UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG _____ ELECTRIC LOGS _____ FILE X WATER SANDS _____ LOCATION INSPECTED _____ SUB. REPORT/abd _____

DATE FILED MARCH 24, 1999

LAND: FEE & PATENTED STATE LEASE NO. ML-48210 PUBLIC LEASE NO. INDIAN

DRILLING APPROVED: APRIL 20, 1999

SPUDDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION

DATE ABANDONED: LAID 4-14-2000

FIELD: UNDESIGNATED

UNIT:

COUNTY: CARBON

WELL NO. SITLA 32-27 API NO. 43-007-30564

LOCATION 1598 FNL FT. FROM (N) (S) LINE. 1374 FEL FT. FROM (E) (W) LINE. SW NE 1/4 — 1/4 SEC. 27

| TWP. | RGE. | SEC. | OPERATOR | TWP | RGE. | SEC. | OPERATOR |
|---|---|---|---|---|---|---|---|
| 15S | 9E | 27 | FLEET ENERGY, LLC | | | | |

4 '99

FLEET ENERGY

Fleet Energy, L.L.C.
2450 Fondren, Suite 310
Houston, Texas 77063
Tel: 713.785.5600
Fax: 713.785.5605

March 22, 1999

RECEIVED
MAR 24 1999
DIV. OF OIL, GAS & MINING

Mr. Brad Hill
State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
P. O. Box 145801
Salt Lake City, UT 84114-5801

Dear Mr. Hill:

Attached is an Application for Permit to Drill (APD) the SITLA 32-27 Well in the SW/4 NE/4 of Section 27, T15S-R9E, Carbon County, Utah.

Fleet Energy, L.L.C. hereby requests prompt approval of this APD. Please contact me at 713/785-5600, Ext. 104, if you have any questions.

Sincerely,

Mark Spears

Mark Spears
V.P., Production and Operations

dl

Attachments

FORM 3

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: ML-48210

# APPLICATION FOR PERMIT TO DRILL OR DEEPEN

6. If Indian, Allottee or Tribe Name:

1A. Type of Work: DRILL [XX] DEEPEN [ ]

7. Unit Agreement Name:

B. Type of Well: OIL [ ] GAS [XX] OTHER: SINGLE ZONE [ ] MULTIPLE ZONE [XX]

8. Farm or Lease Name:

2. Name of Operator: Fleet Energy, L.L.C.

9. Well Number: SITLA 32-27

3. Address and Telephone Number: 2450 Fondren, Suite 310, Houston, TX 77063 713/785-5600

10. Field and Pool, or Wildcat: Drunkards Wash Ferron Coal Seam

4. Location of Well (Footages)
At Surface: 1598' FNL 1374' FEL 509001
At Proposed Producing Zone: same 4371390

11. Qtr/Qtr, Section, Township, Range, Meridian: SWNE Sec. 27 T15S R9E S. L. Base

14. Distance in miles and direction from nearest town or post office: 13 miles southwest of Price, UT

12. County: Carbon

13. State: UT UTAH

15. Distance to nearest property or lease line (feet): 1042'

16. Number of acres in lease: 320

17. Number of acres assigned to this well: 160

18. Distance to nearest well, drilling, completed, or applied for, on this lease (feet): none

19. Proposed Depth: 2760'

20. Rotary or cable tools: Rotary

21. Elevations (show whether DF, RT, GR, etc.): 6060' GL

22. Approximate date work will start: May 1, 1999

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | GRADE, SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT | Wt. * | Yield |
|---|---|---|---|---|---|---|
| 11" | 8 5/8" J-55 | 24 lb. | 300' | 85 sx Class G cmt. | 15.8 | 1.15 |
| 7 7/8" | 5 1/2" N-80 | 17 lb. | 2755' | 270 sx "Light" cmt. & | 12.5 | 1.92 |
| | | | | 75 sx. premium cmt. | 14.2 | 1.61 |
| | | | | | | |
| | | | | | | |

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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.

* Per Mark Spears 4-13-99 MDH

This well is on a lease covering lands that were included in the Federal-State of Utah "Land Swap" and has now become a SITLA lease. SITLA now owns the surface and mineral interests.

This well is proposed to test the gas potential of the Ferron coal seams.

This well will be air drilled to TD. A 3000 psi BOP will be used while drilling this well.

Bond coverage for this well is provided by Fleet's Bond #B 7858.

An Archaeological survey has been performed on this well location and access roads per the River Gas EIS requirements. A copy of this survey is attached.

24. Name & Signature: J. M. Spears
J. M. Spears
Title: Vice President, Production & Operations
Date: 3/19/99

(This space for State use only)

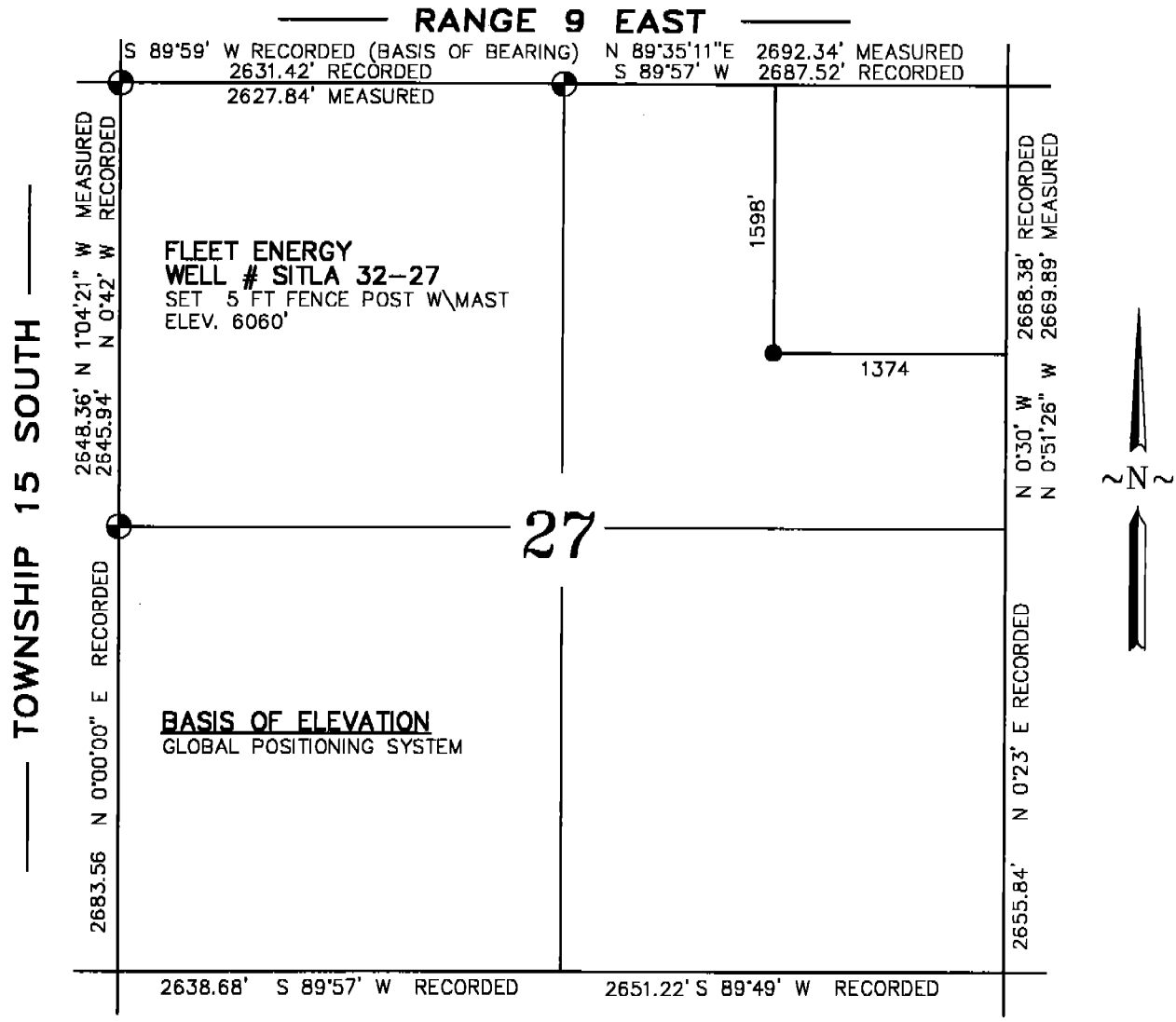
API Number Assigned: 43-007-30564

Approval:

Approved by the Utah Division of Oil, Gas and Mining
Date: 4/20/99
By:

RECEIVED MAR 24 1999 DIV. OF OIL, GAS & MINING

(See Instructions on Reverse Side)




## LEGEND

- FOUND BRASS CAP
- SEARCHED FOR BUT NOT FOUND
- FOUND ROCK CORNER

## BASIS OF BEARING

BASIS OF BEARING S 89°59'00" W MEASURED BETWEEN THE N1/4 CORNER AND THE NW CORNER OF SECTION 27, TOWNSHIP 15 SOUTH, RANGE 9 EAST, SALT LAKE BASE AND MERIDIAN.

PROFESSIONAL ENGINEER & LAND SURVEYOR
NO. 145656
EVAN E. HANSEN
UTAH

# ENGINEER'S CERTIFICATE

I, EVAN E. HANSEN, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND PROFESSIONAL ENGINEER HOLDING CERTIFICATE NO. 145656 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY THAT I HAVE MADE A SURVEY OF THE TRACT OF GROUND SHOWN AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Evan E. Hansen — EVAN E. HANSEN

2/19/99 — DATE

REVISED 2-15-99

SW4 NE4 SEC. 27, T 15 S, R 9 E, S.L.B.& M.

**Empire Engineering**
1665 E. Sagewood Rd. Price, Utah 84501

**FLEET ENERGY**
**WELL # SITLA 32-27**

| Drawn By: RH | Approved By: EEH | Drawing No. EEOG-99-24 |
|---|---|---|
| Date: 4-15-99 | Scale: 1"=1000' | SHEET 1 OF 1 |

C:\EMPIRE\FLEET-ENERGY\ SITLA 32-27.dwg 02/19/99 00:26 win

**Fleet Energy, L.L.C.**
**SITLA 32-27 Well APD**

1. The surface material at the location of this proposed well in weathered Mancos shale.

2. The estimated formation tops are as follows:

| | |
|---|---|
| Mancos Shale | Surface |
| Ferron SS | 2385' |
| Tununk Shale | 2660' |
| T.D. of well | 2760' |

3. The estimated depth of important water, oil, or gas is:

| | | |
|---|---|---|
| Ferron SS | 2385' | Gas and water; coal |

There are no other water zones expected to be encountered during the drilling of this well. Any additional zones will be cemented behind pipe as the production casing string will be cemented to surface.

4. This well will be drilled with air as the circulating medium. Should any water or difficulties be encountered, then mist/foam drilling will commence with a commercial drilling foamer and 2% KCl water. A bentonite or similar mud system is not expected to be used.

5. The auxiliary equipment to be used will be that prudent for air drilling (compressors, boosters, mist pump, etc.). The blooie line will terminate approximately 100' from rig. An igniter system and a deduster will be used.

6. A relatively small blooie pit will be used to accumulate cuttings and any drilling fluids used, along with returns from cementing casing and completion operations. The size of the blooie pit will be approximately 20' X 40' and 8' deep. This pit will be closed and reclaimed after the completion of this well has been done.

7. The BOP system used will be a 3000 psi configuration, hydraulically operated with mechanical secondary closing option. A schematic diagram is attached. A Hydrill or equivalent rotating head will be used as the top piece of the BOP stack. The BOP will be nippled up on the surface casing and pressure tested before drilling out of the surface casing. All pressure testing and operational testing of the BOP equipment will be per R649-3-7 of the O&G Commission general rules.

8. The casing and hole size design for this well will be as follows:

<u>Surface casing</u>:

11" hole, 8 5/8" J-55, 24 lb./ft. casing set to 300'.
Cement to surface using plug. This will require approximately 85 sx of Class G cement at 30% calculated excess.

<u>Production casing</u>:

7 7/8" hole, 5 1/2" N-80, 17 lb./ft. casing to T.D. est. 2755'.
The production casing will be cemented to surface using a "light" cement followed by premium cement to cover the productive interval. The plug and pump method will be used. This will require approximately 270 sx light cement followed by 75 sx premium cement at 30% excess.

9. Open hole logging is planned as follows:

   DIL-GR, Compensated Neutron/Formation Density/GR.
   Coring or DST's are not planned for this well.

10. It is not anticipated that H2S gas, abnormal pressures or temperatures will be encountered while drilling or completing this well. Bottom hole pressure gradient expected is .35 psi/ft or 966 psi for this well.

11. It is expected that operations on this well will begin after May 1, 1999. The time required to drill this well is expected to be 3 to 5 days.

12. All water needed for this well will be purchased from Castle Valley Service District in Huntington or Castle Dale, UT. Water will be hauled by local contractors.

13. All produced water from this well will be disposed of in a disposal/injection well or approved evaporation pond. Produced water may be temporarily stored in a temporary storage pit on location while the well is tested for producibility. This test period will be for less than 30 days.

14. This well's access will utilize an existing road off the Wattis Highway for approximately 1200' in an northeasterly direction. A new road will need to be constructed approximately 1000' southeast to the location. This new road will not require any major cuts, fills, or culverts. The area is fairly flat and will only require light grading. The new road will not be wider than 16' and no turnarounds are planned. A map is attached showing the well location and road.

