Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

008

APPLICATION FOR PERMIT TO DRILL OR REENTER

CONFIDENTIAL

1a. Type of Work: ☒ DRILL ☐ REENTER	5. Lease Serial No. UTU52471
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA Agreement, Name and No. UTU80642X
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone	8. Lease Name and Well No. MOON CANYON 2
2. Name of Operator ROYALE ENERGY INC Contact: ERIC NOBLITT E-Mail: enoblitt@bresnan.net	9. API Well No. 43-019-31405-00-X1
3a. Address 7676 HAZARD CENTER SUITE 1500 SAN DIEGO, CA 92108 3b. Phone No. (include area code) Ph: 970.245.3951 Fx: 970.245.3951	10. Field and Pool, or Exploratory WILDCAT
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface NESE 1470FSL 432FEL 39.42711 N Lat, 109.59933 W Lon At proposed prod. zone	11. Sec., T., R., M., or Blk. and Survey or Area Sec 9 T16S R21E Mer SLB SME: BLM
14. Distance in miles and direction from nearest town or post office* 60.6 MILES NORTHWEST OF FRUITA, COLORADO	12. County or Parish GRAND 13. State UT
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1470 FEET 16. No. of Acres in Lease 960.00	17. Spacing Unit dedicated to this well 40.00
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. NA 19. Proposed Depth 10900 MD	20. BLM/BIA Bond No. on file UTB000026
21. Elevations (Show whether DF, KB, RT, GL, etc. 7381 GL 22. Approximate date work will start 08/16/2004	23. Estimated duration 30 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature (Electronic Submission)	Name (Printed/Typed) ERIC NOBLITT	Date 06/09/2004
Title AGENT		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) HOWARD B CLEAVINGER II	Date 08/31/2004
Title AFM FOR MINERAL RESOURCES	Office Vernal	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #31224 verified by the BLM Well Information System
For ROYALE ENERGY INC, sent to the Vernal
Committed to AFMSS for processing by LESLIE WALKER on 06/17/2004 (04LW3921AE)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Revisions to Operator-Submitted EC Data for APD #31224

	Operator Submitted	BLM Revised (AFMSS)
Lease:	U-52471	UTU52471
Agreement:	MOON CANYON	UTU80642X
Operator:	ROYALE ENERGY, INC 7676 HAZARD CENTER DR, SUITE 1500 SAN DIEGO, CA 92108 Ph: 619.881.2800 Fx: 619.881.2899	ROYALE ENERGY INC 7676 HAZARD CENTER SUITE 1500 SAN DIEGO, CA 92108 Ph: 619.881.2800
Admin Contact:	ERIC NOBLITT AGENT 2275 LOGOS CT. #B-1 GRAND JUNCTION, CO 81505 Ph: 970.245.3951 Fx: 970.245.3951 E-Mail: enoblitt@bresnan.net	ERIC NOBLITT AGENT 7676 HAZARD CENTER SUITE 1500 SAN DIEGO, CA 92108 Ph: 970.245.3951 Fx: 970.245.3951 E-Mail: enoblitt@bresnan.net
Tech Contact:		
Well Name:	MOON CANYON	MOON CANYON
Number:	#2	2
Location:		
State:	UT	UT
County:	GRAND	GRAND
S/T/R:	Sec 9 T16S R21E Mer SLB	Sec 9 T16S R21E Mer SLB
Surf Loc:	NESW 1470FSL 432FEL 39.42711 N Lat, 109.59933 W Lon	NESE 1470FSL 432FEL 39.42711 N Lat, 109.59933 W Lon
Field/Pool:	WILDCAT	WILDCAT
Bond:		UTB000026

CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Royal Energy Inc.

Well Name & Number: Moon Canyon 2

Lease Number: U-52471

API Number: 43-019-31405

Location: NESE Sec. 9 T. 16S R. 21E

Agreement: Moon Canyon Unit

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

Report ALL water shows and water-bearing sands to John Mayers of this office **prior to setting the next casing string or requesting plugging orders**. Faxed copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

All usable water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil & Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a **5M** system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil & Gas Order No. 2, regarding air or gas drilling shall be adhered to.

3. Casing Program and Auxiliary Equipment

Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint. Surface casing setting depths are based on ground level elevations only.

All casing strings below the conductor shall be pressure tested to 0.22 psi/ft of casing string length or 1500 psi, whichever is greater but not to exceed 70% of the minimum internal yield.

If a decision is made to not run intermediate casing, the cement behind the production casing must extend at least 200' above the top of the Mesa Verde Formation which has been identified at ±4017'.

4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

A cement bond log (CBL) will be run from the production casing shoe to top of the cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

Please submit an electronic copy of all logs run on this well in LAS format. This submission will supercede the requirement for submittal of paper logs to the BLM.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

6. Notifications of Operations

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Written notification of such must be submitted to this office not later than five (5) days following the date on which the well is placed on production.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the

operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

A schematic facilities diagram as required by 43 CFR 3162.7-5(d) shall be submitted to the appropriate Field Office within 60 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5 (1).

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergencies, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

All loading lines will be placed inside the berm surrounding the tank battery.

All off-lease storage, off-lease measurement, or commingling onlease or off-lease will have prior written approval from the AO.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries and tested for meter accuracy at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal Field Office. All meter measurement facilities will conform to Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to $10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hours approvals are necessary, you must contact one of the following individuals:

Ed Forsman (435) 828-7874
Petroleum Engineer

Kirk Fleetwood (435) 828-7875
Petroleum Engineer

BLM FAX Machine (435) 781-4410

EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

Unused fracturing fluids or acids

Gas plant cooling tower cleaning wastes

Painting wastes

Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spend solvents, spilled chemicals, and waste acids

Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste

Refinery wastes

Liquid and solid wastes generated by crude oil and tank bottom reclaimers

Used equipment lubrication oils

Waste compressor oil, filters, and blowdown

Used hydraulic fluids

Waste solvents

Waste in transportation pipeline-related pits

Caustic or acid cleaners

Boiler cleaning wastes

Boiler refractory bricks

Incinerator ash

Laboratory wastes

Sanitary wastes

Pesticide wastes

Radioactive tracer wastes

Drums, insulation and miscellaneous solids

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

At the time that the well is no longer in operation, the well shall be plugged and the location and access road shall be reclaimed. All disturbed surfaces shall be re-contoured to near natural contours. Any stockpiled top soils shall be spread over the re-contoured surfaces and reseeded with the following seed mixture:

Seed Mixture:		**lbs/acre**
Birchleaf mountain mahogany	Cercocarpus montanus	4
Indian Rice grass	Oryzopesis hymenoides	4
Bitter brush	Purshia tridentate	4

Seed shall be drilled but if broadcasted double the pounds per acre used and work the soils mechanically to cover the seed.

This seed mixture shall also be used on those portions of the stockpiled topsoil that is being saved for later reclamation. The required seed mixture differs from that in the Surface Use Plan.

All facilities shall be painted Olive black (5WA20-6) not desert brown as described in 4D of the surface use plan.

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STONEGATE RESOURCES, L.L.C.

Eric Noblitt

June 17, 2004

Ms. Diana Mason
Division of Oil, Gas and Mining
Box 14581
Salt Lake City, Utah 84114-5801

Re: Application For Permit To Drill
Royale Energy, Inc.'s, - Moon Canyon # 2 Well
Sec. 9: T16S-R21E
Grand County, Utah

Dear Ms. Mason:

Enclosed please find two (2) fully executed copies of Royale Energy's Federal APD for the above referenced well. A copy of the Cultural Resource Inventory report will follow under separate cover.

Please do not hesitate to contact me at (970) 245-3951 regarding any questions you may have regarding this application.

Sincerely,

Eric Noblitt, Agent
Royale Energy, Inc.

c.c. Dale Hoffman – Royale Energy, Inc.

2275 Logos Ct. Suite B-1 Grand Junction, Colorado 81505 (970) 245-3951 Ph & Fax
enoblitt@bresnan.net

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Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

CONFIDENTIAL

5. Lease Serial No.: U-52471

6. If Indian, Allottee or Tribe Name:

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.: MOON CANYON

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.: MOON CANYON #2

2. Name of Operator: ROYALE ENERGY, INC
Contact: ERIC NOBLITT
E-Mail: enoblitt@bresnan.net

9. API Well No: 43-019-31405

3a. Address: 7676 HAZARD CENTER DR, SUITE 1500
SAN DIEGO, CA 92108

3b. Phone No. (include area code)
Ph: 970.245.3951
Fx: 970.245.3951

10. Field and Pool, or Exploratory: ~~WILDCAT~~ Undesignated

4. Location of Well (*Report location clearly and in accordance with any State requirements.**)

At surface: NESW 1470FSL 432FEL 39.42711 N Lat, 109.59933 W Lon
At proposed prod. zone: E 620564X 4364874Y 39.42685 -109.59928

11. Sec., T., R., M., or Blk. and Survey or Area: Sec 9 T16S R21E Mer SLB

14. Distance in miles and direction from nearest town or post office*: 60.6 MILES NORTHWEST OF FRUITA, COLORADO

12. County or Parish: GRAND

13. State: UT

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 1470 FEET

16. No. of Acres in Lease: 960.00

17. Spacing Unit dedicated to this well: 40.00

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.: NA

19. Proposed Depth: 10900 MD

20. BLM/BIA Bond No. on file:

21. Elevations (Show whether DF, KB, RT, GL, etc.): 7381 GL

22. Approximate date work will start: 08/16/2004

23. Estimated duration: 30 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed)	Date
(Electronic Submission)	ERIC NOBLITT	06/09/2004

Title: AGENT

Approved by (Signature)	Name (Printed/Typed)	Date
	BRADLEY G. HILL	08-18-04
Title	Office: ENVIRONMENTAL SCIENTIST III	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Federal Approval of this Action is Necessary

Electronic Submission #31224 verified by the BLM Well Information System
For ROYALE ENERGY, INC, sent to the Vernal
Committed to AFMSS for processing by LESLIE WALKER on 06/17/2004 ()

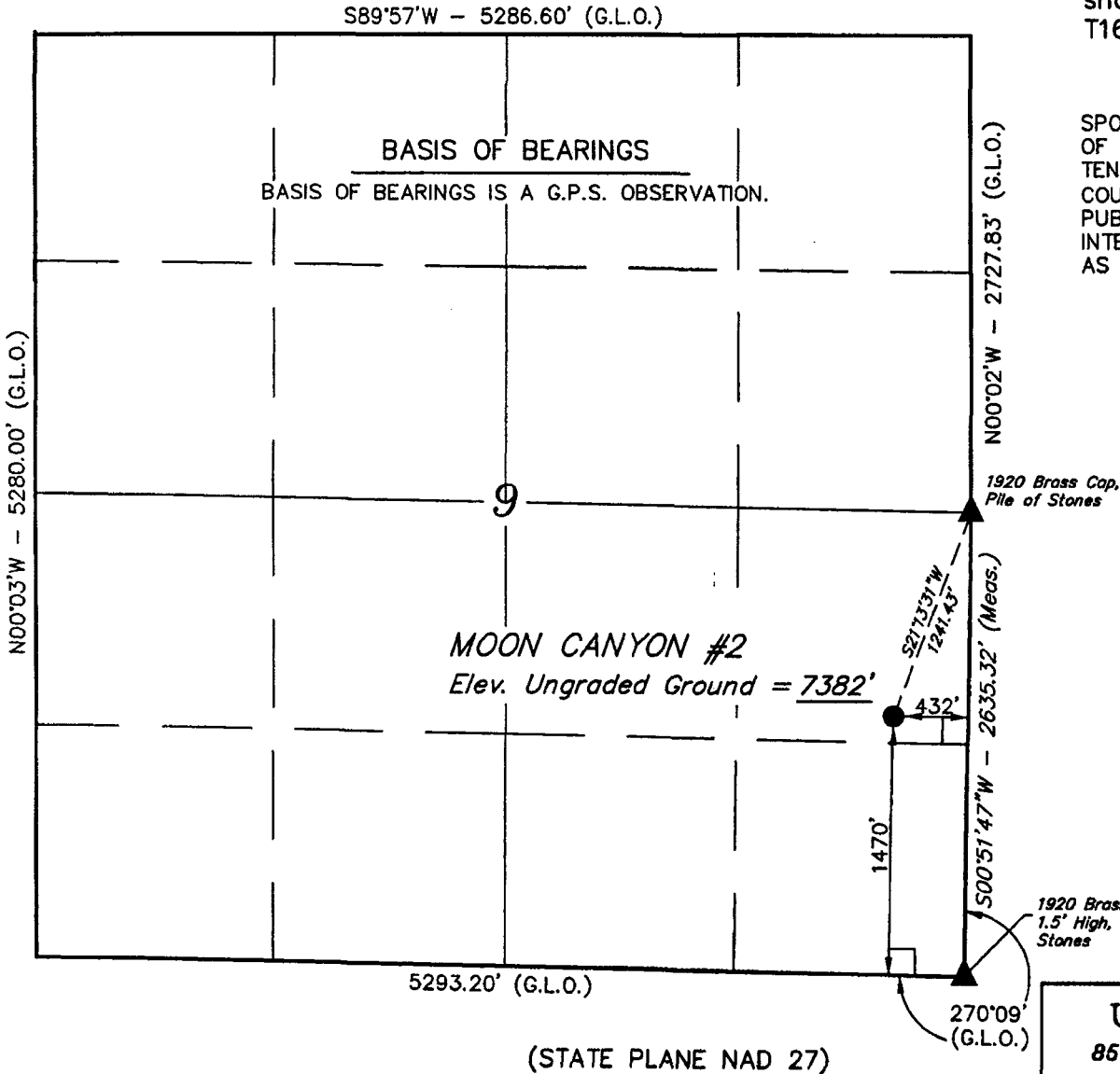
RECEIVED
JUN 21 2004
DIV. OF OIL, GAS & MINING

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

T16S, R21E, S.L.B.&M.

