Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U-7884

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME: Blaze Canyon

8. FARM OR LEASE NAME: Carmack Federal

2. NAME OF OPERATOR: Carmack Drilling Co.

9. WELL NO.: Carmack Federal 1-14

3. ADDRESS OF OPERATOR: 592 25 Road , Grand Junction, Colorado 81501

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1882' FNL 1561' FEL SW NE
At proposed prod. zone

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 14, T21S, R20E S.L.B.& M.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 5 miles Northeast of Thompson, Utah.

12. COUNTY OR PARISH: Grand

13. STATE: Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1561'

16. NO. OF ACRES IN LEASE: 1120

17. NO. OF ACRES ASSIGNED TO THIS WELL: 160

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

19. PROPOSED DEPTH: 3500'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5314'

22. APPROX. DATE WORK WILL START*: September 30, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8 3/4"	7"	20 lbs.	250'	40 sacks
6 1/4"	4 1/2"	10.5 lbs.	3500'	50 sacks RFC

Purpose to test Salt Wash member of Morrison Formation.
Surface Use Plan attached: NOTE: Water Sands are not anticipated.
Surface FMN - Mancos Shale
Estimated tops:
Dakota 2500 Gas
Saltwash 3300 Gas and/or Oil
Pressure Control: Schematic attached showing BOP, kill lines, check valves, pressure ratings Seven Point Plan attached.
Logging: IES & FDC-CNL, No coring planned.
Hazards: Experience does not indicate that abnormal pressures or Hydrogen Sulfide will be encountered.
Starting Date: September 30, 1979. 20 days operating time.

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 Rob J. Carmack TITLE President DATE 9-4-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Form 9-331 C
(May 1963)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL
OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Carmack Drilling Co.

3. ADDRESS OF OPERATOR
592 25 Road , Grand Junction, Colorado 81501

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
1882' FNL 1561' FEL
At proposed prod. zone

5. LEASE DESIGNATION AND SERIAL NO.
U-7884

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Blaze Canyon

8. FARM OR LEASE NAME
Carmack Federal

9. WELL NO.
Carmack Federal 1-14

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 14, T21S, R20E S.L.B.& M.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
5 miles Northeast of Thompson, Utah.

12. COUNTY OR PARISH: Grand
13. STATE: Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
1561'	1120	160
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
KN	3500'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5314'

22. APPROX. DATE WORK WILL START*
September 30, 1979

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24.
SIGNED Robert J. Carmack TITLE President DATE 9-4-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

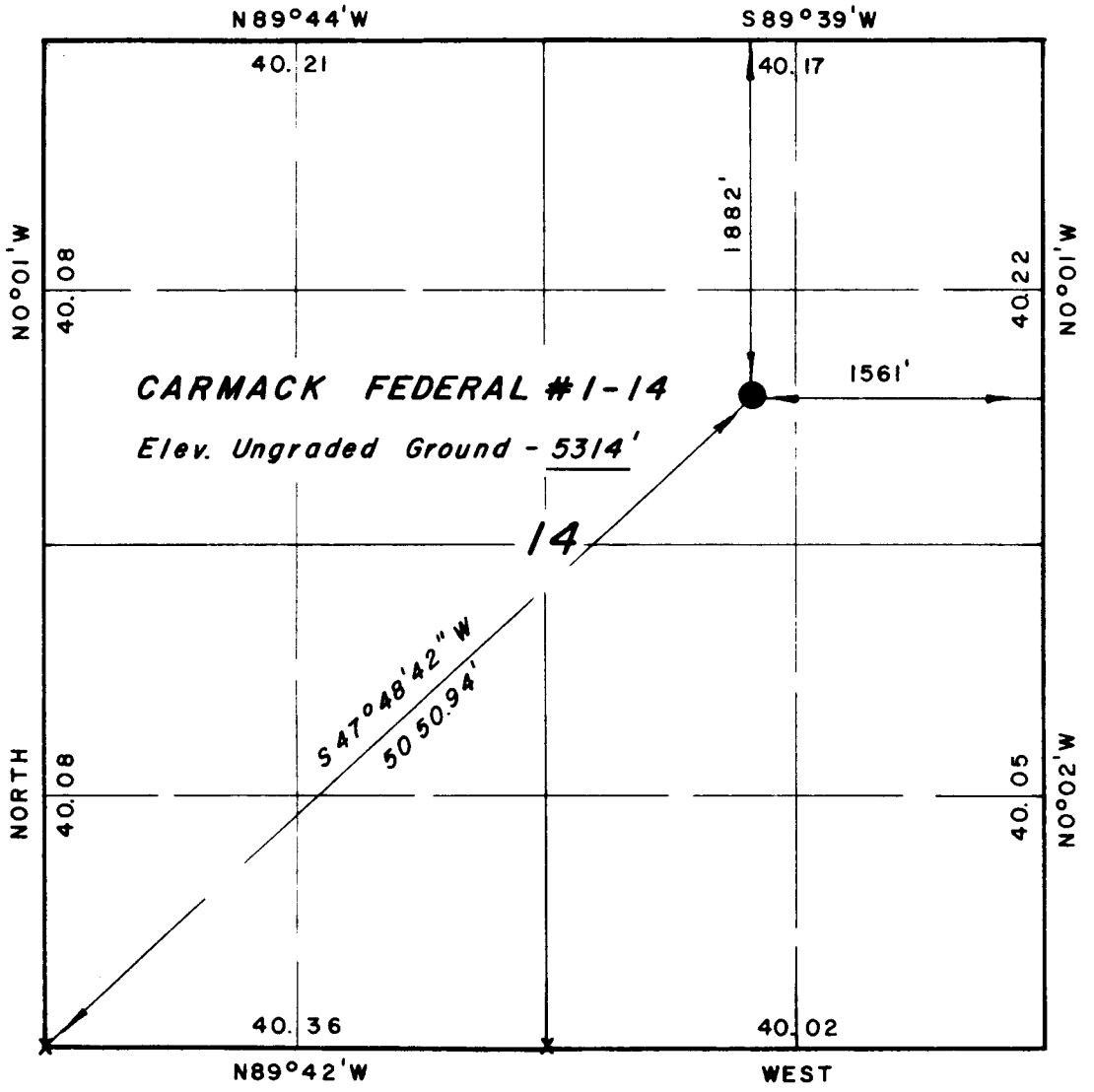
CONDITIONS OF APPROVAL, IF ANY:

PROJECT

CARMACK DRILLING COMPANY

Well location, *CARMACK FED. #1-14*, located as shown in the SW 1/4 NE 1/4 Section 14, T 21 S, R 20 E, S.L.B.& M. Grand County, Utah.

T 21 S, R 20 E, S.L.B.& M.



