

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

FORM 3

AMENDED REPORT
(highlight changes)

APPLICATION FOR PERMIT TO DRILL			5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47576	
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>			7. UNIT or CA AGREEMENT NAME: N/A	
2. NAME OF OPERATOR: MSC EXPLORATION L. P. 16800 IMPERIAL VALLEY DR., SUITE 380			8. WELL NAME and NUMBER: STATE MSC 35-2	
3. ADDRESS OF OPERATOR: CITY HOUSTON STATE TX ZIP 77060		PHONE NUMBER: (281) 931-8933	9. FIELD AND POOL, OR WILDCAT: WILDCAT	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1865 FNL & 685 FWL <i>604536X 38.94473</i> AT PROPOSED PRODUCING ZONE: SAME <i>4311127Y -109.79376</i>			10. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNW 35 21S 19E S	
13. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 1 MILE EAST OF CRESCENT JUNCTION			11. COUNTY: GRAND	12. STATE: UTAH
14. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 1,865'	15. NUMBER OF ACRES IN LEASE: 1,600		16. NUMBER OF ACRES ASSIGNED TO THIS WELL: 160	
17. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 1,532'	18. PROPOSED DEPTH: 8,500		19. BOND DESCRIPTION: STATE WIDE	
20. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 4,858 GL	21. APPROXIMATE DATE WORK WILL START: 8/25/2004		22. ESTIMATED DURATION: 6 WEEKS (to drill & complete)	

23. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT			
12-1/4	8-5/8	K-55	24	500	CLASS A	315 SX	1.18	14.5
7-7/8	5-1/2	N-80	17	8,500	BLEND	552 SX	3.82	11.0
					50/50 POZ	583 SX	1.21	14.4

24. **ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) BRIAN WOOD PHONE: (505) 466-8120 TITLE CONSULTANT FAX: (505) 466-9682
SIGNATURE *Bj Wood* DATE 8/9/2004

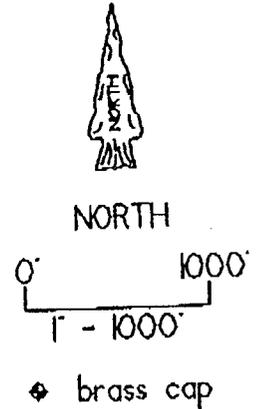
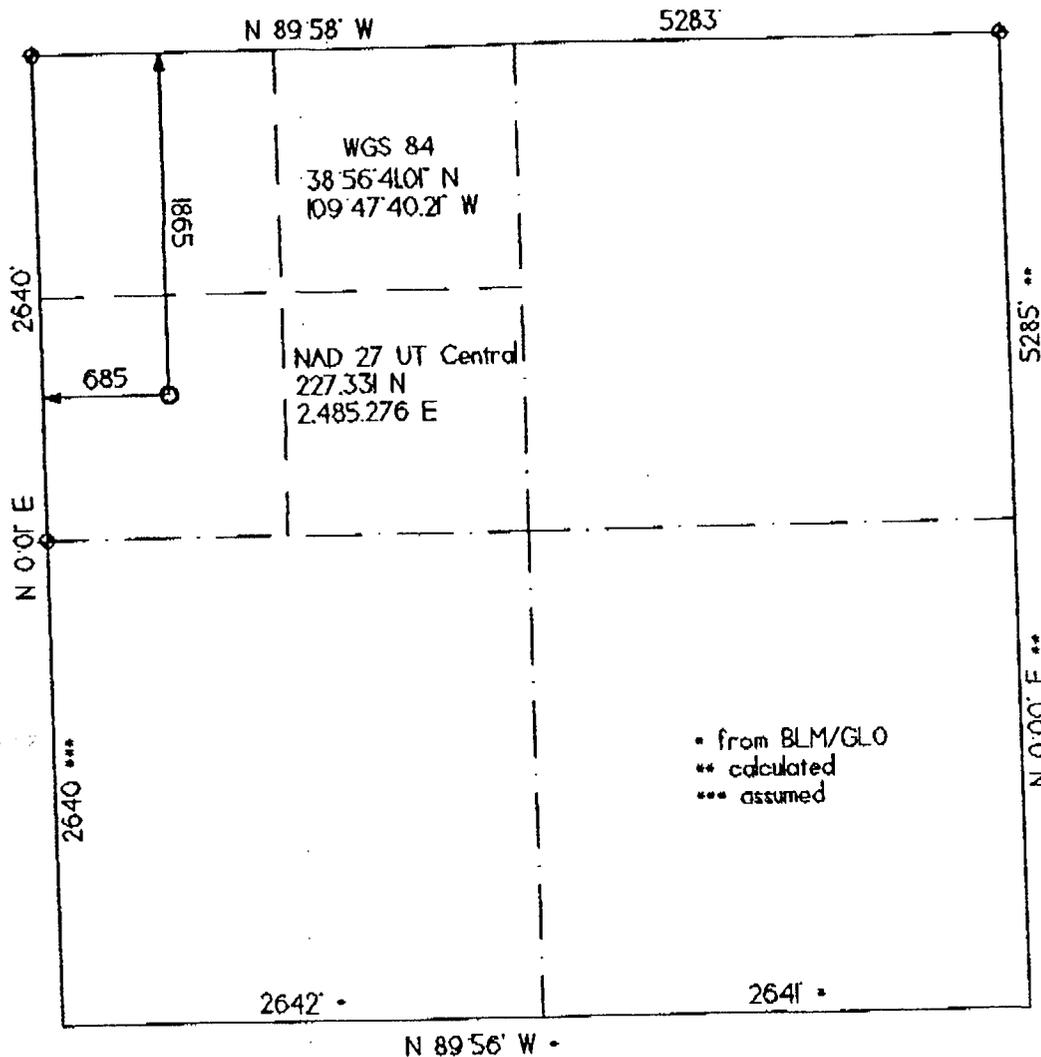
(This space for State use only)

API NUMBER ASSIGNED: 43-019-3408

APPROVAL:

RECEIVED
AUG 10 2004

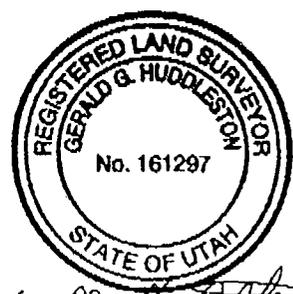
Well Location Plat



- from BLM/GLO
- ** calculated
- *** assumed

Well Location Description

MSC EXPLORATION, L.P.
 STATE MSC # 35 - 2
 1865' FNL & 685' FWL
 Section 35, T.21 S., R.19 E., SLM
 Grand County, UT
 4858' grd. el. (from GPS)



07/26/04

Gerald G. Huddleston
 Gerald G. Huddleston, LS

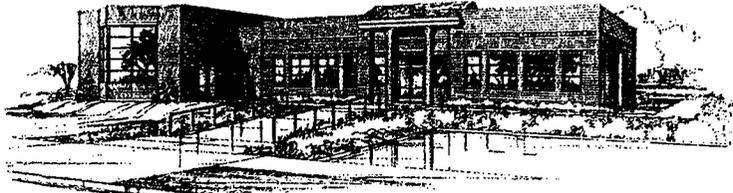
The above is true and correct to my knowledge and belief.

HUDDLESTON LAND SURVEYING - BOX KK - CORTEZ, CO - (970) 565 -3330

SOUTHEASTERN UTAH ASSOCIATION OF LOCAL GOVERNMENTS

DREW SITTERUD
CHAIRMAN

WILLIAM D. HOWELL
EXECUTIVE DIRECTOR



375 SOUTH CARBON AVE.
P.O. DRAWER 1106
PRICE, UTAH 84501
(435) 637-5444
FAX (435) 637-5448

AREA WIDE CLEARINGHOUSE REVIEW

Federal Action _____ State Action x Approved () Yes () No

Other (indicate) _____

Applicant Address:

Oil, Gas & Mining

1594 West North Temple #1210

SLC, UT 84114-5801

Name and phone number Diana Whitney 801-538-5312

Title/Project Description Application for Permit to Drill - Two wildcat wells are proposed for the area South and East of Crescent Jct. Located in sections 35 and 36, T21S, R19E.

- [] No Comment
[] See comment below

Comments: Approved on 8/19/04 at SEUAOG Executive Board Meeting.