ROYALE ENERGY, INC.

Well Location, MOON CANYON #2, located as shown in the NE 1/4 SE 1/4 of Section 9, T16S, R21E, S.L.B.&M. Grand County, Utah.



(STATE PLANE NAD 27)
N = 404087.22
E = 2536854.09

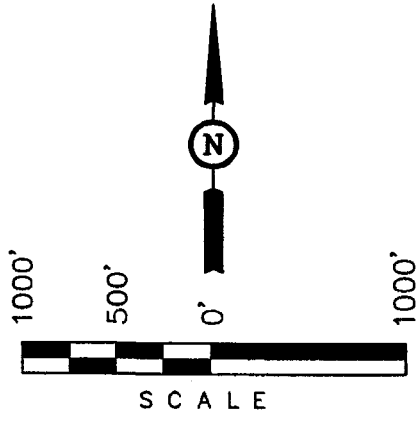
(AUTONOMOUS NAD 27)
LATITUDE = 39°25'37.59" (39.427108)
LONGITUDE = 109°35'57.58" (109.599328)

LEGEND:

└ = 90° SYMBOL
● = PROPOSED WELL HEAD.
▲ = SECTION CORNERS LOCATED.

BASIS OF ELEVATION

SPOT ELEVATION AT AN OIL WELL LOCATED IN THE NE 1/4 OF SECTION 15, T16S, R21E, S.L.B.&M. TAKEN FROM THE TENMILE CANYON NORTH QUADRANGLE, UTAH, GRAND COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 7620 FEET.



CERTIFICATE

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

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
86 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 05-19-04	DATE DRAWN: 05-21-04
PARTY B.B. T.H. K.G.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE ROYAL ENERGY, INC.	

ROYALE ENERGY, INC.

Moon Canyon #2

432'FEL, 1,470'FSL
NE/4SE/4; Section 9, Township 16 South, Range 21 East, SLM
Grand County, Utah
Lease # UT U-52471

Surface Use & Operations Plan

Ownership

Surface & Minerals:

Bureau of Land Management
Vernal Field Office
170 South 500 West
Vernal, UT 84078
(435) 781-4800

1. EXISTING ROADS – Refer to Exhibit Topo Maps "A" and "B".

A. The proposed wellsite has been surveyed to memorialize the existing well pad (see Location Layout Plat)

B. To reach the proposed location from the UT/CO state line proceed East on Interstate 70 approximately 4.6 miles to the Westwater exit; proceed north .3 mile, turn right and go East 2.2 miles to Hay Canyon & East Canyon road (At National Fuel sign) turn left, proceed Northwest 12.6 miles to Hay Canyon road, turn left and travel up Hay Canyon 13.8 miles to Divide road. Turn left. Heading West, travel 9.3 miles to Moon Ridge sign. Turn right. Proceed 8.3 miles to MR 31-15 well. Travel 1.3 on new access road to Moon Canyon #2 location.

C. Access roads refer to Exhibit Topo Maps "A" and "B".

D. Access roads within a one (1) mile radius, none – refer to Exhibit Topo Maps "A" and "B".

E. The existing roads will be maintained in the same or better condition as existed prior to the commencement of operation and said maintenance will continue until final abandonment and reclamation of said well location.

2. EXISTING 2-TRACK ROADS (needing upgrade) / NEW ROAD– Refer to Topo Map Exhibits "A"& "B"

Access to the location will be on Grand County maintained roads, where County road ends at the Moonridge 32-15 location in the NE/4 Section 15, T 16S-21E. The road will follow an existing 2-track / seismic trail approximately .7 miles and .7 miles of new road (1.4 miles total) to Moon Canyon #2 location, crossing BLM lands.

A. Width – The current approximate width is approximately 8-12 foot running surface. This road will be widen and improved where needed to a twenty (20) foot running surface.

B. Construction Standard -Any road improvements will be conducted in accordance with roading guidelines established for oil & gas exploration and development activities as referenced in the joint BLM/USFS publication: *Surface Operating Standards for Oil and Gas Exploration and Development,* Third Edition and/or BLM Manual Section 9113 concerning road construction activities on public domain lands.

C. Maximum grade – The maximum grade is under 8%.

D. Turnouts – Several turnouts exist on the existing road any new turnouts will be consultation of the appropriate governing authority.

E. Drainage design – The existing road shall be maintained to provide proper drainage along the road.

F. Culverts and low water crossings – No low water crossings are anticipated. Culverts will be installed as needed. Possibly 2-3 culverts.

G. Surface material – It is anticipated that no additional surface material will be required for drilling and production operations. Should spot graveling be required during drilling operations, gravel would be obtained from the nearest commercial site.

H. Gates, cattleguards or fence cuts: No Fence cuts or cattleguards will be required along the proposed existing route. All gates will be maintained during operations.

I. Road maintenance – During both the drilling and production phase of operations, the road surface will be kept in a safe and useable condition and will be maintained in accordance with the original construction standards. All drainage ditches and culverts will be kept clear and free-flowing, and will also be maintained in accordance with the original construction standards. The access road will be kept free and clear of trash during all operations.

3. LOCATION OF EXISTING WELL WITHIN A ONE-MILE RADIUS

A.	Water wells	none
B.	Abandoned wells	none
C.	Temporarily abandoned wells	none
D.	Disposal wells	none
E.	Proposed wells	none
F.	Shut-in wells	none

G. Producing

Ice Canyon 16-9
NE/4 Sec.16, T16S-R21E

MR 31-15
NE/4 Sec.15, T16S-R21E

4. LOCATION OF PROPOSED FACILITIES

A. All production facilities will be located on the disturbed portion of the well pad and at a minimum from of twenty-five (25) feet from the toe of the back slope or top of the fill slope.

B. Any road improvements will be conducted in accordance with roading guidelines established for oil & gas exploration and development activities as referenced in the joint BLM/USFS publication: *Surface Operating Standards for Oil and Gas Exploration and Development,* Third Edition and/or BLM Manual Section 9113 concerning road construction activities on public domain lands.

C. An existing pipeline for gas gathering is in place at the MR 31-15 well pad located in the NE/4 Sec. 15, T16S-R21E. If the subject well is commercial a 3" welded surface line will be laid adjacent to the new road from the Drillsite to NE/4 Section 15. (Approximately 7,400 ft.)

D. All permanent (in place for six months or longer) structures constructed or installed (including oil well pump jacks) will be painted a flat, non-reflective color to match the standard environmental colors. All facilities will be painted within six months of installation. Facilities required by OSHA may be excluded. Colors will be painted desert brown (Munsell standard color #10 YR 6/3), unless otherwise advised by the governing authority.

E. If a gas meter run is constructed, it will be located within 500 feet of the wellhead. The flowline will be buried from the wellhead to the meter and will be buried downstream until it leaves the pad. The meter run will be housed. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of 43 CFR 3162. 7-3, *Onshore Oil and Gas Order No. 5*, and the American Gas Association (AGA) Report No. 3.

F. If a tank battery is constructed on the lease, it will be surrounded by a berm of sufficient capacity to contain 11/2 times the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery. All oil production and measurements shall conform to provisions of 43 CFR 3162. 7-3 and *Onshore Oil and* Gas Order No. 4.

G. Production facilities on location may include a lined or unlined water pit as specified in *Onshore Oil and Gas Order No.7.* If water is produced from the well,

an application in conformance with Order No. 7 must be submitted. Any pit will be fenced with barbwire held in place by metal side post and wooden corner "H" braces in order to protect livestock and wildlife.

H. During drilling and subsequent operations, all equipment and vehicles will be confined to the access road, drill pad and any additional area specified in the approved Application for Permit to Drill (APD).

I. Reclamation of disturbed areas no longer needed for operations will be accomplished by grading, leveling and seeding as recommended by the BLM.

5. LOCATION AND TYPE OF WATER SUPPLY

A. Water supply for the subject well shall come from a private source in Sec. 6, T16S-R23, owned by Bert Delambert. Utah Water Change Application # t27896 authorizes such use and a water use agreement with Mr. Delambert has been obtained (see attachements.)

B. No water well will be drilled.

6. SOURCE OF CONSTRUCTION MATERIALS

A. It is not anticipated that any construction materials (gravel) will be required during construction or operations. If required, a private contractor (or surface owner) having a previously approved source within the general area will be used.

B. No construction material will be taken from Federal lands. The use of materials under BLM jurisdiction will conform with 43 CFR 3610.2-3.

7. METHODS OF HANDLING WASTE MATERIALS

A. Cuttings - The drill cuttings will be deposited in the reserve pit.

B. Drilling fluids – All fluids including chemicals will be contained in the reserve pit. The reserve pit will be designed to prevent the collection of surface runoff and will constructed with a minimum of one-half (1/2) total depth below the original ground level and at the lowest point within the pit. Prior to back-filling the reserve pit liquids will be disposed in an approved facility and the contents will be allowed to dry. The disturbed portion of the pad will be reclaimed. A 12-mil synthetic pit liner is proposed.

C. Produced fluids – Liquid hydrocarbons that may be produced during completion operations will be placed in test tanks on the location. Produced water will be placed in the reserve pit (Moon Canyon #2) for a period not to exceed ninety days after initial production.

During this ninety (90) day period, in accordance with *Onshore Oil and Gas Order Number 7*, an application for approval of a permanent disposal method and location, along with required water analysis, shall be submitted to the Authorized Officer for approval.

Any spills of oil, gas, salt water or any other potentially hazardous substances will be cleaned up and immediately removed to an approved disposal site.

D. Sewage – Portable, self-contained chemical toilets will be provided for human waste disposal. Upon completion of operations, or as required, these toilets will be removed and the contents thereof disposed of in an approved sewage disposal facility.

E. Garbage and other waste material – All garbage and non-flammable waste materials will be contained in a dumpster or trash cage. Upon completion of operations, or as needed, the accumulated trash will be hauled off-site to an approved sanitary landfill. No trash will be placed in the reserve pit during any operations pertaining to this well.

F. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the well location. No potentially adverse materials or substances will be left on location.

G. Any open pits will be fenced during the drilling operation and said fencing will be maintained until such time as the pits have been back-filled.

8. ANCILLARY FACILITIES

None anticipated.

9. WELLSITE LAYOUT

A. Attached hereto is a diagram (fig.1) showing the proposed location layout. No permanent living facilities are planned. There will be approximately three (3) trailers on location during drilling operations: one each for the wellsite supervisor, mudloggers and toolpusher.

