

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

b. TYPE OF WELL  
 OIL WELL       GAS WELL       OTHER       SINGLE ZONE       MULTIPLE ZONE

2. NAME OF OPERATOR  
 Diamond Shamrock

3. ADDRESS OF OPERATOR  
 85 South 200 East Vernal, UT 84078

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)  
 At surface  
 650' FWL 576' FSL Section 1, T11S, R21E, S. 1/4 SW  
 At proposed prod. zone  
 Same *SWSW*

5. LEASE DESIGNATION AND SERIAL NO.  
 U-36625

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 Broken Arrow Federal

8. FARM OR LEASE NAME

9. WELL NO.  
 #14-1

10. FIELD AND POOL, OR WILDCAT  
~~Field~~ Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 1, T11S, R21E, S.L.M.

12. COUNTY OR PARISH  
 Uintah

13. STATE  
 Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE  
 20.7 miles Southeast of Ouray, UT

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)  
 576'

16. NO. OF ACRES IN LEASE AND ACRES ASSIGNED THIS WELL  
 630.28 acres

17. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 N/A

18. PROPOSED DEPTH  
 6858'

19. ROTARY OR CABLE TOOLS  
 Rotary

20. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5567'

21. APPROX. DATE WORK WILL START\*  
 A.S.A.P.

RECEIVED  
AUG 17 1981  
DIVISION OF OIL, GAS & MINING

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.5# K55	0-350'	<i>see attached cementing program description</i>
7 7/8"	5 1/2"	15.5# K55	0-T.D. 6858'	

See 10 Point Drilling Compliance Program

Attachments:

- Exhibit "A" - (10 Point Compliance Program)
- Exhibit "B" - BOP & Auxilliary Equipment
- Exhibit "C" - Cementing Program Description
- Certified Survey Plat
- 13 Point Surface Use Plans and Attachments
  - Rig Layout
  - Topo Map "A"
  - Topo Map "B"

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 Bill Elliott TITLE Drilling Superintendent DATE Aug 17, 1981

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

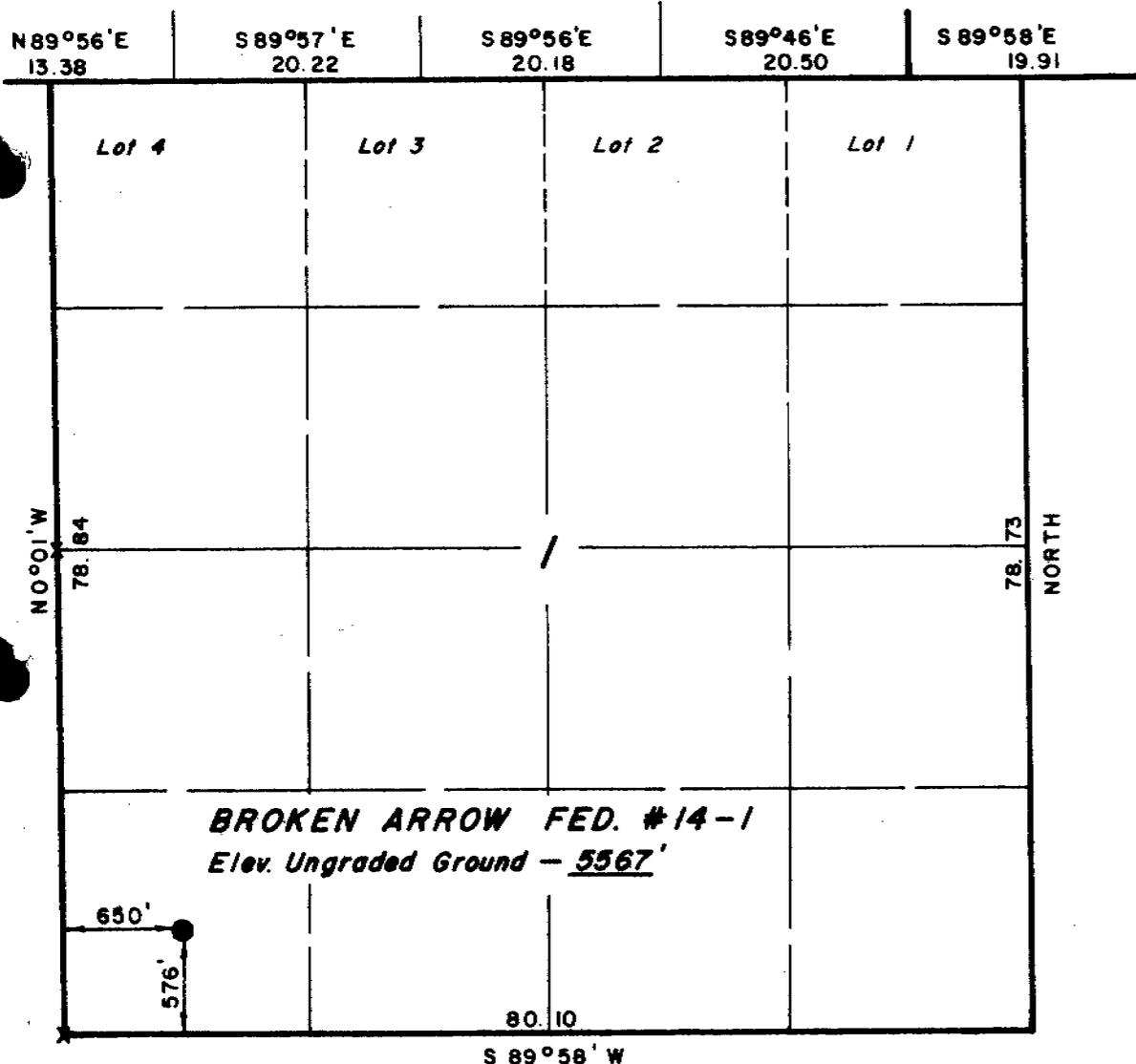
**APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING**  
 DATE: 9-2-81  
 BY: M.T. Winder

\*See Instructions On Reverse Side

T11S, R21E, S.L.B.&M.

PROJECT  
**DIAMOND SHAMROCK**

Well location, *BROKEN ARROW*  
FED. #14-1, located as shown in  
the SW 1/4 SW 1/4, Section 1, T11S,  
R21E, S.L.B.&M., Uintah County,  
Utah.



**BROKEN ARROW FED. #14-1**  
Elev. Ungraded Ground - 5567'

X = Section Corners Located



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.

*Anne Stewart*

REGISTERED LAND SURVEYOR  
REGISTRATION NO 2454  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
P. O. BOX Q - 85 SOUTH - 200 EAST  
VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 8/6/81
PARTY NJM, HM, DH	REFERENCES GLO PLAT
WEATHER FAIR & HOT	FILE DIAMOND SHAMROCK

Diamond Shamrock Corp.

BROKEN ARROW  
PROPOSED LOCATION  
FED #14-1



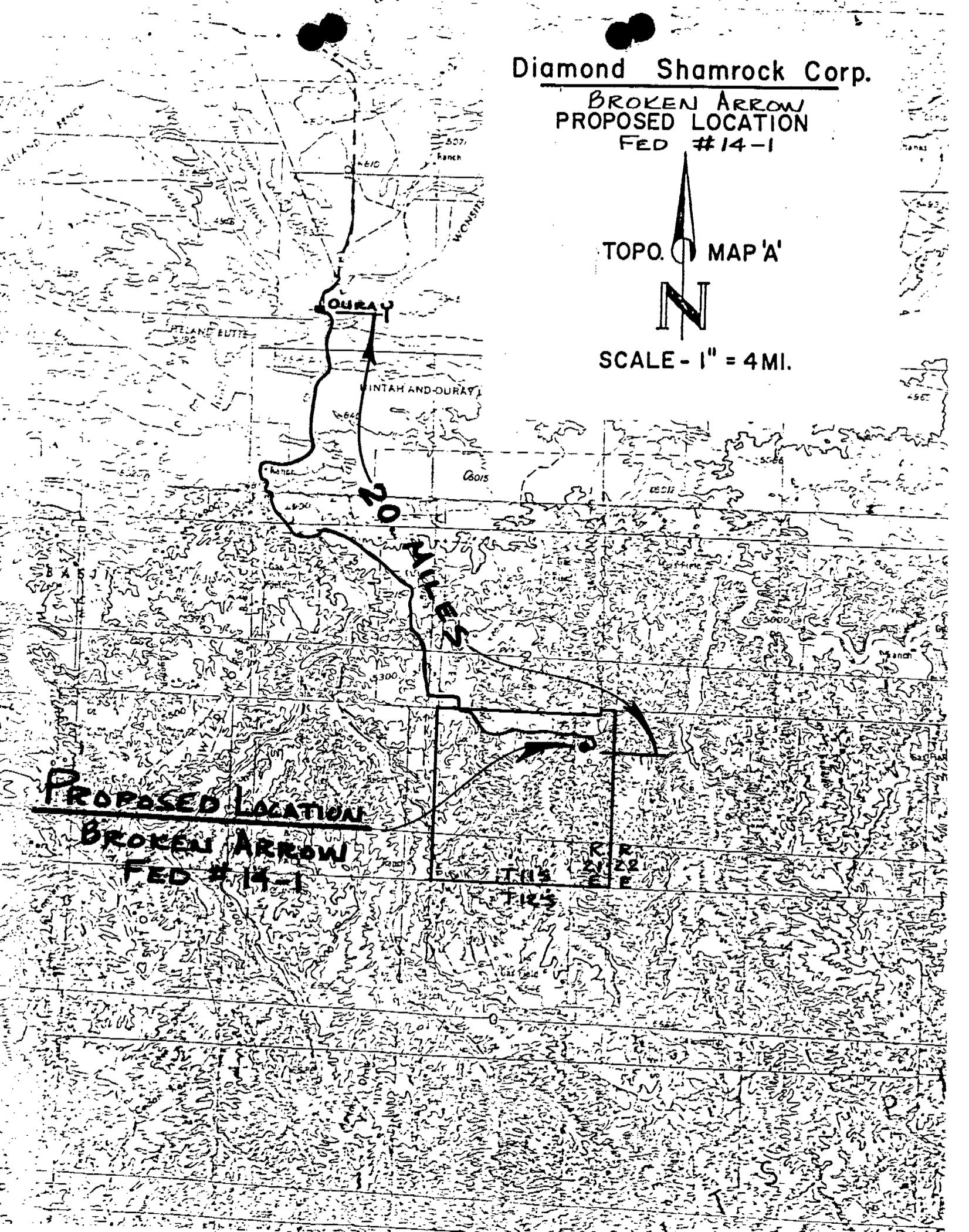
TOPO. MAP 'A'

SCALE - 1" = 4 MI.

