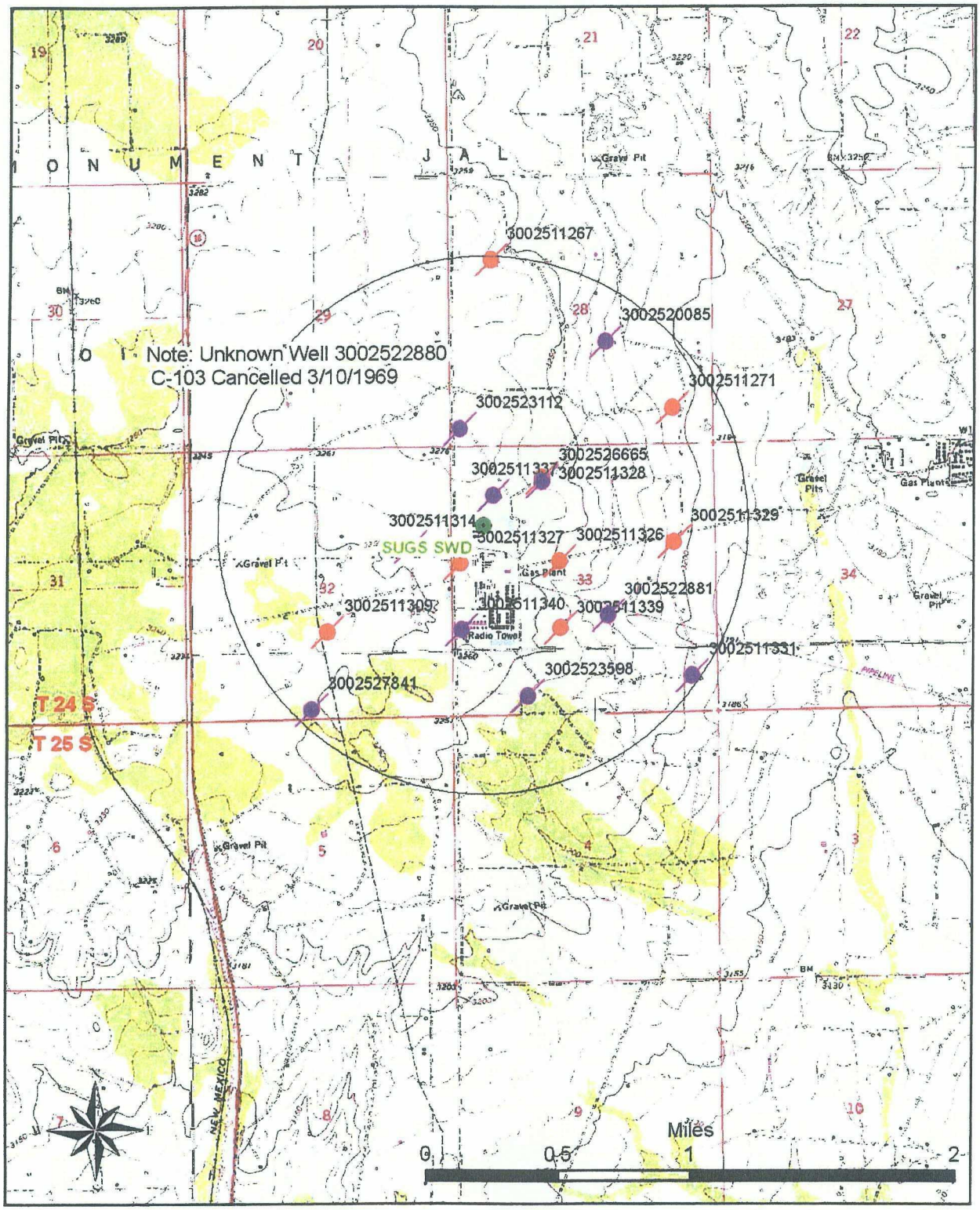


Figure B-1:
Locations of Temporarily Abandoned and Plugged & Abandoned Wells Within One Mile Radius of Southern Union Gas Services' SWD Well

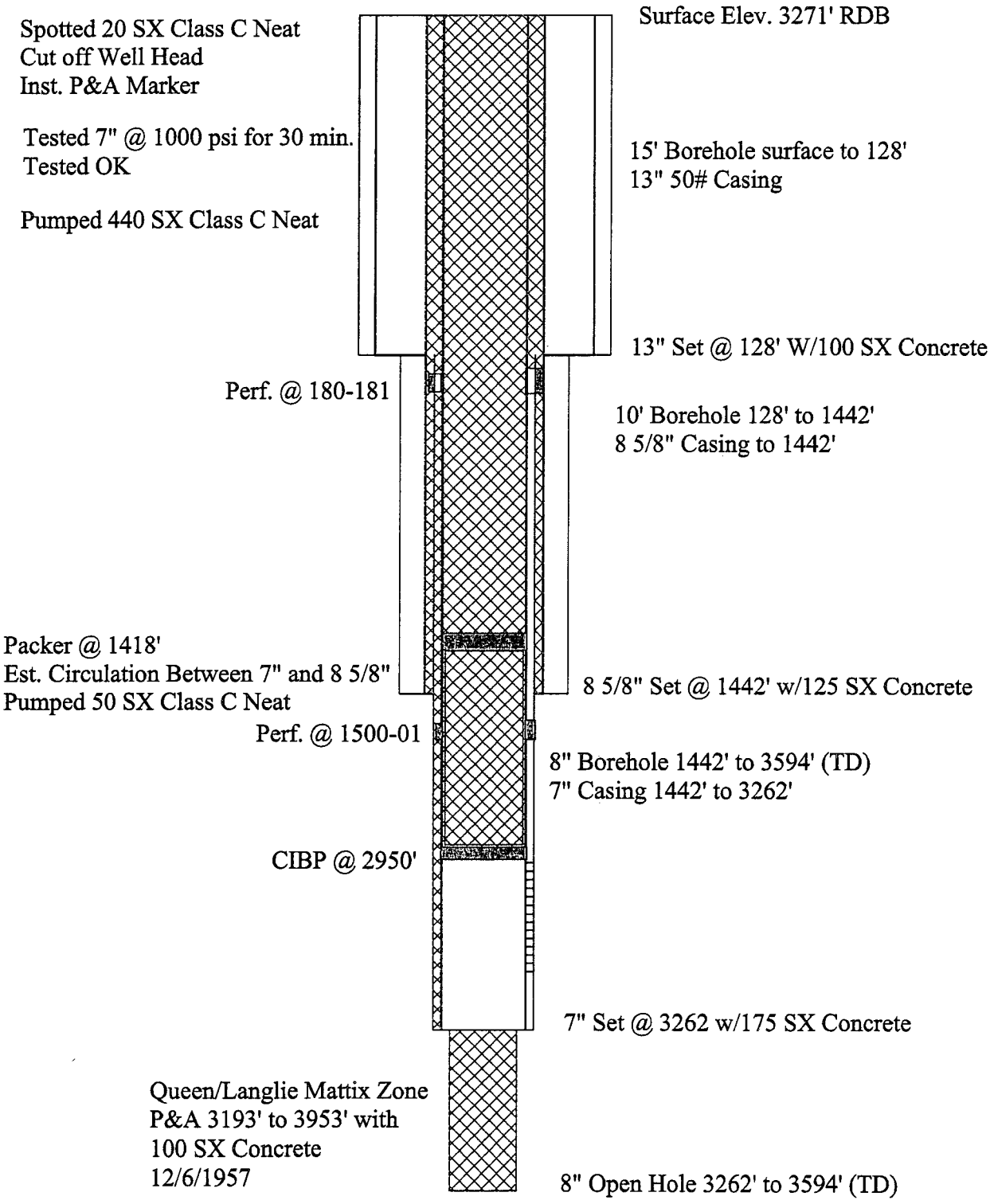
Existing SUGS SWD
TA
Plugged
Zone Plugged

Table B-1: Permanently Plugged or Temporarily Abandoned Wells Within One Mile (area of review) of Proposed SUGS AGI Well														
API #	Well Name	Status	Twshp.	Section	Range	Unit	ftg_ns	ns_cd	ftg_ew	ew_cd	Operator	Type	Total Depth	Pool (s)
3002511267	WOOLWORTH 004	Plugged	24.0S	28	37E	E	1650	N	990	W	BP AMERICA PRODUCTI	Gas	3594	JALMAT;TAN-YATES-7 RVRS (GAS)
3002511271	LANGLIE MATTIX WOOLWORTH UNIT 202	Plugged	24.0S	28	37E	N	660	S	660	E	BETWELL OIL & GAS CO	Injection	3536	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511309	STATE B 32 001	Plugged	24.0S	32	37E	J	1650	S	2310	E	JOHN M KELLY	Oil	3547	LANGLIE MATTIX
3002511314	LANGLIE JAL UNIT 007	TA	24.0S	32	37E	H	1980	N	660	E	PHOENIX HYDROCARBONS OPERATING CORP	Injection	3624	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511326	LANGLIE MATTIX WOOLWORTH UNIT 802	Plugged	24.0S	33	37E	F	2310	N	2310	W	BETWELL OIL & GAS CO	Injection	3720	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511327	NORTH SHORE WOOLWORTH 003	Plugged	24.0S	33	37E	E	2310	N	330	W	BURLINGTON RESOURCES OIL & GAS CO	Gas	3575	JALMAT;TAN-YATES-7 RVRS (OIL)
3002511328	C D WOOLWORTH 001	Plugged	24.0S	33	37E	C	660	N	1980	W	PHILLIPS PETROLEUM CO	Oil	4200	JALMAT;TAN-YATES-7 RVRS (OIL)
3002511329	LANGLIE MATTIX WOOLWORTH UNIT 111	Plugged	24.0S	33	37E	H	1980	N	660	E	BETWELL OIL & GAS CO	Injection	3538	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511331	LANGLIE MATTIX WOOLWORTH UNIT 113	TA	24.0S	33	37E	P	660	S	330	E	BETWELL OIL & GAS CO	Injection	3565	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511337	LANGLIE MATTIX WOOLWORTH UNIT 804	TA	24.0S	33	37E	D	990	N	990	W	BETWELL OIL & GAS CO	Injection	3565	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002511339	WOOLWORTH 001	Plugged	24.0S	33	37E	K	1650	S	2310	W	LEWIS B BURLESON INC	Gas	3550	JALMAT;TAN-YATES-7 RVRS (OIL)
3002511340	LANGLIE MATTIX WOOLWORTH UNIT 902	TA	24.0S	33	37E	L	1650	S	330	W	BETWELL OIL & GAS CO	Injection	3784	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002520085	LANGLIE MATTIX WOOLWORTH UNIT 203L	Plugged	24.0S	28	37E	J	1980	S	1980	E	BETWELL OIL & GAS CO	Injection	3683	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002522880	LANGLIE MATTIX WOOLWORTH UNIT 309	Not Drilled	24.0S	28	37E	L	999	S	999	W	Pre-ONGARD	NA	NA	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002522881	LANGLIE MATTIX WOOLWORTH UNIT 119	TA	24.0S	33	37E	J	1880	S	1980	E	BETWELL OIL & GAS CO	Injection	3708	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002523112	LANGLIE MATTIX WOOLWORTH UNIT 204	TA	24.0S	28	37E	M	330	S	330	W	BETWELL OIL & GAS CO	Injection	3800	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002523598	LANGLIE MATTIX WOOLWORTH UNIT 003	Plugged	24.0S	33	37E	N	330	S	1650	W	BETWELL OIL & GAS CO	Injection	3514	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG
3002526665	NORTHSHORE WOOLWORTH 005	TA	24.0S	33	37E	C	730	N	1980	W	CIMAREX ENERGY CO OF COLORADO	Gas	3600	JALMAT;TAN-YATES-7 RVRS (GAS)
3002527841	LANGLIE JAL UNIT 096	TA	24.0S	32	37E	N	140	S	2600	W	PHOENIX HYDROCARBONS OPERATING CORP	Oil	3720	LANGLIE MATTIX;7 RVRS-Q-GRAYBURG

NOTE: Complete copies of NMOCD (http://ocdimage.emnrd.state.nm.us/imaging/WellFileCriteria.aspx) files are included in the attached CD

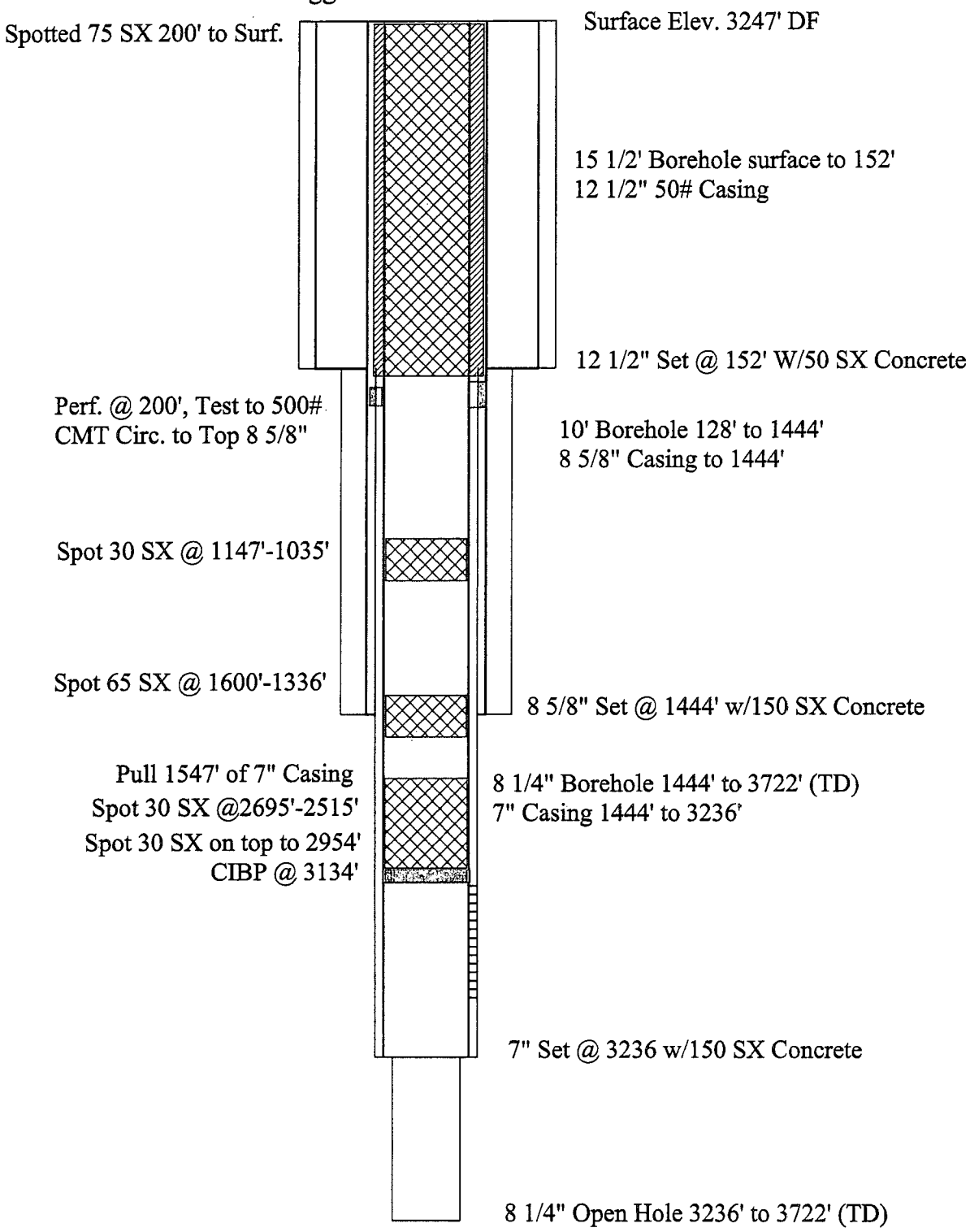
Well 3002522880 was permitted in November 1968 but its approval to drill was cancelled by NMOCD on March 10, 1969 for lack of progress. There are no NMOCD records that indicate that this well was ever drilled.

Woolworth 004
API 3002511267
As Plugged & Abandoned 1/16/1985



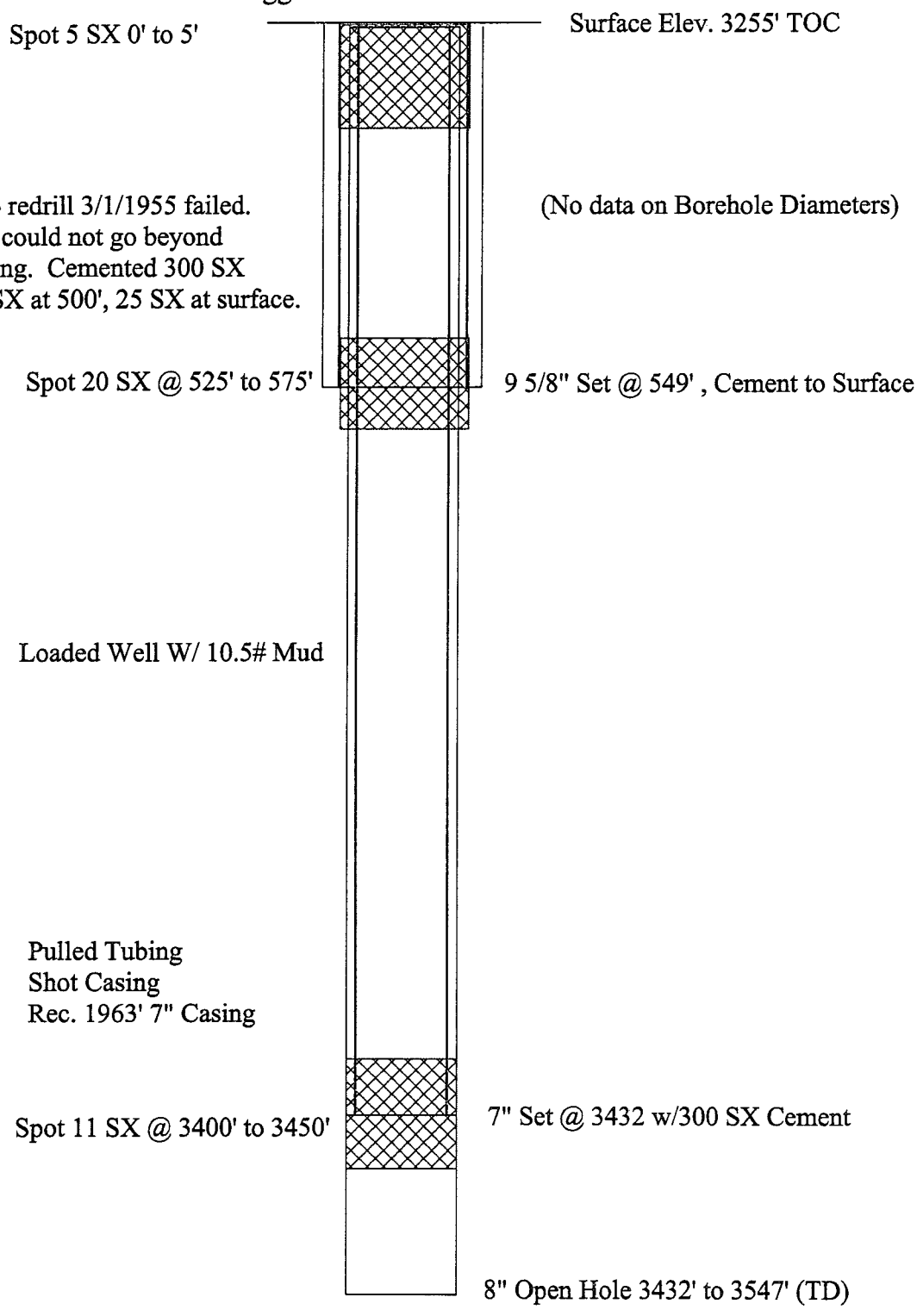
Plugging Diagram for Woolworth 004 - API # 3002511267
Unit E, 1650' FNL, 990 ' FWL, Sec. 28, T24S, R37E
Former Dual Completion in Jalmat (Gas) and Langlie Mattix (Oil)

