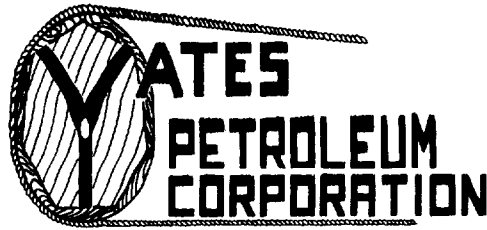


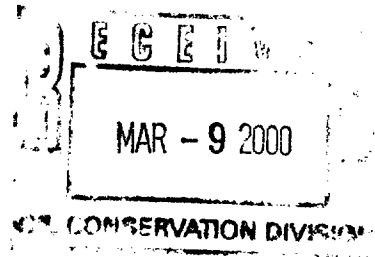
SWD 3/24/00

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

S. P. YATES
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TREASURER



March 6, 2000

David Catanach
State of New Mexico
OIL CONSERVATION DIVISION
2040 S. Pacheco Street
Santa Fe, NM 87505-5472

Dear Mr. Catanach,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the proposed Buffalo Valley QL Federal #1 located in Unit K of Section 3-T15S-R28E, Chaves County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4174.

Sincerely,

Albert R. Stall
Operations Engineer

ARS/sd

Enclosure

APPLICATION FOR AUTHORIZATION TO INJECT

- ✓ I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance X Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes _____ No
- ✓ II. OPERATOR: Yates Petroleum Corporation
ADDRESS: 105 South Fourth Street, Artesia, NM 88210
CONTACT PARTY: Albert R. Stall PHONE: 505-748-4174
- ✓ 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.
- ✓ IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____
- ✓ 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.
- ✓ 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.
- ✓ VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 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.).
- ✓ *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.
- ✓ IX. Describe the proposed stimulation program, if any.
- ✓ *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- ✓ *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.
- ✓ 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.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- 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: Albert R. Stall TITLE: Operations Engineer
SIGNATURE: _____ DATE: _____
- * 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: _____

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.
- (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.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

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.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (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.
- (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.

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.

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:

- (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, 2040 South Pacheco, 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.

C-108 Application for Authorization to Inject

YATES PETROLEUM CORPORATION

Buffalo Valley QL Federal #1

K 3-15S-28E

Chaves County, New Mexico

- I. The purpose of completing this well is for disposal of produced Morrow water into the San Andres.
- II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
Albert R. Stall (505) 748-4174
- III. Well Data: See Attachment A
- IV. This is not an expansion of an existing project.
- V. See attached map, Attachment B.
- VI. There are no wells within the area of review penetrating the proposed injection zone.
- VII.
 1. Proposed average daily injection volume approximately 1,000 BWPD.
Maximum daily injection volume approximately 5,000 BWPD.
 2. This will be a closed system.
 3. Proposed average injection pressure--unknown.
Proposed maximum injection pressure--1300 psi.
 4. Sources of injected water would be produced water from the Morrow.
(Attachment C)
 5. See Attachment C.
- VIII. The injection interval is San Andres from 1948-3365'.
Underground water sources of drinking water are in the Alluvial fill from surface to 200'.
- IX. The proposed disposal interval may be acidized with 15-20% HCL acid.
- X. Logs were filed at your office when the well was drilled.
- XI. There is one windmill that exists within a one-mile radius of the subject location.
Chemical analysis attached. (Attachment D)
- XII. Available engineering and geologic data have been examined, and no evidence of open faults or hydrologic connection between the disposal zone and any underground sources of drinking water has been found.
- XIII. Proof of notice
 - A. Surface owners and offset operators have been notified. (Attachment E)
 - B. Copy of legal advertisement attached. (Attachment F)
- XIV. Certification is signed.