B. Topsoil will be stock piled on the Northwest and Southeast of the drillpad. Brush and trees will also be stock piled on the Southeast corner of pad and will be used in the site reclamation process. Erosion ditches will be created along the side of the drill pad to control runoff from the drill pad. (see location layout plat. Fig.1)

C. A diagram showing the proposed production facility layout will be submitted to the Authorized Officer via *Sundry Notice* (form #3160-5) for approval (see # 4B)

D. Prior to commencement of drilling operations, the reserve pit will be fenced on three (3) sides with four strand barbed wire held in place by metal side post and wooden corner "H" braces in order to protect livestock and wildlife.

1. Corner post shall be braced in such a manner to keep the fence tight at all times.

2. Standard steel, wood or pipe post shall be used between the corner braces. The maximum distance between any two (2) posts shall be no greater than sixteen (16) feet.

3. All wire shall be stretched, by using a stretching devise, before it is attached to the corner posts.

4. The fourth (4^{th}) side of the reserve pit will be fenced immediately upon removal of the drilling rig and the fencing will be maintained until the pit is back-filled.

E. Any Hydrocarbons on the pit will be removed immediately.

F. Flare pit will be a minimum of 100 feet from the wellhead and 30 feet from the reserve pit when applicable. The flare pit will be on laydown side of pad.

10. PLANS FOR RECLAMATION OF THE SURFACE

Producing

A. Any rat and mouse holes will be back-filled and compacted from to top immediately upon release of the completion rig from the location. The location and surrounding area will be cleared of all unused tubing, equipment, debris, materials, trash, and junk not required for production.

B. Any oil located on the pits will be removed immediately in accordance with 43 CFR 3162.7-1.

C. Back-filling, leveling and re-contouring are planned as soon as possible after cessation of drilling and completion operations. Waste and spoil materials will be disposed of immediately upon cessation of drilling and completion activities.

Fluids from the reserve pit shall be removed. The liner shall be torn and perorated before back-filling of the reserve pit.

The reserve pit and that portion of the location not needed for production facilities/operations will be re-contoured to the approximate natural contours. The reserve pit will be reclaimed within six (6) months from the date of well completion. Before any dirt work takes place, the reserve pit will be completely dry and all cans, barrels, pipe, etc., shall be removed.

The BLM surface management agency will be contacted for required seed mixture.

Dry Hole/Abandoned Location

1. At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the BLM will attach the appropriate surface rehabilitation conditions of approval.

11. OTHER INFORMATION

A. Proximity of Water, Occupied Dwellings, Archaeologist, Historical or Cultural Sites:

1. There are no known, occupied dwellings within one (1) mile of the location.

2. There are no known water wells within one (1) mile of location.

3. An archaeological survey was performed on the proposed well site and access road by Grand River Institute (970) 245-7868. See attached copy of this report.

   Royale Energy, Inc. will be responsible for informing all persons in the area who are associated with the project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites or for collecting artifacts. If historic or archaeological materials are uncovered, Royale will suspend all operations that might further disturb such materials and immediately contact the Authorized Officer (AO). Operations are not to resume until written authorization to proceed is issued by the AO. Within five (5) working days the AO will inform the operator as to:

   A. whether the materials appear eligible for the National Register of Historic Places;

   B. the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and

   C. a time frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Reservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

B. The operator will, control noxious weeds along right-of-way for roads, pipelines, wellsites or other applicable facilities. On BLM administered land it is required that a Pesticide Use Proposal shall be submitted, and given approval, prior to the application of herbicides or other pesticides or possible hazardous chemicals.

C. Drilling rigs and/or equipment used during drilling operations on this wellsite will not be stacked or stored on Federal Lands after the conclusion of drilling operations or at any other time without BLM authorization. However, if BLM authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

12. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Royale Energy, Inc.
7676 Hazard Center Drive, Suite 1500
San Diego CA 92108
Phone: (619) 881-2870
Fax (619) 881-2876
Drilling@royl.com
Attention: Dale Hoffman

Prepared by:

Date: June 6, 2004

Eric Noblitt, Agent
2275 Logos CT. #B-1
Grand Junction, CO. 81505
Phone: (970) 245-3951
Fax: (970) 245-3951
enoblitt@bresnan.net

ROYALE ENERGY, INC.

Moon Canyon #2

432'FEL, 1,470'FSL

NE/4SE/4; Section 9, Township 16 South, Range 21 East, SLM

Grand County, Utah

Lease # UT U-52471

June 6, 2004

DRILLING PLAN

General

NOTE: This well is to be drilled as a tight hole. Unauthorized personnel are not to be allowed on rig floor. All information is to be kept confidential.

Surface Location: 1470' FSL and 432' FEL
NESE; Sec. 9–T16S–R21E, SLM
Grand County, Utah

Bottomhole Location: Same

Proposed Total Depth: 10,900'

Elevation: 7382' Ground Level (Ungraded)

Drilling Contractor: As yet to be determined.

Drilling Procedure

Location

1) Build location, dig and line reserve pit w/ 12 mil liner as per pad layout specifications.

Surface Hole

1) Move in and rig up air drilling rig. Called in spud to BLM
2) Drill a 12-1/4" surface hole to 1,100' with air. Notified Vernal BLM as to cementing of surface casing.
3) Circulate and condition as required. Trip out of hole.
4) Run and cement 1,100' of 9-5/8", 36#, K-55, ST&C, 8rd casing.
5) Rig down and move off surface hole drilling rig.
6) Install 4'X6' cellar rig. Weld on 11" X 5,000 PSI flanged casing head. MU 11"5K X 11"5K spacer spool.

Intermediate Hole

1) MIRU rotary rig. Notify Vernal as to BOP/CSG pressure test. Nipple up and pressure

test BOPE and 9-5/8"casing, not to exceed to 70% internal yield of 9-5/8" csg.

2) Mud up. Trip in hole w/ 8-3/4" PDC bit. Drill out float collar and guide shoe. Drill 8-3/4" intermediate hole from base of surface casing to 5,800' (or 200'+/- into Mancos or as to Geologist recommendation)

Decision Point: Run 7" casing or continue drilling

This area of the Bookcliffs is notorious for hole problems (i.e. loss circulation, hole sloughing, deviation, etc.) in the Wasatch / Green River sections. At casing point(200' into Mancos @ 5,800'+/-), hole conditions will dictate whether to run casing or drill ahead to total depth without intermediate casing. If casing is run, proceed with #3. If casing is not run, proceed to #7.

3) Condition hole as per mud program. Run openhole logs as per logging program.
4) Trip in hole w/ bit and drill string. Condition hole for running pipe. Laydown 4-1/2"DP.
5) Run and cement 7" 23# production casing according to cement recommendation. Change out ram blocks in BOP.
6) Pressure test 7" casing string to 1,500 psi for thirty (30) minutes. PU 3-1/2" DP.
7) Drill out 7" intermediate casing with 6-1/4" PDC bit.
8) Well will be drilled to a depth of 10,300'
9) At T.D., condition hole for running openhole logs as per mud program.
10) Run openhole logs as per logging program.

Decision Point: Producible/Dryhole

Producible

1) Trip in hole w/ bit and drill string. Condition hole for running pipe. Trip out of hole laying down drill- pipe and collars. Notify Vernal BLM as to running and cementing of longstring.

2) Run and cement 4-1/2" production casing according to cement recommendation.

Dryhole

1) Notify Venal BLM and receive plugging orders. Trip in hole open ended and plug well as per BLM orders.
2) Release drilling rig. Reclaim location.

Estimated Tops of Geological Markers (From Ungraded GL)

Formation	Top	Sub Surface
Green River	Surface	
Wasatch	2,521	+4861
Mesaverde	3,983	+3399
Castlegate Sandstone	5,587	+1795
Main Mancos	5,625	+1758
Dakota Silt	9,663	-2281
Dakota Sandstone	9,785	-2403
Cedar Mountain	9,892	-2510

Morrison	9,991	-2609
Entrada	10,741	-3359
TD	10,900	-3518

Estimated Depths of Anticipated Water, Oil , Gas or Mineral Formations
(From Ungraded GL)

Formation	Top	Possible Formation Content
Green River	Surface to 2,521'	water
Wasatch	2,521' to 3,983'	water
Castlegate Sandstone	5,587' to 5,625'	gassy water
Dakota Sandstone	9,785' to 9,892'	gas
Cedar Mountain	9,892' to 9,991'	gas
Morrison	9,991' to 10,741'	gas or water
Entrada	10,741' to TD	gas or water

Pressure Control Equipment

1) Type: 11" X 5,000 psi WP, double-gate BOP and 11" X 5,000 psi WP annular BOP with hydraulic closing unit.

The blowout preventer will be equipped as follows:

1) One set of blind rams
2) One set of pipe rams
3) Drilling spool with two side outlet (choke side: 3" minimum and kill side 2" minimum)
4) Kill line: Two-inch minimum
5) Two kill line valves, one of which will be a check valve (2" minimum)
6) Choke line: Three-inch minimum.
7) Two choke line valves: Three-inch minimum.
8) One manually operated choke: Three-inch minimum.
9) Pressure gauge on choke manifold.
10) Upper kelly cock with handle readily available.
11) Full opening internal blowout preventer or drill pipe safety valve able to fit all connections.
12) Fill-up line to be located above uppermost preventer.

2) PRESSURE RATING: 5,000 PSI

3) TESTING PROCEDURE

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the approved BOP stack. (if isolated from the surface casing by means of a test plug) or 70% of the internal yield strength of the surface casing (if not isolated from the surface casing by means of a test plug). Pressure will be maintained for a period of at least ten minutes or until requirements of the test are met, whichever is longer.

At a minimum, this pressure test will be performed:

1) When the BOP is initially installed
2) Whenever any seal subject to test is broken.
3) Following related repairs.
4) At thirty day intervals.

In addition to the above, the pipe rams will be activated daily, and the blind rams will be activated on each trip (but not more frequently than once each day). All BOP tests and drills will be recorded in the IADC Driller's Log (tour sheet)

5) CHOKE MANIFOLD EQUIPMENT: (See Schematic #1&2)

All choke lines will be straight lines, unless turns use tee-blocks, or are targeted with running tees.
These lines will be anchored to prevent whip and vibration.

6) ACCUMULATOR:

The accumulator will have sufficient capacity to close all rams (plus the annular preventer, if applicable) and maintain a minimum of 200 psi above the precharge pressure without the use of the closing-unit pumps. The fluid reservoir capacity will be double the accumulator capacity and the fluid level will be maintain at the manufacturer's recommendation. The BOP system will have two independent power sources to close preventers. Nitrogen bottles (three minimum) will be considered one of these sources and will maintain a charge equal to the manufacturer's specifications.

The accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six months thereafter. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum limits of manufacturer's specifications.

7) MISCELLANEAUS INFORMATION:

The blowout preventer and related pressure-control equipment will be installed, tested, and maintained in compliance with the specifications in and requirements of *Onshore Oil and Gas Order Number2.* The choke manifold and BOP extension rods will be located outside the rig sub-structure.

The hydraulic BOP closing unit will be located at least twenty-five feet from the wellhead, but will be readily accessible to the driller. Exact location and configuration of the hydraulic BOP closing unit will depend upon the particular drilling rig contracted to drill this hole.

Casing and Cementing Programs

PROPOSED CASING DESIGN

Size	Interval	Length	Description
9-5/8"	0' – 1,100'	1,100'	36#, K-55, STC
7"	0' – 5,800'	5,800'	23#, J-55, LTC
4-1/2"	0'- 10,900'	10,900'	13.5# N-80, LTC

A regular guide shoe and insert float will be run on the bottom and top of the first joint on casing. The guide shoe and float collar will be made up with A.P.I. thread locking compound. On 4-1/2" casing, a stop ring and centralizer will be run in the middle of the shoe joint. Centralizers will be ran 1 joint above float and across all potential pay zones.

NOTE: Casing strings will be pressure tested to 0.22 psi/ft of casing string depth, or 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.