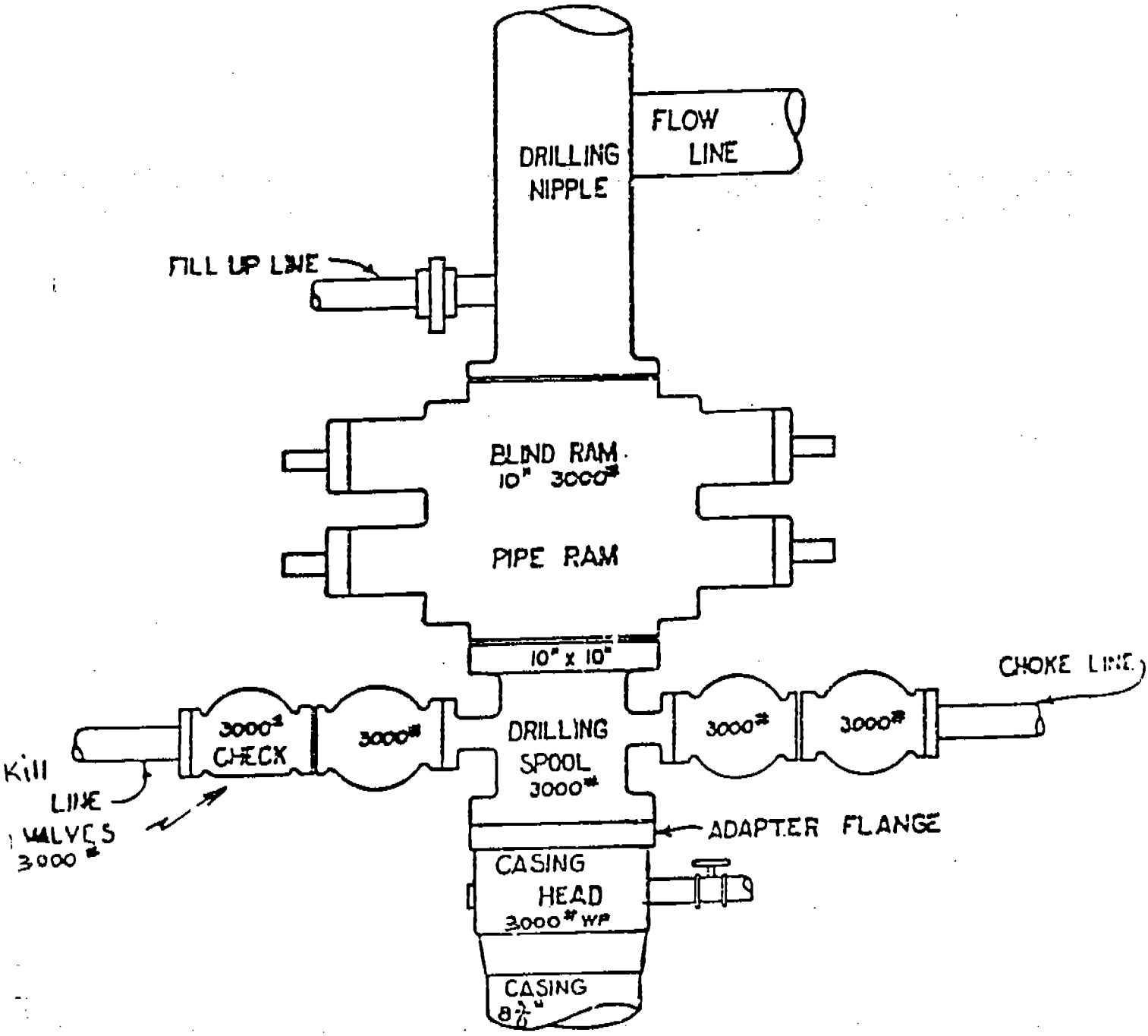
15. This well is located 13 miles south of Price, UT. Directions: 9 miles south on Hwy. 10 to Hwy. 122 (Hiawatha turnoff), then west 3 miles to the Wattis turnoff, then north 1 mile to the dirt road leading to location.

16. All trash will be maintained in a cage or suitable container and hauled to an approved disposal facility.

17. The closest well to this proposed well is the General American 1-15 in Sec. 15, T15S-R9E.

    The contact for this well is:

Mark Spears
Vice President, Production & Operations
Fleet Energy, L.L.C.
2450 Fondren, Suite 310
Houston, TX 77063
713/785-5600, Ext. 104

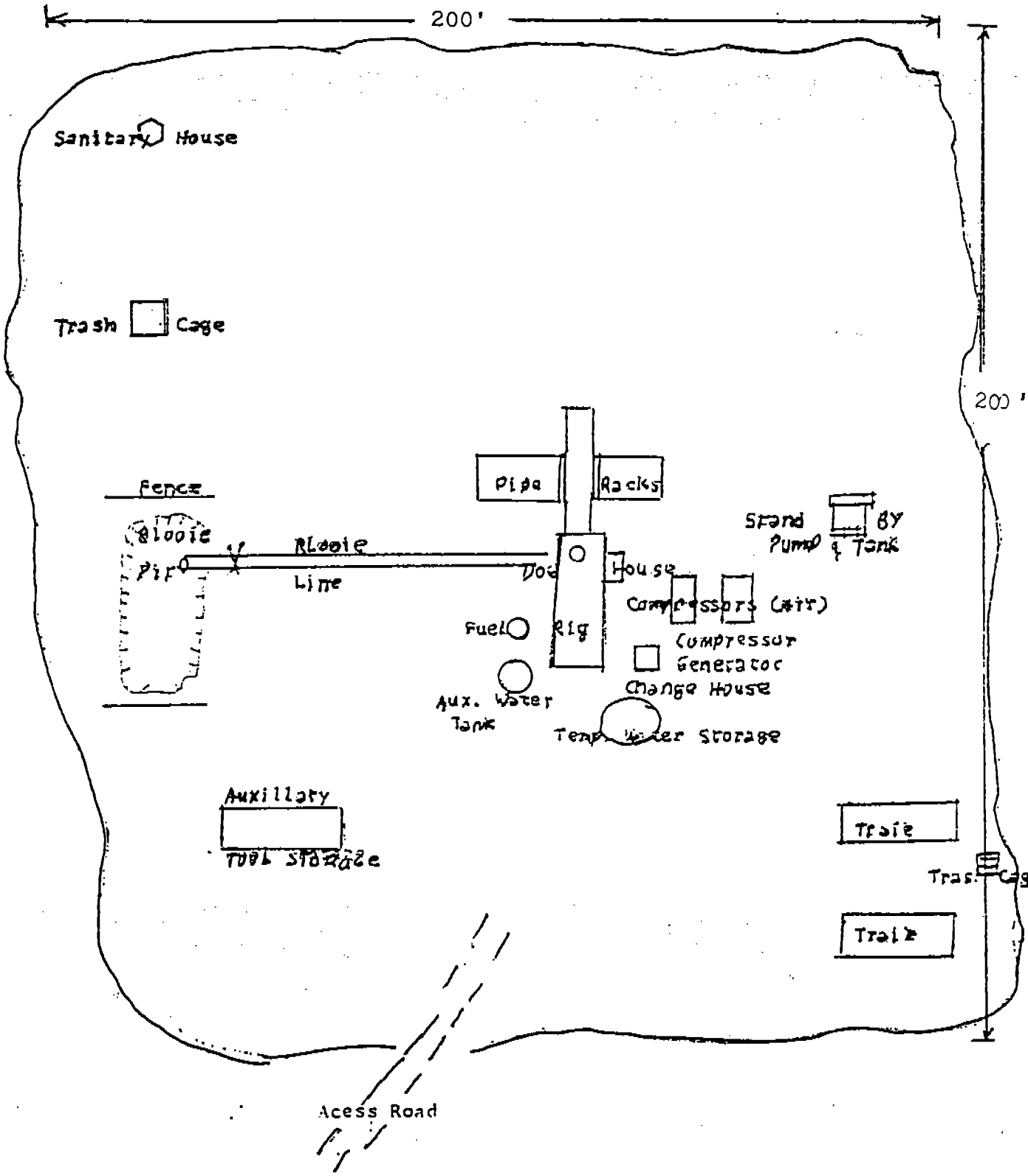



Fleet Energy L.L.C.
BLOWOUT PREVENTER DIAGRAM

Fleet Energy LLC

Schematic Diagram

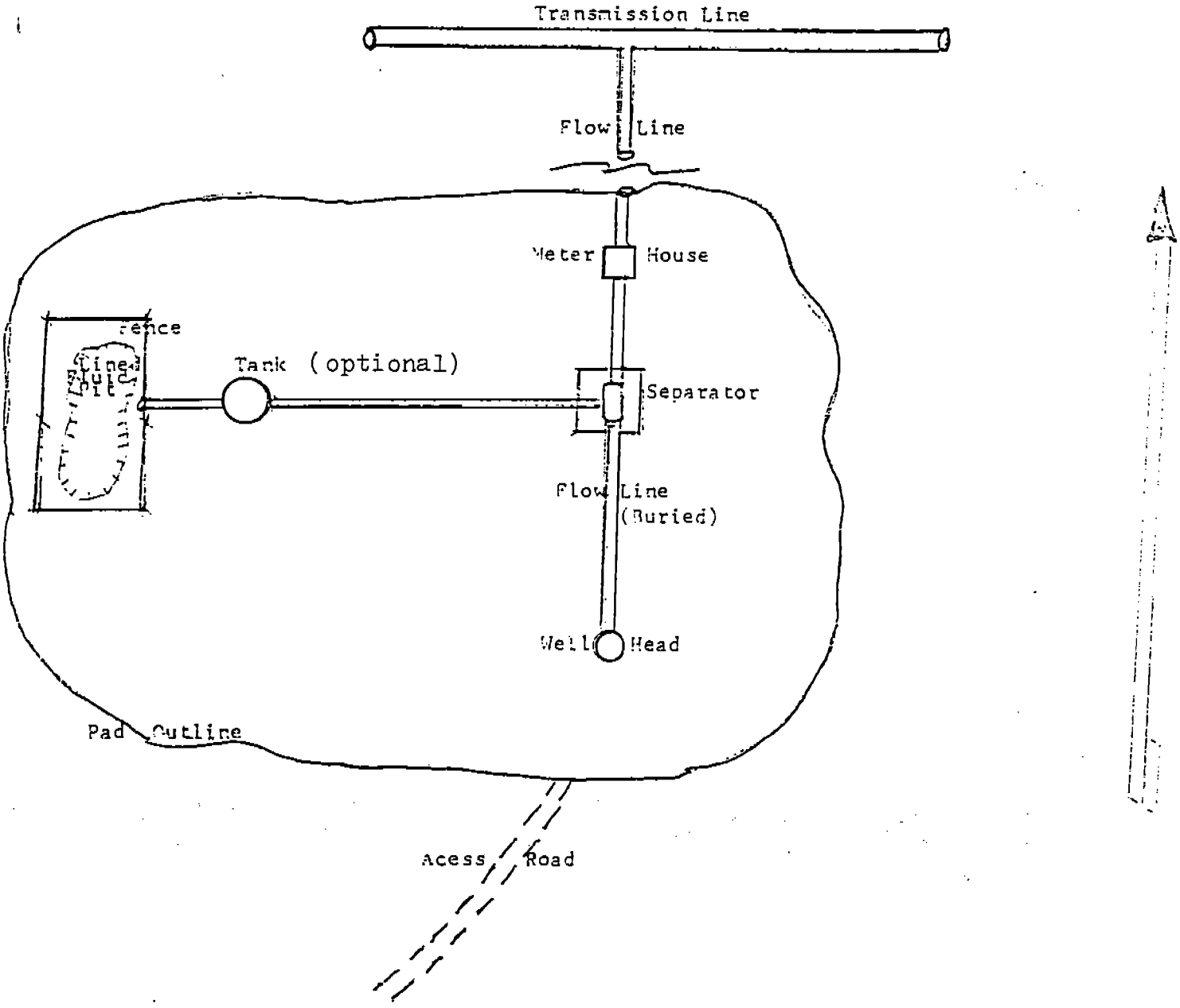
Drilling Rig Layout



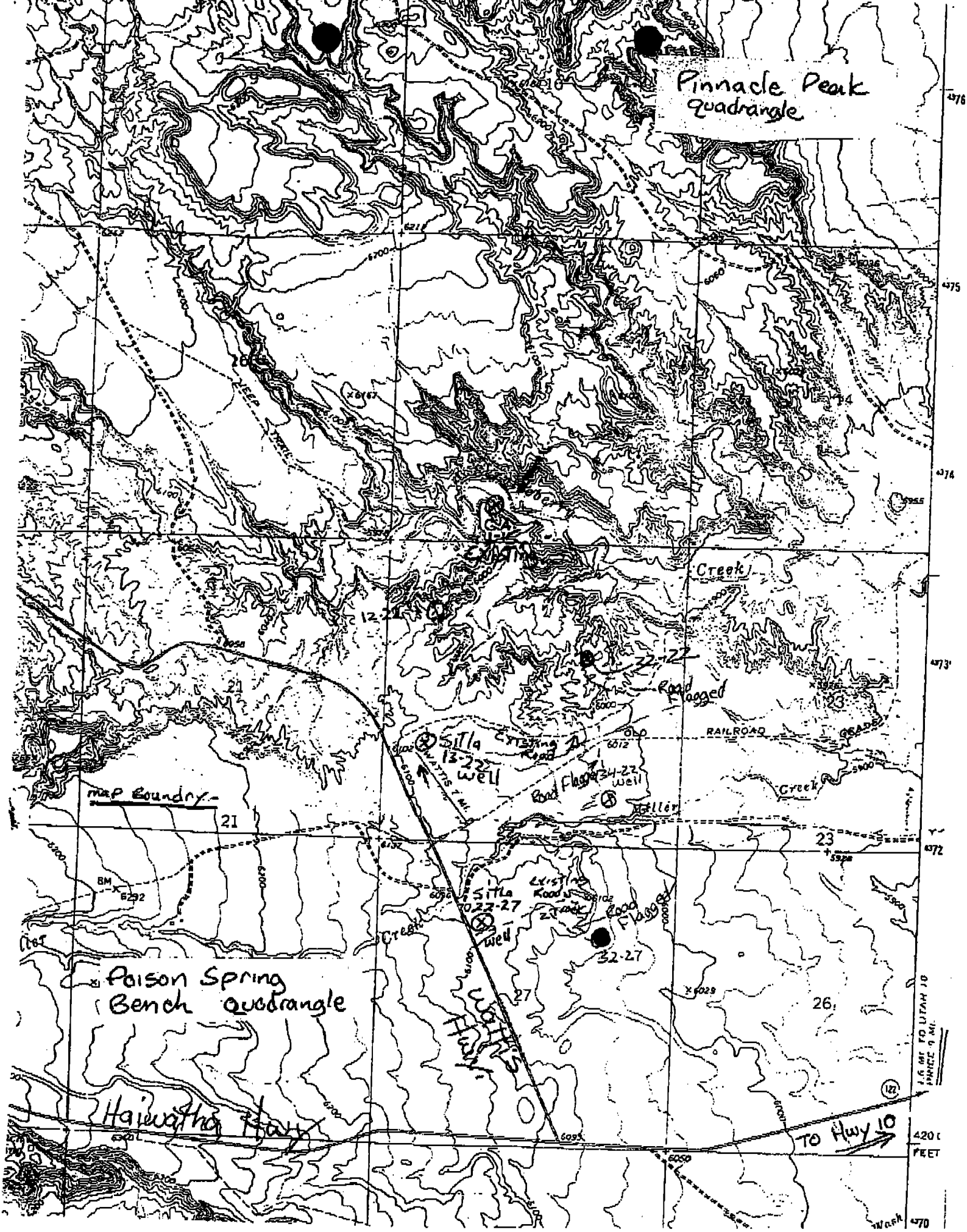

Scale 1" = 33'
(approximate)

Fleet Energy L.L.C.

