New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

F-05-07

Form 3160-3
(August 1999)

541

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM058408B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Johns "B" ~~Federal~~ #6 <30728>

2. Name of Operator
CHISOS, Ltd. <215732>

9. API Well No.
30-025-37217

3a. Address P. O. Box 2079
Midland, Texas 79702-2079

3b. Phone No. *(include area code)*
(432)570-6009

10. Field and Pool, or Exploratory <43329>
Maljamar; Grayburg - San Andres

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 510' FEL & 800' FSL; UL "P", SE4/SE4
At proposed prod. zone SAME

Roswell Controlled Water Basin

11. Sec., T., R., M., or Blk, and Survey or Area
Section 26 - T17S - R32E

14. Distance in miles and direction from nearest town or post office*
6 1/2 miles southeast of Maljamar, New Mexico

12. County or Parish
Lea

13. State
New Mexico

15. Distance from porposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
510' from property line
520' from nearest drilling unit line

16. No. of Acres in lease
120

17. Spacing Unit dedicated to this well
40 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
1412.23'

19. Proposed Depth
5,000'

20. BLM/BIA Bond No. on file
RLB-0004854

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3,970' GL

22. Approximate date work will start*
04/15/2005

23. Estimated duration
12 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operation certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

Received Hobbs OCD

25. Signature [signature]
Name *(Printed/Typed)* Bill Pierce
Date 02/22/2005

Title
Consulting Petroleum Engineer

Approved by *(Signature)* /s/ Joe G. Lara
Name *(Printed/Typed)* /s/ Joe G. Lara
Date APR 2 6 2005

Title ACTING FIELD MANAGER
Office CARLSBAD FIELD OFFICE

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States and false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

RECEIVED 05 MAR 14 PM 2 11 CARLSBAD FIELD OFFICE

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
811 South First, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-37217	43329	Maljamar; Grayburg - San Andres

Property Code	Property Name	Well Number
30728	JOHNS "B" ~~FEDERAL~~	6

OGRID No.	Operator Name	Elevation
215732	CHISOS LTD.	3970'

Surface Location

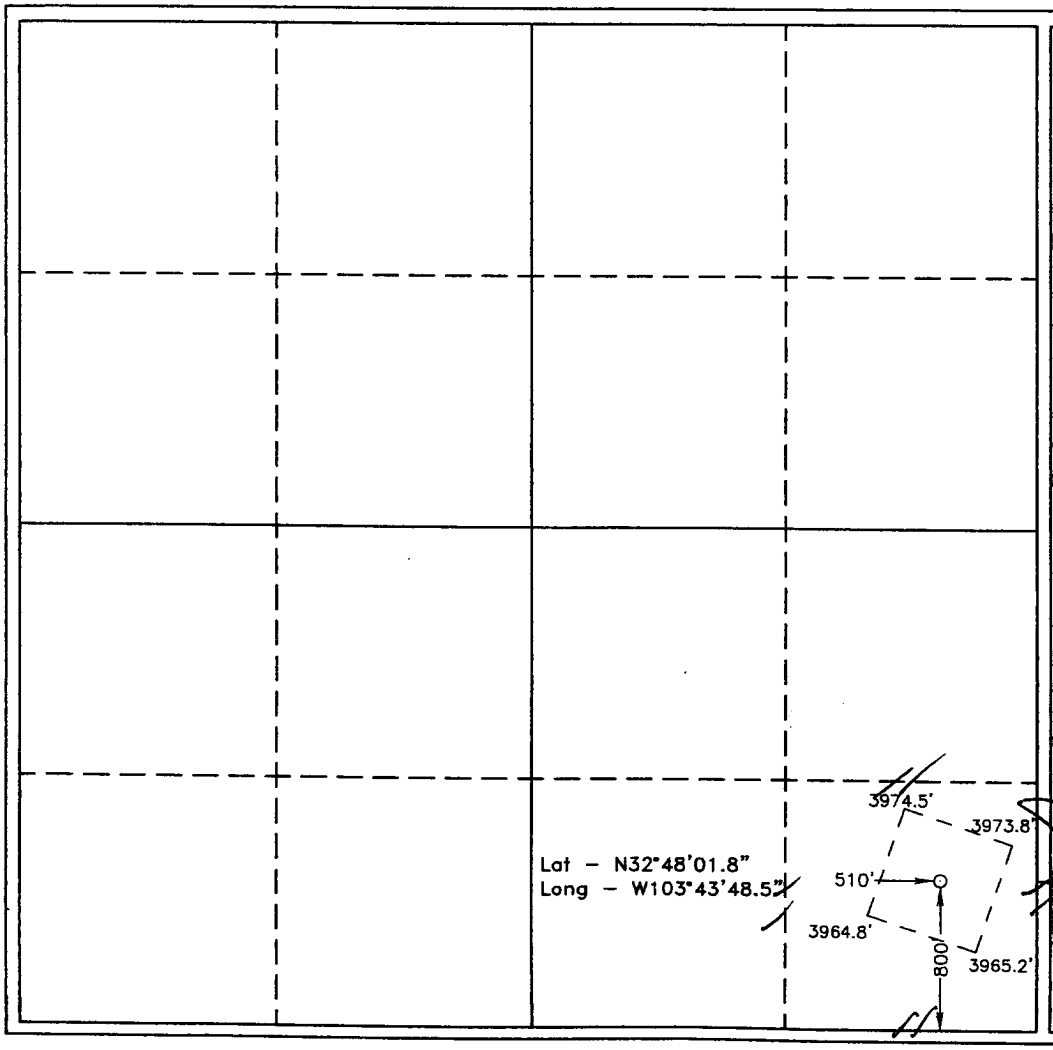
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	26	17 S	32 E		800	SOUTH	510	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Signature

Bill Pierce
Printed Name

Consulting Engineer
Title

February 21, 2005
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

FEBRUARY 3, 2005
Date Surveyed

Signature & Seal of Professional Surveyor

NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. No. 5067

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

CHISOS, Ltd.

Johns "B" Federal #6

510' FEL & 800' FSL
Section 26 – T17S – R32E
Lea County, New Mexico
NM 058408B

Drilling Program

1. GEOLOGIC NAME OF SURFACE FORMATION:

Quaternary

2. ESTIMATED FORMATION TOPS:

Formation Name	GL Depth
Quaternary	Surface
Top of Rustler Anhydrite	1,055'
Base of Rustler Anhydrite	1,208'
Top of Salt	1,208'
Base of Salt	2,386'
Yates	2,547'
Seven Rivers	3,102'
Queen	3,588'
Grayburg	4,075'
San Andres	4,400'
Proposed Total Depth (TD)	5,000'

3. ESTIMATED DEPTHS OF MEASURABLE FRESH WATER, OIL OR GAS ZONES:

Oil and Gas Zones	Water Zones
Queen (3,588')	150'
Grayburg (4,075')	
San Andres (4,400')	

No other formations are expected to give up any oil, gas or fresh water in measurable quantities. Setting 9 5/8" casing to 1,100'+/- and circulating cement back to the surface will protect the fresh water sand and red beds. Additional protection of formations will be accomplished by cementing the 5 ½" production casing back to surface.

1215 or 25' into Rustler Fm. JAS

4. CASING AND CEMENT

Hole Size	Csg. O.D.	Weight/Ft.	Grade	Thread Type	Condition	Depth
12 ¼"	9 5/8"	36#	J-55	8rd STC	New	~~1,100'~~ +/-
8 3/4"	5 ½"	17#	J-55	8rd LTC	New	5,000' +/-

The surface casing will be cemented to the surface with +/- 700 sacks of Class "C" cement containing 3% $CaCl_2$ + ¼#/sack cellophane flakes. Volume is based on approximately 200% excess. A guide shoe will be run on the bottom of the first joint and a float collar will be installed in the collar of the first joint. One centralizer will be installed 10' up from the guide shoe, on the shoe joint collar, and on the collars of the next ten joints.

The 5 ½" production casing will be cemented with a lead slurry of 750 sacks of Class "H" 65:35 Pozmix containing 6% gel + .5% fluid loss additive + 10% salt + 5#/sack gilsonite followed by a tail slurry of 200 sacks of Class "C" containing 5% salt + 3#/sack LCM + .4% fluid loss additive + .6% additional fluid loss additive. Final cement volumes will be determined from the open-hole caliper log in order to ensure cement placement to surface.

5. PRESSURE CONTROL AND AUXILIARY WELL CONTROL EQUIPMENT:

The drilling contractor has not been selected as of this date so the exact BOP configuration to be used is not yet known. An industry typical production hole BOP configuration (2,000 psi stack (600 series)) is shown on **Exhibit "A"**. A 10", 2,000 psi BOP (Exhibit "A") and choke manifold system (see **Exhibit "B"**) will be installed and tested to 1,000 psi before drilling out the surface casing plug. Any leaks will be repaired and corrected before drill out occurs. This testing will be done by an independent testing company and the Carlsbad BLM office will be notified a minimum of 4 hours prior to testing.

This BOP and choke manifold will remain in use until the well is plugged or production casing is run. A full opening safety valve shall be on the rig floor at all times in the open position. This valve will have a thread design to be compatible with the drill pipe and drill collars.

All BOP pressure and daily mechanical tests will be recorded on the driller's log. BOP pipe rams will be operated daily to assure good mechanical working order. BOP blind rams will be operated on all trips out of the hole. Inspections will be recorded on the daily drilling report. Pressure tests on casing strings will be conducted before drilling out from under those strings which are set and cemented in place.

6. MUD PROGRAM

Depth	Type	Wt./ppg.	Vis.	Fluid Loss	pH
0' - ~~1,100'~~ 1215 or 25	FW gel w/lime spud mud	8.4 – 8.7	30-50	NC	10
~~1,100'~~ – 3,500'	Brine Water w/LCM	10.0	29 – 30	NC	10
3,500' –5,000'	BW, gel, lime, LCM	10.0	30 - 32	<10 cc's	9.5 – 10

Sufficient material needed to maintain mud properties, control loss circulation and contain any unforeseen pressure control situations will be maintained at the well site during all drilling operations. A mud logging unit w/gas detector as well as a mud pit level indicator will be used from 3,000'+/- to TD.

7. CORING, TESTING, & LOGGING

No cores or DST's are planned at this time. Open-hole logging suite will consist of a GR CNL-FDL and Sonic for porosity, and a GR-DLL for permeability. The GR will be run from TD back to surface.

8. DOWNHOLE CONDITIONS

A research of the area shows no abnormally pressured zones or temperatures will be encountered. Hydrogen sulfide could be present in the Grayburg – San Andres formation. All necessary H_2S safety equipment will be installed and functional by a depth of 3,000'. Maximum expected BHP is 1,250#.

9. OTHER PERTINENT INFORMATION

Anticipated spud date will be upon approval of this APD by the BLM. Approval is expected between April 15th and April 30th, 2005. Drilling of the well is expected to take +/-12 days. Completion operations if required will take +/-10 days. Questions by any outside interested parties concerning proposed down-hole operations should be directed to the Carlsbad, NM BLM office @ 505 887-6544.