Lorraine Benfer

8/19/04

SEUALG

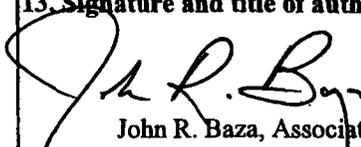
DATE

RECEIVED

AUG 24 2004

DIV. OF OIL, GAS & MINING

STATE ACTIONS
Governor's Office of Planning and Budget
Resource Development Coordinating Committee
P.O. Box 145610
1594 W. North Temple, Suite 3710
SLC, UT 84114-5610
538-5535

1. Administering State Agency Oil, Gas and Mining 1594 West North Temple, Suite 1210 Salt Lake City, UT 84114-5801	2. Approximate date project will start: Upon Approval or August 25, 2004
3. Areawide clearinghouse(s) receiving state action: (to be sent out by agency in block 1) Southeastern Utah Association of Governments	
4. Type of action: // Lease /X/ Permit // License // Land Acquisition // Land Sale // Land Exchange // Other _____	
5. Title of proposed action: Application for Permit to Drill	
6. Description: MSC Exploration, L.P. proposes to drill the State MSC 35-2 well (wildcat) on a State lease ML-47576, Grand County, Utah. This action is being presented to the RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.	
7. Land affected (site location map required) (indicate county) – include UTM coordinates where possible 1865' FNL 685' FWL, SW/4 NW/4, Section 35, Township 21 South, Range 19 East, Grand County, Utah	
8. Jordan River Natural Areas Forum review – If the proposed action affects lands within the Jordan River Natural Areas Corridor. N/A	
9. Has the local government(s) been contacted? No If yes, a. How was contact made? b. Who was contacted? c. What was the response? d. If no response, how is the local government(s) likely to be impacted?	
10. Possible significant impacts likely to occur: Degree of impact is based on the discovery of oil or gas in commercial quantities.	
11. Name and phone of district representative from your agency near project site, if applicable: N/A	
12. For further information, contact: Diana Whitney Phone: (801) 538-5312	13. Signature and title of authorized officer  John R. Baza, Associate Director Date: August 11, 2004

ON-SITE PREDRILL EVALUATION
Division of Oil, Gas and Mining

OPERATOR: MSC Exploration L. P.
WELL NAME & NUMBER: MSC 35-2
API NUMBER: 43-019-31408
LEASE: State **FIELD/UNIT:** _____
LOCATION: 1/4,1/4 SWNW **Sec:** 35 **TWP:** 21S **RNG:** 19E 1865 **FNL** 685 **FWL**
LEGAL WELL SITING: 460 F **SEC. LINE;** 460 F **1/4,1/4 LINE;** 920 F **ANOTHER WELL.**
GPS COORD (UTM): X = _____ E; Y = _____ N **SURFACE OWNER:** State

PARTICIPANTS

Bart Kettle(DOGM), Brain Wood (Permits West)

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Proposed location is ~2 miles east of Crescent Junction, intersection of I-70 and Highway 163 in Grand County Utah. The immediate areas surrounding the proposed well are rangelands used for winter cattle grazing. Access to this well will be from existing County Road 144. The first mile of access road will be built for MSC's 36-1 well, an additional 5,838' new access road will be built to access the MSC 35-2. Thompson wash, a dry wash, is the major drainage in proximity to the proposed location. Drainages flow to the to the south eventually entering the Green River 20 miles southwest of the proposed location. Proposed location is located on the depositional zone of an alluvial fan that historically collected fine sediments following storm events. With the construction of I-70 dry washes where re-routed, currently washes are entrenched and are no longer depositional in nature.

SURFACE USE PLAN

CURRENT SURFACE USE: Winter cattle grazing, periodic Antelope use.
PROPOSED SURFACE DISTURBANCE: 215' x 285'

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: One P&A well and one well being drilled (MSC 35-1) and a proposed well (MSC 36-1).

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: Production facilities to be located on-site, pipelines along roadway.

SOURCE OF CONSTRUCTION MATERIAL: On-site or obtained locally.

ANCILLARY FACILITIES: None anticipated

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS? (EXPLAIN): Limited public interest is anticipated at this site. However due to the proposed location being within sight of I-70 there is potential heightened public concern once drilling is begin.

WASTE MANAGEMENT PLAN:

Trash will be placed in a trash cage and hauled to a state approved landfill. Chemical toilets will be used for human waste and disposed of in a state approved facility. Oil will not be allowed in the reserve pit. Any oil which accumulates on the pit will be pumped or skimmed off and hauled to a state approved recycle facility. Once dry, the reserve pit contents will be buried in place.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: No wetlands noted. Floodplains are dry washes; well pad will have no effect on dry washes. Several dry wash crossings will have to be built along the access road, anticipated effects are insignificant.

FLORA/FAUNA: Grass: Curly Bill Grass, Indian Rice Grass, Muhley. Forbs: Apricot Globe Mallow, Desert Trumpet. Shrubs: Mat Saltbrush, Nuttles Saltbrush. Other: Prickly Pear Cactus.
Fauna: Rodents, lizards and antelope

SOIL TYPE AND CHARACTERISTICS: Fine textured light gray silty-clay-loam.
SURFACE FORMATION & CHARACTERISTICS: Historically lower reaches of an alluvial fan, depositional zone for finer textured sediments.

EROSION/SEDIMENTATION/STABILITY: Erosive upon disturbance, fine textured soils are prone to wind and water erosion.

PALEONTOLOGICAL POTENTIAL: None observed.

RESERVE PIT

CHARACTERISTICS: Dugout earthen, 75'x150'x10'.

LINER REQUIREMENTS (Site Ranking Form attached): No specific lining is required.

SURFACE RESTORATION/RECLAMATION PLAN

As per surface use agreement.

SURFACE AGREEMENT: In negotiation

OTHER OBSERVATIONS/COMMENTS

Surface rights owner for portion of access route in section 36 has requested operator adopted means to control unauthorized traffic, such agreements will be reached through the Surface Use Agreement.

ATTACHMENTS

Photos of this location were taken and placed on file.

Bart Kettle
DOGM REPRESENTATIVE

08/26/2004 2:07 p.m.
DATE/TIME

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

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

Final Score 5 (Level III Sensitivity)

Sensitivity Level I = 20 or more: total containment is required, consider criteria for excluding pit use.

Sensitivity Level II = 15-19; lining is discretionary.

Sensitivity Level III = below 15; no specific lining is required.





WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 08/10/2004

API NO. ASSIGNED: 43-019-31408

WELL NAME: STATE MSC 35-2
OPERATOR: MSC EXPLORATION, LP (N2595)
CONTACT: BRIAN WOOD

PHONE NUMBER: 505-466-8120

PROPOSED LOCATION:

SWNW 35 210S 190E
SURFACE: 1865 FNL 0685 FWL
BOTTOM: 1865 FNL 0685 FWL
GRAND
WILDCAT (1)

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DKD	9/15/04
Geology		
Surface		

LEASE TYPE: 3 - State
LEASE NUMBER: ML-47576
SURFACE OWNER: 3 - State
PROPOSED FORMATION: WHRM
COALBED METHANE WELL? NO

LATITUDE: 38.94473
LONGITUDE: 109.79376

RECEIVED AND/OR REVIEWED:

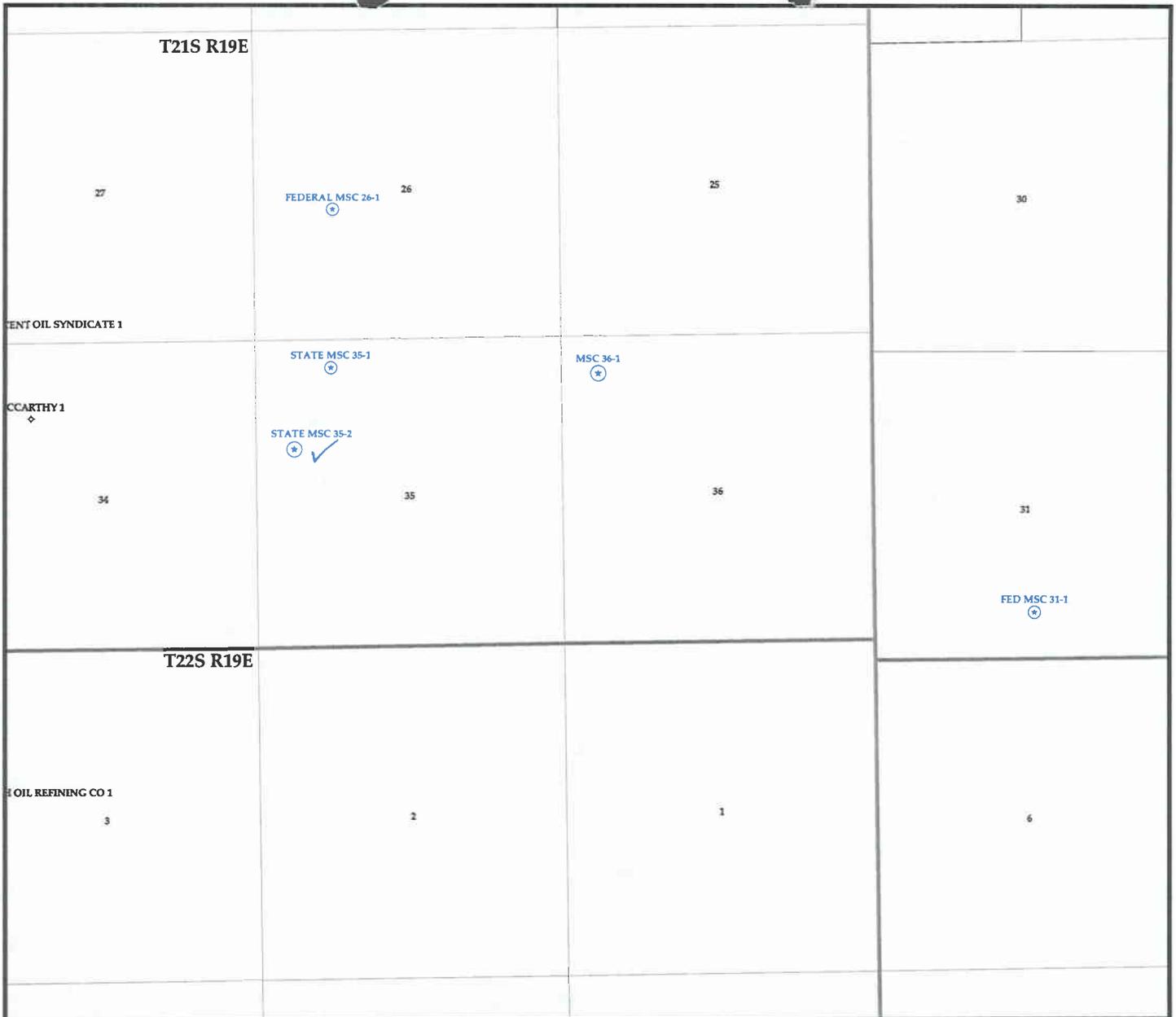
- Plat
- Bond: Fed[] Ind[] Sta[3] Fee[]
(No. 6801331296)
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit
(No. 92-180)
- RDCC Review (Y/N)
(Date: 08/26/2004)
- Fee Surf Agreement (Y/N)