ATTACHMENT A

YATES PETROLEUM CORPORATION
Buffalo Valley QL Federal #1
K Sec 3-T15S-R28E
Chaves County

III. Well Data

- A. 1. Lease Name/Location:
Buffalo Valley QL Federal #1
K 3-15S-28E
1980'FSL & 1980'FWL
2. Casing Strings: Proposed Well Condition:
13-3/8" 40# H40 at 396'
8-5/8" 24# J55 at 1948'
2-7/8" J-55 plastic-coated tubing with nickel-plated packer at 1900'
3. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 1900'
- B. 1. Injection Formation: San Andres
2. Injection interval into open hole 1948-3365'
3. Well was originally drilled as an exploratory Morrow well. Well will be a San Andres water disposal well when work is completed.
4. Next higher (shallower) oil or gas zone within 2 miles: None
Next lower (deeper) oil or gas zone within 2 miles: Morrow

INJECTION WELL DATA SHEET

OPERATOR: Yates Petroleum Corporation

WELL NAME & NUMBER: Buffalo Valley QL Federal #1

30-005-60967

WELL LOCATION: 1980FSL & 1980FWL

K

FOOTAGE LOCATION

UNIT LETTER

3

SECTION

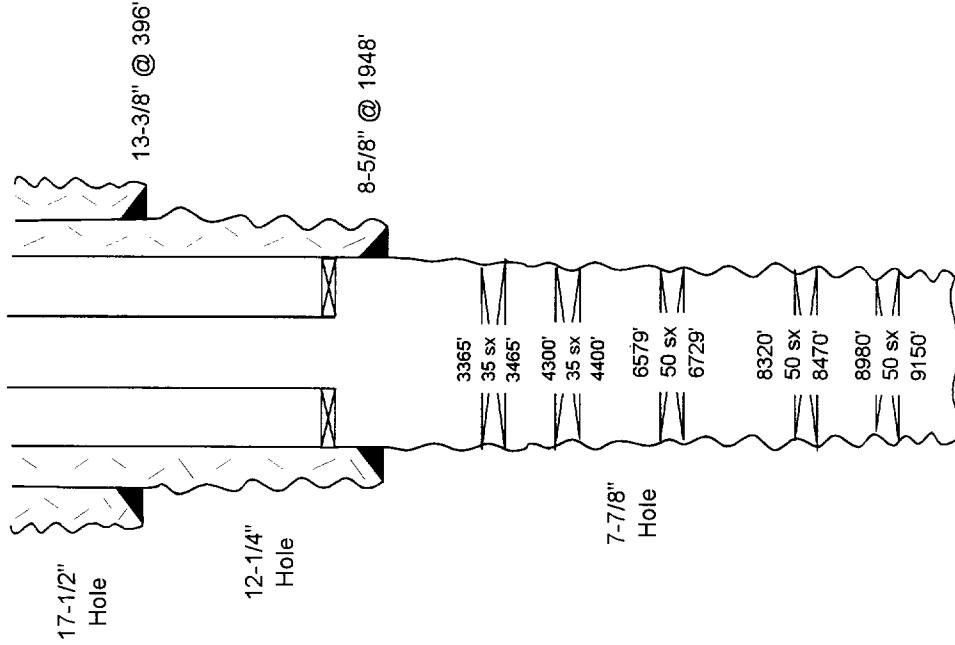
15S

TOWNSHIP

28E

RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8" @ 396'
Cemented with: 400 sx. or ft³
Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12-1/4" Casing Size: 8-5/8" @ 1948'
Cemented with: 1450 sx. or ft³
Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 7-7/8" Casing Size:
Cemented with: sx. or ft³
Top of Cement: Method Determined:
Total Depth: 9392'

Injection Interval

Open Hole 1948 feet to 3365
(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" 6.4#/ft J55 Lining Material: plastic-coated

Type of Packer: Guiberson Uni VI - Nickel-plated

Packer Setting Depth: 1900'

Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

- 1 Is this a new well drilled for injection? Yes X No
If no, for what purpose was the well originally drilled? Morrow test
- 2 Name of the Injection Formation: San Andres
- 3 Name of Field or Pool (if applicable): None
- 4 Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No
See attached wellbore diagram for plugging details.
- 5 Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Morrow at approximately 9000-9200'

Yates Petroleum Corp.

WELL NAME: Buffalo Valley QL Fed #1 FIELD AREA: _____

LOCATION: 1980' FSL & 1980' FWL Sec. 3, T. 15 S., R. 28 E.