OURAY

WINTAH AND OURAY

**PROPOSED LOCATION**  
**BROKEN ARROW**  
**FED #14-1**



Broken Arrow Federal #14-1

1. GEOLOGICAL NAME OF SURFACE FORMATION

(A) Uinta Formation of Eocene Age

2. TOPS OF IMPROTANT GEOLOGICAL MARKERS

- (A) Mahogany Formation 1126' Base
- (B) Douglas Creek Member 2660'
- (C) Wasatch Formaiton 4080'
- (D) Mesa Verde Formation 6658'

3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL OR GAS

- (A) Gas anticipated 2660' in Douglas Creek Member  
(Water or Oil not anticipated)
- (B) Gas anticipated in the Wasatch 4080' Formation  
and Mesa Verde Formation 6658'

4. PROPOSED CASING PROGRAM

- (A) 350' of 13 3/8" surface casing 545 per foot.  
6858' of 5 1/2" 15.5# per foot. (K-55)

5. SPECIFICATION FOR PRESSURE CONTROL EQUIPMENT

- (A) 12 inch 3000 # Double Hydraulic B.O.P. with pipe rams and  
blind rams and spherical BOP.
- (B) B.O.P. to be pressure tested before spudding and daily testing  
of closing units and rams while drilling.

6. PROPOSED CIRCULATING MEDIUM

- (A) Brine water is proposed to be used unless additional weight  
is needed to control pressures or heaving shale. In this  
event a chemical-gel fresh water mud will be used and Barite  
as needed to control pressure.

7. AUXILLIARY EQUIPMENT TO BE USED

- (A) Upper Kelly Cock
- (B) Float at bit
- (C) Floor T.I.W. Valve (Stabbing Valve) for drill pipe
- (D) Gas Detector Logging Unit

8. TESTING LOGGING AND CORING PROGRAM

Logging

(A) 30' from surface to 2500'  
10' from 2500' to T.D.

(B) Electric Logs

DIL - SFL 8 5/8" casing to T.D.

GR - BHC Sonic Surface to T.D.

FDC - CNL 8 5/8" casing to T.D.

Cyberlook 8 5/8" casing to T.D.

9. ANTICIPATED ABNORMAL PRESSURES, TEMPERATURES, OF HAZARDS

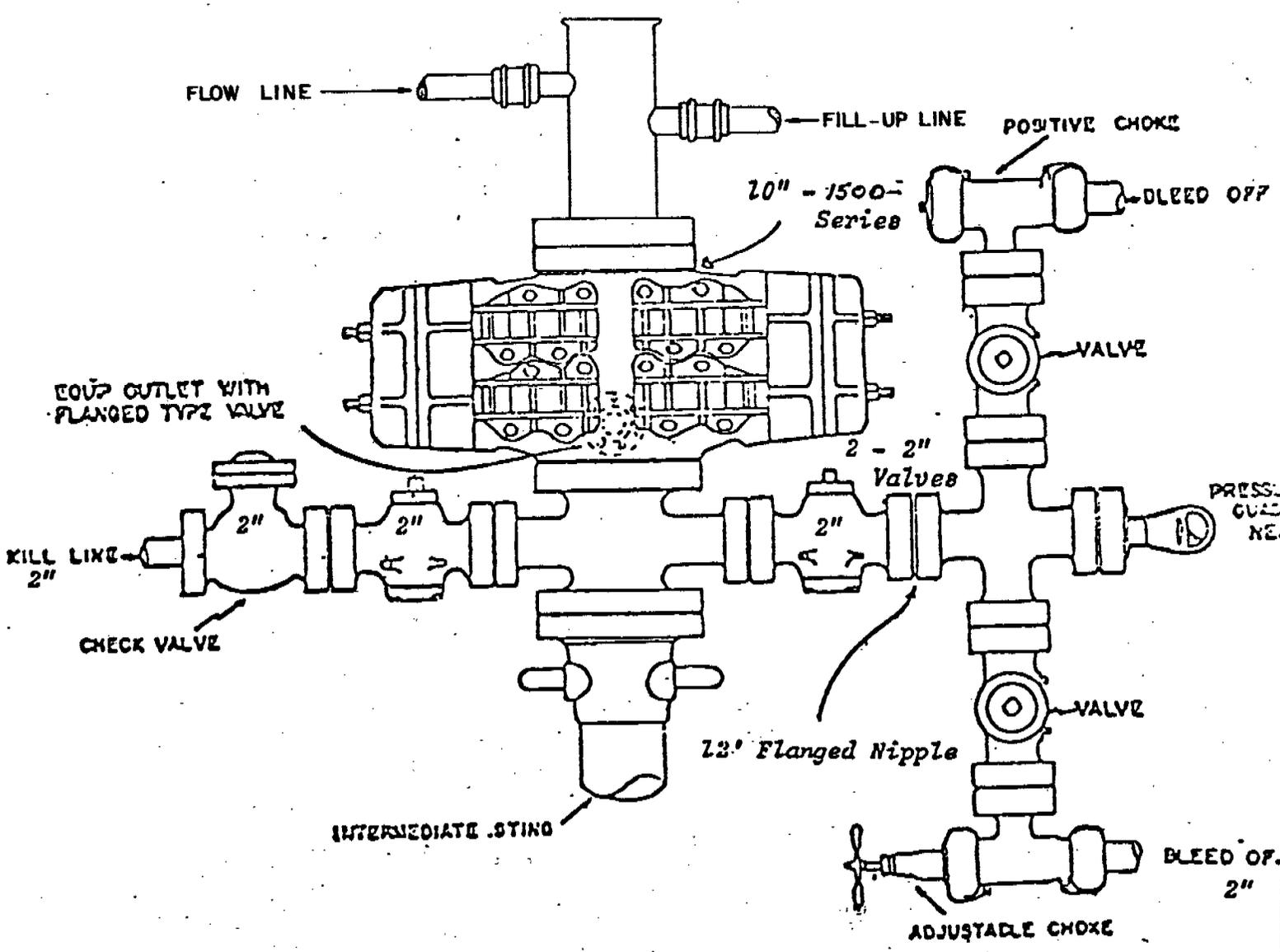
(A) No abnormal pressures expected

(B) No Hydrogen Sulfide Gas expected

10. STARTING DATE AND DURATION OF OPERATIONS

(A) Anticipated starting date as soon as approvals are made.

(B) This well is anticipated to be drilled in approximately 30 days.



NOTE: BLOWOUT PREVENTER HAS DOUBLE RAMS; ONE BLIND AND ONE PIPE RAM.

Diag. A

## CEMENTING PROGRAM DESCRIPTION

5½" casing will be run to T.D. as stated in the 10 point plan, part #4, of the Application for permit to Drill NTL-6, utilizing a multiple stage cementing collar at the base of the Mahogany Zone. The productive zones will be covered with cement through the bottom of the 5½" production casing. The multiple stage collar will then be opened and portions of the Mahogany Zone containing Hydrocarbons will be covered with a second stage of cement.

The Placement of the cementing collar and the quantities of cement pumped will be determined after the Electrical logs are evaluated. This procedure will isolate the Douglas Creek Aquifer from both the productive Zones below in the Wasatch and Mesaverde as well as from the Hydrocarbons present in the Mahogany. The upper water zone will be isolated from the hydrocarbon bearing portions of the Mahogany.

DIAMOND SHAMROCK CORPORATION

13 Point Surface Use Plan

Well Location

Broken Arrow Federal #14-1

Located In

Section 1, T11S, R21E, S.L.B.& M.

Uintah County, Utah

1. EXISTING ROADS

See attached Topographic Map "A".

To reach DIAMOND SHAMROCK CORPORATION, well location site Broken Arrow Federal #14-1, located in the SW 1/4 SW 1/4 Section 1, T11S, R21E, S.L.B.& M., Uintah County, Utah:

Proceed Westerly out of Vernal, Utah along U.S Highway 40 - 14. miles to the junction of this road and Utah State Highway 209; proceed South along Utah State Highway 209 - 7 miles more or less to the junction of this highway and Utah State Highway 88, proceed South along Utah State Highway 88 - 10 miles to Ouray, Utah; proceed on South along a county road, known as the Seep Ridge Road 15.8 miles + to the junction of this road and an existing road to the East; proceed Easterly along this road 5.1 miles to its junction with a jeep trail to the South; proceed South along the road 990' to its junction with the proposed access road (to be discussed in Item #2).

The aforementioned dirt oil field service road and other roads in the vicinity are constructed out of native materials that are prevalent to the areas they are located in and range from clays to sandy-clay shale material.

The highways mentioned in the foregoing paragraph are bituminous surfaced roads and are maintained by State road crews.

The existing jeep trail described above will be upgraded to meet the requirements of Item #2.

There is no anticipated construction on any other of the above described roads. They will meet the necessary standards required to facilitate an orderly flow of traffic during the drilling phase, completion phase, production phase of this well at such time that production is established.

The roads that are required for access during the drilling phase, completion phase, and production phase, of this well will be maintained at the standards required by the B.L.M. or other controlling agencies.

2. PLANNED ACCESS ROAD

See Topographic Map "B".

The planned road leaves the existing jeep trail described in Item #1 in the SW 1/4 SW 1/4 Section 1, T11S, R21E, S.L.B.& M., and proceeds in a Westerly direction approximately 570' to the proposed location site.

The proposed access road will be an 18' crown road (9' either side of the centerline) with drain ditches along either side of the proposed road where it is determined necessary in order to handle any run-off from normal meteorological conditions that are prevalent to this area.

Back slopes along the cut areas of the road will be 1 1/2 to 1 slopes and terraced.

There will be no culverts required along this access road.

There will be no turnouts required along this road.

There are no fences encountered along this access road therefore there are no gates or cattleguards required.

The lands involved in this action are under B.L.M. jurisdiction.

The terrain that is traversed by this road is relatively flat. The grade of this road will not exceed 8%.

### 3. LOCATION OF EXISTING WELLS

There are no water wells, production wells, abandoned wells, temporarily abandoned wells, disposal wells, drilling wells, shut-in wells, injection wells, monitoring or observation wells for other resources located within a one-mile radius of this location site.

### 4. LOCATION OF EXISTING AND PROPOSED FACILITIES

A tank battery site will be set at the proposed location site. This battery will be used to contain production from this well. If in the event this battery can not be improvised, a flowline will be built which will extend to an existing facilities in the area.

The area will be built if possible, with native materials and if these materials are not available then the necessary arrangements will be made to get them from private sources. These facilities will be constructed using bulldozers, graders and workman crews to construct and place the proposed facilities. If there is any deviation from the above, all appropriate agencies will be notified. Rehabilitation of disturbed areas no longer needed for operation after construction is completed will meet the requirements of Item #10.

There are no DIAMOND SHAMROCK wells or production facilities within a one-mile radius of this location site.

### 5. LOCATION AND TYPE OF WATER SUPPLY

See Topographic Map "B".

At the present time, it is anticipated that the water for this well will be hauled by truck over the existing roads and the proposed access road approximately 20.7 miles from the White River at a point where it crosses under the Seep Ridge road South of Ouray, Utah.

In the event that this source is not used, an alternate source will be used and all necessary arrangements will be made with the proper authorities.

There will be no water well drilled at this location site.