LOCATION AND SITING:

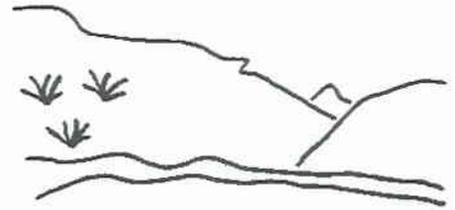
- R649-2-3.
Unit _____
- R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit
Board Cause No: _____
Eff Date: _____
Siting: _____
- R649-3-11. Directional Drill

COMMENTS: Needs Permit (08-26-04)

STIPULATIONS: 1- Spacing Strip
2- STATEMENT OF BASIS



OPERATOR: MSC EXPL LP (N2595)
SEC. 36 T.21S R.19E
FIELD: WILDCAT (001)
COUNTY: GRAND
SPACING: R649-3-2 / GENERAL SITING



Utah Oil Gas and Mining

Wells	Units.shp	Fields.shp
∕ GAS INJECTION	□ EXPLORATORY	□ ABANDONED
◇ GAS STORAGE	□ GAS STORAGE	□ ACTIVE
× LOCATION ABANDONED	□ NF PP OIL	□ COMBINED
⊕ NEW LOCATION	□ NF SECONDARY	□ INACTIVE
◇ PLUGGED & ABANDONED	□ PENDING	□ PROPOSED
* PRODUCING GAS	□ PI OIL	□ STORAGE
● PRODUCING OIL	□ PP GAS	□ TERMINATED
⊖ SHUT-IN GAS	□ PP GEOTHERML	
⊖ SHUT-IN OIL	□ PP OIL	
× TEMP. ABANDONED	□ SECONDARY	
○ TEST WELL	□ TERMINATED	
△ WATER INJECTION		
● WATER SUPPLY		
∕ WATER DISPOSAL		



PREPARED BY: DIANA WHITNEY
 DATE: 11-AUG-2004

**DIVISION OF OIL, GAS AND MINING
APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS**

OPERATOR: MSC Exploration L. P.
WELL NAME & NUMBER: MSC 35-2
API NUMBER: 43-019-31408
LOCATION: 1/4,1/4 SWNW Sec: 35 TWP: 21 S RNG: 19 E 1865 FNL 685 FWL

Geology/Ground Water:

Significant volumes of high quality ground water are unlikely to be encountered in the bedrock at this location. A poorly permeable soil is likely to be developed on Quaternary alluvium covering the Upper part of the Blue Gate Member of the Mancos Shale. Poor quality water is likely to be encountered in permeable Mesozoic and upper Paleozoic sandstones found below the Mancos Shale. The proposed casing and cementing program should adequately isolate any zones of fresh water that may be penetrated. No underground water rights have been filed on any area within a mile of the proposed well site.

Reviewer: Christopher J. Kierst **Date:** 9/3/2004

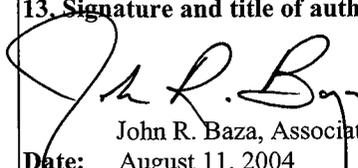
Surface:

Proposed location is ~2 miles east of Crescent Junction, intersection of I-70 and Highway 163 in Grand County Utah. The immediate surroundings of the proposed well are rangelands used for winter cattle grazing. Access to this well will be from existing County Road 144. Approximately 5,838' of new road will be built as access to this well, the first mile of access road will be built for MSC's 36-1. The nearest residents live in Thompson Springs over three miles away. Neither the well nor associated access road will adversely impact residents of Thompson Springs. Thompson wash, a dry wash, is the major drainage in proximity to the proposed location. Drainages flow to the south eventually entering the Green River 20 miles southwest of the proposed location. Proposed location is located on the bottom of an alluvial fan, historically a deposition zone for fine sediments following storm events. With the construction of I-70 dry wash's routes were altered, currently they are entrenched and are no longer depositional in nature. There are no foreseeable impacts to the Green River or the Colorado River drainage. On-site conducted August 26, participants included Bart Kettle (DOGM), Brian Wood (Permits West), invited but choosing not to attend Ed Bonner (SITLA), Mary Hofhine (Grand County) and Tony Wright (DWR).

Reviewer: Bart Kettle **Date:** 8-26-2004

Conditions of Approval/Application for Permit to Drill:

STATE ACTIONS
Governor's Office of Planning and Budget
Resource Development Coordinating Committee
P.O. Box 145610
1594 W. North Temple, Suite 3710
SLC, UT 84114-5610
538-5535

1. Administering State Agency Oil, Gas and Mining 1594 West North Temple, Suite 1210 Salt Lake City, UT 84114-5801	2. Approximate date project will start: Upon Approval or August 25, 2004
3. Areawide clearinghouse(s) receiving state action: (to be sent out by agency in block 1) Southeastern Utah Association of Governments	
4. Type of action: // Lease /X/ Permit // License // Land Acquisition // Land Sale // Land Exchange // Other _____	
5. Title of proposed action: Application for Permit to Drill	
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7. Land affected (site location map required) (indicate county) – include UTM coordinates where possible 1865' FNL 685' FWL, SW/4 NW/4, Section 35, Township 21 South, Range 19 East, Grand County, Utah	
8. Jordan River Natural Areas Forum review – If the proposed action affects lands within the Jordan River Natural Areas Corridor. N/A	
9. Has the local government(s) been contacted? No If yes, a. How was contact made? b. Who was contacted? c. What was the response? d. If no response, how is the local government(s) likely to be impacted?	
10. Possible significant impacts likely to occur: Degree of impact is based on the discovery of oil or gas in commercial quantities.	
11. Name and phone of district representative from your agency near project site, if applicable: N/A	
12. For further information, contact: Diana Whitney Phone: (801) 538-5312	13. Signature and title of authorized officer  John R. Baza, Associate Director Date: August 11, 2004



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UTAH DIVISION OF WATER RIGHTS

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Casing Schematic

Manassas Shale

Surface

8-5/8"
MW 8.4
Frac 19.3

TOC @
0.
TOC @
0.
Surface
500. MD

w/ 18% Washcoat

BHP

$$(.052)(9.6)(8500) = 3801$$

Anticipate 3650

G₆₀

$$(.12)(8500) = 1020$$

MASP = 2781 ✓

BOPC - 3,000 ✓

Surf Csg - 2950

$$70\% = 2065$$

Propose TAT to 1500 # ✓

Adequate DD/15/04

1953
Dakota S.S.

w/ 15% Washcoat

4398
Wingate S.S.

6001
TOC Tail

5-1/2"
MW 8.6

Production
8500. MD

Well name:

09-04 MSC State 35-2Operator: **MSC Exploration LP**String type: **Surface**

Project ID:

43-019-31408

Location: **Grand County****Design parameters:****Collapse**Mud weight: 8.400 ppg
Design is based on evacuated pipe.**Minimum design factors:****Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:H2S considered? No
Surface temperature: 65 °F
Bottom hole temperature: 72 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 200 ft

Cement top: Surface

BurstMax anticipated surface
pressure: -16 psi
Internal gradient: 0.468 psi/ft
Calculated BHP 218 psi

No backup mud specified.

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 air weight.
Neutral point: 437 ft

Non-directional string.

Re subsequent strings:Next setting depth: 8,500 ft
Next mud weight: 8.600 ppg
Next setting BHP: 3,797 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 500 ft
Injection pressure 500 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	500	8.625	24.00	K-55	ST&C	500	500	7.972	24.1
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	218	1370	6.285	218	2950	13.53	12	263	21.94 J

Prepared by: Clinton Dworshak
Utah Div. of Oil & MiningPhone: 801-538-5281
FAX: 801-359-3940Date: September 7, 2004
Salt Lake City, Utah**Remarks:**

Collapse is based on a vertical depth of 500 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

Well name:	09-04 MSC State 35-2	
Operator:	MSC Exploration LP	Project ID:
String type:	Production	43-019-31408
Location:	Grand County	

Design parameters:
Collapse
Mud weight: 8.600 ppg
Design is based on evacuated pipe.

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 air weight.
Neutral point: 7,391 ft

Environment:
H2S considered? No
Surface temperature: 65 °F
Bottom hole temperature: 184 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 368 ft

Cement top: Surface

Non-directional string.

Burst
Max anticipated surface pressure: -180 psi
Internal gradient: 0.468 psi/ft
Calculated BHP: 3,797 psi

No backup mud specified.