Woolworth Unit 202
API 3002511271
As Plugged & Abandoned 1/19/05



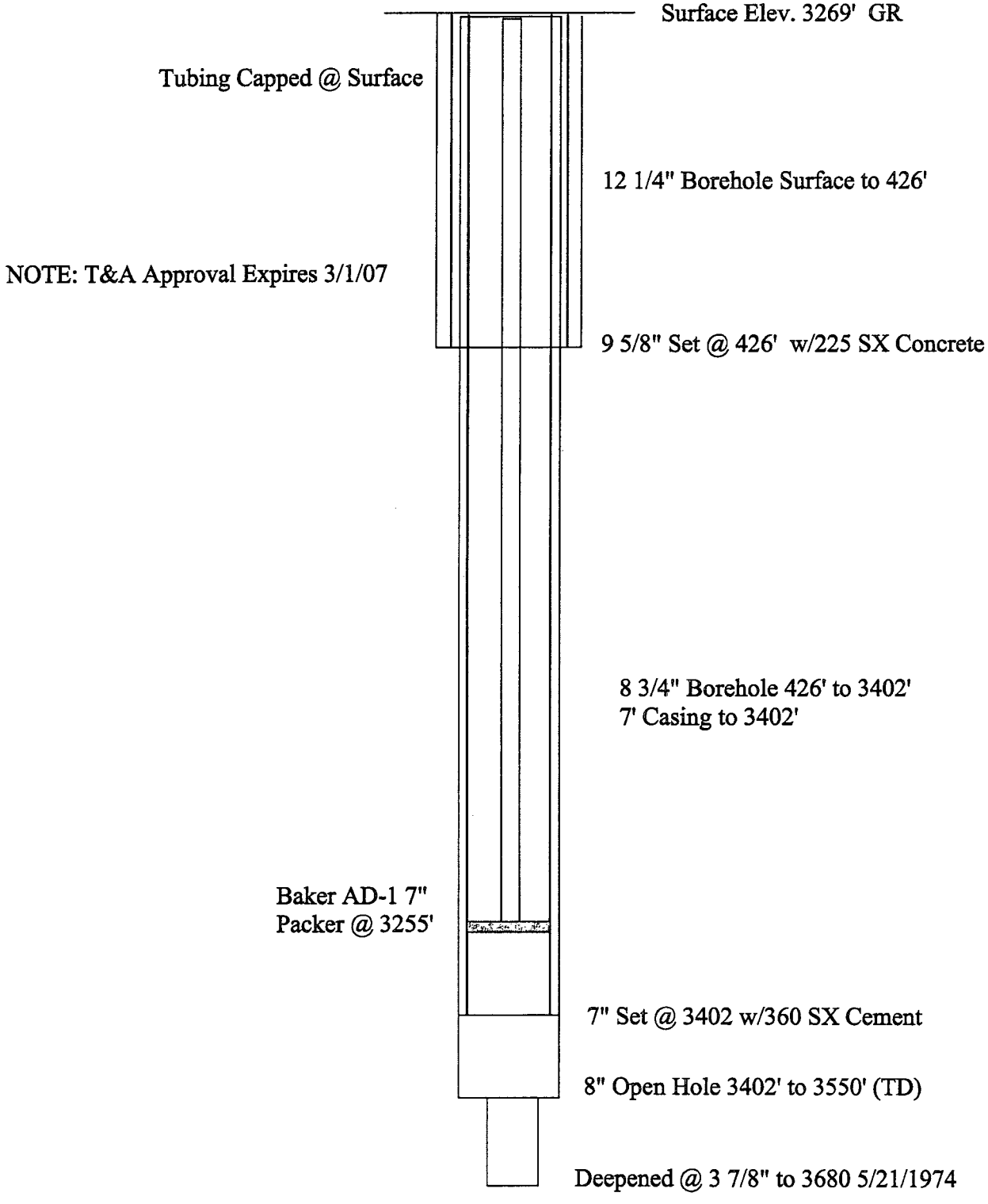
Plugging Diagram for Woolworth 202 - API # 3002511271
Unit N, 2310' FWL, 990 ' FSL, Sec. 28, T24S, R37E
Oil & Gas Langlie Mattix Nov. 1938-1967 (TA), Inj. Well 1968-1988 (TA)

State B-32
API 3002511309
As Plugged & Abandoned 9/29/1953



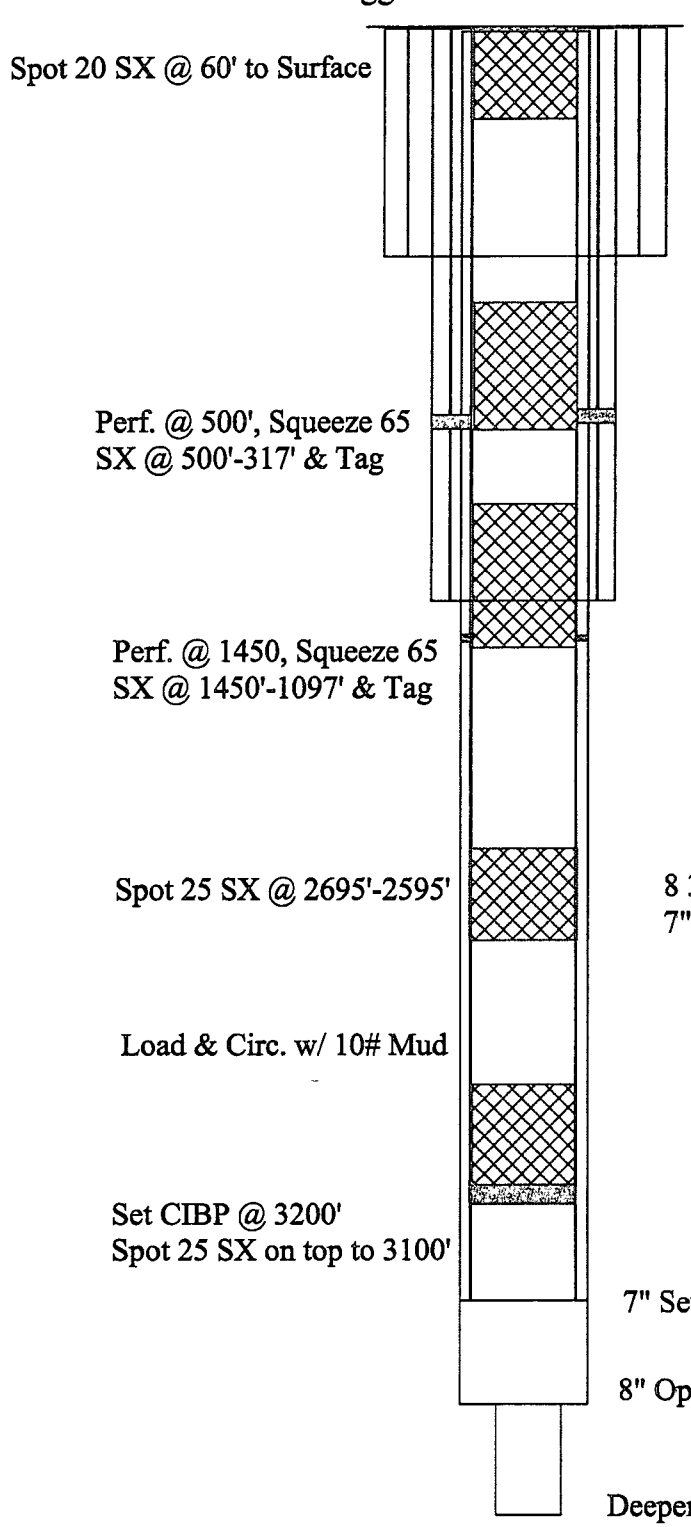
Plugging Diagram for State B-32 - API # 3002511309
Unit J, 1650' FSL, 2310 ' FWL, Sec. 28, T24S, R37E
Langlie Mattix Well Drilled 1939, P&A 1953, Unsuccessful Re-Entry 3/1955, Re-Plugged

Langlie-Jal Unit 007
API 3002511314
As Temporarily Abandoned 2/27/2002



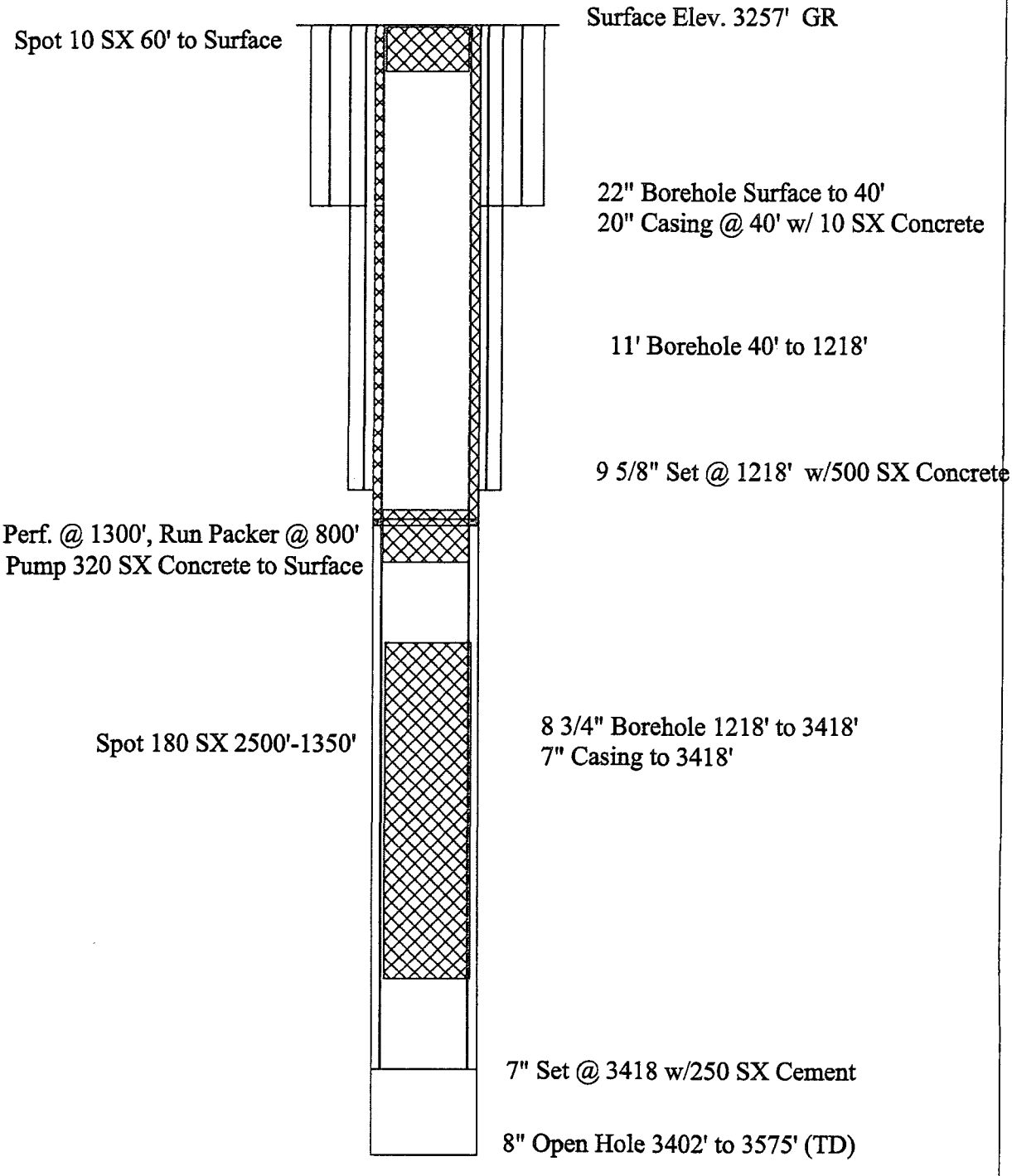
Plugging Diagram for Langlie-Jal Unit 007 - API # 3002511314
Unit H, 660' FEL, 1980 ' FNL, Sec. 32, T24S, R37E
Langlie Mattix Well Drilled 1939, Conv. to Inj. 4/14/1972, T&A Feb. 2002

Langlie-Mattix Woolworth Unit #802
API 3002511326
As Plugged & Abandoned 10/1/2005



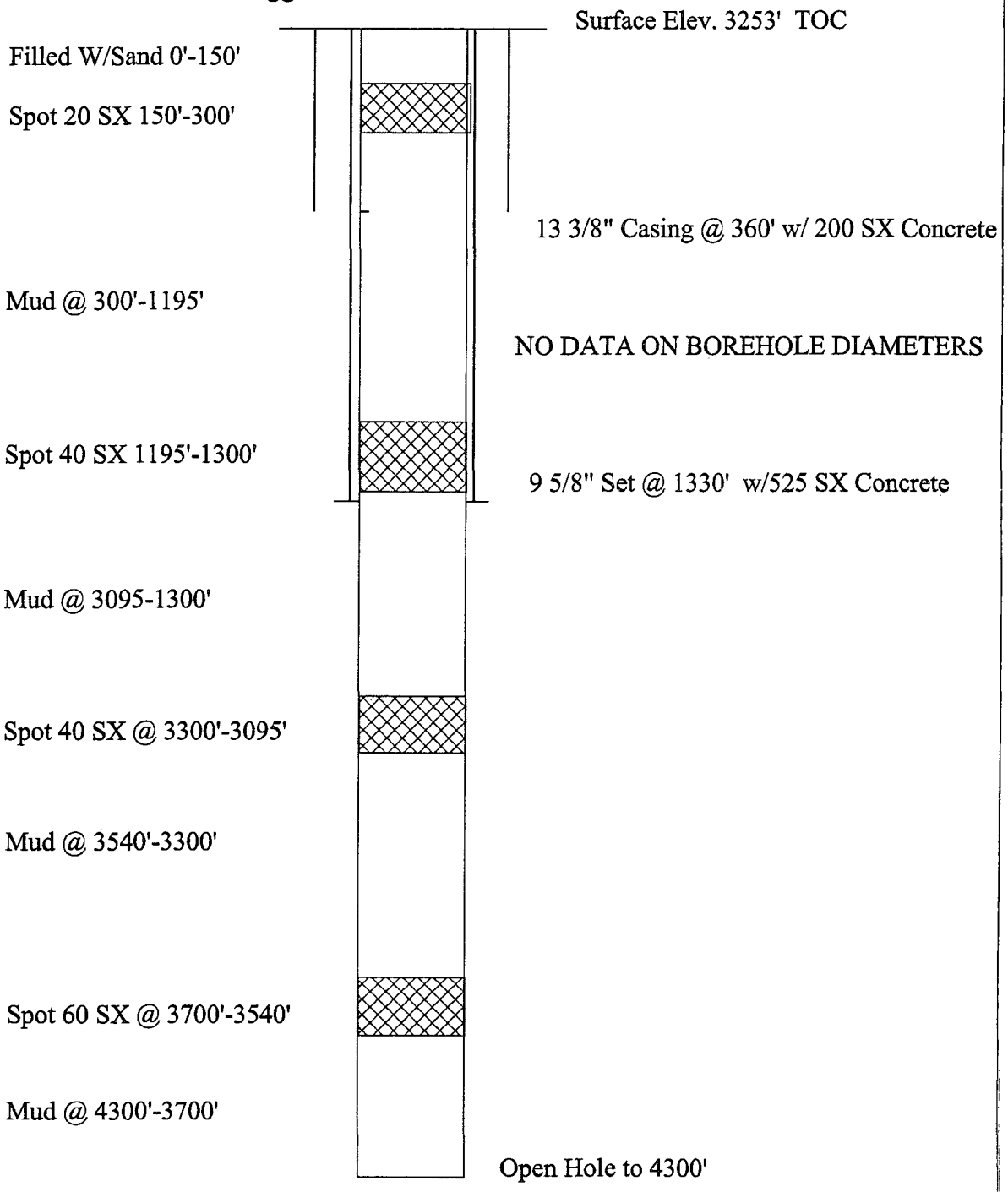
Plugging Diagram for Langlie-Mattix Woolworth Unit #802- API # 3002511326
Unit F, 2310' FWL, 3210 ' FNL, Sec. 33, T24S, R37E
Langlie Mattix Well Drilled 1939, T&A 1965-1968, Inj. 1968-1988, P&A Oct. 2005

Northshore Woolworth #3
API 3002511327
As Plugged & Abandoned 5/28/1992



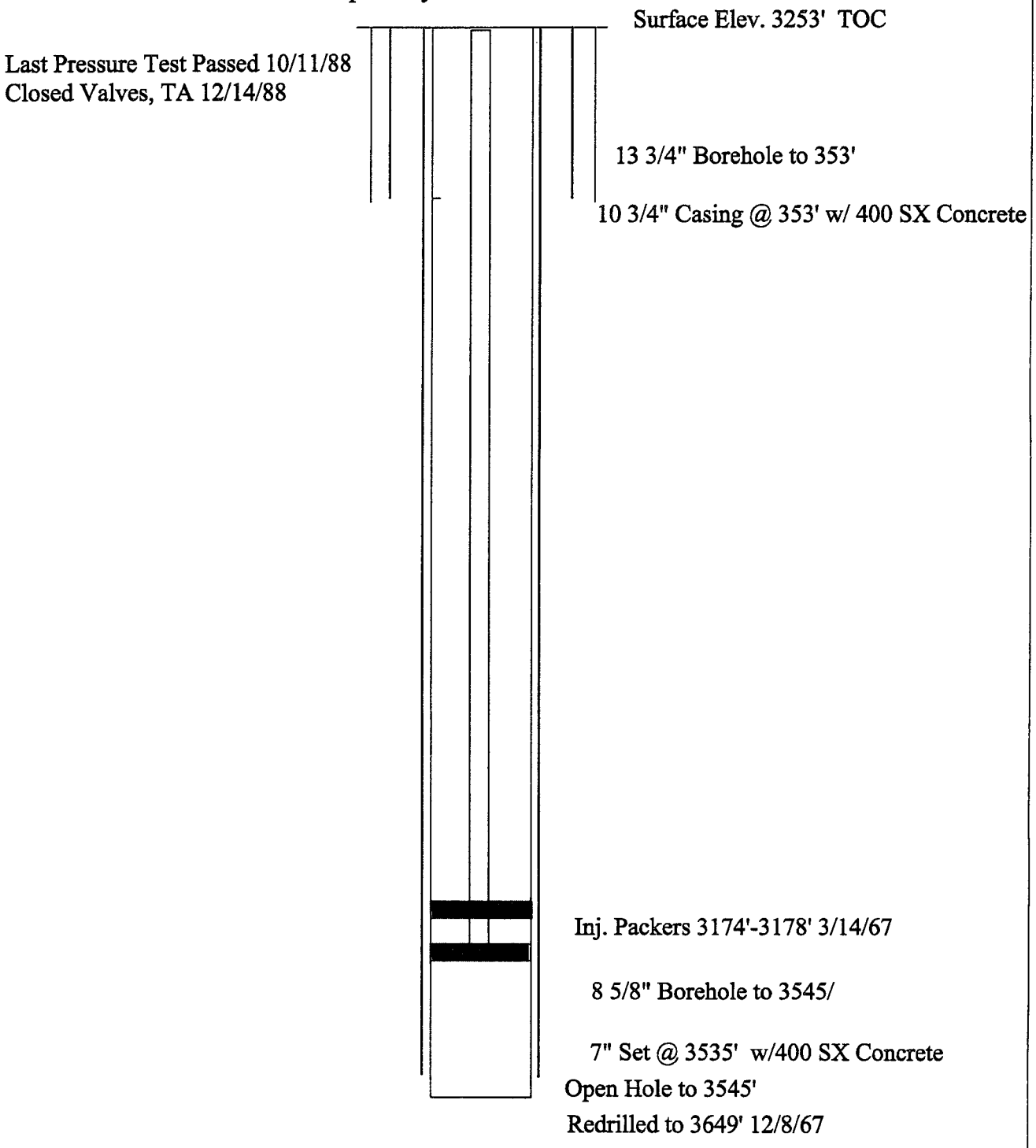
Plugging Diagram for Northshore Woolworth #3- API # 3002511327
Unit E, 2310' FNL, 330 ' FWL, Sec. 33, T24S, R37E
Jalmat-TYS Well Drilled 1941, T&A 1983, P&A May 1992

C.D. Woolworth #1
API 3002511328
As Plugged & Abandoned 11/14/1935



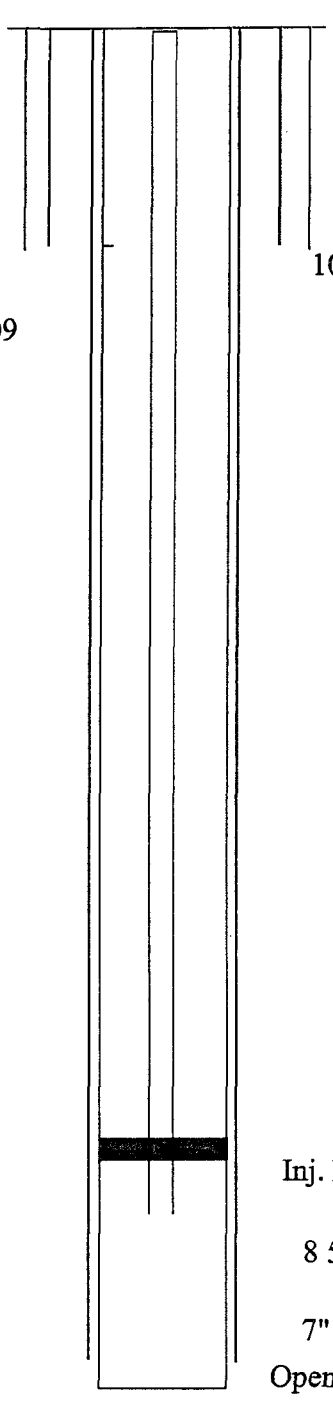
Plugging Diagram for Northshore Woolworth #3- API # 3002511327
Unit C, 660' FNL, 660 ' FEL, Sec. 33, T24S, R37E
Langlie-Mattix Well Drilled Sept. 1935, No Production, P&A Nov. 14, 1935

Langlie-Mattix Woolworth #111
API 3002511329
As Temporarily Abandoned 12/14/1988



Plugging Diagram for Langlie-Mattix Woolworth #111- API # 3002511329
Unit H, 1980' FNL, 660 ' FEL, Sec. 33, T24S, R37E
Langlie-Mattix Well Drilled Feb. 1938, Gas Well, T&A 12/22/65, Inj. Well 3/15/67, TA 12/20/1988

Langlie-Mattix Woolworth #113
API 3002511331
As Temporarily Abandoned 12/19/2003



Surface Elev. 3191' TOC

Last Pressure Test Passed 12/19/03
Closed Valves, TA 12/19/03

13 3/4" Borehole to 315'

10 3/4" Casing @ 302' w/ 200 SX Concrete

NOTE: TA approval expires 1/7/09

Inj. Packer 3280' 4/15/72

8 5/8" Borehole to 3525'

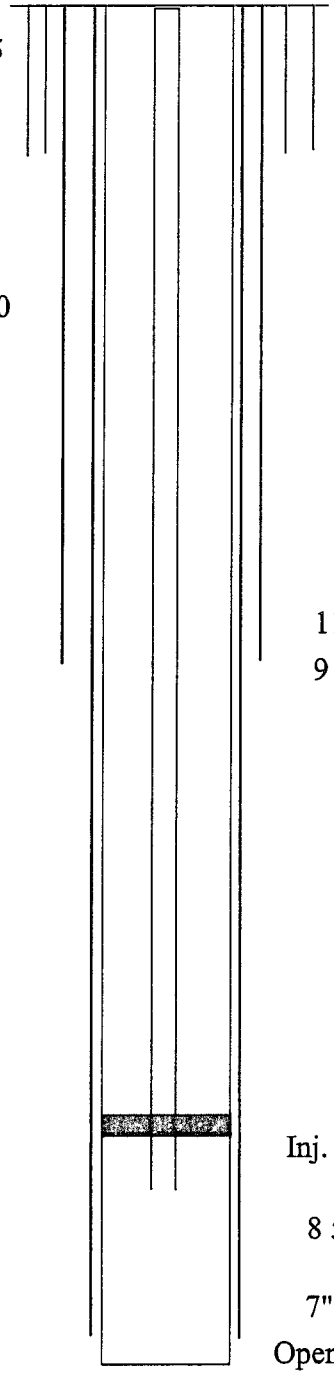
7" Set @ 3524' w/400 SX Concrete

Open Hole to 3525'