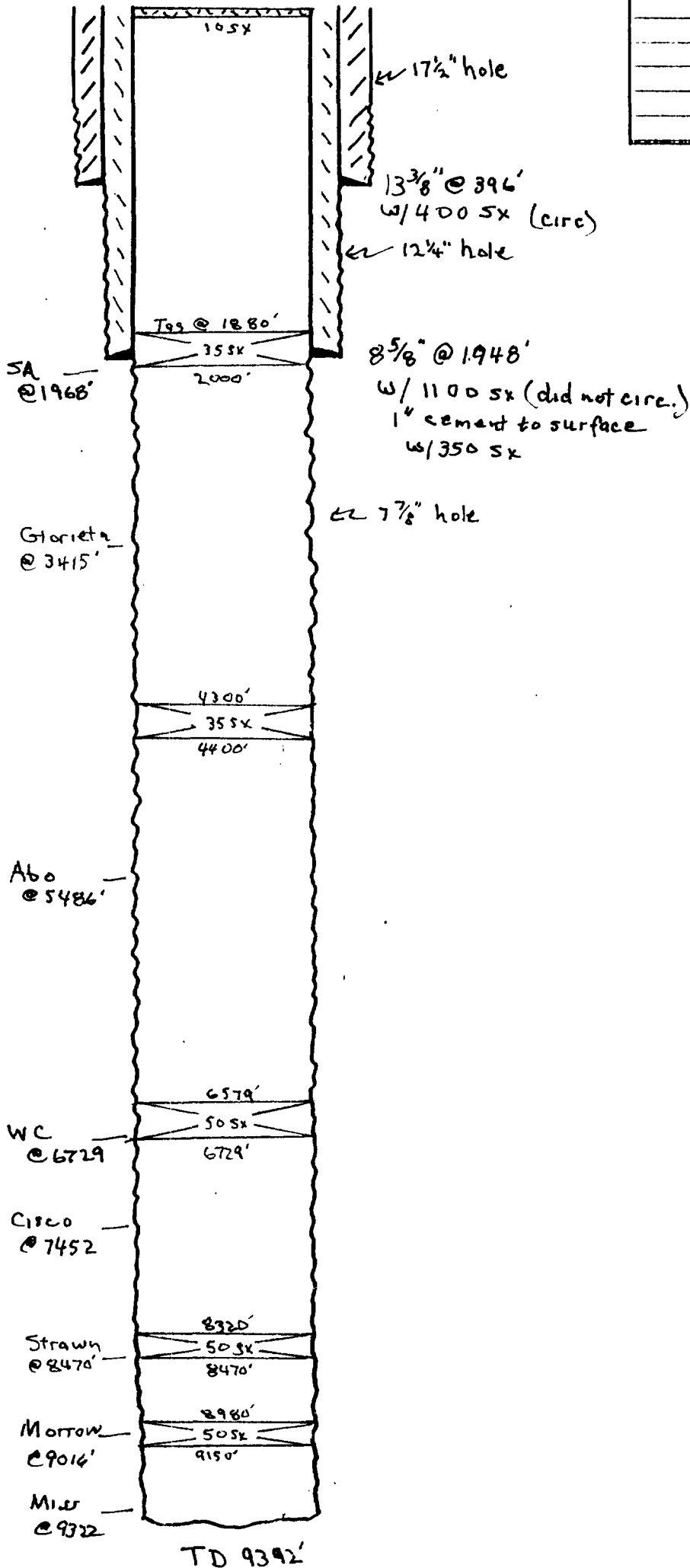
GL: 3633' ZERO: _____' AGL: _____'

KB: 3645' ORIG. DRLG./COMPL. DATE: _____

COMMENTS: Spud 6-30-81 Plugged 8-21-81

CASING PROGRAM:

SIZE/WT./GR./CONN.	DEPTH SET
13 ³ / ₈ " H-40 40#/ft	396'
8 ⁵ / ₈ " J-55 24#/ft	1948'



Current

WELL NAME: Buffalo Valley QL Fed #1 FIELD AREA: _____

LOCATION: 1980' FSL & 1980' FWL Sec. 3, T. 15 S., R. 28 E.

