

FORM NO. 10-60

Entered in MID File .....  
Location Map Pinned .....  
Card Indexed .....  
✓  
✓

Checked by Clerk .....  
Approval Letter .....  
Disapproval Letter .....

COMPLETION DATA:

Date Well Completed .....  
OW..... WW..... TA.....  
GW..... OS..... PA.....

Location Inspected .....  
Bond released .....  
State or Fee Land .....

LOGS FILED

Driller's Log.....  
Electric Logs (No.) .....  
E..... I..... Dual I Lat..... GR-N..... Micro.....  
BHC Sonic GR..... Lat..... MI-L..... Sonic.....  
CBLog..... CCLog..... Others.....

*Lup*  
*8-28-92*

UTAH DIVISION OF OIL, GAS AND MINING

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE  WATER SANDS \_\_\_\_\_ LOCATION INSPECTED \_\_\_\_\_ SUB. REPORT/ABD. \_\_\_\_\_

\* OPERATOR NAME CHANGE

DATE FILED 6-20-78

LAND: FEE & PATENTED \_\_\_\_\_ STATE LEASE NO. \_\_\_\_\_ PUBLIC LEASE NO. U-2836 \_\_\_\_\_ INDIAN \_\_\_\_\_

DRILLING APPROVED: 6-20-78

SPUDDED IN:

COMPLETED: \_\_\_\_\_ PUT TO PRODUCING: \_\_\_\_\_

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION: 7603' 60

DATE ABANDONED: 2-7-80 LOCATION ABANDONED WELL NEVER DRILLED

FIELD: Wildcat 3/86

UNIT:

COUNTY: Uintah

WELL NO. Black Horse Canyon #4

API NO: 43-047-30449

LOCATION 1934' FT. FROM (N) ~~XX~~ LINE. 612' FT. FROM ~~XX~~ (W) LINE. SW NW 1/4-1/4 SEC. 8

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
				15S	24E	8	* COSEKA <del>TAIGA ENERGY, INC.</del>

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 [ ]
2. NAME OF OPERATOR: Taiga Energy, Inc. Coseka Resources
3. ADDRESS OF OPERATOR: 718 17th Street Suite 630 Denver, Colorado 80202
4. LOCATION OF WELL: At surface 1934' FNL, 612' FWL Section 8, T15S, R24E
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: Same 63.7 miles to Ouray, Utah
16. NO. OF ACRES IN LEASE: 2594.93
17. NO. OF ACRES ASSIGNED TO THIS WELL: 160
19. PROPOSED DEPTH: 6100'
20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS: 7603' ungr.
22. APPROX. DATE WORK WILL START: August 30, 1978

5. LEASE DESIGNATION AND SERIAL NO.: U-2836
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME: Black Horse Canyon
8. FARM OR LEASE NAME: Black Horse Canyon
9. WELL NO.: 4
10. FIELD AND POOL, OR WILDCAT: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SWNW Sec. 8, T15S, R24E
12. COUNTY OR PARISH: Uintah
13. STATE: Utah

PROPOSED CASING AND CEMENTING PROGRAM

Table with 5 columns: SIZE OF HOLE, SIZE OF CASING, WEIGHT PER FOOT, SETTING DEPTH, QUANTITY OF CEMENT. Rows include 12-1/4" hole with 9-5/8" casing and 7-7/8" hole with 4-1/2" casing.

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.

SIGNED: [Signature] TITLE: Operations Manager DATE: 6/15/78

PERMIT NO. APPROVAL DATE
APPROVED BY: [Signature] TITLE: ACTING DISTRICT ENGINEER DATE: JUL 25 1979

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY \*See Instructions On Reverse Side

NOTICE OF APPROVAL State O&G

NECESSARY FLARING OF GAS DURING DRILLING AND COMPLETION APPROVED SUBJECT TO ROYALTY (NTL-4)

30 MILES TO OURAY, UTAH

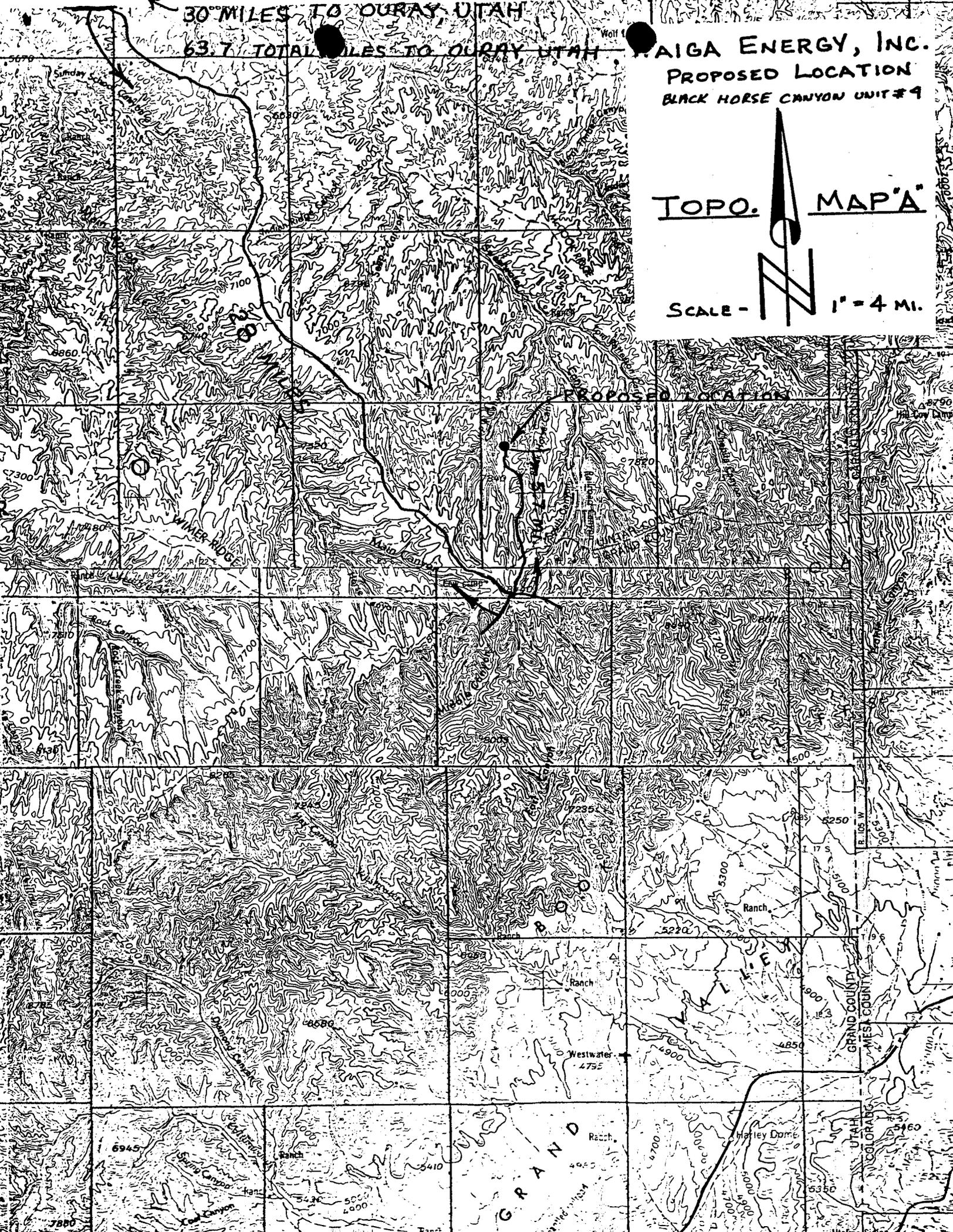
63.7 TOTAL MILES TO OURAY, UTAH

PAIGA ENERGY, INC.  
PROPOSED LOCATION  
BLACK HORSE CANYON UNIT #9

TOPO. MAP A



SCALE - 1" = 4 MI.