Redrilled 6 1/8" to 3668' 4/15/72

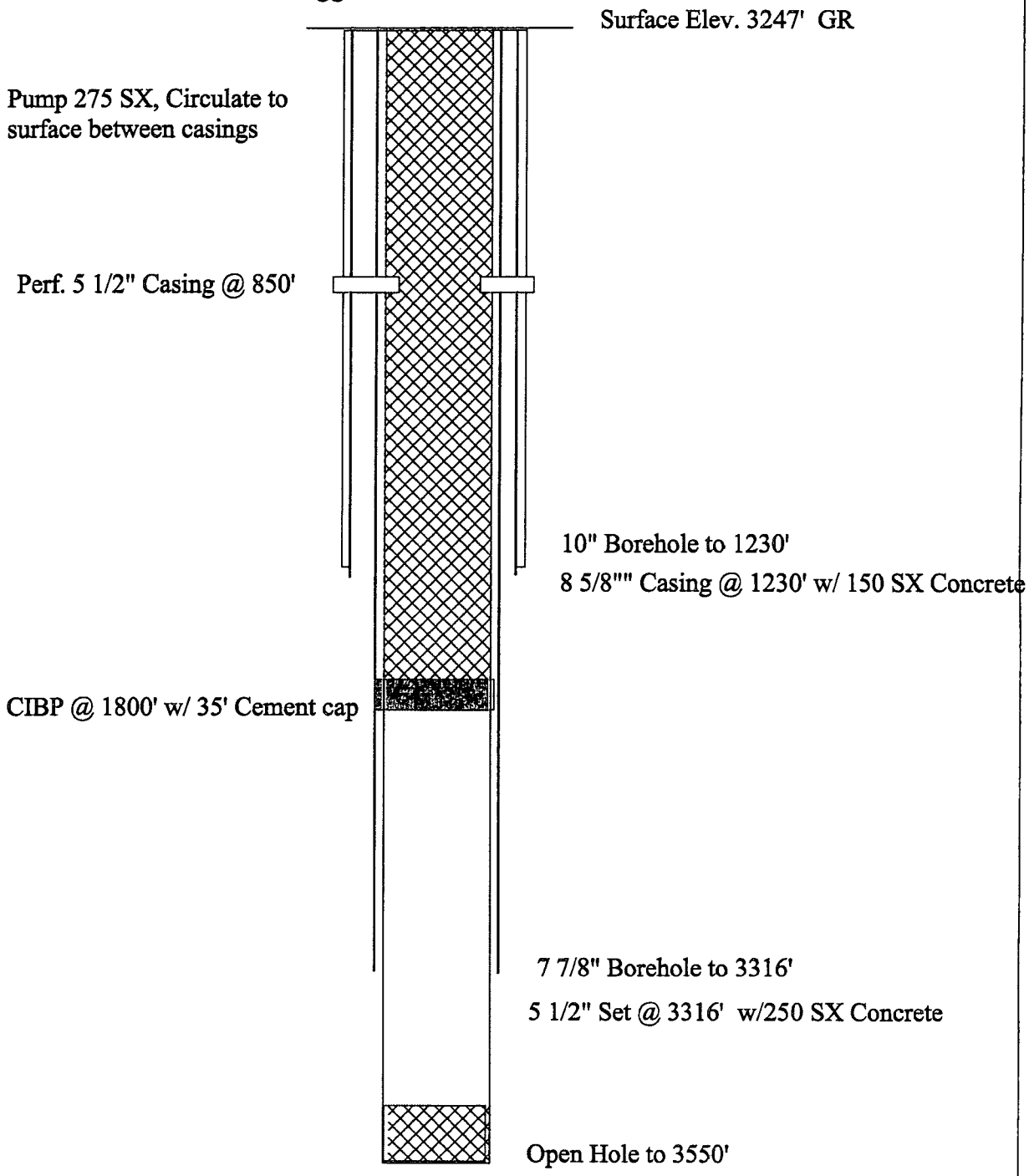
Plugging Diagram for Langlie-Mattix Woolworth #113- API # 3002511331
Unit P, 660' FSL, 330 ' FEL, Sec. 33, T24S, R37E
Langlie-Mattix Well Drilled Aug. 1938, Oil&Gas Well, Inj. Well 1972-2003, TA

Langlie-Mattix Woolworth #804
API 3002511337
As Temporarily Abandoned 12/23/1988



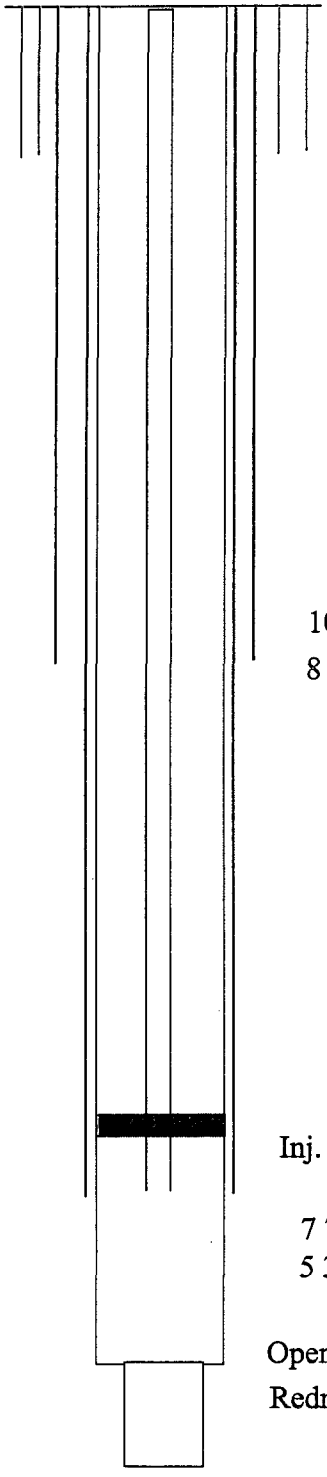
Plugging Diagram for Langlie-Mattix Woolworth #804- API # 3002511337
Unit D, 990' FNL, 990 ' FWL, Sec. 33, T24S, R37E
Langlie-Mattix Oil Well Drilled April. 1938, TA 10/61, Inj. 11/70, TA 12/23/88

Jalmat Woolworth #001
API 3002511339
As Plugged & Abandoned 3/31/83



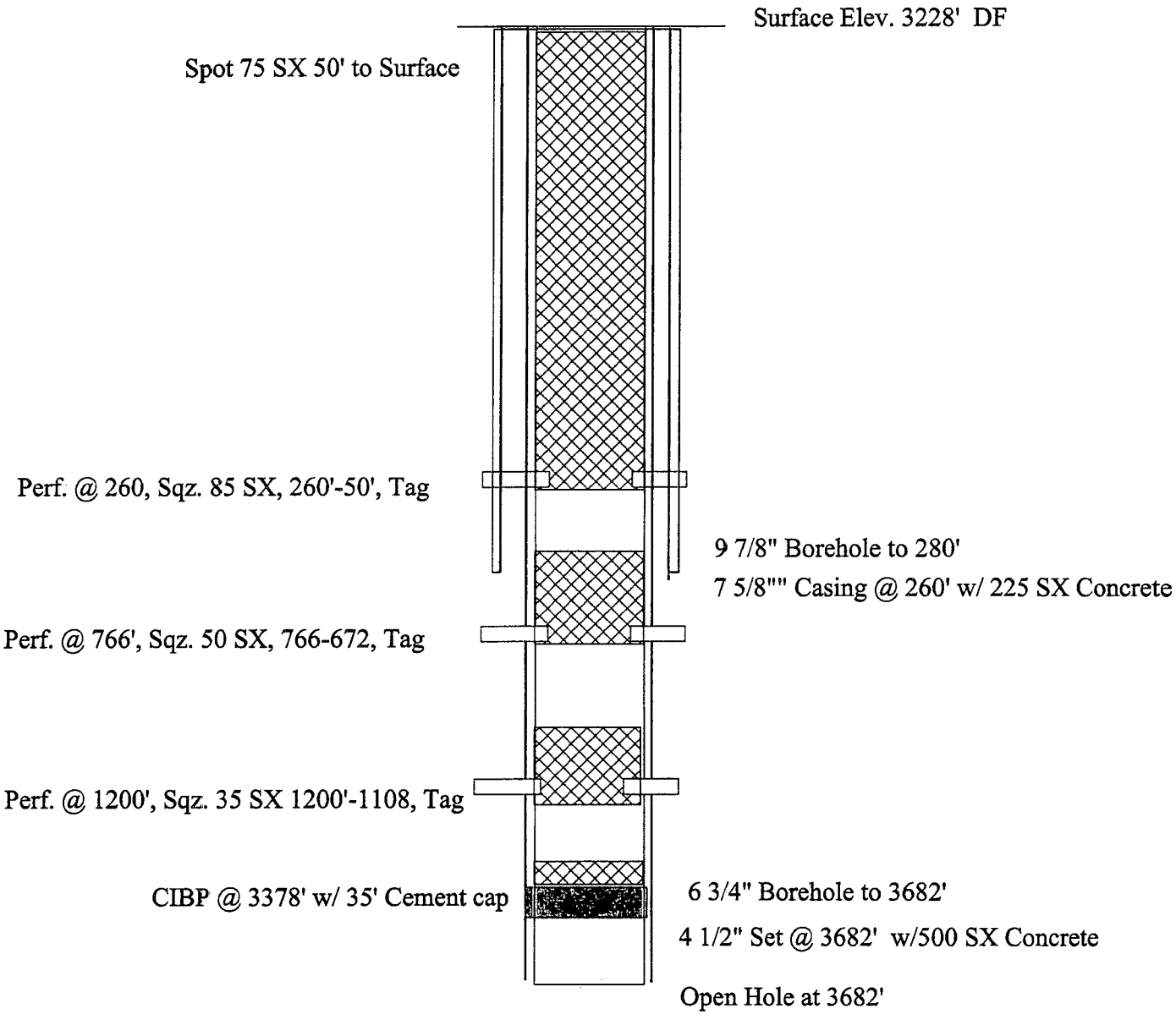
Plugging Diagram for Jalmat Woolworth #001- API # 3002511339
Unit K, 1650' FSL, 2310 ' FWL, Sec. 33, T24S, R37E
Jalmat Well Drilled Sept. 1938, TA 12/76, P&A 3/31/1983

Sam Weiner-Woolworth #902
API 3002511340
As Temporarily Abandoned 10/18/1988



Plugging Diagram for Langlie-Mattix SAm Weiner-Woolworth #902- API # 3002511340
Unit L, 1650' FSL, 330 ' FWL, Sec. 33, T24S, R37E
Langlie-Mattix Oil Well Drilled Jan. 1939, TA 10/62, Inj. 4/72, TA 10/11/1988

Langlie-Mattix Woolworth #308
API 3002520085
As Plugged & Abandoned 10/01/05



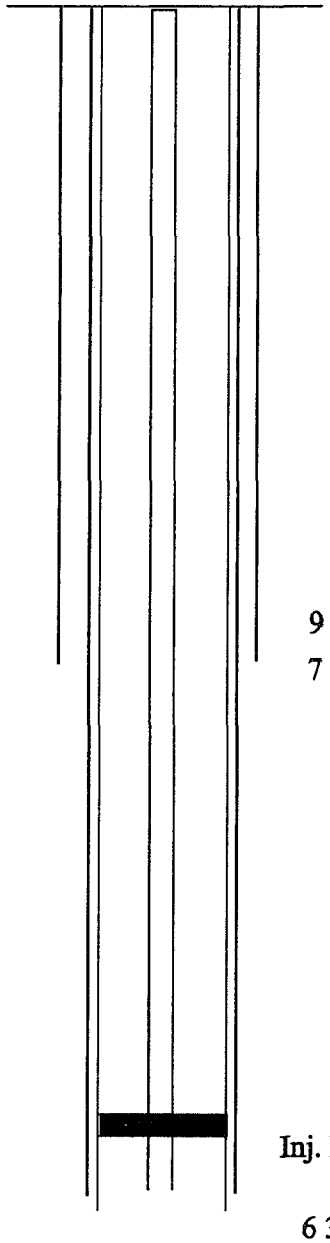
Plugging Diagram for Langlie-Mattix Woolworth #308- API # 3002520085
Unit J, 1980' FSL, 1980 ' FEL, Sec. 28, T24S, R37E
Langlie-Mattix Well Drilled Sept. 1963 as Inj. Well, TA 9/85, P&A 10/01/05

Langlie-Mattix-Woolworth #119
API 3002522881
As Temporarily Abandoned 12/14/1988

Surface Elev. 3229 DF

Last Pressure Test Passed 2/22/05

NOTE: TA approval expires 2/22/2010



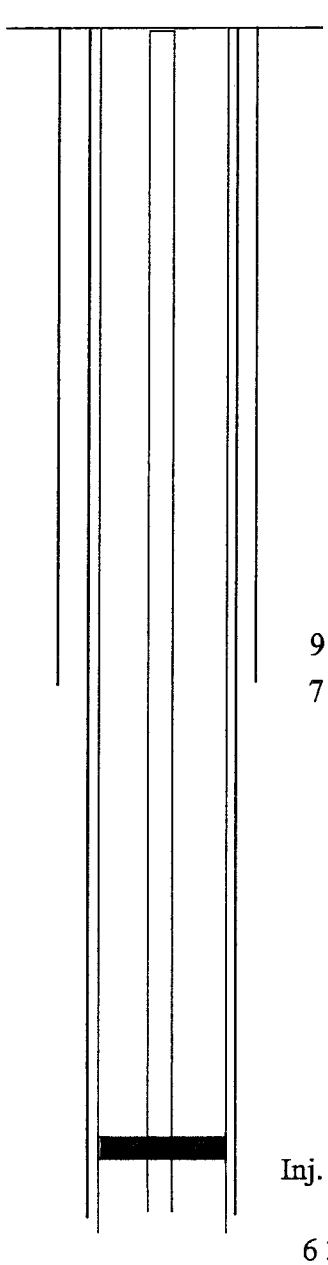
9 7/8" Borehole to 752'
7 5/8"" Casing @ 747' w/ 400 SX Concrete

Inj. Packer 3430'

6 3/4" Borehole to 3708'
4 1/2" Set @ 3707' w/350 SX Concrete

Plugging Diagram for Langlie-Mattix Woolworth #119- API # 3002522881
Unit J, 1880' FSL, 1980 ' FEL, Sec. 33, T24S, R37E
Langlie-Mattix Oil Well Drilled Mar. 1969, Inj. Well, TA 12/14/1988

Langlie-Mattix-Woolworth #204
API 3002523112
As Temporarily Abandoned 12/14/1988

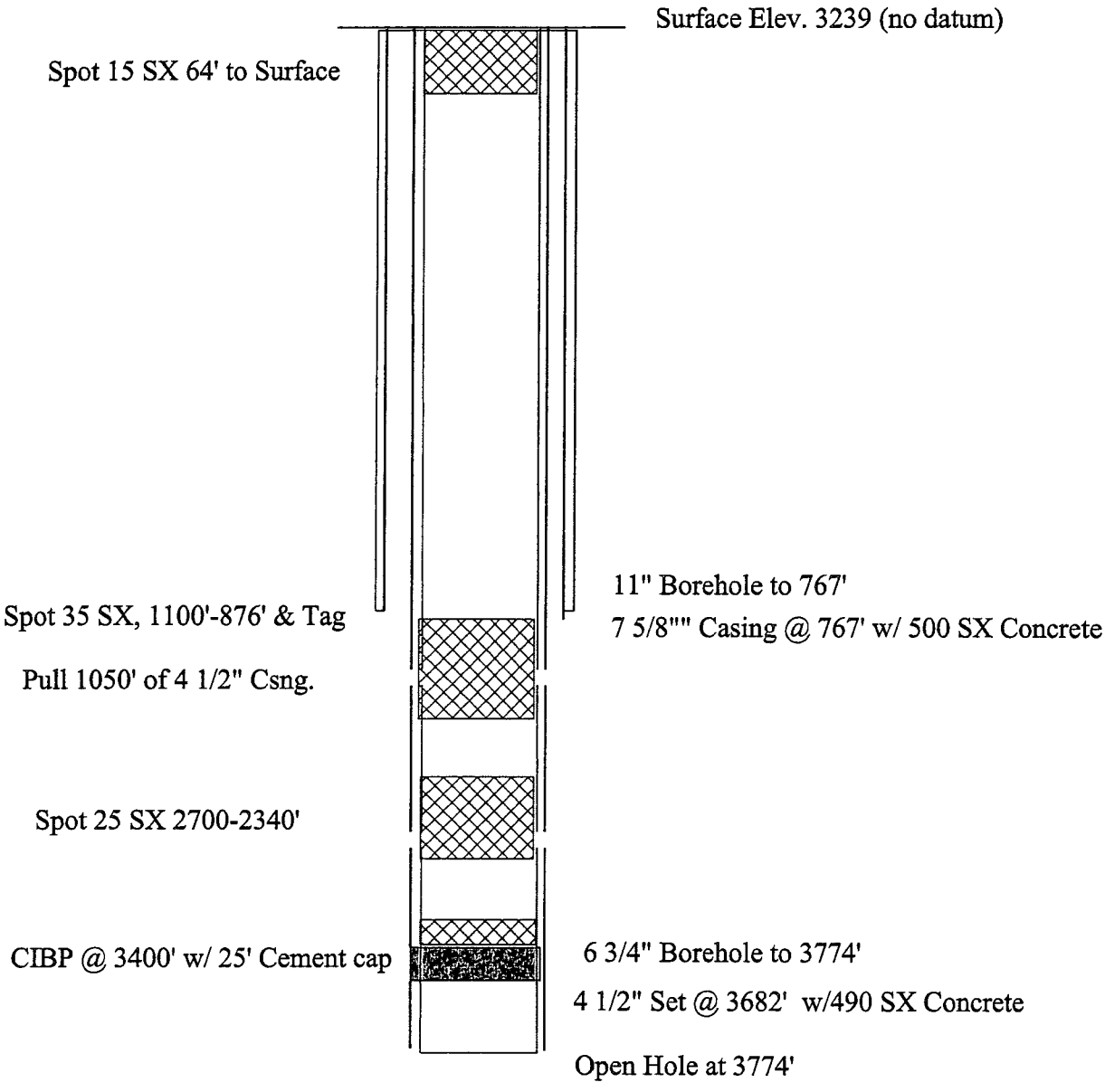


Last Pressure Test Passed 2/22/05

NOTE: TA approval expires 2/22/2010

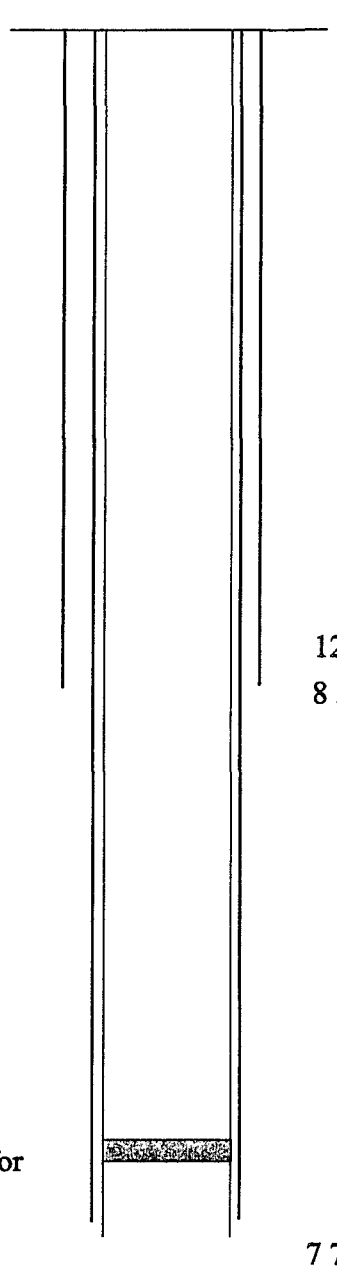
Plugging Diagram for Langlie-Mattix Woolworth #204- API # 3002532112
Unit M, 330' FWL, 330 ' FSL, Sec. 28, T24S, R37E
Langlie-Mattix Injection Well Drilled April 1969, TA 12/14/1988

Langlie-Mattix Woolworth #003
API 3002523598
As Plugged & Abandoned 01/17/05



Plugging Diagram for Langlie-Mattix Woolworth #003- API # 3002523598
Unit N, 1650' FWL, 330 ' FSL, Sec. 33, T24S, R37E
Langlie-Mattix Well Drilled Oct. 1970 as Inj. Well, TA 9/85, P&A 01/17/2005