CHISOS, Ltd.

Johns "B" Federal #6

510' FEL & 800' FSL
Section 26 – T17S – R32E
Lea County, New Mexico
NM 058408B

Surface Use Program

1. DIRECTIONS AND EXISTING ROADS

From the junction of US 62-180 and NM 529; proceed on NM 529 to mile marker 9. Turn right (north) and follow caliche lease road 8/10ths of a mile to "Y" in road, turn right into location. (See **Exhibit "C" and "D"**)

All off-county roads that may be required to access this location if any, will be maintained in their present condition or better. If production is established, no BLM right-of-way for an access road is required.

2. NECESSARY ACCESS ROAD(S)

A new caliche road will be necessary to access the proposed drilling site. The new road will be approximately 255' in length commencing from an existing lease road. If the well proves productive, the newly constructed access road will be slightly crowned and have very small barrow ditches constructed. Travel surface of the caliche access road will be +/-16' in width. Total disturbed width will not exceed 36', maximum grade will be 1%.

3. EXISTING WELLS

A review of NMOCD records indicated there are waterflood injection wells as well as producing oil or gas wells within a 1/2 mile radius of the proposed drill site. There are eight plugged wells within a 1/2 mile radius (See **Exhibit "E"**). There are no fresh water wells located within the one mile radius and none that are listed with the NM state water engineers' office in Santa Fe.

4. PROPOSED PRODUCTION FACILITIES

If productive, production facilities for this well already exist at a different location on this BLM lease. If a completion attempt is successful, an above ground flowline will be installed from the well site to the existing production facilities. After completion, a new production facilities and security diagram will be submitted by sundry notice after completion.

5. WATER SUPPLY

Water will be trucked +/-6.5 miles over existing roads from Maljamar Fresh Water Station or from the cities of Lovington or Hobbs, NM.

6. NECESSARY CONSTRUCTION MATERIALS AND METHODS

The top 2" – 4" of topsoil will be stripped and stored on both the north and east side of the reserve pit. A cut and fill of approximately 2' will be required from north to south to construct the pad. A flare pit may be constructed on the south side of the reserve pit if necessary.
If possible, the location will be constructed out of the existing caliche material from the reserve pit area. If any additional surfacing material is required, it will be bought and hauled from the closest source, either private or government pits.

7. WASTE DISPOSAL

The reserve pit will be fenced on three sides with sheep-proof fencing wire and topped off with two strands of barbed wire. The fourth side will fenced once the drilling rig moves out. The fence will be kept in good repair while the pit dries. All materials used in the mud system can be utilized in fresh and brine water, are biodegradable and not hazardous to the environment. (See **Exhibit "F"**). A minimum 12 mil plastic liner will be utilized. Normal drying time if a liner is utilized is approximately 4 – 8 months depending on winter weather and spring rains. Once the reserve pit is dry, the contents will be buried in place. Any water produced during completion and testing will be disposed of in the reserve pit. Completion and testing will not exceed thirty days.

All trash will be placed in a portable trash cage. It will be hauled and disposed of in an approved landfill. Human waste will be disposed of in 10' deep rat holes under necessary trailers or in portable chemical toilets. The waste rat holes will be filled once drilling operations have been completed and the trailers removed.

8. ANCILLARY FACILITIES

There will not be a need for any air strips or on-site camps. Mobile home style trailers will be on location to house the company man, tool pusher and mud logger.

9. PROPOSED WELL SITE LAYOUT

See **Exhibits "G" and "H"** for the layout of the well pad and reserve pit and proposed rig orientation. Since a drilling contractor has not been selected at this time, the proposed rig orientation may change slightly once a contractor has been selected.

10. RECLAMATION

Reclamation of the reserve pit starts when the pit is sufficiently dry to allow dozer work to begin. This normally is approximately 4 months of evaporation if a pit liner is utilized. All disturbed areas not being utilized if the well is productive will be re-contoured to as close to the natural contour as is possible. If the well is non-commercial, the entire drill site will be reclaimed and re-contoured to the natural contour as nearly as possible.

Stockpiled topsoil will be evenly spread over the affected areas. All compacted areas will be ripped before seeding operations. All seeding operations will be in accordance with BLM specified seed mixtures as per the approved APD stipulations.
If the well is productive, remaining cut slopes, fill slopes and topsoil left after covering the reserve pit will also be seeded as per BLM specified seed mixtures.

11. SURFACE OWNER

The well and access road are all located on surface land owned by the State of New Mexico Land Office and managed by the New Mexico State Land Hobbs field office. The necessary R-O-W forms have been submitted to the New Mexico State Land Office in Santa Fe regarding use of the surface for this project. As quickly as the forms have been approved, a copy of the approved forms will be forwarded to the Carlsbad BLM field office.

12. OTHER PERTINENT INFORMATION

The nearest hospital is located in Hobbs and is a 35 minute drive away. A local **911** call will access an ambulance or County Sheriff from Hobbs or Lovington.

13. COMPANY REPRESENTATION

Anyone or any entity having questions concerning the APD should contact:
Bill Pierce
CHISOS, Ltd.
P. O. Box 2079
Midland, Texas 79702-2079
Office Number: 432 570-6009 FAX: 432 686-8469 e-mail:bill@dpps.us

The field representative is not known at the present time.

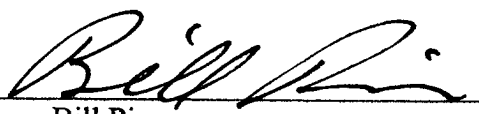
14. BONDING OF OPERATIONS

The BLM bond number for CHISOS. Ltd. is RBL-0004854.

15. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions which currently exist; that the statements mad in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by CHISOS, Ltd. and its' contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

DATE: February 26, 2005

Signed: 

Bill Pierce
Consulting Engineer
CHISOS, Ltd.
P. O. Box 2079
Midland, Texas 79702-2079
432 570-6009

CHISOS, Ltd.
Hydrogen Sulfide Drilling Operations Plan

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have been certified by a qualified instructor in the following areas prior to drilling operations being commenced on this well.

1. The hazards and characteristics of Hydrogen Sulfide (H_2S).

2. The proper use and maintenance of personnel protective equipment and life support systems.

3. The proper procedures for using H_2S detectors and alarm warning systems, briefing areas, evacuation procedures, and knowledge of prevailing winds in this area.

IN ADDITION, SUPERVISORY PERSONNEL WILL BE TRAINED IN THE FOLLOWING AREAS:

1. The effects of H_2S on metal components utilized in drilling operations. It is not anticipated, however, if high strength tubulars are utilized, personnel will be trained in their special maintenance requirements.

2. Corrective action and well shut-in procedures during drilling, logging and casing running operations.

3. The contents and requirements of the H_2S Drilling Operations plan.

There will be an initial training session conducted just prior to encountering a known or probable H_2S bearing zone, (within 2 days or 300'). Thereafter, weekly H_2S and well control drills for all personnel in each crew (tour). The initial training session shall include a review of the site specific H_2S Drilling Operations Plan. This plan will be available at the well site. All personnel will be required to carry documentation certifying they have received the proper training.

II. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling operations reach a depth of 300 feet above, or three days prior to penetrating the first zone that could be reasonably expected to contain H_2S.

1. Well Control Equipment:

   A. Flare line.

   B. Choke manifold

   C. Blind rams and pipe rams to accommodate all drill pipe sizes being utilized with a properly sized closing unit.

2. Protective Equipment For Essential Personnel:

   A. Mark II Survive-Air 30 minute units located in the doghouse and at briefing areas as indicated on the well site diagram (Exhibit "I").

3. H_2S Detection and Monitoring Equipment:

   A. Potable H_2S monitor located at the bell nipple to insure earliest possible detection. This unit will have warning lights and audible sirens when H_2S levels of 20 ppm are reached.

4. Visual Warning Systems:

   A. Wind direction indicators placed on each corner of the location easily visible from any part of the location.

   B. Caution / Danger signs furnished by the H_2S safety company shall be posted on roads providing direct access to location. Signs will be painted with high visibility paint containing lettering large enough to be readable at a reasonable distance from the immediate location.

5. Mud Program:

   A. The mud program has been designed to minimize the volume of H_2S circulated to the surface by utilizing proper mud weight, safe drilling practices and the use of H_2S scavengers when drilling potential H_2S bearing zones.

6. Metallurgy:

   A. All drill strings, casing, tubing, wellhead, BOP equipment, drilling spool, kill lines, choke manifold, choke manifold lines and valves shall be suitable for use in an H_2S environment.

   B. All elastomers used for packing and seals shall be suitable for use in H_2S service.

7. Communications:

   A. Cellular telephones will be utilized for all on-site drilling activities.

   B. Land line communication for office.

8. Well Testing:

   A. Drill Stem testing if required, will be performed with a minimum number of personnel in the immediate vicinity. Only personnel absolutely essential to the safe conduct of a DST will be allowed in the immediate area. The DST would only be conducted during daylight hours and formation fluids would be collected in a steel test tank on location. Any gas produced during a DST would be safely flared at the edge of the location thereby negating any potential H_2S hazard to personnel.

   B. THERE WILL BE NO DRILL STEM TESTING OF THIS WELL.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Roswell Resource Area
P. O. Drawer 1857
Roswell, New Mexico 88202-1857

Statement Accepting Responsibility for Operations

Operator Name: CHISOS, Ltd.

Address: 670 Dona Ana Road, SW
Deming, New Mexico 88230

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or any portions thereof, as described below:

Lease No.: NM 058408B Johns "B" Federal #6

Legal Description of Land: Section 26-T17S-R32E SE4/SE4

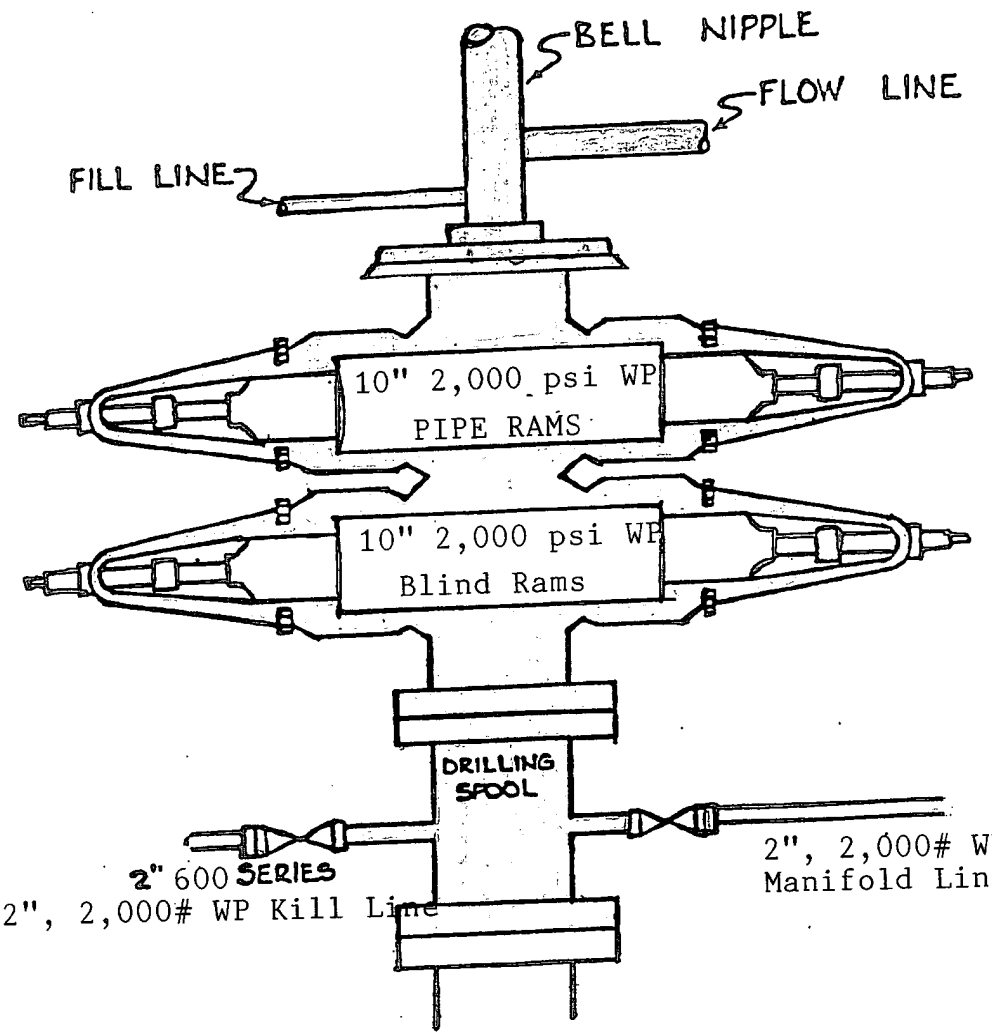
Formation (s) (if applicable): Grayburg – San Andres

BLM Bond File No.: RBL-0004854

Authorized Signature: _____
Bill Pierce

Title: Consulting Engineer

Date: February 23, 2005



CHISOS, Ltd.
Johns "B" Federal #6
510' FEL & 800' FSL
Section 26 – T17S – R32E
Lea County, New Mexico
NM-058408B

EXHIBIT "A" – 2,000# WP BOP Stack

CHISOS, Ltd.
Johns "B" Federal #6
NM 058408B

Attachment to Exhibit "A"
Notes Regarding Blowout Preventers
Johns "B" Federal #6

1. Drilling nipple to be constructed so removal from BOP will not require the use of a welder and will pass through the rotary table opening with the I.D. of the drilling (bell) nipple equal to the preventer bore.

2. Blowout preventer and all fittings must be in good condition, 2,000# WP minimum.

3. Fitting may be either flanged or if screwed, will be rated to a minimum 2,000# WP.

4. Safety valve must be available on rig floor at all times with proper connections, valve to be in open position and have a minimum 2,000# WP rating.

5. All choke and fill lines to be securely anchored especially ends of choke lines.

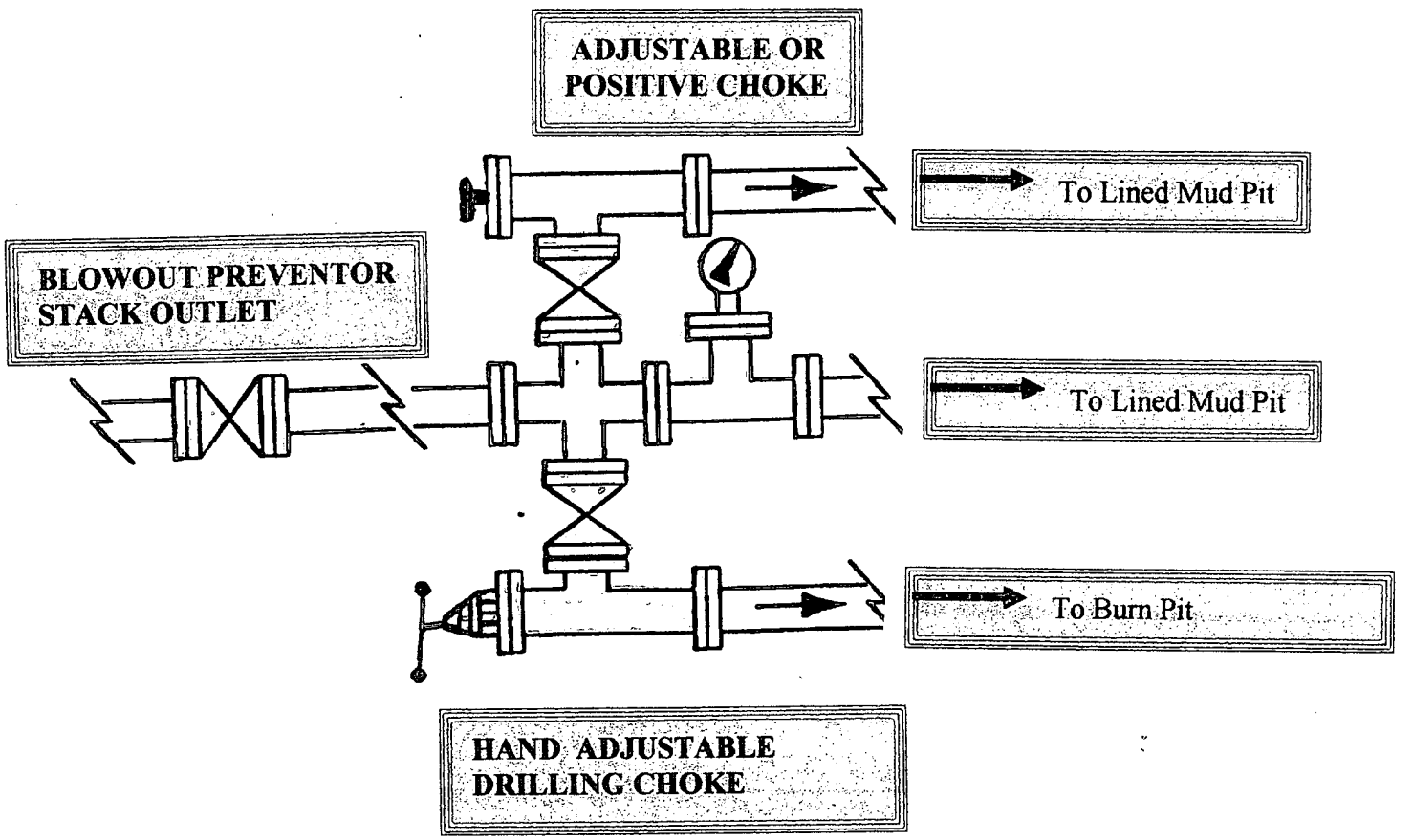
6. Equipment through which bit will pass must be at least as large as the diameter of the casing being drilled through.

7. Kelly cock to be utilized on Kelly.

8. Extension wrenches and hand wheels to be properly installed on blowout preventer.

9. Blowout preventer controls to be located as close as possible to the drillers position as feasible.

10. Blowout preventer closing equipment to include minimum 40 gallon accumulator, two independent sources of pump power on closing unit, closing unit to meet API standards.



CHISOS, Ltd.
Johns "B" Federal #6
510' FEL & 800' FSL
Section 26 – T17S – R32E
Lea County, New Mexico
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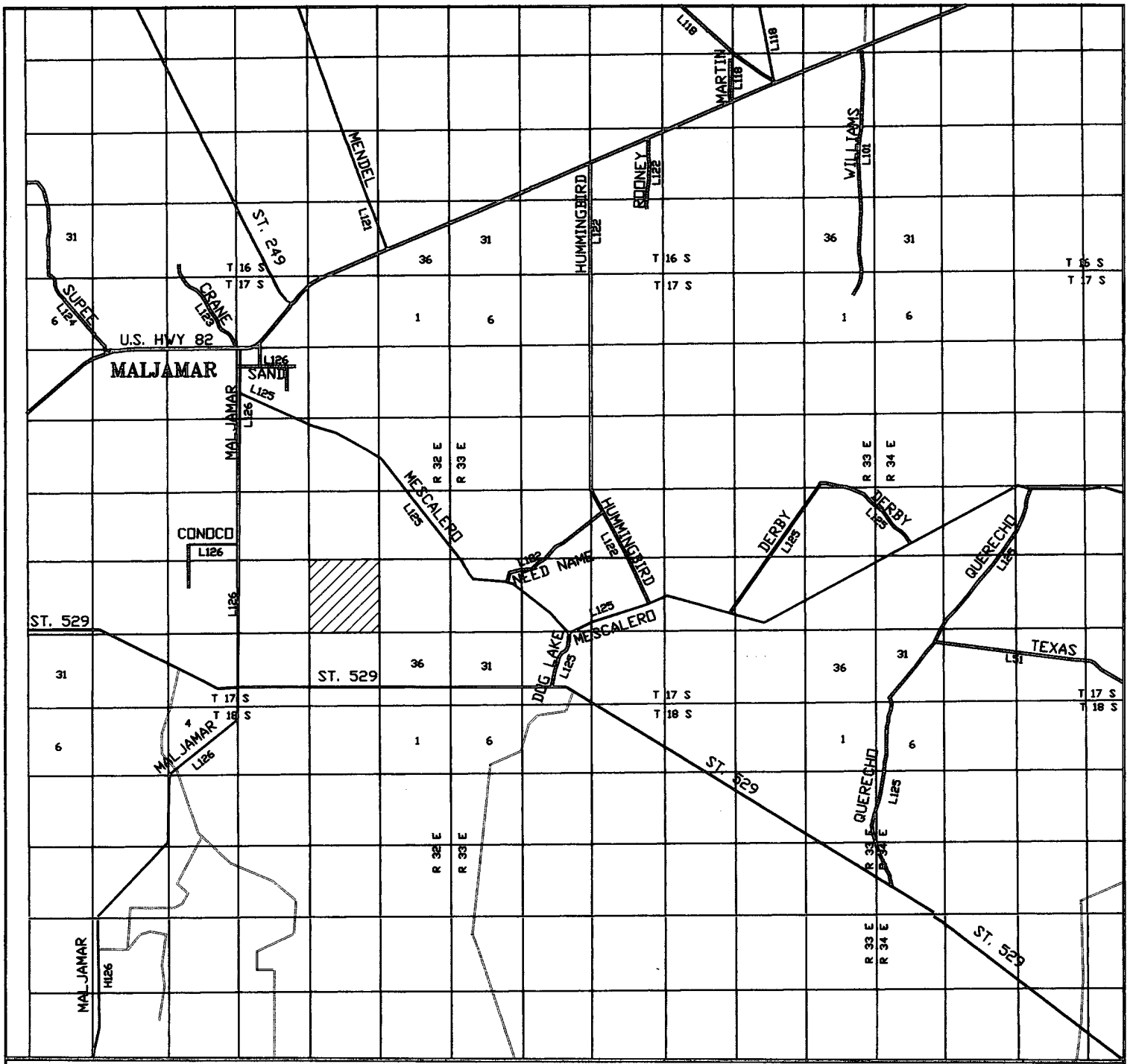
EXHIBIT "B" – 2,000# WP Choke Manifold