Production Facilities
Gas




Approximate Scale: 1" = 50'


Pinnacle Peak quadrangle
Existing
Creek
12-22
22-22
Road flagged
23
OLD RAILROAD GRADE
Sitla 13-22 well
Existing Road
Road Flagged
34-22 well
Creek
Map Boundry
21
23
BM 6292
Sitla 22-27 well
Existing Road
Road Flagged
32-27
Creek
Poison Spring Bench quadrangle
27
26
Hiawatha Hwy
TO Hwy 10
FEET

MONTGOMERY
ARCHAEOLOGICAL
CONSULTANTS
Box 147, 322 East 100 South, Moab, Utah 84532 (435) 259-57

Route: ~~JAS~~
~~GJS~~
DKL - file
Please cc: [redacted]

February 27, 1999

Mark Spears
Fleet Energy LLC
2450 Fondren, Suite 310
Houston, TX 77063

REC'D MAR 03 1999

Dear Mr. Spears:

Enclosed please find the report entitled "Cultural Resource Inventory of Fleet Energy's Well Locations and Access Corridors, Carbon County, Utah". The survey was initiated at the request of Mr. Jim Hemingway. The inventory resulted in the documentation of two prehistoric sites (42Cb1317 and 42Cb1318) both which are evaluated as eligible to the NRHP under Criterion (d). MOAC has recommended that the sites be avoided by project impacts (see Management Recommendations). Copies of the documentation have been submitted to the State of Utah Trust Lands Administration (TLA) and Utah State Historical Preservation Office (SHPO) for approval.

Also enclosed in the invoice for this project. The company's Federal I.D. Number is 533-56-8186). If you have any comments or questions about this project, please feel free to call me.

Sincerely,

Keith Montgomery

Keith R. Montgomery
Principal Investigator

cc: Kenny Wintch, Archaelogist, TLA Salt Lake City.
James Dykmann, Compliance Officer, Utah SHPO

# CULTURAL RESOURCE INVENTORY OF FLEET ENERGY'S FOUR WELL LOCATIONS AND ACCESS CORRIDORS CARBON COUNTY, UTAH

Keith R. Montgomery

MONTGOMERY ARCHAEOLOGICAL CONSULTANTS

Box 147, 322 East 100 South, Moab, Utah 84532 (435) 259-5764 Fax (435) 259-5608

# CULTURAL RESOURCE INVENTORY OF FLEET ENERGY'S FOUR WELL LOCATIONS AND ACCESS CORRIDORS CARBON COUNTY, UTAH

by

Keith R. Montgomery

Prepared For:

State of Utah
School and Institutional
Trust Lands Administration

Prepared Under Contract With:

Fleet Energy LLC
2450 Fondren, Suite 310
Houston, TX 77063

Prepared By:

Montgomery Archaeological Consultants
P.O. Box 147
Moab, Utah 84532

February 27, 1999

United States Department of Interior (FLPMA)
Permit No. 98-UT-60122

State of Utah Antiquities Project (Survey)
Permit No. U-99-MQ-0074s

# INTRODUCTION

In February, 1999, a cultural resource inventory was conducted by Montgomery Archaeological Consultants (MOAC) for four proposed well locations and associated access roads in Carbon County, Utah. The archaeological survey was initiated at the request of Mr. Jim Hemingway, representative for Fleet Energy LLC, Houston, Texas. The proposed well locations are designated SILTA 12-22, 22-22, 34-22 and 32-27. The project area is located in T 15S, R 9E, S. 21 and 27 on State of Utah School Institutional Trust Land.

The objectives of the inventory was to locate, document, and evaluate any cultural or paleontological resources occurring within the project area in order to attain compliance with a number of federal and state mandates, including the National Historic Preservation Act of 1966 (as amended), National Environmental Policy Act of 1969, the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979, American Indian Religious Freedom Act of 1978, and the Utah State Antiquities Act of 1973 (amended 1992).

The fieldwork was performed by Keith R. Montgomery, Principal Investigator, for Montgomery Archaeological Consultants on February 22 and 23, 1999, under the authority of U.S. Department of the Interior (FLPMA) Permit No. 98-UT-60122 and State of Utah Antiquities Permit (Survey) No. U-99-MQ-0074s. A file search was conducted by the author on February 22, 1999, at the BLM Price River Resource Area, Price, Utah and by Evie Seelinger at the Utah State Historic Preservation Office, Salt Lake City. These consultations revealed that a number of archaeological surveys have been completed near the project area. In 1981, an inventory was completed along the Hiawatha telephone corridor by Archeological-Environmental Research Corporation (Hauck 1981). A number of seismic inventories have been completed throughout the years (Billat 1982; Hammack 1983; Thompson 1982; Montgomery 1984). In 1985, the Wattis Road was surveyed by the Bureau of Land Management (Miller 1985). Montgomery Archaeological Consultants (MOAC) has surveyed several well locations in Section 27 (Montgomery 1998a). Also in Section 22, MOAC has inventoried a well location ( Montgomery 1998b) and a pipeline route (Montgomery 1998c) for F.L. Energy Corporation.

Archaeological sites documented in the vicinity of the project area include a prehistoric temporary camp (42Cb361) recorded by Brigham Young University (Billat 1982); the Hiawatha to Price Railroad grade (42Cb364) documented by Brigham Young University (Thompson 1982); and a prehistoric isolated cist (42Cb1240) recorded by MOAC in 1998 (Montgomery 1998a). In addition, an Archaic temporary camp (42Cb1274) and historic sheepherders camp (42Cb1274) has recently been recorded by Senco-Phenix in Section 27 (report in preparation).

## DESCRIPTION OF PROJECT AREA

The project area is located in Castle Valley between the towns of Price, Carbon County and Huntington, Emery County, Utah. The inventory consists of four proposed well locations and associated access roads are situated just northeast of Poison Springs Bench (Figure 1). Well Location SITLA 12-22 is situated in T 15S, R 9E, S. 22 with a 2000 ft access road extending from the location to the Wattis road. Well Location SITLA 22-22 is located in T 15S, R 9E, S. 22 with a 5800 ft access road extending southeast. Well Location SITLA 34-22 is located in T 15S, R 9E, S. 22 with a 700 ft access road extending north. Well Location SITLA 32-27 is situated in T 15S, R 9E, S. 27 with an acess road extending 2400 ft from the location to the Wattis road.

The project area occurs along the western margins of Castle Valley, a lowland plain eroded into the Mancos Shale between the uplifts of the Wasatch Plateau and San Rafael Swell. In general, the inventory area lies in the Mancos Shale Lowlands section of the Colorado Plateau and the Wasatch Plateau section of the Basin and Range-Colorado Plateau Transition physiographic subdivision (Stokes 1986). In particular, the Mancos Lowlands is characterized by sloping pediments, rugged badlands, and narrow flat-bottomed alluvial valleys (Ibid 1986:232). The geology of this area is defined by inter-bedded sandstone and shale beds of the Cretaceous Mancos Shale Formation, including the Masuk Shale, Emery Sandstone, Blue Gate Shale, Ferron Sandstone, and Tununk Shale Members. The inventory area lies between Miller Creek and Serviceberry Creek, which converge and flow east into the Price River. The majority of the project area occurs within a transitional Juniper-Sagebrush community which prefers well-drained sandy soils. Plant species observed in the area include Utah juniper, sagebrush, snakeweed, prickly pear cactus, and grasses. Modern disturbances to the project area includes roads, livestock grazing, pipelines, and fences.

## SURVEY METHODOLOGY

An intensive pedestrian survey was performed for this project which is considered 100% coverage. Based on the Price Coalbed Methane and River Gas Environmental Impact Statement, the State of Utah requires a 10-acre parcel surrounding each well pad center stakes be inventoried. These parcels were surveyed by the archaeologist walking parallel transects spaced no more than 10 meters (30 feet) apart. A 300 foot corridor was surveyed along the associated access routes by walking parallel and zig-zag transects spaced no more than 10 meters (30 feet) apart. Ground visibility varied from good to excellent. A total of 119.5 acres was inventoried for this project situated on land administered by the State of Utah Trust Lands Administration.

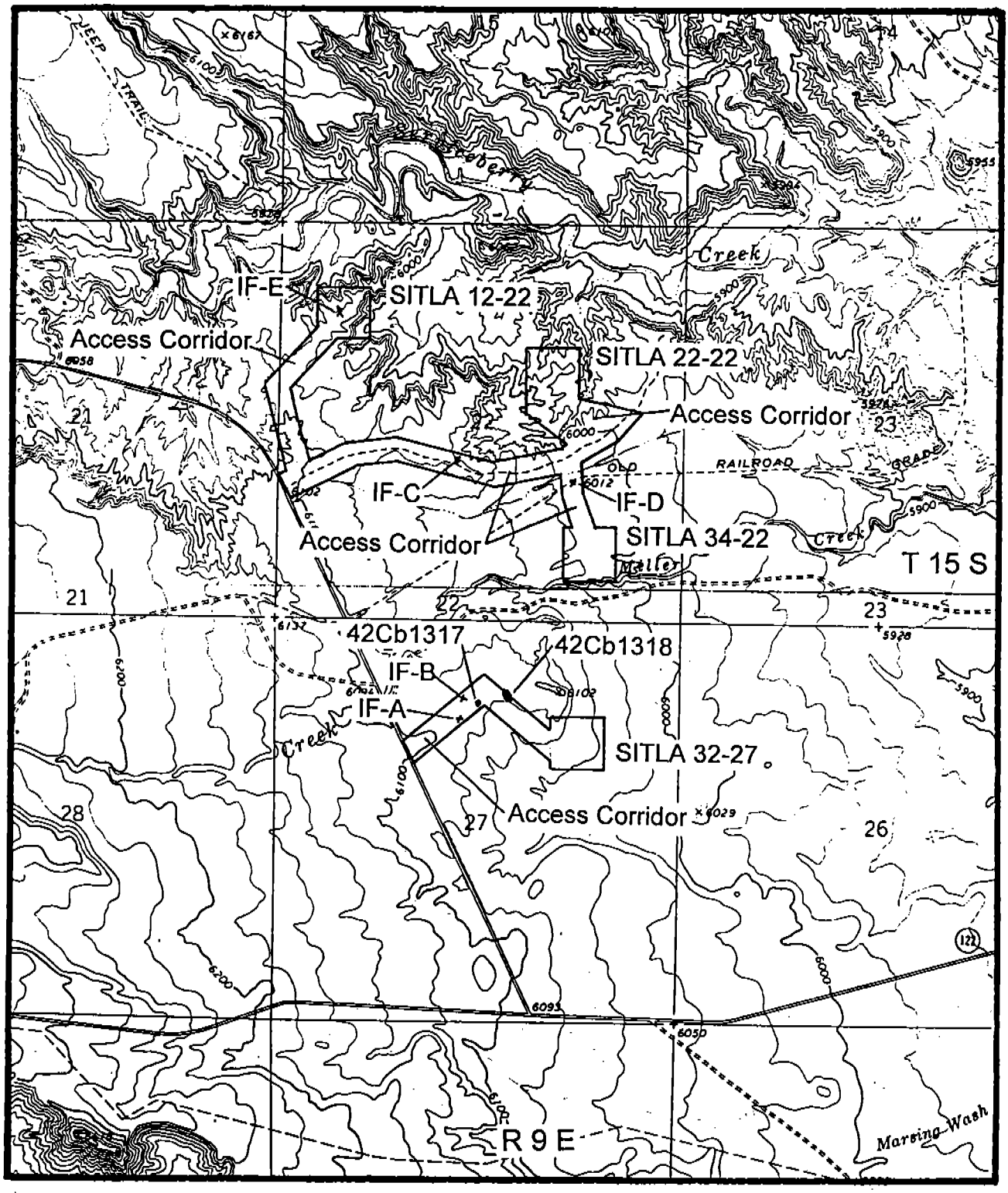



Figure 1. Cultural Resource Inventory of Fleet Energy's Four Well Locations and Access Corridors with Cultural Resources, Carbon County, Utah. USGS 7.5' Pinnacle Peak, UT 1972 and Poison Spring Bench, UT 1969. Scale 1:24000.

Cultural resources were recorded as archaeological sites or isolated finds of artifacts. Archaeological sites are defined as spatially definable areas with features and/or ten or more artifacts. Sites were documented by the archaeologists walking transects across the site, spaced no more than 3 m apart, and marking the locations of cultural materials with pinflags. This procedure allowed clear definition of site boundaries and artifact concentrations. At the completion of the surface inspection, a brunton was employed to point-provenience diagnostic artifacts and other relevant features in reference to the site datum. Archaeological sites were plotted on a 7.5' USGS quadrangle, photographed, with site data entered on an Intermountain Antiquities Computer System (IMACS, 1990 version) inventory form (Appendix A). Isolated finds of artifacts are defined as individual artifacts or light scatter of items, which lack sufficient material culture to warrant IMACS forms, or to derive interpretation of human behavior in a cultural or temporal context. All isolated finds were plotted on a USGS map and described in this report.

## INVENTORY RESULTS

The inventory of Fleet Energy's four well locations and associated access routes resulted in the documentation of two newly-found archaeological sites (42Cb1317 and 42Cb1317) and five isolated finds of artifacts. No paleontological localities were found.

