

29571

Sheldon-State-Wellington #1-34 Alpena 29,571

SHELL OIL COMPANY

APPLICATION FOR PERMIT TO DRILL A WELL FOR OIL,
GAS, GEOLOGICAL TEST, BRINE DISPOSAL, GAS OR
L.P.G. STORAGE OR FOR SECONDARY RECOVERY

Under Authority of Act 61, P.A. of 1939, As Amended.

MAIL TO:
OIL AND GAS SECTION
GEOLOGICAL SURVEY DIVISION
STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING, MICHIGAN 48926

See Reverse Side Before Filling Out This Application

LOCATE WELL AND OUTLINE UNIT ON SECTION PLAT. 640 ACRES Acres 	1. APPLICATION TO DRILL A WELL FOR: Oil and/or Gas	2. DATE 11-14-73	3. FEE ENCLOSED \$ 100.00	
	4. LEASEE (OWNER OF LEASE RIGHTS) Shell Oil Company			
	5. PERMANENT ADDRESS P. O. Box 552, Traverse City, Mich. 49684		6. PHONE 616-946-1500	
	7. LESSOR (FULL NAME OF OWNER OF MINERAL RIGHTS) SHELDON State-Wellington		8. WELL NO. 1-34	
	9. SURFACE OWNER (IF OTHER THAN MINERAL OWNER) Frances C. Robertson			
	10. ADDRESS 5206 Lake Shore Dr., Port Huron, Mich. 48060		11. PHONE	
	12. DRILLING CONTRACTOR Unknown			
	13. ADDRESS			14. PHONE
	15. SURFACE LOCATION SW 1/4 OF SW 1/4 OF SW 1/4 SECTION 34 T 32N R 5E			
	16. TOWNSHIP Wellington		17. COUNTY Alpena	
18. LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND UNIT LINES. (SURFACE LOCATION)				
173 FT. FROM South LINE OF QUARTER SECTION (north-south)		513 FT. FROM West LINE OF QUARTER SECTION (east-west)		
1147 FT. FROM North UNIT LINE (north-south)		513 FT. FROM West UNIT LINE (east-west)		
19. KIND OF TOOLS TO BE USED (Cable, rotary, combination) Rotary		20. FORMATION IN WHICH WELL IS TO BE COMPLETED All horizons thru Knox sand		
21. INTENDED DEPTH OF WELL 6430				
22. PROGRAM OF CASING, SEALING, CEMENTING AND COMPLETING WELL (SEE REVERSE SIDE)				
1. Drill 20" hole to 100'+. Set 16" conductor pipe and cement to surface.				
2. Drill 15" hole to a depth sufficient to set 11 3/4" casing 200'+ below the base of the Glacial Drift and cement to surface.				
3. Drill 10 5/8" hole to a depth sufficient to set 8 5/8" casing 50'+ into Bass Island formation and cement with no less than 150 sx of cement and to no less than a minimum of 500' above the casing shoe.				
4. Drill 7 7/8" hole to total depth. Log and complete as warranted with 5 1/2" liner.				
CASING IS NOT TO BE STRIPPED FROM THE HOLE AND NO CHANGE IS TO BE MADE IN THE PROGRAM OUTLINED ABOVE WITHOUT APPROVAL OF THE SUPERVISOR OF WELLS OR HIS AUTHORIZED REPRESENTATIVE				
APPLICANT AGREES TO COMPLY WITH THE PROVISIONS OF ACT 61, PUBLIC ACTS OF 1939, AS AMENDED, AND RULES PERTAINING TO THE LOCATING, DRILLING, CASING, SEALING, COMPLETING, PRODUCING, AND PLUGGING OF WELLS, BEFORE COMMENCING DRILLING OPERATIONS, CONTACT THE NEAREST FIELD OFFICE. (See reverse side)				
23. SEND CORRESPONDENCE AND PERMIT TO: Shell Oil Company, Attention G. M. Jobe			24. PHONE 616-946-1500	
25. ADDRESS P. O. Box 552, Traverse City, Michigan 49684				
DATE ISSUED 11-27-73		PERMIT NO. 29,571		
LEAVE BLANK		26. OWNER OF LEASE RIGHTS (PRINT) Shell Oil Company		
		27. OWNER OR REPRESENTATIVE G. M. Jobe (Signature) <i>G.M. Jobe</i> Senior Engineering Asst.		

FOR CASHIER'S USE ONLY. DO NOT WRITE IN THIS SPACE

DISTRIBUTION
1. WHITE. LANSING 4. GOLDENROD FIELD
2. CANARY. CASHIER 5. GREEN. APPLICANT
3. BLUE. FIELD

**INSTRUCTIONS FOR PREPARING
APPLICATION FOR PERMIT**

1. Use form R-7202. (Five copies in set. Green will be returned when permit is issued.)
2. WELL LOCATION SURVEY. Use form R-7208. Submit four copies. (Surveyors plat may be substituted for form R-7208.) Submit supplemental information and maps if lakes, streams, swamps, buildings, roads, powerlines, etc., are within one quarter mile of location.
3. ENVIRONMENTAL IMPACT STATEMENT. Use form R-7616 or equivalent. Submit four copies. (See instructions and guidelines furnished with forms.)
4. WELL ELEVATION. Furnish with well location survey or submit certification that elevation will be run and submitted within fifteen days after drilling commences.
5. SURETY BOND. Proper bond coverage must be submitted with application or must have been filed previously. (See General Rules for details.)
6. PERMIT FEE. Must accompany application for permit. (See statute for applicable fee.) (Make check payable to STATE OF MICHIGAN.)

**IF THIS APPLICATION IS FOR A HOLE TO BE DIRECTIONALLY DRILLED,
SUBMIT THE FOLLOWING SUPPLEMENTAL INFORMATION:**

(Four copies required.)

1. Give geographical description of intended bottom hole location.
2. Give correct footage measurements of intended bottom hole location from the NEAREST quarter section lines and from NEAREST unit lines.
3. Give RADIUS of intended bottom hole target area.
4. SUBMIT DRILLING OR ENGINEERING PROGRAM COVERING THE DRILLING OF THIS HOLE: Include the following information: Different hole sizes and depths to be drilled. Casing sizes, weights, grades and casing points. Amount and type of cement to be used. Type and amount of additives if used. Specify deviation kick-off points, degrees of deviation intended, actual intended depth of well bore, and proposed True Vertical Depth of bottom hole. Show lateral distance between surface location and bottom hole location of well bore. Indicate type, weights and viscosities of drilling fluids to be used prior to penetrating known oil and gas producing zones. Give name and address of Engineering Company who will direct the deviation of the well bore. List blowout prevention control equipment to be used; give size, type, pressure ratings, and order of assembly in stack. Indicate intended well logging program, auxiliary equipment to be used, if any, and general information and remarks not covered by the above.

NOTICE

THE SUPERVISOR OF WELLS IS PROHIBITED BY LAW FROM ISSUING A DRILLING PERMIT TO ANY OWNER OR OPERATOR WHO IS IN VIOLATION OF ANY OF THE PROVISIONS OF ACT 61, P.A. 1939, AS AMENDED, OR ANY OF THE RULES OR ORDERS PROMULGATED THEREUNDER

FIELD OFFICES

Lansing

Stevens T. Mason Bldg.,
Phone (A/C 517) 373-1256

Mt. Pleasant

204 Court Street
Phone (A/C 517) 773-9965

Imlay City

P.O. Box 218
Phone (A/C 313) 724-2015

Plainwell

P.O. Box 355
Phone (A/C 616) 685-6851

Cadillac

P.O. Box 629
Phone (A/C 616) 775-9728

Gaylord

P.O. Box 576
Phone (A/C 517) 732-5803

The Field Office for the area in which the well is to be drilled must be notified when drilling operations are to commence. (See list of Field Offices above.)

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
SUPERVISOR OF WELLS

N^o 1692

PERMIT TO DRILL A WELL FOR OIL OR GAS

(POST WHITE COPY OF PERMIT AT WELL LOCATION)

Permit No. 29,571

Date Issued November 27, 1973

Permission is hereby granted to Shell Oil Company

Owner

P. O. Box 552, Traverse City, Michigan 49684

Address

Lease Name Sheldon-State-Wellington Well Number 1-34

To drill a well for Oil and/or Gas

in the ^{SW} SW¹/₄, SW²/₄, SW³/₄ Section 34, T.32N., R.5E., Wellington Township, Alpena County

and located 173' from south and 513' from west line of quarter section

and located 1147' from north and 513' from west unit line

This permit is issued subject to the provisions and requirements of Act 61, P. A. 1939 and Act No. 326, P. A. 1937, as amended, and rules, regulations, requirements, or orders issued by the Supervisor of Wells and Department of Natural Resources.

SUPERVISOR OF WELLS

By V. J. Sargent

CASING AND SEALING REQUIREMENTS

Drill 20" hole to 100'. Set 16" conductor pipe and cement to surface. Drill 15" hole to a depth sufficient to set 11 3/4" casing 200' below the base of the Glacial Drift and cement to surface. ~~Drill 10 5/8" hole to a depth sufficient to set 8 5/8" casing 50' into Bass Island Formation and cement with no less than 150 sacks of cement and to no less than a minimum of 500' above the casing shoe. Drill 7 7/8" hole to total depth. Log and complete log warranted with 5 1/2" liner.~~ NOTICE

DRILLING PERMIT ISSUED on the basis of the drilling, casing and sealing program as outlined on the application for permit and subject to requirements as set forth above. No change or alteration is to be made without the permission and approval of the Supervisor of Wells or his authorized representative.

DRILLING OPERATIONS ARE NOT TO BE COMMENCED until all the well location requirements have been completed and the permit has been posted in a conspicuous place at the well site.