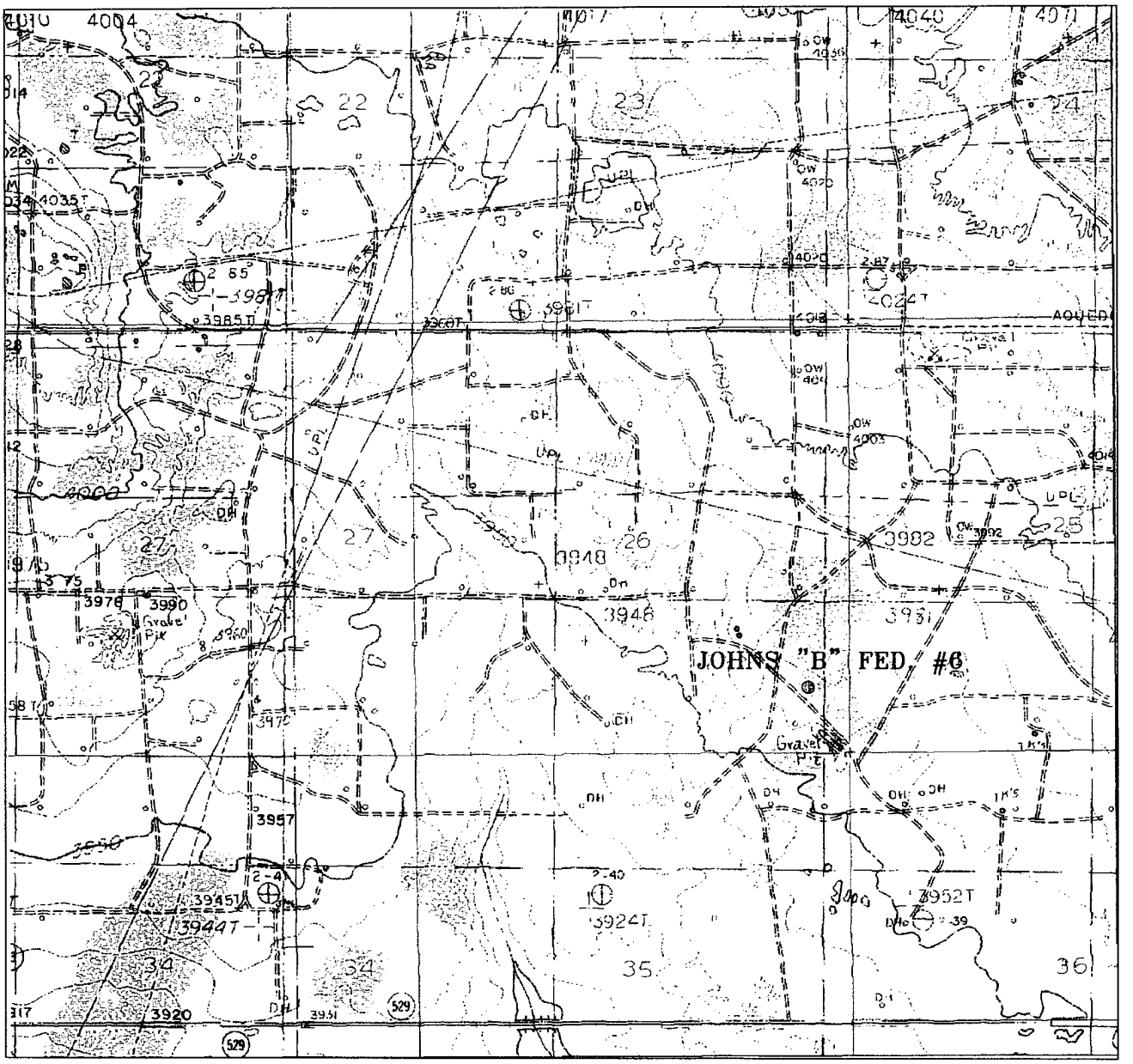
JOHNS "B" FEDERAL #6
Located at 800' FSL and 510' FEL
Section 26, Township 1[illegible]
N.M.P.M., Lea County, N[illegible]

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 – Office
(505) 392-3074 – Fax
basinsurveys.com

W.O. N[illegible]
Survey
Scale:
Date:

CHISOS, Ltd.
Johns "B" Federal #6
510' FEL & 800' FSL
Section 26 – T17S – R32E
Lea County, New Mexico
NM-058408B

EXHIBIT "C" – Large Area Map

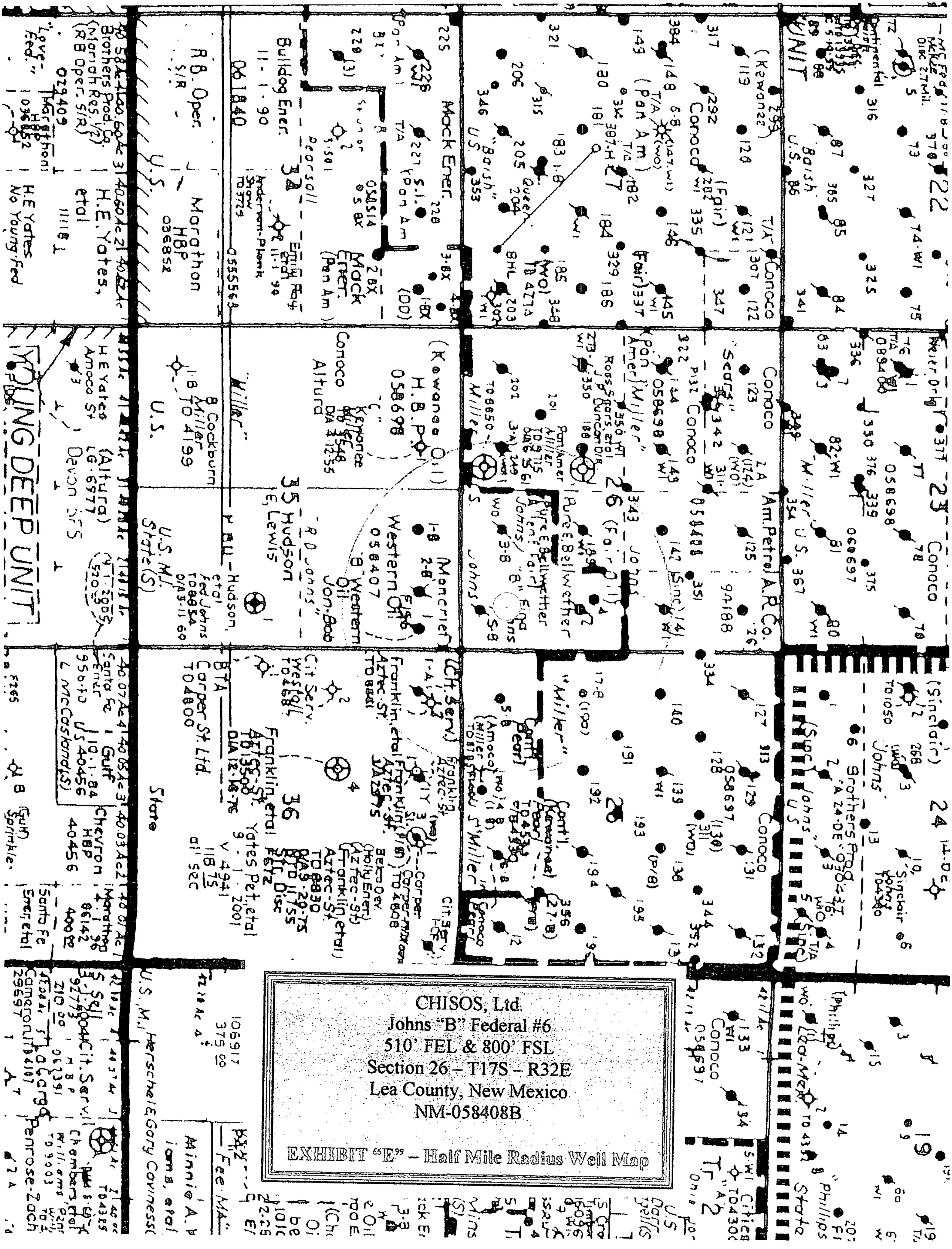


JOHNS "B" FEDERAL #6
Located at 800' FSL and 510' FEL
Section 26, Township 17 South, Range 32 East
N.M.P.M., Lea County, New Mexico

Basin Surveys

CHISOS, Ltd.
Johns "B" Federal #6
510' FEL & 800' FSL
Section 26 – T17S – R32E
Lea County, New Mexico
NM-058408B

EXHIBIT "D" – Detailed Small Area Map



CHISOS, Ltd.
Johns "B" Federal #6
510' FEL & 800' FSL
Section 26 – T17S – R32E
Lea County, New Mexico
NM-058408B

EXHIBIT "E" – Half Mile Radius Well Map

CHISOS, Ltd.

Johns "B" Federal #6
510' FEL & 800' FSL
Section 26 – T17S – R32E
Lea County, New Mexico
NM-058408B

Exhibit "F"

Material Safety Data Sheets

Newpark Drilling Fluids, Inc.
15810 Park Ten Place, Suite 300, Houston TX 77084

Material Safety Data Sheet
Emergency: (888) 572-0050

NewGel

I. GENERAL INFORMATION

Chemical Name: HYDROUS ALUMINUM SILICATE CAS#: 1302-78-9

Chemical Family: MONTMORILLONITE
Chemical Formula: MIXTURE OF MINERALS
Synonyms: SODIUM MONTMORILLONITE FreshWaterGel

NFPA Properties: Health: 0 Flammability: 0 Reactivity: 0 Contact: 0

II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	TLV's (ACGIH) TWAPPM	TWA MG/M^3	STEL PPM	STEL MG/M^3	CAS#	OTHER LIMITS	%
1.							
2.							
3.							

III. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point °F: NDA
Specific Gravity: 2.35-2.5
Vapor Pressure: N/A
Percent Volatility: N/A
Vapor Density: N/A
Evaporation Rate: N/A
Solubility In Water: INSOLUBLE
Melting Point °F: 1450

Color: GRAY-WHITE
Odor: N/A
Appearance: POWDER
pH:
Viscosity: NDA
Activity: N/A
LC50: NDA
LD50: NDA

IV. FIRE & EXPLOSION HAZARD DATA

Extinguishing Agents: DRYCHEMICAL OR WATERSPRAY OR WATERFOG OR CO2 OR FOAM OR SAND & EARTH
Flash Point °F: N/A
Flammable Limits: N/A LEL: N/A UEL: N/A
Special Firefighting Procedures: FIREFIGHTERS SHOULD WEAR NORMAL PROTECTIVE EQUIPMENT INCLUDING A SELF CONTAINED BREATHING APPARATUS.

