

Ron

... looks ok for C-3.(E)
with follow-up on
660 lease ownership.

MEMS says they have
sec 8 to the north
also.

Yours

JK
RJK

8-6-82 - Ron F's telecom with Shell requested C-3-(c) data which was received 8-4-82, but which did not include a statement of 660' radius of lease ownership.

attached to the requestin APD was not sent due to Ron's telecom.

need to determine 660' lease ownership,
otherwise ok for C-3-(c)

8-9-82 - as per telecom with Diane Horsely (NIMS) - Sun Oil holds lease for sections 17, 18, and 9 with Shell designated as operator.

Need to request written verification from Shell.

8-9-82 he per telecom with G.M. Jobe will send letter today of verification of acreage and also map of area. AD.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Moab District
San Juan Resource Area
P.O. Box 7
Monticello, Utah 84535

IN REPLY REFER TO
MINERALS MANAGEMENT
SERVICE T40S, R19E, S17
OIL & GAS OPERATIONS (U-069)
RECEIVED

JUN 23 1982

SALT LAKE CITY, UTAH

June 21, 1982

Memorandum

To: Minerals Management Service, Salt Lake City, Utah

From: Area Manager, San Juan

Subject: Shell's USA 21-17 Well (U-29960)

We concur with approval of the Application for Permit to Drill, provided the following amendments to the Surface Use Plan are included in the approval:

1. The dry hole marker will not be installed due to the well's proximity to a scenic landmark.

The archaeological requirement has been fulfilled. No threatened or endangered species are indicated.

Edward R. Scherck

cc: MMS, Durango



Save Energy and You Serve America!

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
 Shell Oil Company

3. ADDRESS OF OPERATOR
 P. O. Box 831, Houston, Texas 77001 Attn. G. M. Jobe Rm 5468

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface
 375' FNL & 1910' FWL Section 17
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 12 miles north of Mexican Hat, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 375'
 375'

16. NO. OF ACRES IN LEASE
 1957.6

17. NO. OF ACRES ASSIGNED TO THIS WELL
 40

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

19. PROPOSED DEPTH
 1600'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 5046' GR

22. APPROX. DATE WORK WILL START*
 Upon permit approval

5. LEASE DESIGNATION AND SERIAL NO.
 U-29960

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 July 18 1982
 SALT LAKE CITY, U

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
 USA

9. WELL NO.
 21-17

10. FIELD AND POOL, OR WILDCAT
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 NE/4 NW/4 Section 17
 T40S-R19E

12. COUNTY OR PARISH
 San Juan

13. STATE
 Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT

SEE 10 POINT PLAN

ATTACHMENTS:

- 10 POINT PLAN - ATTACHMENT A
- BOP EQUIPMENT - ATTACHMENT B
- CHOKE MANIFOLD - ATTACHMENT C
- SURFACE USE PLAN - ATTACHMENT D
- SURVEY PLAT - ATTACHMENT E
- VICINITY TOPO MAP - ATTACHMENT F
- DRILL PAD LAYOUT - ATTACHMENT G
- DRILL PAD CROSS SECTIONS - ATTACHMENT H
- PRODUCTION FACILITIES LAYOUT - ATTACHMENT I
- ARCHAEOLOGY REPORT FORWARDED TO MINERALS MANAGEMENT SERVICE IN SEPARATE COVER

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

DATE July 8, 1982
BY: Thomas C. Sturt

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 measure 20 and true vertical depths. Give downhole preventer program, if any.

24. SIGNED S. M. Jobe TITLE Administrator Regulatory-Permits DATE 6-14-82

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
 APPROVED BY W. P. Matthews FOR E. W. GUYNN
 CONDITIONS OF APPROVAL, IF ANY: _____ TITLE DISTRICT OIL & GAS SUPERVISOR DATE JUL 21 1982

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 Oil & Gas

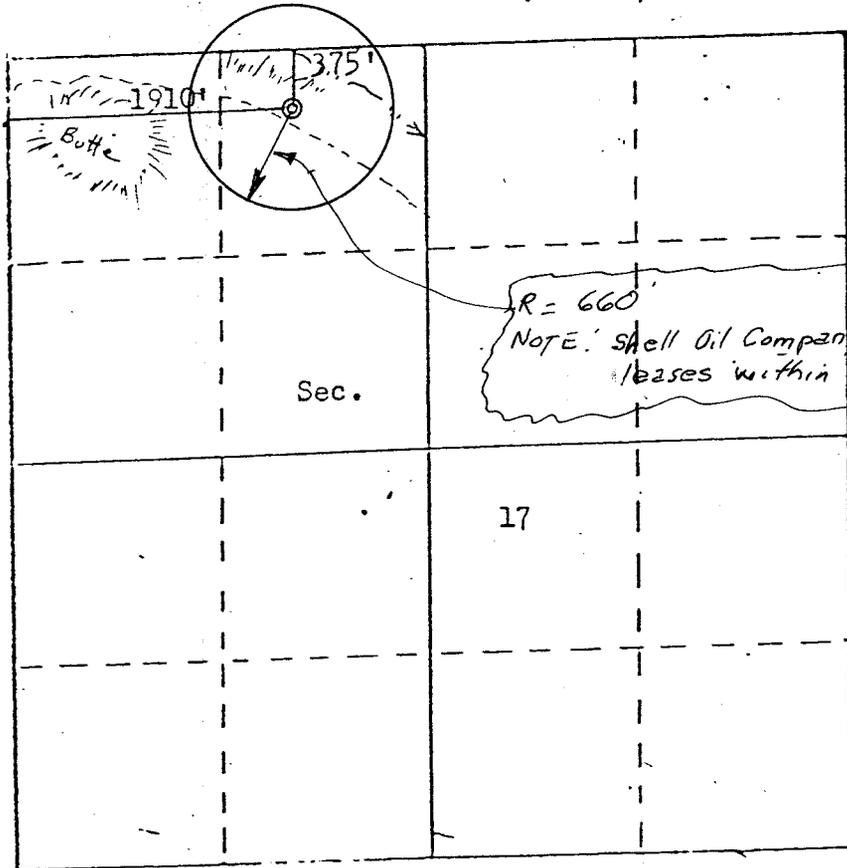
COMPANY SHELL OIL COMPANY

LEASE USA WELL NO. 21-17

SEC. 17, T 40S, R 19E
San Juan County, Utah

LOCATION 375' FNL 1910' FWL

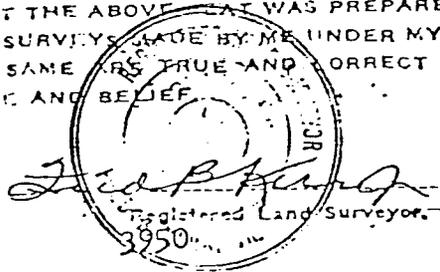
ELEVATION 5046 ungraded ground



SCALE—1 INCHES EQUALS 1 MILE

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

SEAL:



SURVEYED May 18, 1982

ATTACHMENT E



37°22'30"
109°52'30"

2 480 000 FEET

50'

15°

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

5. LEASE DESIGNATION AND SERIAL NOTATIONS
U-29960

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
JUL 18 1982

7. UNIT AGREEMENT NAME
SALT LAKE CITY, UTAH

8. FARM OR LEASE NAME
USA

9. WELL NO.
21-17

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
NE/4 NW/4 Section 17
T40S-R19E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

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
Shell Oil Company

3. ADDRESS OF OPERATOR
P. O. Box 831, Houston, Texas 77001 Attn. G. M. Jobe Rm 5468

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) WCK
At surface
375' FNL & 1910' FWL Section 17
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
12 miles north of Mexican Hat, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)
375'
375'

N=SW

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

16. NO. OF ACRES IN LEASE
1957.6

17. NO. OF ACRES ASSIGNED TO THIS WELL
40

19. PROPOSED DEPTH
1600'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5046' GR

22. APPROX. DATE WORK WILL START*
Upon permit approval

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT

SEE 10 POINT PLAN

- ATTACHMENTS:
 10 POINT PLAN - ATTACHMENT A
 BOP EQUIPMENT - ATTACHMENT B
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 DRILL PAD LAYOUT - ATTACHMENT G
 DRILL PAD CROSS SECTIONS - ATTACHMENT H
 PRODUCTION FACILITIES LAYOUT - ATTACHMENT I
 ARCHAEOLOGY REPORT FORWARDED TO MINERALS MANAGEMENT SERVICE & BLM UNDER SEPARATE COVER

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: Aug 9, 1982
BY: [Signature]

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 S. M. Jobe TITLE Administrator Regulatory-Permits DATE 6-14-82

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
FOR E. W. GUYNN
APPROVED BY [Signature] TITLE DISTRICT OIL & GAS SUPERVISOR DATE JUL 21 1982
CONDITIONS OF APPROVAL, IF ANY: _____

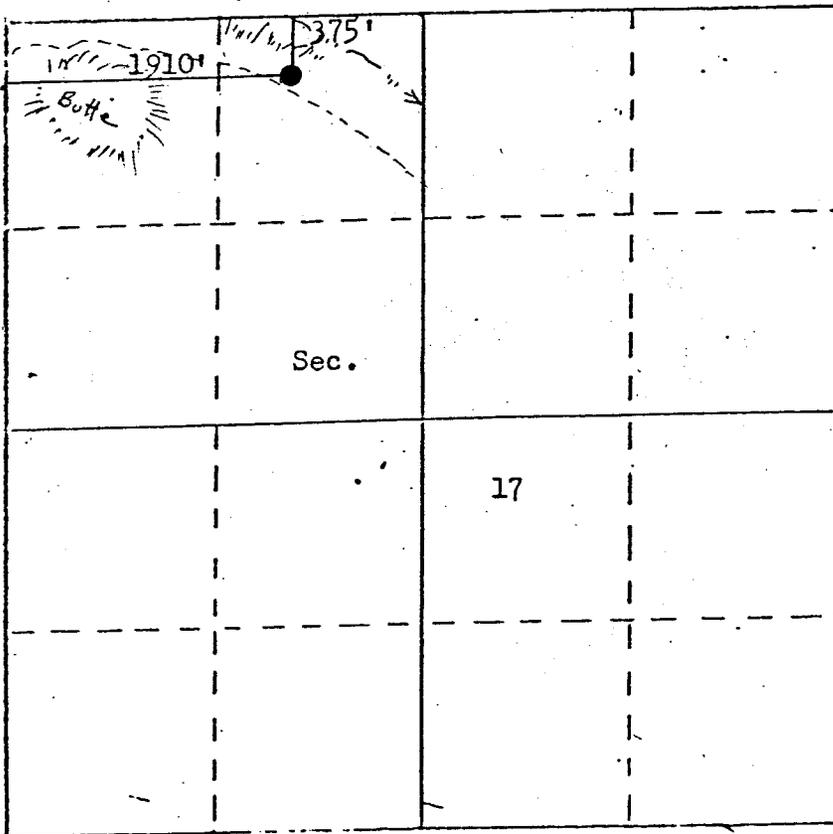
COMPANY SHELL OIL COMPANY

LEASE USA WELL NO. 21-17

SEC. 17, T. 40S, R. 19E
San Juan County, Utah

LOCATION '375'FNL 1910'FWL

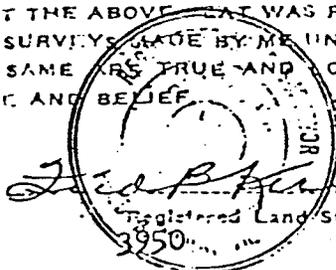
ELEVATION 5046 ungraded ground



SCALE—4 INCHES EQUALS 1 MILE

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

SEAL:



SURVEYED May 18 1982

ATTACHMENT E

Shell Oil Company



P.O. Box 831
Houston, Texas 77001

August 2, 1982

Mr. Ronald J. Firth, Chief Petroleum Engineer
State of Utah
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

Dear Mr. Firth:

① ~~USA 21-17~~
~~SECTION 17, T40S-R19E~~
~~SAN JUAN COUNTY, UTAH~~

② USA 22-27
SECTION 27, T39S-R18E
SAN JUAN COUNTY, UTAH

Reference is made to our letter of like caption dated July 28, 1982 which transmitted copies of the subject approved federal drill permits.