Smithsonian Site No.: 42Cb1317
Temporary Site No.: MOAC 74 K/1
Legal Description: T. 15S, R. 9E, Sec. 27, SW1/4, NW1/4,NE/4
Well Location: SITLA 32-27
NRHP Eligibility: Eligible (Criterion d)

Description: This is a temporary camp of unknown temporal affiliation located on a ridge top above Miller Creek. The site measures 45 meters north-south by 42 meters east-west (Figure 2). Cultural materials consists of a light scatter of flakes dominated by chert secondary and tertiary reduction, ground stone implements, and chipped stone tools. Tool 1 is a medium grain brown sandstone slab metate with a slightly concave ground use surface. Tool 2 is a medium grain brown unifacially ground sandstone mano fragment. Tool 3 is a large gray opaque chert drill with uni-directional and bi-directional rotation use-wear. Tool 4 is a brown sandstone bifacially reduced chopper/hammerstone with pronounced edge rounding. Tool 5 is a gray opaque chert scraper with a 70 degree edge angle exhibiting use-wear. Tool 6 is a brown medium grain sandstone slab metate fragment with a shallow concave use surface. Tool 7 is a fragment of a medium grain reddish-brown cobble mano fragment with slight unifacial use-wear. The cultural features are clustered in the northwest portion of the site and consist of an intact hearth (Feature 1), a single upright slab (Feature 2),and a deflated hearth (Feature 3). Overall the site has good potential for additional subsurface cultural materials.

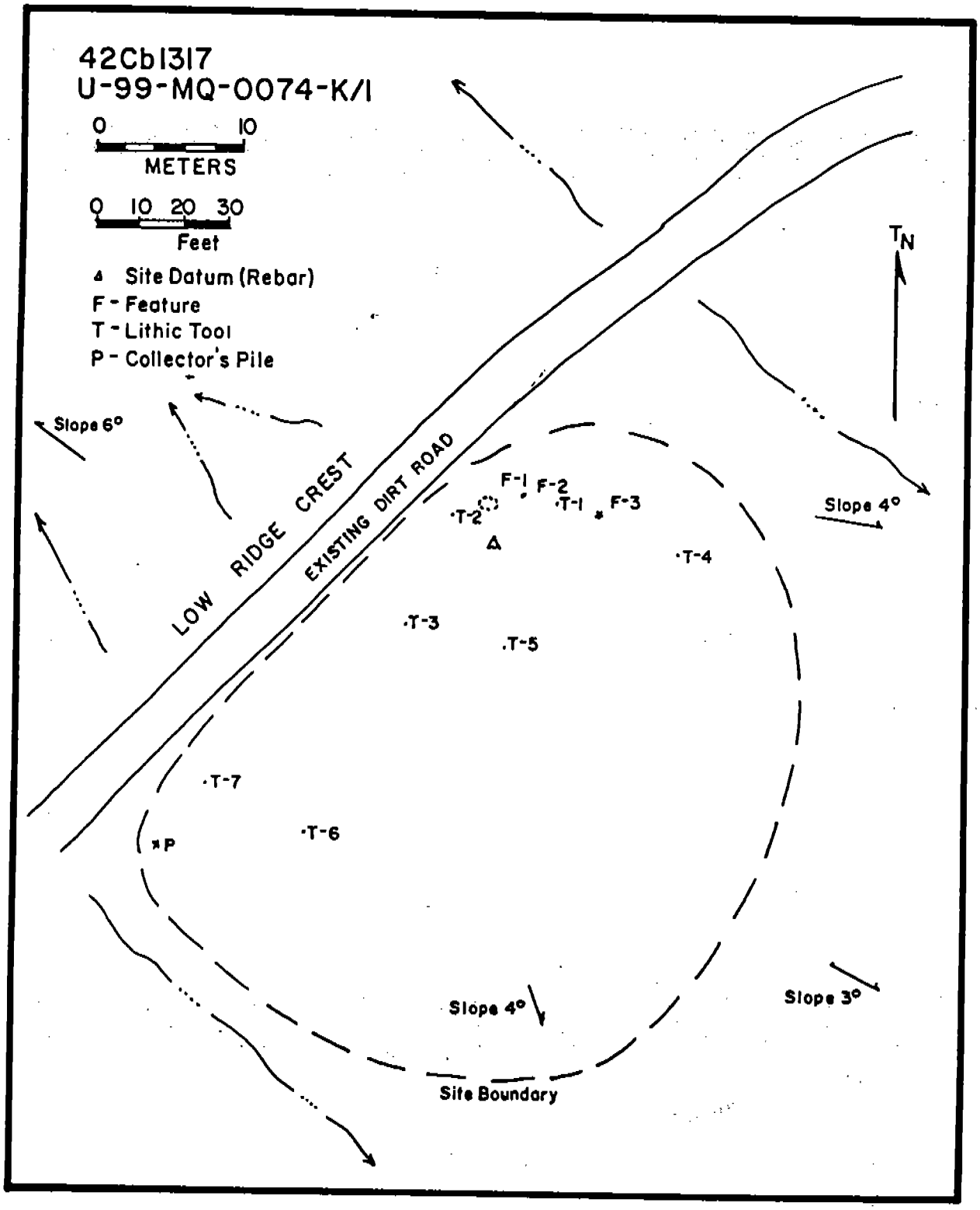



Figure 2. Site 42Cb1317 Map.

Smithsonian Site No.: 42Cb1318
Temporary Site No.: MOAC 74 K/2
Legal Description: T. 15S, R. 9E, Sec. 27, SW1/4, NW1/4,NE/4
Well Location: SITLA 32-27
NRHP Eligibility: Eligible (Criterion d)

Description: This is a lithic-ceramic scatter cross-dated to the Fremont culture. The site is situated on top of a ridge overlooking Miller Creek. The site measures 64 meters north-south by 30 meters east-west (Figure 3). The lithic debitage is dispersed throughout the site area consisting of approximately 45 chert flakes mainly of secondary and tertiary reduction. Diagnostic artifacts consist of a number of metates and manos clustered in the north portion of the site, probably representing a resource processing station. Tool 1 is a medium grain brown sandstone slab metate with a deep (1 cm ) concavity and trimmed margins. Tool 2 is a complete medium grain brown sandstone slab metate with a shallow concavity exhibiting light grinding wear. Tool 3 is complete brown medium grain sandstone bifacially ground one-handed mano with a bi-beveled facet. Tools 4 and 6 represent a single-handed split in half mano with bifacial use-wear. Tool 5 is a medium grain brown sandstone bifacially ground single-handed mano with a bi-beveled facet and minimal edge shaping. The ceramic artifacts represent two plain Emery Gray vessels consisting of eight sherds concentrated in the southeast area of the site. No cultural features were identified, although oxidized sandstone is present within the site area.

## Isolated Finds of Artifacts

Isolated Find A (IF-A) is situated in T 15S, R 9E, Sec. 27, SE/NE/NW (UTM 508580E-4371520N). It is a gray opaque chert secondary flake.

Isolated Find B (IF-B) is situated in T 15S, R 9E, Sec. 27, SE/NE/NW (UTM 508580E-4371620N). The artifact is a semitranslucent grayish white chert secondary flake.

Isolated Find C (IF-C) is situated in T 15S, R 9E, Sec. 27, NE/NE/SW (UTM 508520E-4372560N). It consists of a clear crown top finish, 3 smashed knife-cut milk cans, and a smashed cross-cut sanitary can.

Isolated Find D (IF-D) is situated in T 15S, R 9E, Sec. 27, SE/NW/SE (UTM 508520E-4372560N). The artifact is a portion of a green glass container base located adjacent to the Hiawatha to Price railroad grade.

Isolated Find E (IF-E) is situated in T 15S, R 9E, Sec. 27, SE/NW/NW (UTM 508040E-4373160N). It consists of a dark gray opaque chert decortication flake and two semitranslucent grayish-brown chert secondary flakes.

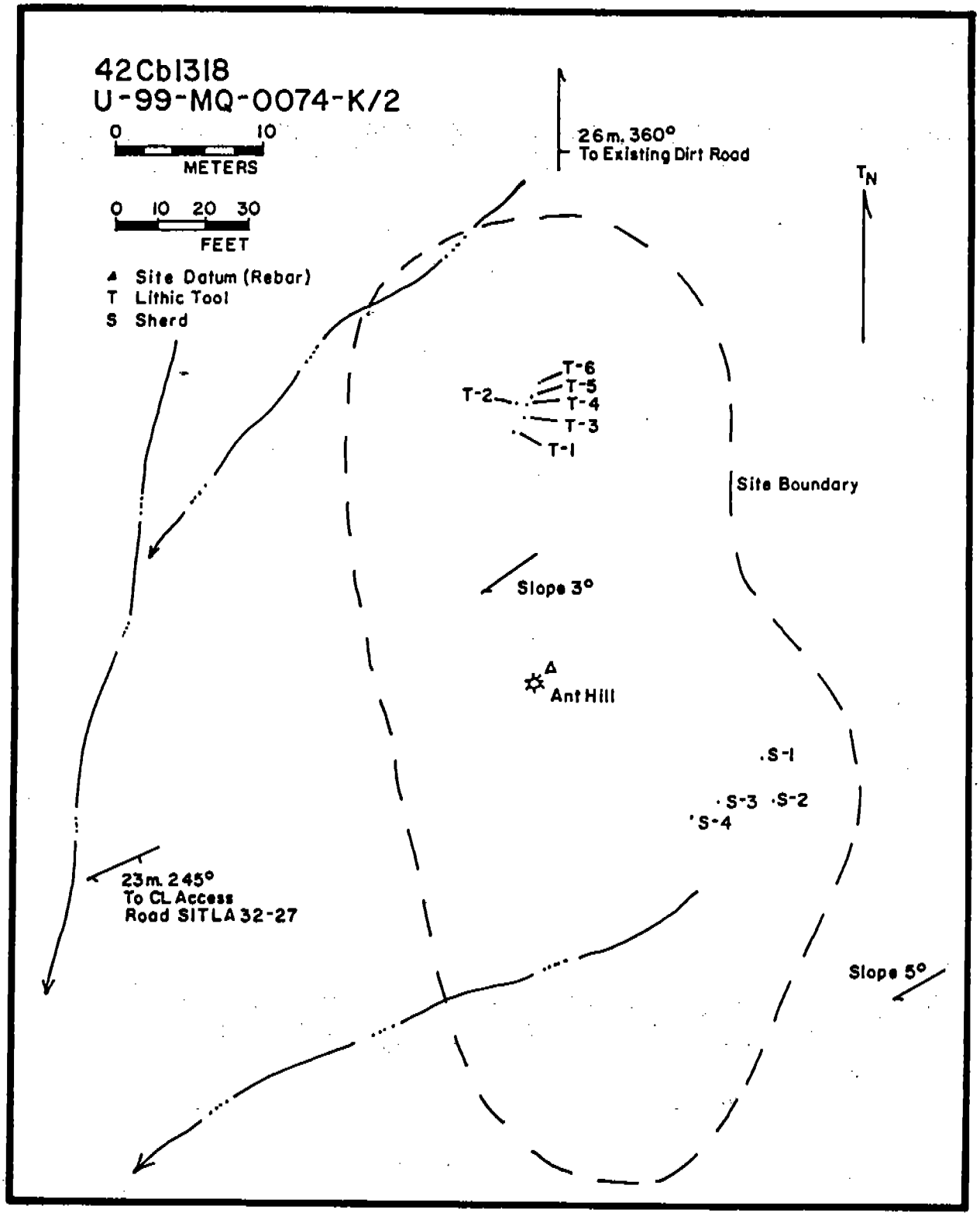



Figure 3. Site 42Cb1318 Map.

## NATIONAL REGISTER OF HISTORIC PLACES EVALUATION

The National Register Criteria for Evaluation of Significance and procedures for nominating cultural resources to the National Register of Historic Places (NRHP) are outlined in 36 CFR 60.4 as follows:

> The quality of significance in American history, architecture, archaeo-logy, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, material, workmanship, feeling, and association, and that they:
>
> a)...are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b)...are associated with the lives of persons significant to our past; or
>
> c)...embody the distinctive characteristics of a type, period, or method of construction; or that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d)...have yielded or may be likely to yield information important in prehistory or history.

The cultural resource inventory of the Fleet Energy's well locations and access routes resulted in the documentation of two prehistoric sites (42Cb1317 and 42Cb1318), and five isolated finds of artifacts (IF-A through IF-E). Site 42Cb1317 is a temporary camp containing hearths and an upright slab, as well as, an array of diagnostic artifacts. The cultural features have good potential for possessing morphology, radiocarbon and botanical data. Site 42Cb1318 is a Fremont component site with a resource processing locus and ceramic artifacts. The site has good potential for yielding additional subsurface cultural remains. Both sites are evaluated as eligible under Criterion (d), based on their potential for addressing such research topics as chronology, settlement, subsistence strategies, lithic technology, and social organization. The isolated finds of artifacts are considered not eligible to the NRHP, based on their lack of research potential other than description in this report.

## MANAGEMENT RECOMMENDATIONS

Both of the archaeological sites (42Cb1317 and 42Cb1318) documented during this project are determined as eligible for nomination to the NRHP. Site 42Cb1317 will be avoided from project impacts unless the existing dirt road requires improvement in which case a temporary fence will need to be erected along the north side of the site boundary. Site 42Cb1318 is situated along the edge of the 300 ft wide corridor access route and should be avoided by the undertaking.

Based on the findings, a determination of "no effect" is recommended pursuant to Section 106, CFR 800 for this project.

## REFERENCES CITED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Hammack, Laurens

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Hauck, F.R.

1981 Cultural Resource Survey Along a Proposed Telephone Corridor in the Hiawatha Locality of Carbon County, Utah. Archeological-Environmental Research Corporation, Salt Lake City, Utah. Report No. 81-1 on file at the BLM Price River Resource Area Office, Price, Utah.

Miller, Blaine

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1984 Cultural Resources Survey of Four Seismic Lines in Emery and Carbon Counties, Utah. Sagebrush Archaeological Consultants, Ogden, Utah. Report No. 84-47 on file at the BLM Price River Resource Area Office, Price, Utah.

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1998b Cultural Resource Inventory of F.L. Energy Corporation's Well Location Wildcat Wash 22-1 and Access Roads in Emery County Utah. Montgomery Archaeological Consultants, Moab, Utah. Report No. 98-509 on file at the BLM Price River Resource Area Office, Price, Utah

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Stokes, William Lee
1986 Geology of Utah. Utah Museum of Natural History and Utah Geological and Mineral Survey. Salt Lake City.

Thompson, Charmaine
1982 Cultural Resource Survey of the Mile High Seismic Project, Carbon, County, Utah. Cultural Resource Management Services, Brigham Young University, Provo, Utah.