Unusual Fire & Explosion Hazards: NONE

N/A = Not Applicable NDA = No Data Available

NewGel

V. HEALTH HAZARD DATA

Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES

Effects of Overexposure: NDA

Toxicological Properties: NDA

Chronic & Acute Effects of Overexposure:

Carcinogenicity: NTP: NO IARC Monographs: NO OSHA Regulated:

Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES AND CALL A PHYSICIAN.

Skin Contact: FLUSH WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES.

Inhalation: REMOVE TO FRESH AIR, IF BREATHING IS DIFFICULT, GIVE OXYGEN AND CALL A PHYSICIAN.

Ingestion: CALL A PHYSICIAN.

VI. REACTIVITY DATA

Stability: STABLE Hazardous Polymerization: WILL NOT OCCUR

Hazardous Decomposition Products: SMOKE, FUMES, CARBON MONOXIDE, CARBON DIOXIDE

Conditions To Avoid:

Incompatibility and Materials to Avoid:

Newpark Drilling Fluids, Inc.
15810 Park Ten Place, Suite 300, Houston TX 77084

Material Safety Data Sheet
Emergency: (888) 572-0050

NewPac
(R and LV grades)

I. GENERAL INFORMATION

Chemical Name: POLYANIONIC CELLULOSE CAS#: PROPRIETARY
Chemical Family: CELLULOSE ETHER
Chemical Formula: PROPRIETARY
Synonyms: PAC

NFPA Properties: Health: NDA Flammability: NDA Reactivity: NDA Contact: NDA

II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	TWAPPM	TLV's (ACGIH) TWA MG/M^3	STEL PPM	STEL MG/M^3	CAS#	OTHER LIMITS	%
1.							
2.							
3.							

III. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point °F: N/A
Specific Gravity: 1.6
Vapor Pressure: N/A
Percent Volatility: NEGLIGIBLE
Vapor Density: N/A
Evaporation Rate: N/A
Solubility In Water: COMPLETE
Melting Point °F: N/A

Color: WHITE TO OFF-WHITE
Odor: NONE
Appearance: POWDER
pH:
Viscosity: N/A
Activity: N/A
LC50: N/A
LD50: N/A

IV. FIRE & EXPLOSION HAZARD DATA

Extinguishing Agents: DRY CHEMICAL OR WATERSPRAY OR WATERFOG OR CO_2 OR FOAM OR SAND & EARTH
Flash Point °F: N/A
Flammable Limits: N/A LEL: N/A UEL: N/A
Special Firefighting Procedures: FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED (POSITIVE PRESSURE IF AVAILABLE) BREATHING APPARATUS WITH FULL FACEPIECE.
Unusual Fire & Explosion Hazards: NONE
Toxic Gases Produced: CARBON MONOXIDE, CARBON DIOXIDE

NewPac
(R and LV grades)

V. HEALTH HAZARD DATA

Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES

Effects of Overexposure: NONE

Toxicological Properties: NDA

Chronic & Acute Effects of Overexposure: NDA

Carcinogenicity: NTP: NO IARC Monographs: NO OSHA Regulated: NO

Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES AND CALL A PHYSICIAN.

Skin Contact: FLUSH WITH LARGE AMOUNTS OF SOAP & WATER FOR 15 MINUTES.

Inhalation: REMOVE TO FRESH AIR, IF BREATHING IS DIFFICULT, GIVE OXYGEN AND CALL A PHYSICIAN.

Ingestion: CALL A PHYSICIAN.

VI. REACTIVITY DATA

Stability: STABLE Hazardous Polymerization: WILL NOT OCCUR

Hazardous Decomposition Products: CARBON MONOXIDE, CARBON DIOXIDE, SMOKE, FUMES

Conditions To Avoid: NONE

Incompatibility and Materials to Avoid: NDA

Newpark Drilling Fluids, Inc.
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Material Safety Data Sheet
Emergency: (888) 572-0050

LIME

I. GENERAL INFORMATION

Chemical Name: CALCIUM HYDROXIDE CAS#: 01305-62-0

Chemical Family: BASE
Chemical Formula: $Ca(OH)_2$
Synonyms: CALCIUM HYDRATE, SLAKED LIME

NFPA Properties: Health: 1 Flammability: 1 Reactivity: 0 Contact: 2

II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	TLV's (ACGIH) TWAPPM	TWA MG/M^3	STEL PPM	STEL MG/M^3	CAS#	OTHER LIMITS	%
1. CALCIUM HYDROXIDE					1305-62-0		90-100
2.							
3.							

III. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point °F: N/A
Specific Gravity: 2.24
Vapor Pressure: N/A
Percent Volatility: N/A
Vapor Density: 2.5
Evaporation Rate: N/A
Solubility In Water: NEGLIBLE, LESS THAN 1 %
Melting Point °F: N/A

Color: WHITE TO OFF-WHITE
Odor: NONE
Appearance: POWDER OR CRYSTALS
pH:
Viscosity: N/A
Activity: N/A
LC50: NDA
LD50: 7340

IV. FIRE & EXPLOSION HAZARD DATA

Extinguishing Agents: DRYCHEMICAL OR WATERSPRAY OR WATERFOG OR CO2 OR FOAM OR SAND & EARTH
Flash Point °F: N/A
Flammable Limits: N/A LEL: N/A UEL: N/A
Special Firefighting Procedures: USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE
Unusual Fire & Explosion Hazards: NONE

Lime

V. HEALTH HAZARD DATA

Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES

Effects of Overexposure: DUST MAY IRRITATE NOSE AND THROAT. CONTACT WITH SKIN OR EYES MAY CAUSE IRRITATION.

Toxicological Properties: NDA

Chronic & Acute Effects of Overexposure:

Carcinogenicity: NTP: NO IARC Monographs: NO OSHA Regulated: NO

Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES AND CALL A PHYSICIAN.

Skin Contact: FLUSH WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES.

Inhalation: REMOVE TO FRESH AIR, IF BREATHING IS DIFFICULT, GIVE OXYGEN AND CALL A PHYSICIAN.

Ingestion: CALL A PHYSICIAN.

VI. REACTIVITY DATA

Stability: STABLE Hazardous Polymerization: WILL NOT OCCUR

Hazardous Decomposition Products: AS WITH ANY ORGANIC MATERIAL, COMBUSTION WILL PRODUCE CARBON DIOXIDE (CO_2) AND PROBABLY CARBON MONOXIDE (CO). OXIDES OF NITROGEN

Conditions To Avoid:

Incompatibility and Materials to Avoid: STRONG ACIDS

Lime

VII. SPILL & DISPOSAL PROCEDURES

Steps To Be Taken in Case Material is Released or Spilled --- Procedures For Clean – Up: WEAR SELF CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING. WITH CLEAN SHOVEL, CAREFULLY PLACE MATERIAL INTO CLEAN, DRY CONTAINER AND COVER; REMOVE FROM AREA. FLUSH SPILL ARE WITH WATER

Waste Disposal Method: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

Precautions To Be Taken In Handling & Storage: STORE BETWEEN 40°F AND 120°F.

VIII. PROTECTIVE EQUIPMENT

Ventilation Type Required: MECHANICAL

Protective Gloves: RUBBER OR PLASTIC (RECOMMENDED)

Respiratory Protection: USE NIOSH/OSHA APPROVED RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE IF VAPOR CONCENTRATION EXCEEDS PERMISSIBLE EXPOSURE LIMIT.

Eye/Skin Protection: SAFETY GLASSES WITH SIDESHIELDS, UNIFORM,
Other Protective Equipment: NEOPRENE TYPE APRON

Comments:

IX. REGULATORY & TRANSPORTATION INFORMATION

US DOT Proper Shipping Name: "OIL – WELL TREATING COMPOUND"

US DOT Hazard Class: NON-HAZARDOUS

DOT ID Number:

ID Number:

Freight Classification:

Unregulated By DOT:

Regulated by DOT: NO

Special Transportation Note:
Labels Required: NO

Newpark Drilling Fluids, Inc.
15810 Park Ten Place, Suite 300, Houston TX 77084

Material Safety Data Sheet
Emergency: (888) 572-0050

Attapulgite

I. GENERAL INFORMATION

Chemical Name: HYDROUS MAGNESIUM ALUMINUM SILICATE CAS#: 12174-11-7
Chemical Family: ATTAPULGITE
Chemical Formula: N/A
Synonyms: SALT GEL, SEA GEL

NFPA Properties: Health: NDA Flammability: NDA Reactivity: NDA Contact: NDA

II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	TWAPPM	TLV's (ACGIH) TWA MG/M^3	STEL PPM	STEL MG/M^3	CAS#	OTHER LIMITS	%
1.SILICA, CRYTALLINE (QUARTZ)		0.1			14808-60-7		>1
2.							
3.							

III. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point °F: N/A
Specific Gravity: 2.35
Vapor Pressure: NDA
Percent Volatility: NDA
Vapor Density: N/A
Evaporation Rate: N/A
Solubility In Water: INSOLUBLE
Melting Point °F: N/A

Color: TAN TO GRAY
Odor: NONE
Appearance: SIZED PARTICLES
pH:
Viscosity: N/A
Activity: N/A
LC50: N/A
LD50: N/A

IV. FIRE & EXPLOSION HAZARD DATA

Extinguishing Agents: DRY CHEMICAL OR WATERSPRAY OR WATERFOG OR CO_2 OR FOAM OR SAND & EARTH
Flash Point °F: NON-FLAMMABLE
Flammable Limits: N/A LEL: N/A UEL: N/A
Special Firefighting Procedures: FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED (POSITIVE PRESSURE IF AVAILABLE) BREATHING APPARATUS WITH FULL FACEPIECE.
Unusual Fire & Explosion Hazards: NONE
Toxic Gases Produced: CARBON MONOXIDE, CARBON DIOXIDE, OXIDES OF NITROGEN

Attapulgite

V. HEALTH HAZARD DATA

Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES

Effects of Overexposure: DUST MAY IRRITATE EYES OR SKIN. AGGRAVATES PRE-EXISTING CONDITION SUCH AS ASTHMA. REPEATED INHALATION OVER EXTENDED PERIOD OF ANY DUST, INCLUDING ATTAPULGITE, IN EXCESS OF TLV MAY RESULT IN LUNG INJURY.

Toxicological Properties: NDA

Chronic & Acute Effects of Overexposure: AGGRAVATES PRE-EXISTING CONDITION SUCH AS ASTHMA. REPEATED INHALATION OVER EXTENDED PERIOD OF ANY DUST, INCLUDING ATTAPULGITE, IN EXCESS OF TLV MAY RESULT IN LUNG INJURY.

Carcinogenicity: NTP: NO IARC Monographs: YES (VOL. 42 (1987) OSHA Regulated: NO

Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES AND CALL A PHYSICIAN.

Skin Contact: FLUSH WITH LARGE AMOUNTS OF SOAP & WATER FOR 15 MINUTES.

Inhalation: REMOVE TO FRESH AIR, IF BREATHING IS DIFFICULT, GIVE OXYGEN AND CALL A PHYSICIAN.

Ingestion: GIVE LARGE AMOUNTS OF WATER AND CALL A PHYSICIAN.