DEPARTMENT OFFICES

Lansing, Phone 517-373-1256
Mount Pleasant, Phone 517-773-9965
Cadillac, Phone 616-776-9728

Escanaba, Phone 906-786-0333

Plainwell, Phone 616-685-6851
Imlay City, Phone 313-724-2015
Gaylord, Phone 517-732-5128

PERMITS MAY BE TRANSFERRED ONLY WITH THE PERMISSION OF
THE SUPERVISOR OF WELLS

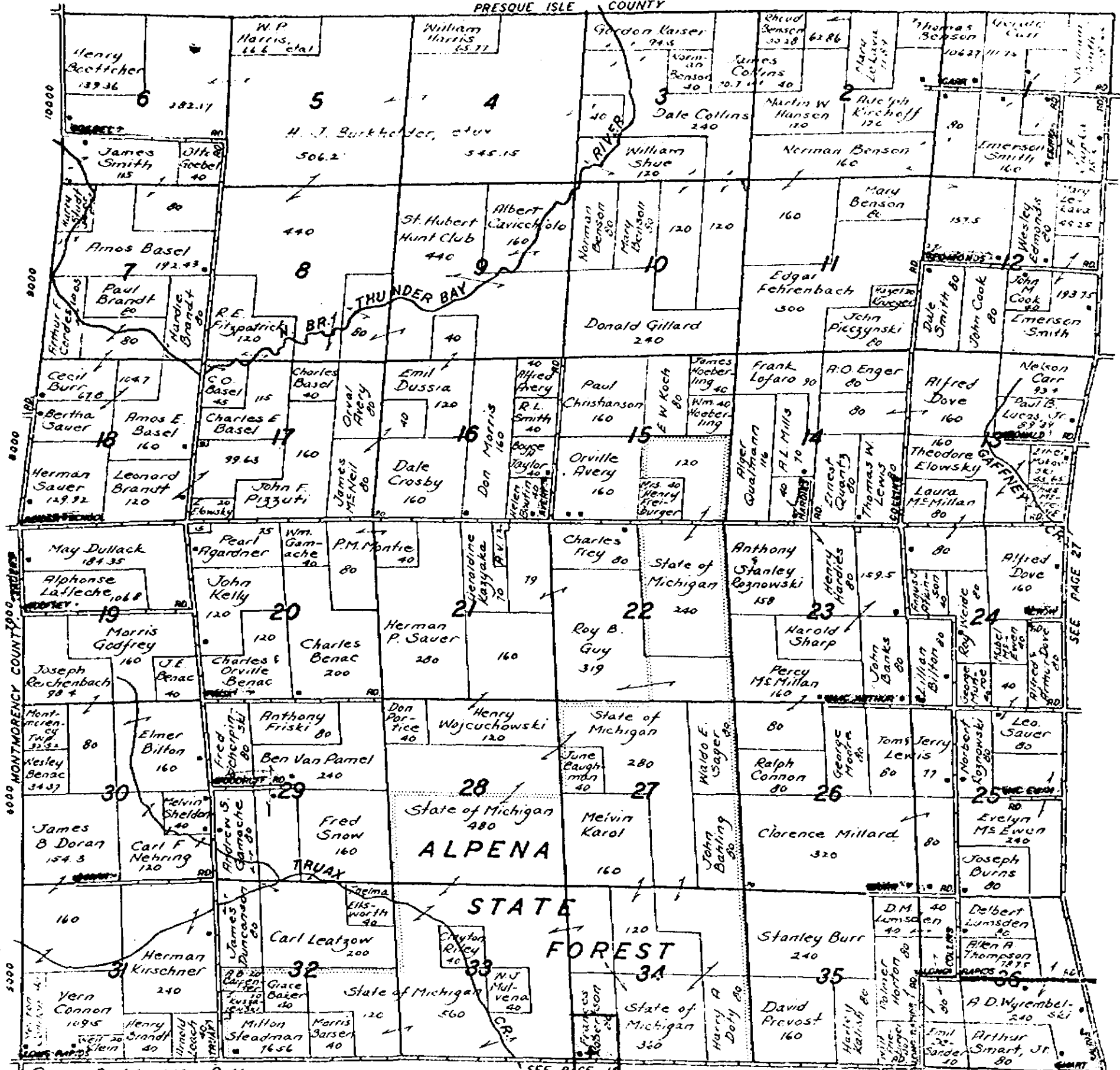


NORTH PART

WELLINGTON

T. 32 N.-R. 5 E. 25

PRESQUE ISLE COUNTY

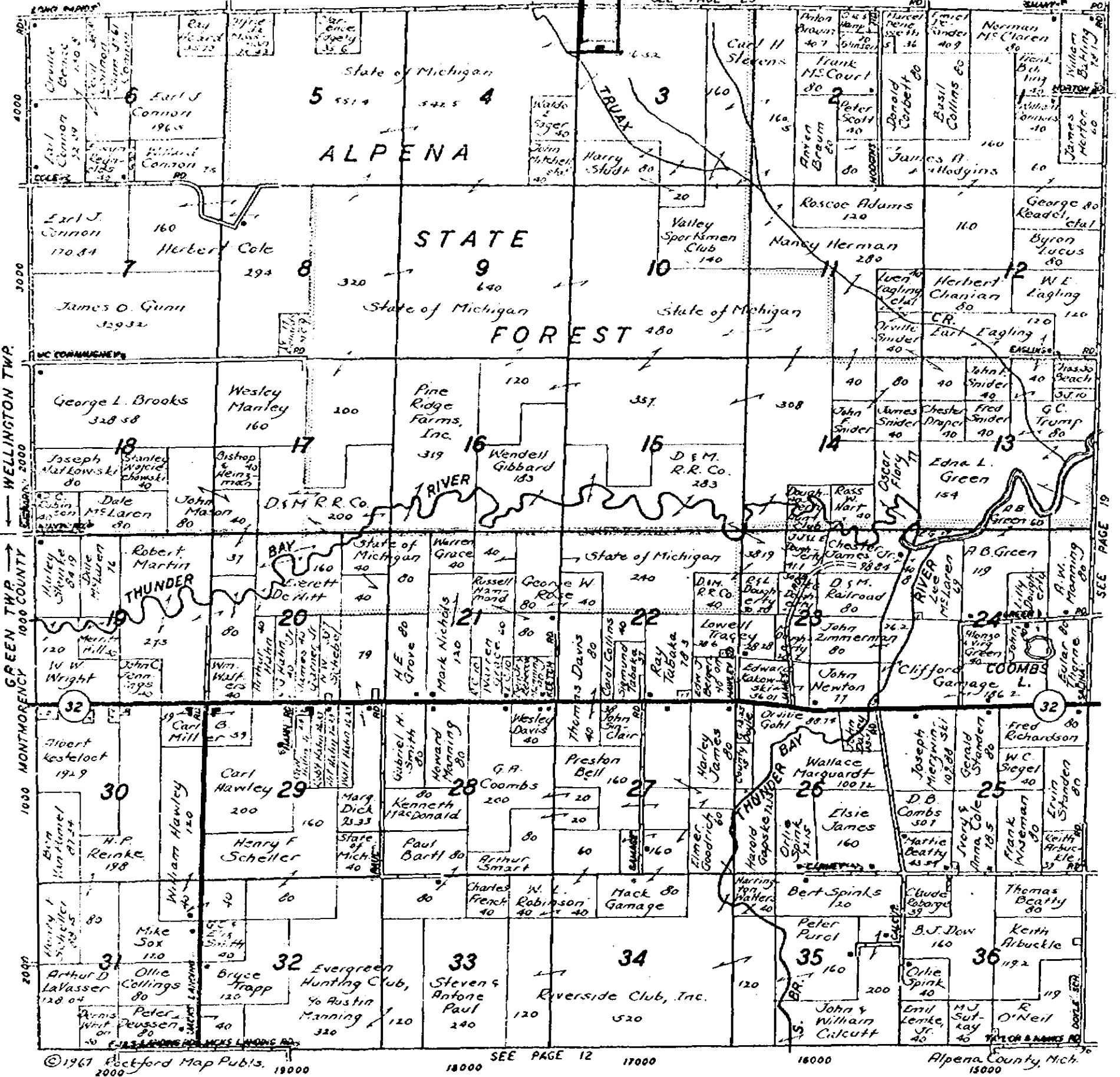


©1961 Rockford Map Pubs. 20000 18000 17000 16000 Alpena County Mich. 15000

BEST WISHES TO THE ALPENA COUNTY 4-H CLUBS

HURON PORTLAND CEMENT COMPANY

DIVISION OF NATIONAL GYPSUM COMPANY



©1967 Rockford Map Publs. 19000

SEE PAGE 12 17000

18000 16000 Alpena County, Mich. 15000

SATISFACTION GUARANTEED

OR YOUR MONEY REFUNDED



LITERALLY HUNDREDS OF ITEMS FOR SALE

CREDIT PLANS FOR ALL NEEDS

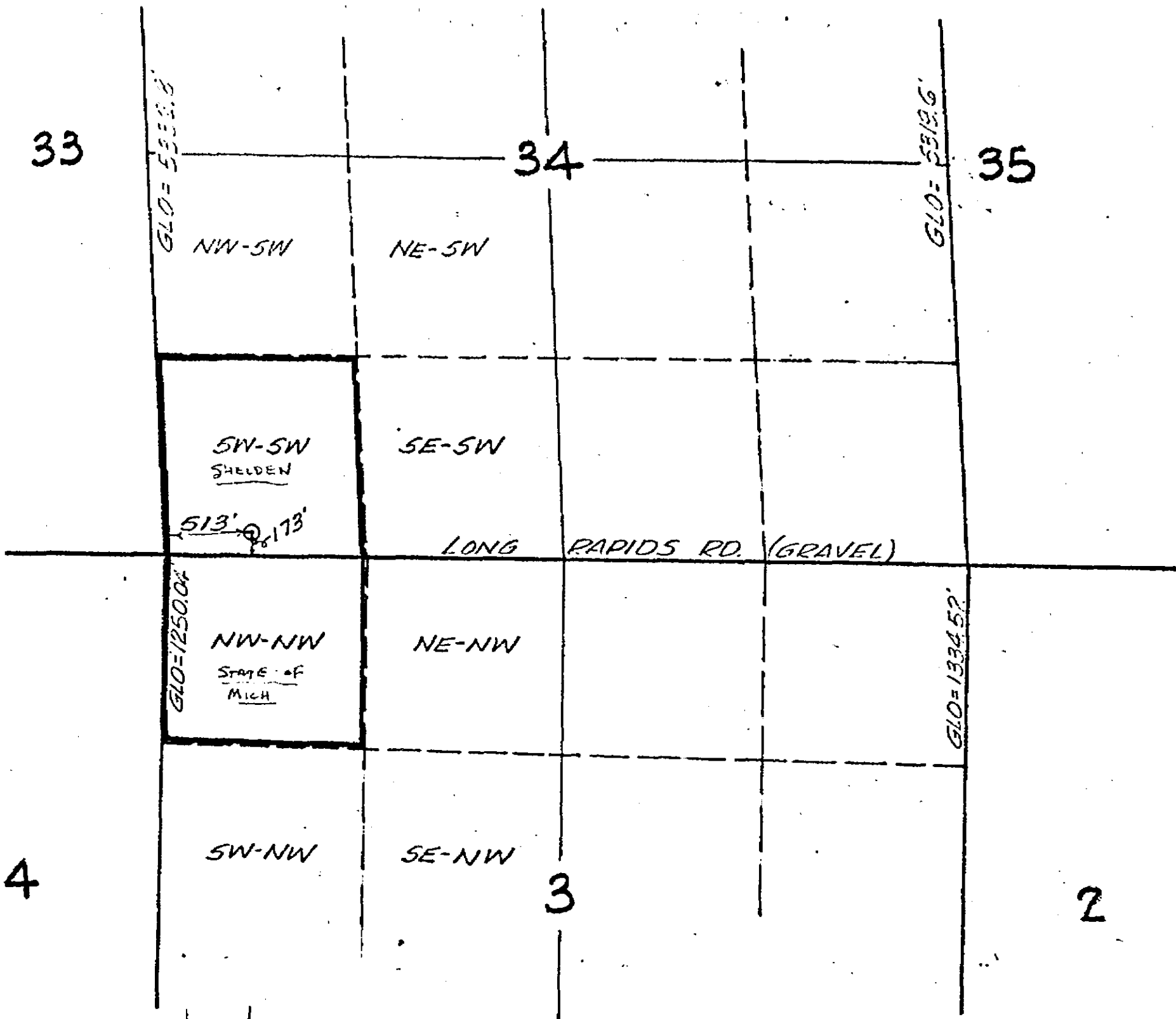
FREE DELIVERY SERVICE

LARGEST REPAIR SERVICE DEPARTMENT IN THIS AREA

OF ALPENA

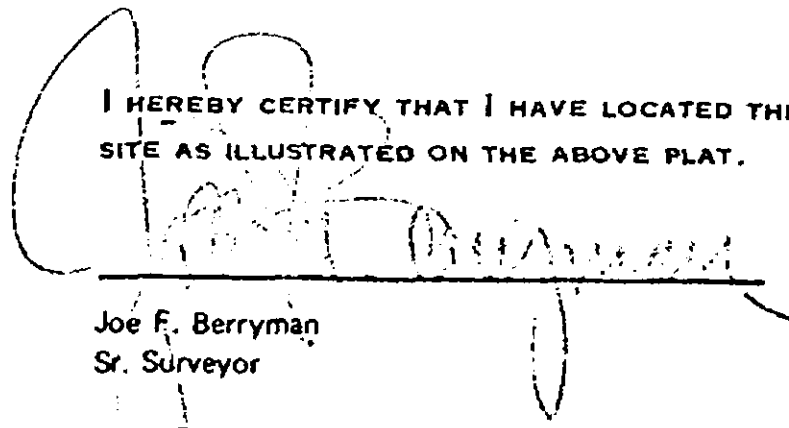
FOR INFORMATION

PHONE 354-4136



PROPOSED WELL: SHELL SHELDEN STATE WELLINGTON No. 1-34
 LOCATION: 513 FEET FROM THE WEST LINE AND
173 FEET FROM THE SOUTH LINE OF THE SOUTHWEST
 QUARTER OF SECTION 34, T32N, R5E.
N. WELLINGTON TOWNSHIP, ALPENA COUNTY, MICHIGAN.

I HEREBY CERTIFY THAT I HAVE LOCATED THE PROPOSED WELL
 SITE AS ILLUSTRATED ON THE ABOVE PLAT.



Nov. 13, 1973
 Date

Joe F. Berryman
 Sr. Surveyor
 Shell Oil Company
 P.O. Box 342
 Traverse City, Mich. 49684

SE-SE SEC. 33

SW-SW-SEC. 34

LONG SWAMP
(WOODED)

FRAME
CABIN

CREEK

EDGE SWAMP

EDGE SWAMP

LEVEL
4" PINE
350'

513'

3' ditch

DIET DRIVE

POWER
LINE

LONG RAPIDS RD. (GRAVEL)

200' x 300'
DRG. PAD
AREA

NW-NW-SEC. 3

SEC. 4



PLOT PLAN

PROPOSED WELL: SHELL SHELLEN STATE-WELLINGTON No. 1-34

LOCATION: 513 FEET FROM THE WEST LINE AND

173 FEET FROM THE SOUTH LINE OF THE SOUTHWEST

QUARTER OF SECTION 34 T 32N - R 5E

N. WELLINGTON TOWNSHIP, ALPENA COUNTY, MICHIGAN.

SCALE: 1" = 200'

DATE: 11-13-73

November 26, 1973

TO: C. Troy Yoder, Manager, Region II

FROM: V. F. Sargent, Geologist & Head, Regulatory
Control Unit, Geological Survey Division

SUBJECT: Shell Oil Company, Sheldon-State-Wellington #1-34,
Section 34, T.32N., R.5E., Wellington Twp.,
Alpena Co.

Enclosed herewith are copies of a corrected EIS and cover letter reflecting a correction of surface ownership at the subject well location. Cover letter attached is self-explanatory.

✓
VFS/jjk
Encl.
cc:- B. Ellis

NOV 23 1973



SHELL OIL COMPANY

3055 CASS ROAD - BOX 552
TRAVERSE CITY, MICHIGAN 49684

November 21, 1973

Subject: Shell-Shelden State-Wellington No. 1-34
173'SL and 513'WL of the SW/4
Section 34-32N-5E
N. Wellington Township,
Alpena County, Michigan

Geological Survey Division
Department of Natural Resources
Stevens T. Mason Building
Lansing, Michigan 48926

Attention V. F. Sargent

Dear Mr. Sargent:

Our Land Department has reviewed the Alpena County records of the Shelden-State Wellington 1-34, 32N-5E. The review reveals that the drill site forty acre tract is privately owned severed surface and mineral rights. The surface owner is:

Frances C. Robertson
5206 Lake Shore Drive
Port Huron, Michigan 48060

Please correct the permit application - have attached corrected I.E.S.

Very truly yours,

Glen M. Jobe

Glen M. Jobe
Senior Engineering Assistant

GMJ:SN

Enclosures

*Sent (2) cc to yoder 11-26-73
" (1) " TO ELLIS
Name of ~~the~~ corrected EIS. -
ds*

OIL AND GAS OPERATIONS
STATE OF MICHIGAN
ENVIRONMENTAL IMPACT STATEMENT

Well Identification:

Name of Applicant: Shell Oil Company
Address: P. O. Box 552, Traverse City, Mich. 49684
Well Name and Number: SHELDON State-Wellington No. 1-34
Location: 173 feet from the south line and 513 feet
from the west line of the southwest one-
quarter of Section 34-32N-5E, N. Wellington
Township, Alpena County, Michigan

I. Description of Project:

Drill an exploratory test to an approximate depth of 6430 feet for the production of oil and/or gas from all horizons down to and including the Knox formation. The drill site is located on privately owned severed surface and mineral rights. The property owners have been informed of the location and of our intent to file an application for a permit to drill. The proposed test has been staked on an 80-acre drilling unit described as the SW/4 SW/4 of Section 34-32N-5E and the NW/4 NW/4 of Section 3-31N-5E. The State of Michigan owns the forty acre tract described as the NW/4 NW/4 of Section 3. The location has been staked to conform with Special Order No. 1-73 and the casing program designed in accordance with Special Order No. 2-73. The drilling unit is traversed by the east-west Long Rapids Road. The drill site is located approximately 170 feet north of the road in generally level tree covered lands. Long Swamp is located to the east and west of the drill site. Dirt dikes will be constructed around the drill pad to prevent site drainage. We have considered other drill sites, however these locations cannot be justified based on the probability of success for a producing well. Minimal grading and surface disturbance will be caused by the preparation of the one-lane access road and drill pad. The location is depicted on the attached topographic plat and drill site plot plan. The attachments support the above information.

II. Environmental Impact Assessment:

The drilling of the test and the completion of a well at the proposed location should have a minimal effect on the ecological systems of the vicinity. Long Swamp is located east and west of the drill site. Dirt dikes will be constructed to prevent site drainage. We have considered other drill sites, however these locations cannot be justified based on the probability of success for a producing well. The area is not the natural habitat of special species of wildlife. There are no towns or villages in the immediate area. Drilling of the test should cause no discernible effect on either population patterns or land use. The drill

site will require an area of 200 x 300 feet. Only the drill site area will be required should the test complete as a gas producer; however, construction of a market connection would be necessary. In the event of oil production, an additional area of 250 x 250 feet will be required for surface facilities. It would be necessary to truck the oil until a pipeline connection would become available. If the proposed test results in a dry hole, the hole will be immediately plugged and the surface renovated as weather permits.

III. Possible Alternatives to the Proposed Well Location:

The drill site has been carefully selected to minimize surface disturbance and is the most desired drill site to evaluate a seismic interpretation.

IV. Any Irreversible and Irretrievable Commitment of Resources:

The current shortage of oil and gas in the State of Michigan requires the efficient use of all resources. The production of oil and gas is an irreversible and irretrievable commitment of reserves; however, this process is a necessary characteristic of the production of hydrocarbons. The surface resources of the drill site will not be irreversibly committed. Drilling of the test will not curtail the use of the surrounding environment.

V. Summary:

The proposed test is aimed at increasing the hydrocarbon reserves in the State of Michigan. The drill site is located on privately owned severed surface and mineral rights. A slight impact on the environment would be caused by the preparation of a one-lane access road and the grading of approximately two acres of land. We consider the environmental impact of the drilling of a test and the operating of a well at this location to be minimal. We have considered other drill sites, however these locations cannot be justified based on the probability of success for a producing well. Every effort will be made to insure protection and preservation of the environment during the course of our operations. If the test results in a dry hole, the hole will be immediately plugged and the surface renovated as weather permits. In view of the presented information, we believe the drilling of the proposed test and the operation of a producing well at the staked location will not cause any major change in the environment or the existing ecological systems of the area.

Applicant's Representative

Glen M. Jobe 11-14-73
Glen M. Jobe Date

11/26/73 Corrected to reflect proper surface ownership.

To Sarge Date 11-20-73 Time 1145 { A.M.
P.M.