APPENDIX A

SITES 42Cb1317 and 42Cb1318
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM (IMACS) SITE FORM

On File At:

Utah Division of State History
Salt Lake City, Utah

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 03/24/1999

API NO. ASSIGNED: 43-007-30564

WELL NAME: SITLA 32-27
OPERATOR: FLEET ENERGY LLC (N0935)
CONTACT: Mark Spears (713) 785-5600

PROPOSED LOCATION:
SWNE 27 - T15S - R09E
SURFACE: 1598-FNL-1374-FEL
BOTTOM: 1598-FNL-1374-FEL
CARBON COUNTY
UNDESIGNATED FIELD (002)

LEASE TYPE: STA
LEASE NUMBER: ML-48210
SURFACE OWNER: State

PROPOSED FORMATION: FRSD

| INSPECT LOCATN BY: / / | | |
|---|---|---|
| TECH REVIEW | Initials | Date |
| Engineering | RTK | 4-13-99 |
| Geology | | |
| Surface | | |

RECEIVED AND/OR REVIEWED:

✓ Plat
✓ Bond: Fed[] Ind[] Sta[✓] Fee[]
(No. 67858)
N Potash (Y/N)
N Oil Shale (Y/N) *190-5(B)
✓ Water Permit
(No. Castle Valley Service District)
N RDCC Review (Y/N)
(Date: )

N/A Fee Surf Agreement (Y/N)

LOCATION AND SITING:

___ R649-2-3. Unit ___

___ R649-3-2. General

___ R649-3-3. Exception

✓ Drilling Unit
Board Cause No: 243-1 (160')
Date: 10-13-98

___ R649-3-11. Directionl Drilling

COMMENTS: Need Presite. (Conducted 4-1-99)

STIPULATIONS: (1) Surface casing shall be cemented to surface.
(2) STATEMENT OF BASIS
(3) SITLA STIPULATIONS

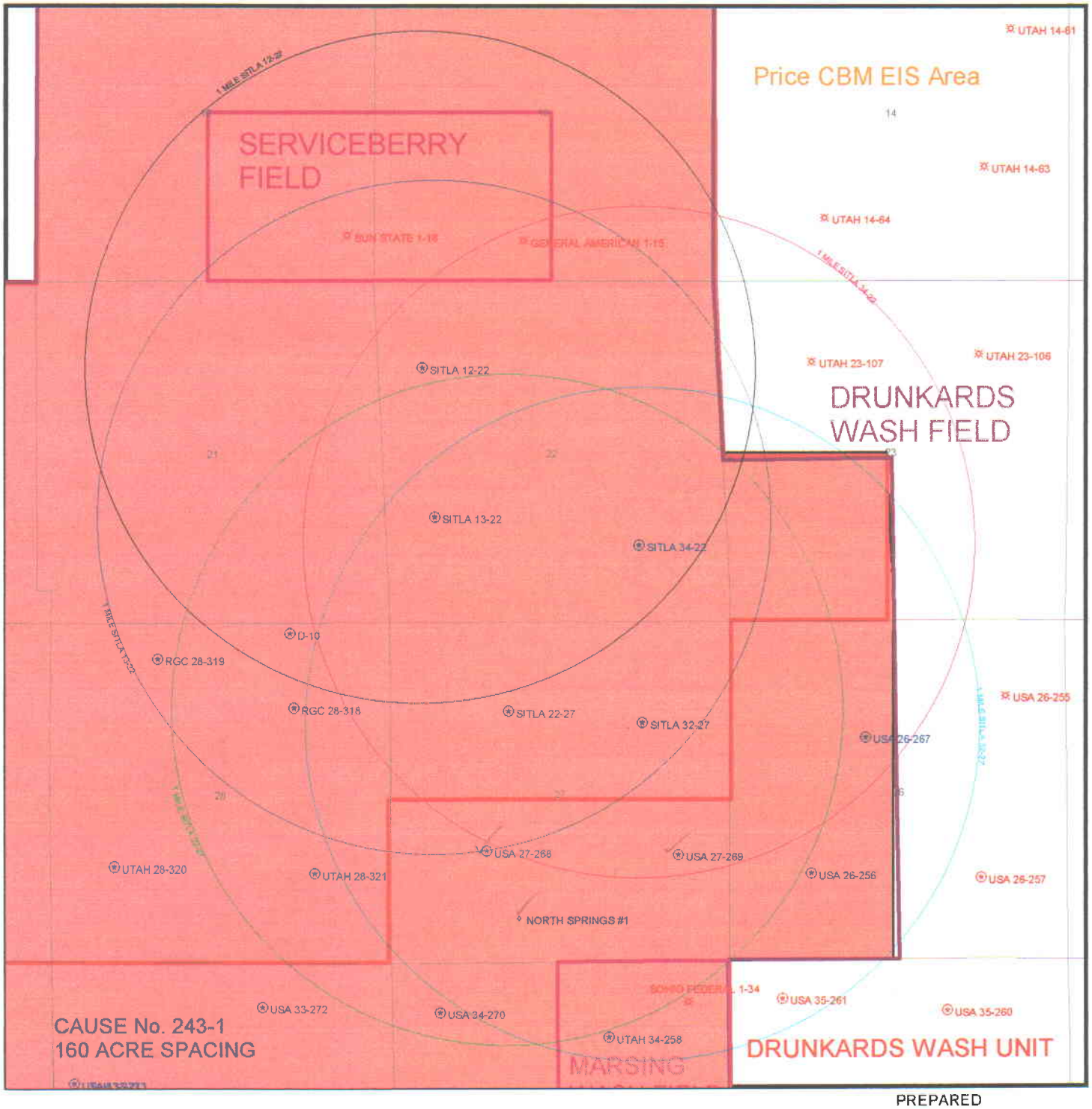
Division of Oil, Gas & Mining

OPERATOR: FLEET ENERGY LLC (N0935)

FIELD: UNDESIGNATED (002)

SEC. 22 & 27, TWP 15S, RNG 9E

COUNTY: CARBON CAUSE No. 243-1 160 ACRES




PREPARED
DATE: 31-MAR-1999

**ON-SITE PREDRILL EVALUATION**

**Division of Oil, Gas and Mining**

OPERATOR: Fleet Energy LLC

WELL NAME & NUMBER: SITLA 32-27

API NUMBER: 43-007-30564

LEASE: State ML - 48210 FIELD/UNIT: UNDESIGNATED

LOCATION: 1/4,1/4 SWNE Sec: 27 TWP: 15 S RNG: 9 E 1598 FNL 1374 FEL

LEGAL WELL SITING: 660'F SEC. LINE; 660 F 1/4,1/4 LINE; 1320F ANOTHER WELL.

GPS COORD (UTM): X = 509022 ; Y = 4371444

SURFACE OWNER: SITLA

PARTICIPANTS

K. Michael (DOGM), Jim Hemingway (Fleet), Leroy Mead (DWR)

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Western margin of Colorado Plateau/~7 miles east of foot of Wasatch Plateau. The location is on the westward-dipping lower reaches of the Blue Gate Member of the Mancos Shale (just above the Garley Canyon beds). The pad is on open ground with little or no slopey and is ~1/4 mile east ofthe Watis Highway, surrounded by Quaternary/Tertiary Pediment Mantle erosional remnants.

SURFACE USE PLAN

CURRENT SURFACE USE: Grazing and wildlife habitat.

PROPOSED SURFACE DISTURBANCE: 200' X 200' pad with 20' X 40' X 8' inboard pit and ~1000' of new surface for approach road. 1200' of upgraded surface will be required.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: 1 active gas wells (GSI), and 9 active permits, 5 River Gas, 4 Fleet, and 1 PA well are within the radius of this well.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: ~3.75 miles east of pad (Questar pipeline runs north-south).

SOURCE OF CONSTRUCTION MATERIAL: native soils and rock will be used and soil stored in berm.

ANCILLARY FACILITIES: none

WASTE MANAGEMENT PLAN:

No waste mamagement plan was submitted with the APD. However the operator agreed to or stipulated the following. Portable toilets; garbage cans on location will be emptied into centralized dumpsters which will be emptied into an approved landfill.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: None

FLORA/FAUNA: sagebrush, grasses / birds, lizards, coyotes, rodents, raptors, elk, deer, reptiles.

SOIL TYPE AND CHARACTERISTICS: Moderately-permeable silty soil on Pediment Mantle.

SURFACE FORMATION & CHARACTERISTICS: Quaternary/Tertiary Pediment Mantle and alluvium over Blue Gate Shale Member (just above Garley Canyon Beds) of Mancos Shale. Garley Canyon Sandstone Beds are discontinuous in the area, relatively thin and at or near the surface.

EROSION/SEDIMENTATION/STABILITY: Stable

PALEONTOLOGICAL POTENTIAL: None observed.

RESERVE PIT

CHARACTERISTICS: Dugout, earthen pit, as above.

LINER REQUIREMENTS (Site Ranking Form attached): Synthetic liner

SURFACE RESTORATION/RECLAMATION PLAN

As per State surface agreement.

SURFACE AGREEMENT: Agreement filed with State.

CULTURAL RESOURCES/ARCHAEOLOGY: cleared and filed with state.

OTHER OBSERVATIONS/COMMENTS

During the pre-site such things as dust abatement while drilling with airmist and the use of mag chloride on the roads was discussed. It was the original intention of Fleet to not upgrade or build any more than a two track road and to bring the pipeline and other utilities straight across country thus increasing the total impact on the area with another corridor of access. Right-of-way access and county regulations about pipelines was discussed and Fleet personnel were informed that they should be having ongoing discussions with the county about access and permit fees that they had not been having. Fleet was also apraised that SITLA would be overseeing the pipeline issues and that the BLM and EIS would need to be a familiar document to them concerning use and wildlife issues. A volcanic dike swarm is a dominant geologic feature in the area of this well and the 32-27. These structures appear to be nearly vertical and are well fractured at the surface, however at depth the fracture pattern is not clear.

ATTACHMENTS:

1 photo was taken of this location.

K. Michael Hebertson 1-Apr-1999/9:30 AM

**Evaluation Ranking Criteria and Ranking Score**
**For Reserve and Onsite Pit Liner Requirements**

| Site-Specific Factors | Ranking | Site Ranking |
|---|---|---|
| Distance to Groundwater (feet) | | |
| >200 | 0 | |
| 100 to 200 | 5 | |
| 75 to 100 | 10 | |
| 25 to 75 | 15 | |
| <25 or recharge area | 20 | 5 |
| Distance to Surf. Water (feet) | | |
| >1000 | 0 | |
| 300 to 1000 | 2 | |
| 200 to 300 | 10 | |
| 100 to 200 | 15 | |
| < 100 | 20 | 0 |
| Distance to Nearest Municipal Well (feet) | | |
| >5280 | 0 | |
| 1320 to 5280 | 5 | |
| 500 to 1320 | 10 | |
| <500 | 20 | 0 |
| Distance to Other Wells (feet) | | |
| >1320 | 0 | |
| 300 to 1320 | 10 | |
| <300 | 20 | 0 |
| Native Soil Type | | |
| Low permeability | 0 | |
| Mod. permeability | 10 | |
| High permeability | 20 | 10 |
| Fluid Type | | |
| Air/mist | 0 | |
| Fresh Water | 5 | |
| TDS >5000 and <10000 | 10 | |
| TDS >10000 or Oil Base Mud Fluid containing significant levels of hazardous constituents | 15<br>20 | 3 |
| Drill Cuttings | | |
| Normal Rock | 0 | |
| Salt or detrimental | 10 | 0 |
| Annual Precipitation (inches) | | |
| <10 | 0 | |
| 10 to 20 | 5 | |
| >20 | 10 | 5 |
| Affected Populations | | |
| <10 | 0 | |
| 10 to 30 | 6 | |
| 30 to 50 | 8 | |
| >50 | 10 | 0 |
| Presence of Nearby Utility Conduits | | |
| Not Present | 0 | |
| Unknown | 10 | |
| Present | 15 | 0 |

**Final Score** 23 (Level II Sensitivity)

**From:** Jim Dykman
**To:** Michael Hebertson
**Date:** Wednesday, April 07, 1999 3:23:28 PM
**Subject:** 99-0335

Mike this is what I know at this point.

Montegomery indicated that they should have referenced the railroad grade in this report and where it is crossed, they had in other reports in this same area.

Keith pointed out that in 1982 this R/R grade was determined not eligible, and concured with blm. He believes I have this mixed up with another R/R grade that I have been working with as part of River Gas and other well developments. He did indicate that going accross the grade if it was eligible would be an adverse effect. However since I am the only questioning if this is an eligible site, he did mention that their is another way into the site. If there are not greater environmental concerns with that method, that is the recommendation that I would make is to avoid the site.

Keith said he would modify the report and discuss the R/R grade in it. I believe there are enough questions to hold off effecrting the grade. Let me know if I can help, dykmann

**From:** Leroy Mead
**To:** Michael Hebertson
**Date:** Monday, April 05, 1999 3:14:27 PM
**Subject:** Fleet Energy On-site Inspections.

Mike,

Concerning our on-site inspections with Fleet Energy last week, I have the following comments:

T 15 S, R 9 E, Sec. 27:

No objections to the sites for these two wells.

T 15 S, R 9 E, Sec. 22:

Concerning the well-site in the Southeast quadrant between the old railroad grade and Miller Creek, the EIS states that raptor nests must have been "documented as occupied within a 3-year period" to initiate the 0.5 mile buffer zone. It is my opinion that the nests have been vacant for at least 3 years. Therefore, it would be OK for Fleet to drill the well there as far as the hawk goes. However, I would prefer to move it to the other location we talked about, if I had my "druthers".

Northwest Quadrant:

As we discussed, I would rather Fleet Energy move this well location to the bottom of the hill in the open, greasewood canyon we looked at. This site is more centrally located, has potential for easier access, is less likely to be an erosion problem, and is out of the pinyon-juniper stand that was obviously used by wintering mule deer. In my opinion, this is a much better site and I would encourage Fleet Energy to move the well to this location.

I left a voice-mail message with Jim Hemingway about the hawk nests last Thursday, April 1st. Let me know if you have any questions. Thanks.

Leroy Mead
(435) 636-0274

**CC:** Chris Colt, Derris Jones

# DIVISION OF OIL, GAS AND MINING

**APPLICATION FOR PERMIT TO DRILL**
**STATEMENT OF BASIS**

**Operator Name:** Fleet Energy LLC.
**Name & Number:** SITLA 32-27
**API Number:** 43-007-30553 64

**Location:** 1/4,1/4 SWNE Sec. 27 T. 15 S R. 9 E **County:** Carbon

**Geology/Ground Water:**
This location lies within 50' drilled depth of the Garley Canyon member of the Mancos Shale, and 1.5 miles west of the location there are active wet areas bordering on swampy at times. The Garley Canyon is not an aquifer in this section but could be farther to the west. However no high quality ground water is expected to be encountered. The proposed casing and cement program will adequately isolate any zones of water penetrated.