Northshore Woolworth #005
API 3002526665
As Temporarily Abandoned 6/10/2005



Surface Elev. 3268 KB

Last Pressure Test Passed 5/18/05

NOTE: TA approval expires 5/18/2010

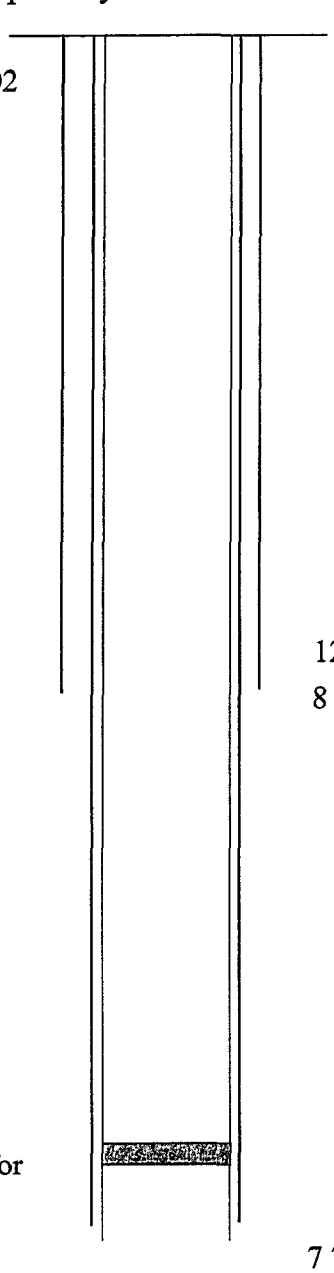
12 1/4" Borehole to 1203'
8 5/8"" Casing @ 1203' w/ 600 SX Concrete

Set CIBP @ 2950', Tested 520# for
30 min., passed

7 7/8" Borehole to 3598'
51/2" Set @ 3800' w/192 SX Concrete

Northshore Woolworth #005- API # 3002526665
Unit C, 1980' FWL, 730 ' FNL, Sec. 33, T24S, R37E
Northshore Well Drilled March 1980, TA 6/10/2005

Langlie-Jal Unit #096
API 3002527841
As Temporarily Abandoned 6/10/2002



Langlie-Jal #096- API # 3002527841
Unit N, 140' FSL, 2600 ' FWL, Sec. 32, T24S, R37E
Langlie-Jal Well Drilled August 1982, TA 6/10/2002

APPENDIX C

OPERATORS AND LEASES
IN AREA OF REVIEW
AND
APPLICABLE NOTICES
(INCLUDING PROPOSED PUBLIC NOTICE)

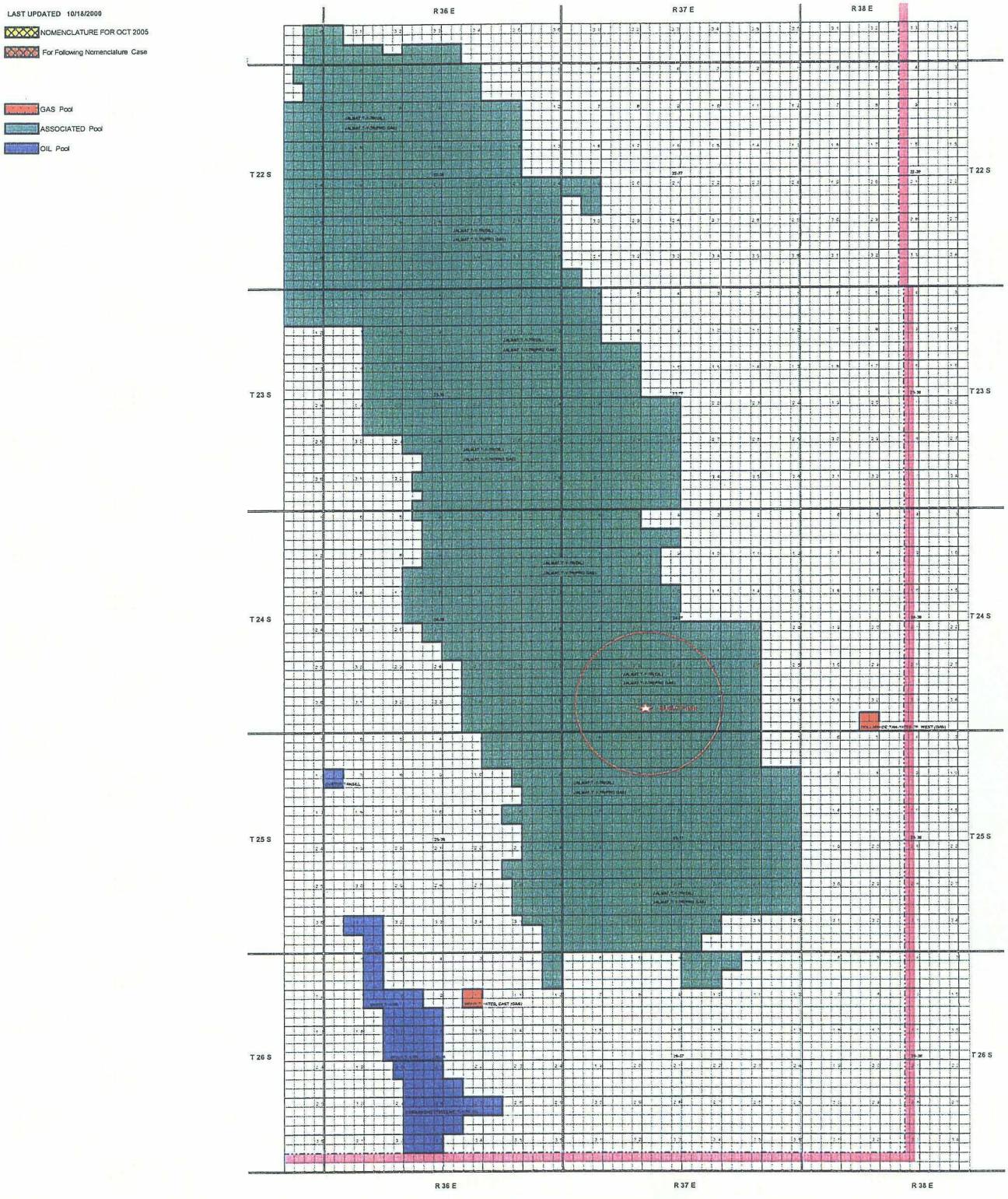


Figure C-1: Unitized Tansill, Yates, and Seven Rivers Leases

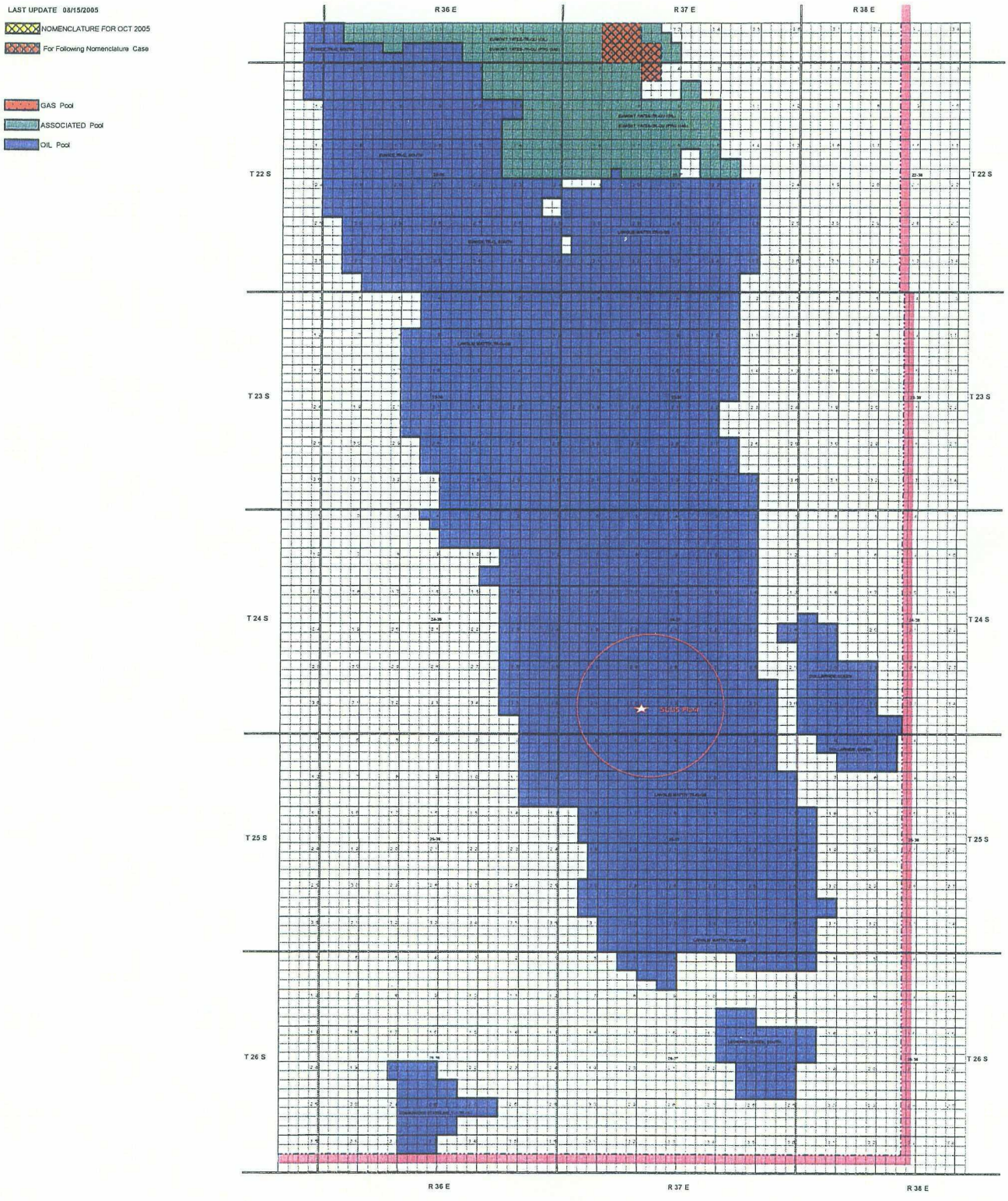


Figure C-2: Unitized Langlie-Mattix, Seven Rivers, Queen and Grayburg Leases

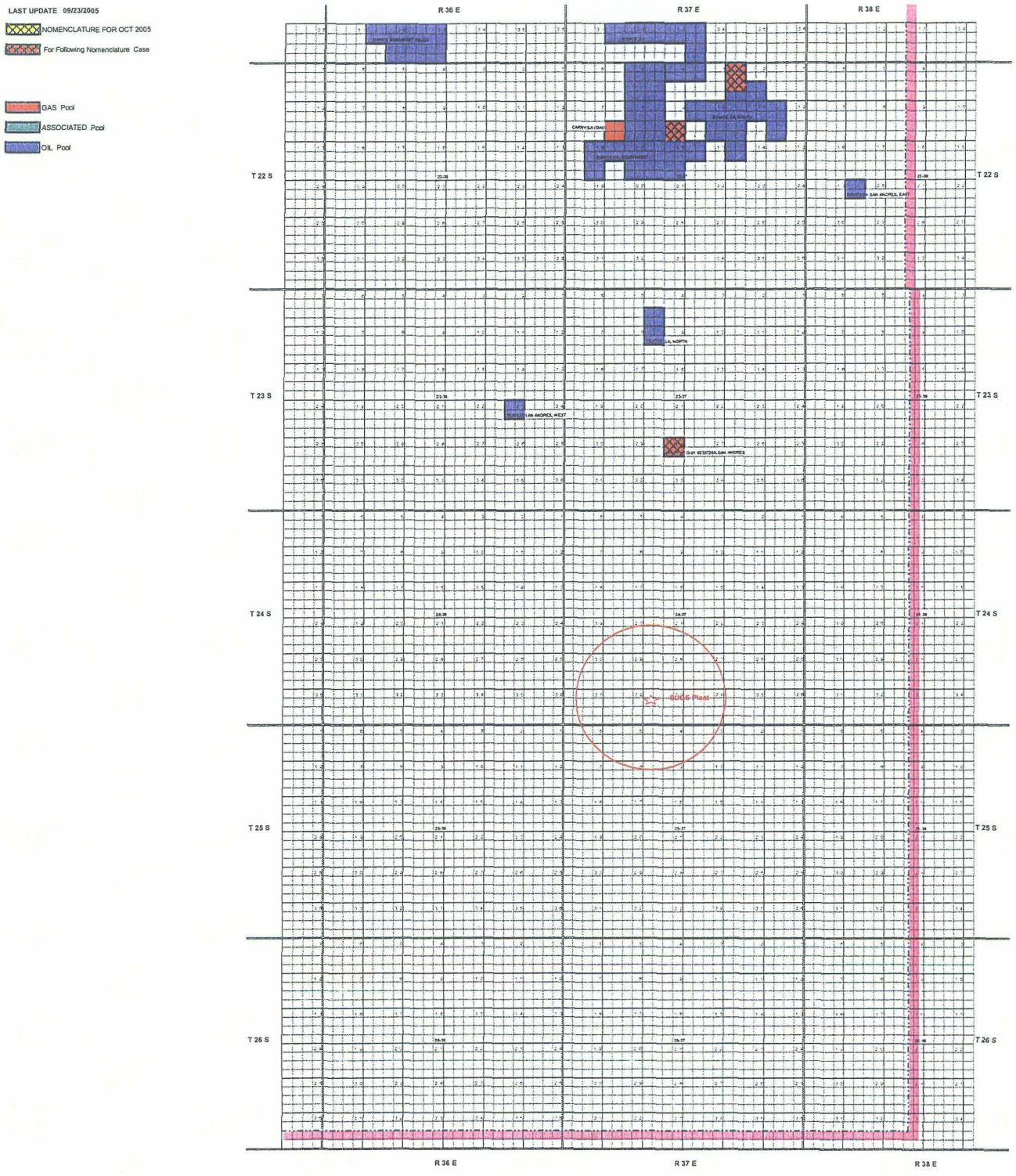


Figure C-3: Unit Status in San Andres Formation

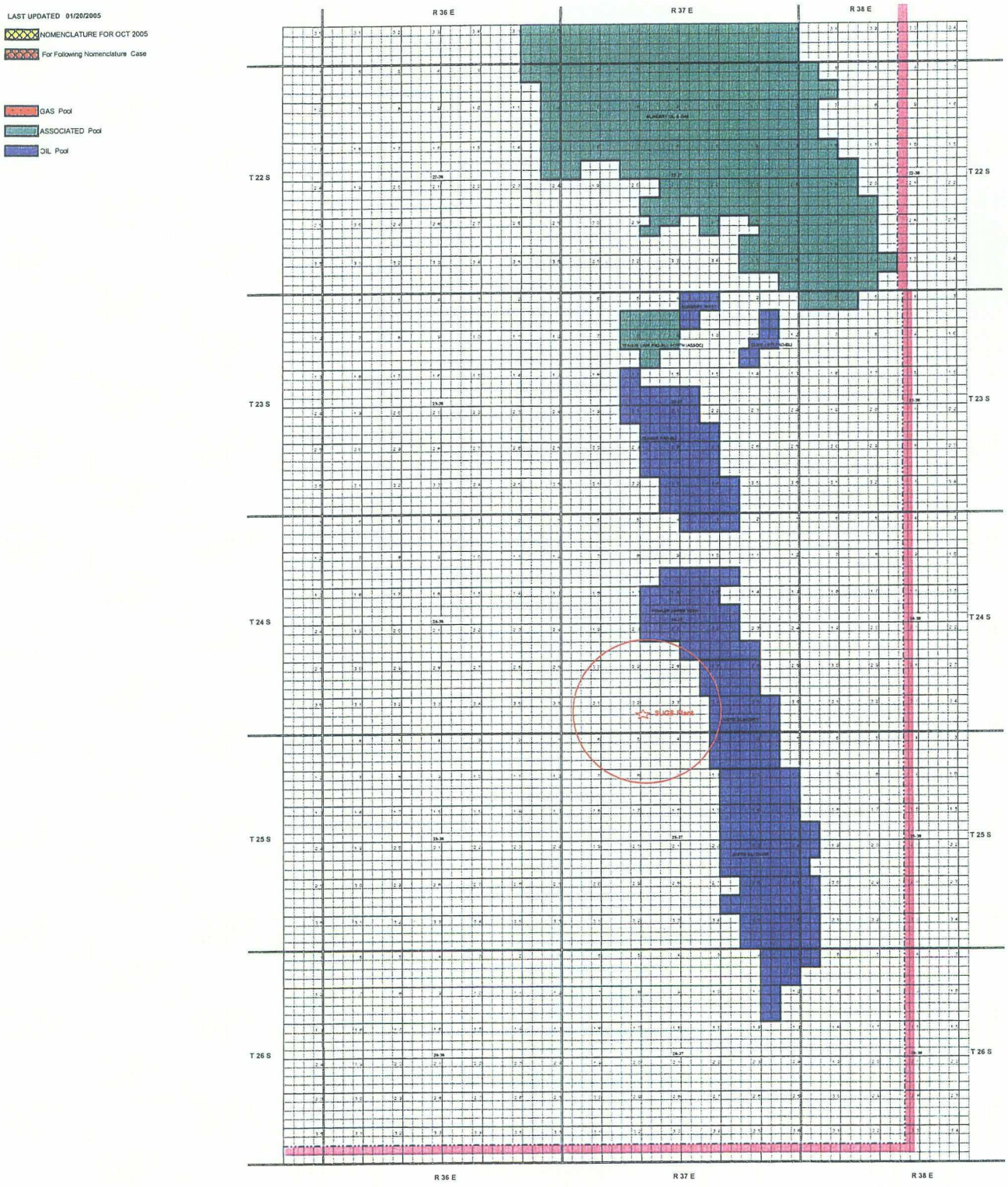


Figure C-4: Unitization in the Blinebry Formation

Table C-1: Operators and Land Status Within One Mile of Proposed SUGS AGI Well								
Township	Range	Section	Unit	Quarter	Status	Surface Owner	Mineral Owner	Operator(s)
24S	37E	27	K	NESW		Fee	Fee	Betwell (1 well, Active)
24S	37E	27	L	NWSW		Fee	Fee	Betwell (1 well, Active)
24S	37E	27	M	SWSW		Fee	Fee	Betwell (1 well, Active)
24S	37E	27	N	SESW		Fee	Fee	Betwell (1 well, TA)
24S	37E	28	E	SWNW		Fee	Fee	Betwell (1 well, Active); BP (1, P&A)
24S	37E	28	F	SENW		Fee	Fee	Betwell (1 well, Active); Amarada Hess (1, P&A)
24S	37E	28	G	SWNE		Fee	Fee	Betwell (1 well, Active)
24S	37E	28	H	SENE		Fee	Fee	Betwell (1 well, Active)
24S	37E	28	I	NESE		Fee	Fee	Betwell (2 wells, Active);
24S	37E	28	J	NWSE		Fee	Fee	Betwell (1, P&A); Westbrook (1, Active)
24S	37E	28	K	NESW		Fee	Fee	Betwell (1 well, Active)
24S	37E	28	L	NWSW		Fee	Fee	McDonnold (1 well, Active); Betwell (1 well, Active)
24S	37E	28	M	SWSW		Fee	Fee	McDonnold (1 well, Active); Betwell (1 well, TA)
24S	37E	28	N	SESW		Fee	Fee	McDonnold (1 well, Active); Betwell (1 well, P&A)
24S	37E	28	O	SWSE		Fee	Fee	Betwell (1 well, Active)
24S	37E	28	P	SESE		Fee	Fee	Betwell (1 well, Active)
24S	37E	29	G	SWNE		Fee	Federal	MCDONNOLD OPERATING INC
24S	37E	29	H	SENE		Fee	Federal	MCDONNOLD OPERATING INC
24S	37E	29	I	NESE		Fee	Federal	MCDONNOLD OPERATING INC
24S	37E	29	J	NWSE		Fee	Federal	MCDONNOLD OPERATING INC
24S	37E	29	K	NESW		Fee	Fee	BP (1 well, Active)
24S	37E	29	L	NWSW		Fee	Fee	BP (1 well, Active); Fulfer Oil & Cattle (1 well, Active)
24S	37E	29	N	SESW		Fee	Fee	BP (1 well, Active)
24S	37E	29	O	SWSE		Fee	Federal	MCDONNOLD OPERATING INC
24S	37E	29	P	SESE		Fee	Federal	MCDONNOLD OPERATING INC
24S	37E	32	A	NENE	Leased	State	State	Phoenix (2 wells, Active) Burleson (1 well, Active)
24S	37E	32	B	NWNE	Leased	State	State	Phoenix (1 well, Active)
24S	37E	32	C	NENW	Leased	State	State	Phoenix (1 well, Active); Westbrook (1 well, active)
24S	37E	32	D	NWNW	Leased	State	State	Phoenix (1 well, TA), Loeb (1 well, Active)
24S	37E	32	E	SWNW	Leased	State	State	Phoenix (1 well, P&A)
24S	37E	32	F	SENW	Leased	State	State	Phoenix (1 well, Active), Loeb (1 well, Active)
24S	37E	32	G	SWNE	Leased	State	State	BP (1 well, Active) Phoenix (1 well, Active)
24S	37E	32	H	SENE	Leased	State	State	Phoenix (1 well, TA)
24S	37E	32	I	NESE	Leased	State	State	Phoenix (2 wells, Active) Mirage (1 well, Active)
24S	37E	32	J	NWSE	Leased	State	State	Phoenix (1 well, Active); Kelly (1 well, P&A)
24S	37E	32	K	NESW	Leased	State	State	Phoenix (3 wells, Active)
24S	37E	32	L	NWSW	Leased	State	State	Phoenix (3 wells, Active); Plantation (1 well, active)
24S	37E	32	M	SWSW	Leased	State	State	Phoenix (2 wells, Active, 1 well TA)
24S	37E	32	N	SESW	Leased	State	State	Phoenix (1 well, Active, 1 well TA)