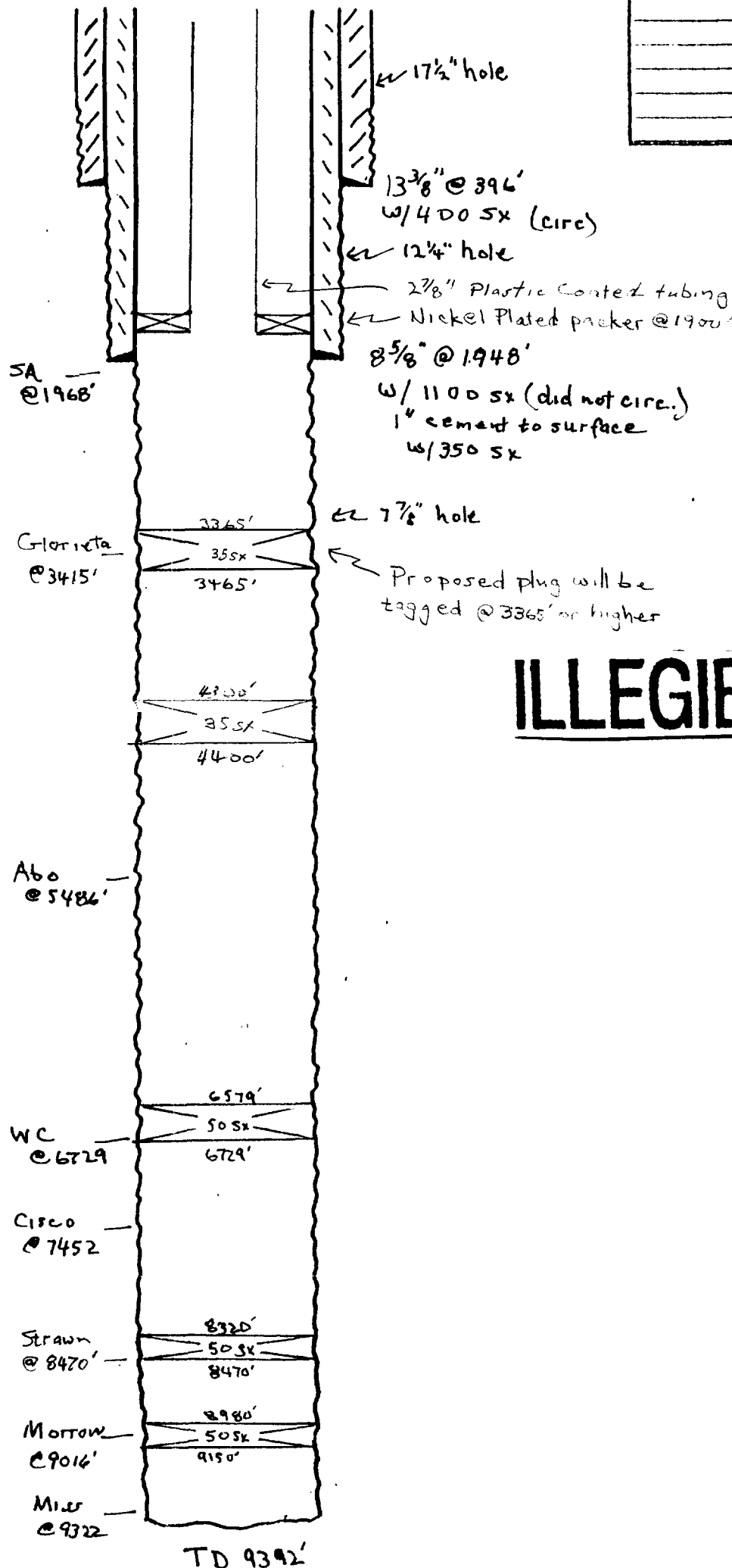
GL: 3633' ZERO: _____' AGL: _____'

KB: 3645' ORIG. DRILG./COMPL. DATE: _____

COMMENTS: _____

CASING PROGRAM:

SIZE/WT./GR./CONN.				DEPTH SET
13 3/8"	H-40	40#/ft		396'
8 5/8"	J-55	24#/ft		1948'



ILLEGIBLE