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	8500	5.5	17.00	N-80	LT&C	8500	8500	4.767	292.9

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	3797	6290	1.656	3797	7740	2.04	144	348	2.41 J

Prepared by: Clinton Dworshak
Utah Div. of Oil & Mining

Phone: 801-538-5281
FAX: 801-359-3940

Date: September 7, 2004
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 8500 ft, a mud weight of 8.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

FORM 3

AMENDED REPORT
(highlight changes)

001

APPLICATION FOR PERMIT TO DRILL		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47576
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		7. UNIT or CA AGREEMENT NAME: N/A
2. NAME OF OPERATOR: MSC EXPLORATION L. P. 16800 IMPERIAL VALLEY DR., SUITE 380		8. WELL NAME and NUMBER: STATE MSC 35-2
3. ADDRESS OF OPERATOR: CITY HOUSTON STATE TX ZIP 77060		9. FIELD AND POOL, OR WILDCAT: WILDCAT
PHONE NUMBER: (281) 931-8933		10. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNW 35 21S 19E S
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1865 FNL & 685 FWL 604536X 38. 94473 AT PROPOSED PRODUCING ZONE: SAME 4311127Y -109. 79374		
13. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 1 MILE EAST OF CRESCENT JUNCTION		11. COUNTY: GRAND
		12. STATE: UTAH
14. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 1,865'	15. NUMBER OF ACRES IN LEASE: 1,600	16. NUMBER OF ACRES ASSIGNED TO THIS WELL: 160
17. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 1,532'	18. PROPOSED DEPTH: 8,500	19. BOND DESCRIPTION: STATE WIDE
20. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 4,858 GL	21. APPROXIMATE DATE WORK WILL START: 8/25/2004	22. ESTIMATED DURATION: 6 WEEKS (to drill & complete)

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT			
12-1/4	8-5/8	K-55	24	500	CLASS A	315 SX	1.18	14.5
7-7/8	5-1/2	N-80	17	8,500	BLEND	552 SX	3.82	11.0
					50/50 POZ	583 SX	1.21	14.4

24. ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- | | |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN |
| <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) BRIAN WOOD PHONE: (505) 466-8120 TITLE CONSULTANT FAX: (505) 466-9682
SIGNATURE *Brian Wood* DATE 8/9/2004

(This space for State use only)

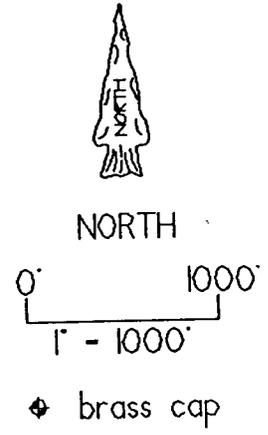
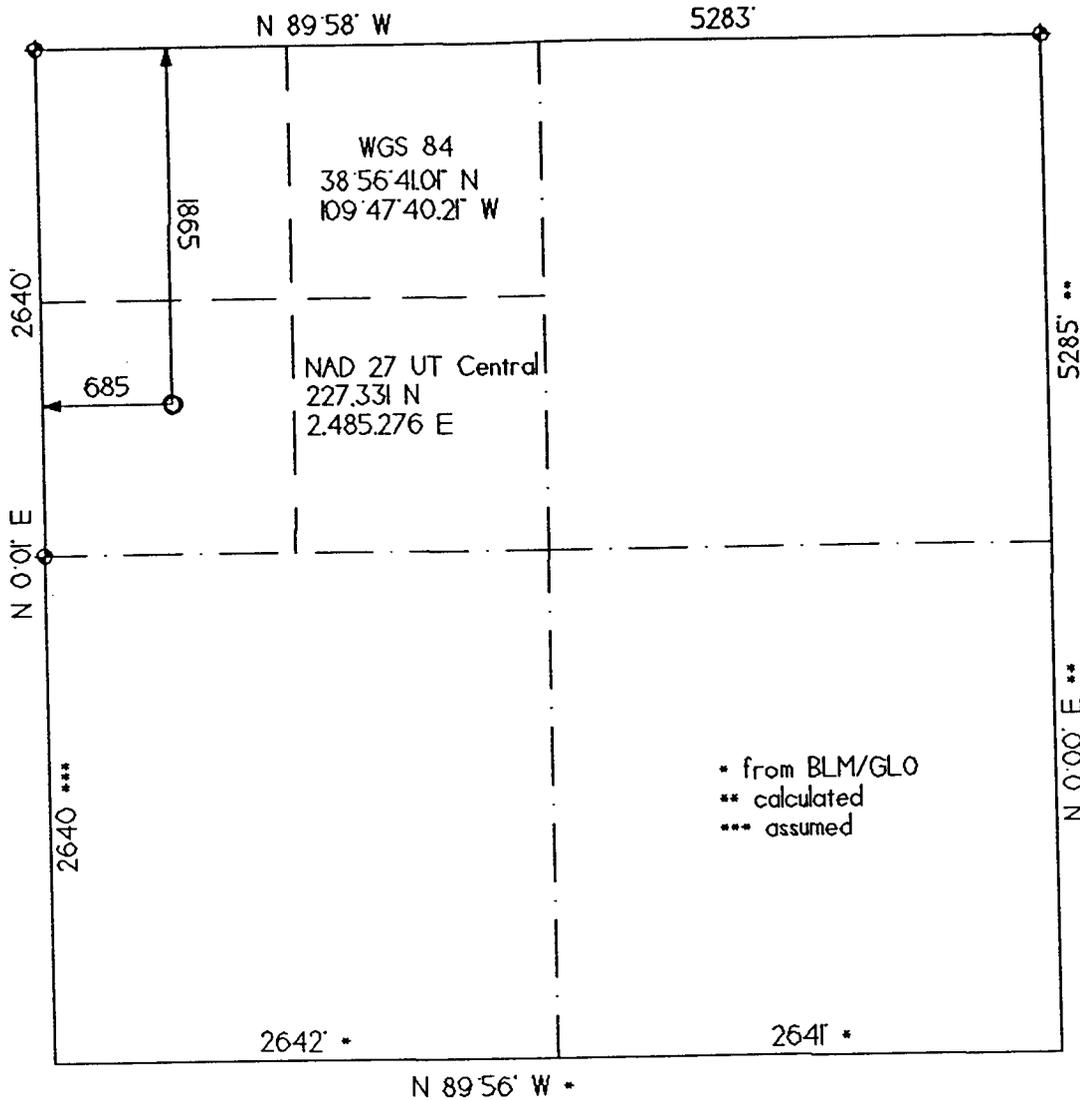
API NUMBER ASSIGNED: 43-019-31408

Approved by the
Utah Division of
Oil, Gas and Mining
Date: 10-25-04
By: *[Signature]*

RECEIVED
AUG 16 2004

DIV. OF OIL, GAS & MINING

Well Location Plat



* from BLM/GLO
 ** calculated
 *** assumed

Well Location Description

MSC EXPLORATION, L.P.
 STATE MSC # 35 - 2
 1865' FNL & 685' FWL
 Section 35, T.21 S., R.19 E., SLM
 Grand County, UT
 4858' grd. el. (from GPS)



Gerald G. Huddleston
 Gerald G. Huddleston, LS

07/26/04

The above is true and correct to my knowledge and belief.

MSC Exploration L. P.
 State MSC 35-2
 1865' FNL & 685' FWL
 Sec. 35, T. 21 S., R. 19 E.
 Grand County, Utah

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Drilling Program

<u>1. Formation Name</u>	<u>Depth from GL</u>	<u>Depth from KB</u>	<u>Elevation</u>
Mancos Shale	0'	12'	+4,858'
Dakota Sandstone	1,953'	1,965'	+2,905'
Morrison Formation	2,398'	2,410'	+2,460'
Moab Tongue	2,793'	2,805'	+2,065'
Wingate Sandstone	4,398'	4,410'	+460'
White Rim Sandstone	5,893'	5,905'	-1,035'
Base of White Rim	6,493'	6,505'	-1,635'
Total Depth	8,500'	8,512'	-3,642'

(All depths are based on an ungraded ground level of 4,858')

2. NOTABLE ZONES

Potential oil or gas zones are the Dakota, Moab, Wingate, and White Rim. The Glen Canyon group of sandstones are possible water zones.

3. PRESSURE CONTROL (Also see "5." on PAGE 2)

A 3,000 psi BOP and choke manifold will be used from the bottom of the surface casing to TD. (A typical 3,000 psi BOP system is on Page 3. Actual model will not be known until the bid is let.) BOP Equipment and the 8 5/8 casing will be pressure tested to rated pressures prior to drilling out of the 8 5/8" surface casing. BOP rams will be function tested on trips and the stack will be pressure tested every 30 days if necessary. Tests will be recorded in the driller's log. BOPs will be inspected and operated daily to assure good mechanical working order.