6. SOURCE OF CONSTRUCTION MATERIALS

All construction material for this location site and access road shall be borrow material accumulated during construction of the location site and access road. No pit lining materials from other sources are anticipated at this time, but if they are required, the appropriate actions will be taken to acquire them from private sources.

7. METHODS OF HANDLING WASTE DISPOSAL

See Location Layout Sheet.

A reserve pit will be constructed.

The reserve pit will vary in size and depth according to the water table at the time of drilling.

One half of the reserve pit will be used as a fresh water storage area during the drilling of this well and the other one half will be used to store non-flammable materials such as cuttings, salts, drilling fluids, chemicals and produced fluids, etc.

If deemed necessary by the agencies concerned to prevent contamination to surrounding areas, the reserve pits will be lined with a gel.

The pits will have wire and overhead flagging installed if deemed necessary to protect the water fowl, wildlife, and domestic animals.

At the onset of drilling, the reserve pit will be fenced on three sides and at the time drilling activities are completed, it will be fenced on the fourth side allowed to dry completely prior to the time that backfilling and other reclamation activities are attempted.

When the reserve pit dries and reclamation activities commence, the pits will be covered with a minimum of four feet of soil and all requirements in Item #10 will be followed.

A portable toilet will be supplied for human waste.

8. ANCILLARY FACILITIES

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

9. WELL SITE LAYOUT

See attached Location Layout Sheet.

The B.L.M. Representative shall be notified before any construction begins on the proposed location site.

As mentioned in Item #7, the pits will be unlined unless it is determined by the representatives of the agencies involved that the materials are too porous and would cause contamination to the surrounding area; then the pits will be lined with a gel and any other type of material necessary to make it safe and tight.

When drilling activities commence, all work shall proceed in a neat and orderly sequence.

#### 10. PLANS FOR RESTORATION OF SURFACE

As there is some topsoil on the location site, all topsoil shall be stripped and stockpiled. (See location layout sheet and Item #9). When all drilling and production activities have been completed, the location site and access road will be reshaped to the original contour and stockpiled topsoil spread over the disturbed area.

Any drainages re-routed during construction activities shall be restored to their original line of flow as near as possible. Fences around pits are to be removed upon completion of drilling activities and all waste being contained in the trash basket shall be hauled to the nearest Sanitary Landfill.

Restoration activities shall begin within 90 days after completion of the well. Once restoration activities have begun, they shall be completed within 30 days.

When restoration activities have been completed, the location site and access ramp shall will be reseeded with a seed mixture recommended by the B.L.M. Representative when the moisture content of the soil is adequate for germination. The Lessee further covenants and agrees that all of said clean-up and restoration activities shall be done and performed in a diligent and most workmanlike manner and in strict conformity with the above mentioned Items #7 and #10.

#### 11. OTHER INFORMATION

##### The Topography of the General Area - (See Topographic Map "A")

The area is a large basin formed by the Uinta Mountains to the North and the Book Cliff Mountains to the South. The White River is located approximately 16 miles to the North of the location site.

The basin floor is interlaced with numerous canyons and ridges formed by the non-perennial streams of the area. The sides of these canyons are steep and ledges formed in sandstone ledges, conglomerate deposits, and shale are common in this area.

The geologic structures of the area that are visible are of the Uinta formation (Eocene Epoch) Tertiary Period in the upper elevations and the cobblestone and younger alluvial deposits from the Quaternary Period.

DIAMOND SHAMROCK CORPORATION  
Broken Arrow Federal #14-1  
Section 1, T11S, R21E, S.L.B. & M.

Outcrops of sandstone ledges, conglomerate deposits and shale are common in this area.

The topsoils in the area range from a light brownish-gray sandy clay (SM-ML) type soil with poorly graded gravels to a clayey (OL) soil.

The majority of the numerous washes and draws in the area are of a non-perennial nature flowing during the early spring run-off and heavy rain storms of long duration which are rare as the normal annual rainfall in the area is only 8".

Due to the low precipitation average, climatic conditions and the marginal types of soils, the vegetation that is found in the area are common of the semi-arid regions and consists of areas of sagebrush, rabbitbrush, some grasses and cacti as the primary flora. This is also true of the lower elevations.

The fauna of the area is sparse and consists predominantly of the mule deer, pronghorn antelope, coyotes, rabbits, and varieties of small ground squirrels and other types of rodents. The area is used by man for the primary purpose of grazing domestic sheep and cattle.

The birds of the area are raptors, finches, ground sparrows, magpies, crows, and jays.

The Topography of the Immediate Area - (See Topographic Map "B").

Broken Arrow Federal #14-1 is located approximately 4000' West of Sand Wash a non-perennial drainage which runs to the North & East.

The terrain in the vicinity of the location slopes from the South through the location site to the North at approximately a 3.0% grade.

The vegetation in the immediate area surrounding the location site consists of grasses and sparse amounts of sagebrush.

There are no occupied dwellings or other facilities of this nature in the general area.

There are no visible archaeological, historical, or cultural sites within any reasonable proximity of the proposed location site. (See Topographic Map "B").

12. LESSEE'S OR OPERATOR'S REPRESENTATIVE

Bill Elliot  
DIAMOND SHAMROCK CORPORATION  
85 South 200 East  
Vernal, UT 84078

1-801-789-5270

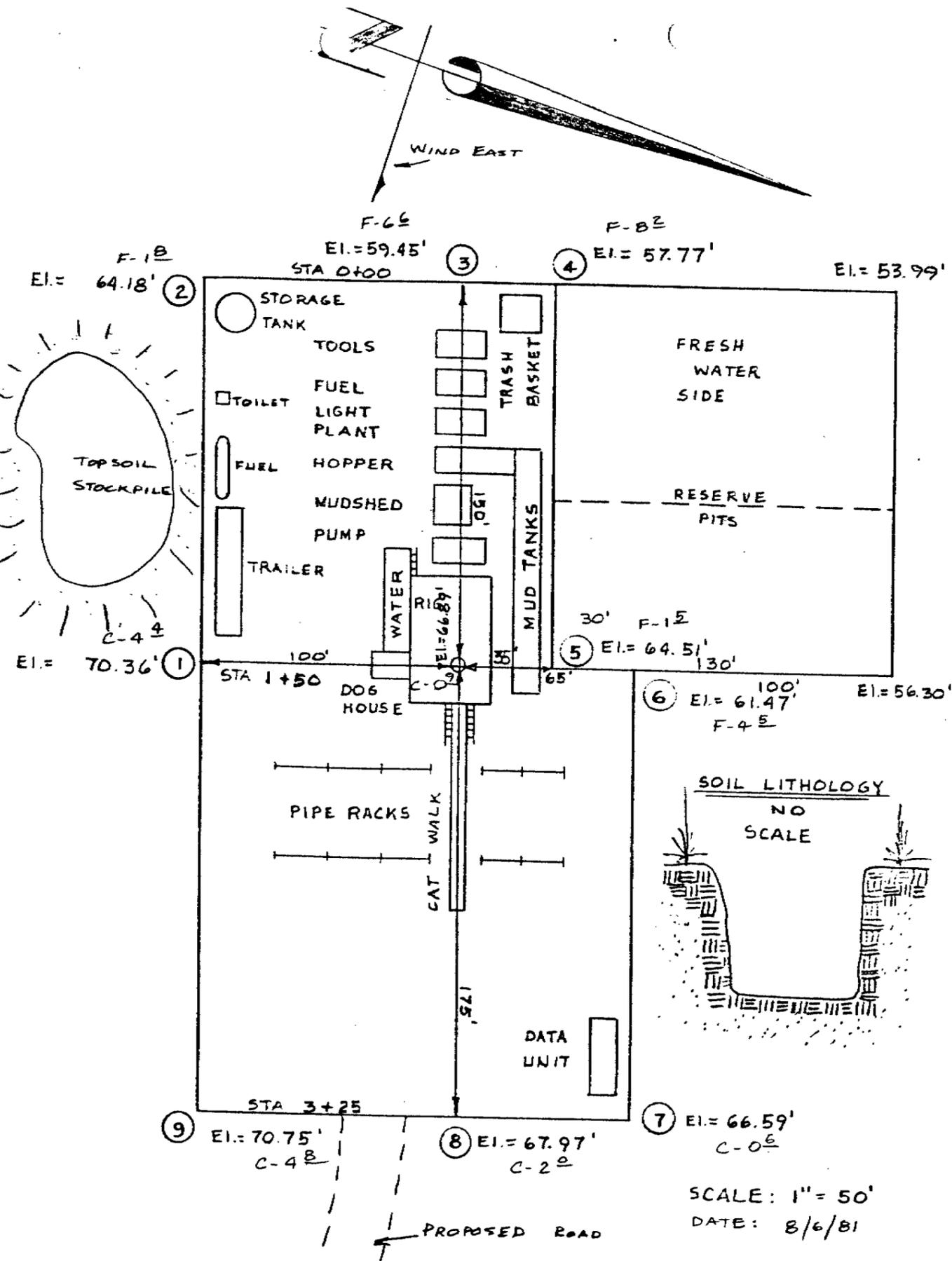
DIAMOND SHAMROCK CORPORATION  
Broken Arrow Federal #14-1  
Section 1, T11S, R21E, S.L.B. & M.

13. CERTIFICATION

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge true and correct; and that the work associated with the operation proposed herein will be performed by DIAMOND SHAMROCK CORPORATION and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Aug 17, 1981  
Date