**Reviewer:** K. M. Hebertson **Date:** 8-Apr-1999

**Surface:**
The silty, moderately-permeable soil is developed on Quaternary/Tertiary Pediment Mantle covering the Blue Gate Shale Member of the Mancos Shale. The nearest surface waters are ~ 1.5 miles to the west and the nearest moving surface waters are in Miller Creek at about 3\4 mile distance north. Precipitation will not need to be deflected around the location however berms will be placed around the pad at the top and low water crossings will be used in the areas that would otherwise collect water. Pit integrity will be maintained by the use of a synthetic liner. There are no nearby culinary or irrigation water supply wells. The site was photographed and characterized on 1-Apr-1999. Provision was made to ensure site rehabilitation, litter and waste control, preservation of drainage patterns and the integrity of local infrastructure, groundwater and other resources. The well utilities and gas gathering system will follow the approach roadway. The operator was unaware that Carbon County may require fees for this site and the the pipeline cannot be situated along the County road Right-of-way. The were also unaware that Wildlife requires a fee for impact in the critical winter habitat area. Wildlife has forwarded an E-Mail of the field work and questions that were discussed and a copy has been enclosed as part of this assessment.

**Reviewer:** K. Michael Hebertson **Date:** 8-Apr-1999

**Conditions of Approval/Application for Permit to Drill:**
1) Berm location and pit.
2) Minimum 12 mil synthetically lined pit and blooie pit.
3) Dust abatement will be used while drilling and on access roads.
4) Culverts will be used where necessary on the access road.

| | |
|---|---|
| Well name: | **Fleet 499 SITLA 32-27** |
| Operator: | **River Gas Corp.** |
| String type: | Surface |
| Project ID: | 43-007-30553 |
| Location: | Carbon County |

## Design parameters:

**Collapse**

Mud weight: 8.330 ppg
Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 0 psi
Internal gradient: 0.433 psi/ft
Calculated BHP 130 psi

No backup mud specified.

## Minimum design factors:

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Tension:**

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 262 ft

## Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 79 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 300 ft

Cement top: 91 ft

Non-directional string.

**Re subsequent strings:**

Next setting depth: 4,220 ft
Next mud weight: 8.330 ppg
Next setting BHP: 1,826 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,786 ft
Injection pressure 2,786 psi

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Internal Capacity ($ft^3$) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 300 | 8.625 | 24.00 | J-55 | ST&C | 300 | 300 | 7.972 | 14.4 |

| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (Kips) | Tension Strength (Kips) | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 130 | 1370 | 10.56 | 130 | 2950 | 22.73 | 6 | 244 | 38.74 J |

Prepared by: RJK
Utah Dept. of Natural Resources

Date: April 13,1999
Salt Lake City, Utah

ENGINEERING STIPULATIONS: Surface casing shall be cemented to surface.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 300 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

| | |
|---|---|
| Well name: | **Fleet 499 SITLA 32-27** |
| Operator: | **River Gas Corp.** |
| String type: | Production |
| Location: | Carbon County |
| Project ID: | 43-007-30553 |

**Design parameters:**

**Collapse**

Mud weight: 8.330 ppg

Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 0 psi

Internal gradient: 0.433 psi/ft

Calculated BHP 1,192 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Tension:**

| | |
|---|---|
| 8 Round STC: | 1.80 (J) |
| 8 Round LTC: | 1.80 (J) |
| Buttress: | 1.60 (J) |
| Premium: | 1.50 (J) |
| Body yield: | 1.50 (B) |

Tension is based on buoyed weight.

Neutral point: 2,407 ft

**Environment:**

| | |
|---|---|
| H2S considered? | No |
| Surface temperature: | 75 °F |
| Bottom hole temperature: | 114 °F |
| Temperature gradient: | 1.40 °F/100ft |
| Minimum section length: | 368 ft |
| Cement top: | 491 ft |

Non-directional string.

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Internal Capacity (ft³) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2755 | 5.5 | 17.00 | N-80 | LT&C | 2755 | 2755 | 4.767 | 94.9 |

| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (Kips) | Tension Strength (Kips) | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1192 | 6290 | 5.28 | 1192 | 7740 | 6.49 | 41 | 348 | 8.50 J |

Prepared by: RJK
Utah Dept. of Natural Resources

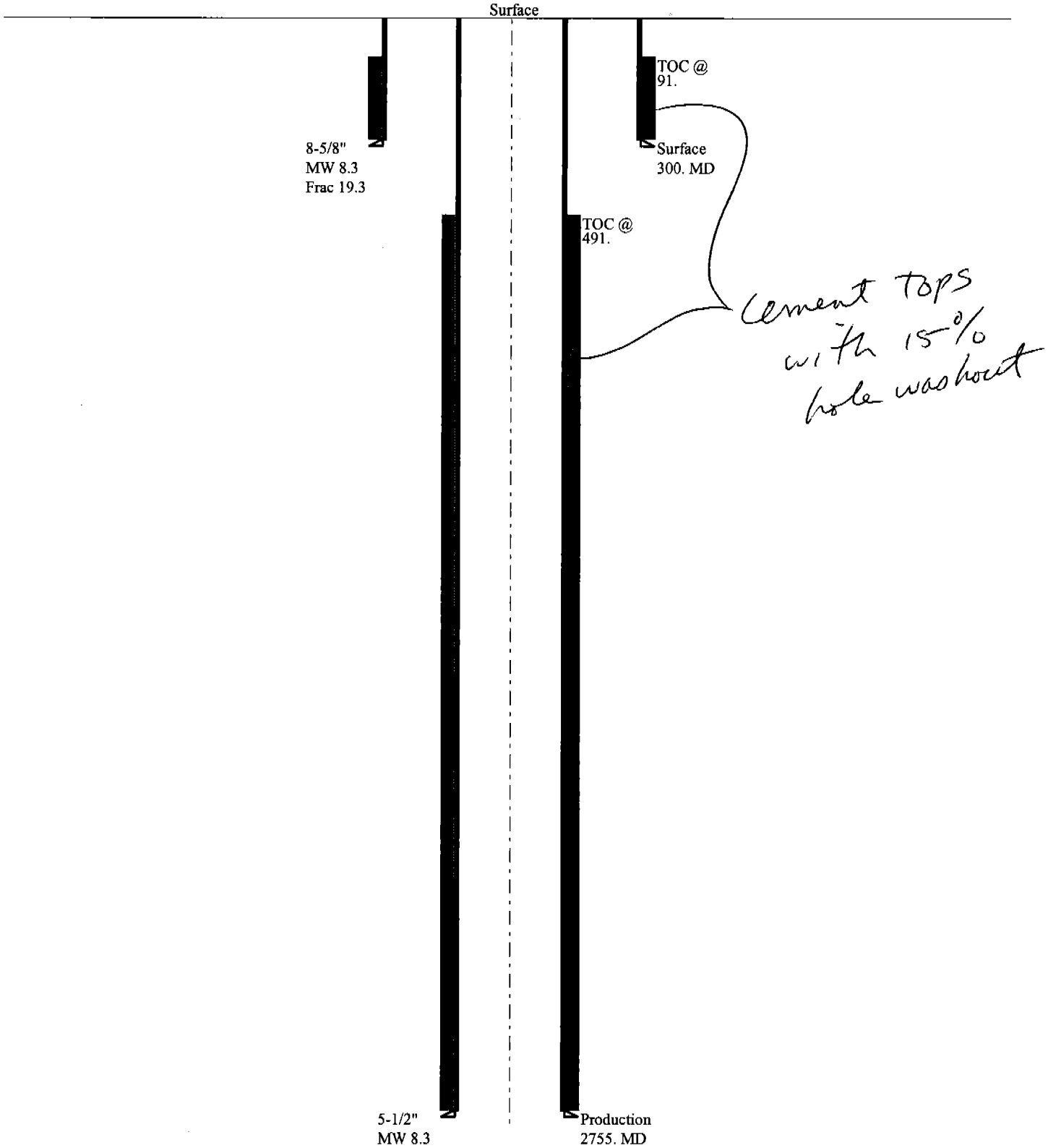
Date: April 13,1999
Salt Lake City, Utah

ENGINEERING STIPULATIONS: Surface casing shall be cemented to surface.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 2755 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

# Fleet 499 SITLA 32-27

Casing Schematic



# SCHOOL AND INSTITUTIONAL TRUST LANDS ADMINISTRATION

## OIL AND GAS CONDITIONS OF APPROVAL

## PRICE COALBED METHANE PROJECT

## FINAL ENVIRONMENTAL IMPACT STATEMENT

Well: SITLA 32-27

Mineral Lease No: ML-48210

API No.: 43-007-30564

Location: SW NE SEC. 27, T. 15 S., R. 9 E.

County: CARBON

The Bureau of Land Management has prepared an Environmental Impact Statement for a portion of the Price Coalbed Methane area and a Record of Decision has been issued with respect to certain actions considered in the Environmental Impact Statement.

Pursuant to the Utah Schools and Land Exchange Act of 1998, Pub. L. 105-335, 112 Stat. 3139, which ratified the May 8, 1998, "Agreement to Exchange Utah School Trust Lands Between the State of Utah and the United States of America" entered into between the State of Utah and the United States of America, the School and Institutional Trust Lands Administration ("SITLA") has agreed to adopt all conditions, mitigation measures and restrictions imposed on lessees by the Record of Decision in the administration of Federal Mineral Leases acquired in Townships 14, 15, 16 South and Ranger 8 and 9 East, SLBM.

Accordingly, SITLA's approval of the Application for Permit to Drill shall be conditioned upon the following:

Location of Facilities and Timing of Construction

Final well locations and transportation corridor alignments shall be selected and designed to avoid or minimize disturbances to sensitive areas, including areas of high wildlife value or critical habitat, grazing, and/or recreational value, including wetlands and riparian areas; and areas with high erosion potential, highly saline soils, rugged topography, and/or poor reclamation potential (i.e., steep slopes, eroded lands, floodplains, unstable soils), where possible.

New roads shall be constructed so as to avoid areas with high erosion potential. Where roads must be allowed, new roads shall be graded tp spread drainage instead of channeling runoff. No road on excess of 15 percent shall be allowed on slopes greater than 15 percent. No vehicle access shall be allowed across slopes on excess of 25 percent.

Construction shall not occur on frozen or saturated soils, or when watershed damage is likely, unless an adequate plan is submitted to SITLA that demonstrates potential impacts will be mitigated. SITLA may limit cross- country travel or construction activity at times when soils are dry or frozen or have snow cover. SITLA will determine what is "wet," "muddy," or "frozen' based on weather and field conditions at the time. The limitation does not apply to maintenance and operation of producing wells.

Occupancy or other surface disturbance shall not be allowed within 330 feet of the centerline or within the 100-year recurrence interval floodplain of perennial steams, except where authorized in writing by the SITLA (e.g., road crossings).

Occupancy or other surface disturbance shall not be allowed within 660 feet of springs, whether flowing or not. No vibroseis, drilling or blasting associated with seismic exploration shall be allowed withing 0.25 mile of any spring or water well.

During project construction, surface disturbance and vehicle travel shall be limited to the approved location and access routes. Any additional area needed must be approved by SITLA prior to use.

Vegetation removal necessitated by a construction project shall be confined to the limits of actual construction. Removed vegetation will be stockpiled for use in reclamation or removed form the construction site at the direction of SITLA.

**Reclamation**

The reclamation plan shall be a part of the surface use plan of operations. The following are generally components of the reclamation plan.

All pits must be reclaimed to a natural condition similar to the rest of the reclaimed area, and must be restored to a safe and stable condition.

Reclamation shall start immediately upon completion of construction, unless prevented by weather conditions. Disturbed areas shall be restored to approximately the original contour.

Disturbed areas shall be revegetated after the site has been satisfactorily prepared. Site preparation may include ripping, contour furrowing, terracing, reduction of steep cut and fill slopes, waterbarring, or other procedures.

Revegetation seed mixes have been established for the Project Area, and are provided in Appendix 2F. They are based on erosion control, forage production, elevation, soils, vegetation community composition, and precipitation requirements. Different seed mixes have been developed for temporary seedlings, and for final reclamation of sited in salt desert, sagebrush/grass, pinyon-juniper, mountain brush, and riparian habitats. Reclamation in riparian habitat shall also involve sedge and rush root plugs, willow cuttings, and cottonwood bare root stock plants. All seed mixes shall be free of noxious weeds.

Seedling shall be done by drilling on the contour whenever practical, or by other approved method. Where broadcast seeding is used, seeding shall take place after the soil surface is recontoured and scarified. A harrow or similar implement shall be dragged over the area to assure seed cover.

On all cut slopes, the seeding must extend from the bottom of the ditch to the top of the cut slope. On embankment slopes, the seeding must extend from the roadway shoulder to the toe of the slope. Seeding shall also be done on all borrow pit areas and on all sidecast slopes in areas of full bench construction.

Seeding and/or planting shall be repeated until satisfactory revegetation is accomplished, as determined by SITLA. Mulching, fertilizing, fencing or other practices may be required.

Seeding shall be done from October 1 to November 15, and from February 1 to March 31 (requires SITLA prior approval).

Sufficient topsoil to facilitate revegetation shall be segregated from subsoils during all construction operations and shall be returned to the surface upon completion of operations, where feasible. Topsoil stockpiles shall be revegetated or otherwise protected to prevent erosion and maintain some soil microflora and microfauna. Stockpiled topsoil shall be spread evenly over the recontoured area. All disturbed areas and vehicle tracks form overland access shall be ripped 4 to 12 inches deep within the contour.

Bonds are required for oil and gas operations on federal leases for protection pf the environment, including surface reclamation. Revegatation must be successfully established for release for the bond.

Reclamation and abandonment of pipelines and flowlines may require replacing fill on the original cuts, reducing and grading cut and fill slopes to conform to the adjacent terrain, replacement of surface soil material, waterbarring, and revegetating in accordance in accordance with a reclamation plan.

Wellsite reclamation shall include recounturing to re-establish natural contours where desirable and practical.

After well plugging and abandonment, roads constructed by the operator not required for SITLA transportation system use shall be closed and obliterated. Reclamation may include ripping, scarifying, waterbarring, and barricading Stockpiled soil, debris and fill materials shall be replaced on the road bed to conform to the approved reclamation plan.