X = Section Corners Located

CERTIFICATE

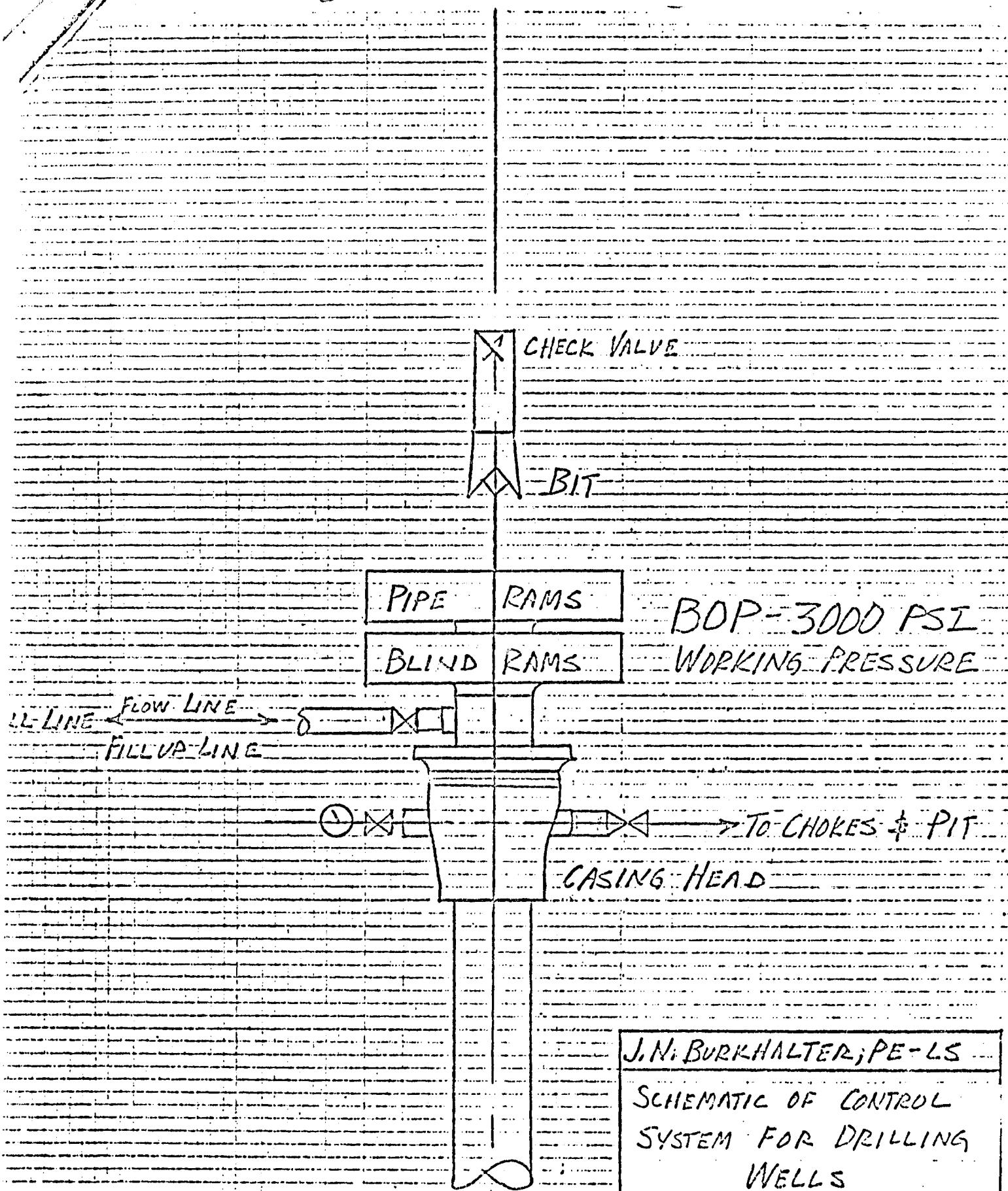
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Laurence C. Kay

REGISTERED LAND SURVEYOR
REGISTRATION NO 3137
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
P. O. BOX Q — 110 EAST - FIRST SOUTH
VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 8/31/79
PARTY D.A. D.F. S.B	REFERENCES GLO Plat
WEATHER Fair	FILE CARMACK DRILL.



J. N. BURKHALTER; PE-LS

SCHEMATIC OF CONTROL SYSTEM FOR DRILLING WELLS

J. N. BURKHALTER
Oil, Gas and Pipeline Consultant

Professional Engineer and Land Surveyor
Registered in Rocky Mountain States

592 - 25 Road
Grand Junction, CO 81501
Telephone 303/242-8555

Re: Carmack Federal 1-14
SW NE Sec. 14, T21S, R20E
Grand County, Utah
Lease: U-7884

PRESSURE MONITORING AND CONTROL DATA

SEVEN POINT PLAN

1. Surface Casing: Set at 200'
   Size 7"
   Weight 20#
   Length Range 3
   Grade J-55 new. Tested to 3000 psig.

2. Casing Heads:
   Series 600 - 1500 psi working pressure.

3. Production Casing:
   Size 4½"
   Weight 10.5#
   Length Range 3
   Grade J-55, new, tested to 3000 psig.

4. Pressure Control:
   BOP RAM Type
   Series 600 - tested to 3000 psig
   Rams Pipe & Blind
   Will use fill, kill and choke lines.

5. Auxiliary Pressure Control:
   a. Kelly cocks.
   b. Check valve at bit.
   c. Monitoring equipment on mud system.
   d. A sub on floor with a full opening valve to be stabbed into drill pipe when Kelly is out of string.

6. Anticipated Bottom Hole Pressure:
   1550 psig.

7. The Type of Drilling Fluid:
   Air until gas encountered.
   Mud up with Polymer mud with NaCl and $CaCl_2$ as weighting agent - 10.5 to 11.00 lb. per gal. as required.

CARMACK DRILLING COMPANY

13 Point Surface Use Plan

For

Well Location

Carmack Federal 1-14

Located In

Section 14, T21S, R20E, S.L.B.& M.

Grand County, Utah

CARMACK DRILLING COMPANY
Carmack Federal 1-14
Section 14, T21S, R20E, S.L.B.& M.

1. EXISTING ROADS

See attached Topographic Maps "A" and "B".

To reach Carmack Drilling Company, well location site Carmack Federal #1-14 located in the SW¼ NE¼ Section 14, T21S, R20E, S.L.B.& M. Grand County, Utah; proceed Northeasterly out of Thompson, Utah, on a small road 1500' to its junciton with a road to the Southeast; proceed Southeasterly along this road 1.4 miles to its junction with a road to the East and then North; proceed East and North along this road 1.8 miles to the beginning of the proposed access road to be discussed in Item #2.

The last 1.8 miles of road described above is a jeep trail. This trail will need extensive upgrading, this upgrading will meet the requirements of Item #2. All of the other roads mentioned above are light duty dirt constructed out of native materials of the area. There is no anticipated construction on any of these roads. They will meet the necessary standards required to facilitate an orderly flow of traffic during the drilling phase, completion phase, and the 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 the 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 access road leaves the existing road described in Item #1 in the E½ of Section 15, T21S, R20E, S.L.B.& M. and proceeds in a Northeasterly direction 1 mile to the proposed location site in Section 14.

In order to facilitate the anticipated traffic flow necessary to drill and produce this well, the following standards will be met:

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 runoff from normal meterological conditions that are prevalent to this area.

Back slopes along the cut areas of the road will be 1½ to 1 slopes and terraced.

CARMACK DRILLING COMPANY
Carmack Federal #1-14
Section 14, T21S, R20E, S.L.B.& M.

2. PLANNED ACCESS ROAD - Continued

The road will be centerline flagged prior to the commencement of construction.