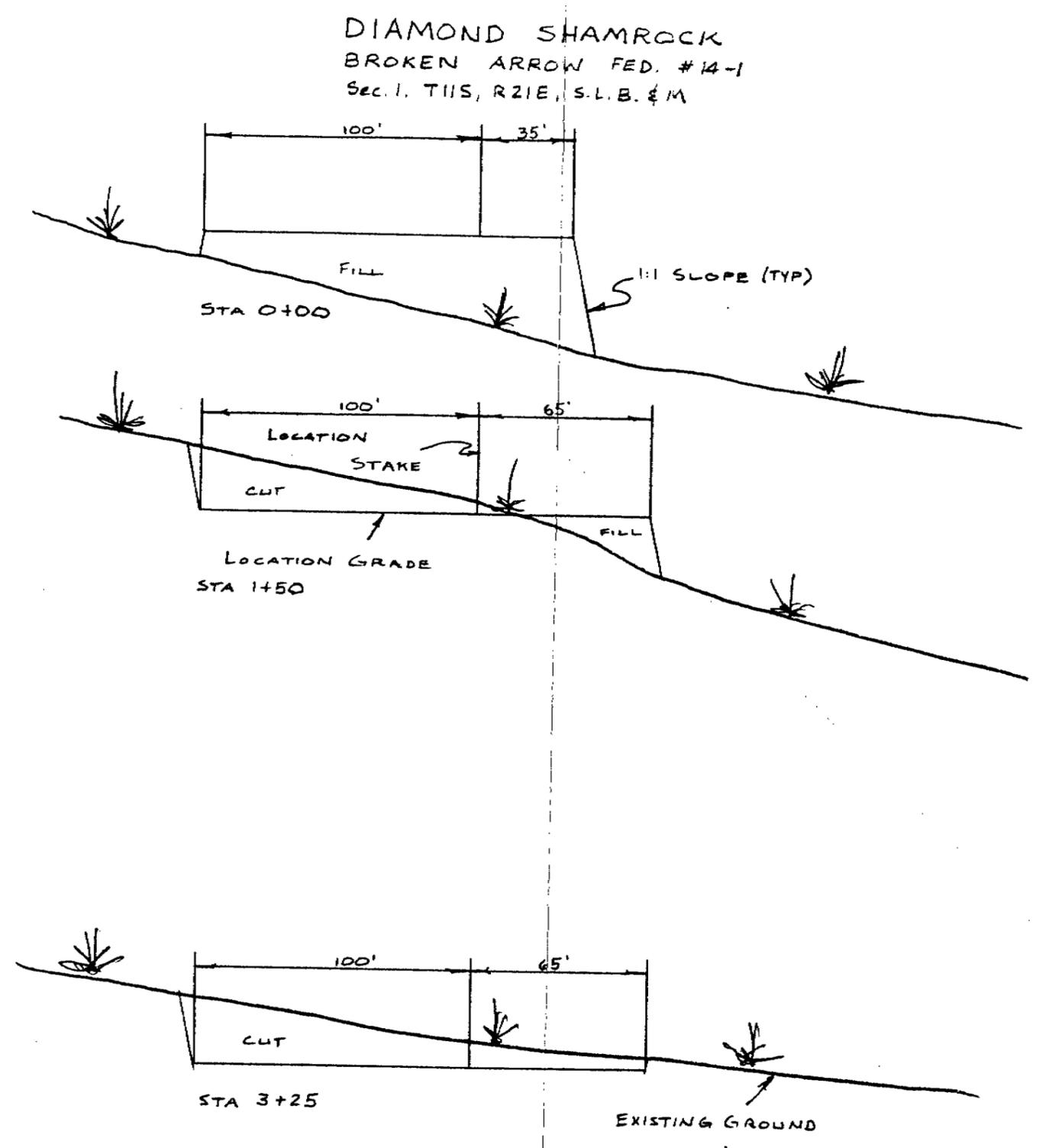
Bill Elliott  
Bill Elliot



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1" = 10'  
1" = 50'

SCALES



APPROXIMATE YARDAGES

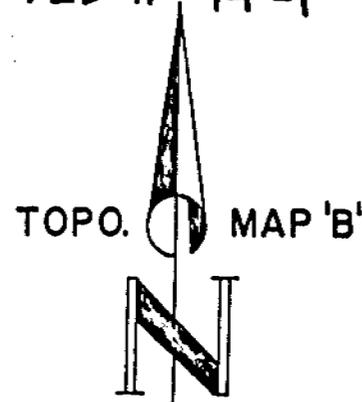
CU. YDS. CUT- 3070.63

CU. YDS. FILL- 2411.64

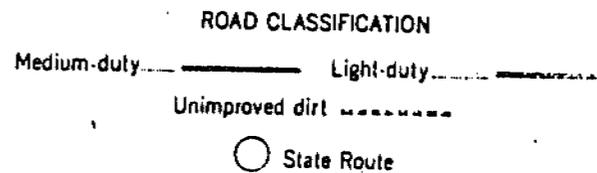
Diamond Shamrock Corp.

BROKEN ARROW  
PROPOSED LOCATION

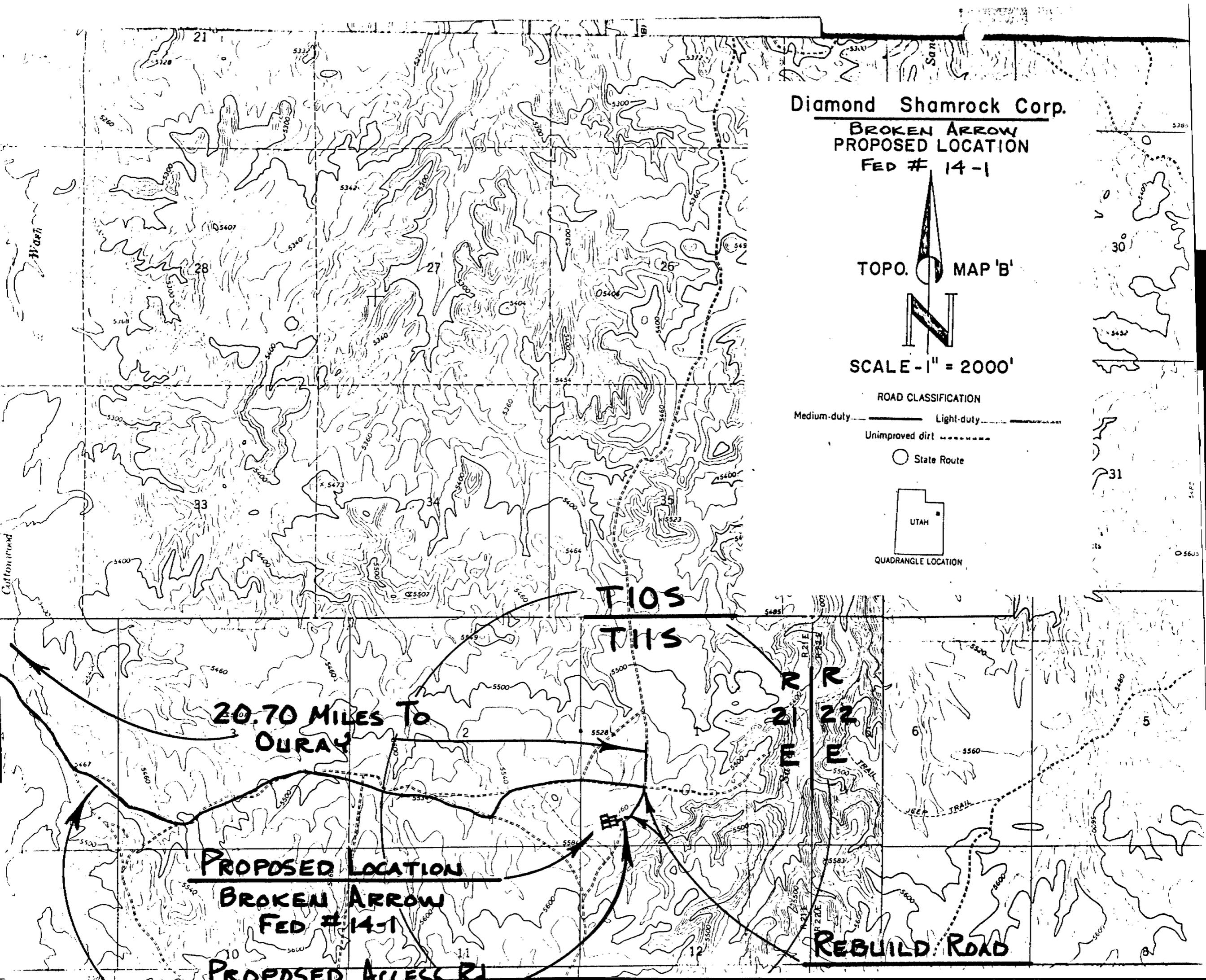
FED # 14-1



SCALE - 1" = 2000'



QUADRANGLE LOCATION



20.70 MILES TO  
OURAY

PROPOSED LOCATION  
BROKEN ARROW  
FED # 14-1

PROPOSED ACCESS R1

TIOS  
TIS

R R  
21 22  
E E

REBUILD ROAD



\*\* FILE NOTATIONS \*\*

DATE: Aug. 28, 1981  
OPERATOR: Diamond Shamrock  
WELL NO: Broken Arrow Federal #14-1  
Location: Sec. 1 T. 11S R. 21E County: Mintak

File Prepared:  Entered on N.I.D:   
Card Indexed:  Completion Sheet:

API Number 43-047-31068

CHECKED BY:

Petroleum Engineer: M. J. Minder 9-2-81  
Check if a Fed Unit.

Director: \_\_\_\_\_

Administrative Aide: As per Rule C-3

APPROVAL LETTER:

Bond Required:  Survey Plat Required:   
Order No. \_\_\_\_\_ 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  Plotted on Map   
Approval Letter Written   
Hot Line  P.I.

September 2, 1981

Diamond Shamrock  
85 South 200 East  
Vernal, Utah 84078

RE: Well No. Broken Arrow Federal #14-1,  
Sec. 1, T. 11S, R. 21E,  
Uintah County, Utah

Insofar as this office is concerned, approval to drill the above referred to gas well is hereby granted in accordance with Rule C-3, General Rules and Regulations and Rules of Practice and Procedure.

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

MICHAEL T. MINDER - Petroleum Engineer  
Office: 533-3771  
Home: 876-3001

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 number assigned to this well is 43-<sup>047-31068</sup>~~11111111~~.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

Michael T. Minder  
Petroleum Engineer

MTM/db  
CC: USGS

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

b. TYPE OF WELL  
 OIL WELL       GAS WELL       OTHER       SINGLE ZONE       MULTIPLE ZONE

2. NAME OF OPERATOR  
 Diamond Shamrock

3. ADDRESS OF OPERATOR  
 85 South 200 East Vernal, Utah 84078

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 At proposed prod. zone  
 SW SW

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 20.7 Miles Southeast of Orem, Utah

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 576'

16. NO. OF ACRES IN LEASE  
 630.28 acres

17. NO. OF ACRES ASSIGNED TO THIS WELL  
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 N/A

19. PROPOSED DEPTH  
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 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5567'

22. APPROX. DATE WORK WILL START\*

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 U-36025

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 Broken Arrow Federal

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 14-1

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 Uintah

13. STATE  
 Utah

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See 10 Point Drilling Compliance Program

Attachments:

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- Exhibit "B" - BOP & AUXILLIARY EQUIPMENT
- Exhibit "C" - Cementing Program Description
- Certified Survey Plat
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24. SIGNED Bill Elliott TITLE Drilling Superintendent DATE 9-4-81

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 (ORIG. SGD.) R. A. HENRICKS FOR E. W. GUYNN  
 APPROVED BY Production Unit Supervisor TITLE DISTRICT OIL & GAS SUPERVISOR DATE SEP 25 1981  
 CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

*State O+G*

United States Department of the Interior  
Geological Survey  
2000 Administration Bldg.  
1745 West 1700 South  
Salt Lake City, Utah 84104

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator Diamond Shamrock  
Project Type Gas Well  
Project Location 650' FWL 576' FSL Section 1, T. 11S, R. 21E.  
Well No. 14-1 Lease No. U-36625  
Date Project Submitted September 8, 1981

FIELD INSPECTION

Date September 9, 1981

Field Inspection  
Participants

Greg Darlington USGS, Vernal  
Cory Bodman BLM, Vernal  
Bill Elliot Diamond Shamrock  
Russ Ivie Diamond Shamrock  
Brad Weber Uintah Engineering  
Floyd Murray D. E. Casada

Related Environmental Documents: Unit Resource Analysis, Seep Ridge Planning  
Unit, BLM, Vernal

I have reviewed the proposal in accordance with the categorical exclusion review guidelines. This proposal would not involve any significant effects and, therefore, does not represent an exception to the categorical exclusions.