MSC Exploration L. P.
State MSC 35-2
1865' FNL & 685' FWL
Sec. 35, T. 21 S., R. 19 E.
Grand County, Utah

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4. CASING & CEMENTING

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>Setting Depth</u>
12-1/4"	8-5/8"	24	K-55	ST & C	New	500'
7-7/8"	5-1/2"	17	N-80	LT & C	New	8,500'

All tubular goods will be new or inspected to premium specifications. Casing strings will be pressure tested to 0.22 psi/ft of casing string length or to 1,500 psi whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe. Surface casing shoe will be set in a competent formation. A pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

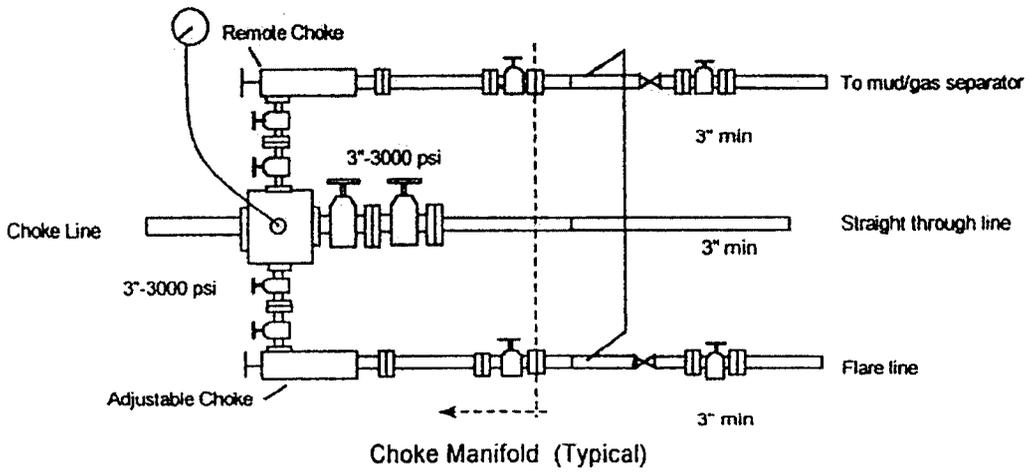
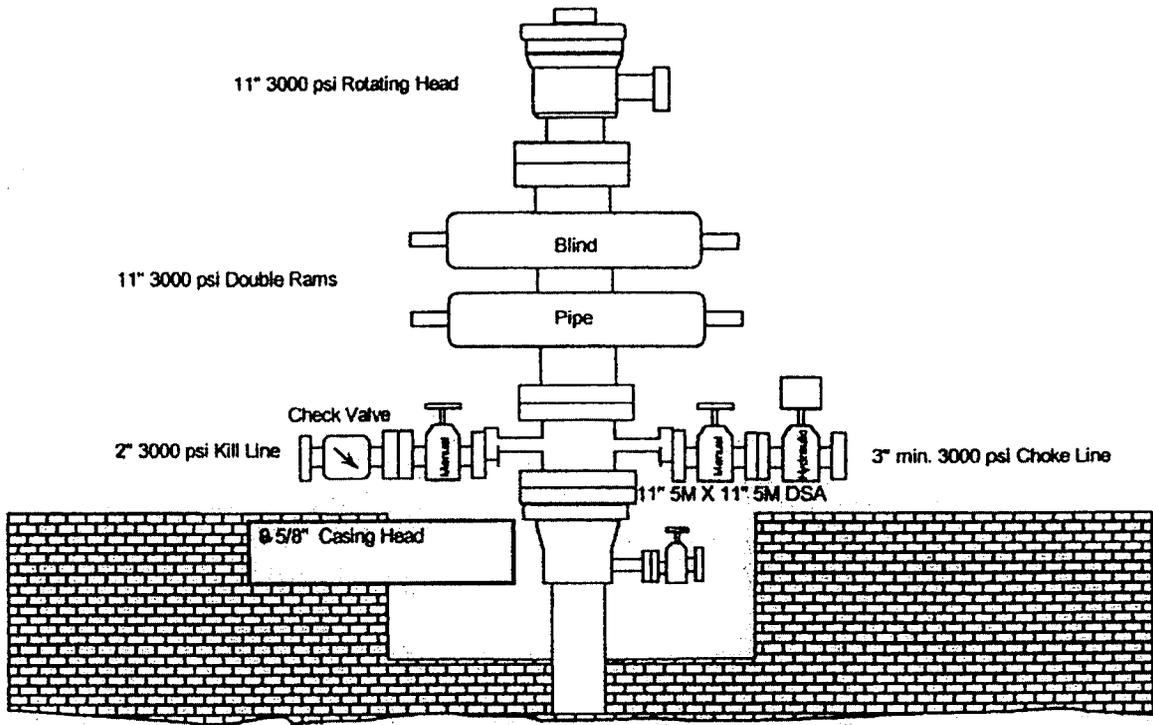
Surface casing will be cemented to the surface with 370 cubic feet (\approx 315 sacks or $>$ 75% excess) Type 1 Class A cement (weight = 14.5 pounds per gallon & yield 1.18 cubic feet per sack).

Production casing will be cemented to the surface with 25% excess. Lead cement will consist of \approx 552 sacks Blend weight (weight = 11.0 pounds per gallon & yield = 3.82 cubic feet per sack). Tail with \approx 583 sacks 50/50 poz (weight = 14.4 pounds per gallon & yield 1.21 cubic feet per sack). Wait on cement, set slips with casing in full tension. Actual volumes to be determined after reviewing logs and shows. All potentially productive zones will be covered with cement.

5. MUD PROGRAM

Will drill from surface to \approx 500' with air and/or fresh water mud system. Will drill from \approx 500' to TD with aerated LSND.

BOPE Diagram 3000 psi WP



MSC Exploration L. P.
State MSC 35-2
1865' FNL & 685' FWL
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6. DATA GATHERING

May cut cores or may run drill stem tests depending on shows. Two mud loggers will be on site from $\approx 500'$ to TD and will collect samples every 10'. They will have FID and chromatograph unit. Will run following log suites:

GR/Dual Induction - SFL
GR/Bore Hole Compensated Sonic
GR/Neutron Density
Continuous Dip meter - FMI
Gamma Ray - Directional

7. DOWN HOLE CONDITIONS

Maximum anticipated bottom hole pressure is $\approx 3,680$ psi. No hydrogen sulfide, abnormal pressures, nor abnormal temperatures are expected.

8. MISCELLANEOUS

Projected spud date is August 25, 2004. It will take ≈ 3 weeks to drill the well and ≈ 2 weeks to complete the well.

MSC Exploration L. P.
State MSC 35-2
1865' FNL & 685' FWL
Sec. 35, T. 21 S., R. 19 E.
Grand County, Utah

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Surface Use Plan

1. EXISTING ROADS & DIRECTIONS (See PAGES 9 - 11)

From the North side of the gas station in Thompson Springs (Exit 185) ...
Go Southwest 3.0 miles on County Road 144
Then turn right and follow stakes cross country NW 1 miles on a new road
Then turn left and go West 5,837.67' on a new road to the well

OR

From the closed gas station at Crescent Junction (Exit 180 on I-70) ...
Go South 4.4 miles on US 191 to the equivalent of Mile Post 152.7
Then turn left and go NE 5.1 miles on County Road 144
Then turn left and follow stakes cross country NW 1 mile on a new road
Then turn left and go West 5,837.67' on a new road to the well

2. ROAD TO BE BUILT (See PAGES 10 & 11)

No upgrading is needed as long as the county weight limit (30 tons) is obeyed. (The first mile of road NW of the county road will be built for MSC's 36-1 well.) The 5,837.67' of new road will be crowned and ditched with a $\approx 14'$ wide running surface. No gate or culvert is needed. Maximum disturbed width = 20'. Maximum grade = 1%. Maximum cut or fill = 1'.

3. EXISTING WELLS (See PAGE 10)

There are no existing water, injection, disposal, oil, or gas wells within a mile radius. There are is one P & A well and one well (MSC's 35-1) being drilled.

MSC Exploration L. P.
State MSC 35-2
1865' FNL & 685' FWL
Sec. 35, T. 21 S., R. 19 E.
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4. PROPOSED PRODUCTION FACILITIES

A tank battery, separator, and pump will be installed on the pad. All surface equipment will be painted a flat juniper green color.

5. WATER SUPPLY

Water will be trucked from Thompson Special Service District (right #92-180) in Thompson Springs.

6. CONSTRUCTION MATERIALS & METHODS (See PAGES 12 & 13)

Topsoil and brush will be stripped and piled east of the pad. Pit subsoil will be piled east of the pit. Gravel will be bought from a private source.

7. WASTE DISPOSAL

The reserve pit will be fenced 4' high on 3 sides with 4 strands of barbed wire or woven wire topped with barbed wire. The fourth side will be fenced once the rig moves off hole. The fence will be kept in good repair while the pit dries.

All trash will be placed in a trash cage. When full, it will be hauled to a state approved landfill. There will be no trash burning or disposal of trash in the reserve pit. Chemical toilets will be used for human waste. Their contents will be disposed of in state approved facilities.

No oil will be allowed on the reserve pit. Any oil which accumulates on the pit will be pumped or skimmed off and hauled to a state approved recycle facility. Once dry, the reserve pit contents will be buried in place.

MSC Exploration L. P.
State MSC 35-2
1865' FNL & 685' FWL
Sec. 35, T. 21 S., R. 19 E.
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8. ANCILLARY FACILITIES

There will be no airstrip or formal camp. Camper trailers will be on site for the company man, roughnecks, mud logger, tool pusher, etc.

9. WELL SITE LAYOUT

See PAGES 12 & 13 for depictions of the well pad, cross sections, cut and fill diagrams, reserve pit, burn pit, access road onto the pad, parking, living facilities, and rig orientation.

10. RECLAMATION

After completing drilling, the well site and immediate area will be cleared of all debris and material not needed for production.

Reclamation will start when the reserve pit is dry. At least 2' of cover will be placed on the reserve pit. All areas not needed for production will be back filled, contoured to a natural shape, and reserved topsoil evenly spread. If the well is a producer, then enough topsoil will be kept aside to reclaim the rest of the pad. Disturbed areas will be ripped, harrowed, or scarified before seeding.

All reclaimed areas will be broadcast seeded in late fall or winter with a seed mix specified by the State. Seeded areas will be left rough and lightly harrowed or drug with a chain after seeding.

11. SURFACE OWNER

All construction in Section 35 will be on lease and on SITLA surface. All

MSC Exploration L. P.
State MSC 35-2
1865' FNL & 685' FWL
Sec. 35, T. 21 S., R. 19 E.
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construction in Section 36 is on private surface. Those surface owners are Dan & Elaine Jorgensen, P. O. Box 65, Salina, Utah 84564. Surface use negotiations are underway.