There will be two culverts required along the jeep trail and proposed road. (See Topographic Map "B" for approximate location and size of these culverts. These culverts will be placed according to the specifications on page 23 of the Oil & Gas Surface Operating Standards for Oil and Gas Exploration and Development handbook. If at the time of the onsite inspection it is decided that culverts would not be necessary then a Dry creek drainage crossing will be constructed. These crossings will be constructed according to the specifications on page 22 of the above mentioned handbook.

The grade of this road will vary from flat to 8%, but will not exceed this amount. This road will be constructed from native borrow accumulated during construction.

If deemed necessary by the local governmental agencies or their representatives turnouts will be installed for safety purposes every 0.25 miles or on the top of ridges or at intervals and locations that will provide the greatest sight distance. These turnouts will be 200' in length and 10' in width and will be tapered from the soulder of the road for a distance of 50' in length at both the access and outlet ends.

Any fences that are encountered along this road will be cut and replaced with a cattleguard with a minimum width of 18' and a loading factor large enough to facilitate the heavy trucks required in the drilling and production of this well.

If cattlegaurds are to be located at existing gates, they will be installed with the above requirements and with a new gate installed at one end of the cattleguard.

The access from the road to the gate will be of such a nature that there will be no impedance of traffic flow along the main access road and no difficulties encountered by traffic utilizing the gate, either leaving or entering the proposed access road.

The terrain that this access road traverses is relatively flat.

The vegetation of this route consists of sparse amounts of sagebrush, rabbitbrush, some grasses, and cacti with large areas that are devoid of vegetation.

CARMACK DRILLING COMPANY
Carmack Federal #1-14
Section 14, T21S, R20E, S.L.B.& M.

3. EXISTING WELLS

See attached Topographic Map "B".

There are no known water wells, abandoned wells, temporarily abandoned wells, disposal wells, producing 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

At the present time there are no Carmack Drilling Company tank batteries, production facilities, oil gathering lines, gas gathering lines, injection lines, or disposal lines within a one mile radius of this location site.

In the event that production of this well is established the existing area of the location will be utilized for the establishment of the necessary production facilities.

The total area that is needed for the production of this well will be fenced and cattleguards will be utilized for access to these facilities.

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 areas will be built using bulldozers, graders, and workman crews to construct and place facilities.

It is not known at this time where production lines will be run. In the event production is established plans will be submitted to the appropriate agencies for approval before construction is begun.

If there is any deviation from the above, all appropriate agencies will be notified.

Rehabilitation of disturbed areas no longer needed for operations after construction is completed will meet the requirements of Item #10.

CARMACK DRILLING COMPANY
Carmack Federal #1-14
Section 14, T21S, R20E, S.L.B.& M.

5. LOCATION AND TYPE OF WATER SUPPLY

See Topographic Map "A".

Water to be used in the drilling of this well will be hauled from the Thompson, Utah, municipal water supply, this water will be hauled by truck over the roads described in Item #1 approximately 4.2 miles East of the location site.

In the event this is not a suitable source another source will be decided upon and all agencies involved will be notified.

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 additional road gravels or pit lining material 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.

The native material that will be used in the construction of this location site and access road will consist of sandy-clay soil and sandstone and shale material gathered in actual construction of the road and location.

7. METHODS FOR HANDLING WASTE DISPOSAL

A reserve and burn pit shall be constructed, and at least half of the depth of the reserve pit shall be below the existing ground surface. All trash and flammable materials will be burned in the burn pit. Non-flammable material such as cuttings, salts, chemicals, etc., will be buried in the reserve pit and covered with a minimum of four feet of earth material. Prior to the onset of drilling, the burn pit will be fenced on three sides. Upon completion of drilling the fourth side of the reserve pit will be fenced and allowed to dry completely before backfilling and reclamation are attempted.

A portable chemical toilet will be supplied for human waste.

All produced oil from this well will be contained in the storage tank and will be sold. Water, if any, which is produced will be run into a reserve pit as required in the NTL-B2 Regulations.

CARMACK DRILLING COMPANY
Carmack Federal #1-14
Section 14, T21S, R20E, S.L.B.& M.

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. District Manager shall be notified before any construction begins on the proposed location site and road.

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). 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. Fences around pits are to be removed upon completion of drilling activities and all waste being contained in the trash pit shall be buried with a minimum of 4' of cover. The reserve pit will be completely fenced and allowed to dry before covering. When restoration activities have been completed, the location site and access ramp shall be reseeded with a seed mixture recommenced by the B.L.M. District Manager when the moisture content of the soil is adequate for germination. The Lessee further covenants and agrees that all of said cleanup 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 valley known as the Grand Valley, which is formed by the Book Cliff Mountains to the North and numerous mesa's to the South with the Colorado River running through the valley floor. The area is interlaced with numerous canyons and ridges which are extremely steep with numerous ledges formed in snadstone, conglomerates, and shale deposits.

CARMACK DRILLING COMPANY
Carmack Federal #1-14
Section 14, T21S, R20E, S.L.B.& M.

11. OTHER INFORMATION - Continued

The majority of the surrounding drainages are of a non-perennial nature with normal flow limited to the early spring and extremely rare heavy thunderstorms, or rain storms of high intensity that lasts over an extended period of time and are extremely rare in nature as the normal annual precipitation is only 8".

All drainages in the immediate area are non-perennial streams and flow to the South and are tributaries to the Colorado River.

The soils of this semi-arid area are of the Uinta Formation and Duchesne River Formation (the Fluvial Sandstone and Mudstone) from the Eocene Epoch and Quaternary Epoch (gravel surfaces) and the visible geologic sturcture consists of light brownish-gray clays (OL) to sandy soils (SM-ML) with poor gravels and shales with outcrops of rock (sandstone, mudstone, conglomerates, and shales).

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 region we are located in. It consists of, as primary flora, areas of sagebrush, rabbitbrush, some grasses, and cacti, and large areas of bare soils devoid of any growth in the areas away from and in the vicinity of non-perennial streams and along the areas that are formed along the edges of perennial streams, cottonwood, willows, tamarack, sagebursh, rabbitbrush, grasses and cacti can be found.

The fauna of the area is sparse and consists predominantly of the mule deer, coyotes, pronghorn antelope, rabbits, and varieties of small ground squirrels and other types of rodents, and various reptiles common to this area.

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

The area is used by man for the primary purpose of grazing domestic livestock.

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

Carmack Federal #1-14 sits at the base of the Book Cliff Mountains approximately 2.5 miles East of Thompson, Utah.

The geologic sturcture of the location is of Uinta Formation and consists of light brownish-gray clay (SP-CL) with some sandstone outcrops.

The ground slopes form the North through the location to the South at approximately a 2% grade.

CARMACK DRILLING COMPANY
Carmack Federal #1-14
Section 14, T21S, R20E, S.L.B.& M.

11. OTHER INFORMATION - Continued

The location is covered with some sagebrush and grasses.

The total surface ownership affected by this location is owned by the B.L.M.