PROPOSED CEMENTING PROGRAM

Casing / Hole Size	Cement Slurry	SX	PPG	Yield
9-5/8" / 12-1/4"	Tail: Class "G" w/ 2% CaCl2 & 0.25 PPS Flocele (100% excess)	600	15.8	1.17

Casing Equipment: 1 – Regular Guide Shoe
1 – Insert float collar

NOTE: Precede cement w/ 50 bbls of fresh water. Have 100 sx "neat" cement on location and 1" line pipe to pump a cement top job if cement is not circulated to surface and/or cement falls back. All waiting-on –cement times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

Casing / Hole Size	Cement Slurry	SX	PPG	Yield
7" / 8-3/4"	50/50 Pozmix w/.25 PPS Flocele (30% excess)	730	14.2	1.26

This section of hole may be two staged cemented if loss circulation is encountered.

Casing / Hole Size	Cement Slurry	SX	PPG	Yield
4-1/2" / 6-1/4"	50/50 poz cement w/ 0.25 PPS Flocele (30% excess)	260 TOC @ 8,500'	14.2	1.26

IF INTERMEDIATE CASING IS NOT RUN

Casing / Hole Size	Cement Slurry	SX	PPG	Yield
4-1/2" / 7-7/8"	50/50 poz cement w/ 0.25 PPS Flocele (30% excess)	560 TOC @ 8,500'	14.2	1.26

NOTE: Actual cement volumes will be calculated from caliper log.

Casing Equipment : 1 – Regular guide shoe
1 – Differential-fill float collar
10 – Centralizers (Casing will be centralized on shoe jt and across all potential pay zones)

NOTE: Precede cement with 50 bbls of fresh water. Run compatibility test on proposed cement with actual make-up water. Cement design and volumes may be altered depending on results of caliper log and presence of lost circulation zones.

Drilling Fluids Program

SURFACE HOLE: 0' – 1,100' HOLE SIZE: 12-1/4" 9-5/8" CASING

Surface pipe will be pre-set with air rig.

INTERMEDIATE HOLE: 1,100' – 5,800' HOLE SIZE: 8-3/4" 7" CASING

Drill out surface casing cement with water discarding contaminated fluid into reserve pit. Mix up 6+ PPB DAP w/ PolyPlus water system. Mud up system 1 day prior to logging. Keep trip speeds down to reduce surge/swab pressure. Keep hole full at all times. Monitor pit levels to detect loss circulation and gas kicks. Sweep hole as dictated by hole conditions and prior to running production casing. Keep drill string moving at all times.
Recommend Fluid Properties: Weight 8.6 – 8.8PPG
Viscosity As per mud engineer recommendation
Water Loss 8-10CC'S

PRODUCTION HOLE: 5,800' – 10,900' HOLE SIZE: 6-1/4" 4-1/2" CASING

Drill out intermediate casing cement with water discarding contaminated fluid into reserve pit. Mud up with 6+ PPB DAP w/ PolyPlus mud system. Keep trip speeds down to reduce surge/swab pressure. Keep
hole full at all times. Monitor pit levels to detect loss circulation and gas kicks. Sweep hole as dictated by hole conditions and prior to running production casing. Keep drill string moving at all times. Have 100-200 PPM nitrates in mud system prior to drilling any potential pay zones that may be DST'd.

Recommended Fluid Properties: Weight: 8.8 – 9.2 PPG
Viscosity: As per mud engineer rec
Water Loss: 8-10 CC'

Evaluation Program

MUDLOGGING: Drilling samples will be caught every 20' from 350' to 9,000'. Mudloggers will be on location and rigged up before drilling of the Castlegate formation. 10' samples will be caught from 9,000' to T.D. or as directed by wellsite geologist.

OPENHOLE LOGGING: 5,800 –1,100' – CNL/FDC w/ XY caliper and DLL
10,900 –5,800' – CNL/LDT w/ XY caliper and DLL

DRILLSTEM TESTING: None anticipated.

CORING: None anticipated.

STIMULATION: All prospective zones will be perforated, flow tested and evaluated to determined if acidizing and/or fracturing is required. The drill site will be of sufficient size to accommodate all completion operations.

The proposed Evaluation Program may change at the discretion of the well site drilling supervisor and geologist with the approval from the Authorizing Officer, Vernal BLM.

Two copies of all logs, core descriptions, core analyses, DST test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during drilling, workover, and/or completion operations will be filed on form #3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the District Manager, Vernal BLM.

Anticipated Bottomhole Pressure

A bottomhole pressure of 3,815 psi (.35 gradient) is anticipated at total depth (10,900')

Abnormal Conditions

No abnormal temperature or pressures are anticipated in the drilling of the Moon Canyon #2

Anticipated Starting Date and Miscellaneous

1) ANTICIPATED STARTING DATE:	Location Construction	August 16, 2004
	Spud Date	August 23, 2004
	Drilling Days	30 days
	Completion Days	14 days

2) MISCELLANEOUS

There will be no deviation from the proposed drilling and/or workover program as approved. Safe drilling and operating practices will be observed.

All wells, whether drilling, producing, suspended or abandoned will be identified in accordance with 43 CFR 3162.6. There will be a sign or marker with the name of the operator, lease serial number, well name and number and survey description of the well.

Any changes in operation must have prior approval from the Authorized Officer (AO), Vernal Office, Bureau of Land Management. Pressure test will be preformed before drilling out from under of all casing strings set and cemented in place. Blowout preventers controls will remain in use until the well is either completed or abandoned. Preventers will be inspected and operated at least daily to insure good mechanical working order, and inspection will be recorded on the daily drilling report. All BOP test will be recorded on the daily drilling report.

The spud date will be orally reported to the Vernal BLM Office forty-eight (48) hours after spudding.
If spudding occurs on a weekend or holiday, this report will be called in on the next regular work day following spudding of the well.

In accordance with *Onshore Oil & Gas Order Number1,* this well will be reported on MMS Form #3160-6, *Monthly Report of Operations and Production,* starting with the month in which operation commence and continue each month until the well is physically plugged and abandon. This report will be filed directly with the Royalty Management Program, Minerals Management Service, P.O. Box 17110, Denver, CO. 80217

All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL-3A will be reported to the Vernal District Office. Major events will be reported verbally within twenty-four (24) hours and will be followed with a written report within fifteen (15) days, "Other than major events" will be reported in writing within fifteen days. "Minor events" will be reported on the *Monthly Report of Operations and Production* (Form #3160-6).

No well abandonment operations will be commenced without the prior approval of the Authorized Officer. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Petroleum Engineer. A *Notice of Intention to Abandon* (Form #3160-5) will be filed with the Authorized Officer within fifteen (15) days following the granting of oral approval to plug and abandon.

Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The following information will be permanently placed on the marker with a plate, cap, or beaded-on with a welder: Company Name and Number, Location by Quarter/Quarter, Section, Township, Range and Federal Lease Number.

A *Subsequent Report of Abandonment* (Form #3160-5) will be submitted within thirty (30) days following the actual plugging of the well bore. This report will indicate where plugs were placed and the current status of surface restoration operations. If surface restoration has not been completed at that time, a follow-up report on Form #3160-5 will be filed when all surface restoration work has been completed and the location is considered ready for final inspection.

Pursuant to NTL-4A, lessees and operators are authorized to vent/flare gas during initial well evaluation tests, not exceeding a period of thirty (30) days or the production of fifty (50) MMCF of gas, whichever occurs first. An application must be filed with the Authorized Officer, and approval received, for any venting /flaring of gas beyond the initial thirty (30) day or otherwise authorized test period.

Not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production fort more than ninety (90) days, the operator shall notify the Authorized Officer by letter or "*Sundry Notice*" of the date on which such production has begun or resumed. The notification shall provide as a minimum, the following information:

A. Operator name, address, and telephone number.
B. Well name and number.
C. Well location " ¼, ¼, Section, Township, Range, P.M."
D. Date well was placed on production.
E. The nature of the well's production, i.e.: crude oil, casing gas, or natural gas and entrained liquid hydrocarbons.
F. The OCS, Federal or Indian lease prefix and number on which the well is located. Otherwise, the non-federal or non-Indian land category. i.e.: state or private.

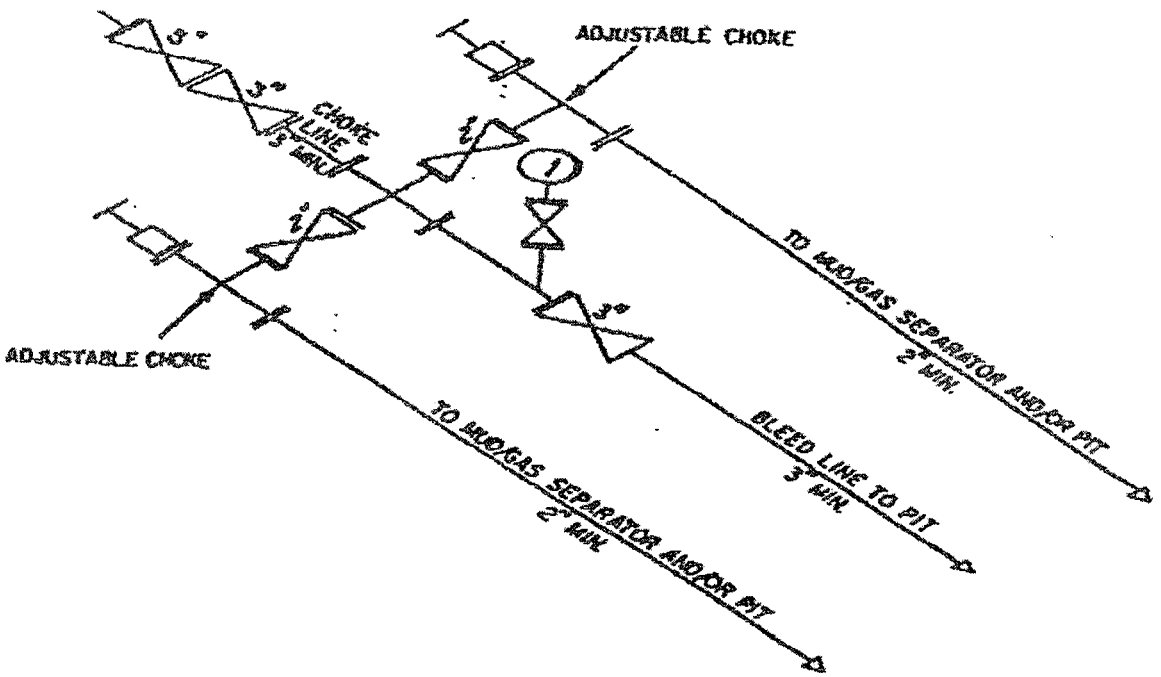
Within sixty (60) days following construction of a new tank battery, a site facility diagram of the battery showing actual conditions and piping must be submitted to the Authorized Officer. Facility diagrams shall be filed within sixty (60) days after existing facilities are modified. For complete information as to what is required on these diagrams, please refer to 43 CFR 3162.7-4 (d).

Pursuant to *Onshore Oil & Gas Order Number1,* lessees and operators have the responsibility to see that their exploration, development, production, and construction operations are conducted in such a manner which conforms with applicable Federal laws and regulations and with State and Local laws and regulations to the extent that such State and local laws are applicable to operations on Federal and Indian lands.