Further to that letter, we hereby request an exception to Rule C-3 (General Well Spacing Requirements) of the State of Utah Oil and Gas Conservation General Rules and Regulations, for the Shell USA 21-17 location.

The location exception request is based upon surface problems. The drill site was staked in accordance with a request from the BLM representative adjacent to an existing county road to minimize environmental impact to the area. A drill site at a standard location would require relocating the county road with considerable more earth work and impact to the land. See attached copy of topographic map.

The USA 22-27 drill site was staked at a standard location and no location exception is required.

Yours very truly,

G. M. Jobe

G. M. Jobe
Administrator, Regulatory-Permits
Rocky Mountain Division

RLT:lam

Identification No. 381-82

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

NEPA CATEGORICAL EXCLUSION REVIEW

MINERALS MANAGEMENT
SERVICE
OIL & GAS OPERATIONS
RECEIVED
JUN 28 1982
SALT LAKE CITY, UTAH

PROJECT IDENTIFICATION

Operator SHELL OIL COMPANY

Project Type Single zone oil exploration well

Project Location 375' PNL/1910 PNL, sec. 17, T. 46 S., R. 19 E., San Juan County, Utah

Well No. 21-17 USA Lease No. U-29960

Date Project Submitted _____

FIELD INSPECTION

Date May 26, 1982

Field Inspection
Participants

Dick Tyler/Lee Bass - SHELL OIL CO.

Brian Wood - Bureau of Land Management

Pat Harden/Garry Hibbets - archeologist, ^{La Plata} Archy Consultant

Tom & Lars Hansen - Kern Engineering

Dean McClellan - McDonald Construction

Don Englishman - Minerals Management Service

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.

May 26, 1982

Date Prepared

Don Englishman

Environmental Scientist

I concur

JUN 29 1982

Date

W.P. Mouton

District Supervisor

FOR E. W. GUYNN
DISTRICT OIL & GAS SUPERVISOR

CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

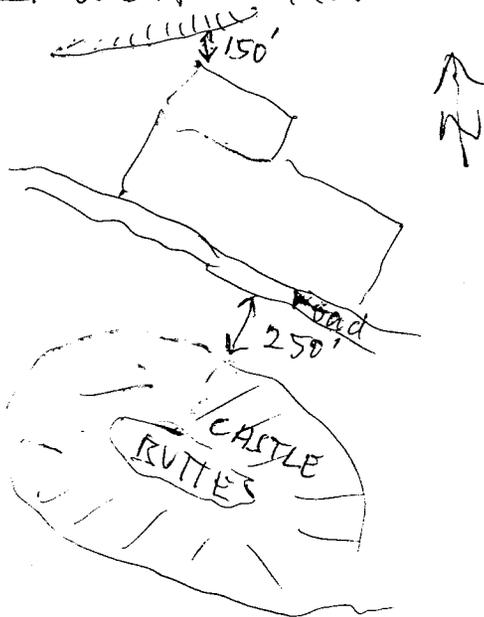
Criteria 516 DM 2.3.A	Federal/State Agency			Local and private corre- spondence (date)	Previous NEPA	Other studies and reports	Staff expertise	Onsite inspection (date)	Other
	Corre- spondence (date)	Phone check (date)	Meeting (date)						
1. Public health and safety						✓ 4	✓		
2. Unique characteristics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

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 for Permit to Drill
5. Operator Correspondence
6. Field Observation
7. Private Rehabilitation Agreement

Remarks:

1. Water source not known at time of onsite
2. ~~Inside~~ ^{outside} WSA - flat area chosen to minimize cuts
- 3.



Shell Oil Company



P.O. Box 831
Houston, Texas 77001

July 28, 1982

Mr. Ronald J. Firth, Chief Petroleum Engineer
State of Utah
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

Dear Mr. Firth:

USA 21-17
SECTION 17, T40S-R19E
SAN JUAN COUNTY, UTAH

USA 22-27
SECTION 27, T39S-R18E
SAN JUAN COUNTY, UTAH

Enclosed are copies of the approved federal drill permits and survey plats for the subject exploratory tests. It is our understanding that these permits will serve and be accepted as approved State of Utah drill permits.

Should additional information or clarification be necessary to expedite permit approval, please contact me at (713) 870-3216.

Yours very truly,

G. M. Jobe

G. M. Jobe
Administrator, Regulatory-Permits
Rocky Mountain Division

LAM

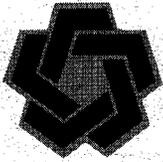
Enclosures

RECEIVED
JUL 30 1982

**DIVISION OF
OIL, GAS & MINING**

*copy telecopy by room to Shell.
ADL 2nd 831; will be
submitted.*

*4/01
8-2-82*



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

August 4, 1982

Shell Oil Company
P. O. Box 831
Houston, Texas 77001

Attn: G. M. Jobe

Dear Mr. Jobe:

Our records indicate you have filed federal application for permit to drill Well No. 21-17, but have not yet filed application with the State of Utah. Applications must be approved by the State in addition to federal approval in order to commence drilling.

Please provide the necessary application for permit to drill, or otherwise advise on the status of the permit. A copy of the federal application with attachments and cover letter is acceptable.

Respectfully,

A handwritten signature in cursive script, appearing to read 'Norm Stout'.

Norm Stout

NS/as

August 4, 1982

Shell Oil Company
P. O. Box 831
Houston, Texas 77001

Attn: G. M. Jobe

Dear Mr. Jobe:

Our records indicate you have filed federal application for permit to drill Well No. 21-17, but have not yet filed application with the State of Utah. Applications must be approved by the State in addition to federal approval in order to commence drilling.

Please provide the necessary application for permit to drill, or otherwise advise on the status of the permit. A copy of the federal application with attachments and cover letter is acceptable.

Respectfully,



Norm Stout

NS/as

Shell Oil Company



P.O. Box 831
Houston, Texas 77001

August 2, 1982

Mr. Ronald J. Firth, Chief Petroleum Engineer
State of Utah
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

Dear Mr. Firth:

USA 21-17
SECTION 17, T40S-R19E
SAN JUAN COUNTY, UTAH

USA 22-27
SECTION 27, T39S-R18E
SAN JUAN COUNTY, UTAH

Reference is made to our letter of like caption dated July 28, 1982 which transmitted copies of the subject approved federal drill permits.