WHILE YOU WERE OUT

Miss _____
Mrs. G. Jobe, Shell of _____
Mr. _____

- Wants to see you
- Called on you
- Phoned you
- Will call back
- Returned your call
- Asks that you phone
- No. _____
- Desires an appointment
- When _____

MEMO Re: Sheldon application
 #9 on application should be changed
 to read: Surface owner,
Frances C. Robertson
5206 Lakeshore Rd.
Port Huron, Mich. 48060

EIS - take out "non" where it says
~~drill site located on privately owned~~
~~nonsevered mineral rights.~~
 Property owners have been informed.
 He will ^{signed} send corrected copies.

Jaw

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

*

INTEROFFICE COMMUNICATION

November 19, 1973

TO: C. Troy Yoder, Manager, Region II

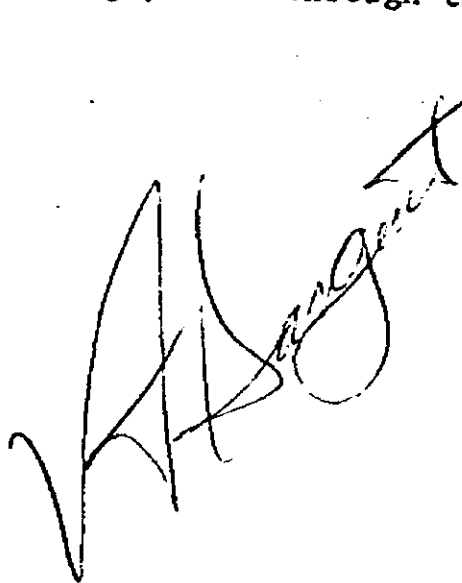
FROM: V. F. Sargent, Geologist & Head, Regulatory
Control Unit, Geological Survey Division

SUBJECT: SHELL OIL CO., SHELDON State Wellington #1-34
~~SE SW SW, 34, 32N-5E, Wellington Twp., Alpena Co.~~
SW

Enclosed herewith are copies of the application, well record survey, Environmental Impact Statement, and assorted supporting data.

Would you please have a field review made of this location and forward your recommendations relative to the issuance of the drilling permit through the usual channels.

✓
VFS/jjk
Encl.
cc:- B. Ellis
File



RECEIVED
NOV 23 1973

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
GEOLOGICAL SURVEY

NOV 26 1973
Approved
11-26-73
C.A.H.

FIELD REVIEW OF PROPOSED WELL SITE

REGION II

Date of Inspection: November 20, 1973

1. Name of Applicant: Shell Oil Company
2. Well Name & Number: Shelden-State Wellington 1-34
3. Legal Description: SW SE SW SW Section 34, T32N, R5E (Wellington Twp.), Alpena County
4. Surface Owner: Mr. Shelden
(If other than mineral owner)
5. Topography: Low lying ridge w/swampland on either side of ridge.
6. Cover Type/Density: Second growth brush w/an occasional conifer tree.
7. Land Utilization: Land is idle.
8. Is there any type of surface water nearer than one-quarter mile? *(If so, specify direction and distance.)* The ridge upon which the location is staked is surrounded by low-lying wooded swampland. An unnamed stream is located about 1/8 mile west of the site; an unnamed stream is located about 1/4 mile east of the site.
9. Is the Environmental Impact Statement accurate and acceptable? Yes.
10. Are there any special drill site construction requirements and restrictions? Yes.
11. If so, specify: Preparation of this site will require the hauling of fill to the location. Normal filling of the site with the accompanying grading and dyking will adequately protect the adjoining low-lying areas.

I RECOMMEND ISSUANCE OF A PERMIT TO DRILL, SUBJECT TO THE SPECIFICATIONS STATED UNDER ITEM NUMBER 1 ABOVE.

GEOLOGICAL SURVEY: Gaylord
(location)

BY: [Signature] November 20, 1973
(signature) (date)

REGIONAL MANAGER: II
(location)

BY: C. Troy Yoder 11-23-73
(signature) (date)

DEPARTMENT DIRECTOR:

BY: C. J. Hanni 11-26-73
(signature) (date)

DATE REC'D: 11-19-73

APPLICATION FOR PERMIT
(Check Sheet)

SURFACE AND MINERAL OWNERSHIP

OPERATOR: Shell

STATE MINERALS: _____ SURFACE: _____ FEE: _____

WELL: ~~Shelton~~ Mountain State Wellington #1-34

LEASE No. _____

LANDS DIVISION APPROVAL

COUNTY: Alpena - 34

YES: _____ No. _____

TWP. Wellington 32 N-5E

COMMENTS: Search 100 of unit - State

DEVELOPMENT WELL: _____
FIELD _____

Fee Mon. Development #10982

Shell lease

EXPLORATORY WELL:

PRIVATE MINERALS: SURFACE:

LOCATED ON MAPS:

REFERRED TO FIELD OFFICE: _____ DATE 11/19/73

FEE: _____ SEVERED:

COMMENTS: _____

OWNER NOTIFIED: YES: _____ NO: _____ NOT YET: _____

Note: Shelton may not
be correct ownership

COMMENTS: _____

name. Jobe to advise
after a record check has
been made at Court
House. - 11-20-73

REFERRED TO REGION: (State Minerals or Surface)

FOR MINERALS: _____

FOR SURFACE: _____

FOR FEE: _____

DATE 11-19-73

REGION APPROVAL: YES: _____ NO: _____ DATE _____

COMMENTS: cc: Joe & Jim

APPLICATION FOR PERMIT TO DRILL A WELL FOR OIL,
GAS, GEOLOGICAL TEST, BRINE DISPOSAL, GAS OR
LNG. STORAGE OR FOR SECONDARY RECOVERY

Under Authority of Act 61, P.A. of 1939, As Amended.

MAIL TO:
OIL AND GAS SECTION
GEOLOGICAL SURVEY DIVISION
STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING, MICHIGAN 48926

See Reverse Side Before Filling Out This Application

START WELL AND OUTLINE UNIT ON SECTION PLAT-640 XXXX Acres 	1. APPLICATION TO DRILL A WELL FOR: Oil and/or Gas	2. DATE 11-14-73	3. FEE ENCLOSED \$ 100.00	
	4. LESEE (OWNER OF LEASE RIGHTS) Shell Oil Company	6. PHONE 616-946-1500		
	5. PERMANENT ADDRESS P. O. Box 552, Traverse City, Mich. 49684	8. WELL NO. 1-34		
	7. LESSOR (FULL NAME OF OWNER OF MINERAL RIGHTS) <i>Reidson</i> Reidson State-Wellington	9. SURFACE OWNER (IF OTHER THAN MINERAL OWNER)		
	10. ADDRESS	11. PHONE		
	12. DRILLING CONTRACTOR Unknown	14. PHONE		
	13. ADDRESS	18. SURFACE LOCATION SE 1/4 OF SW 1/4 OF SW 1/4 SECTION 34 T 32N R 5E		
	16. TOWNSHIP N. Wellington	17. COUNTY Alpena		
	FOR DIRECTIONALLY DRILLED HOLE SEE INSTRUCTIONS ON REVERSE SIDE.			

18. LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND UNIT LINES. (SURFACE LOCATION)

173 FT. FROM South LINE OF QUARTER SECTION <i>(north-south)</i>	513 FT. FROM West LINE OF QUARTER SECTION <i>(east-west)</i>
1147 FT. FROM North UNIT LINE <i>(north-south)</i>	513 FT. FROM West UNIT LINE <i>(east-west)</i>

19. KIND OF TOOLS TO BE USED (Cable, rotary, combination) Rotary	20. FORMATION IN WHICH WELL IS TO BE COMPLETED All horizons thru Knox sand	21. INTENDED DEPTH OF WELL 6430
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22. PROGRAM OF CASING, SEALING, CEMENTING AND COMPLETING WELL (SEE REVERSE SIDE)
- Drill 20" hole to 100'+. Set 16" conductor pipe and cement to surface.
 - Drill 15" hole to a depth sufficient to set 11 3/4" casing 200'+ below the base of the Glacial Drift and cement to surface.
 - Drill 10 5/8" hole to a depth sufficient to set 8 5/8" casing 50'+ into Bass Island formation and cement with no less than 150 sx of cement and to no less than a minimum of 500' above the casing shoe.
 - Drill 7 7/8" hole to total depth. Log and complete as warranted with 5 1/2" liner.

CASING IS NOT TO BE STRIPPED FROM THE HOLE AND NO CHANGE IS TO BE MADE IN THE PROGRAM OUTLINED ABOVE WITHOUT APPROVAL OF THE SUPERVISOR OF WELLS OR HIS AUTHORIZED REPRESENTATIVE

APPLICANT AGREES TO COMPLY WITH THE PROVISIONS OF ACT 61, PUBLIC ACTS OF 1939, AS AMENDED, AND RULES PERTAINING TO THE LOCATING, DRILLING, CASING, SEALING, COMPLETING, PRODUCING, AND PLUGGING OF WELLS, BEFORE COMMENCING DRILLING OPERATIONS, CONTACT THE NEAREST FIELD OFFICE. (See reverse side)

23. SEND CORRESPONDENCE AND PERMIT TO: Shell Oil Company, Attention G. M. Jobe	24. PHONE 616-946-1500
---	---------------------------

25. ADDRESS
P. O. Box 552, Traverse City, Michigan 49684

LEAVE BLANK		26. OWNER OF LEASE RIGHTS (PRINT) Shell Oil Company
DATE ISSUED 11-27-73	PERMIT NO. 29,571	27. OWNER OR REPRESENTATIVE G. M. Jobe (Signature) <i>G.M. Jobe</i> Senior Engineering Asst.

FOR CASHIER'S USE ONLY. DO NOT WRITE IN THIS SPACE

- DISTRIBUTION
- WHITE LANSING
 - CANARY CASHIER
 - BLUE FIELD
 - GOLDENROD FIELD
 - GREEN APPLICANT



SHELL OIL COMPANY

3055 CASS ROAD - BOX 552
TRAVERSE CITY, MICHIGAN 49684

November 14, 1973

Subject: Shell Shelden State-Wellington No. 1-34
173'SL and 513'WL of the SW/4
Section 34-32N-5E
N. Wellington Township,
Alpena County, Michigan

Supervisor of Wells
Geological Survey Division
Department of Natural Resources
Stevens T. Mason Building
Lansing, Michigan 48926

Gentlemen:

This is to certify that provision has been made to run a derrick floor or ground elevation above sea level datum on the subject test. The elevation will be filed with your office within fourteen days after the test has spudded.