Table C-1: Operators and Land Status Within One Mile of Proposed SUGS AGI Well								
Township	Range	Section	Unit	Quarter	Status	Surface Owner	Mineral Owner	Operator(s)
24S	37E	32	O	SWSE	Leased	State	State	Phoenix (1 well, Active); BP (1 well, Active)
24S	37E	32	P	SESE	Leased	State	State	Phoenix (2 wells, Active); BP (1 well, Active)
24S	37E	33	A	NENE		Fee	Fee	Betwell (1 well, Active)
24S	37E	33	B	NWNE		Fee	Fee	Betwell (1 well, Active)
24S	37E	33	C	NENW		Fee	Fee	Betwell (1 well, Active); Phillips (1, P&A); Cimarex (1, TA)
24S	37E	33	D	NWNW		Fee	Fee	Betwell (1 well, Active)
24S	37E	33	E	SWNW		Fee	Fee	Betwell (1 well, Active); SUGS (1 SWD, Active), Cimarex (1, Active, Burlington (1, P&A)
24S	37E	33	F	SENW		Fee	Fee	Betwell (1 well, Active)
24S	37E	33	G	SWNE		Fee	Fee	Betwell (2 wells, Active)
24S	37E	33	H	SENE		Fee	Fee	Betwell (1 well, Active)
24S	37E	33	I	NESE		Fee	Fee	Betwell (1 well, Active)
24S	37E	33	J	NWSE		Fee	Fee	Betwell (1 well, TA); Southwest (1 well, Active)
24S	37E	33	K	NESW		Fee	Fee	Betwell (1 well, Active); Inflow (1 well, Active); Burleson (1 well, P&A)
24S	37E	33	L	NWSW		Fee	Fee	Betwell (1 well, TA)
24S	37E	33	M	SWSW		Fee	Fee	Betwell (1 well, Active); Cimarex (1, Active)
24S	37E	33	N	SESW		Fee	Fee	Betwell (2 wells, 1 Active. 1 P&A)
24S	37E	33	O	SWSE		Fee	Fee	Betwell (1 well, Active)
24S	37E	33	P	SESE		Fee	Fee	Betwell (1 well, TA)
24S	37E	34	C	NENW		Fee	Fee	Betwell (1 well, Active)
24S	37E	34	D	NWNW		Fee	Fee	Betwell (1 well, Active)
24S	37E	34	E	SWNW		Fee	Fee	Betwell (1 well, Active)
24S	37E	34	F	SENW		Fee	Fee	Betwell (1 well, Active)
24S	37E	34	K	NESW		Fee	Fee	Betwell (1 well, Active)
24S	37E	34	L	NWSW		Fee	Fee	Betwell (1 well, Active)
24S	37E	34	M	SWSW		Fee	Fee	Betwell (1 well, Active)
24S	37E	34	N	SESW		Fee	Fee	Betwell (2 wells, 1 Active. 1 P&A)
25S	37E	4	B	NWNE		Federal	Federal	PHOENIX HYDROCARBONS OPERATING CORP
25S	37E	4	C	NENW		Federal	Federal	PHOENIX HYDROCARBONS OPERATING CORP HERMAN L LOEB
25S	37E	4	D	NWNW		Federal	Federal	PHOENIX HYDROCARBONS OPERATING CORP
25S	37E	4	E	SWNW		Fee	Federal	PHOENIX HYDROCARBONS OPERATING CORP HERMAN L LOEB
25S	37E	4	F	SENW		Fee	Federal	PHOENIX HYDROCARBONS OPERATING CORP ANDERSON PRICHARD
25S	37E	4	G	SWNE		Fee	Federal	PHOENIX HYDROCARBONS OPERATING CORP HERMAN L LOEB
25S	37E	5	A	NENE		Federal	Federal	PHOENIX HYDROCARBONS OPERATING CORP HERMAN L LOEB
25S	37E	5	B	NWNE		Federal	Federal	PHOENIX HYDROCARBONS OPERATING CORP
25S	37E	5	C	NENW		Federal	Federal	PHOENIX HYDROCARBONS OPERATING CORP
25S	37E	5	D	NWNW		Federal	Federal	PHOENIX HYDROCARBONS OPERATING CORP HERMAN L LOEB
25S	37E	5	E	SWNW		Fee	Federal	PHOENIX HYDROCARBONS OPERATING CORP
25S	37E	5	F	SENW		Fee	Federal	PHOENIX HYDROCARBONS OPERATING CORP HERMAN L LOEB
25S	37E	5	G	SWNE		Fee	Federal	PHOENIX HYDROCARBONS OPERATING CORP HERMAN L LOEB
25S	37E	5	H	SENE		Fee	Federal	PHOENIX HYDROCARBONS OPERATING CORP

PROPOSED PUBLIC NOTICE TO BE PUBLISHED IN THE HOBBS NEWS-SUN WHEN HEARING DATE IS SET

CASE _____:

Application of Southern Union Gas Services, Ltd. for approval of a combined wastewater and acid gas injection well, Lea County, New Mexico. Applicant seeks approval to utilize its proposed Jal #3 AGI Well No. 1, to be drilled 1570 feet from the North line and 1050 feet from the West line in Section 33, Township 24 South, Range 37 East, NMPM, to inject up to 7390 barrels of acid gas and produced water per day, at a maximum pressure of 986 psi, into the San Andres Formation, at an approximate depth of 4350 feet to 5200 feet. SUGS may be contacted through its representative, Mr. Alberto Gutierrez, 500 Marquette Ave NW, Suite 1350, Albuquerque, New Mexico 87102 or (505) 842-8000. Said well is located on the SUGS Jal #3 Gas Plant approximately 3 ½ miles north of Jal, New Mexico and will replace the existing permitted disposal well at the Plant.

7006 0810 0001 2811 7781

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com
MIDLAND TX 79702

Postage	$ $5.30	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $10.10	12/18/2007

Sent To: Phoenix Hydrocarbons Oper. Co.
Street, Apt. No.; or PO Box No.: PO Box 3638
City, State, ZIP+4: Midland TX 79702

PS Form 3800, June 2002 — See Reverse for Instructions

7006 0810 0001 2811 7798

U.S. Postal Service
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(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com
HIALEAH FL 33012

Postage	$ $7.00	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $11.80	12/18/2007

Sent To: Betwell Oil & Gas
Street, Apt. No.; or PO Box No.: PO Box 2577
City, State, ZIP+4: Hialeah FL 33012

PS Form 3800, June 2002 — See Reverse for Instructions

7006 0810 0001 2811 7811

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com
MIDLAND TX 79701

Postage	$ $5.30	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $10.10	12/18/2007

Sent To: McDonnold Operating Inc.
Street, Apt. No.; or PO Box No.: 505 N. Big Springs #204
City, State, ZIP+4: Midland TX 79701

PS Form 3800, June 2002 — See Reverse for Instructions

7006 0810 0001 2811 7828

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For delivery information visit our website at www.usps.com
TULSA OK 74121

Postage	$ $6.20	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $11.00	12/18/2007

Sent To: BP Americs
Street, Apt. No.; or PO Box No.: PO Box 22048
City, State, ZIP+4: Tulsa OK 74121

PS Form 3800, June 2002 — See Reverse for Instructions

7006 0810 0001 2811 7835

U.S. Postal Service
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(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com
TULSA OK 74103

Postage	$ $6.20	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $11.00	12/18/2007

Sent To: Cimarex Energy Co. of Colorado
Street, Apt. No.; or PO Box No.: 15 E. 15th St. #1000
City, State, ZIP+4: Tulsa OK 74103

PS Form 3800, June 2002 — See Reverse for Instructions

7006 0810 0001 2811 7842

U.S. Postal Service
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For delivery information visit our website at www.usps.com
LAWRENCEVILLE IL 62439

Postage	$ $6.55	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $11.35	12/18/2007

Sent To: Herman L. Loeb
Street, Apt. No.; or PO Box No.: RR #2 Country Club Rd.
City, State, ZIP+4: Lawrenceville IL 62439

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EUNICE NM 88231 OFFICIAL USE

Postage	$ $4.90	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $9.70	12/18/2007

7006 0810 0001 2811 7866

Sent To: Mirage Energy, Inc.
Street, Apt. No.; or PO Box No.: PO Box 760
City, State, ZIP+4: Eunice NM 88231

PS Form 3800, June 2002 — See Reverse for Instructions

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

HOBBS NM 88241 OFFICIAL USE

Postage	$ $4.90	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $9.70	12/18/2007

7006 0810 0001 2811 7859

Sent To: Westbrook Oil Corp.
Street, Apt. No.; or PO Box No.: PO Box 2264
City, State, ZIP+4: Hobbs NM 88241

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MIDLAND TX 79705 OFFICIAL USE

Postage	$ $5.30	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $10.10	12/18/2007

7006 0810 0001 2811 7873

Sent To: Southwestern Royalties Inc.
Street, Apt. No.; or PO Box No.: 6 Desta Dr. #2100
City, State, ZIP+4: Midland TX 79705

PS Form 3800, June 2002 — See Reverse for Instructions

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

MIDLAND TX 79702 OFFICIAL USE

Postage	$ $5.30	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $10.10	12/18/2007

7006 0810 0001 2811 7880

Sent To: Lewis Burleson, Inc.
Street, Apt. No.; or PO Box No.: PO Box 2479
City, State, ZIP+4: Midland TX 79702

PS Form 3800, June 2002 — See Reverse for Instructions

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

BRASHEAR TX 75420 OFFICIAL USE

Postage	$ $5.30	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $10.10	12/18/2007

7006 0810 0001 2811 7897

Sent To: Inflow Petroleum Resources
Street, Apt. No.; or PO Box No.: 13760 Noel Rd #104
City, State, ZIP+4: Dallas TX 75420

PS Form 3800, June 2002 — See Reverse for Instructions

GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Phoenix Hydrocarbons Operating Corp.
PO Box 3638
Midland TX 79702

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: **APPLICATION OF SOUTHERN UNION GAS SERVICES, LTD. FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO**

Ladies and Gentlemen:

This letter is to advise you that Southern Union Gas Services, Ltd., (SUGS) has filed the enclosed application with the New Mexico Oil Conservation Division (NMOCD) seeking authorization to inject up to 7929 barrels per day of produced water and acid gas, from the Jal #3 Gas Plant, at a maximum pressure of 986 psi into the San Andres Formation between approximately 4350 and 5200 feet. SUGS' proposed Jal Plant AGI Well #1 will be drilled approximately 1570 feet from the North line and 1050 feet from the West line of Section 33, Township 24S, Range 37E, NMPM, Lea County, New Mexico, and will replace the existing Class II injection well currently permitted at the Plant.

The proposed well will be located within the Jal #3 Gas Plant, approximately 3½ miles north of Jal, New Mexico.

This application will be set for hearing before a Division Examiner at 8:15 a.m. on February 7, 2008 at the Oil Conservation Division's Santa Fe office located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Parties appearing in cases are required by Division Rule 1208.B to file a Pre-Hearing Statement with the Oil Conservation Division's Santa Fe office, four days in advance of a scheduled hearing, but at least on the Thursday preceding the hearing. This statement must include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

If you have questions concerning this application, you may contact Mr. Alberto Gutierrez at (505) 842-8000 or 500 Marquette Avenue NW, Suite 1350, Albuquerque, New Mexico, 87102.

Sincerely,
Geolex, Inc.

Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Betwell Oil & Gas Co.
PO Box 2577
Hialeah FL 33012

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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Sincerely,
Geolex, Inc.

Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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phone: 505-842-8000
fax: 505-842-7380

500 Marquette Avenue NW, Suite 1350
Albuquerque, New Mexico 87102

email: aag@geolex.com
web: www.geolex.com

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INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

McDonnold Operating, Inc.
505 N. Big Springs #204
Midland TX 79701

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: **APPLICATION OF SOUTHERN UNION GAS SERVICES, LTD. FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO**

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Sincerely,
Geolex, Inc.

Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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Alberto A. Gutiérrez, C.P.G.

December 18, 2007

BP America Production Co.
PO Box 22048
Tulsa OK 74121

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: **APPLICATION OF SOUTHERN UNION GAS SERVICES, LTD. FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO**

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Sincerely,
Geolex, Inc.

Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

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Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Cimarex Energy Co. of Colorado
15 E. 5th Street #1000
Tulsa OK 74103

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: **APPLICATION OF SOUTHERN UNION GAS SERVICES, LTD. FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO**

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Sincerely,
Geolex, Inc.

Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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phone: 505-842-8000
fax: 505-842-7380

500 Marquette Avenue NW, Suite 1350
Albuquerque, New Mexico 87102

email: aag@geolex.com
web: www.geolex.com

GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Herman L. Loeb
RR#2, Country Club Rd.
Lawrenceville IL 62439

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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Sincerely,
Geolex, Inc.

Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Westbrook Oil Corp.
PO Box 2264
Hobbs NM 88241

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: **APPLICATION OF SOUTHERN UNION GAS SERVICES, LTD. FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO**

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If you have questions concerning this application, you may contact Mr. Alberto Gutierrez at (505) 842-8000 or 500 Marquette Avenue NW, Suite 1350, Albuquerque, New Mexico, 87102.

Sincerely,
Geolex, Inc.

Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Mirage Energy, Inc.
PO Box 760
Eunice NM 88231

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: **APPLICATION OF SOUTHERN UNION GAS SERVICES, LTD. FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO**

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Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Southwest Royalties, Inc.
6 Desta Drive #2100
Midland TX 79705

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: **APPLICATION OF SOUTHERN UNION GAS SERVICES, LTD. FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO**

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Sincerely,
Geolex, Inc.

Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Lewis B. Burleson, Inc.
PO Box 2479
Midland TX 79702

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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Sincerely,
Geolex, Inc.

Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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phone: 505-842-8000
fax: 505-842-7380

500 Marquette Avenue NW, Suite 1350
Albuquerque, New Mexico 87102

email: aag@geolex.com
web: www.geolex.com

GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Inflow Petroleum Resources, LP
13760 Noel Rd. #104
Dallas TX 75420

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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APPENDIX D

SURFACE OWNERS IN AREA OF REVIEW
AND
APPLICABLE NOTICES

TABLE D-1

SURFACE OWNERS WITHIN 1-MILE RADIUS OF JAL #3 PLANT

1. Rebecca Joan Doom
   Jerold W. Doom
   Daniel J. Doom
   47 Doom Lane
   Jal NM 88252-9711

2. Jal Public Library Trust
   PO Box 178
   Jal NM 88252

3. C.D. Woolworth Trust
   Jal Public Library Fund
   PO Box 178
   Jal NM 88252

4. Southwestern Public Service Company
   Property Tax Department
   PO Box 840
   Denver CO 80201-0840

5. Henry H. Harrison, Jr.
   Ronald M. Harrison
   1120 Wilma
   Tyler TX 75701

6. LeaPartners L.P. FinCo
   PO Box 4967
   Houston TX 77210-4967

7. New Mexico State Lands
   State of New Mexico
   PO Box 1148
   Santa Fe NM 87504-1148

8. El Paso Natural Gas Company
   Ad Valorem Tax Department
   PO Box 1087
   Colorado Springs CO 80944

NOTE: See map for location of surface owners

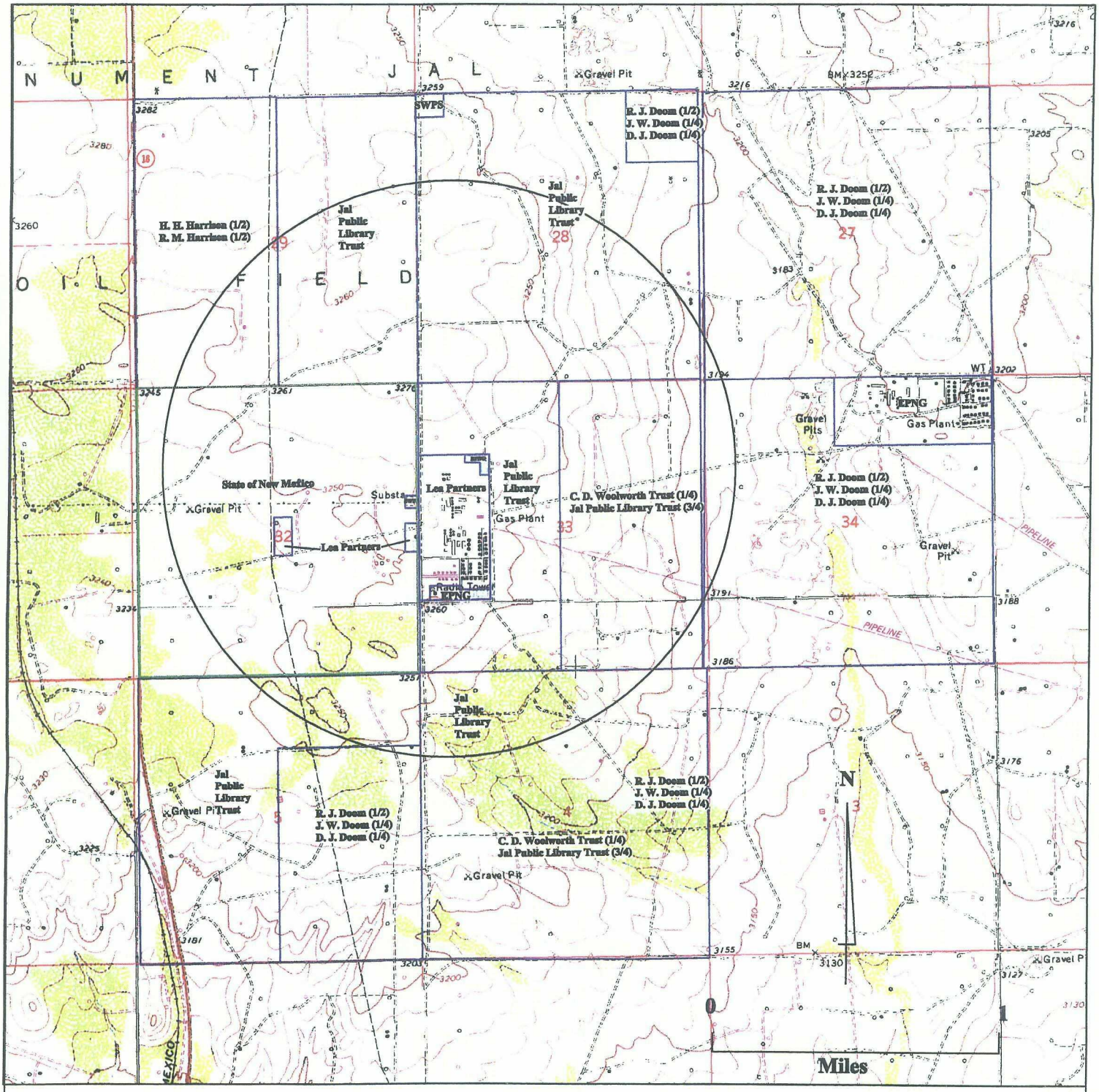

Figure D-1:
Approximate Locations of Surface Land Owners Within One Mile of Proposed SUGS AGI Well

7006 0810 0001 2811 7682

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JAL NM 88252 OFFICIAL USE

Postage	$ $4.90	0129
Certified Fee	$2.65	05 Postmark Here
Return Receipt Fee (Endorsement Required)	$2.15	
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $9.70	12/18/2007

Sent To: Doom
Street, Apt. No.; or PO Box No.: 47 Doom Lane
City, State, ZIP+4: Jal Nm 88252-9711

PS Form 3800, June 2002 See Reverse for Instructions

7006 0810 0001 2811 7712

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Restricted Delivery Fee (Endorsement Required)	$0.00	
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Sent To: Jal Public Library Trust
Street, Apt. No.; or PO Box No.: PO Box 178
City, State, ZIP+4: Jal Nm 88252

PS Form 3800, June 2002 See Reverse for Instructions

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DENVER CO 80201 OFFICIAL USE

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Return Receipt Fee (Endorsement Required)	$2.15	
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $10.10	12/18/2007

Sent To: SW Pub. Service Co; Property Tax Dept.
Street, Apt. No.; or PO Box No.: PO Box 840
City, State, ZIP+4: Denver CO 80201-0840

PS Form 3800, June 2002 See Reverse for Instructions

7006 0810 0001 2811 7729

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Postage	$ $4.90	0129
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Return Receipt Fee (Endorsement Required)	$2.15	
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $9.70	12/18/2007

Sent To: C.D. Woolworth Trust
Street, Apt. No.; or PO Box No.: Jal Public Library Trust PO Box 178
City, State, ZIP+4: Jal NM 88252

PS Form 3800, June 2002 See Reverse for Instructions

7006 0810 0001 2811 7743

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TYLER TX 75701 OFFICIAL USE

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Certified Fee	$2.65	05 Postmark Here
Return Receipt Fee (Endorsement Required)	$2.15	
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $11.00	12/18/2007

Sent To: Harrison, Henry & Ronell
Street, Apt. No.; or PO Box No.: 1120 Wilma
City, State, ZIP+4: Tyler TX 75701

PS Form 3800, June 2002 See Reverse for Instructions

7006 0810 0001 2811 7750

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

HOUSTON TX 77210 OFFICIAL USE

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Return Receipt Fee (Endorsement Required)	$2.15	
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $11.00	12/18/2007

Sent To: Lea Partners LP Fin Co
Street, Apt. No.; or PO Box No.: PO Box 4967
City, State, ZIP+4: Houston TX 77210-4967

PS Form 3800, June 2002 See Reverse for Instructions

7006 0810 0001 2811 7774

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COLORADO SPRINGS CO 80944

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Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
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Sent To: El Paso Natural Gas Co
Street, Apt. No.; or PO Box No.: Ad Valorem Tax Dept. PO Box 1087
City, State, ZIP+4: Colorado Springs CO 80944

PS Form 3800, June 2002 — See Reverse for Instructions

7006 0810 0001 2811 7767

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SANTA FE NM 87504

Postage	$ $4.60	0129
Certified Fee	$2.65	05
Return Receipt Fee (Endorsement Required)	$2.15	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $9.40	12/18/2007

Sent To: NM State Lands; State of NM
Street, Apt. No.; or PO Box No.: PO Box 1148
City, State, ZIP+4: Santa Fe NM 87504-1148

PS Form 3800, June 2002 — See Reverse for Instructions

GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Rebecca Joan Doom
Jerold W. Doom
Daniel J. Doom
47 Doom Lane
Jal NM 88252-9711

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Sincerely,
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Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

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GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Jal Public Library Trust
PO Box 178
Jal NM 88252

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AAG/lh

Enclosures

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INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

C.D. Woolworth Trust
Jal Public Library Fund.
PO Box 178
Jal NM 88252

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phone: 505-842-8000
fax: 505-842-7380

500 Marquette Avenue NW, Suite 1350
Albuquerque, New Mexico 87102

email: aag@geolex.com
web: www.geolex.com

GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

Henry H. Harrison, Jr.
Ronald M. Harrison
1120 Wilma
Tyler TX 75701

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Parties appearing in cases are required by Division Rule 1208.B to file a Pre-Hearing Statement with the Oil Conservation Division's Santa Fe office, four days in advance of a scheduled hearing, but at least on the Thursday preceding the hearing. This statement must include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

If you have questions concerning this application, you may contact Mr. Alberto Gutierrez at (505) 842-8000 or 500 Marquette Avenue NW, Suite 1350, Albuquerque, New Mexico, 87102.