Prepared by: Date: June 6, 2004

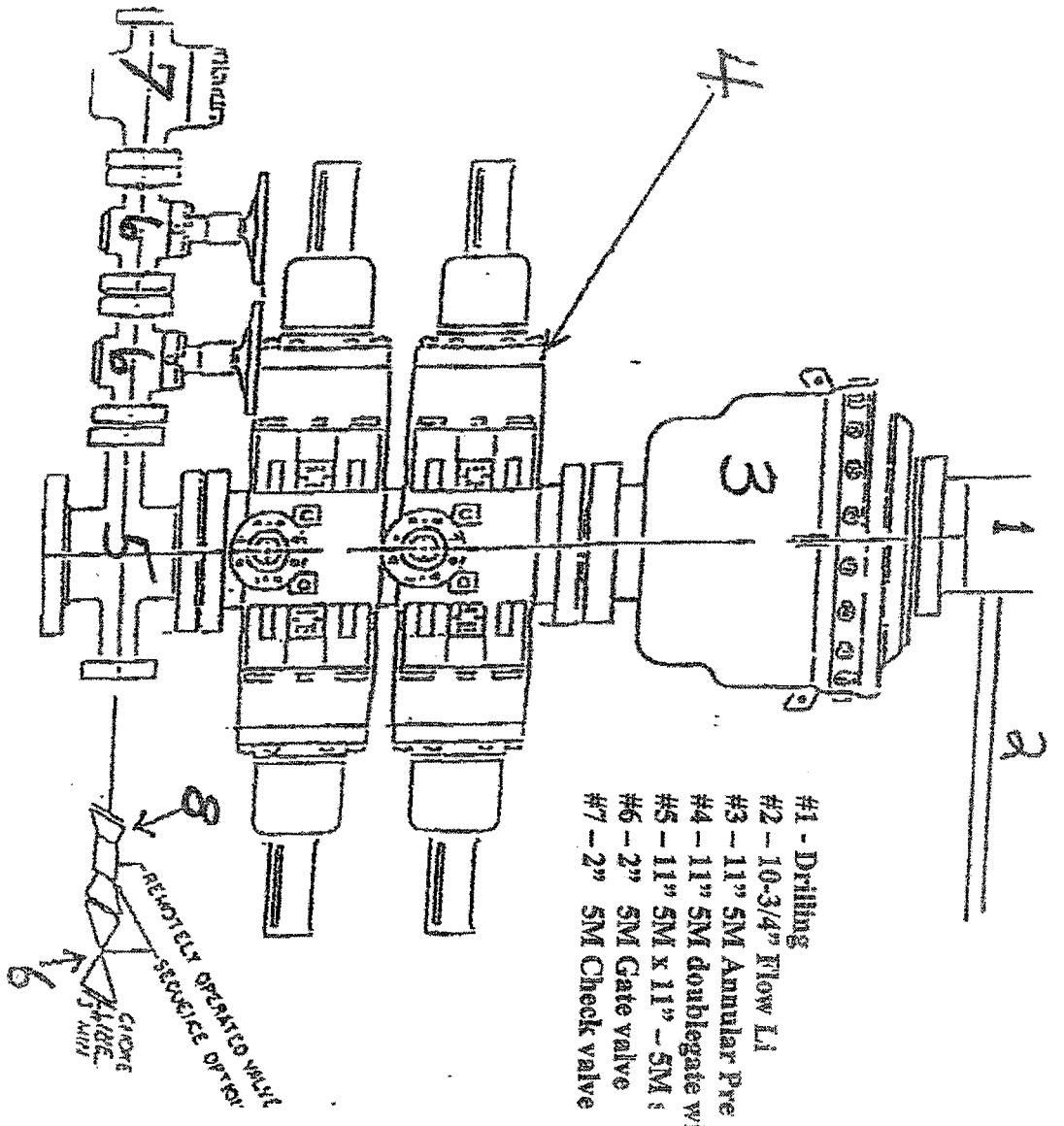
Eric Noblitt, Agent
2275 Logos CT. #B-1
Grand Junction, CO. 81505
Phone: (970) 245-3951
Fax: (970) 245-3951
enoblitt@bresnan.net

Schematic #1



5M Choke Manifold Equipment – Configuration of Chokes May Varv

Schematic #2


#1 - Drilling
#2 – 10-3/4" Flow Li
#3 – 11" 5M Annular Pre
#4 – 11" 5M doublegate with
#5 – 11" 5M x 11" – 5M
#6 – 2" 5M Gate valve
#7 – 2" 5M Check valve

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
www.ut.blm.gov

IN REPLY REFER TO:
3104
(UT-924)

MAR 2 8 2003

DECISION

Principal: Royale Energy, Inc. 7676 Hazard Center Drive, Suite 1500 San Diego, CA 92108	Type of Bond: Statewide Oil and Gas Bond Amount: $25,000
Surety: American Contractors Indemnity Company 9841 Airport Blvd. 9th Floor Los Angeles, CA 90045	Bond Surety No.: 179597 BLM Bond No.: UTB000026

Statewide Oil and Gas Surety Bond Accepted

On March 21, 2003, this office received a $25,000 statewide oil and gas bond for the principal named above. The bond has been examined, found satisfactory, and is accepted effective the date of filing.

The bond constitutes coverage of all operations conducted by the principal on Federal leases in Utah. The bond provides coverage of the principal where the principal has interest in, and/or responsibility for operations on, leases issued under the authority of any of the Acts cited on the bond form. Please note that Federal leases do not include Indian leases.

The bon will be maintained by this office. Termination of the liability under the bond will be permitted only after this office is satisfied that there is no outstanding liability on the bond or satisfactory replacement bond coverage is furnished.

Robert Lopez
Chief, Branch of
Minerals Adjudication

cc: Moab & Vernal Field Office
U-932, Attn: Al McKee

June 1, 2004

Mr. Bert DeLambert
P.O. Box 607
Vernal, UT 84078

Water Purchase Agreement Moon Canyon #2 Well
Section 9 Township 16 South, Range 21 East - Grand County, Utah

Dear Mr. DeLambert:

Royale Energy, Inc. desires to purchase water for the drilling and completion of the above referenced well from your water source. Said source is permit # 491223 T26714 and located in the NE/4, Sec. 31: T15S-R23E. Royale will tender you the sum of $5,000.00 within ten (10) days of the commencement of our operations.

If this is acceptable, please sign both originals of this letter and return one to me at the letterhead address. Thank you for your assistance.

Sincerely,

Dale Hoffman
Andrew Busch for Dale Hoffman

Accepted and Agreed to this 8 of June, 2004.

By: Bert DeLambert
Bert DeLambert

Water for dust control on road will be seperate.

ROYALE ENERGY INC

MOON CANYON #2

LOCATED IN GRAND COUNTY, UTAH
SECTION 9, T16S, R21E, S.L.B.&M.

PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE **CAMERA ANGLE: WESTERLY**

PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS **CAMERA ANGLE: NORTHERLY**

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS	05 MONTH	24 DAY	04 YEAR	PHOTO
TAKEN BY: B.B.	DRAWN BY: J.D.G.	REVISED: 00-00-00		

ROYALE ENERGY, INC.

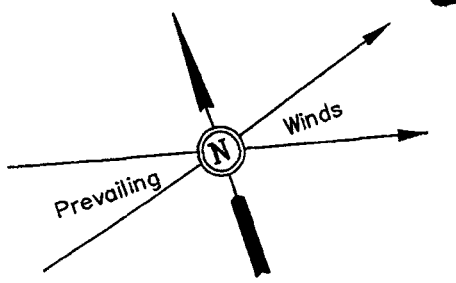
LOCATION LAYOUT FOR

MOON CANYON #2

SECTION 9, T16S, R21E, S.L.B.&M.

1470' FSL 432' FWL

FIGURE #1



SCALE: 1" = 50'
DATE: 5-22-04
Drawn By: K.G.

NOTE:
Flare Pit is to be located a min. of 100' from the Well Head.

F-0.4'
El. 80.4'

F-0.6'
El. 80.2'

F-2.8'
El. 78.0'

Sta. 3+20

35'

175'

Reserve Pit Backfill & Spoils Stockpile

FLARE PIT

Approx. Toe of Fill Slope

CONSTRUCT DIVERSION DITCH

PIPE TUBS

CATWALK

PIPE RACKS

Approx. Top of Cut Slope

El. 87.7'
C-16.9'
(btm. pit)

C-0.7'
El. 81.5'

F-4.1'
El. 76.7'

RIG

35'

125'

Sta. 1+45

75'

RESERVE PITS
(10' Deep)

C-2.3'
El. 83.1'

DOG HOUSE

TOILET

TRAILER

LIGHT PLANT

BOILER

COMPRESSOR

WATER TANK

MUD TANKS

PUMP HOUSE

BOOSTER

10' WIDE BENCH

140'

Total Pit Capacity
W/2' of Freeboard
= 9,980 Bbls. ±
Total Pit Volume
= 2,810 Cu. Yds.

1 1/2:1 Slope

TRASH

Sta. 0+50

145'

PROPANE STORAGE

35'

F-1.7'
El. 79.1'

Round Corners as Needed

Topsoil Stockpile

Sta. 0+00

El. 88.7'
C-17.9'
(btm. pit)

C-1.6'
El. 82.4'

C-0.6'
El. 81.4'

F-6.0'
El. 74.8'

Proposed Access Road

NOTES:

Elev. Ungraded Ground At Loc. Stake = 7381.5'

FINISHED GRADE ELEV. AT LOC. STAKE = 7380.8'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

ROYALE ENERGY, INC.

TYPICAL CROSS SECTIONS FOR

MOON CANYON #2

SECTION 9, T16S, R21E, S.L.B.&M.

1470' FSL 432' FWL

E

FIGURE #2

1" = 20'

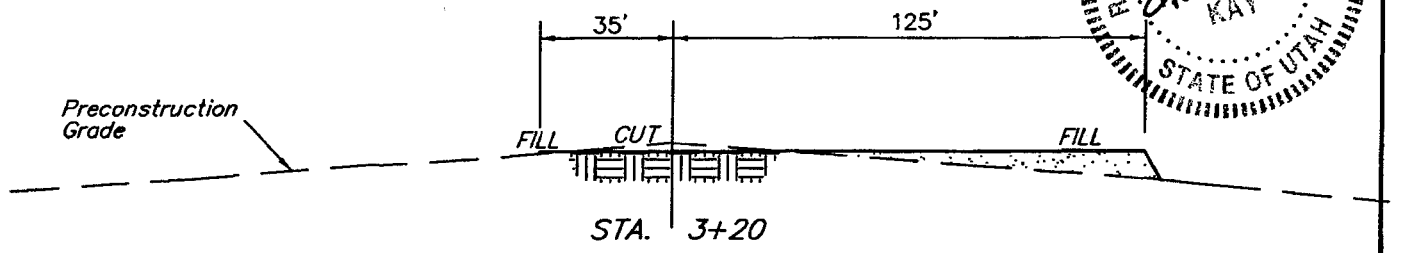
X-Section Scale

1" = 50'

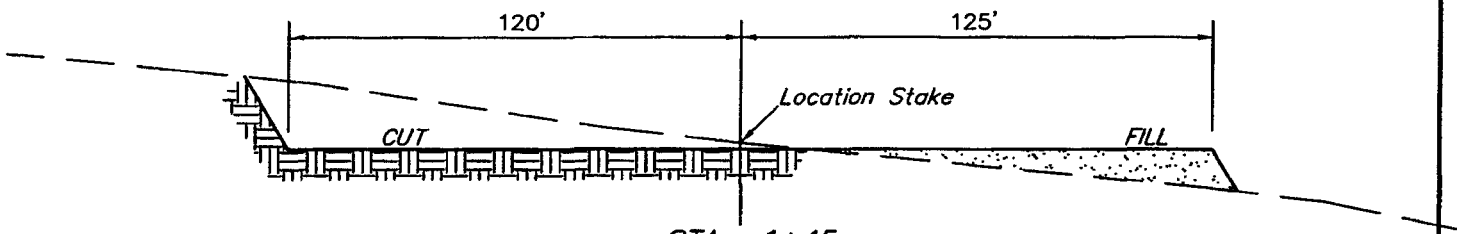
DATE: 5-22-04

Drawn By: K.G.