September 18, 1981  
Date Prepared

Garry Darlington  
Environmental Scientist

I concur

SEP 21 1981  
Date

RAHemich FOR E. W. GYNN  
District Supervisor DISTRICT OIL & GAS SUPERVISOR

Typing In 9-18-81 Typing Out 9-18-81

PROPOSED ACTIONS:

Diamond Shamrock plans to drill the Broken Arrow Federal #14-1 well, a 6858' gas test of various formations. A new access road of 570' length will be required and an existing road of 1000' length will be upgraded to serve as the access route to this location. A pad 165' by 325' and a reserve pit 130' by 150' are planned for the location.

RECOMMENDED APPROVAL CONDITIONS:

The operator agrees to accept and adhere to the following conditions in addition to the plans outlined in the APD:

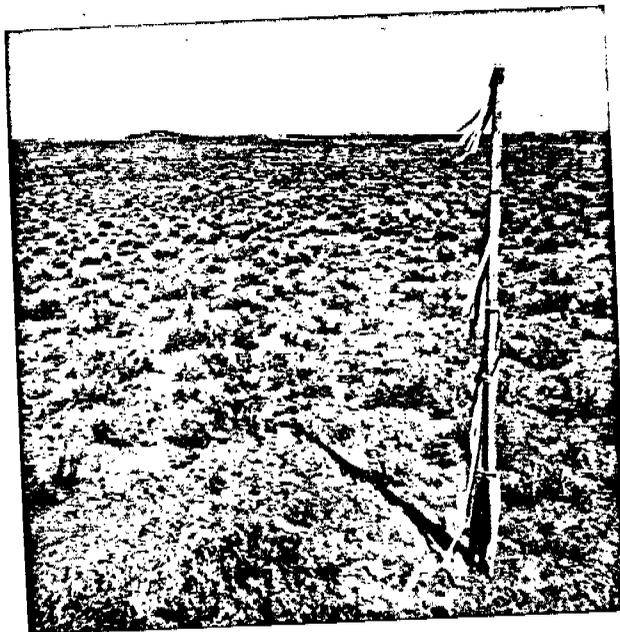
1. BLM Stipulations
2. Lease Stipulations
3. Provide adequate logs for the identification of other minerals as requested in the Mineral Evaluation Report and Mining Report.

CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

Criteria 516 DM 2.3.A	Federal/State Agency			Local and private correspondence (date)	Previous NEPA	Other, studies and reports	Staff expertise	Onsite inspection (date)	Other
	Corre- spondence (date)	Phone check (date)	Meeting (date)						
Public health and safety							1, 2, 4, 6	September 9 1981	
Unique charac- teristics							1, 2, 4, 6		
Environmentally controversial							1, 2, 4, 6		
Uncertain and unknown risks							1, 2, 4, 6		
Establishes precedents							1, 2, 4, 6		
Cumulatively significant							1, 2, 4, 6		
National Register historic places							1, 6		
Endangered/ threatened species							1, 6		
Violate Federal, State, local, tribal law							1, 2, 4, 6	↓	

CATEGORICAL EXCLUSION REVIEW COMMON REFERENCE LEGEND

1. Surface Management Agency Input
2. Reviews Reports, or information received from Geological Survey (Conservation Division, Geological Division, Water Resource Division, Topographic Division)
3. Lease Stipulations/Terms
4. Application Permit to Drill
5. Operator Correspondence
6. Field Observation
7. Private Rehabilitation Agreement
8. *Onsite Requirements other than the items 1-7.*



*Northwest View  
Diamond Shamrock 14-1*



# United States Department of the Interior

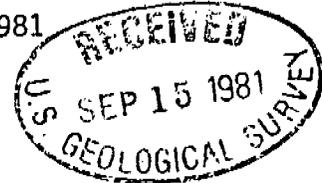
IN REPLY REFER TO

T & R  
U-802

BUREAU OF LAND MANAGEMENT

VERNAL DISTRICT OFFICE  
170 South 500 East  
Vernal, Utah 84078

September 11, 1981



Ed Guynn, District Engineer  
USGS, Conservation Division  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

Re: Diamond Shamrock  
Well #14-1 Sec. 1, T11S, R21E  
Well #14-8 Sec. 8, T11S, R22E  
Uintah County, Utah

Dear Sir:

A joint field examination was made on September 9, 1981, of the above referenced well site location and proposed access road. We feel that the surface use and operating plans are adequate with the following revisions and stipulations:

1. Construction and maintenance of roads, rehabilitation of disturbed areas and construction of pipeline routes, shall be in accordance with surface use standards as set forth in the brochure, "Surface Operating Standards for Oil and Gas Exploration."
2. Traveling off access road right-of-ways will not be allowed. The maximum width of access pads (both existing and planned) will be 30 feet total disturbed area. Roads will be crowned and properly maintained. Turn-outs will not be required.
3. The BLM will be notified a least 24 hours prior to any construction.
4. Burn pits will not be constructed. There will be no burning or burying of trash or garbage at the well sites. Refuse must be contained in trash cages and hauled to an approved disposal site.
5. A wire mesh or net type of fence, topped with at least one strand of barbed wire, will be used around the reserve pits.
6. The BLM will be contacted at least 24 hours prior to any rehabilitation activities. The operator may be informed of any additional needed seeding or restoration requirements.



7. At well #14-1 the top 4-6 inches of topsoil will be stockpiled as addressed in the applicant's A.P.D.
8. At well #14-8 the top 4-6 inches of topsoil will be stockpiled between reference corners #2 and #3.
9. At well #14-8 the wash that passes near the reserve pit and stockpiled topsoil will be slightly diverted so that the walls of the reserve pit won't be washed out and the top soil washed away.
10. Production facilities will be painted with a color that will blend in with the surrounding environment.

An archaeological clearance has been conducted by A.E.R.C., of the proposed drill site and proposed access road. No cultural materials were located on the surface of the surveyed areas.

The proposed activities do not jeopardize listed, threatened, or endangered flora, fauna or their habitats.

The BLM representative will be Cory Bodman, 789-1362.

Sincerely,

*Carl J. Wright*  
For: Dean L. Evans  
Area Manager  
Bookcliffs Resource Area

cc: USGS, Vernal

CBodman:mm

FROM: : DISTRICT GEOLOGIST, SALT LAKE CITY, UTAH

TO : DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

U-26625  
~~U-8347~~  
LEASE NO.

DIAMOND SHAMROCK  
OPERATOR: ~~Cotton Petroleum Corp~~

WELL NO. ~~B2-3 14-1~~

LOCATION: 1/2 1/2 1/2 sec. 31, T. 11S., R. 21E., SLM

Uintah County, UTAH

1. Stratigraphy: Operator stratigraphy seems reasonable.

2. Fresh Water: Usable water may be encountered in the sands of the Uinta Fm.

3. Leasable Minerals:

Oil shale beds may be encountered in the Green River Fm at approximate depth of 3700' ±.

Coal may be encountered in the Meade Fm 6900' ±.

4. Additional Logs Needed: logs should run through the oil shale & coal horizons to identify any oil shale or coal beds.

5. Potential Geologic Hazards: Unknown.

6. References and Remarks:

Signature: E. Borish Date: 9-19-80

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

**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.)

<p>1. <input type="checkbox"/> OIL WELL    <input type="checkbox"/> GAS WELL    <input checked="" type="checkbox"/> OTHER</p> <p>2. NAME OF OPERATOR <b>Diamond Shamrock</b></p> <p>3. ADDRESS OF OPERATOR <b>85 South 200 East Vernal, Utah 84078</b></p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <b>650' FWL 576' FSL Section 1, T11S, R21E, S.L.B. &amp; M.</b></p> <p>14. PERMIT NO. <b>43-047-31068</b></p>	<p>5. LEASE DESIGNATION AND SERIAL NO. <b>U - 36625</b></p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</p> <p>7. UNIT AGREEMENT NAME <b>Broken Arrow Fed.</b></p> <p>8. FARM OR LEASE NAME</p> <p>9. WELL NO. <b># 14 - 1</b></p> <p>10. FIELD AND POOL, OR WILDCAT <b>Field</b></p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec. 1, T11S, R21E, S.L.M</b></p> <p>12. COUNTY OR PARISH    18. STATE <b>Uintah                      Utah</b></p>
<p>15. ELEVATIONS (Show whether DF, RT, CR, etc.) <b>5567' Ground</b></p>	

**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 type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input checked="" 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.)\*

This notice is to inform and notify you that we made an error in our T.D. Estimates on our A.P.D. in accordance with NTL-6 Requirements on the above mentioned well, it is our intention to drill to a total depth of 7300' instead of the applied for 6858'. This extra depth will be a 7 7/8" hole and will be cased with 15.5# K55 5 1/2" casing. The placement of cementing collars and quantities will be determined after Electrical logs are made as stated in the NTL-6 package for this well.

**APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING**  
DATE: 12-9-81  
BY: [Signature]

**RECEIVED**  
 DEPARTMENT OF  
 OIL, GAS & MINING  
 DEC 9 1981

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

SIGNED [Signature] TITLE District Superintendent DATE 12/3/81

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF SPUD

*Diamond Shamrock  
Corporation*

Caller: Chuck Wilson

Phone: \_\_\_\_\_

Well Number: Broken Arrow 14-1

Location: SWSW 1-11S-21E

County: Uintah State: Utah

Lease Number: U-36625

Lease Expiration Date: \_\_\_\_\_

Unit Name (If Applicable): Broken Arrow

Date & Time Spudded: 1-18-82 5:00 P.M.

Dry Hole Spudder/Rotary: \_\_\_\_\_

Details of Spud (Hole, Casing, Cement, etc.) 17 1/2" hole -

Rotary Rig Name & Number: Brinkerhoff 85

Approximate Date Rotary Moves In: \_\_\_\_\_

FOLLOW WITH SUNDRY NOTICE

Call Received By: KR

Date: 1-20-82

*file*

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Diamond Shamrock

WELL NAME: Broken Arrow Fed 14-1

SECTION 1 TOWNSHIP 11S RANGE 21E COUNTY Uintah

DRILLING CONTRACTOR Brinkerhoff Signal

RIG # 8S

SPUDDED: DATE 1-18-82

TIME 5:00 PM

HOW Rotary

DRILLING WILL COMMENCE \_\_\_\_\_

REPORTED BY Chuck

TELEPHONE # 307-266-1882

DATE January 20, 1982 SIGNED DB

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

**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 Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
Diamond Shamrock Corporation

3. ADDRESS OF OPERATOR  
5730 West Yellowstone Casper, Wy. 82601

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 650' FWL, 576' FSL SW/SW  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) <u>Spud</u>			

5. LEASE  
U-36625

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Broken Arrow Federal

8. FARM OR LEASE NAME

9. WELL NO.  
14-1

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 1, T11S, R21E, S.L.B. & M.