Sincerely,
Geolex, Inc.

Alberto A. Gutiérrez, C.P.G.
Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

New Mexico State Lands
State of New Mexico
PO Box 1148
Santa Fe NM 87504-1148

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: **APPLICATION OF SOUTHERN UNION GAS SERVICES, LTD. FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO**

Ladies and Gentlemen:

This letter is to advise you that Southern Union Gas Services, Ltd., (SUGS) has filed the enclosed application with the New Mexico Oil Conservation Division (NMOCD) seeking authorization to inject up to 7929 barrels per day of produced water and acid gas, from the Jal #3 Gas Plant, at a maximum pressure of 986 psi into the San Andres Formation between approximately 4350 and 5200 feet. SUGS' proposed Jal Plant AGI Well #1 will be drilled approximately 1570 feet from the North line and 1050 feet from the West line of Section 33, Township 24S, Range 37E, NMPM, Lea County, New Mexico, and will replace the existing Class II injection well currently permitted at the Plant.

The proposed well will be located within the Jal #3 Gas Plant, approximately 3½ miles north of Jal, New Mexico.

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Enclosures

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phone: 505-842-8000
fax: 505-842-7380

500 Marquette Avenue NW, Suite 1350
Albuquerque, New Mexico 87102

email: aag@geolex.com
web: www.geolex.com

GEOLEX®
INCORPORATED

Alberto A. Gutiérrez, C.P.G.

December 18, 2007

El Paso Natural Gas Company
Ad Valorem Tax Department
PO Box 1087
Colorado Springs CO 80944

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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Geolex, Inc.

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Consultant to Southern Union Gas Services, Ltd.

AAG/lh

Enclosures

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APPENDIX E

DRAFT REVISED RULE 118 PLAN FOR JAL #3 AND AGI

Southern Union Gas Services

DRAFT

H_2S Contingency Plan

Acid Gas Injection Facility
Jal #3 Gas Plant

Jal, New Mexico

December 2007

SOUTHERN UNION GAS SERVICES, LTD.
DRAFT H_2S Contingency Plan
JAL #3 PLANT AGI WELL

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Southern Union Gas Services

Southern Union Gas Services, Ltd.
Acid Gas Injection Facility
Jal #3 Gas Plant
Hydrogen Sulfide (H_2S) Contingency Plan
DRAFT PLAN

I. INTRODUCTION

Southern Union Gas Services, Ltd. (SUGS) conducts its business responsibly by providing employees and any other person working or visiting, a safe work place. The Jal #3 Gas Plant Hydrogen Sulfide Contingency Plan for acid gas injection (AGI) was developed to satisfy the Oil Conservation Division Rule 118; and paragraph 7.6 of the guidelines published by the API in its publication entitled "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide," RP-55.

This plan provides guidelines to assist in responding to and managing an emergency in the event of an H_2S release from a pipeline or facility. The goals of this plan are to provide tools to enable an efficient, coordinated and effective response to emergencies. This plan contains written guidelines to evaluate and respond to an incident, and to prevent or minimize personal injury or loss, to avoid environmental hazards, and to reduce damage to property.

II. DEFINITIONS USED IN THIS PLAN

ANSI	The acronym "ANSI" means the American National Standards Institute.
API	The acronym "API" means the American Petroleum Institute.
Area of Exposure (AOE)	The phrase "area of exposure" means the area within a circle constructed with a point of escape at its center and the radius of exposure as its radius.
ASTM	The acronym "ASTM" means the American Society for Testing and Materials.
Dispersion Technique	A "dispersion technique" is a mathematical representation of the physical and chemical transportation characteristics, dilution characteristics and transformation characteristics of hydrogen sulfide gas in the atmosphere.
Division	The "division" return to the N.M. Oil Conservation Division.
Escape Rate	The "escape rate" is the maximum volume (Q) that is used to designate the possible rate of escape of a gaseous mixture containing hydrogen sulfide, as set forth herein. (a) For existing gas facilities or operations, the escape rate shall be calculated using the maximum daily rate of the gaseous mixture produced or handled or the best estimate thereof. For an existing gas well, the escape rate shall be calculated using the current daily absolute open flow rate against atmospheric pressure or the best estimate of that rate. (b) For new gas operations or facilities, the escape rate shall be calculated as the maximum anticipated flow rate through the system. For a new gas well, the escape rate shall be calculated using the maximum open flow rate of offset wells in the pool or reservoir, or the pool or reservoir average of maximum open flow rates. (c) For facilities or operations not mentioned, the escape rate shall be calculated using the actual flow of the gaseous mixture through the system or the best estimate thereof.
GPA	The acronym "GPA" means the Gas Processors Association.
LEPC	The acronym "LEPC" means the Local Emergency Planning Committee established pursuant to the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. Section 11001.
NACE	The acronym "NACE" means the National Association of Corrosion Engineers.
PPM	The acronym "ppm" means "parts per million" by volume.
PHV	Potentially Hazardous Volume means the volume of hydrogen sulfide gas of such concentration that: (a) the 100-ppm radius of exposure includes any public area; (b) the 500-ppm radius of exposure includes any public road; or (c) the 100-ppm radius of exposure exceeds 3,000 feet.
Public Area	A "public area" is any building or structure that is not associated with the well, facility or operation for which the radius of exposure is being calculated and that is used as a dwelling, office, place of business, church, school, hospital, or government building, or any portion of a park, city, town, village or designated school bus stop or other similar area where members of the public may reasonably be expected to be present.
Public Road	A "public road" is any federal, state, municipal or county road or highway.

Radius of Exposure (ROE)

The radius of exposure is that radius constructed with the point of escape as its starting point and its length calculated using the following Pasquill-Gifford derived equation, or by such other method as may be approved by the division:

(a) For determining the 100-ppm radius of exposure: $X= [(1.589)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$, where "X" is the radius of exposure in feet, the "hydrogen sulfide concentration" is the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture, and "Q" is the escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psia and 60 degrees F).

(b) For determining the 500-ppm radius of exposure: $X=[(0.4546)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$, where "X" is the radius of exposure in feet, the "hydrogen sulfide concentration" is the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture, and "Q" is the escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psia and 60 degrees F).

Regulatory Threshold

(1) Determination of Hydrogen Sulfide Concentration.

(a) Each person, operator or facility shall determine the hydrogen sulfide concentration in the gaseous mixture within each of its wells, facilities or operations either by testing (using a sample from each well, facility or operation), testing a representative sample, or using process knowledge in lieu of testing. If a representative sample or process knowledge is used, the concentration derived from the representative sample or process knowledge must be reasonably representative of the hydrogen sulfide concentration within the well, facility or operation.

(b) The tests used to make the determination referred to in the previous subparagraph shall be conducted in accordance with applicable ASTM or GPA standards or by another method approved by the division.

(c) If a test was conducted prior to the effective date of this section that otherwise meets the requirements of the previous subparagraphs, new testing shall not be required.

(d) If any change or alteration may materially increase the concentration of hydrogen sulfide in a well, facility or operation, a new determination shall be required in accordance with this section.

(2) Concentrations Determined to be Below 100 ppm. If the concentration of hydrogen sulfide in a given well, facility or operation is less than 100 ppm, no further actions shall be required pursuant to this section.

(3) Concentrations Determined to be Above 100 ppm.

(a) If the concentration of hydrogen sulfide in a given well, facility or operation is determined to be 100 ppm or greater, then the person, operator or facility must calculate the radius of exposure and comply with applicable requirements of this section.

(b) If calculation of the radius of exposure reveals that a potentially hazardous volume is present, the results of the determination of the hydrogen sulfide concentration and the calculation of the radius of exposure shall be provided to the division. For a well, facility or operation existing on the effective date of this section, the determination, calculation and submission required herein shall be accomplished within 180 days of the effective date of this section; for any well, facility or operation that commences operations after the effective date of this section, the determination, calculation and submission required herein shall be accomplished before operations begin.

(4) Recalculation. The person, operator or facility shall calculate the radius of exposure if the hydrogen sulfide concentration in a well, facility or operation increases to 100 ppm or greater. The person, operator or facility shall also recalculate the radius of exposure if the actual volume fraction of hydrogen sulfide increases by a factor of twenty-five percent in a well, facility or operation that previously had a hydrogen sulfide concentration of 100 ppm or greater. If calculation or recalculation of the radius of exposure reveals that a potentially hazardous volume is present, the results shall be provided to the division within sixty (60) days.

III. CHARACTERISTICS OF HYDROGEN SULFIDE (H_2S) AND SULFUR DIOXIDE (SO_2)

Hazards of Hydrogen Sulfide

At normal atmospheric conditions, hydrogen sulfide (H_2S) is a colorless gas. It is commonly referred to by other names such as Rotten Egg Gas, Acid Gas, Sour Gas, Sewer Gas, Poison Gas and Sulfur Gas. It has a characteristic "rotten egg" smell at low concentrations. At higher concentrations, it has a sweet odor. At still higher concentrations, an odor cannot be detected at all due to olfactory nerve anesthesia. Odor must *not* be used as means of determining the concentration of H_2S gas! Hydrogen sulfide can form explosive mixtures at concentrations between 4.3% and 46%, by volume. Its auto-ignition temperature is 500 degrees F (260 degrees C). When burning, its flame is practically invisible. It is denser than air (1.19 times heavier than air) and may accumulate in low places. Hydrogen sulfide gas tends to interact with high carbon steel, causing embitterment and fine fractures in metal components and piping.

H_2S acts as a chemical asphyxiate, preventing the body from utilizing oxygen in the tissue. Breathing may stop after a few seconds of exposure to H_2S gas in concentrations of 600-700 ppm. This produces symptoms such as panting, pallor, cramps, dilation of eye pupils and loss of speech. This is generally followed by immediate loss of consciousness. Death may occur quickly from respiratory paralysis and cardiac arrest. The table below illustrates the physical effects of hydrogen sulfide on a healthy adult.

Table 1 Effect of exposure to Hydrogen Sulfide Gas on a Healthy Adult

Concentration			Physical Effects
percent (%)	ppm	grains per ft^3	
0.001	10	0.65	Obvious and unpleasant odor. Safe for 8 hours exposure.
0.01	100	6.48	Kills smell in 3 to 15 minutes; may sting eyes and throat.
0.02	200	12.96	Kills smell shortly; stings eyes and throat.
0.05	500	32.96	Dizziness; breathing ceases in a few minutes; artificial respiration / oxygen must be given promptly.
0.07	**700**	45.36	**Unconscious quickly; death will result if not rescued promptly.**
0.10	**1000**	64.80	**Unconscious at once; followed by death within minutes.**

Properties of H_2S

COLOR	Colorless.
ODOR	Very offensive, commonly referred to as the odor of rotten eggs.
VAPOR DENSITY	1.189 (Air=1.0) H_2S is heavier than air.
BOILING POINT	-76 degrees F (-24 degrees C).
EXPLOSIVE LIMITS	4.3 to 46% by volume in air.
IGNITION TEMPERATURE	500 degrees F (260 degrees C).
WATER SOLUBLE	Yes (4 volumes gas in 1 volume water at 32 degrees F (0 degrees C).
FLAMMABILITY CORROSIVE	Forms explosive mixtures with air or oxygen.

Toxicity Table – H_2S

1 ppm = .0001% (1/10,000 of 1%)	Can smell (rotten egg odor).
10 ppm = .001% (1/1000 OF 1%)	Allowable for 8 hours exposure. (PEL & TLV)
100 ppm = .01% (1/100 of 1%)	Kills smell in 3-15 minutes. May burn eyes and throat. Considered to be IDLH atmosphere (Immediately Dangerous to Life and Health).
200 ppm = .03% (2/100 of 1%)	Kills smell rapidly. Burns eyes and throat.
500 ppm = .05% (5/100 of 1%)	Loses sense of reasoning and balance. Respiratory disturbances in 2-15 minutes. Needs prompt artificial resuscitation.
700 ppm = .07% (7/100 of 1%)	Will become unconscious quickly. Breathing will stop and death will result if not rescued promptly. Immediate artificial resuscitation is required.
1000 ppm = .1% (1/10 OF 1%)	Unconscious at once. PERMANENT BRAIN DAMAGE MAY RESULT UNLESS RESCUED PROMPTLY.
	ppm=parts of gas per million parts of air by volume. 1% = 10,000 ppm.

Properties of Sulfur Dioxide SO_2

Sulfur Dioxide - SO_2	Physical and Chemical Properties
Chemical Formula	SO_2
Molecular Weight	64
Boiling Point	14 degrees Fahrenheit
Non-Combustible	Produced by burning of H_2S Gas
Vapor Pressure	>1 atm @ 68 degrees Fahrenheit
Melting Point	-104 degrees Fahrenheit
Specific Gravity	Heavier than air, 2.26 degrees gravity
Colorless gas	SO_2 is colorless gas, very irritating to the eyes and lungs
Odor	Pungent odor and can cause injury or death to persons exposed to it
Reactions	Reacts with water or steam to produce toxic and corrosive gases
Hazards of Sulfur Dioxide	
Toxicity	The physiological effects on humans when inhalation of SO_2 occurs, varies at different levels of concentration and may be as follows
Concentrations SO_2	Physiological Effects SO_2
0.3-1 ppm	Detection level – pungent odor
2 ppm	Threshold Limit Value (TLV) Time Weighted Average (TWA)
5 ppm	15 minute Short Term Exposure Limit (STEL) permitted by OSHA
6 – 12 ppm	Irritation of the throat and nose
20 ppm	Eye irritation
100 ppm	Immediately Dangerous to Life or Health (IDLH) set by NIOSH

IV. EMERGENCY RESPONSE POLICY AND AUTHORITY

It is the policy of SUGS to take the necessary actions required to safeguard SUGS personnel and the public from emergency incidents. Such emergency incidents may include fires, hazardous materials releases, and incidents resulting from natural hazards such as tornadoes.

In the event of an emergency incident, SUGS personnel will take prompt action within their immediate work area to ensure that all appropriate SUGS personnel, corporate personnel, and the public are alerted or notified that an emergency incident exists.

Whenever possible, SUGS personnel will take immediate action to limit the effects of the emergency. Four objectives will be considered when developing an appropriate emergency response. These objectives are:

- Life safety.
- Environmental protection.
- Protection of company and public property.
- Preventing interruption of business and public services such as highway access, water, and utilities.

While all four of the above objectives are important, life safety will always remain the first and highest priority.

All SUGS personnel have the responsibility, if necessary, to immediately alert other SUGS personnel that an emergency condition exists and to take appropriate action to protect life, property, and the environment. All emergency response actions by SUGS personnel are voluntary. Emergency response actions taken by individuals should be within the limitations of their training, experience, and physical abilities. At no time will Jal #3 Gas Plant personnel assume an unreasonable risk during an emergency response. An unreasonable risk exists when:

- The task exceeds the physical abilities of the individual.
- The individual is not properly trained to complete the task.
- The individual does not have adequate experience to complete the task.

V. RESPONSE PROCEDURES FOR UNINTENTIONAL (ACCIDENTAL) RELEASES

If an H_2S leak is detected as a result of an accidental release, the following emergency plan of action should be put into effect to adequately ensure the safety of SUGS employees, contractors and the public. These response sequences should be altered to fit the prevailing situation and event/site-specific requirements.

1. Upon detecting a leak, immediately move away from the source and attempt to get out of the affected area by moving upwind, or cross wind if travel upwind is not possible.

2. Alert other personnel in the area. Assist personnel in distress if this can be done without endangering yourself. Proceed to the designated emergency assembly area.

3. If injury or death has occurred, immediately call emergency services (911).

4. If possible, take immediate measures to control present or potential discharge and to eliminate possible ignition sources.

5. Notify the supervisory foreman. Upon arriving at the scene, the supervisor should formally assume the role of the Incident Commander (IC). Until relieved by the supervisor, the senior employee having initially discovered the leak should fill the role of IC.

6. The IC will assess the situation and direct further actions to be taken. If assistance is required from law enforcement, safety or medical agencies, consult the emergency services telephone listing under Section XIII. The Division Operations Vice-President or his designee should also be notified.

7. If the IC deems it necessary, ensure that steps are taken to stop traffic through the area, most importantly, highway traffic. Roadblocks must be set up at the 10-ppm H_2S boundary. The H_2S boundary shall be delineated by using a calibrated H_2S monitor. Call emergency services (911) for assistance in quarantining the area, if needed. Refer to maps in Section XVII for highway and pipeline locations.

8. Initiate evacuation of employees or any nearby residents, if deemed necessary. Coordinate with emergency services.

9. Personnel equipped with self-contained breathing apparatus (SCBA) and portable H_2S monitoring equipment will determine the cause and extent of the leak. Personnel should enter the area from upwind of the site. If a reading of 10 ppm or higher of H_2S is obtained, then backup personnel equipped with SCBA will also be required.

10. No one will be intentionally exposed to H_2S concentrations in excess of 10 ppm without proper Personal Protection Equipment (PPE), IC authorization and backup personnel.

11. If possible, de-energize all sources of ignition, using lockout/tagout procedures.

12. If possible, perform shutdown on appropriate equipment and systems.

13. Trained personnel will continuously monitor H_2S concentrations, wind direction and area of exposure and will advise public safety and emergency personnel on current conditions.

14. Protective measures shall be maintained until the threat of injury from H_2S poisoning has been eliminated. The area must be checked with monitoring equipment and cleared below 10 ppm before allowing entry without proper PPE.

15. Notify the Division Health & Safety Manager. See Section XIII Assistance will be provided to ensure all proper notifications and reporting requirements are made to local, state and federal agencies.

16. As soon as possible, **but no more than one hour after plan activation,** notify the New Mexico Oil Conservation Division – Lea County (See Section XIII). At a minimum, the following information will be needed:

    - The company name.
    - Facility name.
    - Your name and telephone number for them to contact you.
    - The location and source of the discharge.
    - A description of the area affected by the discharge, the probable concentration of H_2S in the region and the wind direction/velocity.
    - If necessary, request additional assistance from the agency.

VI. EMERGENCY INCIDENT MANAGEMENT

Emergency incident management will follow the Incident Command System (ICS) as described by the Federal Emergency Management Act (FEMA). The intent of using ICS for all emergency incidents provides automatic continuity with outside agencies and assists in establishing a "unified command" of the incident. SUGS provides instruction and training on the ICS, which is beyond the scope of this contingency plan. However a brief overview of the system is provided below.

The Incident Command System (ICS) utilizes a flexible, modular approach to organizing resources to effectively respond to emergency events. FEMA suggests that the basic Incident Command System has five functional areas:

- Command;
- Operations;
- Planning;
- Logistics; and,
- Finance.

However, for incidents such as those described in this plan, it seems more likely that the basic Incident Command System would be comprised of: 1) Command; 2) Operations Chief; and, 3) Safety Officer. Larger incidents may require additional positions such as Public Information Officer, Logistics Chief, Planning Chief, Finance Chief, Staging Manager, Medical Group Supervisor and Environmental Group Supervisor. The exact number and combination of positions will vary depending upon the type, size and duration of the incident.

In every incident, command must first be established. The first person to discover the problem is, by default, the Incident Commander (IC) until this responsibility is transferred to someone else. This responsibility should be formally transferred to the Facility/Field Supervisor as soon as practical. Who is acting as the IC should be clear and apparent at all times.

The Incident Commander (IC) is responsible for the overall management of the incident. Where the IC does not delegate or assign a position, the IC retains that responsibility. The IC should be careful to have no more than 5 to 8 people reporting directly to him. The IC establishes the strategy and goals for the incident and is ultimately responsible for the safety and success of the response activities.

An Operations Chief (OPS) is responsible for implementing the strategy to accomplish the goals defined by the IC. OPS directs all tactical operations, oversees response personnel and may assist the IC in the development of the action plan.

The Safety Officer is assigned by and reports directly to the IC. This position is responsible for identifying hazardous or unsafe situations, and developing measures necessary to assure the safety of response personnel and any victims of the incident. He/she should ensure that any personnel responding to the incident are using the proper PPE and have adequate training. The Safety Officer has the authority and responsibility to terminate or suspend operations that is believed to be unsafe or will place people in imminent danger.

VII. PERSONNEL VEHICLES AND EQUIPMENT

Plant personnel are equipped with personal H_2S monitors and portable gas detection devices.

The plant has a fully equipped mobile breathing air system with work units. Also, there are self contained breathing apparatus (SCBA's) located strategically throughout the facility.

An Emergency Response Kit and Road Block Kits are located at the egress stations for easy access if the facility is evacuated.

Personnel have cellular phones for communication, as well as two-way radios for inter-company communication.

All SUGS personnel are equipped with personal H_2S monitors and portable gas detection devices are available.

Communications to SUGS field personnel is via mobile cellular telephones or two-way radios.

Each SUGS field truck is also equipped with a fire extinguisher in order to enable assistance as needed.

Company vehicles are equipped with two-way radios, roadblock kits and mobile phones.

VIII. EVACUATION PROCEDURE

Evacuation may become necessary to protect personnel and the public from hazards associated with an incident. Orderly evacuation is essential to protect the general public as well as SUGS personnel and property.

SUGS personnel have reviewed the affected area for this plan and have determined the safe evacuation routes and assembly areas to reduce confusion if evacuation becomes necessary. The SUGS Facility Operator may assign employees to direct evacuation and account for personnel during emergencies. (See Section XIV for evacuation routes).