VI. REACTIVITY DATA

Stability: STABLE Hazardous Polymerization: WILL NOT OCCUR

Hazardous Decomposition Products: CARBON MONOXIDE, CARBON DIOXIDE, OXIDES, SMOKE, FUMES, OXIDES OF NITROGEN

Conditions To Avoid: HEAT, HUMIDITY

Incompatibility and Materials to Avoid: NDA

Attapulgite

VII. SPILL & DISPOSAL PROCEDURES

Steps To Be Taken in Case Material is Released or Spilled --- Procedures For Clean – Up: WEAR SUITABLE PROTECTIVE CLOTHING. SWEEP UP WITH CLEAN EQUIPMENT AND PLACE IN APPROPRIATE CONTAINER.

Waste Disposal Method: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

Precautions To Be Taken In Handling & Storage: NONE

VIII. PROTECTIVE EQUIPMENT

Ventilation Type Required: MECHANICAL

Protective Gloves: RUBBER OR PLASTIC

Respiratory Protection: WEAR A NIOSH APPROVED MASK IF CONCENTRATION IS TO EXCEED TLV

Other Protective Equipment:

Comments:

IX. REGULATORY & TRANSPORTATION INFORMATION

US DOT Proper Shipping Name: "OIL – WELL TREATING COMPOUND"

US DOT Hazard Class:

DOT ID Number:

ID Number:

Freight Classification:

Unregulated By DOT:

Regulated by DOT: NO

Special Transportation Note:

Labels Required:

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, expressed or implied, and we assume no responsibility for any damage or expense.

Newpark Drilling Fluids, Inc.
15810 Park Ten Place, Suite 300, Houston TX 77084

Material Safety Data Sheet
Emergency: (888) 572-0050

Sodium Carbonate

I. GENERAL INFORMATION

Chemical Name: SODIUM CARBONATE CAS#: 497-19-8
Chemical Family:
Chemical Formula: CNa_2O_3
Synonyms: Soda Ash; Disodium carbonate; Soda; calcined soda; ASH; Carbonic acid disodium salt

NFPA Properties: Health: 1 Flammability: 0 Reactivity: 1 Contact: 1

II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	TWAPPM	TLV's (ACGIH) TWA MG/M^3	STEL PPM	STEL MG/M^3	CAS#	OTHER LIMITS	%
1.							
2.							
3.							

III. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point °F: 752F(DECOMPOSES)
Specific Gravity: 2.53
Vapor Pressure: N/A
Percent Volatility: N/A
Vapor Density: N/A
Evaporation Rate: N/A
Solubility In Water: APPRECIABLE (>10%)
Melting Point °F: N/A

Color: WHITE TO OFF-WHITE
Odor: NONE
Appearance: HYGROSCOPIC POWDER
pH:
Viscosity: N/A
Activity: N/A
LC50: N/A
LD50: 4220 MG/KG

IV. FIRE & EXPLOSION HAZARD DATA

Extinguishing Agents: DRY CHEMICAL OR WATERSPRAY OR WATERFOG OR CO_2 OR FOAM OR SAND & EARTH
Flash Point °F: N/A
Flammable Limits: N/A LEL: N/A UEL: N/A
Special Firefighting Procedures: FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED (POSITIVE PRESSURE IF AVAILABLE) BREATHING APPARATUS WITH FULL FACEPIECE.
Unusual Fire & Explosion Hazards: NONE
Toxic Gases Produced: CARBON MONOXIDE, CARBON DIOXIDE

Sodium Carbonate

V. HEALTH HAZARD DATA

Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES

Effects of Overexposure: DUST MAY IRRITATE EYES OR SKIN

Toxicological Properties: NDA

Chronic & Acute Effects of Overexposure: NDA

Carcinogenicity: NTP: NO IARC Monographs: NO OSHA Regulated: NO

Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES AND CALL A PHYSICIAN.

Skin Contact: FLUSH WITH LARGE AMOUNTS OF SOAP & WATER FOR 15 MINUTES.

Inhalation: REMOVE TO FRESH AIR, IF BREATHING IS DIFFICULT, GIVE OXYGEN AND CALL A PHYSICIAN.

Ingestion: GIVE LARGE AMOUNTS OF WATER AND CALL A PHYSICIAN.

VI. REACTIVITY DATA

Stability: STABLE Hazardous Polymerization: WILL NOT OCCUR

Hazardous Decomposition Products: CARBON MONOXIDE, CARBON DIOXIDE, OXIDES, SMOKE, FUMES

Conditions To Avoid: HEAT, HUMIDITY

Incompatibility and Materials to Avoid: NDA

Sodium Carbonate

VII. SPILL & DISPOSAL PROCEDURES

Steps To Be Taken in Case Material is Released or Spilled --- Procedures For Clean – Up: WEAR SUITABLE PROTECTIVE CLOTHING. CAREFULLY SWEEP UP AND REMOVE.

Waste Disposal Method: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

Precautions To Be Taken In Handling & Storage: NONE

VIII. PROTECTIVE EQUIPMENT

Ventilation Type Required: MECHANICAL

Protective Gloves: RUBBER OR PLASTIC

Respiratory Protection: WEAR A NIOSH APPROVED MASK IF CONCENTRATION IS TO EXCEED TLV

Other Protective Equipment:

Comments:

IX. REGULATORY & TRANSPORTATION INFORMATION

US DOT Proper Shipping Name: "OIL – WELL TREATING COMPOUND"

US DOT Hazard Class: NON-HAZARDOUS

DOT ID Number:

ID Number:

Freight Classification:

Unregulated By DOT:

Regulated by DOT: NO

Special Transportation Note:

Labels Required: NONE

Newpark Drilling Fluids, Inc.
15810 Park Ten Place, Suite 300, Houston TX 77084

Material Safety Data Sheet
Emergency: (888) 572-0050

Kwik-Seal
(all grades)

I. GENERAL INFORMATION

Chemical Name:	BLEND OF VEGETABLE/POLYMER FIBERS	CAS#: MIXTURE
Chemical Family:	BLEND OF VEGETABLE/POLYMER FIBERS	
Chemical Formula:	UNKNOWN	
Synonyms:	LCM	

NFPA Properties: Health: 0 Flammability: 1 Reactivity: 0 Contact: 0

II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	TWAPPM	TLV's (ACGIH) TWA MG/M^3	STEL PPM	STEL MG/M^3	CAS#	OTHER LIMITS	%
1.							
2.							
3.							

III. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point °F: N/A
Specific Gravity: 0.9-1.2
Vapor Pressure: NIL
Percent Volatility: 2-10% MOISTURE
Vapor Density: N/A
Evaporation Rate: N/A
Solubility In Water: NOT SOLUBLE
Melting Point °F: N/A

Color: VARIOUS
Odor: SLIGHT
Appearance: VAR. SIZED PARTICLES
pH: N/A
Viscosity: NDA
Activity: N/A
LC50: >1,000,000 PPM
LD50: N/A

IV. FIRE & EXPLOSION HAZARD DATA

Extinguishing Agents: DRY CHEMICAL OR WATERSPRAY OR WATERFOG OR CO_2 OR FOAM OR SAND & EARTH
Flash Point °F: N/A
Flammable Limits: N/A LEL: N/A UEL: N/A
Special Firefighting Procedures: NORMAL
Unusual Fire & Explosion Hazards: DUST EXPLOSIONS MAY OCCUR WHEN FINELY DIVIDED PARTICLES ARE MIXED WITH AIR IN THE PRESENCE OF AN IGNITION SOURCE. AVOID EXCESSIVE ACCUMULATION OF DUST ON FLOORS, BEAMS, OR MACHINERY. IGNITION TEMPERATURES IS APPROXIMATELY 250-300F.
Toxic Gases Produced: MAY INCLUDE CARBON MONOXIDE, CARBON DIOXIDE.

Kwik-Seal
(all grades)

V. HEALTH HAZARD DATA

Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES

Effects of Overexposure: PROLONGED EXPOSURE TO HIGH LEVELS OF DUST IN AIR MAY CAUSE SNEEZING, COIUGHING, OR OTHER NUISANCE SYMPTOMS.

Toxicological Properties: NDA

Chronic & Acute Effects of Overexposure: NONE

Carcinogenicity: NTP: NO IARC Monographs: NO OSHA Regulated: NO

Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES AND CALL A PHYSICIAN.

Skin Contact: FLUSH WITH LARGE AMOUNTS OF SOAP & WATER FOR 15 MINUTES.

Inhalation: REMOVE TO FRESH AIR, IF BREATHING IS DIFFICULT, GIVE OXYGEN AND CALL A PHYSICIAN.

Ingestion: RINSE MOUTH, GIVE LARGE AMOUNTS OF WATER, INDUCE VOMITING, AND CALL A PHYSICIAN. NEVER GIVE ANYTHING MOUTH-TO-MOUTH TO AN UNCONSCIOUS PERSON.

VI. REACTIVITY DATA

Stability: STABLE Hazardous Polymerization: WILL NOT OCCUR

Hazardous Decomposition Products: THERMAL DECOMPOSITION MAY INCLUDE, CARBON MONOXIDE, CARBON DIOXIDE, SMOKE, FUMES

Conditions To Avoid: NONE

Incompatibility and Materials to Avoid: NONE

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
Cedar Fiber Co., Inc.	(915) 446-2616

ADDRESS (Number, Street, City, State, and ZIP Code)
Box 127, Junction, Tx 76849

CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
N/A - Ground Paper	Dicks Mud Seal
CHEMICAL FAMILY: Paper	FORMULA: N/A

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
NONE		

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H_2O=1) Approx:	0.36
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT, VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ =1)	
SOLUBILITY IN WATER	None		

APPEARANCE AND ODOR: Ground paper - Paper Odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
NONE	Will Burn		

EXTINGUISHING MEDIA: Water, CO_2, Etc.

SPECIAL FIRE FIGHTING PROCEDURES: NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

(Continued on reverse side)

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
NOT KNOWN

EFFECTS OF OVEREXPOSURE
None Known

EMERGENCY AND FIRST AID PROCEDURES
N/A - Non-Toxic

SECTION VI - REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	Open Flame

INCOMPATABILITY *(Materials to avoid)*
NONE

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		
	WILL NOT OCCUR	X	Open Flame

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Remove from area, spread on surface and leave or land fill.

WASTE DISPOSAL METHOD
Spread and leave, or land fill.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*
Dust Mask (Particle mask)

VENTILATION		
	LOCAL EXHAUST: YES	SPECIAL
	MECHANICAL *(General)*	OTHER

PROTECTIVE GLOVES: NO

EYE PROTECTION: NONE

OTHER PROTECTIVE EQUIPMENT
NONE

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep away from open flame

OTHER PRECAUTIONS
NONE

GPO 930-540

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
CEDAR FIBER CO., INC.	(915) 446-2616

ADDRESS (Number, Street, City, State, and ZIP Code)
Box 127 Junction, Texas 76849

CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
None - Ground Cedar Wood	Cedar Fiber
CHEMICAL FAMILY: Cedar	FORMULA: By Product - N.A.