Further to that letter, we hereby request an exception to Rule C-3 (General Well Spacing Requirements) of the State of Utah Oil and Gas Conservation General Rules and Regulations, for the Shell USA 21-17 location.

The location exception request is based upon surface problems. The drill site was staked in accordance with a request from the BLM representative adjacent to an existing county road to minimize environmental impact to the area. A drill site at a standard location would require relocating the county road with considerable more earth work and impact to the land. See attached copy of topographic map.

The USA 22-27 drill site was staked at a standard location and no location exception is required.

Yours very truly,

G. M. Jobe

G. M. Jobe
Administrator, Regulatory-Permits
Rocky Mountain Division

RLT:lam

RECEIVED

AUG 04 1982

DIVISION OF
OIL, GAS & MINING

** FILE NOTATIONS **

DATE: 8-6-82

OPERATOR: Shell Oil

WELL NO: WBA 21-17

Location: Sec. 17 T. 40S R. 19E County: Son Juan

File Prepared:

Entered on N.I.D:

Card Indexed:

Completion Sheet:

API Number 43-037-30802

CHECKED BY:

Petroleum Engineer: OK Topographic Exception

Director: _____

Administrative Aide: OK for C-3 (c), but 660' verification should be requested.

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
request map & statement

Lease Designation Fed

Plotted on Map

Approval Letter Written

Hot Line

P.I.

August 9, 1982

Shell Oil Company
Attn: G. M. Jobe
P. O. Box 831
Houston, Texas 77001

RE: Well No. USA 21-17
Sec. 17, T. 40 S, R. 19 E
San Juan County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil well on said unorthodox location is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure. Approval will be based on written verification that Shell Oil owns or controls the acreage within 660' radius of the proposed site. A map of the lease area is also requested.

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

RONALD J. FIRTH - Engineer
Office: 533-5771
Home: 571-6068

OR

CLEON B. FEIGHT - Director
Office: 533-5771
Home: 466-4455

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 43-037-30802.

Sincerely,



Norman C. Stout
Administrative Assistant

NCS/as
cc: Minerals Management Service
Enclosure

Shell Oil Company



P.O. Box 831
Houston, Texas 77001

August 9, 1982

Mr. Ronald J. Firth
Chief Petroleum Engineer
State of Utah, Div of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

RECEIVED
AUG 11 1982

DIVISION OF
OIL, GAS & MINING

Dear Mr. Firth:

SHELL-USA 21-19
SECTION 19, T39S-R19E
SAN JUAN COUNTY, UTAH

Enclosed is a copy of the approved federal drill permit and survey plat for the subject exploratory test. As illustrated on the plat, Shell controls all acreage within a 660 foot radius of the staked location. It is our understanding that this permit will serve and be accepted as approved State of Utah drill permit.

The drill site is inside a BLM Wilderness Study Area. The site was carefully selected in accordance with the desires of the BLM representative to minimize the environmental impact to the area. The location was placed in a sagebrush opening adjacent to an existing county road. Minimum impact to the area will be created by drilling at this location. A standard location would require cutting and clearing many trees and constructing an access road.

Based on the environmental concerns, we hereby request an exception to Rule C-3 (General Well Spacing Requirements) of the State of Utah Oil and Gas Conservation General Rules and Regulations for the subject location.

In addition to our August 2, 1982 letter concerning the USA 21-17, Section 17, T40S-R19E (copy enclosed), we inform you that Shell controls all acreage within a 660 foot radius of the No. 21-17 geological test. An illustrative plat is enclosed.

Should additional information or clarification be necessary, please contact me at (713) 870-3216.

Yours very truly,

G. M. Jobe

G. M. Jobe
Administrator, Regulatory-Permits
Rocky Mountain Division

LAM:beb

Enclosures

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Shell Oil

WELL NAME: USA 21-17

SECTION NENW 17 TOWNSHIP 40S RANGE 19E COUNTY San Juan

DRILLING CONTRACTOR Brinkerhoff-Signal

RIG # 79

SPUDDED: DATE 9-21-82

TIME 3:30 PM

How Rotary

DRILLING WILL COMMENCE _____

REPORTED BY Barbara Bernard

TELEPHONE # 713-870-3218

DATE 9-22-82 SIGNED AS

Shell Oil Company



P.O. Box 831
Houston, Texas 77001

September 22, 1982

Mr. Michael T. Minder, Geological Engineer
State of Utah
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, UT 84116

Dear Mr. Minder:

SHELL-USA 21-17
SECTION 17, T40S-R19E
SAN JUAN COUNTY, UTAH

As follow-up to the telephone conversation between Arlene Sollis of your office and Barbara Bernard of our office on September 22, 1982 whereby you were given verbal notification of the spud date of subject well, this is written notification that USA 21-17 spudded September 21, 1982.

Yours very truly,

G. M. Jobe

G. M. Jobe
Administrator, Regulatory-Permits
Rocky Mountain Division

beb

RECEIVED
SEP 27 1982

DIVISION OF
OIL, GAS & MINING

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

5. LEASE DESIGNATION AND SERIAL NO.	U-29960
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT AGREEMENT NAME	
8. FARM OR LEASE NAME	USA
9. WELL NO.	21-17
10. FIELD AND POOL, OR WILDCAT	Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA	T40S-R19E NE/4 NW/4 Section 17,
12. COUNTY OR PARISH	San Juan
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 Dry Hole

2. NAME OF OPERATOR
Shell Oil Company

3. ADDRESS OF OPERATOR
P. O. Box 831, Houston, TX 77001

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
375' FNL & 1910' FWL Section 17

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5046' GR

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"/>	FULL 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) _____	

(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.)*

Verbal approval to P&A.