Designated Assembly Areas shall be at a safe distance from the incident in an appropriate direction (upwind, upstream, and upgrade). If the Assembly Areas do not provide adequate shelter, transportation to a central shelter should be arranged after all personnel are accounted for. As the incident progresses, the IC must continuously evaluate the adequacy of the assembly area and necessity of the shelter.

SUGS personnel evacuating their work areas should evacuate the facility and initiate the plant ESD system, and proceed to the Designated Assembly Area. Facility personnel will account for all personnel, ensure the evacuated area is secured and report the status of the evacuation to the IC. Evacuated personnel shall remain at the assembly area or shelter until directed otherwise by the IC.

- Local law enforcement and/or emergency management authority must be notified in conjunction with any community evacuation or public protective measures initiated.
- Emergency Response Plan initiated.
- Assess the scene; protect yourself.
- Summon EMS to the scene; provide information on the nature and number of injuries.
- If trained, provide First Aid/CPR as necessary, until EMS arrives at the scene; injured personnel should not be moved unless the situation is life threatening.
- Evacuate unnecessary personnel from the area.
- Establish a secure perimeter around the area to prevent unauthorized entry.
- Initiate the site security plan.
- Notify Facility Supervisor and make appropriate notifications to local Fire and EMS.
- Make other internal management contact as appropriate.

In case of a fatality:

- Do not move the victim.
- Do not release name of victim(s).
- Contact local law enforcement.
- Contact local medical examiner.
- Preserve the accident site.
- Restrict all unauthorized communications concerning the incident.

Make appropriate government agency notification and conduct post-incident activities.

IX. COORDINATION WITH STATE EMERGENCY PLANS

The Hydrogen Sulfide Contingency Plan as described will be coordinated with the New Mexico Oil Conservation Division (NMOCD) and with the New Mexico State Police consistent with the New Mexico Hazardous Materials Emergency Response Plan (HMER). A copy of this plan will be submitted to the New Mexico State Police and Local Emergency Planning Committee for Lea County.

LEPC
505-396-8521

NEW MEXICO STATE POLICE
505-392-5588

LEA COUNTY SHERIFF'S OFFICE
505-396-3611

STATE EMERGENCY RESPONSE COMMISSION (SERC)
(505) 393-6161

NEW MEXICO OFFICE OF EMERGENCY MANAGEMENT
(505) 476-9600

X. NOTIFICATION OF THE OIL CONSERVATION DIVISION

The person, operator or facility shall notify the New Mexico Oil Conservation Division (NMOCD) upon a release of hydrogen sulfide requiring activation of the Hydrogen Sulfide Contingency Plan as soon as possible, but no more than one hour after plan activation, recognizing that a prompt response should supercede notification. The person, operator or facility shall submit a full report of the incident to the NMOCD on Form C-141 no later than fifteen (15) days following the release.

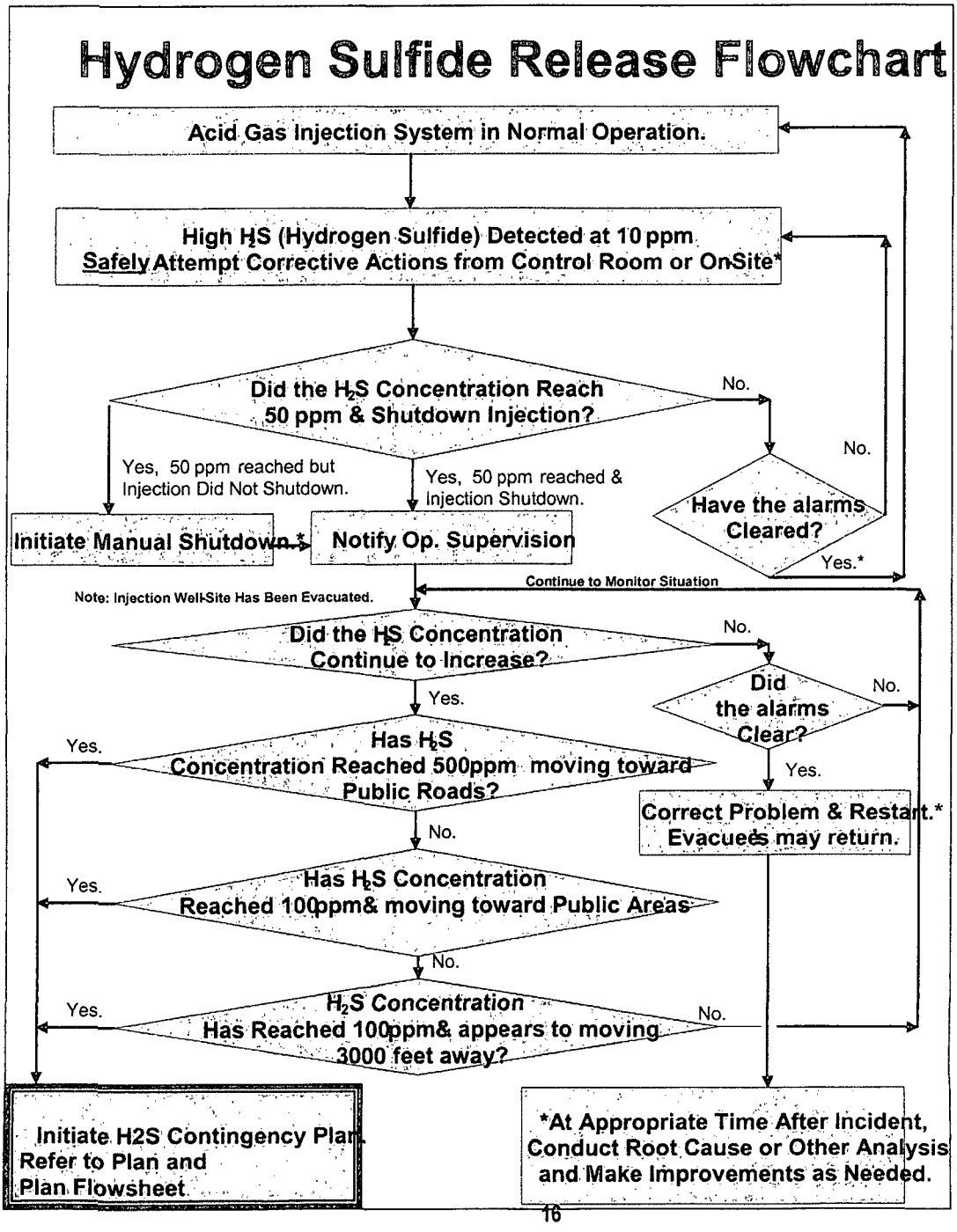
OIL CONSERVATION DIVISION
LEA COUNTY

505-393-6161

XI. PLAN ACTIVATION

The Hydrogen Sulfide Contingency Plan shall be activated when the Incident Commander (IC) believes that a release creates a concentration of hydrogen sulfide that exceeds or is likely to exceed the following activation levels:

- 100 ppm in any defined public area;
- *500 ppm at any public road; or*
- 100 ppm at a distance greater than 3000 feet from the site of the release.



XII. TRAINING AND DRILLS

Training for all affected SUGS personnel will be conducted prior to completion of the project and introduction of product. Training will then be given as needed for any personnel who may later be affected by this project.

This training will include:

- Training on the responsibilities and duties of essential SUGS personnel.
- On-site or classroom tabletop drills which simulate a release or other situation affecting the facility.
- Annual H_2S Hazard Training.

Initial training is to take place upon employment with the company and refresher training is to be conducted annually – or sooner if there is a change in the plan or the need for training is determined.

All training will be documented and training records will be maintained on file at the Monahans EHS office.

All drills will be evaluated and documented including any recommendations resulting from findings. Recommendations will be assigned to SUGS personnel for completion by an established date. Upon completion, the action plan will be documented and records will be filed at the Jal #3 Gas Plant.

Only trained and certified personnel from responding agencies will participate in any rescue exercise.

The Hydrogen Sulfide Contingency Plan will also provide for training of noted residents in this plan as appropriate on the proper protective measures to be taken in the event of a release, and shall provide for briefing of public officials on issues such as evacuation or shelter-in-place plans. Literature will be passed out to the noted residents with emergency numbers to be utilized in the event of an incident associated with this facility or any SUGS equipment and/or piping.

XIII. EMERGENCY SUGS CONTACT PHONE NUMBERS

Use the following phone number in the event of a catastrophic release and/or emergency situation at the Jal #3 Acid Gas Injection facility.

Telephone Numbers of SUGS Personnel

24 HOUR TELEPHONE NUMBER 800-435-1679

Then Call:

JAL #3 PLANT		(505) 395-2068	
NAME	TITLE	HOME	CELLULAR
Dwight Bennett	Plant Manager	(505) 395-2471	(505) 390-6033
I. A. Olivas	Operations Supervisor	(505) 395-2445	(505) 390-6034
Bobby Tuck	Technical Supervisor	(432) 586-6144	(505) 631-7741
Clarence Rasco	Maintenance Foreman	(432) 523-7116	(505) 390-6032

FORT WORTH		(817) 302-9400		
NAME	TITLE	OFFICE	HOME	CELLULAR
BruceWilliams	VP Gas Operations	(817) 302-9421	(817) 441-9613	(817) 946-0761
Bob Milam	VP Engineering	(817) 302-9408		(432) 661-5958
Herb Harless	Dir. EH&S	(817) 302-9425	(817) 885-8779	(817) 692-9374
Robert Gawlik	Mgr. EH&S	(817) 302-9426	(817) 448-9880	(817) 692-9366

West Texas Area Safety				
NAME	TITLE	OFFICE	HOME	CELLULAR
John Crossman	Regulatory Comp.	(432) 943-1115	(432) 943-7482	(432) 940-5074
Rose Slade	EHS Coordinator	(432) 943-1116	(432) 943-7714	(432) 940-5147
Tony Savoie	Envir. Supervisor	(505) 395-2116	(505) 395-3336	(505) 631-9376
Jim Payne	EHS Coordinator	(432) 943-1155	(432) 586-3501	(432) 940-5123
Mike Magee	PSM Coordinator	(432) 943-1160		(432) 208-0753

WEST TEXAS AREA OFFICE - MIDLAND		(432) 570-6031		
NAME	TITLE	OFFICE	HOME	CELLULAR
Curtis Clark	Mgr Engineering	(432) 571-4926	(432) 520-5333	(432) 553-8129
Ross Boyd	Asset Op. Engr.	(432) 571-4927	(432) 687-5717	(432) 553-7280
Bill Webb	Mgr. Plant Op.	(432) 571-4939	(432) 684-4430	(432) 770-4204
Mary Valencia	Environmental Sup	(432-571-4925	(432) 687-1464	(432) 940-1939

Remember – Our FOUR Objectives in an Emergency Are:

1. Life Safety.
2. Environmental Protection.
3. Protection of Company and Public Property.
4. Preventing interruption of business and public services such as Highway Access, Water & Utilities.

Life Safety Will Always Remain the First and Highest Priority!

In case of an emergency at the Jal #3 Gas Plant requiring assistance for fire, ambulance, medical authorities or HazMat issues – immediately call:

911

Responder Emergency Numbers:

Facility		Jal, New Mexico
Fire Department		911 or 505-395-2221
Medical Facility		505-395-2221
State Police		505-392-5588
Sheriff Department		505-395-2121
LEPC		505-396-8521

Telephone Numbers of Public Agencies

Oil Conservation Division – Lea County	505-393-6161
State Emergency Response Commission (SERC)	505-393-6161
New Mexico Office of Emergency Management	505-476-9600
Bureau of Land Management - Hobbs	505-392-8736

Telephone Numbers of Emergency Resources

Organization	Phone Number
Spill – Cleanup Contractors	
Contact Tony Savoie – SUGS	505-631-9376
Ocotillo Environmental – Hobbs NM	505-393-6371
Ecological Environmental – Midland TX	800-375-0100
GET #'S FROM JAL 3 DP	
Heavy Equipment Contractors	
Merryman Construction – Jal NM	505-395-2592
B&H Construction – Eunice NM	505-394-2588
Transportation Services	
FULCO – Jal NM	505-395-2650
Riverside Transportation – Jal NM	505-395-3504
Other	

XIV. DETAIL INFORMATION - POTENTIALLY HAZARDOUS AREAS

Jal #3 Gas Plant and Jal #3 AGI #1

DRIVING DIRECTIONS:
From Hobbs: Take Highway 18 South towards Jal 35 miles to Sid Richardson Road, turn east and go 1 mile to entrance to Jal #3 plant
Location: Section 33 T 24 S, R 37 E, Lea County, NM
Latitude: 32.1738 N
Longitude: 103.1740 W

EVACUATION ROUTE:

At all times note the wind direction before evacuating procedures begin. The primary evacuation assembly area will be the south west entrance to the plant off of Sid Richardson Road.

Evacuation for all persons inside of the AGI Facility fences would be west to the west side dirt road and then south to the plant entrance (wind conditions permitting) group assembly area #1 to account for all employees including any visitors. Visitor sign in sheet shall be used to account for all visitors.

ROAD BLOCKS:

In emergencies involving a large acid gas pipeline leak near the Jal #3 Gas Plant, US Highway 18 will be blocked at approximately one mile north and south of the plant.

COMMAND POST:

The Command Post will be established at one of the roadblock locations. The site will be dependent of the wind direction.

The Incident Commander, after arriving at the scene, has the authority to assess the situation and determine the severity level of the incident. The Incident Commander may determine that the Contingency Plan as written cannot be activated effectively. The Emergency Response Plan may then be activated depending on the Incident Commander's evaluation of the situation.

PUBLIC RECEPTORS LOCATED INSIDE RADIUS OF EXPOSURE (ROE):

There are no public receptors located within either the 500ppm or the 100ppm radii of exposure. The radii as calculated in Attachment 2 and shown in Attachments 4a and 4b are contained within the plant or adjacent unoccupied land.

XV. SUGS PUBLIC AWARENESS PROGRAM

SUGS participates in an extensive annual Public Awareness Program and Damage Prevention Program.

SUGS installs pipeline markers and signs at all facilities and road crossings to identify our underground pipelines and maintains these markers on an annual schedule.

XVI. EMERGENCY SHUTDOWN EQUIPMENT

SUGS has an installed automatic and manually activated emergency shutdown system (ESD) at the Acid Gas Injection Facility at the Jal #3 Gas Plant. The plant operator and/or Incident Commander (IC) may use these systems to shutdown and isolate the equipment in the facility. This is a fail safe system that will shut valves and equipment if any portion of the system fails. The Acid Gas Injection system will be normally controlled from the Jal #3 Plant Control Room and shutdown of equipment and ESD valves at the well-site may be accomplished from this system as well as at the well-site.

When activated the ESD shuts an automatic valve on the inlet acid gas feed stream, shuts an automatic valve on the compressed acid gas to the acid gas injection well, and sends a signal to the wellhead panel to shut down automatic valves on the wellhead. The major equipment is shutdown. The specific major equipment items at injection well site that are shutdown in an ESD include the acid gas compressors and associated coolers and pumps. The fuel gas, which is used for flare fuel and purge gas is left on-line; however an automatic valve is provided in this line at the well-site that can be actuated separately in the control system to close this valve.

In the wellhead control panel there is a separate shutdown for the subsurface safety valve (SSSV). The SSSV can be closed if required. The SSSV will close automatically upon detection of high pressure in the wellhead piping. The SSSV will shut if there is a fault in the wellhead control panel.

In addition to these systems the well-site facility contains portable fire extinguishers that may be used in an emergency. The well-site facility also has air packs used for escape or rescue located throughout the facility at key locations. The facility also has a breathing air system at the compressor units consisting of air bottles, tubing, and a manifold to connect 5 minute air packs. These are primarily used when performing maintenance work on the compressor units; however, they can also be used during an emergency if required. Refer to the "Emergency Equipment Location Plan" (See Attachment #5) for the location of this equipment.

SUGS has also installed hydrogen sulfide detectors throughout the Well-Site Facility in key locations to detect possible leaks. Upon detection of hydrogen sulfide at 10 ppm levels at any detector a visible beacon is activated at that detector and an alarm is sounded. Upon detection of hydrogen sulfide at 50 ppm levels at any detector, an evacuation alarm is sounded throughout the Facility. All personnel proceed immediately to a designated area near the Facility office outside the fence (or alternate area south of the plant depending on wind direction and their location in the well-site facility).

In addition to sounding evacuation alarm sirens, at concentrations of 50 ppm in the acid gas compressor area the acid gas compressor is shutdown and isolation valves upstream and downstream of the unit are closed, including the wellhead automatic wing valve. Refer to the "Plant H2S Alarm System Location Plan" for the locations of the hydrogen sulfide detectors.

For emergency equipment and shutdown descriptions within the existing Jal #3 Plant refer to the separate contingency plan for the plant. There will be additional hydrogen sulfide detectors installed at the plant site around the new acid gas compressor and near the new ESD valves.

Note that the Acid Gas Flare will flare large volumes at the Well-Site only under extreme emergencies in the event the compressor is over-pressured and a Process Safety Valve (PSV) relieves to the acid gas flare. During other shutdowns of the well-site compression or the injection well the acid gas will be flared at the Jal #3 Plant.

Emergency Equipment on site at the Acid Gas Injection Facility

Quantity	Description
9	Ansul 30# Fire Extinguishers
6	5# ABC Fire Extinguishers
5	Wind Socks
1	150# Fire Extinguisher – Wheeled Units
22	Fixed Ambient H_2S Monitors
10	SCBA – 30-Minute Breathing Air Packs
4	First Aid Kits
2	Fire Blankets (wool)
2	Eye Wash Stations
1	Emergency Showers
2	PPE Boxes
	NOTE: This equipment is separate from the existing plant emergency equipment

XVII. ATTACHMENTS, MAPS AND DRAWINGS

LISTING OF ATTACHMENTS, MAP AND DRAWINGS

1. Worst Case Scenario
2. Calculated Radius of Exposure (ROE)
3. Site Plot Plan
4. Maps Showing Calculated Radii of Exposure
5. Draft Emergency Equipment Location Plan
6. Draft Plant H2S Alarm System Location Plan
7. Hazardous Material Incident Notification Information Checklist
8. Contingency Plan Simplified Flowchart

ATTACHMENT 1 Worst Case Scenario for Acid Gas Injection at the Jal #3 Gas Plant

The basis for worst case calculations is 20% hydrogen sulfide in the acid gas from the Jal #3 Gas Plant, which is at typical maximum concentration observed at the plant.

Note that essentially all of the hydrogen sulfide in the plant feed gas is separated from the processed gas and becomes the acid gas stream. Therefore, the worst case calculated radius of exposure will be the same for the Acid Gas Injection Facility and for the Jal #3 Gas Plant as a whole. Furthermore, the worst case scenario is being assumed in the standard calculations since it would be a rupture that results in release of all of the hydrogen sulfide from the acid gas. Calculations using the Pasquill-Gifford equations as described in OCD Rule 118 are presented on the following page (Attachment 2). Also included below is a diagrammatic representation of the AGI system (Figure 2b from C-108 Application).

