

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

(Midlake)

CONFIDENTIAL

5. Lease Designation and Serial No.

ML-28701

6. If Indian, Allottee or Tribe Name

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL

DEEPEN

PLUG BACK

7. Unit Agreement Name

b. Type of Well

Oil Well

Gas Well

Other

Single Zone

Multiple Zone

8. Farm or Lease Name

State of Utah "O"

2. Name of Operator

AMOCO PRODUCTION COMPANY

9. Well No.

#1

3. Address of Operator

P.O. Box 17675 Salt Lake City, Utah 84117

10. Field and Pool, or Wildcat

Wildcat

4. Location of Well (Report location clearly and in accordance with any State requirements.)*
At surface

11. Sec., T., R., M., or Blk. and Survey or Area

Sec. 14, T4N, R8W

NW/4 SW/4 Section 14 1980' FSL & 660' FWL
At proposed prod. zone

12. County or Parrish 13. State

Box Elder Utah

14. Distance in miles and direction from nearest town or post office*

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)

16. No. of acres in lease

2560.00

17. No. of acres assigned to this well

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

19. Proposed depth

7,000'

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

4200' Lake Level

22. Approx. date work will start*

When Approved

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
26"	20" Drive Pipe	94#	300'	
17 1/4"	13 3/8"	48#	1000'	suff. to circulate to surf.
12 1/4"	9 5/8"	43.5#	7000'	Upon logging, cement sufficient to cover pay and aquifer

TIGHT HOLE

Propose to drill a well to test the Tertiary Beds of the Great Salt Lake.

Well to be drilled in compliance with the State of Utah "Operating Rules and Regulations Governing Drilling Procedures in the Great Salt Lake", adopted July 18, 1973. An Oil Spill Contingency Plan is on file with your office.

"See Attachments"

Note: Survey Plats will be forwarded to your office immediately upon preparation

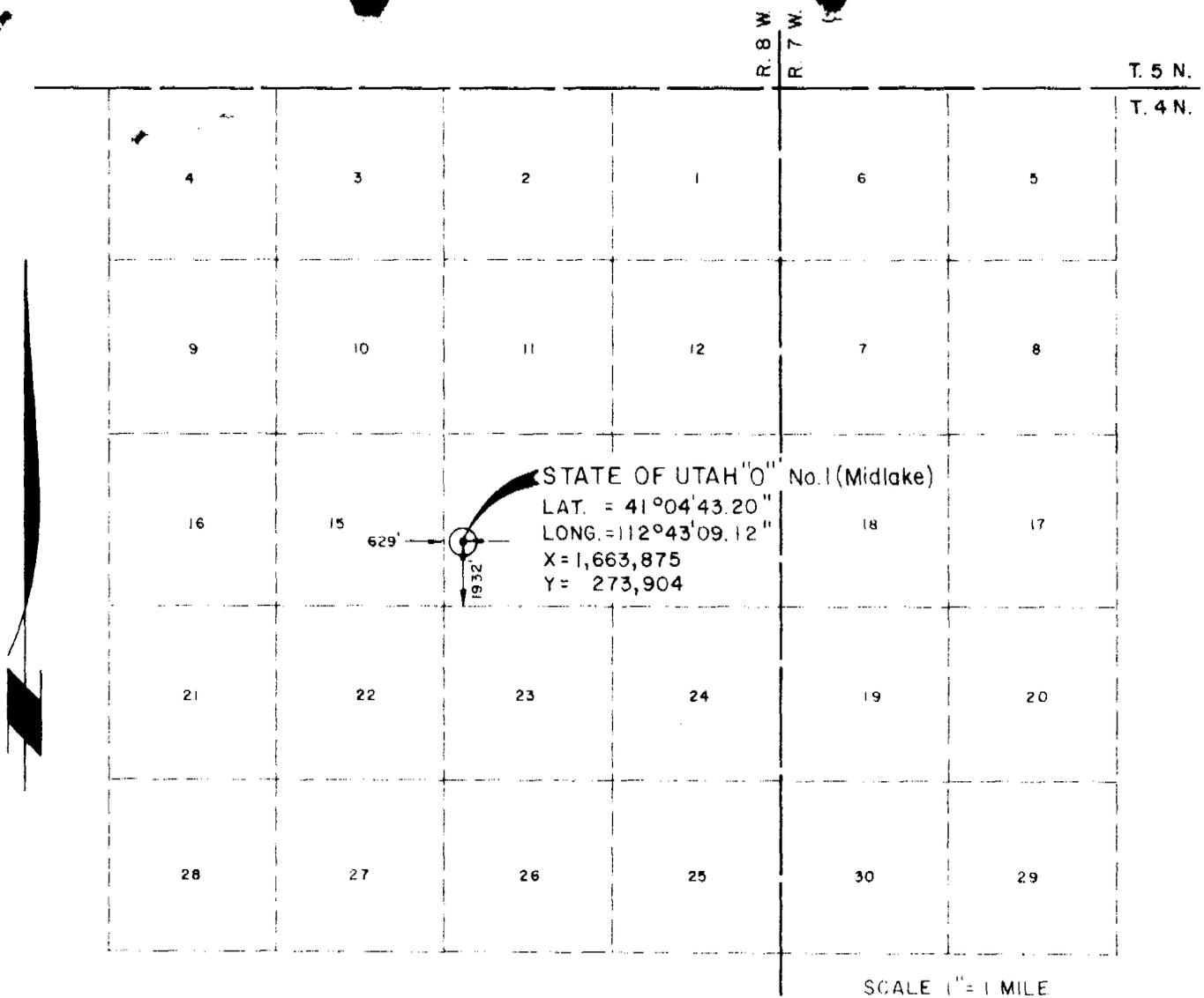
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. Signed: *J. H. Davidson* Title: Dist. Admin. Supervisor Date: 12/20/79