Set plugs as follows:

- 65 sx Class "H" - 1100-900'
- 75 sx Class "H" - 300-100'
- 10 sx surface plug

Rig released at 2:30 AM, 9-28-82

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 10/4/82
BY: [Signature]

18. I hereby certify that the foregoing is true and correct
SIGNED S. M. Gobe ADMINISTRATOR TITLE Regulatory-Permits DATE 9-29-82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

Plug and Abandonment Procedures
Shell USA 21-17

8 5/8" 24# at 232' - Surface
Cemented to Surface
7 7/8" Hole to 1412'

1. Trip in the hole open ended with drill pipe.
2. Circulate mud, bottoms up.
3. Set the following plugs with Class "H", cement 2½ - 3 hours estimated pumpability. Use the balanced plug method. Pump 10 bbls. of fresh water, preflush, and adequate fresh water behind the balance the plug.

+1135' - Desert Creek - 200'+ of fill up across the formation, 60 sack minimum based on 7 7/8" hole. Verify formation top with logs. Base of the plug at 1235'+ and the top of the plug at 1035'+.

232' casing shoe - 200'+ fill, 70 sack minimum 1/2 in and 1/2 out of the surface casing.

Surface - 10 sack plug.
4. Use caliper log to estimate hole size.
5. Cut surface casing at least four feet below ground level. Weld on plate with well name and operator as marker.
6. Inform the State of Utah Minerals Management Service and the State of Utah Natural Resources and Energy, Oil, Gas and Mining.

Phone Numbers:

A.M. Raffoul - Staff Engineer (M.M.S.)
Office - 801-524-4590
Home - 801-484-2638

R. J. Firth - Engineer (Natural Resources & Energy)
Office - 801-533-5771
Home - 801-571-6068

Recommended: *K. W. K. K. K.*

Approved:

J. D. D. Agostino

3

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

5. LEASE DESIGNATION AND SERIAL NO.

U-29960

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

USA

9. WELL NO.

21-17

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

NE/4 NW/4 Section 17
T40S-R19E

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____

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

2. NAME OF OPERATOR

Shell Oil Company

3. ADDRESS OF OPERATOR

P. O. Box 831, Houston, TX 77001

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 375' FNL & 1910' FWL Section 17

At top prod. interval reported below

At total depth

14. PERMIT NO. DATE ISSUED

43-037-30802

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

15. DATE SPUNDED 9-21-82 16. DATE T.D. REACHED 9-27-82 17. DATE COMPL. (Ready to prod.) P&A 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 5046' GR 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 1412 TD 21. PLUG, BACK T.D., MD & TVD P&A 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY → X ROTARY TOOLS CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* P&A 25. WAS DIRECTIONAL SURVEY MADE Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN DIL/Sonic/SP/GR/CAL FDC/CND DLL/MFSL 27. WAS WELL CORED Yes

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

CASINO SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"		40			
8-5/8"	24#	232		120 sx Class "H"	

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
NA							

31. PERFORATION RECORD (Interval, size and number) NA 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
NA	

33.* PRODUCTION

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

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
SIGNED D. M. Jobe TITLE Administrator DATE 9-29-82
Regulatory-Permits

*(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.)

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	
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
		NAME	MEAS. DEPTH
		TRUE VERT. DEPTH	
		U. Hermosa P-50 Desert Creek P-40	165 1117 1135 1346

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

RECEIVED
OCT 07 1982

DIVISION OF
OIL, GAS & MINING

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number USA 21-17
Operator SHELL OIL COMPANY Address HOUSTON, TX. 77001
Contractor BRINKELHOFF / SIGNAL Address FARMINGTON, N.M. 87401
Location NE 1/4 NW 1/4 Sec. 17 T: 40 S R. 19 E County SAN JUAN

Water Sands

<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
From	To	Flow Rate or Head	Fresh or Salty
1.			
2.		<u>NONE ENCOUNTERED</u>	
3.			
4.			
5.			

(Continue of reverse side if necessary)

Formation Tops

P & C

Remarks

- NOTE: (a) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.
- (b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

Shell-USA 21-17
(WC) Brk Signal #79
1545' Desert Creek Test
\$ 28M/\$208M
WI - 60%
GR 5046'
13-3/8" csg @ 40'

9-20-82
Status: Moving to new location.

UTAH

MONUMENT UPLIFT
Shell-USA 21-17
(WC) Brk Signal #79
1545' Desert Creek Test
\$ 50M/\$208M
WI - 60%
GR 5046'
13-3/8" csg @ 40'

9-21-82
Status: RURT.

UTAH

MONUMENT UPLIFT
Shell-USA 21-17
(WC) Brk Signal #79
1545' Desert Creek Test
\$ 60M/\$208M
WI - 60%
GR 5046'
13-3/8" csg @ 40'

196/142//1. Status: Drilling.
Spud at 3:30 PM, 9-21-82
Location: 375' FNL & 1910' FWL
Section 17, T40S-R19E SEP 22 1982
San Juan County, Utah

UTAH

MONUMENT UPLIFT
Shell-USA 21-17
(WC) Brk Signal #79
1545' Desert Creek Test
\$ 84M/\$208M
WI - 60%
GR 5046'
13-3/8" csg @ 40'
8-5/8" csg @ 232'

233/37//2/8-1/2. Status: Press. test BOPE.
Ran 6 jts of 8-5/8" csg to 232'. Cmt w/120 sx
Class "H" w/2% CaCl₂, 1/4#/sx Flocele. Bumped
plug at 4:15 PM. 100% returns throughout.
Cmt fell back 8'. Did 3 sx top job.
Dev: 1/2" at 233'.