We request that all information relative to the drilling and completion of the test be considered as private and confidential. As provided in the general regulations governing oil and gas operations in the State of Michigan, your personnel will have access to the rig floor, drilling records and completion data. The proper well records will be filed at the appropriate time.

Yours very truly,

Glen M. Jobe
Glen M. Jobe
Senior Engineering Assistant

GMJ:SN

cc - D.N.R. OFFICES

Roscommon - Attn: Mr. S. Dyer
Gaylord - Attn: Mr. B. Ellis

" - Gar - Ellis - Lorenz - Alguire -



SHELL OIL COMPANY

400 EAST EIGHTH STREET
TRAVERSE CITY, MICH. 49684

cc: V.F. SARGENT

November 20, 1973

Subject: MH-38492
Shell-Sheldon No. 1-34
Section 34, T32N, R5E
N. Wellington Township
Alpena County, Michigan

State Wellington
NOV 28 1973
Permit issued

File

Frances C. Robertson
Bonnie L. Starn
Shirley Ann Thaison
5206 Lakeshore Road
Port Huron, Michigan 48060

Dear Ladies:

On November 13, 1973, Shell Oil Company staked subject proposed location 513 feet from the West line and 173 feet from the South line of the Southwest quarter of Section 34, T32N, R5E, N. Wellington Township, Alpena County, Michigan.

Contingent upon the Department of Natural Resources granting a permit to drill and also upon an evaluation of Shell's geophysical data, a test will be drilled at the above described site.

A Shell representative will contact you prior to and in the event drilling operations are conducted.

Please acknowledge receipt of this letter by signing the enclosed duplicate in the space provided and also indicate your telephone number, and return in the self-addressed, stamped envelope.

Yours very truly,

Original signed by
D. P. SCHUBERT

D. P. Schubert

DPS:cba
Enclosures

bcc: Mid-Continent Land Division

Mid-Continent Production Dept.
Michigan Operations
Attn: Glen Jobe ←

Shell Oil Company
P.O. Box 519
Gaylord, Michigan 49735
Attn: Mr. R. B. Stancliff

Received _____

Signature

Date _____

Telephone No. _____



SHELL OIL COMPANY

400 EAST EIGHTH STREET
TRAVERSE CITY, MICH. 49684

February 6, 1974

PH 29,571 ✓

Subject: Shell-Sheldon-State-Wellington No. 1-34
Section 34, T32N, R5E
Wellington Township
Alpena County, Michigan
Ground Elevation:

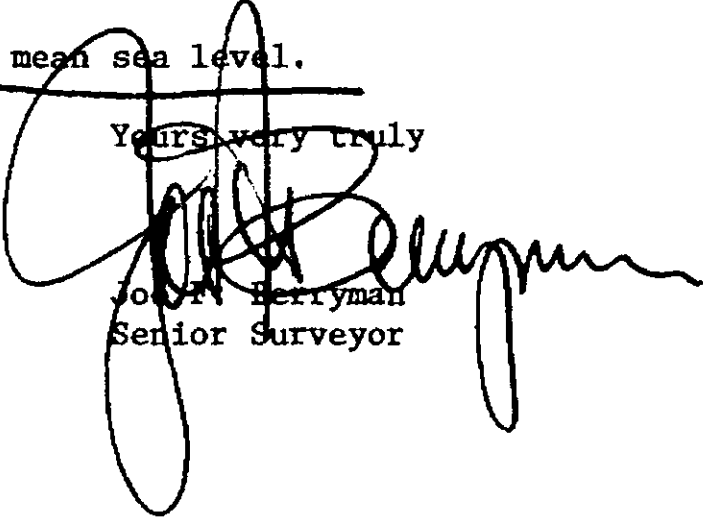
Geological Survey Division
Department of Natural Resources
Lansing, Michigan 48926

Attention: Mr. Robert M. Acker
Petroleum Geologist

Dear Mr. Acker:

The ground elevation at the subject well was determined on February 2, 1974 to be 740.6 feet above mean sea level.

Yours very truly


John W. Berryman
Senior Surveyor

JFB:cbm

cc- Shell Oil Company
Production Department
P.O. Box 552
Traverse City, Michigan 49684
Attn: Glen Jobe
C. J. Osbourne
Gary Kump

To Sarge Date 2-13-74 Time 11:25 (A.M.)
(P.M.)

Miss _____
Mrs. _____
Mr. Roger Reikert of 313-398-2100

WHILE YOU WERE OUT

- Wants to see you
- Called on you
- Phoned you
- Will call back
- Returned your call
- Asks that you phone
- No. _____
- Desires an appointment
- When _____

MEMO Ext 50
Detroit (171)

Roger Reikert learned today after he called at 11:25 AM that Mrs. Robertson who is a sister-in-law, that she had not made necessary transactions and recording of records in the Court House to reflect that Reichert and wife own the surface

Signed [Signature]

0-1170

State of M
**PLEASURE
SAFETY**



This cert.

has satisfactorily completed "PLEASURE BOATING"
of Michigan Department of Natural Resources and

Awarded _____
R9253-2
Rev. 3/72

of the SW SW, Sec 34. (north 40 of this unit) He has not received any communication from Shell in regards to the location or road or anything else. He talked to Mr. Gault here in Lansing (replaced Rebus of lands Dept.) and was handled badly, according to Reichert. Gault is supposed to have told Reichert that he didn't give a damn whether he liked it or not Shell has the lease and they would make the road where they wanted it and drill where they wanted and if he didn't like it to sue him (Gault) that they (Shell) would win the case anyway. Reichert also talked to Robt. Terry of the T.C. office who seeming was considerable more polite and tolerant but by the time he talked to Terry he was so damn mad after talking to Gault that he confessed to me he probably didn't talk very courteous to him. Either before or after talking to Terry he talked to the Recorder at the Court House and only then found out neither his or his wife were mentioned in the records as owning the surface. I assured his Gaults attitude was not Shell's policy and even though legally they do have the right as lessee, they do not operate that way!

I read excerpts from the application, EIS and supporting data ~~XX~~ which indicated Shell had notified Frances Robertson and so far as they knew and the records reflected, they were ~~making~~ dealing with the rightful surface owner. He admitted that his call to the County Recorder had cleared up a lot of things for him and was now aware that his problem was more a family affair at this point than it was with Shell Oil. I ask what he expected us to do and he said he really didn't know that he thought I'd have something to suggest. I commented that I thought his problem was a family affair and not so much with Shell as the supporting data filed with us indicates they have tried to give the surface owner every consideration he's entitled to but in this case they had no way of knowing they weren't dealing with the rightful owner as Reichert claims to be.

The matter was left that we are not expected to do anything. I understood he was going to write Shell and attempt to clarify the matter with them so they can straighten their records out and conduct further dealings with him.