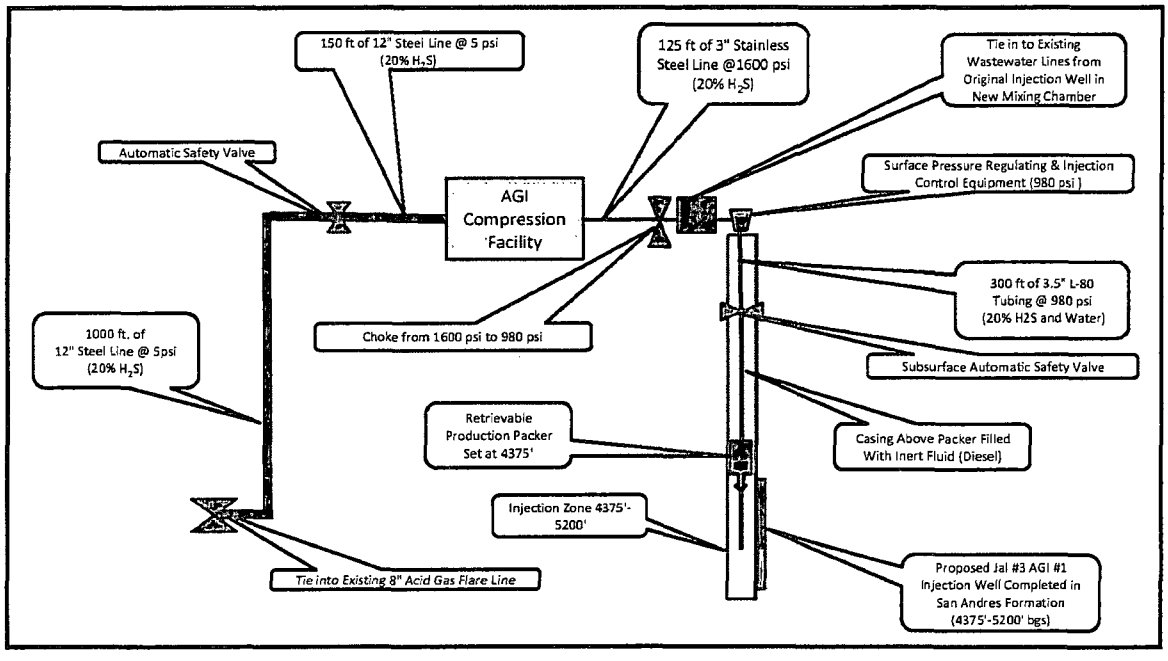


Figure 2b Schematic of SUGS Jal #3 Gas Plant Acid Gas Injection System Components

ATTACHMENT 2 STANDARD CALCULATIONS OF RADIUS OF EXPOSURE

Southern Union Gas Services, Jal #3 Plant H_2S Radius of Exposure Calculations

Calculate Volume of Release

Pipe Section	Length of Pipe ft	diameter of pipe ft	volume of pipe ft3	Pipe Section Pressure psi	Pipe Section Temperature F
1	1000	1	785.398163	5	83.86
2	150	1	117.809725	5	112.00
3a	125	0.25	6.13592315	1600	112.00
3b	300	0.29166667	20.0440156	980	112.00

Pipe length, diameter, pressure and temperature are actual values

Standarization *Per OCD, release parameters must be standardized to 60F and 14.7 psi*

Elevation	3260	3260	ft		
concentration	100	500	ppm		Concentrations of concern selected by OCD
corrected	124971.4	624856.9	$\mu g/m^3$	χ	Concentration corrected for Elevation, using NMED method
χ	0.124971389	0.62485695	g/m^3	χ	$1x10^6$ $\mu g/g$
Specific Volume	11.136	11.136	ft^3/lb		Specific Volume of H_2S

Pipe Section	P1 psi	P2 psi	V1 ft^3	T1 K	T2 K	Standardized Pipe Release Volume V2 ft^3	H2S Concentration %	H2S Release Volume ft^3	H2S Release Mass lb	Time of Release min	Release Concentration Q g/s
1	19.7	14.7	785.3981634	302.1	288.7	1005.81674	20%	201.1633476	18.06423739	10	13.65656347
2	19.7	14.7	117.8097245	255.5	288.7	178.380813	20%	35.67616268	3.203678402	10	2.421980872
3a	1614.7	14.7	6.135923152	255.5	288.7	761.504599	20%	152.3009197	13.67844753	10	10.33939434
3b	994.7	14.7	20.04401563	255.5	288.7	1532.41934	20%	306.4838677	27.52189804	10	20.80655567

Notes

1 Pipeline Volume calculated using ideal gas law, (P1V1)/T1 = (P2V2)/T2, where:
- P1 = Actual pressure + standard pressure (14.7 psi)
- P2 = Standard pressure (14.7 psi)
- V1 = Volume of the pipe section to be released
- V2 = Release volume at standard conditions - equation is solved for this
- T1 = Temperature of gas in pipeline (in Kelvin)
- T2 = Standard Temperature (60F, expressed in Kelvin = 288.7K)
- °C = (°F - 32) x 5/9
- K = C + 273.3

2 H2S Release volume is H2S Concentration * Standardized Pipe Release Volume
3 H2S Release Mass is H2S Release Volume * Specific Volume of H2S
4 Time of Release is 10 minutes, as a conservative estimate
5 Release Concentration, Q, is H2S Mass (lb) * 453 .6 g/lb / (10 min * 60 sec/min)

Distance Calculation *Calculated radius of impact is estimated from equations found in the Workbook of Atmospheric Dispersion Estimates (D. Bruce Turner).*

$\sigma_y \sigma_z = Q / \pi u \chi_{LOC}$ D. Bruce Turner, *Workbook of Atmospheric Dispersion Estimates*, Equation 2.6

u = Windspeed, conservative estimate
Q = Pollutant emission rate
χ_{LOC} = Level-of-Concern concentration
x = distance from source Based on the above calculation, x is interpolated from Table 2.5 (assuming Stability Class F), for the resulting $\sigma_y \sigma_z$. Values for $\sigma_y \sigma_z$

Pipe Section	Exposure Concentration ppm	u m/s	Q g/s	χ_{LOC} g/m^3	$\sigma_y \sigma_z$ m^2	x km	**Radius of Exposure** x m	x ft
1	100	1	13.66	0.12	34.78	0.22	**222**	**677**
	500	1	13.66	0.62	6.96	0.084	**84**	**255**
2	100	1	2.42	0.12	6.17	0.078	**78**	**238**
	500	1	2.42	0.62	1.23	0.031	**31**	**94**
3	100	1	31.15	0.12	79.33	0.34	**343**	**1045**
	500	1	31.15	0.62	15.87	0.135	**135**	**410**

In case 3, the emission rate Q is comprised of emission rates from both pipe sections 3a and 3b added together

Linear Interpolation of Distance vs. Sigma y times Sigma Z

Distance x (km)	sigma y * sigma z	
0.13	14.90	
0.1346	15.87	
0.14	17.00	

ATTACHMENT 3 Facility Plot Plan

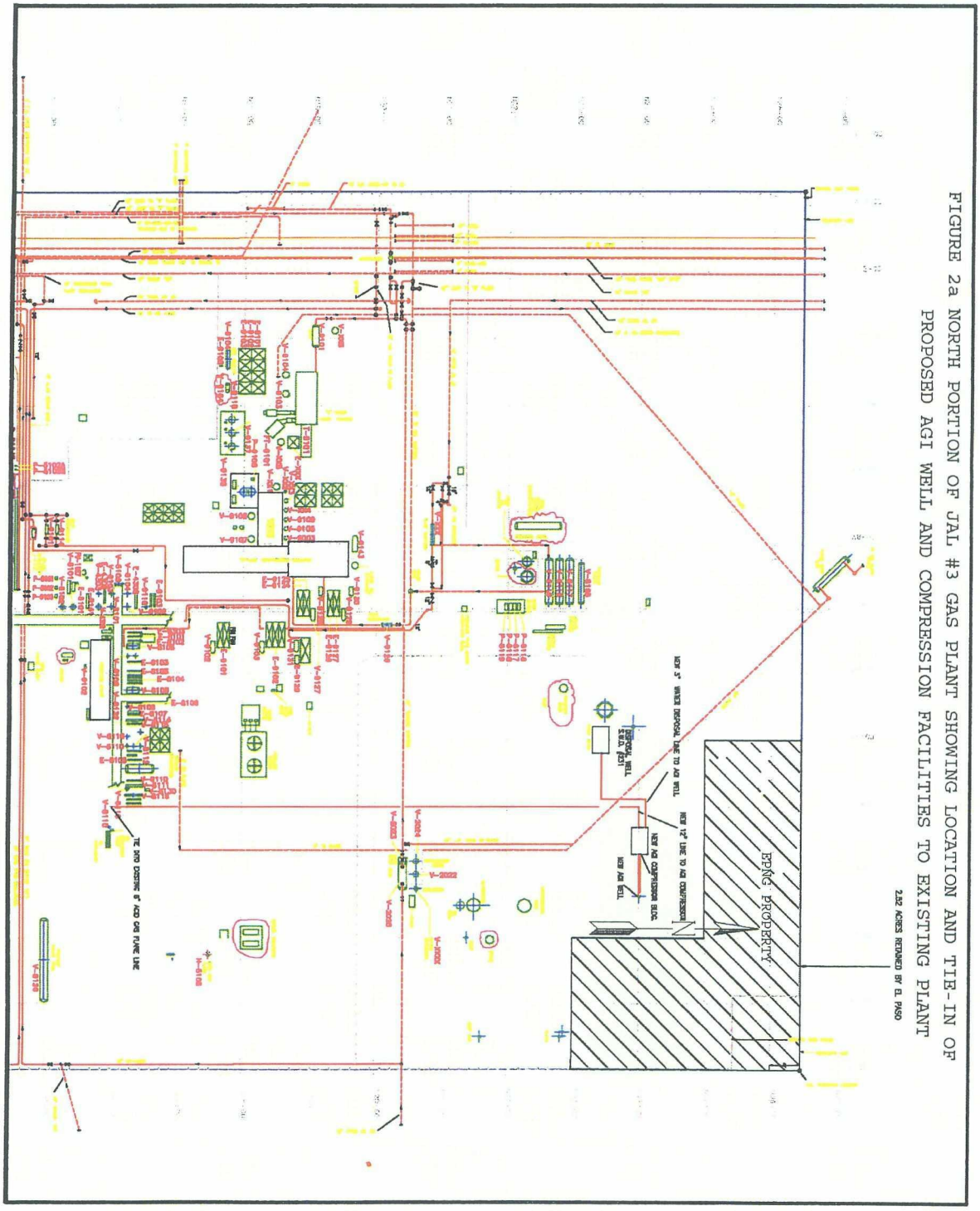


FIGURE 2a NORTH PORTION OF JAL #3 GAS PLANT SHOWING LOCATION AND TIE-IN OF PROPOSED AGI WELL AND COMPRESSION FACILITIES TO EXISTING PLANT

ATTACHMENTS 4a and 4b Maps Showing Calculated Radius of Exposure for 100 and 500 ppm H_2S

(Maps Prepared with calculated ROE from Pasquill-Gifford Equations as specified in OCD Rule 118 shown in Attachment 2)

Attachment 4A
Radii of Hydrogen Sulfide Exposure at 100 Parts Per Million

Segment 1: 1000' x 12" Steel Line at 5 psi From Flare Line to Auto Safety Valve

Segment 2: 150' x 12" Steel Line at 5 psi From Auto Safety Valve to Compressor

Segment 3: 125' x 3" Stainless Steel Line at 1600 psi from Compressor to Well Head and 300' of 3.5" L-80 Tubing at 980 psi in Well

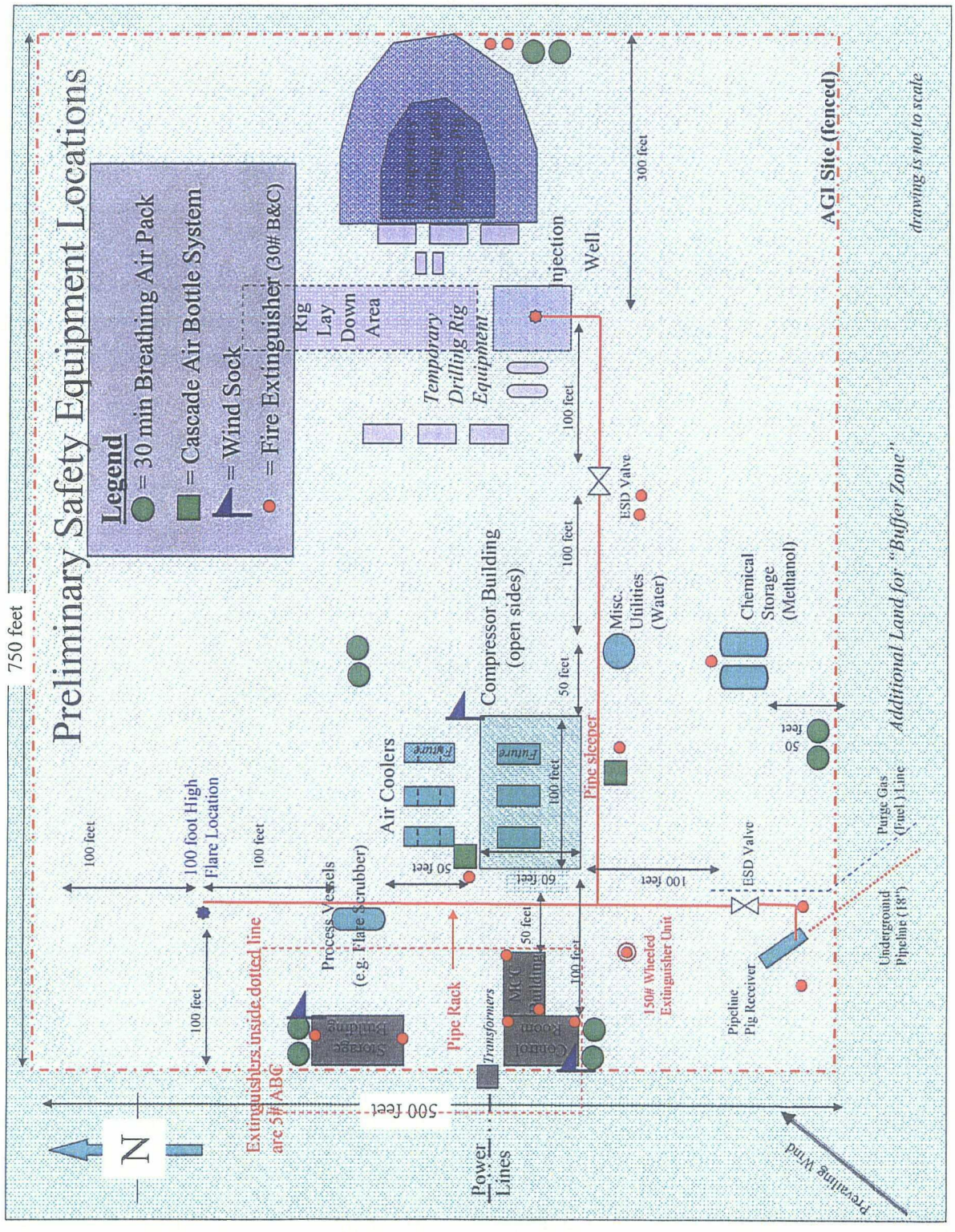
Attachment 4B
Radii of Hydrogen Sulfide Exposure at 500 Parts Per Million

Segment 1: 1000' x 12" Steel Line at 5 psi From Flare Line to Auto Safety Valve

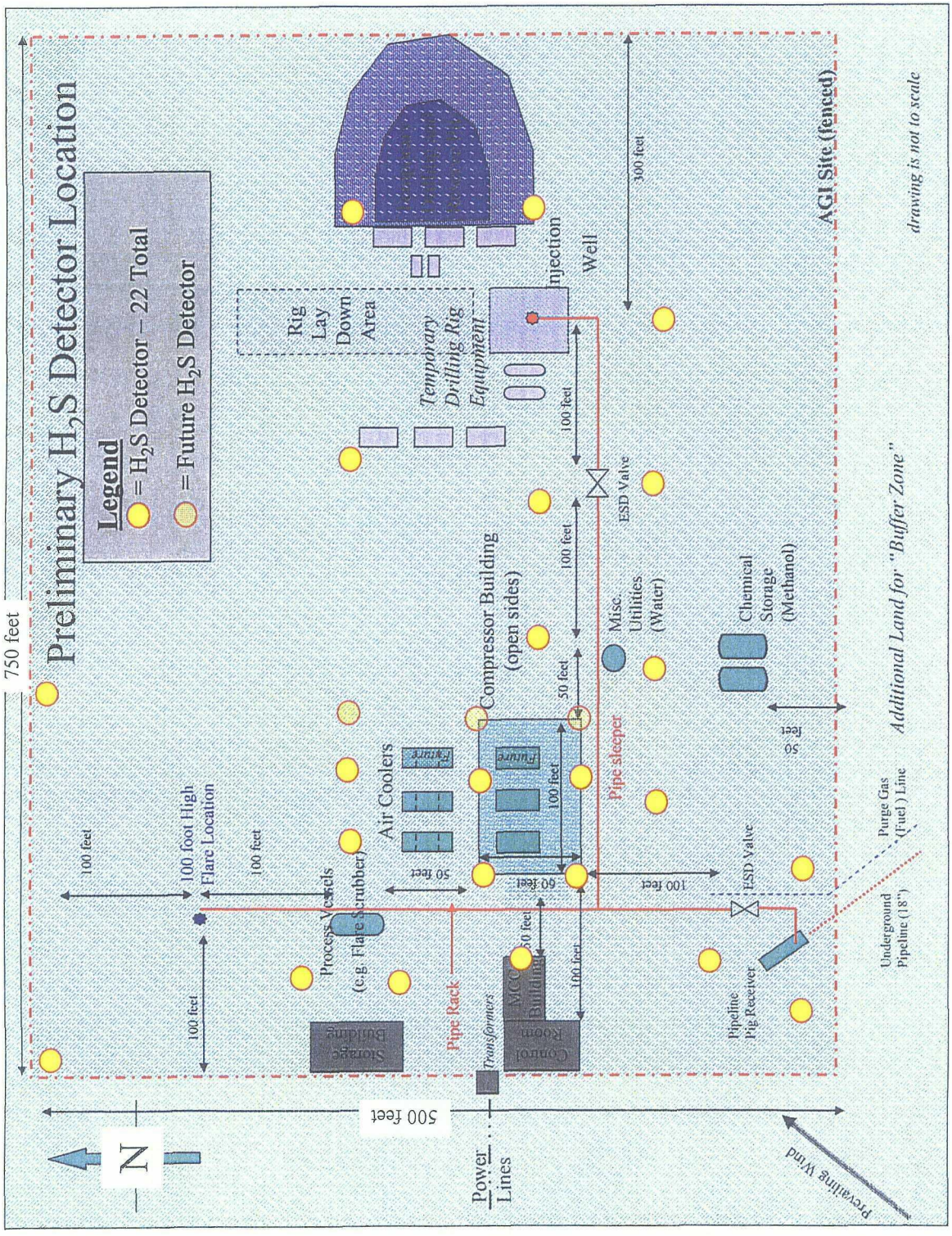
Segment 2: 150' x 12" Steel Line at 5 psi From Auto Safety Valve to Compressor

Segment 3: 125' x 3" Stainless Steel Line at 1600 psi from Compressor to Well Head and 300' of 3.5" L-80 Tubing at 980 psi in Well

ATTACHMENT 5 DRAFT Emergency Equipment Location Drawing



ATTACHMENT 6 DRAFT Plant H_2S Alarm System Location Plan Drawing

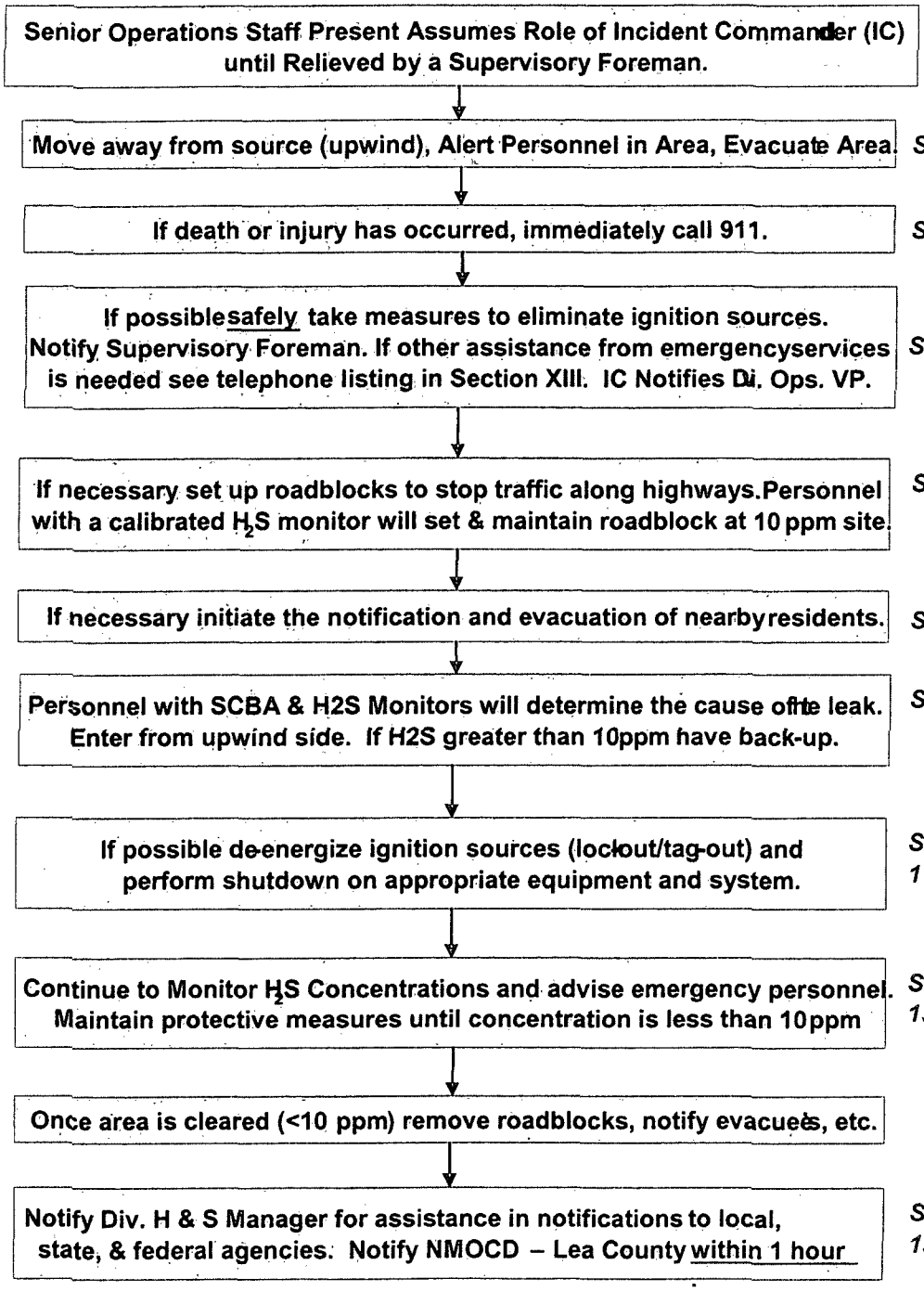


ATTACHMENT 7 Hazardous Materials Incident Notification Information Checklist

The following information should be given to dispatch. Dispatch should be instructed to give all information received to response agencies.

Notification	Time Dispatch Notified:
Caller	Caller Name: _____ Caller Location: _____ Caller Phone Number: _____
Hazardous Materials Information	Incident location _____ (Address or Nearest Milepost or Exit) Time Incident Occurred _____ Container Type _____ (Truck, train car, drum storage, Tank, pipeline, etc.) Substance _____ UN Identification Number _____ Other Identification _____ (Placards, shipping papers, etc.) Amount of material spilled/released _____ Current condition of material _____ (Flowing, on fire, vapors present, etc.)
Scene Description	Weather conditions _____ (i.e., sunny, overcast, wet, dry, etc.) Wind direction _____ Wind speed _____ Terrain _____ (i.e., valley, stream bed, depression, asphalt, etc.) Environmental Concerns _____ (Streams, sewers, etc.)
Affected Population	Number of people affected _____ Condition of people affected _____
Resources	Resources required _____ (EMS, HazMat Team, Fire Department, etc.)
Response	Response actions anticipated And/or in progress (i.e., rescue, fire suppression, containment, etc.)
Comments	_____ _____ _____ _____

Hydrogen Sulfide Contingency Plan Flowchart (see plan pages 8 and 9)



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JAL FIRE DEPARTMENT	1 COPY
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