U.S. GEOLOGICAL SURVEY, CONSERVATION DIVISION

FROM: DISTRICT GEOLOGIST, SALT LAKE CITY, UTAH

TO: DISTRICT ENGINEER, SALT LAKE CITY, UTAH

Well	Location	Lease No.
TAIGA ENERGY, INC. #4	1934' FNL & 610' FWL (SW 1/4 NW 1/4) SEC. 8, T. 15S, R. 24E, SLM Uintah County Utah	U-2836
† <u>Gr. EL. 7603'</u>		
1. Stratigraphy and Potential Oil and Gas Horizons.	<p>The surface rocks are Green River (Douglas Creek member). The Mancos "B" sand and the Dakota Formation may contain gas. Great Basin Petroleum REA #1 (Gr. El. 7839') section 17, same Township, reported the following tops: Wasatch-1262', Mesaverde-3487', Mancos-4346', Mancos "B"-5203', Dakota-8298'.</p>	
2. Fresh Water Sands.	<p>Fresh water sands may occur in the Green River Formation.</p>	
3. Other Mineral Bearing Formations. (Coal, Oil Shale, Potash, Etc.)	<p>Location falls within boundary of lands considered valuable prospectively for coal in the Mesaverde. Coals if present will occur at depths in excess of 3000 ± ft.</p>	
4. Possible Lost Circulation Zones.	<p>Unknown</p>	
5. Other Horizons Which May Need Special Mud, Casing, or Cementing Programs.	<p>Protect any fresh water aquifers penetrated:</p>	
6. Possible Abnormal Pressure Zones and Temperature Gradients.	<p>None anticipated by operator.</p>	
7. Competency of Beds at Proposed Casing Setting Points.	<p>Probably adequate.</p>	
8. Additional Logs or Samples Needed.	<p>Sonic and density logs through Mesaverde to delineate coals. Base of Mesaverde is estimated at 4170 ± ft. thickness of Mesaverde estimated</p>	
9. References and Remarks	<p>Outside of KGS.</p>	
U.S.G.S. Prod. Paper 548		
Date:	7/11/78	Signed: R.E.G.

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

Usual Environmental Analysis

Lease No. U-2836

Operator Coseka Resources

Well No. #4 Blackhorse

Location 1934 FNL 612 FUL Sec. 8 T. 15 S R. 24 E

County Uintah State Utah Field Wildcat

Status: Surface Ownership Public Minerals Federal

Joint Field Inspection Date May 16, 1979

Participants and Organizations:

Craig Hansen

USGS, Vernal

Ron Rogers

BLM, Vernal

Earl Smith

BLM, Vernal

Peter Macdowell

Coseka Resources

Lynn Gillies

Continental Helicopters

Related Environmental Analyses and References:

1. Seep ridge planning unit 08-09, BLM, Vernal

Analysis Prepared by:

Date May 18, 1979

*Handwritten notes:*  
 Pad 175 x 300  
 14' x 15' x 125  
 4 3/4 mi. approx. north  
 Flow line  
 5-25-79  
 2 1/2 sec  
 - water will be drilled  
 - found some  
 - Pad 200 x 300  
 - 3 a-d

### Proposed Action:

On August 20, 1978, Coseka Resources filed an Application for Permit to Drill the No. 4 exploratory well, a 6100-foot gas test of the Dakota Sandstone Formation; located at an elevation of 7603 ft. in the SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  Sec. 8, T. 15 S R. 24 E on Federal mineral lands and public surface; lease No. U-2836. There was no objection raised to the wellsite nor to the access road.

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 U.S.G.S. District Office in Salt Lake City, Utah and the U.S.G.S. 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 the 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 175 ft. wide x 300 ft. long and a reserve pit 150 ft. x 125 ft. A new access road would be constructed 18 ft. wide x 1.4 miles long and an existing road would be upgraded to 18 ft. wide by 4.3 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 upon approval and duration of drilling activities would be about 14 days.

### Location and Natural Setting:

The proposed drillsite is approximately 63.7 miles SE of Ouray, Utah, the nearest town. A fair road runs to within 7.1 of the location. This well is a wildcat field.

### Topography

The location exist on a north south trending ridge with steep eroded canyons, on the east and west sides. The location is in the Roan Cliff area and is on the north flank of the travipits plateau.

### Geology:

The surface geology is Green River. The soil is sandy to sandy clay. No geologic hazards are known near the drillsite.

Seismic risk for the area is minor. Anticipated geologic tops are filed with the 10-Point Subsurface Protection Plan.

Approval of the proposed action would be conditioned that adequate and sufficient radioactive and 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 and is possible in the sandstone units of the Mesa Verde. Loss of circulation may result in the lowering of the mud levels, which might permit exposed upper formations to blow out or to cause formations 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.

A geologic review of 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. The pinon-juniper association is also present.

Top soil would be removed from the surface and stockpiled. The soil would be spread over the surface of disturbed areas when abandoned to air 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 road per the recommendations of the Bureau of Land Management.

Approximately 2.8 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.

### 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 vehicular 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 12 to 16" 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 14".

Winds are medium and gusty, occurring 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 location drains into South Canyon to Sweetwater Canyon which in turn flows into Bitter Creek which flows into the White 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 basis 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.

A water well will be drilled for completion of well activities. ✓

### Vegetation

The area has previously been chained and native grasses and sagebrush have been planted on the location. ✓

Plants in the area are of the salt-desert-shrub types grading to the pinyon-juniper association.

Proposed action would remove about 2.8 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 predominately 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 would be required prior to approval of the proposed action. Appropriate clearances would then 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 facilities 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 operation 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.

5

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 Uintah 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 substantially 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 Seep Ridge Planning Unit (08-09) BLM, Vernal. 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 land 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 reserves pits would contain all fluids used during the drilling operations. A trash cage would be utilized for any solid wastes generated at the site and would be removed 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 sub-surface 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 or (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 vegetative, 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. A trash cage will be incorporated instead of burn pit all refuse will be removed upon completion of drilling operations.