Water bars shall be constructed on road grades or slopes, if require by SITLA. Spacing of waterbreaks is dependent on slope and soil type. For most soil types, the following spacing shall be used:

| Slope | Spacing |
|---|---|
| 2% | 200 feet |
| 2-4% | 100 feet |
| 4-5% | 75 feet |
| >5% | 50 feet |

Revegetation on big game critical winter range shall include hand-planting of seedling browse plants and use of seedling protectors to provide protection against browsing in the first two years after planting.

Temporary erosion control measures such as mulch, jute netting, or other appropriate methods shall be used on unstable soils, steep slopes, and wetland areas to prevent erosion and sedimentation until vegetation becomes established.

## General Requirements

Precautions must be taken at all times to prevent wildfire. Operators shall be held responsible for suppression costs for any fires on public lands caused by operator's negligence. No burning of debris shall be allowed without specific authorization from SITLA.

Any campfires must be kept to a minimum size and utilize only downed dead wood.

Road construction must meet class II standards (Appendix 2C).

With SITLA approval, existing roads or trails may be improved (bladed) if impassable by vehicles or equipment. No widening or realignment shall be allowed unless approved by SITLA. Maintenance of roads outside lease or unit boundaries will require a SITLA right-of-way.

New trails may be constructed only when vehicle and equipment passage is impossible, and only with the concurrence of the SITLA. Any pushed trees are to be readily retrievable without additional disturbance, if needed for reclamation.

Reserve pits for oil and gas drilling operations may be required to be lined with commercial-grade bentonite or plastic liners sufficient to prevent seepage. At least half of the

capacity shall be in a cut.

Prior to the use of insecticides, herbicides, fungicides, rodenticides, and other similar substances, and operator must obtain from SITLA approval of a written plan. The plan must describe the type and quantity of material to be used, the pest to be controlled, the method of application, the location for storage and disposal of containers, and other information that SITLA may require. A pesticide may be used only in accordance with it's registered uses and within other agency limitations. Pesticides must not be permanently stored on public lands.

## Water Resources

Existing fords shall be used for drainage crossings where possible. Low-water crossings shall use a cut-and-fill process or upgrade existing crossings unless use of culverts is specifically authorized.

Bridges and culverts shall allow adequate fish passage where applicable. Take-down (or free-floating) panels or water gates shall be installed on all fences that cross intermittent or perennial steam channels.

For construction projects lasting more than 30 days, portable chemical toilets shall be provided at all staging areas, bases of operations, and storage areas.

Soaps, detergents, or other nondegradable foreign substances shall not be used for washing in streams or rivers. Biodegradable soap may be used.

No oil, lubricants, or toxic substances may be drained onto the ground surface. Pads shall be designed so that any oil, lubricants, etc., shall drain into a collection system.

## Wetlands and Riparian Areas

Construction, development, and right-of-way in riparian areas shall be minimized. Where these areas must be disturbed, stipulations shall minimize impacts and require post-disturbance reclamation. Reclamation shall be closely monitored, and not considered complete until the desired vegetation is established.

## Wildlife

Restrictions on Construction Phase Activity: Prohibit construction phase activity described below, on big game high value and critical winter range during the period (December 1 - April 15). This condition would not apply to normal maintenance and operation of producing wells, described below.

Construction Phase Activity: Construction phase activity is considered to include all work associated with initial drilling and construction of facilities through completion, including installation of pumping equipment, connection with ancillary facilities and tie-in with pipelines necessary for product delivery.

Construction activities are not allowed to be initiated unless it is reasonable to believe that such work can be finished to a logical stopping point prior to December 1 of that year. Specific activities considered to be covered by the seasonal closure include all heavy equipment operations including but not limited to the following:

- Mobilization/Demobilization or operation of heavy equipment (crawler tractor, front end loader, backhoe, road grader, etc.)
- Construction activity (road construction or upgrading, pad, pipeline, powerline, ancillary facilities, etc.),
- Drilling activity (operator would not propose to initiate drilling activity if the project could not reasonably be expected to be finished to a logical stopping point by the December 1 date of theat year.
- Seismic operation, detonation of explosives.

This seasonal closure would not apply to reconnaissance, survey/design and /or flagging of project work or other similar activity not requiring actions listed for heavy equipment operation.

Production Phase: A coalbed methane well is considered to be in production phase when the well and ancillary facilities are completed to the point that they are capable of production and delivering product for sale. It is noted that heavy equipment operation may be necessary in the performance of maintenance and operation of producing wells.

Restriction on Non Emergency Workover Operations: Non-emergency workover operations (defined below) are required to be scheduled on big game high value winter range outside the December 1 to April 15 date of the seasonal closure. The operator will be required to submit Sundry notices to SITLA in advance of workover operations proposed between December 1 and April 15. Sundry notices submitted as emergency work, may require independent corroboration by SITLA staff prior to work proceeding. Should SITLA object to the emergency designation of the sundry notice, SITLA would make notification of the objection within five working days of receipt of the sundry notice. In the absence of such notification or in the event of corroboration with the sundry notice, the operator would be permitted to proceed with the workover operation.

Non-emergency Workover Operations: Workover operations to correct or reverse a gradual loss of production over time (loss of production of five percent or less over a 60 day period) is considered to be routine or non-emergency workover operations and would not be permitted during the December 1 to April 15 time frame.

Emergency Workover Operations: Emergency work over operations are defined as downhole equipment failure problems or workover operations necessary to avoid shut-in of the

well or to avoid an immediate safety or environmental problem. Loss of production greater than five percent within a 60 day period is indicative of pump failure and will be treated as an emergency workover operation.

The subject permit application is proposed within critical winter range and subject to acre for acre mitigation for surface disturbance on critical winter range. The following condition comes from a cooperative agreement between the River Gas Corporation, BLM-Price Field Office, the Utah Division of Wildlife Resources and the National Fish and Wildlife Foundation, under which the River Gas Corporation agrees to the following:

- Contribute $1,250.00 (1996 dollars) for each well interest permitted and drilled by RGC (or on behalf of RGC by its contractor) on big game critical winter range as depicted in the FEIS Price Coalbed Methane Project Area. (Wells meeting the above criteria for which payment will be required, will be referred to as "subject wells".) This contribution will be adjusted annually for inflation based on the Consumer Price Index (CPI), see Section II.C.6 for the referenced source used for the determination of the CPI and the date in which this annual adjustment will go into effect.

  Since this mitigation program is designed to address impacts of all big game critical winter range surface disturbance (roads, well pads, pipelines, etc.), contributions will be required regardless of the success or failure of the subject well to produce.

  - The recorded date for spudding for each subject well (the first boring of a hole during the drilling of a well) will serve as the reference date triggering the requirement for the mitigation contribution.

  - Contributions will be submitted (in the form of an Corporate check, cashiers check or wire transfer) directly to the National Fish and Wildlife Foundation by the 30th of each month for all subject wells spudded in the preceding month.

  - All contributions will be made payable to the "National Fish and Wildlife Foundation re: Proj 97-260" and reference the "Price Field Office Wildlife Habitat Impact Mitigation Fund (RGC)".

Exploration, drilling or other development activity shall only be allowed from June 16 to March 31 in sage grouse strutting/nesting areas. This limitation does not apply to maintenance and operation of producing wells.

Permanent surface disturbance and occupancy (i.e., oil and gas production facilities) is prohibited within 0.5 miles of raptor nests which have been documented as occupied within a 3-year period, and temporary surface disturbance and occupancy (i.e., seismic lines, oil and gas

exploration, road construction) is prohibited within one-half mile buffer zones during the critical nesting period. Site-specific evaluations in coordination with the USFWS may allow for modifications to this requirement. This requirement does not apply to maintenance and operation of existing producing wells and access roads constructed prior to occupancy of nest(s). The proponent shall be required to submit (at least 5 days in advance of proposed work) a sundry notice for all workover or maintenance operations requiring use of heavy equipment during the raptor breeding season (February 1 to July 15) and within the 0.5 mile buffer zone of any known raptor nest site. Upon receipt of this notification, SITLA, in consultation with USFWS and UDWR, shall conduct a field evaluation and issue a determination on the activity status of the affected nest site. If the nest site is found to be occupied (defined below), site specific protection measures shall be developed to protect the nesting raptors and prevent conditions or actions that may result or contribute to a "taking" as defined under the Bald Eagle Protection Act and Migratory Bird Treaty Act.

An occupied raptor nest is defined for the purpose of this stipulation as any nest site exhibiting physical evidence of current use by raptors. Evidence may include but is to not limited to: presence of raptors (adults, eggs young) at the nest or within the nesting territory, presence or greenery in the nest, and/or presence of current year's whitewash at the nest or in the immediate vicinity of the nest.

Raptor surveys shall be required to determine the status of known nests and verify presence of additional nests for all federal leases within the Project Area. Surveys shall be conducted by consultants qualified to conduct such surveys and approved by the authorized officer. All surveys shall be conducted by helicopter during May of each year, prior to the proposed drilling and prior to APD approval. The surveys shall be done in the same year as the proposed drilling so that current nest activity status data are available. Costs for surveys and preparation of a report of the findings of the survey shall be the obligation of the lease holder.

In order to protect bald eagle winter roost sites, a 0.5 mile radius buffer zone of no surface occupancy shall be established around all winter night roost sites. This buffer zone applies to all above ground facilities such as wells, compressor stations, and roads, that require or encourage human visitation during the winter period. Exceptions to this stipulation shall be considered on a case by case basis through consultation with the USFWS. Upon request for an exception to this stipulation, SITLA shall coordinate with the USFWS and UDWR to jointly develop a site-specific buffer zone based on topography and visual sight distances around the night roost site.

**Cultural Resources**

All areas subject to surface disturbance, or Areas of Potential Effect (APE), which have not been previously inventoried for cultural resources to SITLA standards, must be inventoried prior to approval of an APD or other actions. The APE is defined as any area that may be subject to direct or indirect impacts to cultural resources by elements of the development project. The zone of the APE shall vary in size in accordance with the projected levels of sensitivity for cultural resources at the location of any development. In low sensitivity areas, the APE shall be defined as

the area subject to direct impacts through surface disturbing activities. In areas of medium sensitivity, the APE shall be expanded to account for potential indirect impacts: intensive inventory shall occur on all well pads plus additional 10 acres surrounding each pad; a 150- foot corridor center on roads, flowlines, and other facilities shall be inventoried as the APE. In high sensitivity areas, the APE shall include the well pad and 10 acres surrounding the well location' and the APE for roads, flowlines, and other facilities shall be area of direct ground disturbance and a 300-foot zone on all sides of the facility.

Cultural resource inventories shall be conducted in consultation with SITLA by authorized cultural resource professionals. Prior to field work, a records check must be conducted to identify previous inventories ans recorded properties. During the course of inventories, previously unrecorded sites must be recorded on standard forms, photographed, and mapped. Cultural resources shall be evaluated , and a recommendation on eligibility to the National Register of Historic Places shall be made. SITLA shall make all Determinations of Eligibility. A report shall be prepared for each development or series of developments documenting the inventory methods, results, description of the sites within the APE, recommendations on National Register eligibility, and shall include proposed mitigating measures.

SITLA shall consult with the State Historic Preservation Officer (SHPO) and the President 's Advisory Council on Historic Preservation (ACHP) as mandated by the National Historic Preservation Act of 1966 (as amended), in accordance with guidelines set forth in a Programmatic Agreement among BLM, SHPO, ACHP, and RGC. This document has been completed as a legally binding agreement and is referenced in the Record of Decision for the overall project. Site avoidance, detailed site recordation, and site protection shall be the preferred treatments, but mitigation of National register eligible properties through date recovery may take place where avoidance is not prudent or feasible, after consultation as specified in the Programmatic Agreement. SITLA shall submit a treatment plan to SHPO, ACHP and to other affected parties as may be appropriate for a 30-day consultation prior to implementation of data recovery efforts.

SITLA shall notify, consult , and/ or coordinate with Indian tribes, traditional leaders, and other interested parties as required by various statues (NEPA, American Indian Religious Freedom Act [AIRFA], National Historic Preservation Act [NHPA], Federal Land Policy and Management Act [FLPMA], Archaeological Resources Protection Act [ARPA], and the Native American Graves Protection act [NAGPRA]). In particular, SITLA shall attempt to elicit information concerning the potential effects of any action resulting from the Proposed Action on tradition cultural properties, including areas of traditional use and areas of religious or cultural importance to tribes. Indian tribes shall be afforded a minimum of 30 days for review , comments and consultation prior to issuance of a decision; under certain circumstances additional time must be afforded. A 30- day notification period is required by ARPA prior to issuance of any Cultural Resource Use Permits of r the excavation and removal; of cultural resources from public lands administered by SITLA. NAGPRA requires notification and consultation with affected tribes regarding the potential to encounter human remains during the course of a project, and provides for cessation of work, and the notification and consultation with tribes should inadvertent

discovery of human remains occur during the course of a project. SITLA shall assure adherence to these statues.

If a previously unknown property is encountered during construction or operation of the facilities, or is a previously planned undertaking shall affect a known historic property in an unanticipated manner, all work that might adversely affect the property shall cease until SITLA can evaluate the significance of the property and assess the effect of the undertaking. SITLA shall consult with SHPO on both a determination of eligibility and the assessment of effect on an expeditious manner. If the site is determined eligible and shall be affected by the undertaking, SITLA shall ensure that RGC prepares an avoidance or treatment plan for the property.

If humans remains are discovered at any point during the project, they shall be treated according to state and federal law, and according to the wishes of concerned Native American tribes, pursuant to the Native American Graves Protection and Repatriation Act. The county sheriff, coroner, land-managing official, and State Archaeologist shall be notified. The remains shall not be disturbed until the appropriate officials have examined them

**Land Use**

On split estate lands, where the surface is privately owned and the subsurface is owned by SITLA, SITLA will recommend the same environmental protection standards as shall be used for SITLA surface. The operator is responsible for making a good faith effort ro reach an agreement with the privates surface owner which considers the recommended SITLA protection measures and formalizes requirements for the protection of surface resources and/or damages.

Each application for permit to drill or application to conduct other surface disturbing activities shall contain the name, address and telephone number of the surface owner. The SITLA shall invite the surface owner to participate in any on-site inspection that is held. The operator is responsible for making access arrangements with the private surface owner prior to entry.

Incorporated cities are categorized by BLM as no Lease. Within the Project Area, BLM leases do not permit surface occupancy or other activity for Carbon County Airport, Carbon County Recreation Complex, and Carbon County sanitary landfill.