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

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

12. LESSEE'S OR OPERATOR'S REPRESENTATIVE

Newt Burkhalter
Carmack Drilling Company
592 - 25 Road
Grand Junction, Colorado 81501

13. CERTIFICATION

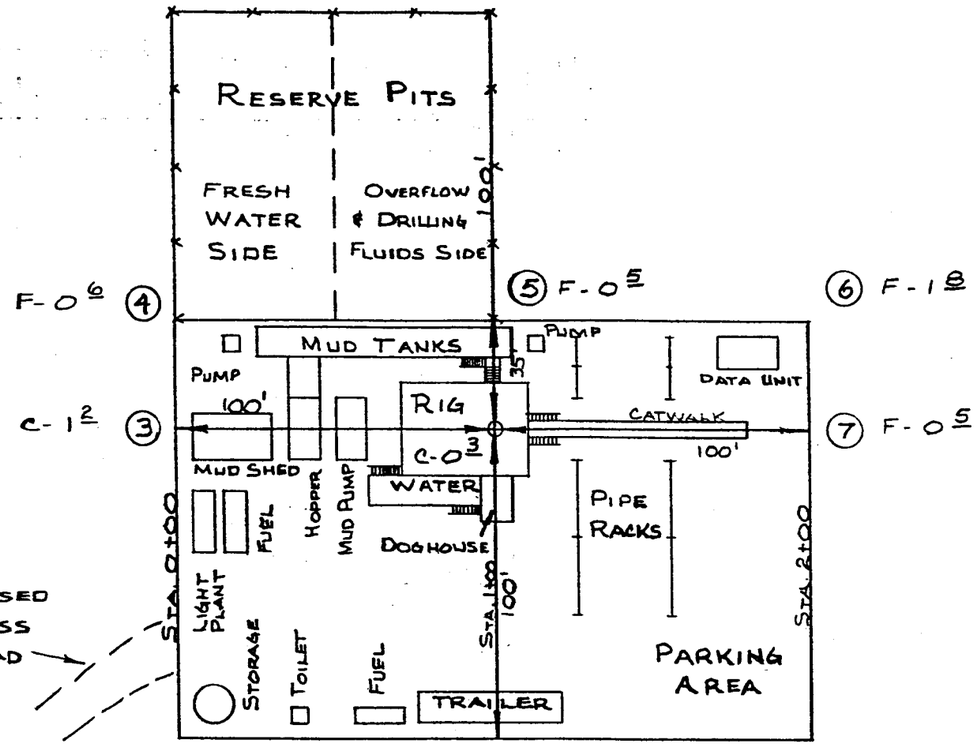
I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated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

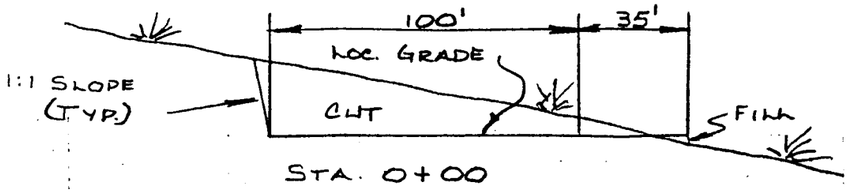
9-6-79
Date

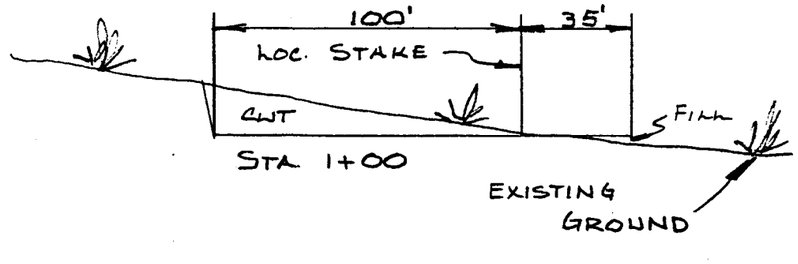
Newt Burkhalter
Newt Burkhalter
Field Representative