B. Widen all cattle guards to 24'.

C. Remove trees and brush into separate pile before topsoil is stockpiled.

D. Approve water well for area through appropriate state and local agencies.

#### Adverse Environmental Effects Which Cannot Be Avoided

Surface disturbance and removal of vegetation from approximately 2.8 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 emissions from rig engines of support traffic engines would occur. Minor increase in dust pollution would occur due to vehicular traffic associated 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 and irretrievable commitment of resources would be made. Erosion from the site would eventually be carried as sediment in Sweetwater Creek. The potential for pollution to South Canyon 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, Sec. 102(2)(C).

Date

7/5/79

E. V. S. [Signature]  
District Engineer  
U.S. Geological Survey  
Conservation Division  
Oil and Gas Operations

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  
Taiga Energy, Inc.

3. ADDRESS OF OPERATOR  
718 17th Street Suite 630 Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface  
1934' FNL, 612' FWL Section 8, T15S, R24E

At proposed prod. zone  
Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
63.7 miles to Ouray, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
612'

16. NO. OF ACRES IN LEASE  
2594.93

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.

19. PROPOSED DEPTH  
6100'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
7603' ungr.

22. APPROX. DATE WORK WILL START\*  
August 30, 1978

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"/8-5/8"	32#/24#	250'/500'	250 sacks
7-7/8"	4-1/2"	11.6#	Total Depth	250 sacks



APPROVED BY THE DIVISION OF OIL, GAS, AND MINING

DATE: 6-20-78

BY: C. B. Seyfert

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 [Signature] TITLE Operations Manager DATE 6/15/78

(This space for Federal or State office use)  
 PERMIT NO. 43-047-30449 APPROVAL DATE \_\_\_\_\_

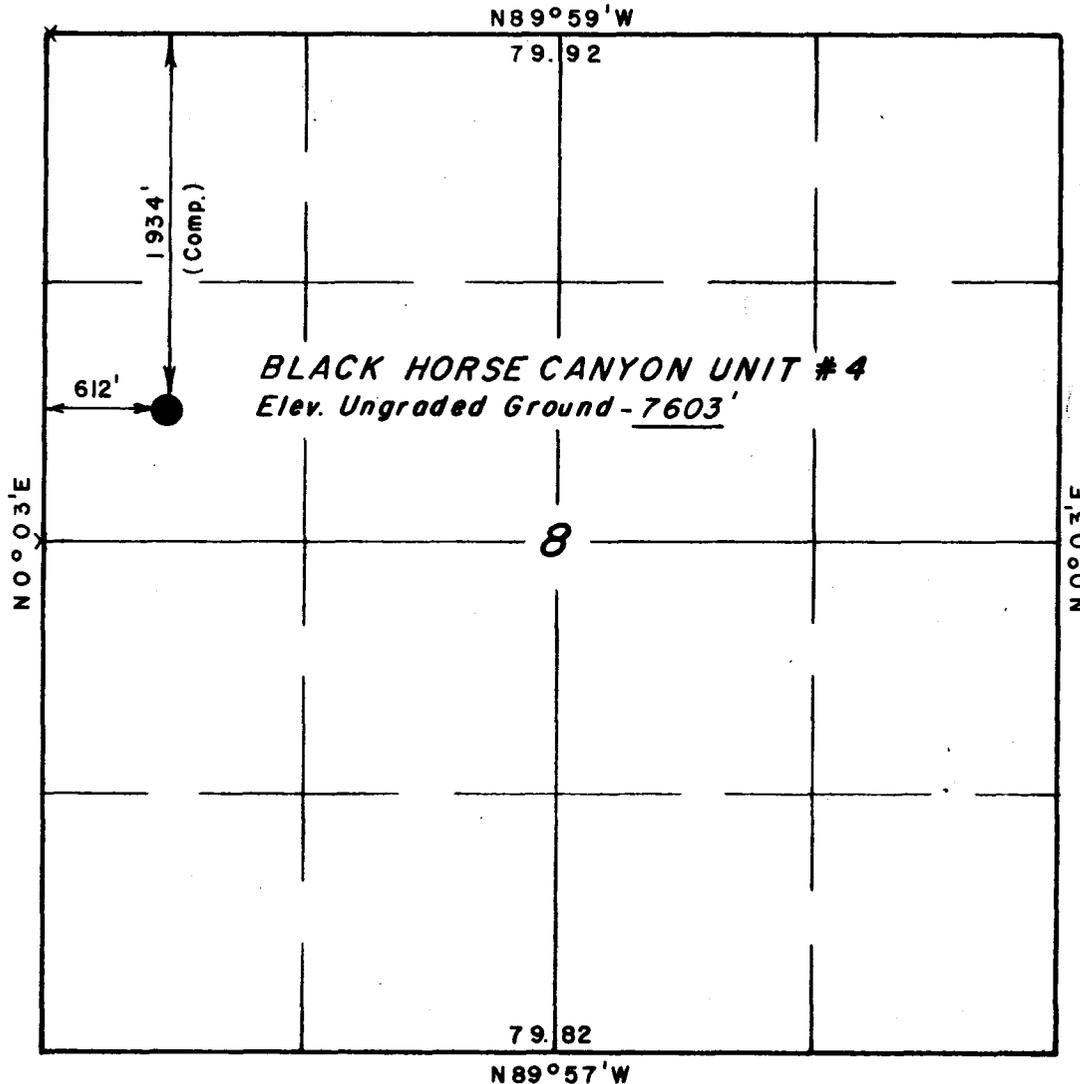
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

T15S, R24E, S.L.B. & M.

PROJECT

**TAIGA ENERGY INC.**

Well location, **BLACK HORSE CANYON UNIT #4**, located as shown in the SW 1/4 NW 1/4 Section 8, T15S, R24E, S.L.B. & M. Uintah County, Utah.



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.

*Lawrence L. 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

X = Section Corners Located

SCALE	1 = 1000'	DATE	5 / 18 / 78
PARTY	MS KA RP	REFERENCES	GLO Plat
WEATHER	Fair	FILE	TAIGA ENERGY

Specific Plans and Exceptions

12 Point Surface Use Program for Multi-Well  
Program

Black Horse Canyon # 4

1. Existing Roads

Proceed south from Ouray, Utah along Seep Ridge Road for approximately 5.8 miles. Turn northeast on Black Horse Ridge Road and proceed approximately one mile. Turn north and proceed approximately 5.7 miles to the proposed location. The last 1.4 miles of road will have to be built.

2. Planned Access Road

The access road will be approximately 1.4 miles in length and will comply with the general specifications as outlined.