**Livestock Management**

Existing range and livestock management facilities, such as fences wells, reservoirs, watering pipelines, troughs and trailing systems, shall not be disturbed without prior approval of SITLA. Where disturbance is necessary, the facility shall be returned to its original condition.

Newly constructed range improvements such as fences and reservoirs must meet SITLA

standards. When it is necessary to gain access across a fenceline for construction purposes, the fence must be braced. Four-inch timber or equivalent must be installed and the gateway kept closed when not in actual use.

All gates found closed during the course of the operation must be reclosed after each passage of equipment and personnel. Cattle guards shall be installed in fences on all collector roads. Either a cattle guard or a gate shall be required on local and resource to roads to control livestock movement or vehicular access.

If road construction cuts through natural topography that serves as a livestock barrier, a fence shell be constructed to replace it. The fence shall be installed with a cattle guard or gate to control livestock and vehicle movement or access.

Access to grazing areas shall be maintained at all times. Livestock operators shall have access to grazing and trailing areas where road closures are implemented during periods of authorized livestock use.

**Visual Resources**

Roads through timbered areas shall take a curvilinear path to reduce sight distances.

Upon completion of the project the area and access roads shall be reclaimed to as near the original condition as possible. All disturbed areas shall be recontoured to blend as nearly as possible with te natural topography. All berms shall be removed and all cuts (including roads) filled.

Construction areas and access roads shall be kept liter-free. The operator must provide a trash pit or trash cage, and trash must be collected and contained during the operation. All garbage, trash, flagging, lath, etc., shall be removed from the area and hauled to an authorized dump site.

Construction and facilities shall be in conformance with Visual Resource Management (VRM) objectives for the VRM classes in the Project Area. All surface facilities in the Project Area shall be located to minimize disturbance of the visual horizon and painted to blend in with the surrounding landscape.

Colors shall be specified by the SITLA.

**MISC. ITEMS**

MUD PIT:_____Lined _____Unlined _____Determine at construction

Comments:_____

_____

_____

_____

_____

_____

_____

# APPENDIX 2F

## SEED MIXTURES FOR THE PRICE COALBED METHANE PROJECT

Seed mixtures have been developed for general land types throughout the project area. They are based on erosion control, forage production, elevation, soils, vegetation communities and average annual precipitation zones. The mixtures show the plant species and the pounds per acre of pure live seed (PLS) to be planted.

The following seed mixture will be planted along service road borrow ditches, around the edge of drill pads with a production well, and surrounding other production and maintenance facilities. The purpose of this seeding is to provide a "green strip" buffer to minimize fire hazards and prevent invasion and establishment of noxious weeds in areas that will receive contained disturbance for the life of these project areas.

**Green Strip Area**

NOTES: _____

| Common Plant Name | Scientific Name | Pounds per acre/PLS* |
|---|---|---|
| Forage kochia | Kochia prostra | 2 |
| Wyoming big sagebrush | Artemisia tridentata wyominggensis Var. Gordon Creek | 1 |
| Douglas low rabbitbrush | Chiysothamnus viscidiflorus | 1 |
| Yellow sweetclover | Melilotus officinalis | 1 |
| Small burnet | Sanguisorba minor | 1 |
| Bottlebrush squirreltail | Elymus elymoides | 1 |
| Inertmediate wheatgrass | Thinopyrum intermedium | 1 |
| | Total | 8 |

The following seed mixtures are for areas that will receive final reclamation. Areas would be planted to protect them form soil erosion and to restore forage production.

**Salt Desert Areas**

NOTES: _____

_____

_____

| Common Plant Name | Scientific Name | Pounds per acre/PLS* |
|---|---|---|
| Grasses | | |
| Indian ricegrass | Oryzopsis hymenoides | 2 |
| Squirreltail | Elymus elymoides | 2 |
| Galleta | Hilaria jamesii | 2 |
| Forbs | | |
| Lewis flax | Linum perenne lewisii | 1 |
| Palmer penstemon | Penstemon palmerii | 1 |
| Gooseberryleaf glodemallow | Sphaeralcea grossulariifolia | 0.5 |
| Shrubs | | |
| Forage kochia | Kochia prostrata | 2 |
| Rubber rabbitbrush | Chrysothamnus nauseosus | 1 |
| Fourwing saltbush | Atriplex canescens | 2 |
| Winterfat | Krascheninnikovai (Eurotia) lanta | 2 |
| | Total | 15.5 |

**Sagebrush/ Grass Areas**

NOTES: _____

_____

_____

| Common Name | Scientific Name | Pounds per acre/PLS* |
|---|---|---|
| Grasses | | |
| Indian ricegrass | Oryzopsis hymenoides | 2 |
| Squirreltail | Elymus elymoides | 2 |
| Thickspike wheatgrass | Elymus lanceolatus | 1 |
| Crested wheatgrass | Agropyron desertorum | 2 |

| | | |
|---|---|---|
| Forbs | | |
| Lewis flax | Linum perenne lewisii | 1 |
| Palmer penstemon | Penstemon palmerii | 1 |
| Small burnet | Sanguisorba minor | 1 |
| Shrubs | | |
| Forage kochia | Kochia prostrata | 2 |
| Whitestem rabbitbrush | Chrysothamnus nauseosus albicaulis | 1 |
| Fourwing saltbush | Atriplex canescens | 2 |
| Wyoming big sagebrush | Artmesia tridentata | 1 |
| | Total | 16 |

**Pinyon/Juniper Areas**

NOTES: _____

| Common Name | Scientific Name | Pounds per acre/PLS* |
|---|---|---|
| Grasses | | |
| Thickspike wheatgrass | Elymus lanceolatus | 1.5 |
| Inertmediate wheatgrass | Thinopyrum intermedium | 1.5 |
| Squirreltail | Elymus elymoides | 2 |
| Crested wheatgrass | Agropyron desertorum | 2 |
| Forbs | | |
| Lewis flax | Linum perenne lewisii | 1 |
| Palmer penstemon | Penstemon palmerii | 1 |
| Small burnet | Sanguisorba minor | 1 |
| Shrubs | | |
| Forage kochia | Kochia prostrata | 2 |
| Fourwing saltbush | Atriplex canescens | 2 |
| Wyoming big sagebrush | Artmesia tridentata wyominggensis var. Gordon Creek | 1 |
| Antelope bitterbrush | Purshia tridentata | 1 |
| True Mt. mahogany | Cercocarpus montanus | 1 |
| | Total | 17 |

**Mountain Brush Areas**

NOTES: _____

| Common Name | Scientific Name | Pounds per acre/PLS* |
|---|---|---|
| Grasses | | |
| Sheep fescue | Festuca ovina | 2 |
| Smooth brome | Bromus inermis | 2 |
| Slender wheatgrass | Elymus trachycaulus | 2 |
| Intermediate wheatgrass | Elytirgia intermedia | 1.5 |
| Russian wildrye | Psathyrostachys juncea | 1 |
| Forbs | | |
| Lewis flax | Linum perenne lewisii | 1 |
| Rocky Mt. penstemon | Penstemon strictus | 1 |
| Sainfoin | Onobrychis viciifolia | 0.5 |
| Shrubs | | |
| Forage kochia | Kochia prostrata | 2 |
| Wyoming big sagebrush | Artmesia tridentata wyominggensis var. Gordon Creek | 0.5 |
| Antelope bitterbrush | Purshia tridentata | 1 |
| Mountain big sagebrush | Artemisia tridentata var. vaseyana | 0.5 |
| True Mt. mahogany | Cercocarpus montanus | 1 |
| | Total | 16 |

**Riparian Areas**

NOTES: _____

| Common Plant Name | Scientific Name | Pounds per acre/PLS* |
|---|---|---|
| Grasses and Grasslike | | |
| Reed canarygrass | Phalaris arundinacea | 2 |
| Streambank wheatgrass | Elymus lanceolatus riparium | 4 |
| **Nebraska sedge | Carex nebrascensis | |
| **Baltic rush | Juncus balticus | |

Shrubs

| | | |
|---|---|---|
| **Coyote pillow | Salix exqua | |
| Skunkbush sumac | Rhus trilobata var. trilobata | 2 |
| | Total | 8 |

Tress

** Narrowleaf cottonwood Populus augustifolia

* Seeding rate is listed as pounds per acre of pure live seed (PLS) drilled. Rate is increased by 50 percent if broadcast seeded.

Formula: pure live seed (PLS) =%seed purity x %seed gemination.

** Sedge and rush root mass plugs, willow cuttings and cottonwood bare stock plantings will be done in the spring, within one month after water flows, when the riparian water table and soil moisture will ensure planting success.

State of Utah
Department of Community and Economic Development
Division of State History
Utah State Historical Society

Michael O. Leavitt
Governor
Max J. Evans
Director

300 Rio Grande
Salt Lake City, Utah 84101-1182
(801) 533-3500 FAX: 533-3503 TDD: 533-3502
cehistry.ushs@email.state.ut.us

UTAH STATE HISTORICAL SOCIETY
SINCE 1897

J Baza

March 23, 1999

RECEIVED
MAR 29 1999
DIV. OF OIL, GAS & MINING

Kenneth L. Wintch, Staff Archaeologist
Utah School and Institutional State Trust
Lands Administration
675 East 500 South, Suite 500
Salt Lake City UT 84102

RE: "Cultural Resource Inventory of Fleet Energy's Well Locations and Access Corridors, Carbon County, Utah" U-98-MQ-0074s

In Reply Please Refer to Case No. 99-0335

The Utah State Historic Preservation Office received the above referenced report on March 8, 1999. After consideration of the Montgomery Report, the USHPO concurs with a determination of No Effect for the project. Two properties were recorded and will be avoided by the project; [42CB 1318 and 1317, Eligible]

This information is provided on request to assist LANDS with its state law responsibilities as specified in U.A.C. 9-8-404. If you have questions, please contact me at (801) 533-3555. My email address is: jdykman@state.ut.us

As ever,

James L. Dykmann
Compliance Archaeologist

JLD:99-0335 OSM/DOEx2/NEx2

c: Keith R. Montgomery, Principal Investigator, Montgomery Archaeological Consultants
P. O. Box 147, 322 East 100 South, Moab UT 84514

c: DOGM, P. O. Box 145801, Salt Lake City UT 84114-5801

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*Preserving and Sharing Utah's Past for the Present and Future*

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

# State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

April 20, 1999

Fleet Energy, L.L.C.
2450 Fondren, Suite 310
Houston, Texas 77063

Re: SITLA 32-27 Well, 1598' FNL, 1374' FEL, SW NE, Sec. 27, T. 15 S., R. 9 E., Carbon County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-30564.

Sincerely,

John R. Baza
Associate Director

lwp
Enclosures
cc: Carbon County Assessor
Bureau of Land Management, Moab District Office
SITLA

**Operator:** Fleet Energy, L.L.C.

**Well Name & Number:** SITLA 32-27

**API Number:** 43-007-30564

**Lease:** State **Surface Owner:** State

**Location:** SW NE **Sec.** 27 **T.** 15 S. **R.** 9 E.

## Conditions of Approval

1. General

   Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

   Notify the Division of the following actions during drilling of this well:

   - 24 hours prior to cementing or testing casing
   - 24 hours prior to testing blowout prevention equipment
   - 24 hours prior to spudding the well
   - within 24 hours of any emergency changes made to the approved drilling program
   - prior to commencing operations to plug and abandon the well

   Division contacts (please leave a voice mail message if person is not available to take the call):

   - Dan Jarvis at (801) 538-5338
   - Robert Krueger at (801) 538-5274 (plugging)
   - Carol Daniels at (801) 538-5284 (spud)

3. Reporting Requirements

   All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Surface casing shall be cemented to surface.

5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

6. School and Institutional Trust Lands Administration-Oil and Gas Conditions of Approval.

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE RESOURCES

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
John Kimball
Division Director

Southeastern Region
475 West Price River Drive, Suite C
Price, Utah 84501-2860
435-636-0260
435-637-7361 (Fax)

*Marathon Oil Presite Inspections Cont. 3/9-10/00 (v. 2)*

*SITLA 32-22*: This area is within the big game winter range, therefore seasonal restrictions for construction and mitigation requirements should be followed. There are 5 ferruginous hawk nests within ½ mile of this location, however, all of these nests were old and dilapidated.

*SITLA 14-23*: UDWR does not have any wildlife concerns with this well.

*SITLA 34-23*: UDWR does not have any wildlife concerns with this well.

*SITLA 22-22*: This area is within the big game winter range, therefore seasonal restrictions for construction and mitigation requirements should be followed. There are 3 raptor nests within ½ mile of this location (99-673, 99-672, 99-722, 99-721, 99-723, 99-724), however, all of these nests were either dilapidated or have been inactive for more than 3 years.

*SITLA 34-22*: We did not look at this well site. It is our understanding that this site has already been onsite reviewed and permitted by Fleet Energy. Marathon Oil, as the successor operator, now requests that the permit be rescinded and a new permit be issued in their name for this location. This area is within the big game winter range, therefore seasonal restrictions for construction and mitigation requirements should be followed. There are 6 raptor nests within ½ mile of this location (99-720, 99-721, 99-725), however, all of these nests were either dilapidated or have been inactive for more than 3 years.

43-007-30564 Sec. 27, 15S, 9E

*SITLA 32-27*: We did not look at this well site. It is our understanding that this site has already been onsite reviewed and permitted by Fleet Energy. Marathon Oil, as the successor operator, now requests that the permit be rescinded and a new permit be issued in their name for this location. This site is within the Big Game Winter Range. Additionally, there are 2 raptor nests within ½ mile (99-720 & 99-725), however, these nests were dilapidated and have been inactive for > 3 years.

*SITLA 13-22*: We did not look at this well site. It is our understanding that this site has already been onsite reviewed and permitted by Fleet Energy. Marathon Oil, as the successor operator, now requests that the permit be rescinded and a new permit be issued in their name for this location. This site is within the Big Game Winter Range. Additionally, there are 2 raptor nests within ½ mile (99-720 & 99-722), however, both of these nests were dilapidated.

People present:
Chris Colt - UDWR
Chris Kierst - UDOGM
Randy Meabon - Marathon Oil
Charlie Arterbery - Marathon Oil
David Kay - UELS
Bill Ryan - Rocky Mtn Consulting
Kimball Rassmuson - Nielson Const.
David Wilcox - Nielson Const.

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DATE
APRIL 14, 2000

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