(This space for Federal or State office use)

Permit No. 43-003-30012 Approval Date

Approved by: Title: Date: Conditions of approval, if any:



SCALE 1" = 1 MILE

CERTIFICATE OF SURVEYOR

I hereby certify that I am properly registered and licensed to practice land surveying in the State of Alaska and that this plat represents a location survey made by me or under my supervision, and that all dimensions and other details are correct.

April 21, 1980 Richard Davis
 Date Surveyor



Reference: State of Utah Laws regulating the practices of Professional Engineers, Land Surveyors and Engineers in Training section 58-22-21.

STATE OF UTAH "O" No. 1 (MIDLAKE) Located in SW 1/4 PROTRACTED SEC. 14, T. 4 N., R. 8 W., SALT LAKE MER., UTAH Surveyed for	
AMOCO PRODUCTION CO. Salt Lake City, Utah	
Surveyed by F. M. LINDSEY & ASSOC. LAND & HYDROGRAPHIC SURVEYORS 2502 West Northern Lights Boulevard Box 4-081 Anchorage Alaska	

2524-80

ATTACHMENT TO FORM NO. OGC-1a

State of Utah "O" #1

1. Geologic name of the surface formation: Tertiary
2. Estimated tops of geological markers:
Tertiary 'B' 1150'
Tertiary 'F' 5500'
3. Estimated depths anticipated to encounter water, oil or gas and other mineral-bearing formations:

See Item #2 above

4. Casing Program: See Form OGC-1a, Item #23
5. Operators specifications for pressure control equipment are shown on the attached schematic diagram. Testing and specifics for same shall be in compliance with the "Operating Rules and Regulations Governing Drilling Procedures in the Great Salt Lake".

6. Mud Program:

Surface to Total Depth: Low solid, non-dispersed,
8.6 - 9.0#/gal. Viscosity
as required to clean hole.

7. Testing Program:

Drill stem tests will be run at the discretion of the Denver Exploration Department

Logging Program:

Dual Induction - SFL	Base of conductor pipe to TD
Integrated BHC-GR Sonic w/Caliper	" " "
CNL-FDC w/GR	" " "
High resolution dipmeter	" " "
High resolution temperature survey & velocity survey	Surface to TD

Coring Program:

Cores to be taken at the discretion of the Denver Exploration Department

Stimulation Program:

To be determined by the Denver Division office upon completion of drilling operations