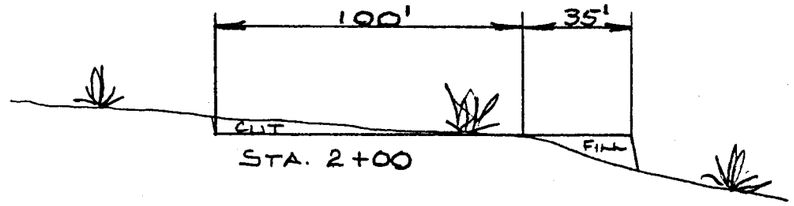
CARMACK DRILLING COMPANY

CARMACK FEDERAL #1-14

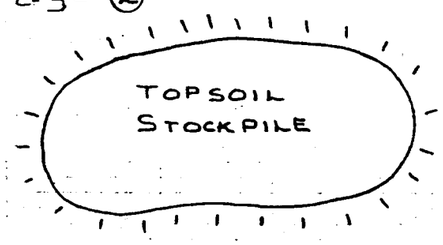


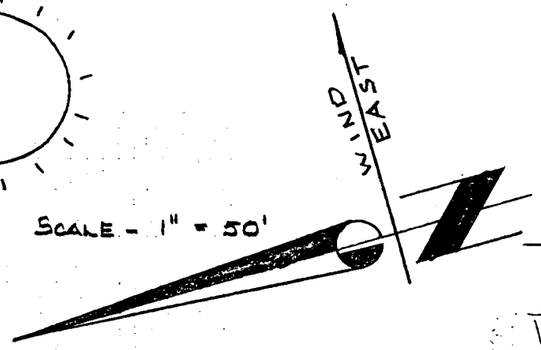






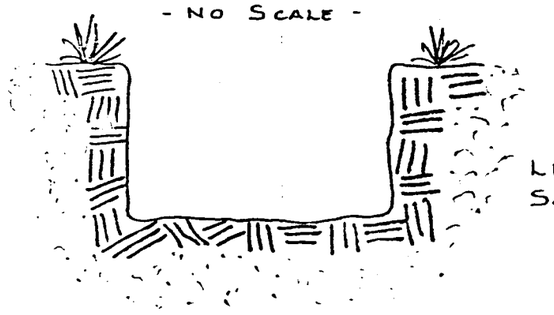
CROSS SECTIONS



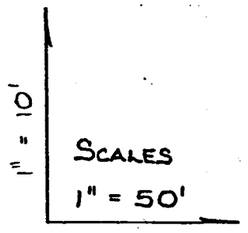


SOILS LITHOLOGY

- NO SCALE -



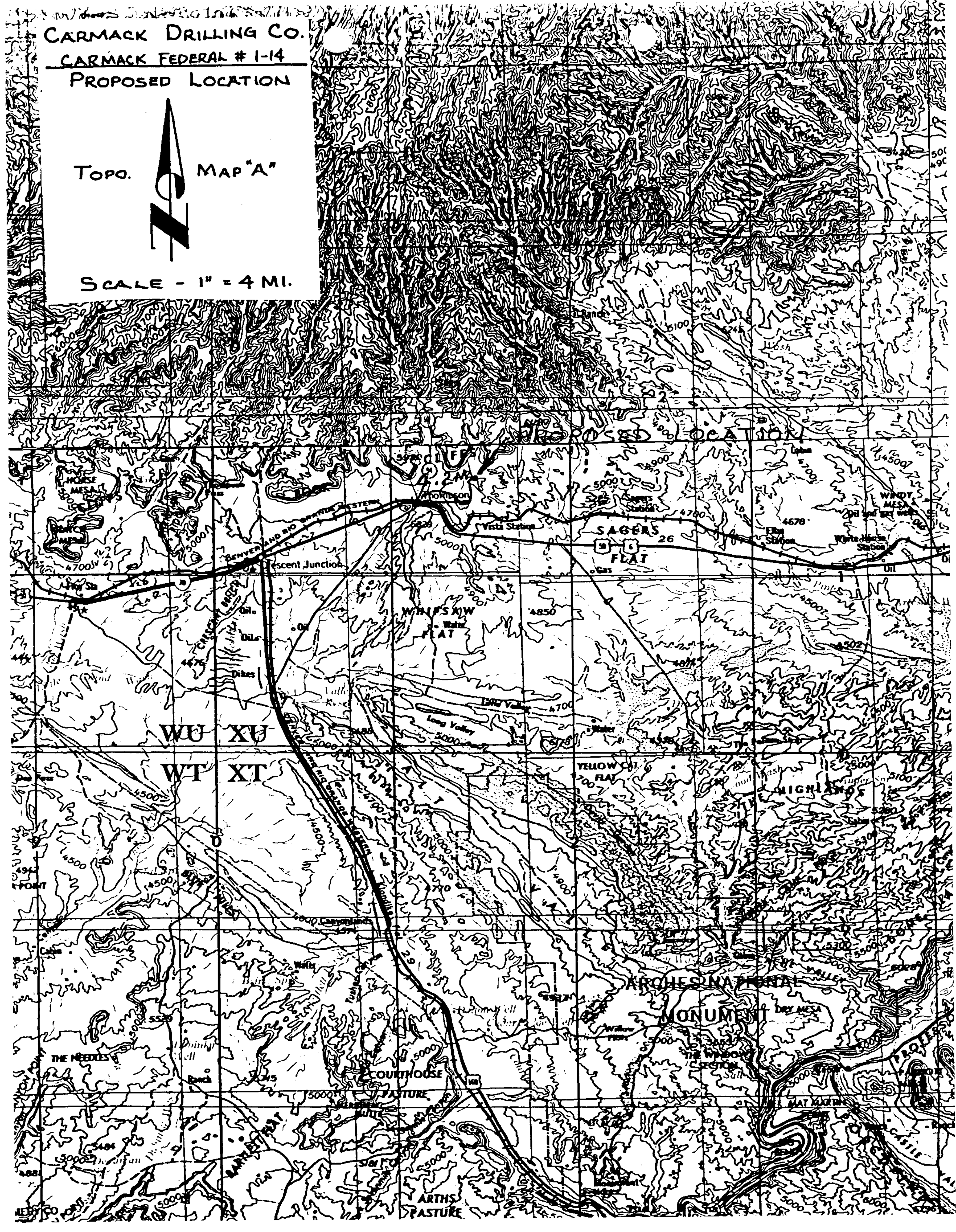
LIGHT BROWN SANDY CLAY



APPROX. YARDAGES

CUT - 1,376 CU. YDS.

FILL - 122 CU. YDS.


CARMACK DRILLING CO.
CARMACK FEDERAL # 1-14
PROPOSED LOCATION
TOPO. MAP "A"
N
SCALE - 1" = 4 MI.
PROPOSED LOCATION
Thompson
Sagers Station
Vista Station
SAGERS FLAT
Crescent Junction
DENVER AND RIO GRANDE WESTERN
WHIPSAW FLAT
Long Valley
YELLOW CAT FLAT
THE HIGHLANDS
WU XU
WT XT
Canyonlands
ARCHES NATIONAL MONUMENT
DRY MESA
THE WINDOWS SECTION
COURTHOUSE PASTURE
ARTHS PASTURE
THE NEEDLES
WINDY MESA
Oil and gas well
HORSE MESA

CARMACK DRILLING CO.

CARMACK FEDERAL #1-14

PROPOSED LOCATION

TOPO. MAP "B"

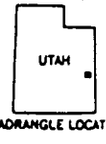
SCALE - 1" = 5000'

ROAD CLASSIFICATION

Medium-duty _____ Light-duty _____

Unimproved dirt .....

U.S. Route State Route



QUADRANGLE LOCATION

T20S

T21S

R 20 E

R 21 E

PROPOSED ACCESS ROAD

PROPOSED LOCATION
CARMACK FEED #1

1.8 MILES

1.4 MILES

48" CULVERT

JEEP TRAIL TO BE UPGRADED

36" CULVERT

Thompson
(BM 5145)

Chemical

Gasoline
Cemetery

Landing Strip

Spring

Vista
BM 5085

Gravel Pits

Sagers

DENVER AND RIO GRANDE WESTERN

Rollinger Wash

Thompson Wash

Salt Wash

Yellow Cat Road

Test Well

Oil Well

BM 5048

BM 5079

VABM 5222

BM 4974

BM 4924

BM 4834

BM 4756

VABM 4874

WHIRSAW FLAT

SAGERS FLAT

Valley City

J. N. BURKHALTER

Oil, Gas and Pipeline Consultant

Professional Engineer and Land Surveyor
Registered in Rocky Mountain States

592 - 25 Road
Grand Junction, CO 81501
Telephone 303/242-8555

September 6, 1979

Mr. Jack Feight
Utah Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, Utah 84116

Dear Mr. Feight:

Mr. F. R. Hauk of Archaeological Environmental Research Corporation in Salt Lake City, Utah did the Archaeological Research for Carmack Federal 1-14 on September 5, 1979. He phoned Mr. Del Backus of BLM in Moab and informed them that the Archaeological Survey was completed for Carmack Federal 1-14. We were given verbal approval that it would be accepted. AERC in Salt Lake City, Utah will be mailing you the Archaeological Report this week.

Very truly yours,

J. N. Burkhalter

J. N. Burkhalter, PE-LS

JNB/sb

** FILE NOTATIONS **

DATE: Sept 12, 1979

Operator: ~~Carmack~~ STARNER Drilling Company

Well No: ~~Bridge Canyon Unit~~ Carmack Federal 1-14

Location: Sec. 14 T. 21S R. 20E County: Grand

File Prepared: [ ] Entered on N.I.D.: [✓]

Card Indexed: [✓] Completion Sheet: [✓]

[✓] API Number 43-019-30542

CHECKED BY:

Geological Engineer: _____

Petroleum Engineer: Eng ok, BOP ok ~~Surf~~

Director: [✓]

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 Fed-Unit Plotted on Map [✓]

Approval Letter Written [✓]

letter

September 13, 1979

Carmack Drilling Company
592 - 25 Road
Grand Junction, Colorado 81501

Re: Well No. Blaze Canyon Unit
Carmack Federal 1-14
Sec. 14, T. 21S, R. 20E.,
Grand County, Utah

Dear Sir:

Insofar as this office is concerned, approval to drill the above referred to gas well is hereby granted in accordance with Section 40-6-11, Utah Code Annotated 1953; and predicated on Rule A-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:

FRANK M. HAMNER
Chief Petroleum Engineer
Office: 533-5771
Home: 531-7827

or

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

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (acquifers) are encountered during drilling. Your cooperationsin 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 welllis 43-019-30542.

Sincerely,
DIVISION OF OIL, GAS AND MINING

Frank M. Hamner
Chief Petroleum Engineer

/btm
cc: USGS

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

APD MINERAL EVALUATION . . . LEASE NO. U-7884

R: CARMACK DRILLING CO. WELL NO. CARMACK FEDERAL 1-14

N: NE ¼ SW ¼ NE ¼ sec. 14, T. 21 S., R. 20 E., S.L.M.