12. COUNTY OR PARISH  
Uintah

13. STATE  
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5567' GR

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)\*

Spudded the Broken Arrow Federal 14-1 @ 5:00 P.M. on January 18, 1982. Drilled a 17 1/2" hole to a depth of 350' and set 348' of 13 3/8" 54.5#, K-55 surface casing.

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

**RECEIVED**  
JAN 25 1982

DIVISION OF  
OIL, GAS & MINING  
Set @ \_\_\_\_\_ Ft.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_

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

SIGNED [Signature] TITLE Drilling Engineer DATE 1-20-82

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

P&H

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY (FORM 9-329) (2/76) OMB 42-RO 356

Lease No. U-36625 Communitization Agreement No. N/A Field Name Wildcat Unit Name Broken Arrow Federal Participating Area N/A County Uintah State Utah Operator Diamond Shamrock Corporation [ ] Amended Report

MONTHLY REPORT OF OPERATIONS

The following is a correct report of operations and production (including status of all unplugged wells) for the month of January, 1982

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Table with 10 columns: Well No., Sec. & 1/4 of 1/4, TWP, RNG, Well Status, Days Prod., \*Barrels of Oil, \*MCF of Gas, \*Barrels of Water, Remarks. Row 1: 14-1, 1 SW/SW, 11S, 21E, DRG, 1-18 Spud and drill to 207', 1-19 Drill to 355' and set 13 3/8" casing @ 348' Cement w/ 490 sxs., 1-20 thru 1-25 Drill to 3865'. Remarks: Broken Arrow Federal 14-1

\*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

Table with 4 columns: Item, Oil & Condensate (BBLs), Gas (MCF), Water (BBLs). Rows include: \*On hand, Start of Month; \*Produced; \*Sold; \*Spilled or Lost; \*Flared or Vented; \*Used on Lease; \*Injected; \*Surface Pits; \*Other (Identify); \*On hand, End of Month; \*API Gravity/BTU Content. Includes signature and address: 5730 W. Yellowstone Casper, Wy.

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

**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 Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
Diamond Shamrock Corporation

3. ADDRESS OF OPERATOR  
5730 West Yellowstone, Casper, Wyo. 82604

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 650' FWL, 576' FSL SW/SW  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input checked="" type="checkbox"/>		<input type="checkbox"/>
(other)			

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.)\*

**REQUEST TO PLUG & ABANDON:**

6,750' - 6,550' - 132 sks.  
4,043' - 3,843' - 123 sks.  
2,314' - 2,114' - 109 sks.  
1,018' - 818' - 103 sks.  
462' - 262' - 164 sks.  
Surface - 10 sks.  
Total - 641 sks

**FORMATION TOPS**

Mahogany 1126'  
Douglas Creek 2660'  
Wasatch 4080'  
Mesa Verde 6658'  
T.D. 7300'

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED [Signature] TITLE Drlg. Supt. DATE 2-23-82  
Asst. Dist.

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

5. LEASE U-36625	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT AGREEMENT NAME Broken Arrow Federal	
8. FARM OR LEASE NAME	
9. WELL NO. 14-1	
10. FIELD OR WILDCAT NAME Wildcat	
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 1, T11S, R21E	
12. COUNTY OR PARISH Uintah	13. STATE Utah
14. API NO.	
15. ELEVATIONS (SHOW DF, KDB, AND WD) 5,567' GR	

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

**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 Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
Diamond Shamrock Corporation

3. ADDRESS OF OPERATOR  
5730 West Yellowstone, Casper, Wyo. 82604

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 650' FWL, 576' FSL SW/SW  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input checked="" type="checkbox"/>
(other)	<input type="checkbox"/>		<input type="checkbox"/>

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.)\*

WELL WAS PLUGGED AND ABANDONED AS FOLLOWS:

6,750'	-	6,550'	-	132	sk.
4,043'	-	3,843'	-	123	sk.
2,314'	-	2,114'	-	109	sk.
1,018'	-	818'	-	103	sk.
462'	-	262'	-	164	sk.
Surface			-	10	sk.
Total			-	641	sk.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED [Signature] TITLE Asst. Dist. Drlg. Supt. DATE 2-23-82

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

5. LEASE  
II-36625

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Broken Arrow Federal

8. FARM OR LEASE NAME

9. WELL NO.  
14-1

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 1, T11S, R21E

12. COUNTY OR PARISH  
Uintah

13. STATE  
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5,567'

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

COMPANY DIAMOND SHAMROCK  
CORPORATION

WELL BROKEN ARROW FEDERAL TEST NO. 1

COUNTY UINTAH

STATE UTAH

**JOHNSTON-MACCO**  
**Schlumberger**

**technical  
report**

FIELD REPORT NO.: 42726 E

\*\*\*\*\*  
 \* TEST TICKET DATA PRINTOUT \*  
 \*\*\*\*\*

## WELL IDENTIFICATION

1. WELL	:	BROKEN ARROW FEDERAL #14-1
2. COMPANY	:	DIAMOND SHARROCK CORPORATION
3.	:	DRAWER "E"
4.	:	VERNAL, UTAH 84078
5. CUSTOMER	:	SAME
6.	:	
7.	:	
8. FIELD	:	S. DURAY (WILDCAT)
9. COUNTY	:	UINTAH
10. STATE/PROV.	:	UTAH
11. LOCATION	:	SEC. 1, T11S R21E
12. TECHNICIAN	:	CRUMB (VERNAL)
13. TEST APPROVED BY	:	MR. JEFF RONK
14. TEST DATE	:	02-04-82
15. DEPTH REFERENCE	:	KELLY BUSHING
16. DEPTH REFERENCE ELEVATION	:	S.L. 5570. FT

## HOLE INFORMATION

1. THE HOLE IS STRAIGHT.	
2. TOTAL DEPTH	: 6715. FT
3. OPEN HOLE DIAMETER	: 7.87 IN

## MUD INFORMATION

1. MUD TYPE	:	KCL
2. MUD WEIGHT	:	9.1 LB/GAL
3. MUD VISCOSITY	:	30 - 34 MARSH FUNNEL SEC
4. CORRECTED WATER LOSS	:	12.0 CC/30 MIN
5. MUD RESISTIVITY	:	1.10 OHM-M
6. MUD RES. MEAS. TEMP.	:	40.0 DEG F
7. MUD FILTRATE RESISTIVITY	:	1.40 OHM-M
8. MUD FILT. RES. MEAS. TEMP.	:	45.0 DEG F
9. MUD CHLORIDES CONTENT	:	13470.0 PPM BY WEIGHT

\*\*\*\*\*  
 \* TEST TICKET DATA PRINTOUT \*  
 \*\*\*\*\*

TEST INFORMATION

1. FIELD REPORT NUMBER : 42726E  
 2. TEST TYPE : M.F.E. OPEN HOLE  
 3. TEST NUMBER : 1  
 4. TELEFLOW IN USE ? : NO  
 5. SDR OR J-300 IN USE ? : NO  
 6. SPRO IN USE ? : NO  
 7. PTSDL IN USE ? : NO

TEST STRING INFORMATION

#	COMPONENT NAME	EFFECTIVE		FLOW PATH LENGTH (FT)	J/M CODE
		I.D. (IN)	O.D. (IN)		
1	DRILL PIPE	3.80	4.50	6119.	
2	DRILL COLLARS	2.25	6.25	485.	
3	TEST TOOL STRING	0.93	5.00	111.	

TEST STRING PLACEMENT

1. TEST TYPE CODE 1 - ON BOTTOM  
 2. PACKER DEPTHS : 6640. FT & 6645. FT

TEST ZONE DESCRIPTION

FORMATION NAME	PRODUCTION ZONE			POROSITY (%)
	TOP (FT)	BOTTOM (FT)	THICKNESS (FT)	
WASATCH-MESA VERDE			15.	12.

TEST CONDITIONS

1. BOTTOMHOLE CHOKE(S) EFF. INTERNAL DIA. : 0.93 IN

\*\*\*\*\*  
 \* TEST TICKET DATA PRINTOUT \*  
 \*\*\*\*\*

## TEST TOOL SAMPLE CHAMBER RECOVERY DATA

SAMPLE PRESSURE : 125. PSIG  
 OIL GRAVITY : DEG. API @ DEG F  
 GAS/OIL RATIO : FT3/BBL  
 GAS/LIQUID RATIO : 8. FT3/BBL

## SAMPLE CHAMBER CONTENTS

FLUID	VOLUME	RESISTIVITY		CHLORIDES
GAS	0.10 FT3			
OIL	CC			
WATER	2000.0 CC	0.39 OHM-M @	56.0 DEG F	28600. PPM
MUD	CC	OHM-M @	DEG F	
TOTAL LIQUID	2000.0 CC			

## RECOVERY INFORMATION

DESCRIPTION	FEET	% OIL		% H2O	MUD	API		RESISTIVITY		CHL PPM
		DEG.	DEG.F			OHM-M	DEG.F			
1 DRILLING MUD	304				100			1.10	60	13470.
2 MUD CUT WATER	315			90	10			0.46	60	21100.

## SURFACE INFORMATION

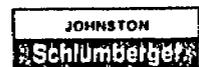
DESCRIPTION	TIME	PRESSURE	CHOKE SIZE
1 SET PACKER	1536	-	-
2 OPENED TOOL	1544	5.00 DZ	1/4"
3	1556	3.50 "	"
4 CLOSED FOR INITIAL SHUT-IN	1600	2.00 "	"
5 FINISHED SHUT-IN	1630	-	"
6 RE-OPENED TOOL	1632	6.00 "	"
7	1644	7.00 "	"
8	1657	5.75 "	"
9	1712	3.75 "	"
10 CLOSED FOR SECOND SHUT-IN	1732	2.00 "	"
11 FINISHED SHUT-IN	1832	-	"
12 RE-OPENED TOOL	1834	2.50 "	"
13	1849	4.50 "	"
14	1919	4.50 "	"
15 CLOSED FOR FINAL SHUT-IN	1934	4.50 "	"