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
None - Ground Cedar Wood		

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H_2O=1)	Approx. 0.60
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT, VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER	N/A		

APPEARANCE AND ODOR: Ground Fiberous Material - Cedar Odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used): <350°F (PMCC)
FLAMMABLE LIMITS: Lel _____ Uel _____
EXTINGUISHING MEDIA: Water
SPECIAL FIRE FIGHTING PROCEDURES: None
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

(Continued on reverse side)

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Not Known

EFFECTS OF OVEREXPOSURE: Wear dust masks in closed areas.

EMERGENCY AND FIRST AID PROCEDURES: Non-toxic - Some individuals known to be allergic to pollen may be effected.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Not Known

INCOMPATABILITY (Materials to avoid): NONE

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	Dust

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Non-toxic - None special

WASTE DISPOSAL METHOD

Land fill - or spread evenly on surface and leave as is.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): Dust masks in closed areas.

VENTILATION	LOCAL EXHAUST: Yes	SPECIAL
	MECHANICAL (General)	OTHER

PROTECTIVE GLOVES: None

EYE PROTECTION: None

OTHER PROTECTIVE EQUIPMENT: None

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

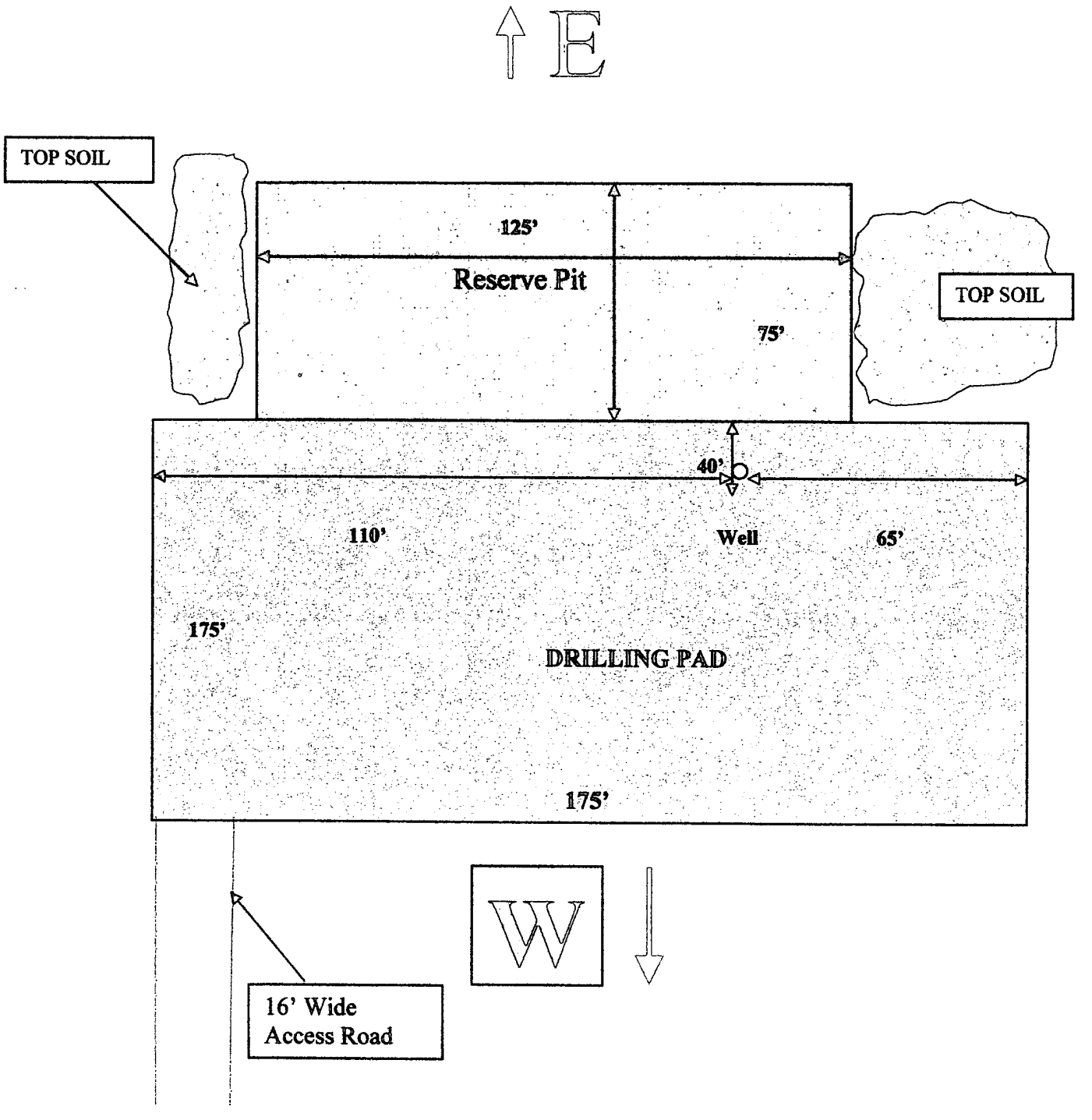
Keep away from open flame

OTHER PRECAUTIONS

None

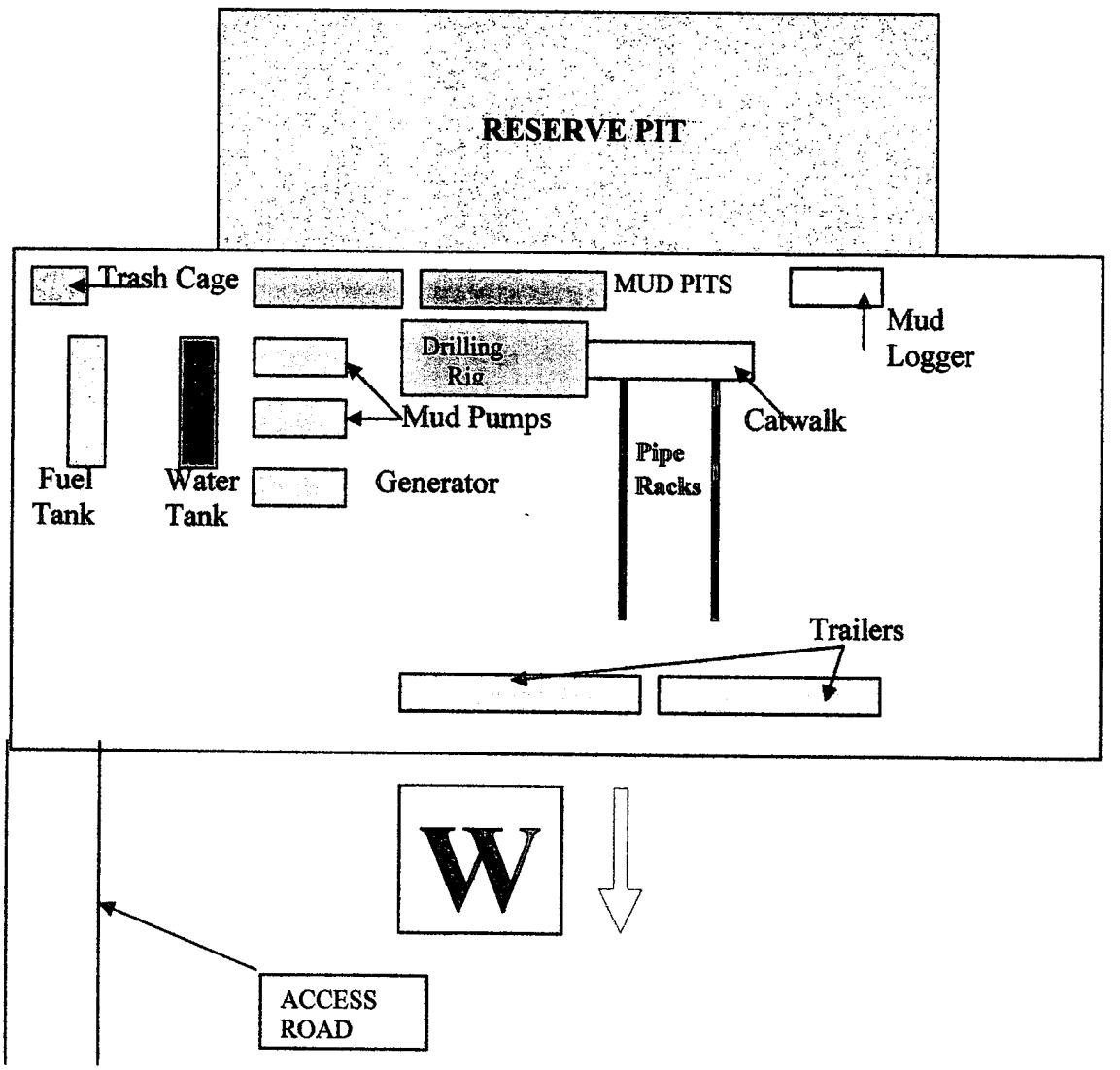
Proposed Drilling Pad and Reserve Pit Dimensions for CHISOS, Ltd.
Johns "B" Federal #6.
NM-058408B

EXHIBIT "G"



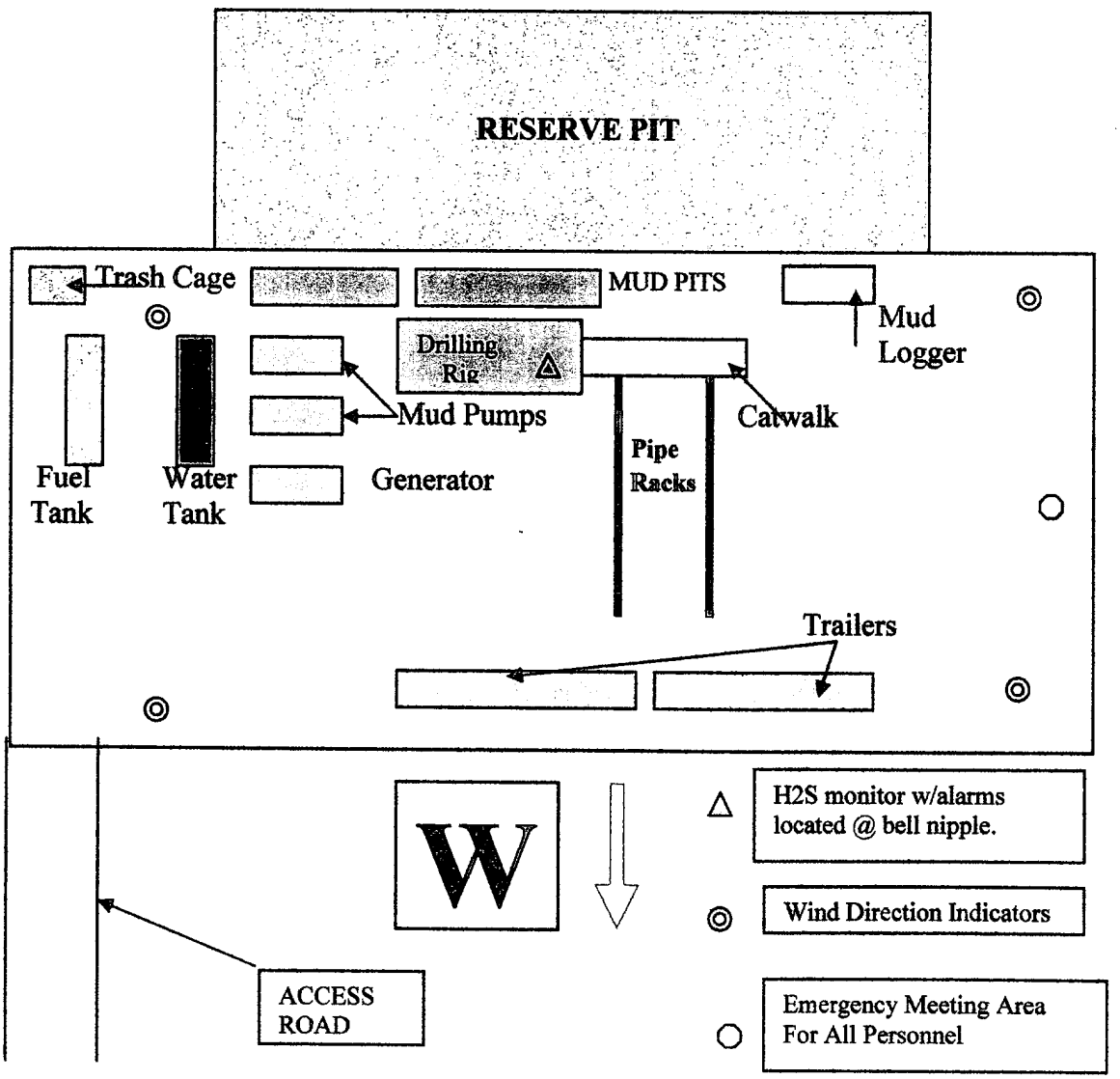
Anticipated Drilling Pad Rig Layout for CHISOS, Ltd.
Johns "B" Federal #6
NM-058408B