VFS

FEB 11 1974



MEASURING LINE
TEMPERATURE SURVEY

COMPANY SHELL Oil Co
WELL NO. 1-34 SHELDON STATE WELLINGTON
POOL _____
STATE MICH COUNTY ALPENA
SECTION SEC 34 T32N R5E

COMPANY SHELL Oil Co
FILE SHELDON STATE - WELLINGTON
WELL 1-34 STATE - WELLINGTON
POOL _____
COUNTY ALPENA STATE MICH

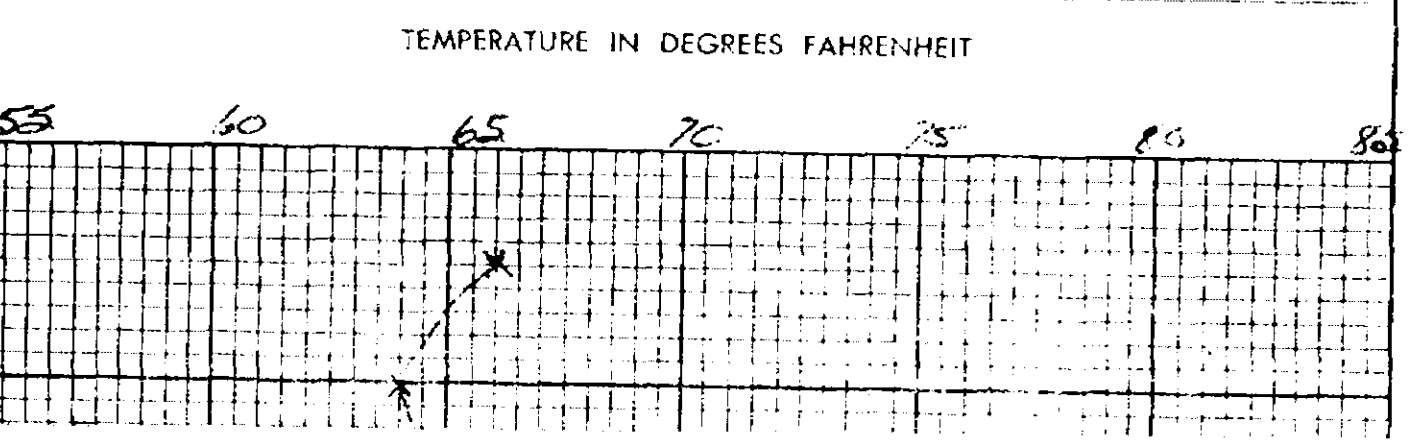
LOG MEASURED FROM KB
DRILLING MEASURED FROM KB
PERMANENT DATUM _____

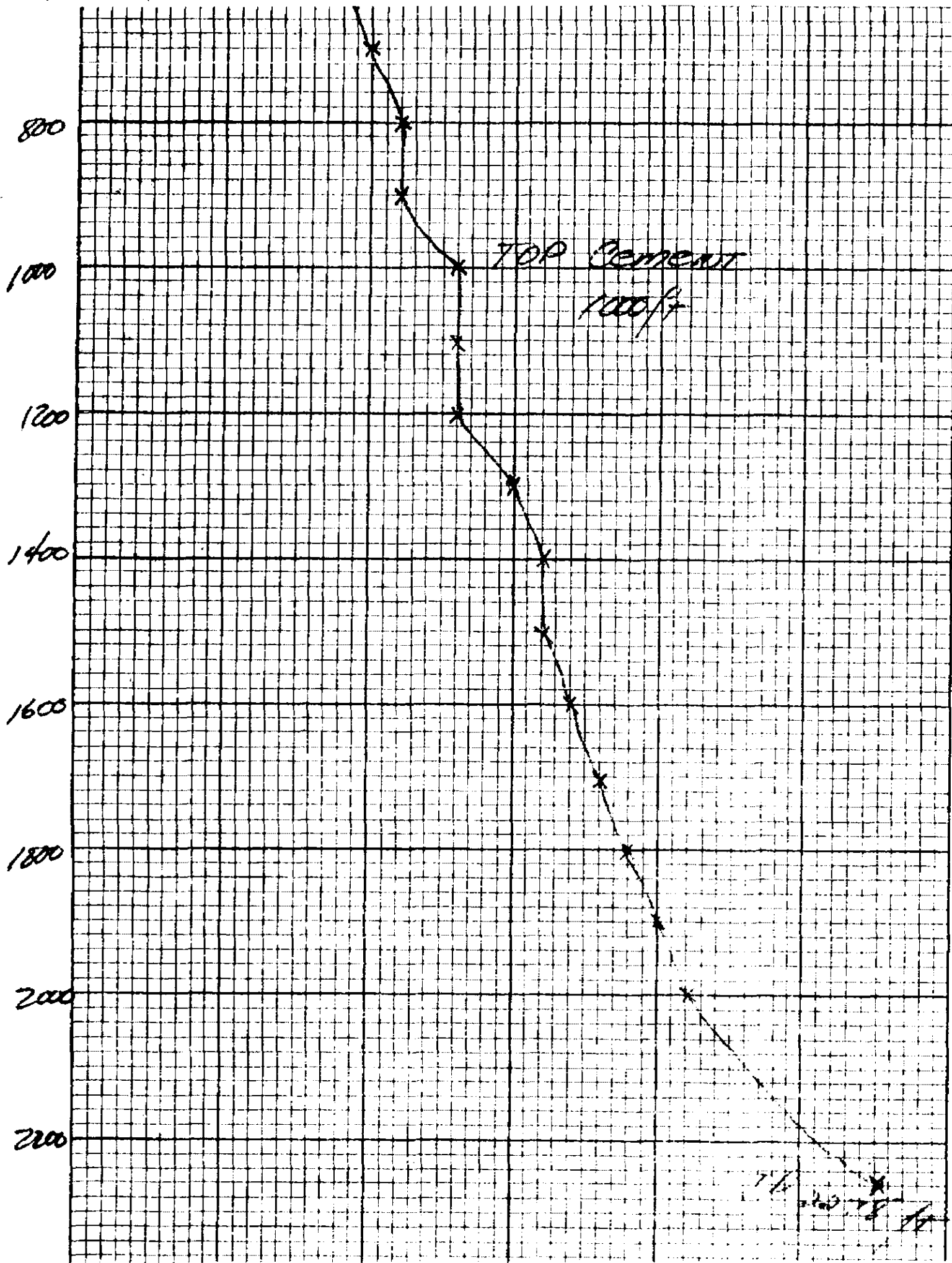
DATE OF CEMENTING 2-5-74 TIME 1400
DATE OF SURVEY 2-6-74 TIME 0200
AMOUNT OF CEMENT 200 TYPE LIGHT
200 Cem
AMOUNT OF ADMIX 370 TYPE CC
290 CC

CASING SIZE 8 5/8 FROM 0 TO 2336 DIAM. OF HOLE 10 9/8 FROM 0 TO 2336
FROM _____ TO _____ FROM _____ TO _____

SURVEY BEGINS AT 500 FEET. ENDS AT 2275 FEET.
APPROX. CALCULATED FILL-UP OF 2700 FT. BASED ON PERFECT HOLE AND ON AN AVERAGE OF
1.69 CU. FT. PER SACK OF SET CEMENT
APPROX. TOP CEMENT 1000 FEET. MAX. TEMP 227.8 FEET.
RECORDED BY M. ROBINSON WITNESSED D. JACOBY

REMARKS OR OTHER DATA _____

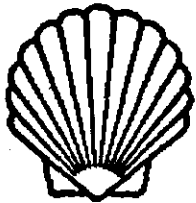




56

1000

100 2278



SHELL OIL COMPANY

3055 CASS ROAD - BOX 552
TRAVERSE CITY, MICHIGAN 49684

April 1, 1974

Subject: Shell-Shelden State Wellington 1-34
SE/4 SW/4 SW/4 Section 34-32N-5E
Wellington Township
Alpena County, Michigan
Drilling Permit No. 29,571

Mr. Arthur E. Slaughter
Assistant Supervisor of Wells
Geological Survey Division
Department of Natural Resources
Stevens T. Mason Building
Lansing, Michigan 48926

Dear Mr. Slaughter:

As provided in Rules No. 311 and 312 of the State of Michigan
"General Rules Governing Oil and Gas Operations," we request that the
enclosed data be kept confidential for the maximum time.

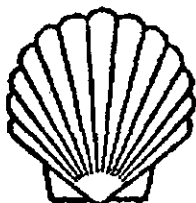
Yours very truly,

R. L. Tyler
Engineering Assistant
Michigan Operations-Mid-Continent
Division

RLT:KJ

Enclosures

2-25-74
3-25-74
4-25-74
5-25-74
Release



SHELL OIL COMPANY

3055 CASS ROAD - BOX 552
TRAVERSE CITY, MICHIGAN 49684

April 1, 1974

Subject: Shell-Shelden State Wellington 1-34
SE/4 SW/4 SW/4 Section 34-32N-5E
Wellington Township
Alpena County, Michigan
Drilling Permit No. 29,571

Mr. Arthur E. Slaughter
Assistant Supervisor of Wells
Geological Survey Division
Department of Natural Resources
Stevens T. Mason Building
Lansing, Michigan 48926

APR 3 - 1974

Dear Mr. Slaughter:

As provided in Rules No. 311 and 312 of the State of Michigan "General Rules Governing Oil and Gas Operations," we request that the enclosed data be kept confidential for the maximum time.

Yours very truly,

R. L. Tyler
Engineering Assistant
Michigan Operations-Mid-Continent
Division

RLT:KJ

Enclosures

LOG OF OIL, GAS OR TEST WELL

TO BE FILED WITH SUPERVISOR OF WELLS WITHIN 30 DAYS
AFTER COMPLETION OF WELL (ACT 61 P.A. 1939
AND ACT 326 P.A. 1937)

F.L. 10-31-74 TAB
APR 3-1974
SUBMIT IN
DUPLICATE

NAME OF OWNER OR OPERATOR Shell Oil Company		ADDRESS OF OWNER OR OPERATOR P.O. Box 552 Traverse City, Michigan 49684			
NAME OF DRILLING CONTRACTOR Calvert Eastern Drilling Company		ADDRESS OF DRILLING CONTRACTOR St. Clair, Michigan			
FARM NAME Shelden State-Wellington		WELL NO. 1-34	PERMIT NO. 29,571	D.P. NO.	
LOCATION SW 1/4 SW 1/4 SW 1/4		SECTION 34	TWP. 32N	RANGE 5E	
TOWNSHIP Wellington		COUNTY Alpena			
FOOTAGE 173 Ft. from South Line and 513 Ft. from West Line of quarter section					
DATE DRILLING BEGUN 1-28-74	DATE DRILLING COMPLETED 2-22-74	DATE WELL COMPLETED 2-25-74		TYPE OF WELL Dry Hole	
FORMATION COMPLETED IN Salina-Niagara-Trempealeau	TOTAL DEPTH 5971'	ELEVATION 755.6	KB	RB	RT
ROTARY TOOLS From 0 Feet to 5971' Feet		CABLE TOOLS From _____ Feet to _____ Feet			

CASING AND CEMENTING

PERFORATIONS

DEPTH CORRECTION

SIZE	WHERE SET	CEMENT	AMOUNT PULLED	DATE	NO. HOLES	FROM	TO	DEPTH	CORRECTED TO
16"	54'	---	None						
11 3/4"	272'	300 sx	None						
8 5/8"	2336'	400 sx	None						

OIL OR GAS ZONES

WATER ZONES

DEVIATION SURVEY

FORMATION	FROM	TO	AMOUNT	FORMATION	FROM	TO	AMOUNT	RUN AT	DEGREES

SAND FRAC OR ACID TREATMENT

MECHANICAL LOGS RUN

DATE	FROM	TO	QUANTITY	BRAND	(X)	TYPE LOG	INTERVAL LOGGED
				Schlumberger	X	BFC-GR	22 - 5952
				Shelwell		SNP-GR	250 - 5959
				Birdwell		FDC-GR	250 - 5959
				Burgener		LL	3550 - 5948
				Other		MLL	4200 - 5940

PRODUCTION DATA

WELL COMPLETED FOR:	BOPD	BWPD	MCF GAS	PRESSURES:	CASING - PSI	TUBING - PSI
---------------------	------	------	---------	------------	--------------	--------------

The above information is complete and correct

Signed

Richard L. Tyler

Date April 1, 1974

Title

Richard L. Tyler, Engineering Assistant

FORMATION RECORD

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

ELEVATION USED:	GEOLOGIST NAME:	TOPS TAKEN FROM:	<input type="checkbox"/> DRILLERS LOG	<input type="checkbox"/> SAMPLE LOG	<input type="checkbox"/> ELECTRIC LOG
-----------------	-----------------	------------------	---------------------------------------	-------------------------------------	---------------------------------------

FROM	TO	FORMATION (TYPE, COLOR, HARDNESS)	FROM	TO	FORMATION (TYPE, COLOR, HARDNESS)
		See Attached Sample Description			
		<u>Log Tops</u>			
		Drift 0-35			
		Traverse Lm 35			
		Bell Shale 543			
		Dundee Fm 617			
		Detroit Rvr Evap 845			
		Base Det Rvr Evap 1342?			
		Amherstburg 1503?			
		Bois Blanc 1667			
		Bass Islands 1928			
		Salina G Unit 2260			
		F Unit 2297			
		F Salt 2336			
		E Unit 3015			
		D Unit 3135			
		C Shale 3194			
		B Unit 3285			
		B Salt 3302			
		A-2 Carbonate 3580			
		A-2 Evaporite 3683			
		A-1 Carbonate 4002			
		A-1 Evaporite 4076			
		Brown Niagaran 4188			
		Gray Niagaran 4196			
		Clinton 4338			
		Cataract 4654			
		Manitoulin 4800			
		Cincinnati 4822			
		Utica Shale 5140			
		Trenton 5372			
		Black River fm 5602?			
		Glenwood 5864			
		Knox Sandstone 5918			
		TD 5971			
IF WELL WAS CORED, ATTACH CORE DESCRIPTION					
DRILL STEM TEST DATA					
See attached Core Description					

E-LOG TOPS

APR 3-1974

SHELL - SHELDON - STATE WELLINGTON #1-34
173' FSL - 513' FWL/SW 1/4
SEC. 34 T32N - R-5E
SW SE - SW - SW
ALPENA COUNTY, MICHIGAN

Spud: 1-28-74 Complete: 2-24-74 (P&A)

Kb: 755.6 TD: 5971 Drlr. 5961 Schj.