SEP 23 1982

UTAH

MONUMENT UPLIFT
Shell-USA 21-17
(WC) Brk Signal #79
1545' Desert Creek Test
\$ 97M/\$208M
WI - 60%
GR 5046'
13-3/8" csg @ 40'
8-5/8" csg @ 232'

455/222//3/8-1/2. Status: Drilling.
Mud: (fresh water)

SEP 24 1982

UTAH

MONUMENT UPLIFT

Shell-USA 21-17
(WC) Brk Signal #79
1545' Desert Creek Test
\$ M/\$208M
WI - 60%
GR 5046'
13-3/8" csg @ 40'
8-5/8" csg @ 232'

9-25-82
1132/677//4/8-1/2. Status: Circ. Samples.
Dev: 1/2" at 500'; 1/2" at 997'
Mud: (.463) 8.9 x 38 x 10.2

9-26-82
1211/79//5/8-1/2. Status: Coring.
Core #1 1132-1192. Full recovery.
Cutting Core #2.
Mud: (.463) 8.9 x 39 x 11

9-27-82
1412/201//6/8-1/2. Status: Logging.
Cut Core #2 1192-1252'. Full recovery.
Mud: (.463) 8.9 x 39 x 11

UTAH

MONUMENT UPLIFT

Shell-USA 21-17
(WC) Brk Signal #79
1545' Desert Creek Test
\$184M/\$208M
WI - 60%
GR 5046'
13-3/8" csg @ 40'
8-5/8" csg @ 232'

TD 1412/0//7/8-1/2. Status: P&A - rig release.
Set plug #1 - 1100-900' - 65 sx Class "H"
Set plug #2 - 300-100' - 75 sx Class "H"
Set 10 sx plug at surface.
Rig released at 2:30 AM, 9-28-82 SEP 28 1982
Cost \$183,735

ORAL APPROVAL TO PLUG AND ABANDON WELL

Operator Shell Oil Company Representative John Sheehan

Well No. 21-17 Location NE 1/4 NW 1/4 Section 17 Township 40S Range 19E

County San Juan Field _____ State Utah

Unit Name and Required Depth _____ Base of fresh water sands _____

T.D. 1412' Size hole and Fill per sack _____ " _____ Mud Weight and Top _____ #/gal. _____

Casing Size	Set At	Top of Cement	To Be Pulled	Plugging Requirements		
				From	To	Sacks Cement
<u>8 5/8"</u>	<u>232</u>	<u>surface</u>		<u>1.1100'</u>	<u>900'</u>	<u>As necessary</u>
				<u>2. 300'</u>	<u>100'</u>	<u>As necessary</u>
<u>Formation</u>	<u>Top</u>	<u>Base</u>	<u>Shows</u>	<u>3. 10 Sks. @ surface with marker plate 3-4' below surface.</u>		

REMARKS

DST's, lost circulation zones, water zones, etc.,

Approved by R. J. Firth Date 9-27-82 Time _____ a.m. p.m.

CORE ANALYSIS RESULTS

for

SHELL OIL COMPANY

SHELL FEDERAL SUN 21-17 WELL
WILDCAT
SAN JUAN COUNTY, UTAH

RECEIVED

OCT 25 1982

DIVISION OF
OIL, GAS & MINING

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

PAGE NO. 1

SHELL OIL COMPANY
 SHELL FFD. SUN 21-17
 WILDCAT
 SAN JUAN COUNTY

FORMATION : DESERT CREEK
 ORIG. FLUID: WRM
 LOCATION : NE, NW SEC. 17-403-19E
 STATE : UTAH

DATE : 9-26-82
 FILE NO. : 89-3-003233
 ANALYSTS : GGDS
 ELEVATION: 5047 GL

CONVENTIONAL CORE ANALYSIS

SAMP. NO.	DEPTH	PERM. TO AIR (MD)		POR. BLD.	FLUID SATS.		GR. DNS.	DESCRIPTION
		HORZ.	VERTICAL		OTL	WATER		
1	1132-33 1133-1134	<0.01		0.5	0.0	40.4	2.70	LM GRV VEXLN LIMESTONE - NO ANALYSTS
2	1134-35 1135-1136	<0.01		0.7	0.0	31.4		LM GRV VEXLN LIMESTONE - NO ANALYSTS
3	1136-37 1137-1138	<0.01		0.8	0.0	28.5		LM GRV VEXLN STY LIMESTONE - NO ANALYSTS
4	1138-39 1139-1140	<0.01		1.5	0.0	59.6	2.68	LM GRV VEXLN LIMESTONE - NO ANALYSTS
5	1140-41 1141-1142	<0.01		1.1	0.0	57.3		LM GRV VEXLN LIMESTONE - NO ANALYSTS
6	1142-43	<0.01		1.1	0.0	39.5		LM DKGRV VEXLN
7	1143-44	<0.01		1.1	5.2	73.2	2.71	LM DKGRV VEXLN SL/SHL
8	1144-45	<0.01		3.5	6.0	65.8		LM GRV VEXLN SL/PP-VUG
9	1145-46	0.07		12.1	7.3	64.8		LM BRN VEXLN PP-VUG
10	1146-47	<0.01		4.5	2.9	58.3	2.70	LM GRV VEXLN SL/PP-VUG
11	1147-48 1148-1149	<0.01		3.8	2.8	66.1		LM GRV VEXLN CWF LIMESTONE - NO ANALYSTS
12	1149-50 1150-1151	<0.01		1.4	7.8	31.2		LM GRV VEXLN LIMESTONE - NO ANALYSTS
13	1151-52	<0.01		7.6	4.1	74.2	2.69	LM BRN VEXLN PP-VUG CHRY
14	1152-53	<0.01		3.8	0.0	77.6		LM BRN VEXLN PP-VUG STY
15	1153-54	<0.01		5.4	0.0	80.6		LM GRV VEXLN SL/PP-VUG
16	1154-55	<0.01		0.6	0.0	28.7	2.72	LM GRV VEXLN STY
17	1155-56	<0.01		0.9	0.0	47.5		LM GRV VEXLN
18	1156-57	0.02		14.8	3.2	37.1		LM BRN VEXLN PP-VUG

Boyle's Law Helium porosity run on samples with grain density.