3. Location of Existing Wells

	Black Horse Canyon Unit # 1	530' FEL, 556' FSL Section 17, T15S, R24E
(Proposed)	Black Horse Canyon Unit # 3	1709' FWL, 1395' FSL Section 9, T15S, R24E

Specific Plans and Exceptions

10 Point Plan

Black Horse Canyon #4

2. The estimated tops of important geological markers with depths calculated from an estimated RKB elevation of 7603' are as follows:

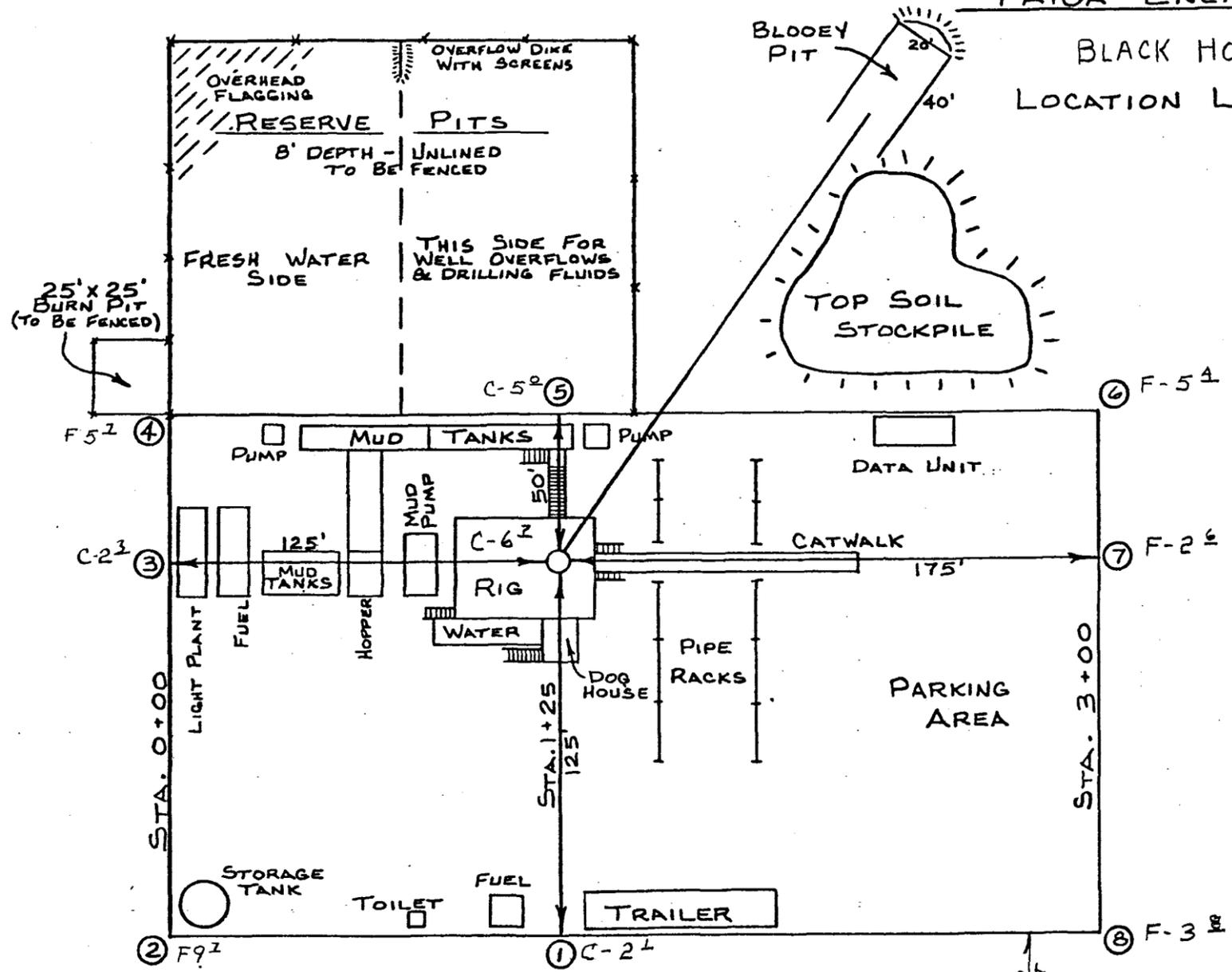
Mancos	4170'
Castlegate SS	4470'
Mancos "B"	5420'
Base Mancos "B"	5970'
Dakota	8300'
Total Depth	6100'

10. It is anticipated that this well will be commenced approximately August 30, 1978 and that the operations will last two weeks.

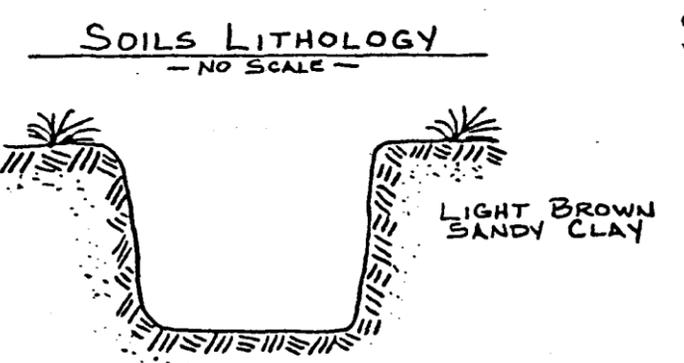
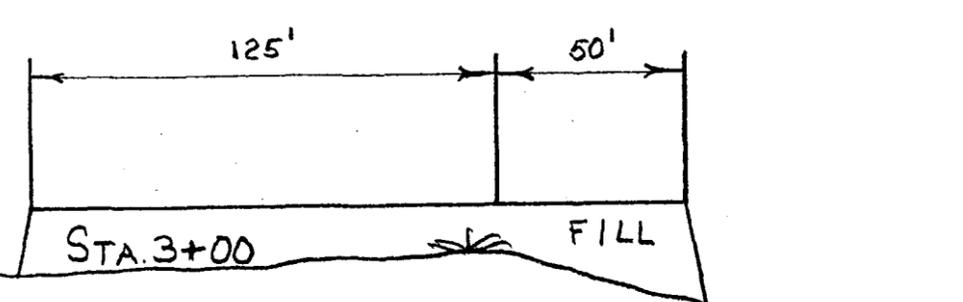
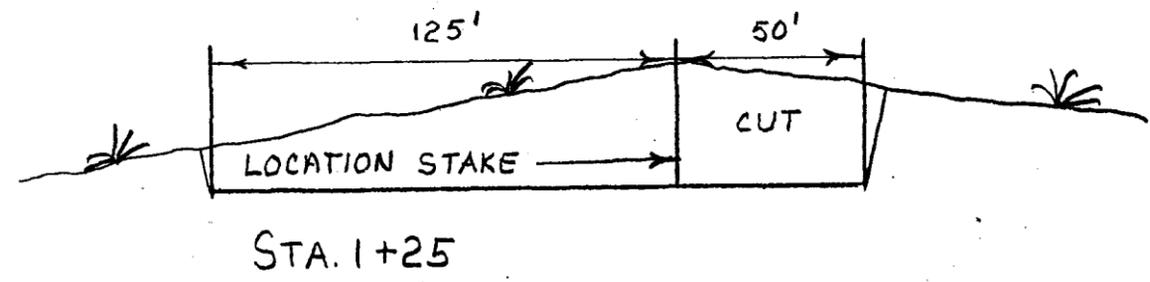
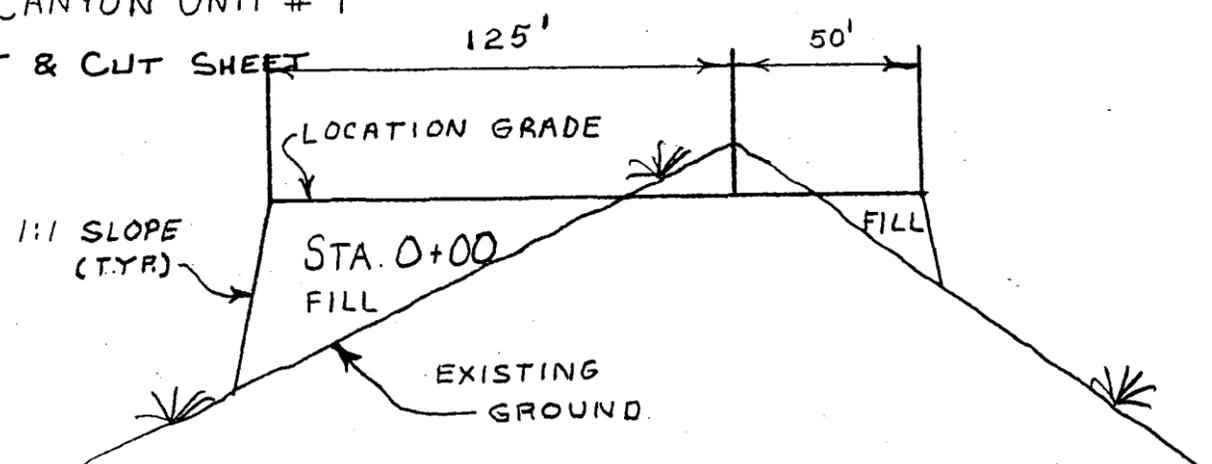
TAIGA ENERGY, INCORPORATED