\*\*\*\*\*  
\* TEST TICKET DATA PRINTOUT \*  
\*\*\*\*\*

DESCRIPTION	TIME	PRESSURE	CHOKE SIZE
16 FINISHED SHUT-IN	2004	-	"
17 PULLED PACKER LOOSE	2006	-	-

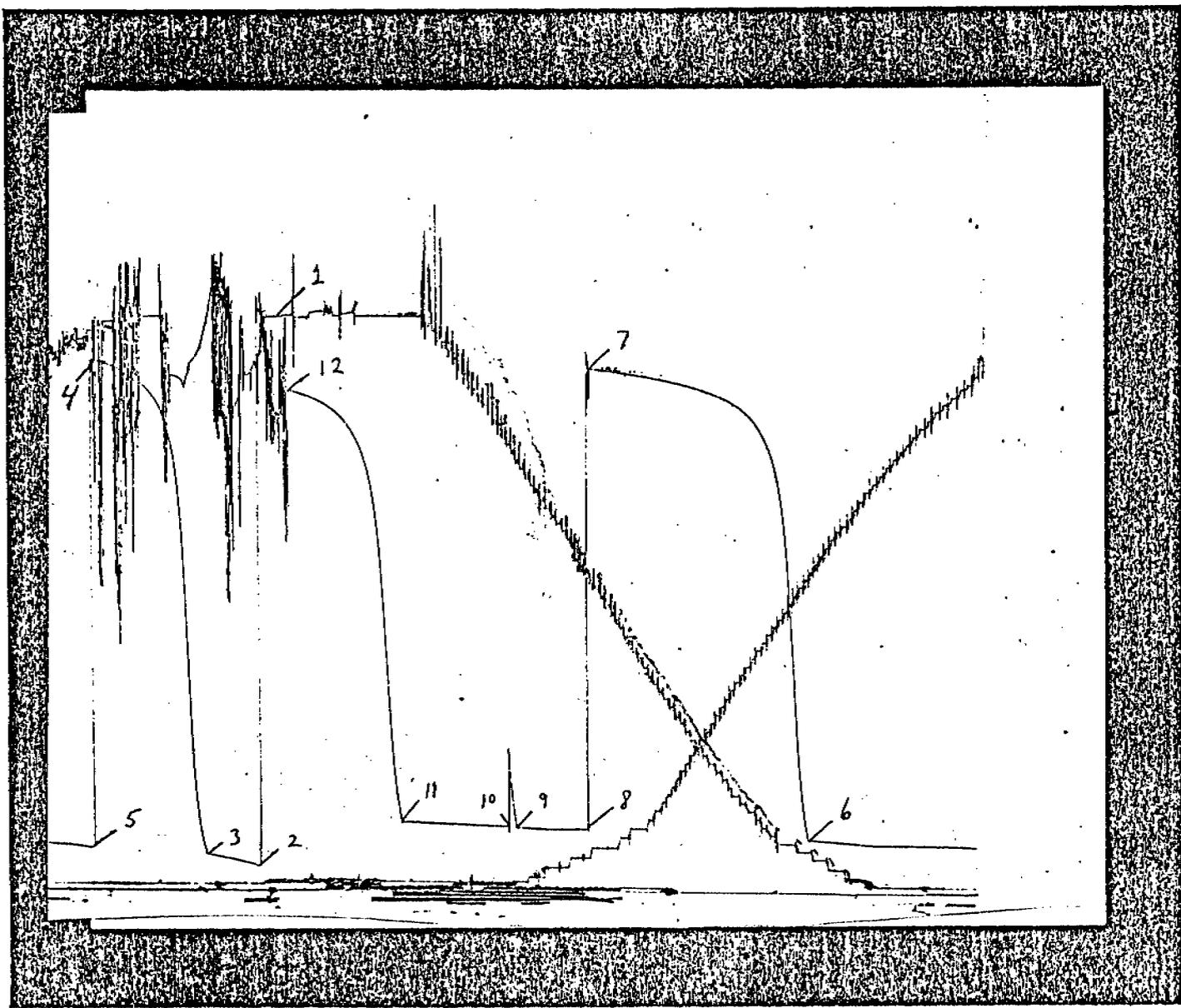
FIELD REPORT NO.: 42726 E

CAPACITY: 4700#



INSTRUMENT NO.: J-1237

NUMBER OF REPORTS: 9



# BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 42726E

COMPANY : DIAMOND SHAMROCK CORPORATION

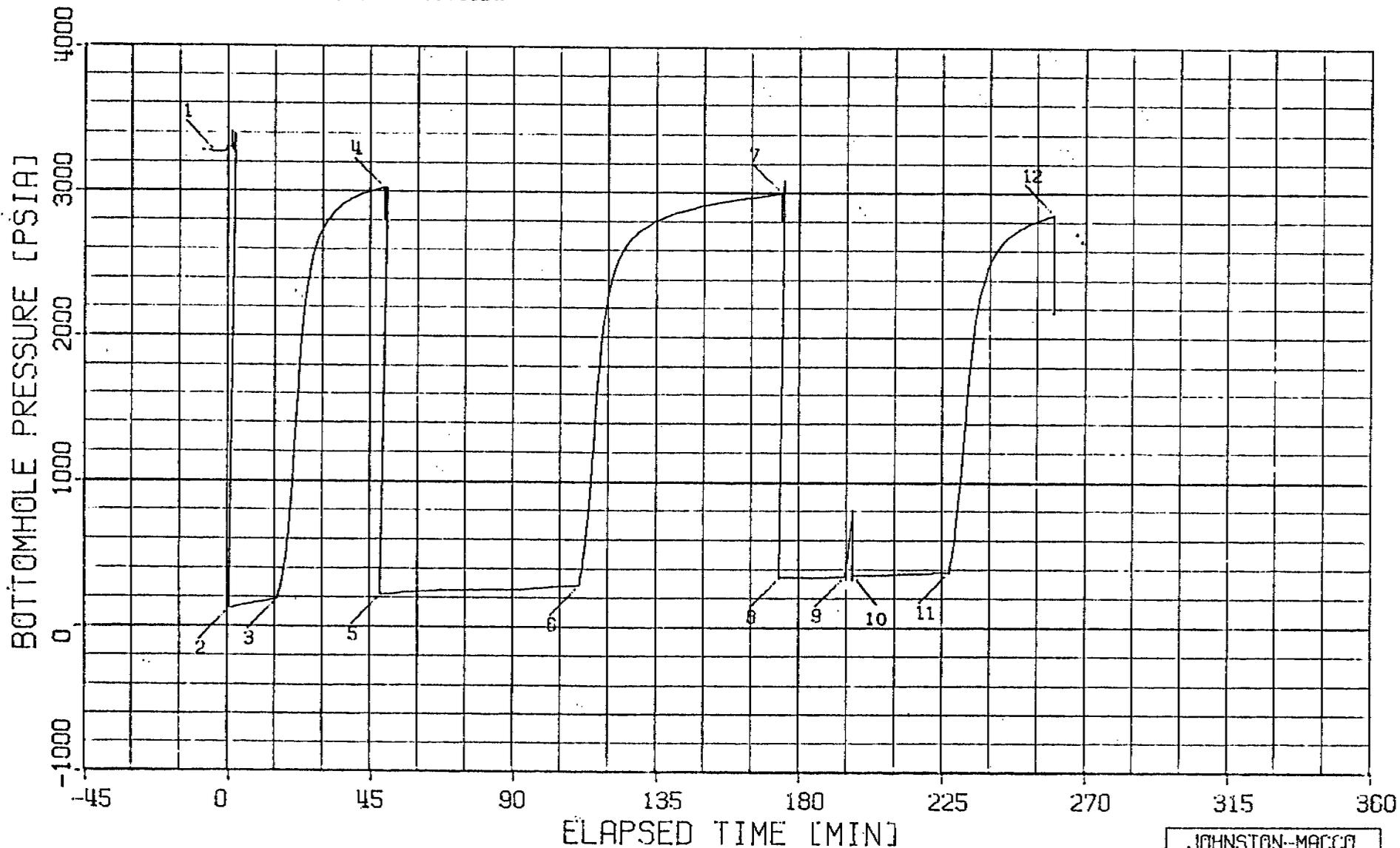
INSTRUMENT NO. J-1237

WELL : BROKEN ARROW FEDERAL #14-1

DEPTH : 6656 FT

CAPACITY : 4700 PSI

PORT OPENING : OUTSIDE



JOHNSTON-MACCO  
SCHLUMBERGER

\*\*\*\*\*  
 \* WELL TEST DATA PRINTOUT \*  
 \*\*\*\*\*

FIELD REPORT # : 42726E

INSTRUMENT # : J-1237

COMPANY : DIAMOND SHAMROCK CORPORATION  
 WELL : BROKEN ARROW FEDERAL #14-1

CAPACITY [PSI] : 4700.  
 DEPTH [FT] : 6656.0  
 PORT OPENING : OUTSIDE  
 TEMPERATURE [DEG F] : 145.0

LABEL POINT INFORMATION  
 \*\*\*\*\*

#	TIME OF DAY	DATE	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA
1	15:39:46		4-FB HYDROSTATIC MUD	-4.24	3274
2	15:44:00		4-FB START FLOW	0.00	127
3	15:59:14		4-FB END FLOW & START SHUT-IN	15.24	193
4	16:32:51		4-FB END SHUT-IN	48.85	3029
5	16:32:02		4-FB START FLOW	48.03	228
6	17:34:46		4-FB END FLOW & START SHUT-IN	110.77	289
7	18:38:19		4-FB END SHUT-IN	174.32	2992
8	18:37:45		4-FB START FLOW	173.75	348
9	18:58:22		4-FB CYCLED TOOL	194.37	358
10	19:00:37		4-FB RE-OPENED TOOL	196.61	363
11	19:30:49		4-FB END FLOW & START SHUT-IN	226.81	385
12	20:04:00		4-FB END SHUT-IN	260.00	2857

SUMMARY OF FLOW PERIODS  
 \*\*\*\*\*

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
1	0.00	15.24	15.24	127	193
2	48.03	110.77	62.74	228	289
3	173.75	226.81	53.06	348	385

SUMMARY OF SHUTIN PERIODS  
 \*\*\*\*\*

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	15.24	48.85	33.61	193	3029	193	15.24
2	110.77	174.32	63.55	289	2992	289	77.98
3	226.81	260.00	33.19	385	2857	385	131.04

TEST PHASE : FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA
15:44:00	4-FB	0.00	0.00	127
15:49:00	4-FB	5.00	5.00	152
15:54:00	4-FB	10.00	10.00	173
15:59:00	4-FB	15.00	15.00	193
15:59:14	4-FB	15.24	15.24	193

TEST PHASE : SHUTIN PERIOD # 1

FINAL FLOW PRESSURE [PSIA] = 193  
 PRODUCING TIME [MIN] = 15.24

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
15:59:14	4-FB	15.24	0.00	193	0	
16:00:14	4-FB	16.24	1.00	261	68	1.211
16:01:14	4-FB	17.24	2.00	365	172	0.936
16:02:14	4-FB	18.24	3.00	516	322	0.784
16:03:14	4-FB	19.24	4.00	734	540	0.682
16:04:14	4-FB	20.24	5.00	1034	840	0.607
16:05:14	4-FB	21.24	6.00	1394	1201	0.549
16:06:14	4-FB	22.24	7.00	1742	1549	0.502
16:07:14	4-FB	23.24	8.00	2039	1846	0.463
16:08:14	4-FB	24.24	9.00	2249	2056	0.430
16:09:14	4-FB	25.24	10.00	2399	2206	0.402
16:11:14	4-FB	27.24	12.00	2610	2417	0.356
16:13:14	4-FB	29.24	14.00	2724	2530	0.320
16:15:14	4-FB	31.24	16.00	2802	2609	0.291
16:17:14	4-FB	33.24	18.00	2857	2663	0.266
16:19:14	4-FB	35.24	20.00	2898	2705	0.246
16:21:14	4-FB	37.24	22.00	2930	2737	0.229
16:23:14	4-FB	39.24	24.00	2955	2762	0.214
16:25:14	4-FB	41.24	26.00	2977	2784	0.200
16:27:14	4-FB	43.24	28.00	2993	2799	0.189
16:29:14	4-FB	45.24	30.00	3007	2813	0.178
16:32:51	4-FB	48.85	33.61	3029	2835	0.162