GRAND County, UTAH

---

tigraphy: OPERATOR'S ~~EST~~ ESTIMATED DEPTHS ARE REASONABLE:

FORMATION	DEPTH	DATUM
MANCOS SHALE	SURFACE	+5314
DAKOTA	2500'	+2814
MORRISON		
SALT WASH	3300'	+2014

h Water: POSSIBLE IN SAND LENSES IN MANCOS

able Minerals:

1. GAS - DAKOTA ; GAS AND/OR OIL - MORRISON
2. PROSPECTIVELY VALUABLE FOR COAL BUT NO COMMERCIAL QUANTITIES ANTICIPATED.

tional Logs Needed: NONE

ntial Geologic Hazards: NONE ANTICIPATED

rences and Remarks: USGS MAPS I-360, 736
PRIOR APD REPORTS
PI CARDS

ure: J. Duane Billingsley Date: 9-26-79

Oil and Gas Drilling EA No. 571-79

United States Department of the Interior
Geological Survey
8440 Federal Building
Salt Lake City, Utah 84138

Usual Environmental Analysis

Lease No. U-7884

Operator Carmack Drilling Company Well No. 1-14

Location 1882' FNL & 1561' FEL Sec. 14 T. 21S. R. 20E.

County Grand State Utah Field Wildcat

Status: Surface Ownership Public Minerals Federal

Joint Field Inspection Date September 20, 1979

Participants and Organizations:

Greg Darlington	USGS - Vernal
Elmer Duncan	Bureau of Land Management-Moab
Ollie Knutson	Knut & Sons Construction
J. N. Burhalter	Carmack Drilling Company

Related Environmental Analyses and References:

(1) Unit Resource Analysis, Book Mountain Planning Unit (06-01)

(2) Bureau of Land Management, Moab

Analysis Prepared by: Greg Darlington
Environmental Scientist
Vernal, Utah

Date Sept 21, 1979

Reviewed by: George Diwachak
Environmental Scientist
Salt Lake City, Utah

Proposed Action:

On September 10, 1979, Carmack Drilling Company filed an Application for Permit to Drill the No. 1-14 exploratory well, a 3500-foot oil and gas test of the Dakota and Morrison Formations; located at an elevation of 5314 ft. in the SW/4 NE/4, Section 14, T. 21S., R. 20E. on Federal mineral lands and public surface; lease No. U-7884. There was no objection raised to the wellsite. There was no objection raised to the access road other than that extensive upgrading will be necessary.

A rotary rig would be used for the drilling. An adequate casing and cementing program is proposed. Fresh-water sands and other mineral-bearing formations would be protected. A Blowout Preventor would be used during the drilling of the well. The proposed pressure rating should be adequate. Details of the operator's NTL-6 10-Point Subsurface Plan are on file in the USGS District Office in Salt Lake City, Utah and the USGS Northern Rocky Mountain Area Office in Casper, Wyoming. The 13-Point Surface Protection Plan is on file in the District Office in Salt Lake City.

A working agreement has been reached with BLM, the controlling surface agency. Rehabilitation plans would be decided upon as the well neared completion; the Surface Management Agency would be consulted for technical expertise on those arrangements.

The operator proposes to construct a drill pad 135 ft. wide x 200 ft. long and a reserve pit 50 ft x 100 ft. The 50 foot side of the pits is to be that adjacent to the mud tanks. This pit will be a combination blooie pit and overflow and drilling fluids pit. In place of a fresh water side in the diagram a large water tank will be hauled in and placed near corner 4. An existing trail would be upgraded to 18 ft. wide by 4.2 miles long from a maintained road. The operator proposes to construct production facilities on disturbed area of the proposed drill pad. If production is established, plans for a gas flow line would be submitted to the appropriate agencies for approval. The anticipated starting date is September 30. Current plans are to spud this well September 30 and then complete it over the next 60 days. Actual drilling operations would be about 2 weeks.

Location and Natural Setting:

The proposed drill site is approximately 4.5 miles Northeast of Thompson, Utah, the nearest town. A good road runs to within 4.2 miles of the location. This well is a Wildcat.

Topography

The location is on top of a ridge. The topography at the wellsite is fairly flat and level. The ridge drops off in a steep slope near corner 4. About a fourth of a mile to the North the steep cliffs of the Book Mountains begin.

Geology:

The surface geology is the Mancos Shale formation. The soil is a sandy clay with mixed sandstone and shale gravels. No geologic hazards are known near the drillsite. Seismic risk for the area is moderate. Anticipated geologic tops are filed with the 10-Point Subsurface Protection Plan.

Approval of the proposed action would be conditioned that adequate and sufficient electric/radioactive/density logging surveys would be made to locate and identify any potential mineral resources. Production casing and cementing would be adjusted to assure no influence of the hydrocarbon zones through the well bore on these minerals. In the event the well is abandoned, cement plugs would be placed with drilling fluid in the hole to assure protection of any mineral resources.

The potential for loss of circulation would exist. Loss of circulation may result in the lowering of the mud levels, which might permit exposed upper formations to blow out or to cause formation to slough and stick to drill pipe. A loss of circulation would result in contamination due to the introduction of drilling muds, mud chemicals, filler materials, and water deep in to the permeable zone, fissures, fractures, and caverns within the formation in which fluid loss is occurring. The use of special drilling techniques, drilling muds, and lost circulation materials may be effective in controlling lost circulation. The operator plans to use air as a circulating medium which would reduce the potential for lost circulation.

A geologic review the proposed action has been furnished by the Area Geologist, U.S. Geological Survey, Salt Lake City, Utah.

The operator's drilling, cementing, casing and blowout prevention programs have been reviewed by the Geological Survey engineers and determined to be adequate.

Soils:

No detailed soil survey has been made of the project area. The top soils in the area range from a sandy clay to a clay type soil. The soil is subject to runoff from rainfall and has a high runoff potential and sediment production would be high. The soils are mildly to moderately alkaline and support the salt-desert shrub community.

Top soil would be removed from the surface and stockpiled. The soil would be spread over the surface of disturbed areas when abandoned to aid in rehabilitation of the surface. Rehabilitation is necessary to prevent erosion and encroachment of undesired species on the disturbed areas. The operator proposes to rehabilitate the location and access roads per the recommendations of the Bureau of Land Management.

Approximately 0.7 acres of land would be stripped of vegetation. This would increase the erosional potential. Proper construction practice, construction of water bars, reseeding of slope-cut area would minimize this impact.

The access road which varies from a good jeep trail to being nearly impossible for about one tenth of a mile would involve 9.2 acres of 18 foot wide crowned driveable surface. Part of this has already been stripped for the existing jeep trail.

Air:

No specific data on air quality is available at the proposed location. There would be a minor increase in air pollution due to emissions from rig and support traffic engines. Particulate matter would increase due to dust from travel over unpaved dirt roads. The potential for increased air pollution due to leaks, spills, and fire would be possible.

Relatively heavy traffic would be anticipated during the drilling-operations phase, increasing dust levels and exhaust pollutants in the area. If the well was to be completed for production, traffic would be reduced substantially to a maintenance schedule with a corresponding decrease of dust levels and exhaust pollutants to minor levels. If the project results in a dry hole, all operations and impact from vehicluar traffic would cease after abandonment. Due to the limited number of service vehicles and limited time span of their operation, the air quality would not be substantially reduced.