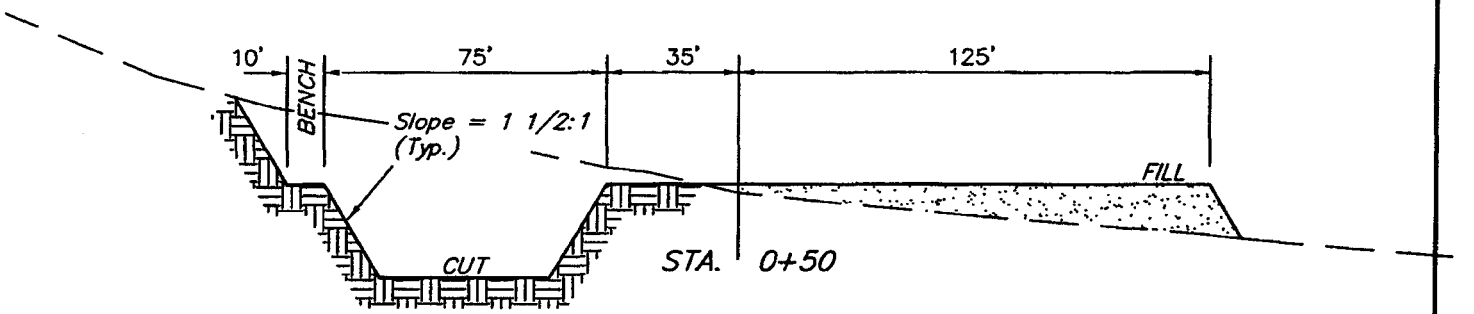
REGISTERED LAND SURVEYOR
(1319)
ALBERT L. KAY
STATE OF UTAH



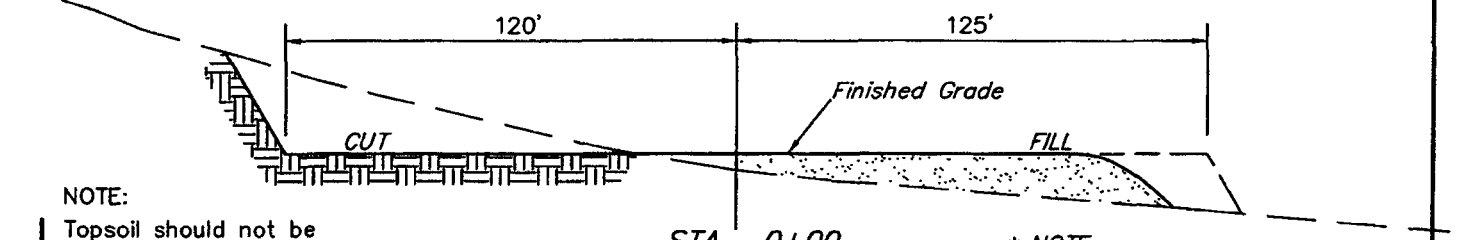
STA. 3+20



STA. 1+45



STA. 0+50



STA. 0+00

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

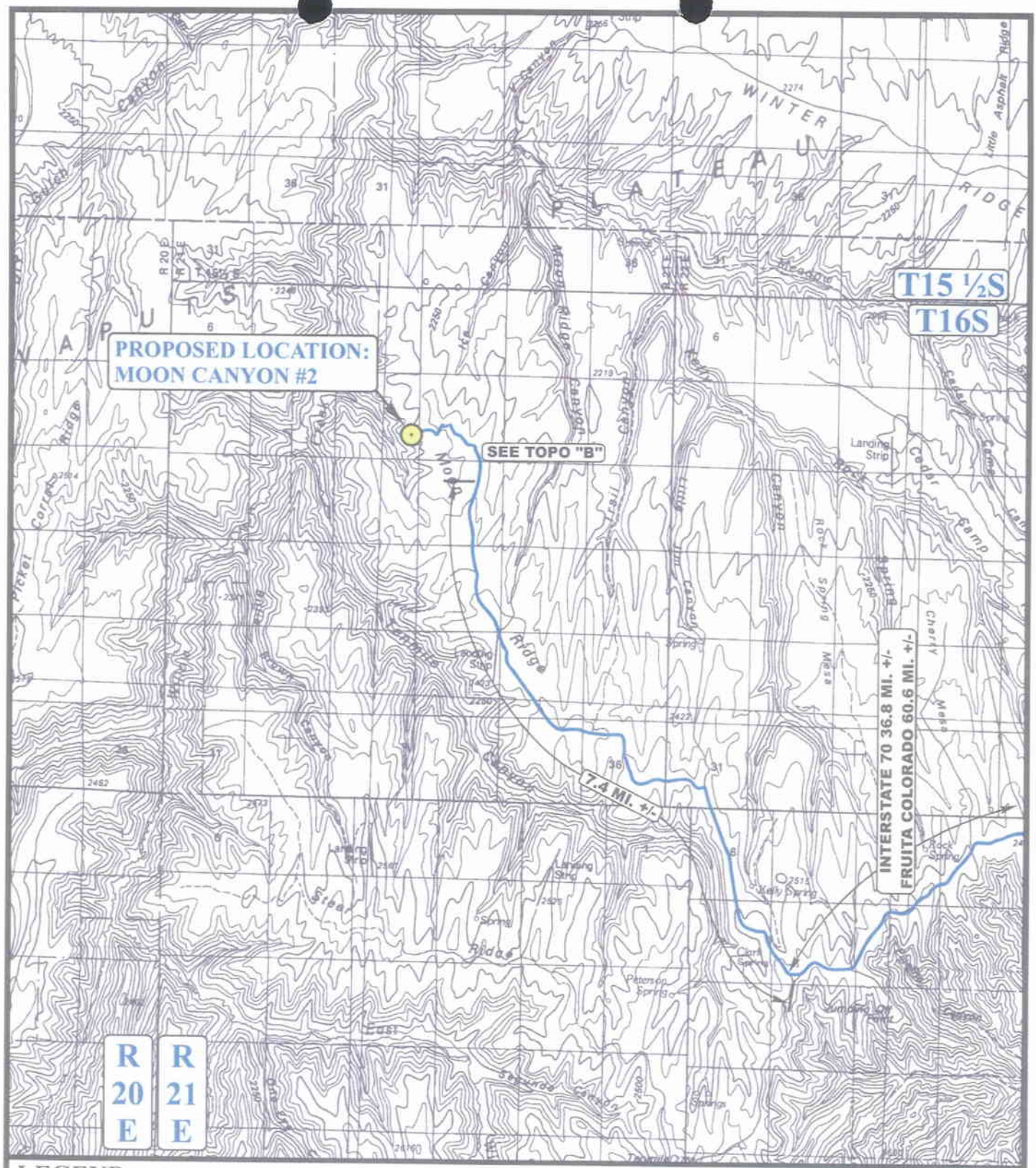
APPROXIMATE YARDAGES

CUT

(6") Topsoil Stripping	=	1,370 Cu. Yds.
Remaining Location	=	5,770 Cu. Yds.
TOTAL CUT	=	7,140 CU.YDS.
FILL	=	4,180 CU.YDS.

EXCESS MATERIAL	=	2,960 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	2,780 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	=	180 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017



LEGEND:

PROPOSED LOCATION

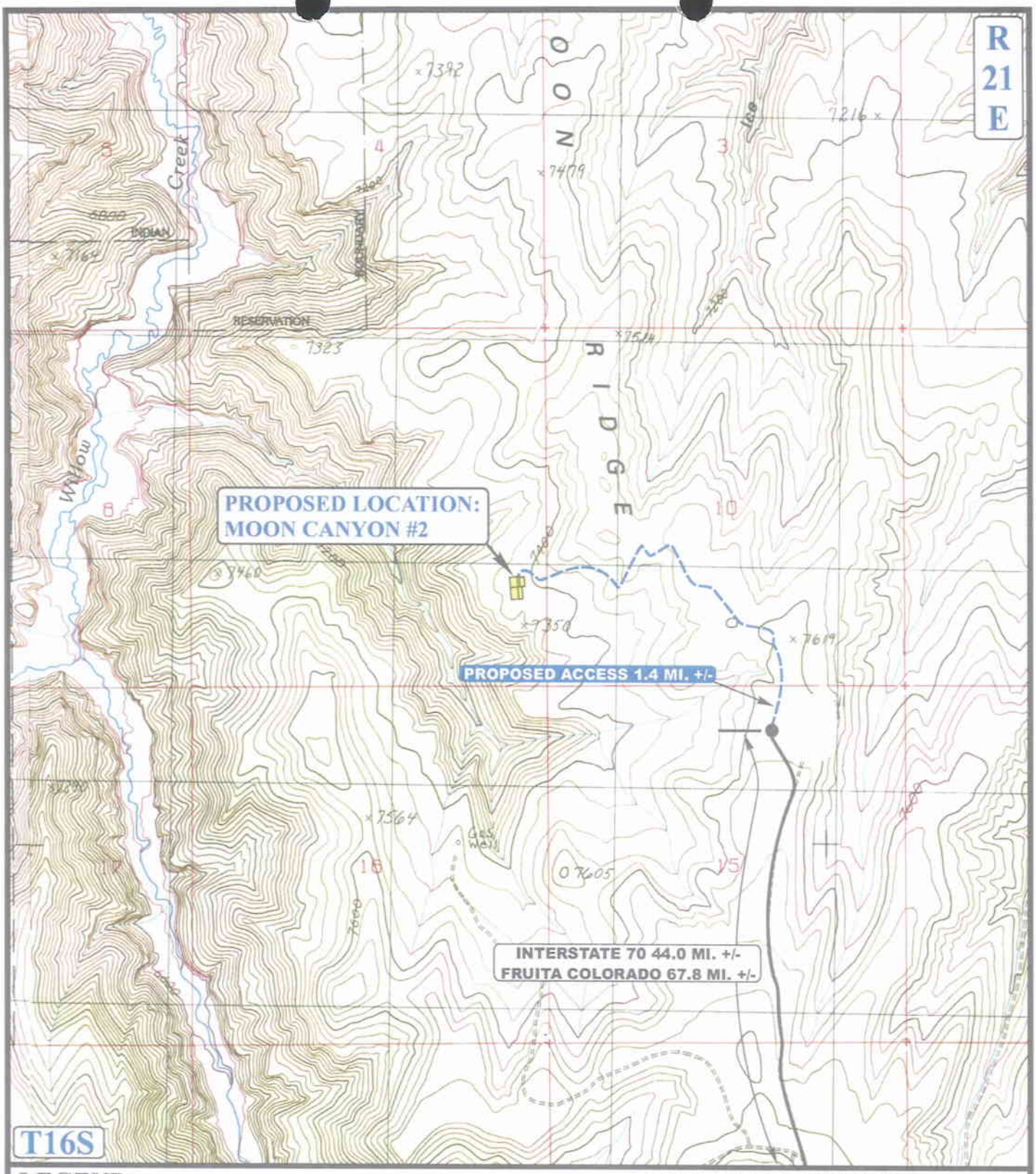
N

ROYALE ENERGY INC.

MOON CANYON #2
SECTION 9, T16S, R21E, S.L.B.&M.
1470' FSL 432' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	05 MONTH	24 DAY	04 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: J.D.G.	REVISED: 00-00-00		



LEGEND:

EXISTING ROAD

PROPOSED ACCESS ROAD

N

ROYALE ENERGY INC.

MOON CANYON #2
SECTION 9, T16S, R21E, S.L.B.&M.
1470' FSL 432' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	05 MONTH	24 DAY	04 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: J.D.G.	REVISED: 00-00-00		

006

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 06/21/2004

API NO. ASSIGNED: 43-019-31405

WELL NAME: MOON CYN # 2

OPERATOR: ROYALE ENERGY, INC. (N2465)

CONTACT: ERIC NOBLITT

PHONE NUMBER: 970-245-3951

PROPOSED LOCATION:

NESE 09 160S 210E

SURFACE: 1470 FSL 0432 FEL

BOTTOM: 1470 FSL 0432 FEL

GRAND

UNDESIGNATED (2)

LEASE TYPE: 1 - Federal

LEASE NUMBER: U-52471

SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: ENRD

COALBED METHANE WELL? NO

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LATITUDE: 39.42685

LONGITUDE: 109.59928

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[1] Ind[] Sta[] Fee[]
(No. UTB000026)

N Potash (Y/N)

N Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 491223)

N RDCC Review (Y/N)
(Date:)

NA Fee Surf Agreement (Y/N)

LOCATION AND SITING:

___ R649-2-3.

Unit MOON CANYON

___ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells

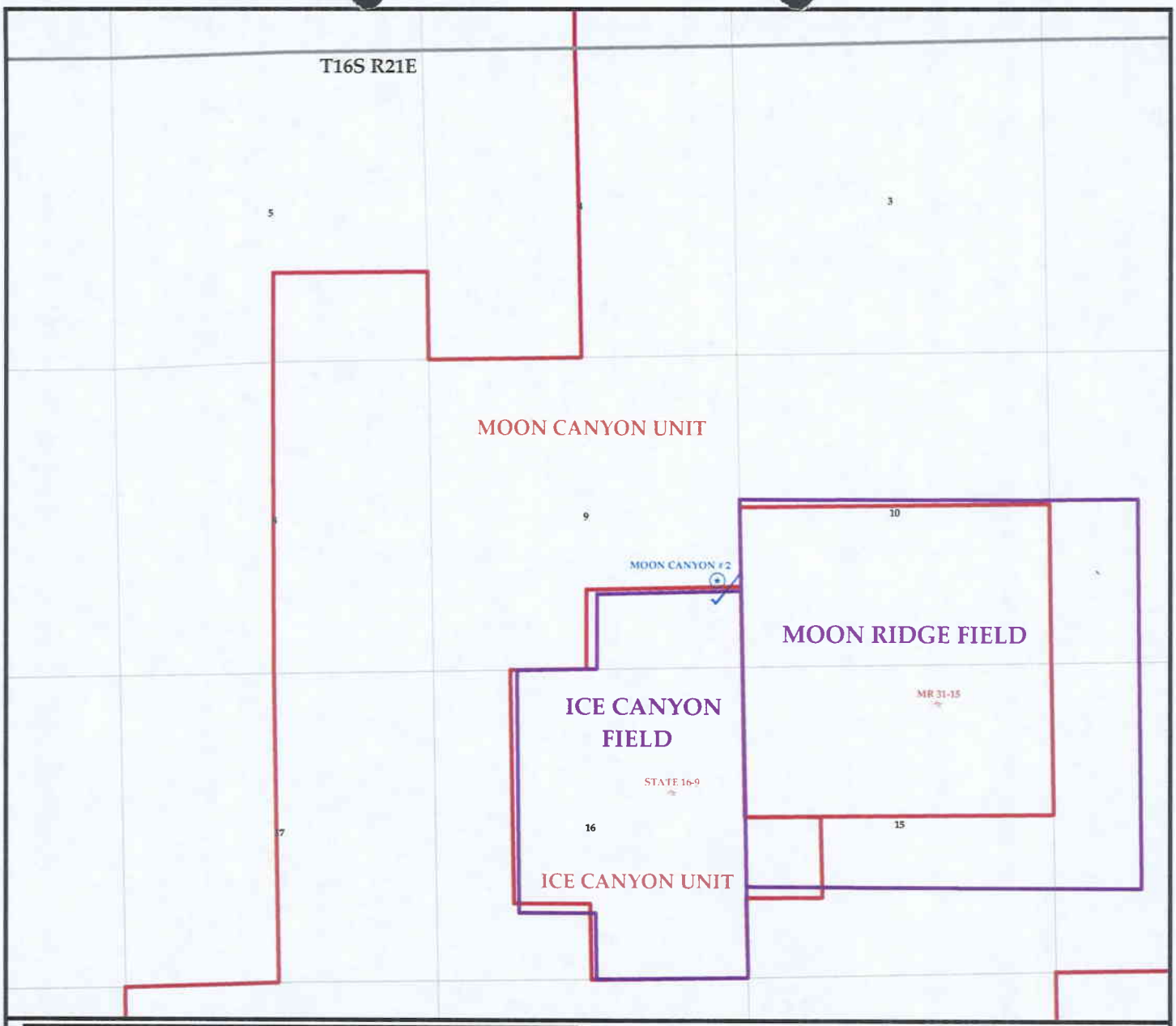
✓ R649-3-3. Exception

___ Drilling Unit
Board Cause No:
Eff Date:
Siting:

___ R649-3-11. Directional Drill

COMMENTS:

STIPULATIONS: 1- Federal Approval
2- Spacing Slip



OPERATOR: ROYAL ENERGY INC (N2465)

SEC. 9 T.16S, R.21E

FIELD: UNDESIGNATED (002)

COUNTY: GRAND

SPACING: R649-3-3 / EXCEPTION LOCATION

Utah Oil Gas and Mining

Wells
- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- TEST WELL
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL

Units.shp
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields.shp
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED

N
W E
S

PREPARED BY: DIANA WHITNEY
DATE: 22-JUNE-2004

004

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

June 28, 2004

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2004 Plan of Development Moon Canyon, Grand County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following well is planned for calendar year 2004 within the Moon Canyon Unit, Grand County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Entrada)		
43-019-31405	Moon Canyon #2	Sec 9 T16S R21E 1470 FSL 0432 FEL

This office has no objection to permitting the well at this time.

/s/ Michael L. Coulthard

bcc: File - Moon Canyon Unit
Division of Oil Gas and Mining
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:6-28-04

002

STONEGATE RESOURCES, L.L.C.

R. Heggie Wilson

July 1, 2004

Ms. Diana Whitney
Division of Oil, Gas & Mining
Box 14581
Salt Lake City, UT 84114-5801

Ms. Diane Thompson, President
National Fuel Corporation
7979 East Tufts Avenue Parkway, Suite 815
Denver, CO 80237-2843

Mr. J.C. Thompson
7979 East Tufts Avenue Parkway, Suite 815
Denver, CO 80237-2843

Mr. Dale Hoffman
Royale Energy, Inc.
7676 Hazard Center Dr., Suite 1500
San Diego, CA 92108

Re: Exception to Location and Siting of Well – Rule 649-3-3
Moon Canyon # 2
Township 16 South – Range 21 East, SLM
Section 9: NESE (432 FEL, 1470 FSL)
Grand County, Utah

Ladies and Gentlemen:

Stonegate Resources, LLC on behalf on Royale Energy, Inc. recently submitted to the Division of Oil, Gas & Mining an Application for Permit to Drill (API# 43-019-31405). Pursuant to R 649-3-3 enclosed please find Royale's request for said exception.

Please do not hesitate to contact the undersigned concerning any questions you may have regarding this matter.

Sincerely,

R. Heggie Wilson
Agent

RECEIVED
JUL 08 2004
DIV. OF OIL, GAS & MINING

4994 E. Meadows Drive Park City, Utah 84098 (435) 647-9712 (435) 647-9713 Fax
heggie@xmission.com

MOON CANYON # 2

Application For Permit To Drill (Attachment)

State of Utah, Division of Oil, Gas and Mining Form 3

Request for Exception to Location and Siting of Wells: R649-3-3, Moon Canyon # 2, NE1/4SE1/4Sec. 9 – T16S-R21E, Grand County, Utah

As part of the Application for Permit To Drill for the Moon Canyon #2 (API# 43-019-31405), Royale Energy, Inc., as Designated Operator for the Moon Canyon Unit Area, request an exception to the general state siting rule for the Moon Canyon Unit #2 Well. The subject well is a proposed 10,900'gas well on Federal Lease U-52471, located within the Moon Canyon Federal Unit Area. Topographic restraints on the physical well location along with geologic concerns based on the recent 3-D seismic survey force Royale to request this exception pursuant to Rule 649-3-3. Furthermore, the standard 40 acre siting would create greater surface disturbances and visual impact.

The proposed well location is 432 feet from the nearest lease line, and National Fuel Corporation owns 99% and J.C. Thomson owns 1% of Section 10: SW/4 working interest in U-02981. Both National Fuel and Mr. Thompson have recently assigned Royale Energy 75% of their working interest, which will untimely give Royale a 75% working interest once their assignment is approved by the BLM. A copy of this letter is being forwarded to these parties

An APD for the Moon Canyon # 2 well has previously been submitted under a separate cover which includes a survey plat of the proposed location along with topographic maps showing location, section and unit boundaries.

003

AREA CODE 303
PHONE 220-7772

FAX
220-7773

National Fuel Corporation

7979 EAST TUFTS AVENUE PARKWAY, SUITE 815
DENVER, COLORADO 80237-2843

August 10, 2004

Ms. Diana Whitney
Division of Oil, Gas & Mining
Box 14581
Salt Lake City, UT 84114-5801

Re: Exception to Location and Siting of Well – Rule 649-3-3
Royale Energy Inc.- Moon Canyon # 2; API# 43-019-31405
Township 16 South – Range 21 East, SLM
Section 9: NESE (432 FEL, 1470 FSL)
Grand County, Utah

Dear Ms. Whitney:

Pursuant to Heggie Wilson's letter dated July 1, 2004, please allow this letter to serve that National Fuel Corporation and J.C. Thompson who both own Federal Record Title Interest within 460 feet of the proposed drillsite location and we collectively fully support the proposed location and Royale Energy's planned drilling activities.

Please do not hesitate to contact our office concerning this matter.

Sincerely,

National Fuel Corporation

By: Diane Thompson

J.C. Thompson

J.C. Thompson

RECEIVED
AUG 18 2004
DIV. OF OIL, GAS & MINING

007

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

August 18, 2004

Royale Energy, Inc.
7676 Hazard Center Dr., Suite 1500
San Diego, CA 92108

Re: Moon Canyon #2 Well, 1470' FSL, 432' FEL, NE SE, Sec. 9, T. 16 South, R. 21 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.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby 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 43-019-31405.

Sincerely,

John R. Baza
Associate Director

pab
Enclosures

cc: Grand County Assessor
Bureau of Land Management, Moab District Office

Operator: Royale Energy, Inc.

Well Name & Number Moon Canyon #2

API Number: 43-019-31405

Lease: U-52471

Location: NE SE **Sec.** 9 **T.** 16 South **R.** 21 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

   Notify the Division within 24 hours of spudding the well.

   - Contact Carol Daniels at (801) 538-5284.

   Notify the Division prior to commencing operations to plug and abandon the well.

   - Contact Dan Jarvis at (801) 538-5338

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. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. 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.

009

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: **ROYALE ENERGY INC**

Well Name: **MOON CYN #2**

Api No: **43-019-31405** Lease Type: **FEDERAL**

Section **09** Township **16S** Range **21E** County **GRAND**

Drilling Contractor **PETE MARTIN'S** RIG # **BUCKET**

SPUDDED:

Date **12/04/2004**

Time **9:00 AM**

How **DRY**

Drilling will commence:

Reported by **ERIC NOBLITT**

Telephone # **1-970-245-3951**

Date **12/06/2004** **Signed** **CHD**

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

FORM 6

010

ENTITY ACTION FORM

Operator: Royale Energy, Inc.

Operator Account Number: N 2465

Address: 7676 Hazard Center Dr. Suite 1500

city San Diego

state CA zip 92108

Phone Number: (619) 881-2892

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
019-31405	Moon Canyon #2		NESE	9	16S	21E	Grand
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
A	99999	14434	12/4/2004			12/9/04	K
Comments: ENRD CONFIDENTIAL							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
Comments:							

ACTION CODES:

- **A** - Establish new entity for new well (single well only)
- **B** - Add new well to existing entity (group or unit well)
- **C** - Re-assign well from one existing entity to another existing entity
- **D** - Re-assign well from one existing entity to a new entity
- **E** - Other (Explain in 'comments' section)

Dale Hoffman
Name (Please Print)

Signature

Land & Government Relations
Title

12/8/2004
Date

RECEIVED
DEC 08 2004
DIV. OF OIL, GAS & MINING

(5/2000)

STONEGATE
RESOURCES, L.L.C.

Eric Noblitt

March 3, 2005

Diane Whitney
Division of Oil, Gas and Mining
P.O. Box 14581
Salt Lake City, UT 84114-5801

Re: Sundry Notice
Moon Canyon #2 Well
NESE, Sec. 9-T16S-R21E
Grand County, UT
Lease No. UTU-52471

Dear Diana,

Please find in duplicate a sundry notice pertaining to the drilling of Royale Energy, Inc's Moon Canyon #2 well.

Please do not hesitate to contact me at 970.245.3951 if you have any question concerning this matter.

Sincerely,

Eric Noblitt
Agent, Royale Energy, Inc.