PLEISTOCENE:

Drift 0-35

DEVONIAN:

Traverse Limestone	.35
Bell Shale	543
Dundee fm	617
Detroit River Evaporite	845
Base Detroit River Evaporite	1342?
Amherstburg	1503?
Bois Blanc	1667

SILURIAN:

Bass Islands	1928	
Salina "G" Unit	2260	
"F" Unit	2297	
"F" Salt	2336	
"E" Unit	3015	
"D" Unit	3135	
"C" Shale	3194	
"B" Unit	3285	
"B" Salt	3302	
A-2 Carbonate	3580	
A-2 Evaporite	3683	
A-1 Carbonate	4002	
A-1 Evaporite	4076	
Brown Niagaran	4188	
Gray Niagaran	4196	
Clinton	4338	
Cataract	4654	Reported
(Core #1) --	4693-4782*	**:
(Core #2)	4782-4871*	Drill Depths of cores 1&2
Manitoulin	4800	should be adjusted 13 ft.
		upward to match E-log depths

ORDOVICIAN:

Cincinnatian	4822
Utica Shale	5140
Trenton	5372
Black River fm	5602?
Glenwood	5864
Knox Sandstone	5918
Total Depth (Schj)	5961
Total Depth (Drlr)	5971

SHELL - SHELDON STATE WELLINGTON 1-34 (WILDCAT)
SW-SE - SW - SW SECTION 34-32N-5E
(173' FSL 513' SW 1/4)
ALPENA COUNTY, MICHIGAN

K.B. 757 T.D. 5961 Schj - 5971 Drlr.
16" @ 300'+, 11 3/4" @ 2400; 8 5/8" 2336

Spud 1-28-74 Complete 2-24-74 - P&A

SAMPLES LOGGED FROM 1050 (Not corrected to E-log depths)

DEVONIAN:

Detroit River fm:

1050-1100	Dolomite; tan to light brown, very fine crystalline with interbedded anhydrite, white.
1100-1110	No samples.
1110-1145	Limestone: Dark brown to brown, very dense, dolomitic in part with scattered dead oil stain and good intercrystalline porosity in part.
1145-1300	Limestone: light brown to brown, very fine to finely crystalline, slightly dolomitic from 1145-1155, interbedded white anhydrite. Dead oil stain and trace of intercrystalline porosity. Fossiliferous from 1260-1300.
1300-1310	No samples.
1310-1330	Dolomite: Brown to gray, extremely fine to very finely crystalline, slight intercrystalline porosity and fossiliferous.
1330-1340	No samples.
1340-1350	Anhydrite; white.

Base Detroit River Evaporite:

1350-1365	Dolomite: tan to light brown, extremely finely crystalline to very finely crystalline with a trace of intercrystalline porosity, slightly pyritic and fossiliferous.
1365-1370	Anhydrite; white.
1370-1490	Limestone; light brown to dark brown, extremely fine to very finely crystalline. Abundant dead oil stain with trace of intercrystalline porosity. Fossiliferous from 1420-1430 and 1480-1490.
<u>Amherstburg:</u> 1490-1530	Limestone; Brown, very fine to finely crystalline with 5-10% chert - gray to white, translucent to opaque.
1530-1550	Limestone; Brown, very fine to finely crystalline, fossiliferous.
<u>Bois Blanc:</u> 1550-1730	Limestone; Light brown to brown, very fine to finely crystalline with trace intercrystalline porosity and dead oil stain. Chert: Increases from 5% to 90%, grading from light brown to gray to white, transparent to translucent to opaque.
1730-1820	Chert: as above.
1820-1830	No Samples.
1830-1850	Chert: as above.
1850-1880	Dolomite; tan to light gray, very dense with traces of interbedded pyrite. Chert as above grading from 90% to 10% of sample.
1880-1890	Dolomite; white to very light tan, very dense with 10% chert as above.
1890-1910	Dolomite; white to light gray, very dense with interbedded clear quartz grains, small to medium and well rounded.
1910-1920	Dolomite; light brown to brown, very fine to finely crystalline with a trace of intercrystalline porosity and dead oil stain.
1920-1940	Dolomite; white to gray, very dense, with quartz grains as above.

Silurian:

Bass Islands:

1940-2260

Dolomite; tan to light brown, dense to finely crystalline with interbedded white anhydrite. Scattered fossils and pyrite, Dead Oil stain from 2020-2190.

"G" Unit:

2260-2310

Shale; gray, green and red.

"F" Unit:

2310-2320

Dolomite; tan to light brown very fine to finely crystalline.

2320-2330

Dolomite; brown, very fine to finely crystalline, sucrosic.

F Salt:

2330-2390

Shale; red, green and gray with interbedded dolomite as above.

2390-2410

Dolomite; brown, very fine to finely crystalline.

2410-2480

Shale; red, green and gray with interbedded dolomite as above.

2480-2520

Dolomite; gray to brown, very fine to finely crystalline.

2520-2620

Shale; red, green and gray with interbedded dolomite, brown, finely crystalline.

2620-2640

Dolomite; brown to gray, very fine to finely crystalline.

2640-2760

Shale; red, green and gray with interbedded dolomite as above.

2760-2785

Dolomite; brown to gray, very fine to finely crystalline.

2785-2810

Shale; red, green and gray with interbedded dolomite as above.

SAMPLE DESCRIPTION

2810-2835	Dolomite; brown to gray, very fine to finely crystalline.
2835-3020	Shale; red, green and gray with interbedded dolomite as above.
<u>"E" Unit:</u>	
3020-3030	Salt.
3030-3065	Salt; with interbedded red and gray shale.
3065-3170	Salt; with interbedded red and gray shale, dolomite; brown, very fine to finely crystalline.
<u>"D" Unit:</u>	
3170-3220	Salt.
<u>"C" Shale:</u>	
3220-3250	Shale; red.
<u>"B" Unit:</u>	
3250--3320	Shale; red and gray.
<u>B Salt:</u>	
3320-3590	Salt; with small gray shale stringers.
3590-3597	Anhydrite; white.
<u>A-2 Carbonate:</u>	
3597-3600	Dolomite; brown, dense.
3600-3630	Dolomite; brown to gray, dense, argillaceous and pyritic, slightly fossiliferous.
3630-3660	Limestone; gray to brown, dense, dolomitic and argillaceous.
3660-3670	No samples.
3670-3700	Limestone; as above. Also pyritic and fossiliferous.
<u>A-2 Evaporite:</u>	
3700-4020	Salt.
<u>A-1 Carbonate:</u>	
4020-4040	Limestone; brown to light brown, very fine to finely crystalline with abundant dead oil stain and inter-crystalline porosity.
4040-4060	Limestone; dark brown to brown, very dense with abundant white secondary limestone from 4040-4050. very argillaceous, abundant oil stain.

4060-4085

Limestone; dark brown to brown, very dense, abundant dead oil stain.

4085-4110

Limestone; tan to brown, very fine to finely crystalline, argillaceous from 4100-4110, abundant dead oil stain and 5-10% intercrystalline porosity.

A-1 Evaporite:

4110-4200

Salt.

4200-4205

Anhydrite; white.

Brown Niagaran:

4205-4215

Limestone; light brown to brown, very fine to fine crystalline, fossiliferous.

Gray Niagaran:

4215-4360

Limestone; buff to gray, very fine to finely crystalline, argillaceous and pyritic.

Clinton:

4360-4380

Limestone; as above with 10% chert, white, translucent-transparent.

4380-4445

Chert; white to brown, transparent to opaque.

4445-4470

Limestone; brown to dark brown, very fine to finely crystalline, siliceous with 20-40% chert as above.

4470-4500

Limestone; white to tan, very fine to fine crystalline, siliceous.

4500-4530

Limestone; tan to light brown, dense, slightly dolomitic.

4530-4535

Dolomite; white, very dense.

4535-4555

Limestone; tan-light brown, dense, dolomitic.

4555-4565

Dolomite; tan, dense, pyritic.

4565-4575

Dolomite; tan, dense, slightly argillaceous, pyritic.

4575-4585	Limestone; tan, very fine crystalline to fine crystalline, pyritic and argillaceous.
4585-4693	Dolomite; brown to gray, dense to fine crystalline, argillaceous.

CORE #1

Core Description-----4693-4871

Note: Depths 4693 to T.D. should be adjusted upward 13' to match E-log depths.

4693-4708	Dolomite; brown-green, fine crystalline anhydritic interbedded with variegated shale.
4708-4722	Shale; predominantly red, slightly anhydritic.
4722-4731	Dolomite; green with yellow tinges, fine crystalline, argillaceous, slightly anhydritic.
4731-4736	Shale; gray-green, calcareous; slightly fossiliferous.
4736-4748	Limestone; gray-green, fine crystalline, very fossiliferous, argillaceous with thin green shale interbeds.
4748-4754	Shale; green.
4754-4756	Limestone; gray, fine crystalline, fossiliferous, argillaceous.
4756-4765	Shale; green with thin fossiliferous limestone interbeds, some red staining.
4765-4773	Shale; green.
4773-4779	Shale; green with thin fossiliferous limestone interbeds, some red staining.

CORE #2

(4782-4871)

4779-4813

Shale; green with a few thin fossiliferous limestones near top of interval.

Manitoulin:

4813-4829

Limestone; gray-grown, fine crystalline, fossiliferous near top, argillaceous, slightly anhydritic.

4829-4835

Dolomite; gray, fine crystalline, argillaceous.

4835-4839

Dolomite; gray-fine crystalline, very argillaceous which grade to gray dolomitic shale.

4839-4842

Shale; gray.

4842-4843

Shale; gray with gray limestone laminations.

ORDOVICIANCincinnati:

4843-4871

Limestone; gray-brown, fine crystalline, fossiliferous, argillaceous, pyritic, slightly anhydritic.

SAMPLE DESCRIPTION - SHELL-SHELDON

4871-4920

Limestone; gray-brown, very fine crystalline, slightly fossiliferous, argillaceous.

4920-4935

Dolomite; gray, fine sucrose, argillaceous.