Toxic or noxious gases would not be anticipated.

Precipitation:

Annual rain fall should range from about 8" to 11" at the proposed location. The majority of the numerous drainages in the surrounding area are of a non-perennial nature flowing only during early spring runoff and during extremely heavy rain storms. This type of storm is rather uncommon as the normal annual precipitation is around 8".

Winds are medium and gusty, occuring predominately from West to East. Air mass inversions are rare. The climate is semi-arid with abundant sunshine, hot summers and cold winters with temperature variations on a daily and seasonal basis.

Surface Water Hydrology:

The drainage is into Salt Wash and from there to the Colorado River.

Some additional erosion would be expected in the area since surface vegetation would be removed. If erosion became serious, drainage systems such as water bars and dikes would be installed to minimize the problem. The proposed project should have minor impact on the surface water systems. The potentials for pollution would be present from leaks or spills. The operator is required to report and clean-up all spills or leaks.

Ground Water,Hydrology:

Some minor pollution of ground water systems would occur with the introduction of drilling fluids (filtrate) into the aquifer. This is normal and unavoidable during rotary drilling operations. The potential for communication, contamination and comingling of formations via the well bore would be possible. The drilling program is designed to prevent this. There is need for more data on hydrologic systems in the area and the drilling of this well may provide some basic information as all shows of fresh water would be reported. Water production with the gas would require disposal of produced water per the requirements of NTL-2B. The depths of fresh water formations are listed in the 10-Point Subsurface Protection Plan. The pits would be unlined. If fresh water should be available from the well, the owner or surface agency may request completion as a water well if given approval. Fresh water will be hauled in from Thompson.

Vegetation:

Vegetation at the wellsite is shod scale and native grasses. Other plants in the area are of the salt-desert-shrub types.

Proposed action would remove about 9.9 acres of vegetation. Removal of vegetation would increase the erosional potential and there would be a minor decrease in the amount of vegetation available for grazing.

The operator proposes to rehabilitate the surface upon completion of operations.

Wildlife:

The fauna of the area consists predominantly of mule deer, coyotes, rabbits, foxes, and varieties of small ground squirrels and other types of rodents and various types of reptiles. The area is used by man for the primary purpose of grazing domestic livestock and sheep. The birds of the area are raptors, finches, ground sparrows, magpies, crows, and jays.

An animal and plant inventory has been made by the BLM. No endangered plants or animals are known to inhabit the project area.

Social-Economic Effect:

An on the ground surface archaeological reconnaissance must be performed. Appropriate clearances must also be obtained from the surface managing agency. If a historic artifact, an archaeological feature or site is discovered during construction operations; activity would cease until the extent, the scientific importance, and the method of mitigating the adverse effects could be determined by a qualified cultural resource specialist.

There are no occupied dwellings or other facilites of this nature in the general area. Minor distractions from aesthetics would occur over the lifetime of the project and is judged to be minor. All permanent facilities placed on the location would be painted a color to blend in with the natural environment. Present use of the area is grazing, recreation, and oil and gas activities.

Noise from the drilling operations may temporarily disturb wildlife and people in the area. Noise levels would be moderately high during drilling and completion operations. Upon completion, noise levels would be infrequent and significantly less. If the area is abandoned, noise levels should return to pre-drilling levels.

The site is not visible from any major roads. After drilling operations, completion equipment would be visible to passersby of the area but would not present a major intrusion.

The economic effect of one well would be difficult to determine. The overall effect of oil and gas drilling and production activity are significant in Grand County.

But should this well discover a significant new hydrocarbon source, local, state and possibly national economics might be improved. In this instance, other development wells would be anticipated, with substantialy greater environmental and economic impacts.

Should the wellsite be abandoned, surface rehabilitation would be done according to the surface agency's requirements and to USGS's satisfaction. This would involve leveling, contouring, reseeding, etc., of the location and possibly the access road. If the well should produce hydrocarbons, measures would be undertaken to protect wildlife and domestic stock from the production equipment.

There are no national, state, or local parks, forests, wildlife refuges or ranges, grasslands, monuments, trails or other formally designated recreational facilities near the proposed location.

The proposed location is within the Book Mountain Planning Unit(06-01). This Environmental Assessment Record was compiled by the Bureau of Land Management, the surface managing agency of the Federal surface in the area. The study includes additional information on the environmental impact of oil and gas operations in this area and gives use recommendations. The E.A.R. is on file in the agency's State offices and is incorporated herein by-reference.

Waste Disposal:

The mud and reserve pits would contain all fluids used during the drilling operations. A fenced trash pit would be utilized for any solid wastes generated at the site and would be buried at the completion of the operations. Sewage would be handled according to State sanitary codes. For further information, see the 13-Point Surface Plan.

Alternative to the Proposed Action:

1). Not approving the proposed permit -- the oil and gas lease grants the lessee exclusive right to drill for, mine, extract, remove and dispose of all oil and gas deposits.

Under leasing provisions, the Geological Survey has an obligation to allow mineral development if the environmental consequences are not too severe or irreversible. Upon rehabilitation of the site, the environmental effects of this action would be substantially mitigated, if not totally annulled. Permanent damage to the surface and subsurface would be prevented as much as possible under U.S.G.S. and other controlling agencies supervision with rehabilitation planning reversing almost all effects. Additionally, the growing scarcity of oil and gas should be taken into consideration. Therefore, the alternative of not proceeding with the proposed action at this time is rejected.

2). Minor relocation of the wellsite and access road or any special, restrictive stipulations or modifications to the proposed program would not significantly reduce the environmental impact. There are no severe vegetation, animal or archaeological-historical-cultural conflicts at the site. Since only a minor impact on the environment would be expected, the alternative of moving the location is rejected. At abandonment, normal rehabilitation of the area such as contouring, reseeding, etc., would be undertaken with an eventual return to the present status as outlined in the 13-Point Surface Plan.

3). Drilling should be allowed provided the following mitigative measures are incorporated into the proposed APD and adhered to by the operator.

a.) The topsoil would be stockpiled and windrowed at the west side of the pad.

b.) A small burn pit would be built at corner 2 and would be fenced before use.

c.) The reserve pits would be 50 feet by 100 feet. A blooie line would also be used in this combination blooie pit-reserve pit. The 50 foot side is to be adjacent the pad. The fresh water side of the pit as shown on the APD diagram is to be replaced by a water tank.

d.) Archaeological clearances are received.

e.) The access road is suitably upgraded and the required culverts placed where needed. The road would be adequately upgraded to get a spudding rig in, then all needed culverts installed and needed dirtwork done for a drilling rig, then upgraded to an 18 foot wide crown road in the event of production.

Adverse Environmental Effects Which Cannot Be Avoided:

Surface disturbance and removal of vegetation from approximately 9.9 acres of land surface for the lifetime of the project which would result in increased and accelerated erosional potential. Grazing would be eliminated in the disturbed areas and there would be a minor and temporary disturbance of wildlife and livestock. Minor induced air pollution due to exhaust emmissions from rig engines of support traffic engines would occur. Minor increase in dust pollution would occur due to vehicular traffic associatd with the operation. If the well is a gas producer, additional surface disturbance would be required to install production pipelines. The potential for fires, gas leaks, and spills of oil and water would exist. During the construction and drilling phases of the project, noise levels would increase. Potential for sub-surface damage to fresh water aquifers and other geologic formations exists. Minor distractions from aesthetics during the lifetime of the project would exist. If the well is a producer, an irreplaceable committment of resources would be made. Erosion from the site would eventually be carried as sediment in the Colorado River. The potential for pollution to the Salt Wash would exist through leaks and spills.