BLACK HORSE CANYON UNIT #4

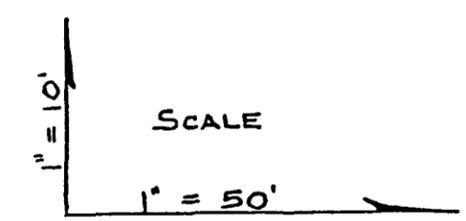
LOCATION LAYOUT & CUT SHEET



C  
R  
O  
S  
S  
  
S  
E  
C  
T  
I  
O  
N  
S



SCALE 1" = 50'



APPROX. YARDAGES  
CUT 4,923 CU. YDS.  
FILL 3,530 CU. YDS.



TAIGA ENERGY INC.

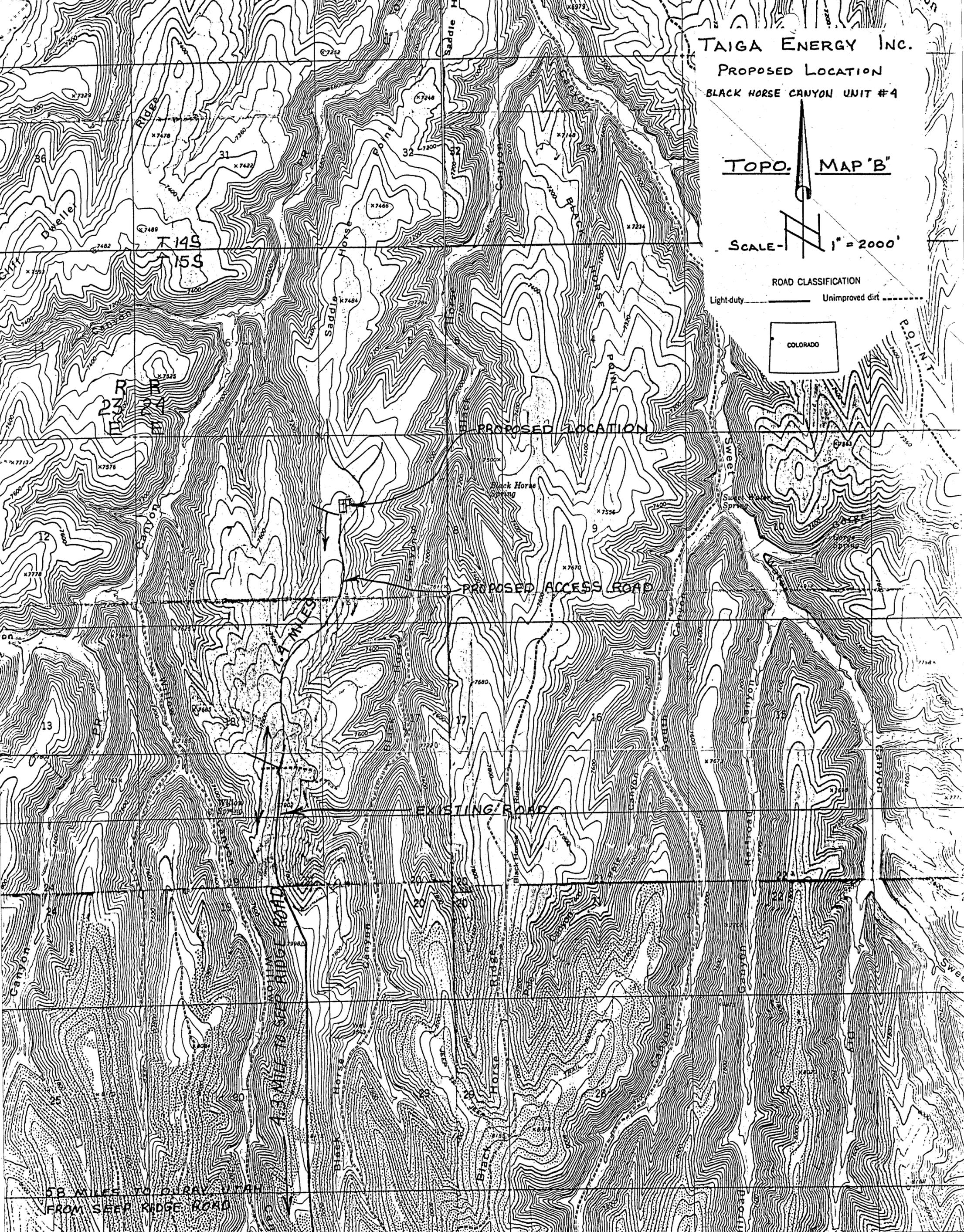
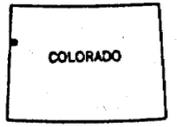
PROPOSED LOCATION  
BLACK HORSE CANYON UNIT #4

TOPO. MAP 'B'

SCALE - 1" = 2000'

ROAD CLASSIFICATION

Light-duty \_\_\_\_\_ Unimproved dirt - - - - -



PROPOSED LOCATION

PROPOSED ACCESS ROAD

EXISTING ROAD

4.3 MILE TO SEEP RIDGE ROAD

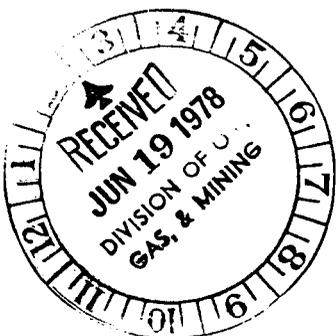
58 MILES TO DURAV, UTAH  
FROM SEEP RIDGE ROAD

*file*

TAIGA ENERGY, INC.