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

PAGE NO. 2

SHELL OIL COMPANY
 SHELL FED. SUN 21-17
 WILDCAT
 SAN JUAN COUNTY

FORMATION : DESERT CREEK
 DRLG. FLUID: WBM
 LOCATION : NE, NW SEC. 17-40S-19E
 STATE : UTAH

DATE : 9-26-82
 FILE NO. : RP-3-003233
 ANALYSTS : GGJDS
 ELEVATION: 5047 GL

CONVENTIONAL CORE ANALYSTS

SAMP. NO.	DEPTH	PERM. TO AIR (MD)		POR. FLD.	FLUID SATS.		GR. DNS.	DESCRIPTION
		HORZ.	VERTICAL		OTL	WATER		
19	1157-58	<0.01		9.4	0.6	49.1	2.73	LM BRN VEXLN PP-VUG
20	1158-59	<0.01		6.4	0.0	80.3		LM GRV VEXLN SL/PP-VUG SL/CHKY
21	1159-60	<0.01		9.4	0.0	62.9		LM BRN VEXLN PP-VUG
22	1160-61	<0.01		11.1	0.0	77.8	2.73	LM BRN VEXLN PP-VUG STY
23	1161-62	<0.01		8.9	0.0	76.6		LM BRN VEXLN PP-VUG STY
24	1162-63	<0.01		6.6	0.0	74.7		LM BRN VEXLN PP-VUG STY
25	1163-64	<0.01		9.8	1.3	69.4	2.73	LM BRN VEXLN PP-VUG STY
26	1164-65	<0.01		6.8	1.5	72.1		LM BRN VEXLN PP-VUG STY
27	1165-66	<0.01		7.6	0.0	72.6		LM BRN VEXLN PP-VUG STY
28	1166-67	<0.01		2.8	0.0	68.4	2.71	LM BRN VEXLN SL/PP-VUG STY
29	1167-68	<0.01		8.6	0.0	76.9		LM BRN VEXLN SL/PP-VUG STY CVF
30	1168-69	<0.01		7.8	2.6	75.4		LM BRN VEXLN SL/PP-VUG
31	1169-70	0.10	**	3.6	0.0	33.5	2.71	LM GRV VEXLN CHKY
	1170-1171							LIMESTONE - NO ANALYSIS
32	1171-72	<0.01		1.0	0.0	43.7		LM GRV VEXLN STY
	1172-1173							LIMESTONE - NO ANALYSIS
33	1173-74	<0.01		0.8	0.0	26.8		LM GRV VEXLN STY
	1174-1175							LIMESTONE - NO ANALYSIS
34	1175-76	<0.01		0.5	0.0	30.2	2.71	LM GRV VEXLN STY
35	1176-77	<0.01		0.7	0.0	28.7		LM GRV VEXLN STY
36	1177-78	<0.01		3.3	3.2	64.3		LM GRV VEXLN
37	1178-79	<0.01		12.4	0.8	81.8	2.72	LM BRN VEXLN PP-VUG
38	1179-80	0.02		11.4	0.9	82.7		LM BRN VEXLN PP-VUG
39	1180-81	<0.01		3.8	0.0	60.5		LM GRV VEXLN SL/PP-VUG
40	1181-82	<0.01		0.8	0.0	32.1	2.72	LM GRV VEXLN CVF

** Fracture Permeability

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SHELL OIL COMPANY
 SHELL FFD. SUN 21-17
 WILDCAT
 SAN JUAN COUNTY

FORMATION : DESERT CREEK
 DRLG. FLUID: WBM
 LOCATION : NE, NW SEC. 17-405-19E
 STATE : UTAH

DATE : 9-26-82
 FILE NO. : 20-3-003233
 ANALYSTS : GGDS
 ELEVATION: 5047 GL

CONVENTIONAL CORE ANALYSIS

SAMP. NO.	DEPTH	PERM. TO AIR (MD) HORZ. VERTICAL	POR. FLD.	FLUID SATS. OIL WATER	GR. DNS.	DESCRIPTION
41	1182-83	<0.01	8.1	0.0 62.3		LM GRY/BRN VEXLN STY OVF
42	1183-84	<0.01	2.5	0.0 49.5		LM GRY/BRN VEXLN STY
43	1184-85	<0.01	4.7	2.2 62.7	2.72	LM GRY/BRN VEXLN
44	1185-86	<0.01	1.5	7.2 43.1		LM GRY/BRN VEXLN STY
	1186-1187					LIMESTONE - NO ANALYSIS
45	1187-88	<0.01	1.0	10.4 41.7		LM GRY/BRN VEXLN STY
	1188-1189					LIMESTONE - NO ANALYSIS
46	1189-90	<0.01	1.0	0.0 20.6	2.72	LM GRY/BRN VEXLN STY
	1190-1191					LIMESTONE - NO ANALYSIS
47	1191-92	<0.01	0.9	0.0 23.8		LM GRY/BRN VEXLN
	1192-1193					LIMESTONE - NO ANALYSIS
48	1193-94	<0.01	1.4	0.0 31.1		LM GRY VEXLN
	1194-1195					LIMESTONE - NO ANALYSIS
49	1195-96	<0.01	1.4	0.0 35.1	2.72	LM GRY VEXLN
	1196-1197					LIMESTONE - NO ANALYSIS
50	1197-98	<0.01	1.2	0.0 18.4		LM GRY VEXLN
	1198-1199					LIMESTONE - NO ANALYSIS
51	1199 -0	<0.01	1.2	0.0 18.4		LM GRY VEXLN OVF
	1200-1201					LIMESTONE - NO ANALYSIS
52	1201 -2	<0.01	2.2	0.0 56.2	2.72	LM GRY VEXLN
	1202-1203					LIMESTONE - NO ANALYSIS
53	1203 -4	0.43**	0.8	0.0 28.5		LM GRY VEXLN
	1204-1205					LIMESTONE - NO ANALYSIS
54	1205 -6	0.20**	1.1	0.0 39.2		LM GRY VEXLN OVF
	1206-1207					LIMESTONE - NO ANALYSIS