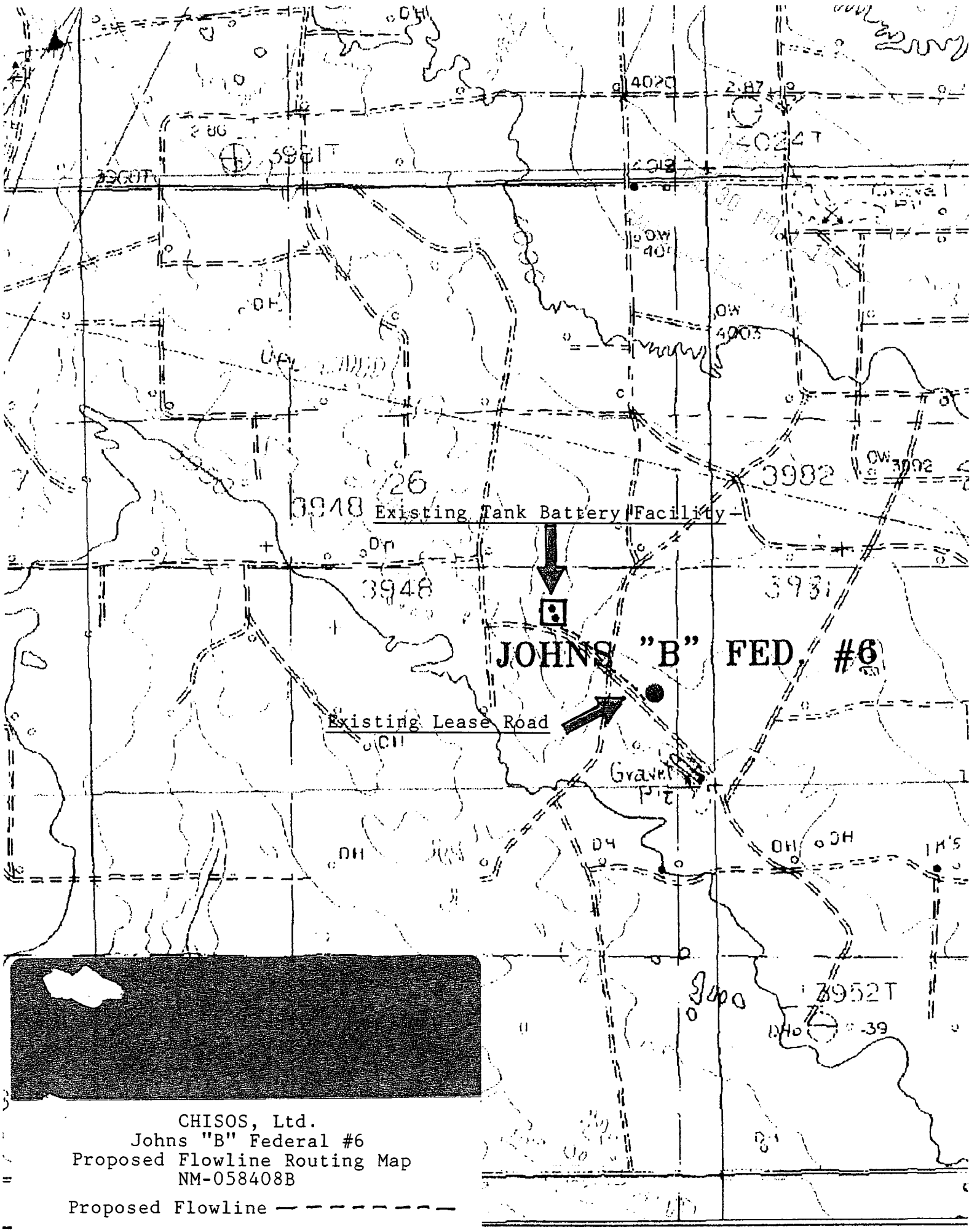
EXHIBIT "H"



Drilling Pad Layout for H_2S Equipment
CHISOS, Ltd.
Johns "B" Federal #6
NM-058408B

EXHIBIT "I"





CHISOS, Ltd.
Johns "B" Federal #6
Proposed Flowline Routing Map
NM-058408B

Proposed Flowline — — — — — —

EXHIBIT "J"

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐
Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: CHISOS, Ltd. Telephone: (432)570-6009 e-mail address: bill@dpps.us
Address: P. O. Box 2079; Midland, Texas 79702-2079
Facility or well name: Johns B ~~Federal~~ #6 API #: 30-025-37213 U/L or Qtr/Qtr P Sec 26 T 17S R 32E
County: Lea Latitude N32*48'01.8" Longitude W103*43'48.5" NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☒ Private ☐ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Pit Volume 2,000 bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points) 0 points
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points) 0 points
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) 0 points
	Ranking Score (Total Points)	0 Points

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

FEB 2005
RECEIVED
Hobbs
OCD

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**
Date: 02/21/2005
Printed Name/Title Bill Pierce / Consulting Petroleum Engineer Signature Bill Pierce

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title PAUL F. KAUTZ / PETROLEUM ENGINEER Signature _____ Date: APR 29 2005

DISTRICT I
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DISTRICT II
811 South First, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	43329	Maljamar; Grayburg - San Andres

Property Code	Property Name	Well Number
	JOHNS "B" FEDERAL	6

OGRID No.	Operator Name	Elevation
215732	CHISOS LTD.	3970'

Surface Location

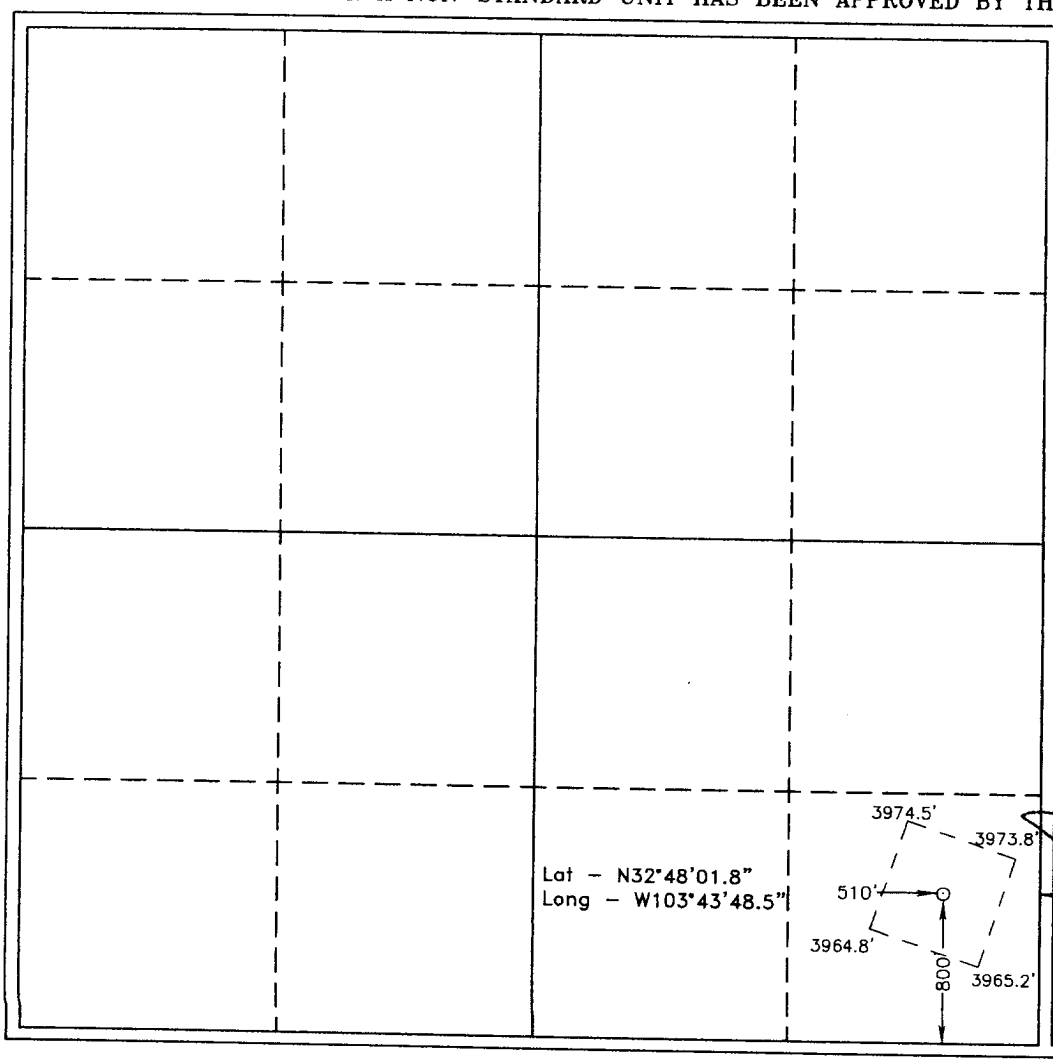
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	26	17 S	32 E		800	SOUTH	510	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Signature

Bill Pierce
Printed Name

Consulting Engineer
Title

February 21, 2005
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

FEBRUARY 3, 2005
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. No. 5067

Certificate No. Gary L. Jones 7977

BASIN SURVEYS