4935-4940

Limestone; gray-brown, very fine crystalline, argillaceous.

4940-4970

Limestone; tan-gray, brown, very fine crystalline, slightly fossiliferous, in part argillaceous.

4970-4975

Dolomite; brown, fine sucrose.

4975-4990

Limestone; tan-gray-brown, very fine crystalline in part fossiliferous, in part argillaceous.

4990-5025	Limestone; green-gray-brown, very fine crystalline, argillaceous with thin gray sucrose dolomite interbeds.
5025-5045	Limestone; brown-gray, very fine crystalline, fossiliferous, argillaceous with black-brown shale at bottom.
5045-5075	Limestone; gray-brown-tan, very fine crystalline, in part fossiliferous, in part argillaceous, pyritic.
5075-5100	Limestone; brown-gray, very fine crystalline, fossiliferous, argillaceous, pyritic with interbeds of gray-brown sucrose dolomite.
5100-5135	Limestone; brown-gray, very fine crystalline, fossiliferous, argillaceous, pyritic.
5135-5150	Limestone; gray, very fine crystalline, very argillaceous, pyritic interbedded with gray calcareous shale.
<u>Utica</u>	
5150-5380	Shale; gray, calcareous in part silty, in part fossiliferous.
5380-5390	Shale; black-brown.
<u>Trenton</u>	
5390-5405	Limestone; brown-gray, fine-medium crystalline, fossiliferous, argillaceous with organic residue and black-brown fine sucrose dolomite.
5405-5420	Dolomite; gray-fine-medium crystalline, argillaceous with possible organic residue.
5420-5440	Limestone; brown-tan-gray, very fine crystalline, fossiliferous in part, dolomitic in part, earthy with slight amount of chert.

5440-5450	Dolomite; brown, sacrose to crystalline with organic residue.
5450-5475	Limestone; brown, very fine crystalline, fossiliferous, slightly dolomitic, pyritic, chalky appearing at bottom.
5475-5505	Limestone; gray-brown, very fine crystalline, fossiliferous, argillaceous, slightly dolomitic, pyritic with rare chert fragments.
5505-5515	Limestone; brown, very fine crystalline, fossiliferous, earthy appearing with quartz filled fractures.
5515-5525	Limestone; tan-light gray, fine crystalline, fossiliferous in part, earthy appearing.
5525-5545	Limestone; gray-brown, very fine crystalline, argillaceous, in part dolomitic, slightly fossiliferous, pyritic, with quartz filled fractures.
5545-5580	Limestone; light gray, gray-brown, very fine crystalline, slightly argillaceous.
5580-5600	Limestone; light gray, gray-brown, very fine crystalline, slightly argillaceous.
5600-5620	Limestone; light brown-brown, very fine crystalline.
5620-5660	Limestone; gray-brown, very fine crystalline.
<u>Black River:</u>	
5660-5680	Limestone; dark gray-black, very fine crystalline, dolomitic.
5680-5700	Limestone; brown-buff, very fine crystalline.

5700-5720	Shale; black, calcareous, interbedded with brown to buff limestone stringers.
5720-5800	Limestone; brown-buff, very fine crystalline, fossiliferous (5720-5760) with black shale stringers (5768-5772, 5794-5800)
5800-5820	Limestone; dark gray-brown, very fine crystalline, fossiliferous.
5820-5860	Limestone; brown-gray, very fine crystalline, pyritic near bottom.
5860-5876	Limestone; light gray-brown, very fine crystalline with trace of gray quartz.
<u>St. Peter Sandstone:</u>	
5876-5892	Sandstone; white-clear, fine-grained sub-angular to sub-rounded, well cemented with large clear quartz grains.
5892-5920	Shale; dark gray-black, slightly calcareous with brown dense limestone lens.
<u>Knox Sandstone:</u>	
5920-5940	Sandstone; white-gray, sub angular, friable with large clear quartz grains.
5940-5971	Sandstone; green-clear, sub-rounded, unconsolidated.
Total Depth	5971 (Drlr)

WELL PLUGGING RECORD

LANSING HAS COPY APR 3-1974

TO BE FILED WITHIN THIRTY DAYS AFTER PLUGGING IS COMPLETED

GAYLORD HAS COPY

Permit No. 29,571.....

Date... April 1..... 1974..

Owner or Operator.. Shell Oil Company..... Address P.O. Box 552, Traverse City, MI 49684.....

Well Name.. Sheldon State-Wellington... No. 1-34..... Location.. SE....X... SW....X... SW....X, Section 34.....

Township.. Wellington..... County... Alpena..... T. 32N..... R. 5E.....

Type of Well... Dry Hole..... Total Depth.. 5971'..... Formation Salina-Niagaran..... (OIL, GAS, BRINE DISPOSAL OR DRY HOLE)

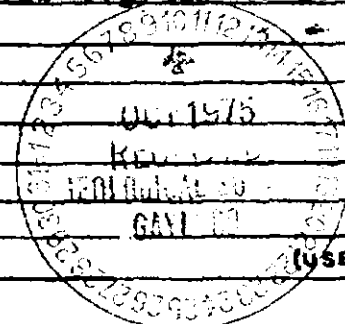
Date Plugging Started... 2-24-74..... Date Plugging Completed... 2-25-74.....

Was permission of Department of Conservation obtained before plugging began? Yes.....

Name of Department representative who authorized or supervised plugging... Billy G. Ellis.....

Table with 7 columns: CASING SIZE, WHERE SET, AMOUNT RECOVERED, SHOT OR RIPPED, BRIDGES OR PLUGS (BRUSH, STONE, CEMENT, ETC.), DEPTH PLACED, NUMBER SACKS. Rows include 16" casing at 54', 11 3/4" at 272', 8 5/8" at 2336', and Cement Plug at 2375'.

Describe in detail how well was plugged Spotted 50 sx cement @ 5971'-5803', 50 sx cement @ 5440'-5272', 50 sx cement @ 4250'-4082', 75 sx cement @ 2375'-2125'. Cut off csg. @ two feet below ground level. Capped with 1/2" steel plate.



Were tools, tubing, casing, etc., lost or left in the hole before or during plugging? Yes If so, give details Casing as listed above.

Did a Service Company pump mud, spot cement, or set bridge plugs? Yes If so, give name and address Halliburton Services, Drawer 1431, Duncan, Oklahoma 73533

Was the well plugged by a Company or Contractor other than Owner or Operator? No If so, give name and address

Representatives of Owner, Operator, Company, or Contractor who witnessed plugging A.D. Ferguson

CERTIFICATE:

I, Richard L. Tyler of Shell Oil Company (Company), state that I am authorized by said Owner or Operator to make this report; and that this report was prepared under my supervision and direction and that the facts stated herein are true, correct and complete to the best of my knowledge.

Richard L. Tyler (SIGNATURE) P.O. Box 552, Traverse City, MI 49684 (ADDRESS) Engineering Ass't. (TITLE)

FINAL INSPECTIONS:

By Department Representative [Signature] Date 8-28-75 9/27/75

OPERATORS USE

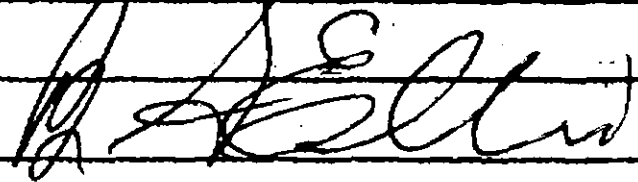
Lined area for operator use, currently blank.

DEPARTMENT USE ONLY

Supplemental Plugging Data and Lease Conditions:

August 28, 1974

Location clean and level and ready for final approval.



B. C. Ellis

Lined area for department use, currently blank.

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
SUPERVISOR OF WELLS

PERMIT TO PLUG AND ABANDON

PERMIT NO. 29571	FIELD NAME EXPLORATORY		
OWNER OR OPERATOR Shell Oil Company			
WELL NAME Shelden State-Wallington			WELL NO. 1-34
LOCATION SU SE SW SW	SECTION 34	TOWNSHIP T 32N R 9E	COUNTY Alcona
TYPE OF WELL (Oil, Gas, Dry Hole, etc.) Dry Hole	DATE COMPLETED February 22, 1974	LAST PRODUCTION 19	
LAST PRODUCTION (Amount per day)			
PLUGGING TO BE DONE BY CEECO Rig 55 and Halliburton		DATE PLUGGING WILL START February 23, 1974	
PLUGGING PERMIT REQUESTED BY (Well Owner or Authorized Representative) A. D. Ferguson, Drilling Foreman for Shell Oil Company			DATE February 22, 1974
PERMIT MAILED TO Shell Oil Company			
ADDRESS P. O. Box 552, Traversa City, MI 49684			

CASING AND CEMENTING RECORD			
SIZE CASING	DEPTH SET	NO. SACKS CEMENT	PERFORATIONS
16"	54	Drive	
11-3/4"	272	300 ex. Cir.	
8-5/8"	2336	400 ex.	

FORMATION TOPS AND OTHER DATA
(Formation & depth, Oil, Gas & Water Shows, etc.)

CONFIDENTIAL: Rotary Total Depth 5971

PLUGGING REQUIREMENTS:

Circulate hole w/heavy mud and rotary cuttings.
 Thru drill pipe, spot cement as follows: 50 ex @ 5970; 50 ex @ 3440; 50 ex @ 4250; and 75 ex @ 2375. Cut off casing three feet below ground level.
 Place 10 ex of cement in top of 8-5/8" casing.
 Weld 1/2 inch steel plate over top of 8-5/8" casing.

The four inch diameter fresh water supply well at this location must be plugged in accordance with the provisions of Rule 166, Page 17 of Act 294, P.A. 1965. (a) A well in unconsolidated deposits shall be filled with clean puddled clay, neat cement, or concrete grout.

Plugging requirements outlined above are to be executed in accordance with the provisions of Act 61, P.A. 1939, and/or Act 326, P.A. 1937, and the rules and regulations issued and adopted thereunder. NOTE: THE PLUGGING OF THIS WELL CANNOT BE APPROVED UNTIL THE PLUGGING IS COMPLETED, CELLAR, RAT HOLE AND PITS FILLED AND THE LOCATION HAS BEEN CLEANED AND LEVELED.		
PERMIT ISSUED BY Billy G. Ellis	FIELD OFFICE Coyland	DATE February 22, 1974

NOTE: WELL PLUGGING RECORD, Form CONS 7213, to be filed in TRIPLICATE within 30 days after completion.