12. OTHER INFORMATION

Closest hospital is Allen Memorial Hospital at 719 West 400 North in Moab. Its phone number is (435) 259-7191. It is a \approx 30 minute drive.

Archaeology report GRI-2446 will be submitted by Grand River Institute on August 10, 2004.

13. REPRESENTATION

Anyone having questions concerning the APD should contact:

Brian Wood
Permits West, Inc.
37 Verano Loop
Santa Fe, NM 87508
(505) 466-8120 FAX: (505) 466-9682 Mobile: (505) 699-2276

The operator's contact is:

Lynn Faust or Jack Stanley
MSC Exploration L. P.
16800 Imperial Valley Dr., Suite 380
Houston, TX 77060
(281) 931-8933 FAX (281) 931-8655 Mobile: (832) 434-9900

750 000 FEET (COLO)

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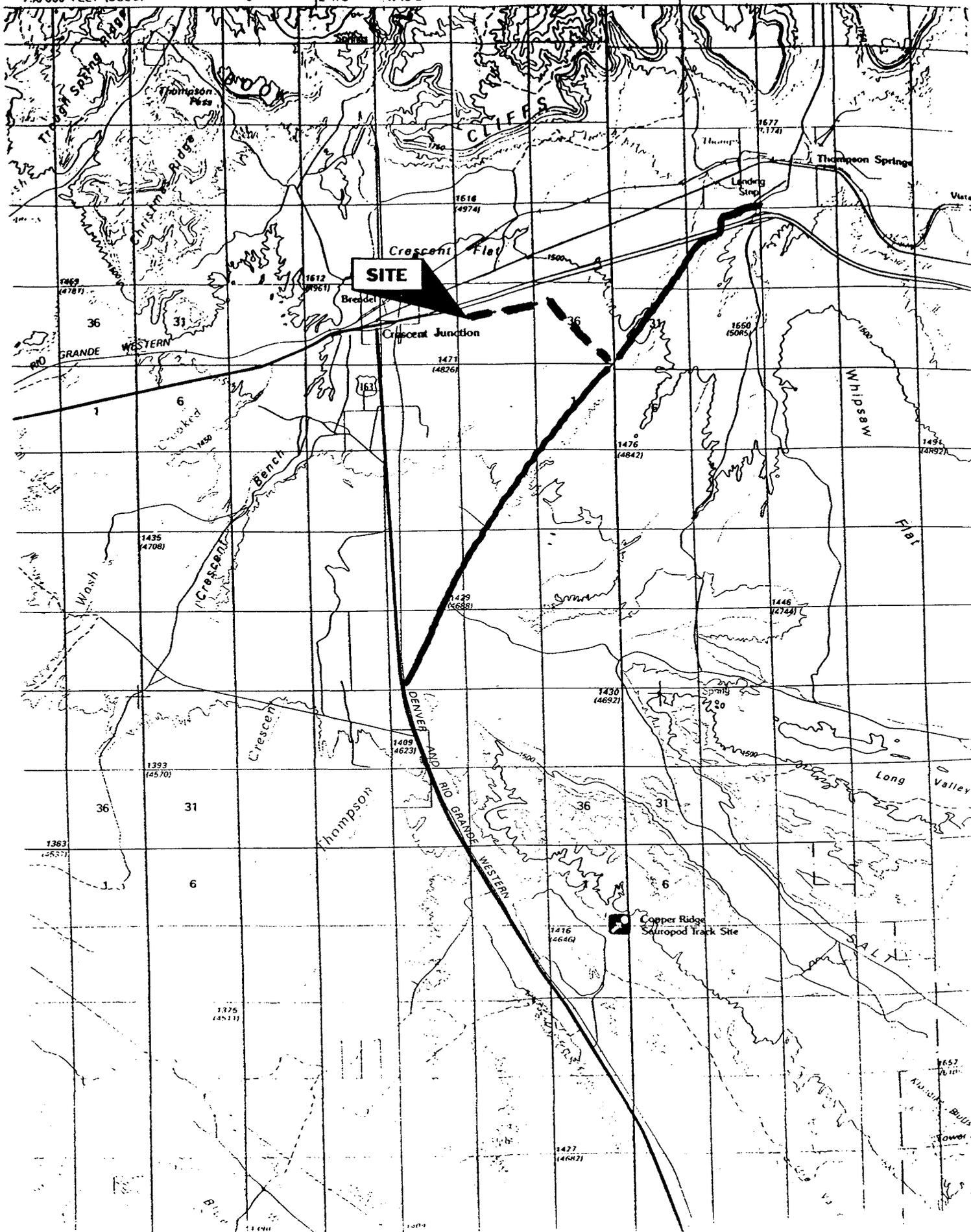
2 475

R 19 E

45'

2 500 '1

R 20 E



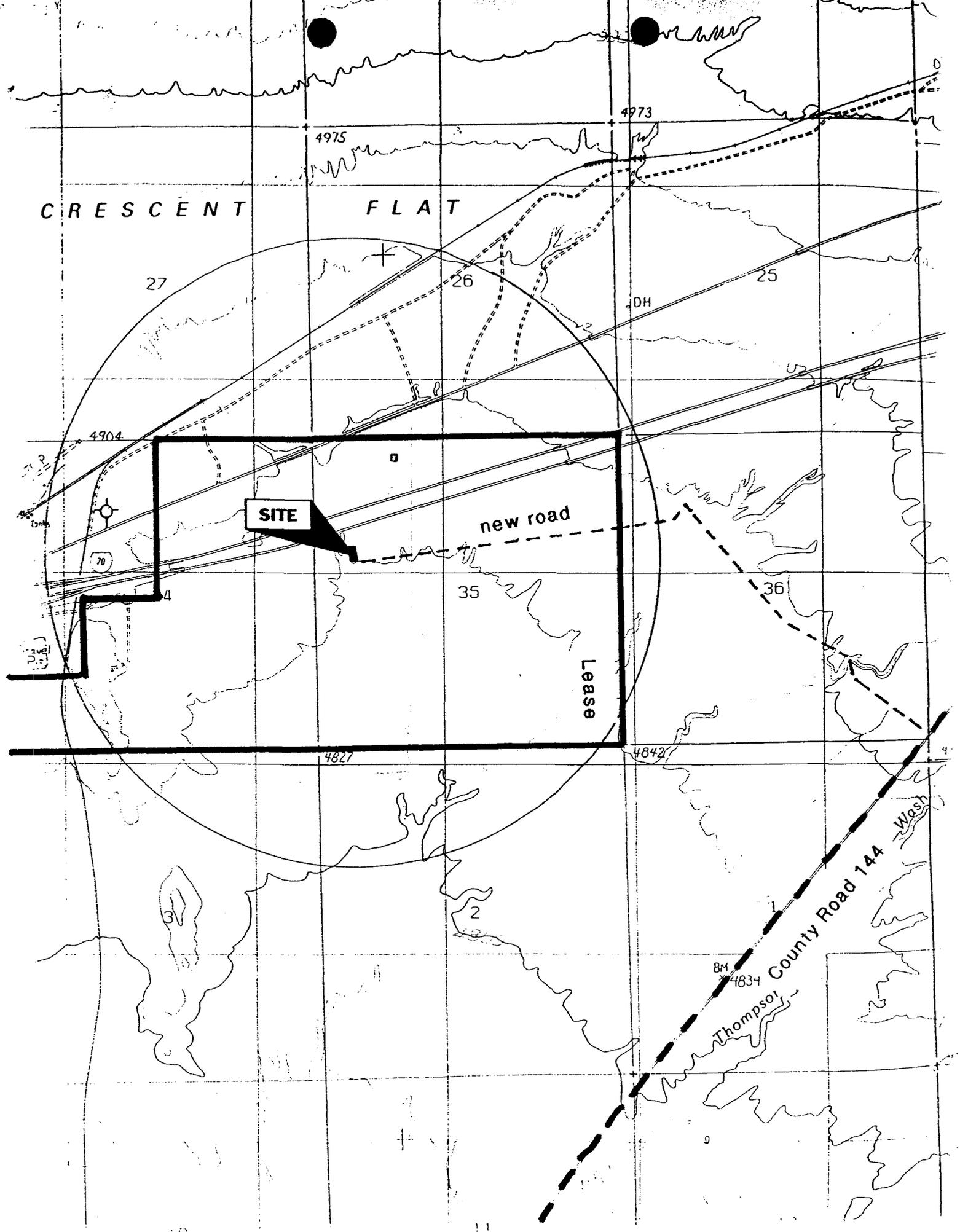
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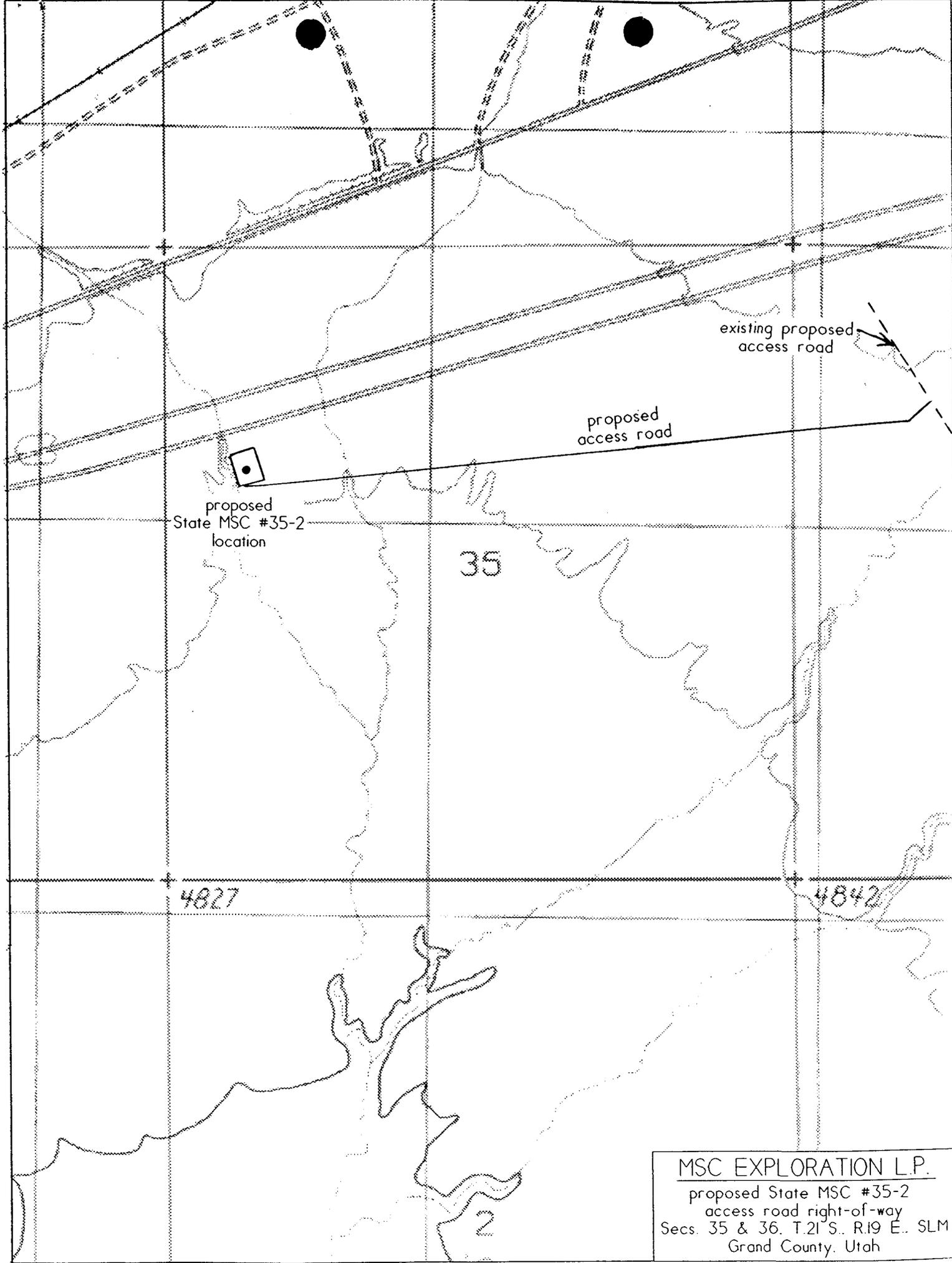
SITE