MULTI-WELL PROGRAM

UINTAH COUNTY, UTAH



## INDEX

- I. Master Well List
- II. Multi Well Numbering Scheme
- III. General Plan - 12 Point Surface Use Plan for Multi Well Program
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- V. Blowout Preventer Schematic
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- VII. Folders - Well Files (Containing for each well)
  - A. Form 9-331C "Application for Permit to Drill, Deepen or Plug Back"
  - B. Plat
  - C. Specific Plan - 12 Point Surface Use Plan
  - D. Specific Plan - 10 Point Plan
  - E. Topo Map "A"
  - F. Topo Map "B"
  - G. Well Site Layout

Taiga Energy, Inc.  
Multi Well Master List

Uintah County, Utah

Well Name

Location

Dry Burn Unit # 2

2273' FNL, 2222' FEL Section 35, T13S, R25E

Rat Hole Canyon Unit # 2

2363' FNL, 1661' FWL Section 22, T14S, R25E

Rat Hole Canyon Unit # 3

1880' FNL, 1788' FWL Section 9, T14S, R25E

Black Horse Canyon Unit # 3

1709' FWL, 1395' FSL Section 9, T15S, R24E

Black Horse Canyon Unit # 4

612' FSL, 1934' FNL Section 8, T15S, R24E

Multi-Well Program

Numbering Scheme

13	14	15	16
12	11	10	9
5	6	7	8
4	3	2	1

Section

TAIGA ENERGY, INC.

NUMBERING SCHEME

GENERAL PLAN

12 POINT SURFACE USE PLAN FOR MULTI-WELL PROGRAM

1. Existing Roads

See attached Topographic map "A" for each location under "Specific Plans and Exceptions".

2. Planned Access Road

See attached Topographic map "B" for each location under "Specific Plans and Exceptions".

General Plan for All Access Roads

The proposed access roads shall be an 18' crown road with 9' either side of the centerline and drainage ditches along either side of the proposed road where it is determined necessary in order to handle any runoff from any normal meteorological conditions that are prevalent to this area.

The grade of the roads shall vary from flat to 8% but shall never exceed this amount. The roads shall be constructed from native borrow accumulated during construction.

The terrain that is traversed by these roads is sloping and is vegetated with sagebrush and grasses with some juniper and pinion pine.

3. Location of Existing Wells

See attached Topographic map "B" for each location site under "Specific Plans and Exceptions".

4. Location of Tank Batteries, Production Facilities, Production Gathering and Service Lines

All petroleum production facilities are to be contained within the proposed location site. There are no other Taiga Energy, Inc. flow, gathering, injection or disposal lines within a one mile radius of these locations.

In the event production is established, plans for a gas flow line from this location to existing gathering lines or a main production line shall be submitted to the appropriate agencies for approval.

5. Location and Type of Water Supply

Water utilized to drill these wells shall be obtained from existing and approved sources in or near the area where the individual wells shall be drilled.

6. Source of Construction Materials

All construction materials for these location sites and access roads shall be borrow materials accumulated during construction of the location site and access road. No additional road gravels or pit lining materials from other sources are anticipated at this time.

7. Methods of Handling Waste Disposal

All garbage and trash that can be burned, shall be burned. All unburnable garbage and trash accumulated during development of these wells shall be contained in the trash pit shown on the attached layout sheet. When drilling activities have been completed, the rig moved off location and production facilities set up, all garbage and trash on the location site shall be cleaned up, deposited in the trash pit and covered with a minimum of 4' of cover.

A portable chemical toilet will be supplied for human waste.

8. Ancillary Facilities

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

9. Well Site Layout

See attached Location Layout Sheet. The BLM District Manager or other appropriate agencies shall be notified before any construction begins on the proposed location site. When drilling activities commence, all work shall proceed in a neat and orderly sequence.

10. Plans for Restoration of the Surface

As there is some topsoil in the area, all topsoil will be stripped and stockpiled prior to drilling activities on the wellsite only. When all production activities have been completed, the location site, access road and flowline route will be reshaped as near as possible to the original contour prior to construction. The topsoil on the location only shall be spread on the disturbed area. Any drainage rerouted during construction and production activities shall be restored to the original line of flow.

All additional wastes being accumulated during production activities and contained in the reserve pit and trash pit shall be buried with a minimum of 4' of cover. The location site, access road and flowline route shall be reseeded with a seed mixture recommended by the BLM District Manager, when the moisture content of the soil is adequate for germination.

Restoration activities shall begin within 90 days after completion of the well. Once completion activities have begun, they shall be completed within 30 days. The lessee further covenants and agrees that all of said cleanup and restoration activities shall be done and performed in the best 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 is mountainous and cut with numerous canyons. The majority of the washes and streams in the area are of a non-perennial nature flowing during the early spring runoff and extremely heavy rains of long duration which are extremely rare. The normal annual rainfall in the area is only 8".

The soils in this semi-arid area are of the Green River formation (Middle Eocene) and the Wasatch formation (Lower Eocene) consisting of light brownish-gray clays (OL) to sandy soils (SM-ML) with poorly graded gravels. Outcrops of sandstone ledges, conglomerate deposits and shale are common on this area. The topsoils in the area range from sandy clay (SM-ML) to clayey (OL) soil.

Due to the low amount of average precipitation, climate conditions and the marginal soils, the vegetation that is found in the area is common to the semi-arid region we are located in. In the lower elevations it consists of juniper and pinion pine forests as the primary flora with areas of sagebrush, rabbit brush, some grasses and cacti.

The fauna of the area consist mainly of mule deer, coyote, rabbit and varieties of small ground squirrels and other types of rodents. The area is used by man primarily for grazing sheep and cattle. The birds in the area are raptors, finches, ground sparrows, magpies, crows and jays.

There are no occupied dwellings or other facilities of this nature in the general area. There are no visible archaeological, historical or cultural sites within any reasonable proximity of the proposed location sites.

12. Lessee's or Operator's Representative

Peter MacDowell  
Resource Marketing Services, Inc.  
821 17th Street  
Denver, Colorado 80202

(303)892-9185

Johnnie D. Odum, Operations Manager  
Taiga Energy, Inc.  
718 17th Street  
Denver, Colorado 80202

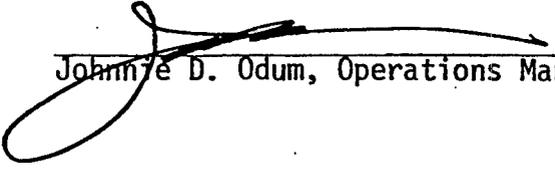
(303)573-6178

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsites and access routes; 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 operations proposed herein will be performed by Taiga Energy, Inc. and its contractors and sub-contractors in conformity with this plan and terms and conditions under which it is approved.

Date

6/15/78

  
John D. Odum, Operations Manager

GENERAL PLAN

MULTI-WELL PROGRAM

10 POINT PLAN

1. The geological name for the surface formation is the Green River Formation of Middle Eocene Age.
2. See "Specific Plans and Exceptions" for estimated tops of important geological markers with depths calculated from an estimated RKB elevation.
3. Of the formations listed above it is anticipated that the Mancos "B" and Dakota formations may be gas bearing in the well.
4. The proposed casing program for completion of this well will consist of 4-1/2" 11.6# J-55 new casing. Surface casing will be dependent on the drilling contractor. Either 9-5/8" 32# K-55 will be run (Burton-Hawks) or 8-5/8" 24# casing will be run (Thomson). It may be necessary to set 7" 20# intermediate casing in the Dakota formation.