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM	*****	*****	*****
16:32: 2	4-FB	48.03	0.00	228
16:37: 2	4-FB	53.03	5.00	238
16:42: 2	4-FB	58.03	10.00	247
16:47: 2	4-FB	63.03	15.00	252
16:52: 2	4-FB	68.03	20.00	257
16:57: 2	4-FB	73.03	25.00	258
17: 2: 2	4-FB	78.03	30.00	258
17: 7: 2	4-FB	83.03	35.00	259
17:12: 2	4-FB	88.03	40.00	259
17:17: 2	4-FB	93.03	45.00	262
17:22: 2	4-FB	98.03	50.00	271
17:27: 2	4-FB	103.03	55.00	278
17:32: 2	4-FB	108.03	60.00	286
17:34:46	4-FB	110.77	62.74	289

TEST PHASE : SHUTIN PERIOD # 2  
 FINAL FLOW PRESSURE [PSIA] = 289  
 PRODUCING TIME [MIN] = 77.98

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
HH:MM:SS	DD-MM	*****	*****	*****	*****	*****
17:34:46	4-FB	110.77	0.00	289	0	
17:35:46	4-FB	111.77	1.00	403	114	1.898
17:36:46	4-FB	112.77	2.00	575	286	1.602
17:37:46	4-FB	113.77	3.00	803	514	1.431
17:38:46	4-FB	114.77	4.00	1096	807	1.312
17:39:46	4-FB	115.77	5.00	1429	1140	1.220
17:40:46	4-FB	116.77	6.00	1744	1455	1.146
17:41:46	4-FB	117.77	7.00	1982	1693	1.084
17:42:46	4-FB	118.77	8.00	2161	1872	1.031
17:43:46	4-FB	119.77	9.00	2296	2007	0.985
17:44:46	4-FB	120.77	10.00	2397	2108	0.944
17:46:46	4-FB	122.77	12.00	2529	2240	0.875
17:48:46	4-FB	124.77	14.00	2612	2323	0.818
17:50:46	4-FB	126.77	16.00	2674	2385	0.769
17:52:46	4-FB	128.77	18.00	2717	2429	0.727
17:54:46	4-FB	130.77	20.00	2752	2463	0.690
17:56:46	4-FB	132.77	22.00	2781	2492	0.657
17:58:46	4-FB	134.77	24.00	2807	2518	0.628
18: 0:46	4-FB	136.77	26.00	2825	2536	0.602
18: 2:46	4-FB	138.77	28.00	2843	2554	0.578
18: 4:46	4-FB	140.77	30.00	2859	2570	0.556
18: 9:46	4-FB	145.77	35.00	2889	2600	0.509
18:14:46	4-FB	150.77	40.00	2916	2627	0.470
18:19:46	4-FB	155.77	45.00	2937	2648	0.437

TEST PHASE : SHUTIN PERIOD # 2  
 FINAL FLOW PRESSURE [PSIA] = 289  
 PRODUCING TIME [MIN] = 77.98

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
18:24:46	4-FB	160.77	50.00	2954	2665	0.408
18:29:46	4-FB	165.77	55.00	2970	2681	0.383
18:34:46	4-FB	170.77	60.00	2984	2695	0.362
18:38:19	4-FB	174.32	63.55	2992	2703	0.348

TEST PHASE : FLOW PERIOD # 3

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA
18:37:45	4-FB	173.75	0.00	348
18:42:45	4-FB	178.75	5.00	349
18:47:45	4-FB	183.75	10.00	348
18:52:45	4-FB	188.75	15.00	351
18:57:45	4-FB	193.75	20.00	357
19: 2:45	4-FB	198.75	25.00	364
19: 7:45	4-FB	203.75	30.00	368
19:12:45	4-FB	208.75	35.00	371
19:17:45	4-FB	213.75	40.00	375
19:22:45	4-FB	218.75	45.00	379
19:27:45	4-FB	223.75	50.00	385
19:30:49	4-FB	226.81	53.06	385

TEST PHASE : SHUTIN PERIOD # 3  
 FINAL FLOW PRESSURE [PSIA] = 385  
 PRODUCING TIME [MIN] = 131.04

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
19:30:49	4-FB	226.81	0.00	385	0	
19:31:49	4-FB	227.81	1.00	468	83	2.121
19:32:49	4-FB	228.81	2.00	611	226	1.823
19:33:49	4-FB	229.81	3.00	807	422	1.650
19:34:49	4-FB	230.81	4.00	1045	660	1.528
19:35:49	4-FB	231.81	5.00	1335	950	1.435
19:36:49	4-FB	232.81	6.00	1614	1229	1.359
19:37:49	4-FB	233.81	7.00	1860	1475	1.295
19:38:49	4-FB	234.81	8.00	2055	1670	1.240
19:39:49	4-FB	235.81	9.00	2193	1808	1.192
19:40:49	4-FB	236.81	10.00	2318	1933	1.149

TEST PHASE : SHUTIN PERIOD # 3  
 FINAL FLOW PRESSURE [PSIA] = 385  
 PRODUCING TIME [MIN] = 131.04

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
*****	*****	*****	*****	*****	*****	*****
19:42:49	4-FB	238.81	12.00	2469	2084	1.076
19:44:49	4-FB	240.81	14.00	2566	2181	1.015
19:46:49	4-FB	242.81	16.00	2634	2250	0.963
19:48:49	4-FB	244.81	18.00	2689	2305	0.918
19:50:49	4-FB	246.81	20.00	2723	2339	0.878
19:52:49	4-FB	248.81	22.00	2757	2372	0.842
19:54:49	4-FB	250.81	24.00	2780	2396	0.810
19:56:49	4-FB	252.81	26.00	2804	2419	0.781
19:58:49	4-FB	254.81	28.00	2820	2435	0.754
20: 0:49	4-FB	256.81	30.00	2835	2451	0.730
20: 4: 0	4-FB	260.00	33.19	2857	2472	0.694

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

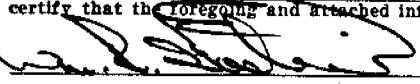
SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R755.5

13

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG \***

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input checked="" type="checkbox"/> Other _____				5. LEASE DESIGNATION AND SERIAL NO. U-36625		
b. TYPE OF COMPLETION: NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other _____				6. IF INDIAN, ALLOTTEE OR TRIBE NAME Broken Arrow Federal		
2. NAME OF OPERATOR Diamond Shamrock Corporation				7. UNIT AGREEMENT NAME Broken Arrow Federal		
3. ADDRESS OF OPERATOR 5730 West Yellowstone, Casper, Wyo. 82604				8. FARM OR LEASE NAME		
4. LOCATION OF WELL (Report location clearly and in accordance with State requirements)* At surface 650' FWL, 576' FSL SW/SM At top prod. interval reported below At total depth				9. WELL NO. 14-1		
14. PERMIT NO. 43-047-31068 DATE ISSUED 9-2-81				10. FIELD AND POOL, OR WILDCAT Wildcat		
15. DATE SPUDDED 1-18-82				11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 11 T11S, R21E		
16. DATE T.D. REACHED 2-8-82		17. DATE COMPL. (Ready to prod.) N/A		12. COUNTY OR PARISH Uintah		
18. ELEVATIONS (DF, REB, RT, GR, ETC.)* 5,567' GR.		19. ELEV. CASINGHEAD 5,567' GR.		13. STATE Utah		
20. TOTAL DEPTH, MD & TVD 7,300'		21. PLUG, BACK T.D., MD & TVD N/A		22. IF MULTIPLE COMPL., HOW MANY* N/A		
23. INTERVALS DRILLED BY		ROTARY TOOLS 0-7300		CABLE TOOLS		
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* N/A				25. WAS DIRECTIONAL SURVEY MADE No		
26. TYPE ELECTRIC AND OTHER LOGS RUN DIL-SFL, GR-BHC, FDC-CNL, Cyberlook				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	
13 3/8"	54.5 #	348'	17 1/2"	490 sks.	-0-	
29. LINER RECORD						
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)		
N/A	N/A	N/A	N/A	N/A		
30. TUBING RECORD						
SIZE	DEPTH SET (MD)	PACKER SET (MD)				
N/A	N/A	N/A				
31. PERFORATION RECORD (Interval, size and number) N/A			32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED				
N/A		N/A				
33.* PRODUCTION						
DATE FIRST PRODUCTION N/A		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) N/A			WELL STATUS (Producing or shut-in) N/A	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.
N/A	N/A	N/A	→	N/A	N/A	N/A
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
N/A	N/A	→	N/A	N/A	N/A	N/A
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) N/A				TEST WITNESSED BY N/A		
35. LIST OF ATTACHMENTS N/A						
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records						
SIGNED 		TITLE Asst. Dist. Drlg. Supt.		DATE 2-23-82		

\*(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 38, 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:** "Sacks 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.)

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
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			
38. GEOLOGIC MARKERS			
	NAME	MEAS. DEPTH	TOP TRUE VERT. DEPTH
	Mahogany Douglas Creek Wasatch Mesa Verde T.D.	1126' 2660' 4080' 6658' 7300'	

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
(FORM 9-329)  
(2/76)  
OMB 42-RO 356

MONTHLY REPORT  
OF  
OPERATIONS

Lease No. U-36625  
Communitization Agreement No. N/A  
Field Name Wildcat  
Unit Name Broken Arrow Federal  
Participating Area N/A  
County Uintah State Utah  
Operator Diamond Shamrock Corporation  
 Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of February, 19 82

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
14-1	1 SW/SW	11S	21E	DRG.					Broken Arrow Federal 14-1 43-047-31068
					1-26	Drill from 3865' to 5691'			
					1-26 thru 1-30	Fish			
					1-31 thru 2-4	Drill to 6715'			
					2-5	DST #1. Wash and Ream			
					2-6	Drill to 7000'			
					2-7	Drill to 7270'			
					2-8	Drill to 7300'. Run logs. WO/O			
					2-9	WO/O. Plug and Abandon. Release rig.			

\*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	_____	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*Produced	_____	_____	_____
*Sold	_____	_____	XXXXXXXXXXXXXXXXXXXX
*Spilled or Lost	_____	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXXXX	_____	XXXXXXXXXXXXXXXXXXXX
*Used on Lease	_____	_____	XXXXXXXXXXXXXXXXXXXX
*Injected	_____	_____	_____
*Surface Pits	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	_____
*Other (Identify)	_____	_____	_____
*On hand, End of Month	_____	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	_____	_____	XXXXXXXXXXXXXXXXXXXX

Authorized Signature:  Address: 5730 W. Yellowstone Casper, Wy.  
Title: Asst. Dist. Drlg. Supt. Page \_\_\_\_\_ of \_\_\_\_\_