new road

Lease

Thompson County Road 144
Wash





proposed
State MSC #35-2
location

proposed
access road

existing proposed
access road

35

4827

4842

2

MSC EXPLORATION L.P.
proposed State MSC #35-2
access road right-of-way
Secs. 35 & 36, T.21 S., R.19 E., SLM
Grand County, Utah

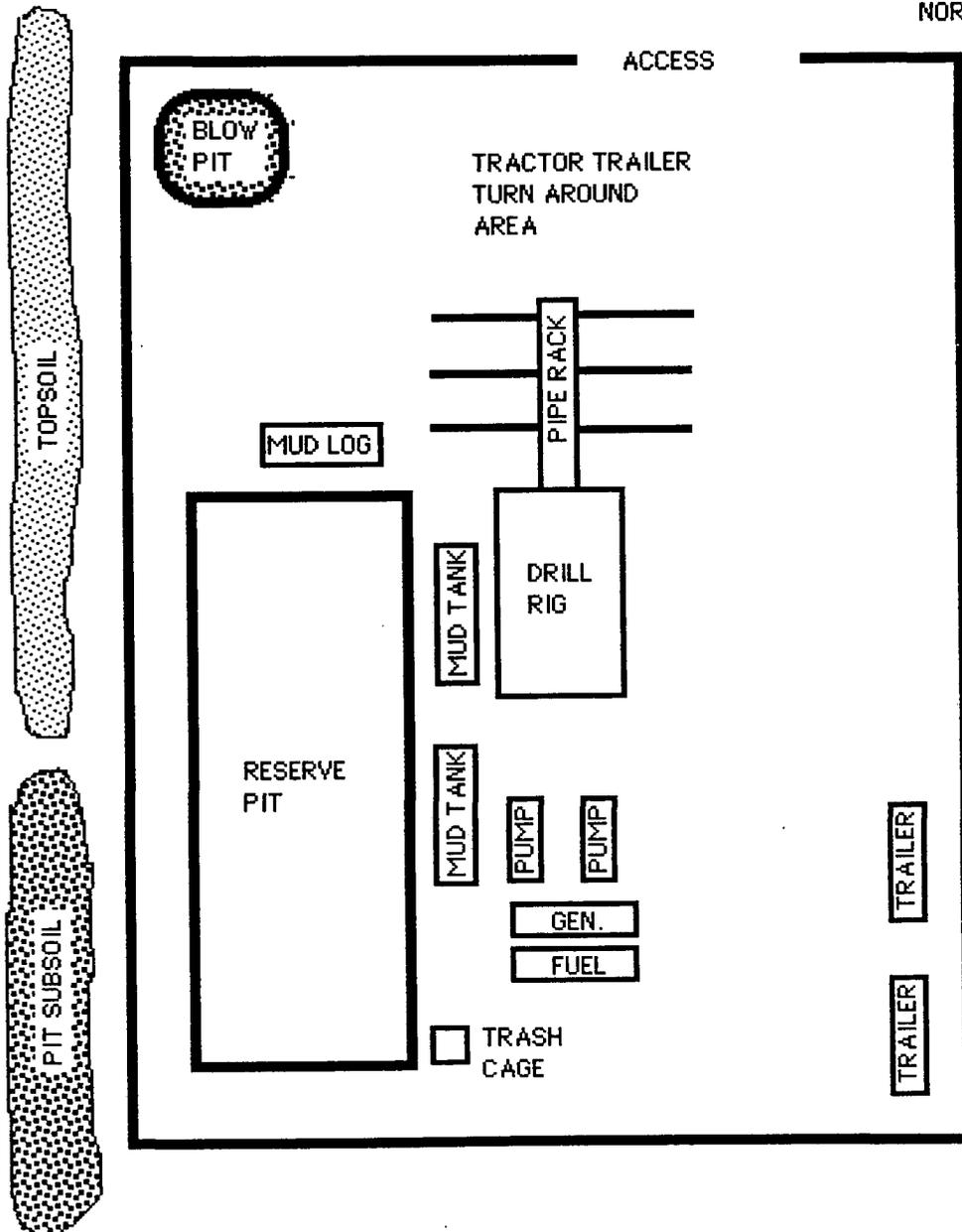
MSC Exploration L. P.
State MSC 35-2
1865' FNL & 685' FWL
Sec. 35, T. 21 S., R. 19 E.
Grand County, Utah