** Fracture Permeability

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

SAGE NO. 4

SHELL OIL COMPANY
 SHELL FED. SUN 21-17
 WILDCAT
 SAN JUAN COUNTY

FORMATION : DESERT CREEK
 ORLG. FLUID: WBM
 LOCATION : NE, NW SEC. 17-40S-19E
 STATE : UTAH

DATE : 9-26-82
 FILE NO. : RP-3-003233
 ANALYSTS : GGIDS
 ELEVATION: 5047 GL

CONVENTIONAL CORE ANALYSIS

SAMP. NO.	DEPTH	PERM. TO AIR (MD)		POR. FLD.	FLUID SATS.		GR. DNS.	DESCRIPTION
		HORZ.	VERTICAL		OIL	WATER		
55	1207-8 1208-1209	<0.01		0.8	13.7	27.4	2.72	LM GRV VEXLN R LIMESTONE - NO ANALYSIS
56	1209-10 1210-1211	0.32**		1.9	33.6	22.4		LM GRV VEXLN SHL LM/SHL - NO ANALYSIS
57	1211-12 1212-1213	<0.01		1.6	33.7	27.0		LM GRV VEXLN SHL STY LM/SHL - NO ANALYSIS
58	1213-14 1214-1215	<0.01		1.1	0.0	38.4	2.69	LM GRV VEXLN SL/SHL OVF LIMESTONE - NO ANALYSIS
59	1215-16 1216-1217	<0.01		2.5	0.0	66.1		LM GRV VEXLN SL/SHL LIMESTONE - NO ANALYSIS
60	1217-18 1218-1219	<0.01		1.9	0.0	66.9		LM GRV VEXLN SL/SHL LIMESTONE - NO ANALYSIS
61	1219-20 1220-1221	<0.01		2.1	0.0	70.6	2.69	LM GRV VEXLN SL/SHL LIMESTONE - NO ANALYSIS
62	1221-22 1222-1223	<0.01		2.6	0.0	74.6		LM GRV VEXLN SL/SHL LIMESTONE - NO ANALYSIS
63	1223-24 1224-1225	<0.01		2.3	0.0	73.6		LM GRV VEXLN SL/SHL LIMESTONE - NO ANALYSIS
64	1225-26 1226-1227	<0.01		1.6	0.0	46.9	2.67	LM GRV VEXLN SL/SHL LIMESTONE - NO ANALYSIS
65	1227-28 1228-1229	<0.01		0.7	0.0	32.6		LM GRV VEXLN SL/SHL LIMESTONE - NO ANALYSIS
66	1229-30 1230-1231	<0.01		0.9	0.0	24.5		LM GRV VEXLN SL/SHL LIMESTONE - NO ANALYSIS
67	1231-32	<0.01		1.1	0.0	27.5	2.72	LM GRV VEXLN SL/SHL

**** Fracture Permeability**

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
 DALLAS, TEXAS

PAGE NO. 5

SHELL OIL COMPANY
 SHELL FED. SUN 21-17
 WILDCAT
 SAN JUAN COUNTY

FORMATION : DESERT CREEK
 DRG. FLUID: WRM
 LOCATION : NE, NW SEC. 17-405-19E
 STATE : UTAH

DATE : 9-26-82
 FILE NO. : RP-3-003233
 ANALYSTS : GGJDS
 ELEVATION: 5047 GL

CONVENTIONAL CORE ANALYSIS

SAMP. NO.	DEPTH	PERM. TO AIR (MD) HORZ. VERTICAL	POR. FLD.	FLUID SATS. OIL WATER	GR. DNS.	DESCRIPTION
	1232-1233					LIMESTONE - NO ANALYSIS
68	1233-34	<0.01	0.8	0.0 28.5		LM GRV VFXLN SL/SHL OVF
	1234-1235					LIMESTONE - NO ANALYSIS
69	1235-36	<0.01	0.9	0.0 24.5		LM GRV VFXLN SL/SHL
	1236-1237					LIMESTONE - NO ANALYSIS
70	1237-38	<0.01	1.3	0.0 54.8	2.72	LM GRV VFXLN SL/SHL
	1238-1239					LIMESTONE - NO ANALYSIS
71	1239-40	<0.01	1.3	0.0 50.6		LM GRV VFXLN SL/SHL
	1240-1241					LIMESTONE - NO ANALYSIS
72	1241-42	<0.01	0.8	0.0 26.1		LM GRV VFXLN SL/SHL
	1242-1243					LIMESTONE - NO ANALYSIS
73	1243-44	<0.01	1.9	0.0 75.5	2.72	LM GRV VFXLN SL/SHL
	1244-1245					LIMESTONE - NO ANALYSIS
74	1245-46	<0.01	1.5	0.0 71.6		LM GRV VFXLN SL/SHL
	1246-1247					LIMESTONE - NO ANALYSIS
75	1247-48	<0.01	1.9	0.0 67.4		LM GRV VFXLN SL/SHL
	1248-1249					LIMESTONE - NO ANALYSIS
76	1249-50	<0.01	1.9	0.0 23.4	2.72	LM GRV VFXLN SL/SHL
	1250-1251					LIMESTONE - NO ANALYSIS
77	1251-52	<0.01	1.5	0.0 43.7		LM GRV VFXLN SL/SHL

1132 - 1186 - BELIEVED TO BE ESSENTIALLY NONPRODUCTIVE DUE TO LOW PERMEABILITY.

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Petroleum Reservoir Engineering

DALLAS, TEXAS

JOB NO.	RP-3-003233
FORMATION	DESERT CREEK
DEPTH INTERVAL	1132 1186
INTERVAL THICKNESS (FEET)	54
FEET INCLUDED IN AVERAGE	44
TOTAL PERMEABILITY	0.61
AVERAGE PERM ARITHMETIC	0.01
AVERAGE PERMEABILITY GEOMETRIC	0.01
TOTAL POROSITY	215.5
AVERAGE POROSITY	4.9
AVERAGE B/A-F	380.0
TOTAL OIL SATURATION	78.4
OIL SATURATION ARITHMETIC AVER.	1.8
OIL SATURATION POR. AVER.	2.0
TOTAL WATER SATURATION	2520.1
WATER SAT. ARITHMETIC AVERAGE	57.3
WATER SAT. POR. AVER.	66.0



CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

COMPANY SHELL OIL COMPANY FIELD WILDCAT FILE RP-3-003233
 WELL SHELL FED. SEN 21-17 COUNTY SAN JUAN DATE 9-26-82
 LOCATION NE, NW SEC. 17-40S-19E STATE UTAH ELEV. 5047 GL

CORE-GAMMA CORRELATION

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VERTICAL SCALE: 5" = 100'

CORE-GAMMA SURFACE LOG

(PATENT APPLIED FOR)

GAMMA RAY

RADIATION INCREASE →

DESERT CREEK FORMATION

COREGRAPH

TOTAL WATER

PERCENT TOTAL WATER

80 60 40 20 0

OIL SATURATION

PERCENT PORE SPACE

0 20 40 60 80

PERMEABILITY

MILLIDARCS

100 50 10 5 1 15 10 5 0

POROSITY

PERCENT