If the location is on a hill, 500' of surface casing will be set.  
If the location is in a valley, 250' of surface casing will be set.

5. The operators minimum specifications for pressure control equipment is as follows:

A 10" Series 900 Hydril Bag type BOP and a 10" Double Ram Hydraulic unit with a closing unit will be utilized. Additionally, while air drilling, a Series 900 Rotating Head will be used. Pressure tests of BOP's to 1000# will be made after installation and operation and will be checked daily.

6. It is proposed that the hole will be drilled to the top of the Mancos with air and mist as necessary in order to clean the hole. From the Mancos to Total Depth it is planned to drill the well with air or air mist. The Thomson rig will use water and mud with enough weight to control any pressures encountered.
7. Auxiliary equipment to be used will be a Kelly Cock and a Float at the drill bit.
8. No coring or drill stem testing has been scheduled for this well. The logging program will consist of a dual induction laterolog and a compensated neutron formation density log.

9. It is not anticipated that abnormal pressures or temperatures will be encountered nor that any other abnormal hazards such as hydrogen sulfide gas will be encountered in this area.
10. See Specific Plans and Exceptions for commencement date.

**Blowout Preventer Schematic**

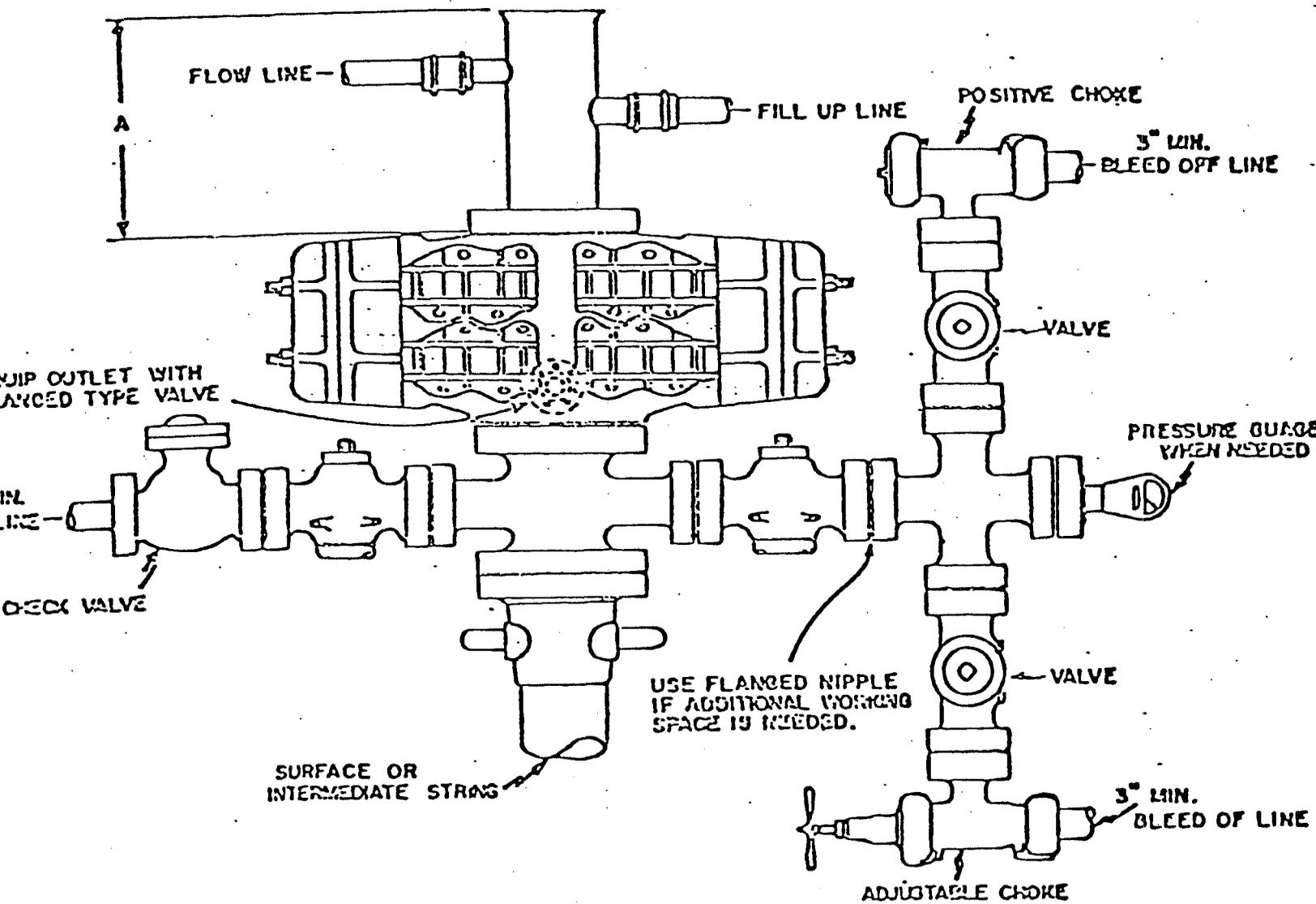
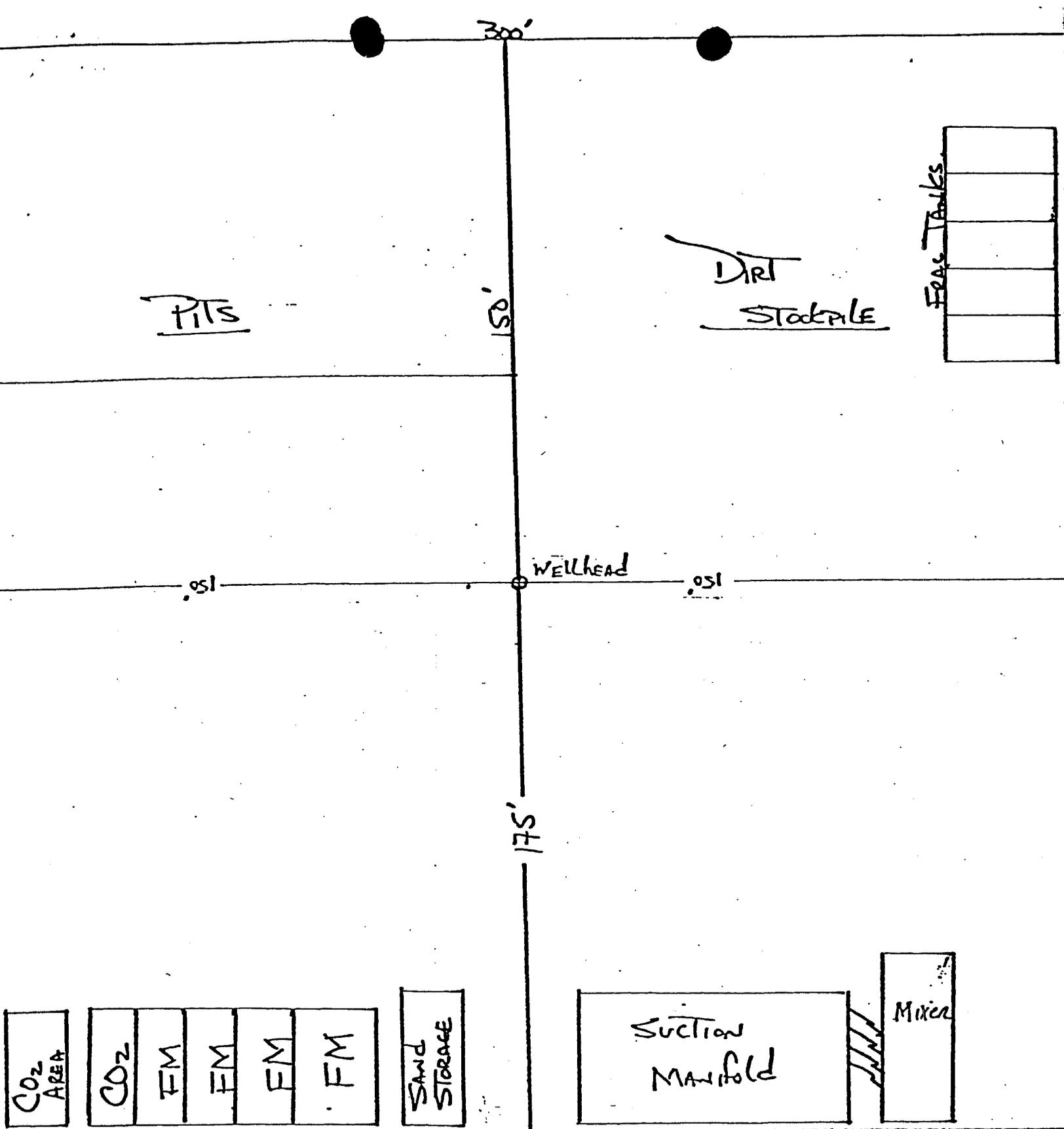