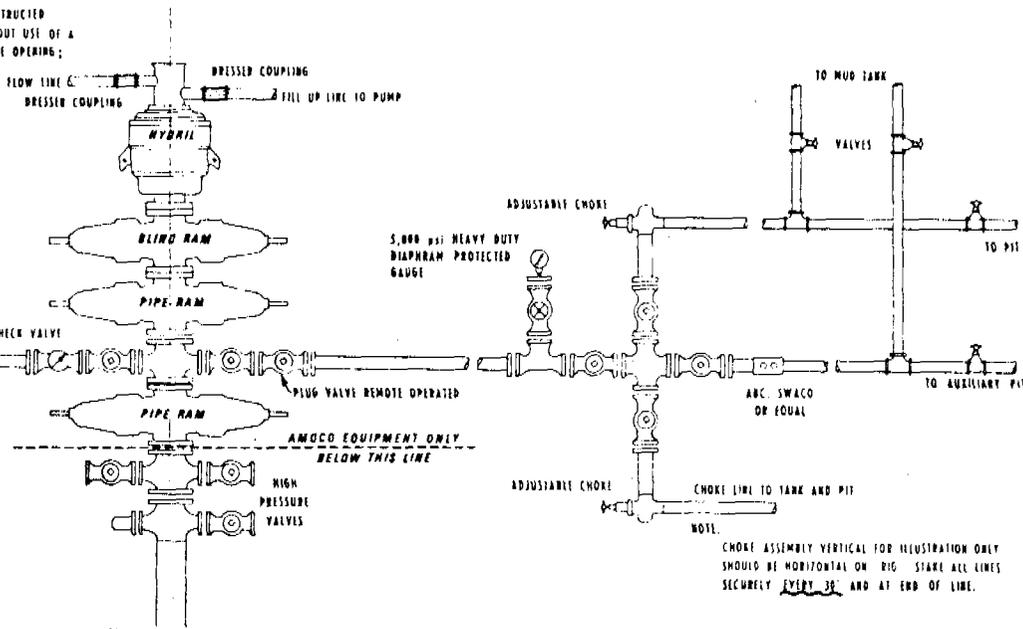
8. No abnormal pressures, temperatures, or hydrogen sulfide gas are anticipated.
9. It is anticipated that drilling operations will commence when approved and duration of operations will be approximately 30 days.

EXHIBIT BOP-5000
MINIMUM BLOW-OUT PREVENTER REQUIREMENTS
5,000 psi W.P.

NOTE:

1 DRILLING HIPPLE TO BE SO CONSTRUCTED THAT IT CAN BE REMOVED WITHOUT USE OF A WELDER, THROUGH ROTARY TABLE OPERING; WITH MINIMUM I.D. EQUAL TO PREVENTER BORE.

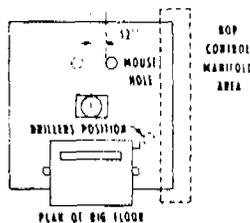
2 WEAR RING TO BE PROPERLY INSTALLED IN HEAD.



NOTE:
 ALL VALVES TO BE FULL OPENING.

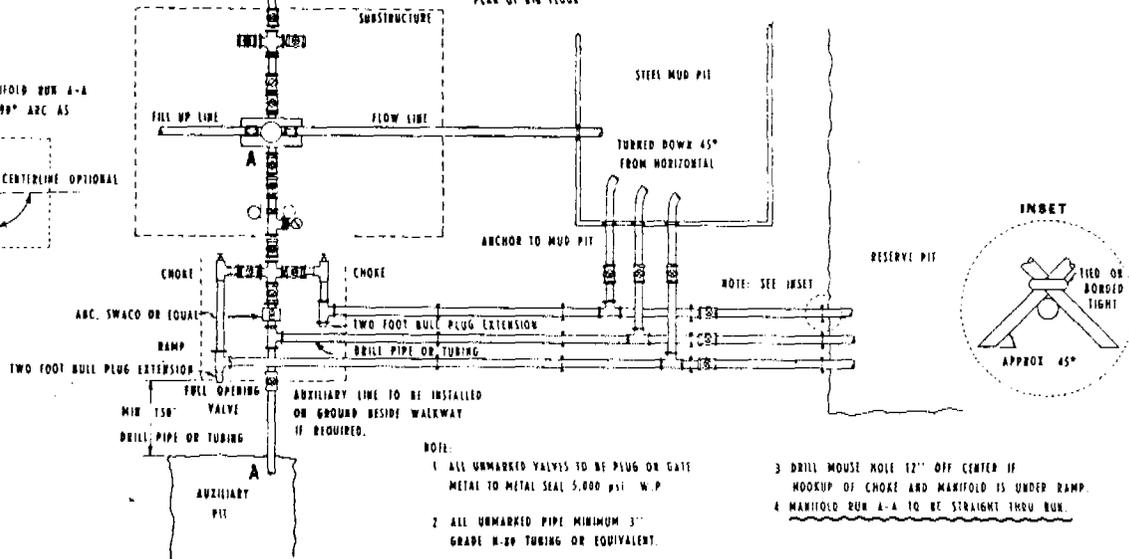
NOTE:

- 1 BLOW-OUT PREVENTERS AND ALL FITTINGS MUST BE IN GOOD CONDITION 5,000 PSI W.P. MINIMUM
- 2 ALL FITTINGS TO BE FLANGED. SCREWED CONNECTIONS DOWNSTREAM FROM CHOKES PERMISSIBLE
- 3 SAFETY VALVE MUST BE AVAILABLE ON RIG FLOOR AT ALL TIMES WITH PROPER CONNECTION OR SUR. VALVE TO BE FULL BORE 5,000 PSI W.P. MINIMUM.
- 4 ALL CHOKES AND BELL LINES TO BE SECURELY ANCHORED, ESPECIALLY ENDS OF CHOKES LINES
- 5 EQUIPMENT THROUGH WHICH BITE MUST PASS SHALL BE AS LARGE AS INSIDE DIAMETER OF THE CASING BEING DRILLED THROUGH.
- 6 KELLY COCK OR KELLY.
- 7 EXTENSION WRENCHES AND HORN WHEELS TO BE PROPERLY INSTALLED AND BRACED AT ALL TIMES
- 8 RIG FLOOR BLOW-OUT PREVENTER CONTROL TO BE LOCATED AS CLOSE TO DRILLERS POSITION AS FEASIBLE
- 9 BLOW-OUT PREVENTER CLOSING EQUIPMENT TO INCLUDE 50 GALLON ACCUMULATOR, TWO INDEPENDENT SOURCES OF PUMP POWER OR EACH CLOSING UNIT INSTALLATION, AND MEET ALL LABC SPECIFICATIONS.



NOTE:

DIRECTION OF MARIFOLD RUN A-A OPTIONAL WITHIN 90° ARC AS SHOWN BELOW



NOTE:

- 1 ALL UNMARKED VALVES TO BE PLUG OR GATE METAL TO METAL SEAL 5,000 PSI W.P.
- 2 ALL UNMARKED PIPE MINIMUM 3" GRADE N-29 TUBING OR EQUIVALENT.
- 3 DRILL MOUSE HOLE 12" OFF CENTER IF HOOKUP OF CHOKES AND MARIFOLD IS UNDER RAMP.
- 4 MARIFOLD RUN A-A TO BE STRAIGHT THRU RUN.

Amoco Production Company
 STANDARD ASSEMBLY FOR FLUID
 OPERATED TRIPLE BLOW OUT PREVENTER
 5,000 psi W.P.

CONFIDENTIAL

80
January 4, 1978

Amoco Production Company
P.O. Box 17675
Salt Lake City, Utah 84117

Re: Well No. State of Utah M-1, Sec. 28, T. 3N, R. 8W, Box Elder County, Utah
Well No. State of Utah M-1, Sec. 4, T. 11S, R. 4W, Tooele County, Utah
Well No. State of Utah O-1, Sec. 14, T. 4N, R. 8W, Box Elder County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to wells is hereby granted in accordance with the Order issued in Cause No. 150-2, dated November 20, 1974; and the "Operating Rules and Regulations Governing Drilling Procedures in the Great Salt Lake," adopted July 18, 1973, by the Board of Oil, Gas and Mining.