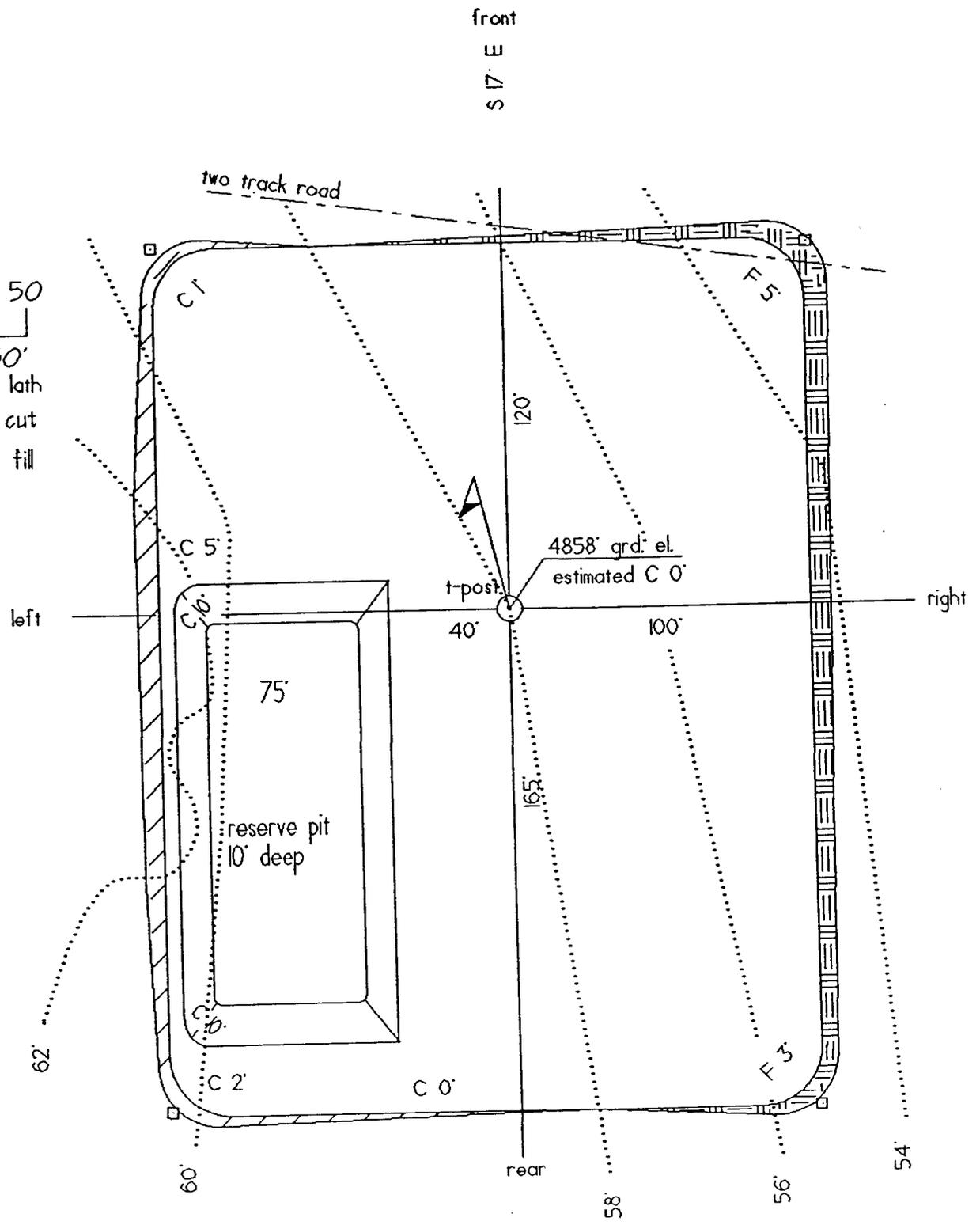
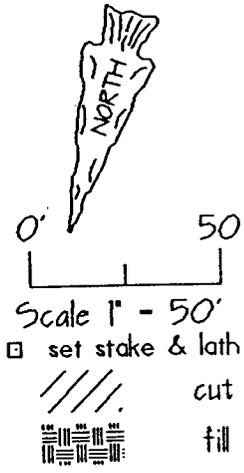
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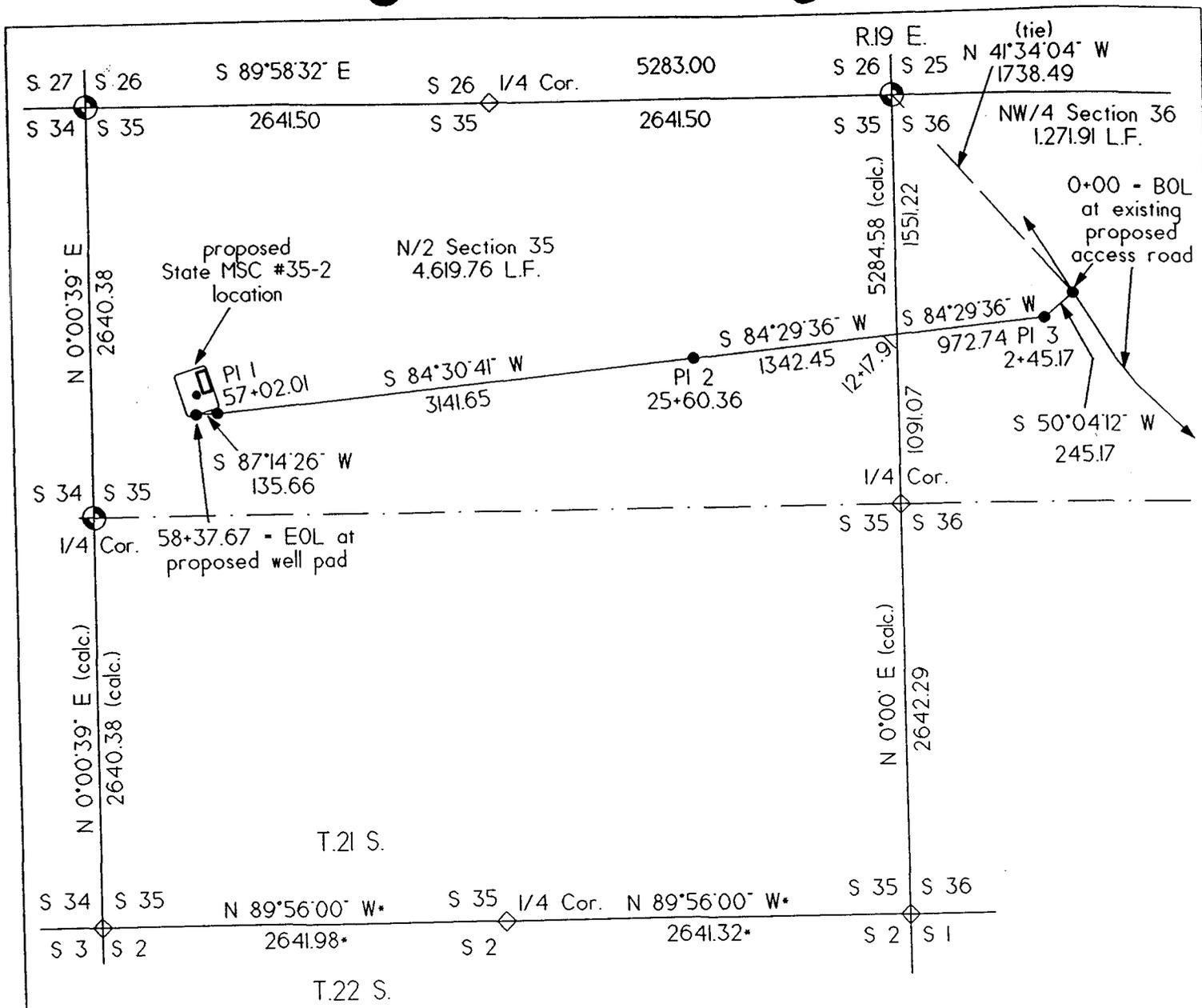
1" = 50'



NORTH







Scale: 1" = 1000'

- ⊕ fnd. std. GLO monument
- ◇ calculated corner
- from GLO plat of record
- survey centerline PI



Basis of Bearing:
GPS state plane coordinates
rotated.

MSC EXPLORATION L.P.

Proposed State MSC #35-2 access road
right-of-way -

Sections 35 and 36.
T.21 S., R.19 E., SLM.
Grand County, Utah

6 August 2000

HUDDLESTON LAND SURVEYING
P.O. DRAWER KK / CORTEZ, CO 81321 / 970-565-333

From: Ed Bonner
To: Whitney, Diana
Date: 10/7/2004 3:06:34 PM
Subject: Well Clearance

The following wells have been given cultural resource clearance by the Trust Lands Cultural Resources Group:

MSC Exploration LP
State MSC 35-2
North Thompson 2-1

Medallion Exploration
Atchee Ridge 16-19 #1

QEP Uinta Basin, Inc
CB 13G-36-6-20

Prima Oil & Gas Company
State Lost Creek 32-44
(Must avoid site in access road)

Westport Oil & Gas Company
NBU 1022-16H
NBU 1022-16K
NBU 1022-16O
NBU 1022-16A
NBU 1022-16C
NBU 1022-16G
NBU 1022-16E
NBU 1022-16M

Merrion Oil & Gas Corporation
Scud 1
Sparkle Dun 1

If you have any questions regarding this matter please give me a call.

CC: Garrison, LaVonne; Hill, Brad; Hunt, Gil

004



State of Utah

Department of
Natural Resources

ROBERT L. MORGAN
Executive Director

Division of
Oil, Gas & Mining

LOWELL P. BRAXTON
Division Director

OLENE S. WALKER
Governor

GAYLE F. McKEACHNIE
Lieutenant Governor

October 25, 2004

MSC Exploration, L P
16800 Imperial Valley Dr., Suite 380
Houston, TX 77060

Re: State MSC 35-2 Well, 1865' FNL, 685' FWL, SW NW, Sec. 35, T. 21 South,
R. 19 East, Grand 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 43-019-31408.

Sincerely,

A handwritten signature in black ink that reads "John R. Baza".

John R. Baza
Associate Director

pab
Enclosures

cc: Grand County Assessor
SITLA

Operator: MSC Exploration, L P
Well Name & Number State MSC 35-2
API Number: 43-019-31408
Lease: ML-47576

Location: SW NW **Sec.** 35 **T.** 21 South **R.** 19 East

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**

The operator is required to notify the Division of Oil, Gas and Mining 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

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

3. **Reporting Requirements**

All required reports, forms and submittals will 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. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

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

6. Operator shall comply with applicable recommendations resulting from Resource Development Coordinating Committee review. Statements attached.

Page 2

API #43-019-31408

October 25, 2004

7. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

From: brianwood <brian@permitswest.com>
To: DIANA WHITNEY <Dianawhitney@utah.gov>
Date: 11/4/2005 2:15:18 PM
Subject: MSC 35-2

MSC says let it expire.



State of Utah

Department of Natural Resources

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

November 4, 2005

Brian Wood
MSC Exploration L.P
16800 Imperial Valley Dr. Ste 380
Houston, TX 77060

Re: APD Rescinded –State MSC 35-2 Sec. 35, T. 21, R. 19E
Grand County, Utah API No. 43-019-31408

Dear Mr. Wood:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on October 25, 2004. On November 4, 2005 you requested the Division rescind the State approved APD.

No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective November 4, 2005.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Whitney
Engineering Technician

cc: Well File
Ed Bonner, SITLA