EXHIBIT - A

Frac Layout



FRAC DIAGRAM

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

\*\* FILE NOTATIONS \*\*

Date: June 19-  
Operator: COSEKA  
Energy Inc.  
Well No: Black Horse Canyon #1  
Location: Sec. 8 T. 15S R. 24E County: Uintah

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

API NUMBER: 43-047-3046<sup>9</sup>

CHECKED BY:

Administrative Assistant [Signature]  
Remarks: Ok - Unit Well  
Petroleum Engineer [Signature]

Remarks:  
Director 7

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required:  Survey Plat Required:   
Order No.  Surface Casing Change   
to

Rule C-3(c), Topographic exception/company owns or controls acreage within a 660' radius of proposed site

O.K. Rule C-3  O.K. In Black Horse Unit

Other:

Letter ~~Written~~ Approved



SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

CLEON B. FEIGHT  
*Director*

OIL, GAS, AND MINING BOARD

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*Chairman*

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE McINTYRE

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 22, 1980

Coseka Resources Ltd.  
718 17th Street  
Suite 630  
Denver, Colorado 80202

RE: Well No. Dry Burn Unit #2  
Sec. 35, T. 13S, R. 25E, Uintah County

Well No. Black Horse Canyon #3  
Sec. 9, T. 15S, R. 24E, Uintah County

See enclosed copy

Gentlemen:

In reference to above mentioned wells, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If we do not hear from your company within fifteen (15) days, we will assume you do not intend to drill this well, and action will be taken to terminate the applications. If you plan on drilling these wells at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very Truly yours,

DIVISION OF OIL, GAS, AND MINING

JANICE TABISH  
CLERK TYPIST

SCOTT M. MATHESON  
Governor



OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

CHARLES R. HENDERSON  
*Chairman*

CLEON B. FEIGHT  
*Director*

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE McINTYRE

Re: Well No. Black Horse Canyon #4  
Sec. 8, T. 15S, R. 24E, Uintah County

Well No. Rat Hole Canyon #2  
Sec. 22, T. 14S, R. 25E, Uintah County



**COSEKA RESOURCES (U.S.A.) LIMITED**

718 17th STREET, SUITE #630, DENVER, COLORADO 80202 (303) 573-6178

March 3, 1980

State of Utah  
Division of Oil, Gas & Mining  
1588 West, North Temple  
Salt Lake City, UT 84116

Re: Your Letter of February 22, 1980  
Applications for Permit to Drill  
Dry Burn #2  
Black Horse Canyon #3  
Black Horse Canyon #4  
Rat Hole Canyon #2

Gentlemen:

Attached are two Sundry Notices relative to the spudding of the Dry Burn Unit No. 2 and Rat Hole Unit No. 2 wells, both in Uintah County, Utah.

At this time, we do not intend to drill the Black Horse Canyon No. 4 well (Section 8-T15S-R24E, Uintah County) so the application can be terminated.

We do plan to drill the Black Horse Canyon No. 3 (Section 9-T15S-R24E, Uintah County) but we have changed the name to Black Horse Canyon 6-9-15-24. We should spud this well in the first part of the summer.

If you have any questions or need more information, please advise.

Yours very truly,

COSEKA RESOURCES (U.S.A.) LIMITED

S. L. Wilkinson  
Chief Engineer

SLW/bg

Enclosures

**RECEIVED**

MAR 5 1980

DIVISION OF  
OIL, GAS & MINING

LOCATION  
ABANDON

Conservation Division  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

August 26, 1980

Coseka Resources (USA) Ltd.  
718 17th Street  
Suite 630  
Denver, Colorado 80202

Re: Returned Application for  
Permit to Drill  
Well #7-~~32~~-15-24  
Section 32, T. 15S., R. 24E.  
Uintah County, UT  
State Land  
Application Approved: July 12, 1979

*Abdn.  
Oil & Gas  
(3-13-80)*

*Previously  
Abdn by  
Utah Oil & Gas  
(3-3-80)*

Well #4  
Section 8, T. 15S., R. 24E.  
Uintah County, UT  
Lease #U-2836  
Application Approved: July 25, 1979

Gentlemen:

The Applications for Permit to Drill the referenced wells were approved. Since that date no known activity has transpired at the approved locations. The conditions of approval state under Item No. 10 that Applications for Permit to Drill are effective for a period of one year. In view of foregoing this office is rescinding the approval of the referenced applications without prejudice. If you intend to drill at these locations on a future date a new Application for Permit to Drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for these drill sites. Any surface disturbance associated with the approved locations of these wells is to be rehabilitated. A schedule for this rehabilitation must, then, be submitted. Your cooperation in this matter is appreciated.

Sincerely

(ORIG. SGD.) W. P. MARTENS

bcc: ADCM, Oil & Gas, NCR, Casper  
SMA  
State Office (O&G) ✓  
State Office (BLM)  
USGS-Vernal  
Well File  
APD Control

Sol E.M. Gynn  
District Engineer

RAH/cva