However, said approval shall be contingent upon the following:

1. A surveyor's plat being furnished this office in accordance with Rule C-4(a), General Rules and Regulations and Rules of Practice and Procedure. One is required on each well;
2. The blowout prevention equipment being tested by an independent source after initial installation on all of the above wells;
3. Notification as to the name of the drilling contractor and the rig number used prior to commencement of spudding operations;
4. A drilling and plugging bond being filed with the Division of State Lands prior to commencement of operations.

Should you determine that it will be necessary to plug and abandon these wells, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Geological Engineer
Office: 533-5771
Home: 876-3001

Amoco Production Company
January 4, 1979
Page 2

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API numbers assigned to these wells are:

M-1 43-003-30011
N-1 43-003-30010
O-1 43-003-30012

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder
Geological Engineer

/bdm

cc: Donald Prince

CONFIDENTIAL

** FILE NOTATIONS **

DATE: 12/26/79

OPERATOR: Amoco

WELL No. Stat 0-1

LOCATION: SEC. 14 T. 40 N. R. 12 W COUNTY Row

FILE PREPARED: _____

ENTERED ON NID: _____

CARD INDEXED: _____

COMPLETION SHEET: _____

API NUMBER: 43-003-30012

CHECKED BY:

GEOLOGICAL ENGINEER: _____

PETROLEUM ENGINEER: _____

DIRECTOR: OR Conditional upon survey plat being filed

APPROVAL LETTER: _____

BOND REQUIRED: _____

SURVEY PLAT REQUIRED:

ORDER No. 150-2 12-20-74 O.K. RULE C-3 _____

RULE C-3(c), TOPOGRAPHIC EXCEPTION/COMPANY OWNS OR CONTROLS ACREAGE WITHIN A 660' RADIUS OF PROPOSED SITE _____

LEASE DESIGNATION State PLOTTED ON MAP

APPROVAL LETTER WRITTEN

blm

GSL
approval
+ plat

KI PI

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: Amoco Production Company (Kurt Unger 272-9253)

WELL NAME: State of Utah "0"

SECTION 14 NW SW TOWNSHIP 4N RANGE 8W COUNTY Box Elder

VERBAL APPROVAL GIVEN TO PLUG THE ABOVE REFERRED TO WELL IN THE FOLLOWING MANNER:

TOTAL DEPTH: 2450'

CASING PROGRAM:

13 3/8" @ 476'
9 5/8" @ 1376'
20" driven to 244'
8 1/2" openhole - 2450'

FORMATION TOPS:

Basalt 1388' - 1445'

PLUGS SET AS FOLLOWS:

- #1 2450' - 2350' 100' plug - 50 sx
- #2 1476' - 1276' 200' plug - 100 sx
Part 9 5/8" 100' below KB
Part 13 3/8" 15' below mud line
- #3 Set BP @ 200' below KB & cement to surface w/325 sx

DATE April 23, 1980

SIGNED _____ Original Signed By M. T. Minder

cc: Donald Prince

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

ML-28701
5. LEASE DESIGNATION AND SERIAL NO.
6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
8. NAME OR LEASE NAME

State of Utah "0"
WELL NO. 1
9. FIELD AND POOL, OR WILDCAT

Wildcat
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 14 T4N, R8W
12. COUNTY OR PARISH Box Elder
13. STATE Utah

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other P & A

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. RESVR. Other

2. NAME OF OPERATOR
Amoco Production Company

3. ADDRESS OF OPERATOR
P.O. Box 17675, Salt Lake City, UT 84117

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface NW/4 SW/4 Sec. 14 1980' FSL & 660' FWL
At top prod. interval reported below
At total depth

TIGHT HOLE

Release date: 11-26-80

14. PERMIT NO. 43-003-30012 | DATE ISSUED 1-4-80 | 15. DATE SPUNDED 4-14-80 | 16. DATE T.D. REACHED 4-26-80 | 17. DATE COMPL. (Ready to prod.) 4-26-80 P & A | 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 4221' | 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 2,450' | 21. PLUG, BACK T.D., MD & TVD | 22. IF MULTIPLE COMPL., HOW MANY* | 23. INTERVALS DRILLED BY surface - TD | ROTARY TOOLS | CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
None