Determination:

This requested action ~~does~~ does not constitute a major Federal action significantly affecting the environment in the sense of NEPA, 102 (2) (C).

10/10/79
Date

District Engineer
U. S. Geological Survey
Conservation Division
Oil and Gas Operations
Salt Lake City District

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Carmack Drilling Company

WELL NAME: Carmack Federal 1-14

SECTION 14 SW NE TOWNSHIP 21S RANGE 20E COUNTY Grand

DRILLING CONTRACTOR Starner Drilling

RIG # 1

SPUDDED: DATE 11/18/79

TIME 6:00 p.m.

HOW rotary

DRILLING WILL COMMENCE presently

REPORTED BY Burkhalter

TELEPHONE #

DATE November 19, 1979 SIGNED Original Signed By M. T. Minder

cc: USGS

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.: U-7884

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

7. UNIT AGREEMENT NAME: Blaze Canyon Unit

2. NAME OF OPERATOR: Starner Drilling Co.

8. FARM OR LEASE NAME: —

3. ADDRESS OF OPERATOR: P.O. Box 1868, Grand Junction, Co. 81501

9. WELL NO.: Carmack Fed. 1-14

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 1882' FNL 1561' FEL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 14,T21S,R20E SLB&M

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 5314' GR

12. COUNTY OR PARISH: Grand

13. STATE: Utah

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☒	(Other)			
(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.) *

Surface Pipe: 8 5/8" at 200 ft.
T.D. 1100 ft, 6 3/4" hole, still in Dry Mancos
6 3/4" bit, 2 - 6 3/4" IBS and 1-20 ft 4 3/4" drill collar stuck in hole. Propose to set 200 ft plug on fish, 100 ft plug 250 up to 150 across surface and 10-sack surface plug. Propose to cut surface pipe off below ground. Propose to skid rig 35 ft west and 35 ft north, set 200 ft of 8 5/8" surface pipe for new well. New surface pipe will fulfill requirement of obligatory well for Unit. Will return within 60 days (by Jan. 24, 1980) and complete drilling well to projected depth of 3500'. As per telephone conversation between J. N. Burkhalter and Mr. Ed Guynn November 23, 1979, new surface pipe will perpetuate Blaze Canyon Unit.

NOTE: NO ADDITIONAL SURFACE DISTURBANCE

APPROVED BY THE DIVISION OF
OIL, GAS, AND MINING
DATE: Nov. 26, 1979
BY: Frank M. Hamner

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

SIGNED Randy Starner TITLE Owner DATE 11-23-79

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.: U-7884

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

7. UNIT AGREEMENT NAME: Blaze Canyon Unit

2. NAME OF OPERATOR: Starner Drilling Co.

8. FARM OR LEASE NAME: —

3. ADDRESS OF OPERATOR: P.O. Box 1868,Grand Junction,Co. 81502

9. WELL NO.: Carmack Fed. 1-14

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface

AMENDED LOCATION 1847' FNL 1596' FEL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec.14,T21S,R20E SLB&M

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 5314' GR

12. COUNTY OR PARISH: Grand

13. STATE: Utah

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) Change of Plans			☒
(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.) *

Subsequent to approval dated November 28, 1979. Moved well to above coordinants and set 200' 8 5/8" surface pipe.

Rotary tools over hole and drilling January 24, 1980.

RECEIVED
JAN 24 1980
DIVISION OF
OIL, GAS & MINING

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

SIGNED J. A. Burkhalter TITLE Consulting Engineer DATE January 24, 1980

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

Starner Drilling Co.

NAME OF COMPANY: [redacted]k Drilling Company (Newt Burkhalter)

WELL NAME: Carmack Federal #1-14

SECTION 14 SW NE TOWNSHIP 21S RANGE 20E COUNTY Grand

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

TOTAL DEPTH: 3665'

CASING PROGRAM:

8 5/8" @ 200' - circulated to surface
6 3/4" openhole

Fish from 3130' to TD

FORMATION TOPS:

Dakota	2856'
Morrison	3110'
Entrada	3620'

PLUGS SET AS FOLLOWS:

#1 3130' - 3030' - 22 sx
#2 2850' - 2650' - 44 sx
#3 250' - 150' - 22 sx
#4 50' - surface 10 sx

9# drilling mud between plugs (100 vis)

Original Signed By M. J. Minder

DATE February 1, 1980 SIGNED M. J. Minder

cc: USGS
verbal approval given by USGS

P

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

February 5, 1980

Carmack Drilling Co.
592- 25 Rd.
Grand Junction, Colo. 81501

RE: Well No. Blaze Canyon Unit Carmack Fed.
1-14
Sec. 14, T. 21S, R. 20E,
Grand County, Utah

Gentlemen:

Our Records indicate that you have not filed a Monthly Drilling Report for the months of November and December of 1979 on the subject well.

Rule C-22, General Rules And Regulations and Rules of Practice and Procedure, requires that said reports be filed on or before the (16) sixteenth day of the succeeding month. This report may be filed on Form OGC-1B, (U.S. Geological Survey Form 9-331) "Sundry Notices and Reports on Wells", or on company forms containing substantially the same information. We are enclosing forms for your convenience.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

CLEON FEIGHT
DIRECTOR

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

June 13, 1980

Starner Drilling Co.
P.O. Box 1868
Grand Junction, Colorado 81502

Re: **Well No. Carmack Federal 1-14**
Sec. 14, T. 21S, R. 20E.
Grand County, Utah

Well No. Bull Canyon #1
Sec. 9, T. 20S, R. 21E.
Grand County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned wells are due and have not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS, & MINING

Janice Tabish

JANICE TABISH
CLERK-TYPIST

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLIC
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

7

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

5. LEASE DESIGNATION AND SERIAL NO.: U-7884

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ------

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

7. UNIT AGREEMENT NAME: Blaze Canyon Unit

2. NAME OF OPERATOR: Starner Drilling Company

8. FARM OR LEASE NAME: -------

3. ADDRESS OF OPERATOR: P.O. Box 1868, Grand Junction, Colorado 81501

9. WELL NO.: Carmack Federal 1-14

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 1847' FNL 1596' FEL SW NE
At top prod. interval reported below
At total depth Approximately same

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 14, T21S, R20E, SLB&M

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
43-019-30542		Grand	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
1-23-80	1-29-80	NA P&A	5314 GR	NA

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
3665	3143	-------	→	all	-----

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

25. WAS DIRECTIONAL SURVEY MADE: no

26. TYPE ELECTRIC AND OTHER LOGS RUN: DI-SFL

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
8 5/8	24	200	12¼	Class G Circulated	none

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
	NONE	

31. PERFORATION RECORD (*Interval, size and number*): none

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

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

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
none		

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

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

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

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

SIGNED J. M. Burkhardt TITLE Consulting Engineer DATE 6-19-80

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

INSTRUCTIONS

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

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

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

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

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

Item 29: *"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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
No Porous Zones			

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
1st Dakota	2857	----
Morrison	3110	----
Entrada	3620	----

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