25. WAS DIRECTIONAL SURVEY MADE
Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN
Dipmeter, (DIL), FDC-CNL, Sonic

27. WAS WELL CORED
No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"		244'	conductor		23'
13 3/8"	54.5#/	476'	17 1/2"	600 sx Class G	23'
9 5/8	40#/	1331'	12 1/2"	250 sx Class G	23'

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
None				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
None		

31. PERFORATION RECORD (Interval, size and number)
None

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
None	

33.* PRODUCTION

DATE FIRST PRODUCTION | PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) | WELL STATUS (Producing, or shut-in) P & A

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS. | CASING PRESSURE | CALCULATED 24-HOUR RATE | OIL—BBL. | GAS—MCF. | WATER—BBL. | OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) | TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED D. J. Davidson TITLE District Administrative Supervisor DATE 4-28-80

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on Items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see Item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Necks Cement". Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for Items 22 and 24 above.)

No Cores

37. SUMMARY OF POROUS ZONES:

SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
DST	1378	1420	Recovered 1255' salt water IHP 645, TOP 184-623, ISIP 639 FOP 623-639, FSIP 639, FHP 642	Basalt	1388'	

PROSPECTIVITY
 MAY 1 1980
 DIVISION OF OIL, GAS & MINING

38.

GEOLOGIC MARKERS

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5. LEASE DESIGNATION AND SERIAL NO. ML-28701
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME State of Utah "O"
9. WELL NO. 1
10. FIELD AND POOL, OR WILDCAT Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 14, T4N, R8W
12. COUNTY OR PARISH Box Elder
13. STATE Utah

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL GAS WELL OTHER P & A

2. NAME OF OPERATOR
Amoco Production Company

3. ADDRESS OF OPERATOR
P.O. Box 17675, Salt Lake City, UT 84117

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
NW/4 SW/4 Sec. 14 1980' FSL & 660' FWL

14. PERMIT NO.
43-003-30012

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
4221'

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Subject well plugged 4-26-80 in the following manner:

T.D. 2,450'

Casing: 20" conductor driven to 244'
13 3/8" casing set at 476'
9 5/8" casing set at 1331'

Formation tops: Basalt - 1388'

Plugs: 50 sx plug at 2450' - 2350'
100 sx plug at 1476' - 1276' to seal basalt & 100' in and out of 9 5/8" casing
Cement bridge plug at 200' to seal 9 5/8" casing
Cut off 9 5/8" casing at 100' & pull.
Cut 13 3/8" & 20" casing 15' below mud line & pull.
325 sx plug 200' to sea floor to seal 200' back to sea floor.

Verbal approval received by Kurt Unger from Mike Minder of Utah OGCC on 4-23-80 at 12:30 p.m.

18. I hereby certify that the foregoing is true and correct

SIGNED [Signature] TITLE District Administrative Supervisor DATE 4-28-80

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

TIGHT HOLE



Amoco Production Company

Post Office Box 17675
Salt Lake City, Utah 84117
801-272-9253

Martin Zimmerman
District Superintendent

June 4, 1980

The State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1583 West North Temple
Salt Lake City, UT 84116

File: MZ-540-031/WF

Survey Plats - State of Utah "O" #1, Section 14, T4N, R8W, SLBM, Box Elder
County, Utah

Enclosed herewith are copies of the final survey plats for the subject well.

Please note that the actual footage location as surveyed with the anchor pilings driven and the barge in place, does differ from the location indicated on the original "Application for Permit to Drill". It is requested that your files be corrected to reflect the actual footage as indicated on the attached plats.

Should you require additional information relative to the State of Utah "O" #1 Well, please advise.

Martin Zimmerman

Enclosure

SW/crj



January 5, 1981

Amoco Production Company
P;O. Box 17675
Salt Lake City, Utah 84117

RE: Well No. State of Utah "O" #1
Sec. 14, T. 4N, R. 8W,
Box Elder County, Utah

Gentlemen:

According to our records, a "Well Completion Report" filed with this office April 28, 1980, from above referred to well indicates the following electric logs were run: Dipmeter, DIL, FDC-CNL, Sonic. As of todays date this office has not received the Dipmeter log.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity log.

Your prompt attention to the above will be greatly appreciated.

Sincerely,

DIVISION OF OIL, GAS AND MINING

BARBARA HILL
WELL RECORDS

/bjh
enclosures: forms