RECEIVED
MAR 0 8 2005
DIV. OF OIL, GAS & MINING

2275 Logos Ct. Suite B-1 Grand Junction, Colorado 81505 (970) 245-3951 Ph & Fax
enoblitt@bresnan.net

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

011

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other CONFIDENTIAL
2. Name of Operator: **Royale Energy, Inc**
3a. Address: **7676 Hazard Center, Suite 1500, San Diego, CA 92108**
3b. Phone No. *(include area code)*: **619.881.2800**
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*: **1470' FSL & 432' FEL, NESE Section 9-T16S-R21E**

5. Lease Serial No.: **UTU 52471**
6. If Indian, Allottee or Tribe Name:
7. If Unit or CA/Agreement, Name and/or No.: **UTU 80642X**
8. Well Name and No.: **Moon Canyon #2**
9. API Well No.: **43-019-31405**
10. Field and Pool, or Exploratory Area: **Wildcat**
11. County or Parish, State: **Grand County, UT.**

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Royale Energy, Inc reached a total depth of 10,300 ft. on it's Moon Canyon #2 well on February 10, 2005. After running openhole logs, Royale ran and cemented 4-1/2" production casing to 10,287 ft. Royale released Union Drilling rig 7 on February 15, 2005. Royale will commence completion operations as adverse road and weather conditions improve and a completion rig is available.

COPY SENT TO OPERATOR
Date: 3-9-2005
Initials: CHD

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*: **Eric Noblitt** Title **Agent**
Signature: Eric Noblitt Date 3/3/2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Accepted by the Utah Division of Oil, Gas and Mining

Date: 3/9/05

By: [signature]

Federal Approval Of This Action Is Necessary

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

RECEIVED
MAR 08 2005
DIV. OF OIL, GAS & MINING

STONEGATE RESOURCES, L.L.C.

Eric Noblitt

September 27, 2005

CONFIDENTIAL

Ms. Diana Whitney
Division of Oil, Gas and Mining
Box 14581
Salt Lake City, Utah 84114-5801

Re: Completion Report
Royale Energy, Inc.
Moon Canyon # 2
Sec. 9: T16S-R21E
Grand County, Utah
Federal Lease # UTU-52471

Dear Diane:

Enclosed, please find in duplicate the completion report for Royale Energy's Moon Canyon #2 well. Also enclosed are copies of the logs, geological report, cementing log, and gas analysis.

Royale Energy, Inc. request that all information, i.e. sundries, reports, logs, gas analysis submitted to the DOGM be held **CONFIDENTIAL** for the maximum period allowed under the DOGM rules and regulations.

If you have any questions, please feel free to contact me at any time at 970.245.3951.

Thank you for your time in this matter.

Sincerely,

Eric Noblitt
Agent, Royale Energy, Inc.

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SEP 30 2005
DIV. OF OIL, GAS & MINING

2275 Logos Ct. Suite B-1 Grand Junction, Colorado 81505 (970) 245-3951 Ph & Fax
enoblitt@bresnan.net

Form 3160-4
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL

FORM APPROVED
OMB NO. 1004-0137
Expires: November 30, 2000

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. UTU-52471

1a. Type of Well ☐ Oil Well ☑ Gas Well ☐ Dry Other
b. Type of Completion: ☑ New ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. UTU 80642X

2. Name of Operator: Royale Energy, Inc

8. Lease Name and Well No. Moon Canyon #2

3. Address: 7676 Hazard Center Dr, Suite 1500 San Diego, CA. 92108

3a. Phone No. *(include area code)*: 619.881.2800

9. API Well No. 43-019-31405

4. Location of Well *(Report locations clearly and in accordance with Federal requirements)* *

At surface: NESE 1470' FSL 432' FEL 39.42711 N Lat, 109.59933 W Lo

10. Field and Pool, or Exploratory: Undesignated

At top prod. interval reported below: Same

11. Sec., T., R., M., or Block and Survey or Area: Sec 9-T16S-R21E

At total depth: Same

12. County or Parish: Grand

13. State: UT

14. Date Spudded: 01/02/05

15. Date T.D. Reached: 02/15/05

16. Date Completed ☐ D & A ☑ Ready to Prod. 06/02/05

17. Elevations (DF, RKB, RT, GL)*: 7,381' GL

18. Total Depth: MD 10,300' TVD

19. Plug Back T.D.: MD 10,241' TVD

20. Depth Bridge Plug Set: MD N/A TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
Halliburton - Triple combo, ~~BCS, HRI, MEL, EMI, MRIL,~~ CBL, SD/DSN

22. Was well cored? ☑ No ☐ Yes (Submit copy)
Was DST run? ☑ No ☐ Yes (Submit copy)
Directional Survey? ☐ No ☑ Yes (Submit copy)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12 1/4	9-5/8"/J-55	36#	Surface	1088'		410 sx/type "V"		surface	1" w/ 80 sxs neat
8 3/4	7"/ J-55	26#	Surface	6,185'		150sx G/145sx poz		3,100'	
6 1/8	4-1/2"/P110	11.6#	Surface	10,287'	8,838'	215sx 50/50 poz	1st		
						430 sx 50/50 poz	2nd	6,630'	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Set (MD)
2-3/8"	10,152'							

25. Producing Intervals / 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Brushy Basin (MRSN)	10,159'	10,200'	10,175'-10,190'		60	producing
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and type of Material
NA	NA

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28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
07/06/05	06/02/05	24	→		378	4			Flowing

Choke Size	Tbg. Press. Flwg. 205 psi SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Well Status
1"		275	→	0	378	4		Producing

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Well Status
			→					

(See instructions and spaces for additional data on reverse side)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Dakota SS	9860	9892	Gas	Wasatch	2,302'
Brushy Basin	10,159	10,200	Gas	Mesaverde	4,000'
				Castlegate	5,837'
				Main Mancos	6,113'
				Dakota Silt	9,707'
				Dakota SS	9,843'
				Cedar MTN	9,920'
				Buckhorn	9,956'
				Morrison	9,986'
				Brushy Basin	10,159'

32. Additional remarks (include plugging procedure):

33. Circle enclosed attachments:

(1) Electrical/Mechanical Logs (1 full set req'd.) (2) Geologic Report 3. DST Report (4) Directional Survey

5. Sundry Notice for plugging and cement verification 5. Core Analysis 7. Other:

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

Name *(please print)* Eric Noblitt Title Agent

Signature Eric Noblitt Date September 27, 2005

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

☼ U.S. GPO: 1999-573-624

RECORD OF TVD SURVEY
Date: 22-Feb-2005 10:39:
Calculated by Desktop Petrophysics TVD, Minimum Curvature Method

MEAS. DEPTH (FT)	DRIFT ANGLE (DEG)	T.V.D. (FT)	HOLE BEARING (DEG)	COURSE COORDINATES NORTH (FT)	COURSE COORDINATES SOUTH (FT)	COURSE COORDINATES EAST (FT)	COURSE COORDINATES WEST (FT)	TOTAL COORDINATES NORTH (FT)	TOTAL COORDINATES SOUTH (FT)	TOTAL COORDINATES EAST (FT)	TOTAL COORDINATES WEST (FT)
6120.76	1.46	6120.76	209.11	0.00		0.00		0.00		0.00	
6162.78	1.59	6162.77	344.88	-0.01		-0.23		-0.53		-0.41	
6183.78	1.74	6183.77	134.92	0.09		0.13		-0.44		-0.28	
6204.79	1.51	6204.77	196.76	-0.45		0.24		-0.89		-0.04	
6225.80	1.59	6225.77	193.19	-0.57		-0.03		-1.46		-0.07	
6246.81	1.64	6246.77	195.45	-0.59		-0.02		-2.05		-0.09	
6267.82	1.72	6267.77	188.01	-0.61		0.00		-2.66		-0.09	
6288.83	1.82	6288.77	189.79	-0.65		0.03		-3.31		-0.06	
6309.84	1.88	6309.77	189.19	-0.68		0.03		-3.99		-0.03	
6330.85	2.04	6330.77	192.93	-0.72		0.01		-4.71		-0.02	
6351.85	2.33	6351.75	189.71	-0.80		0.01		-5.51		-0.01	
6372.86	2.35	6372.74	189.50	-0.86		0.04		-6.37		0.03	
6393.87	2.42	6393.73	188.35	-0.87		0.05		-7.24		0.08	
6414.88	2.69	6414.72	189.32	-0.94		0.05		-8.18		0.13	
6435.89	2.96	6435.70	188.73	-1.03		0.05		-9.21		0.18	
6456.90	3.09	6456.68	189.29	-1.11		0.06		-10.32		0.24	
6477.91	3.32	6477.66	188.55	-1.17		0.06		-11.49		0.30	
6498.92	3.59	6498.63	189.11	-1.26		0.07		-12.75		0.37	
6519.93	3.94	6519.59	188.71	-1.38		0.07		-14.13		0.44	
6540.93	4.05	6540.54	189.36	-1.46		0.08		-15.59		0.52	
6561.94	4.39	6561.49	188.96	-1.54		0.08		-17.13		0.60	
6582.95	4.65	6582.43	188.88	-1.65		0.09		-18.78		0.69	
6603.96	4.81	6603.37	189.13	-1.73		0.09		-20.51		0.78	
6624.97	5.15	6624.30	188.58	-1.82		0.10		-22.33		0.88	
6645.98	5.29	6645.22	187.81	-1.91		0.13		-24.24		1.01	
6666.99	5.60	6666.14	189.43	-1.99		0.12		-26.23		1.13	
6688.00	5.67	6687.05	187.33	-2.06		0.13		-28.29		1.26	
6709.00	5.55	6707.95	189.73	-2.05		0.12		-30.34		1.38	
6730.01	5.50	6728.86	188.01	-2.02		0.11		-32.36		1.49	
6751.02	5.37	6749.78	189.24	-1.99		0.12		-34.35		1.61	
6772.03	5.45	6770.70	188.71	-1.98		0.10		-36.33		1.71	
6793.04	5.39	6791.62	188.90	-1.98		0.11		-38.31		1.82	
6814.05	5.42	6812.54	189.21	-1.98		0.10		-40.29		1.92	
6835.06	5.26	6833.46	187.77	-1.95		0.12		-42.24		2.04	
6856.07	5.06	6854.38	190.43	-1.89		0.10		-44.13		2.14	
6877.07	4.81	6875.30	192.94	-1.81		0.01		-45.94		2.15	
6898.08	4.54	6896.24	192.91	-1.71		-0.03		-47.65		2.12	
6919.09	4.24	6917.19	193.03	-1.61		-0.03		-49.26		2.09	
6940.10	4.02	6938.15	194.40	-1.51		-0.04		-50.77		2.05	
6961.11	3.91	6959.11	194.69	-1.45		-0.06		-52.22		1.99	
6982.12	3.85	6980.07	195.15	-1.42		-0.07		-53.64		1.92	
7003.13	3.83	7001.03	194.20	-1.41		-0.07		-55.05		1.85	
7024.14	3.83	7021.99	196.74	-1.40		-0.08		-56.45		1.77	
7045.15	3.90	7042.95	194.34	-1.41		-0.09		-57.86		1.68	
7066.15	3.98	7063.90	196.36	-1.44		-0.08		-59.30		1.60	
7087.16	3.92	7084.86	195.43	-1.44		-0.10		-60.74		1.50	
7108.17	3.97	7105.82	194.69	-1.44		-0.08		-62.18		1.42	
7129.18	4.09	7126.78	196.41	-1.47		-0.09		-63.65		1.33	
7150.19	4.10	7147.74	193.69	-1.50		-0.08		-65.15		1.25	
7171.20	4.21	7168.70	195.65	-1.52		-0.07		-66.67		1.18	
7192.21	4.31	7189.65	197.05	-1.56		-0.12		-68.23		1.06	
7213.22	4.41	7210.60	194.87	-1.59		-0.11		-69.82		0.95	
7234.22	4.43	7231.54	196.41	-1.61		-0.10		-71.43		0.85	
7255.23	4.47	7252.49	195.18	-1.63		-0.11		-73.06		0.74	
7276.24	4.57	7273.43	195.76	-1.65		-0.10		-74.71		0.64	
7297.25	4.57	7294.37	195.82	-1.67		-0.11		-76.38		0.53	
7318.26	4.60	7315.31	194.37	-1.68		-0.09		-78.06		0.44	
7339.27	4.58	7336.25	195.42	-1.68		-0.08		-79.74		0.36	
7360.28	4.50	7357.19	195.03	-1.66		-0.09		-81.40		0.27	
7381.29	4.31	7378.14	192.62	-1.61		-0.05		-83.01		0.22	
7402.29	4.34	7399.08	195.54	-1.58		-0.06		-84.59		0.16	
7423.30	4.42	7420.03	194.63	-1.60		-0.09		-86.19		0.07	
7444.31	4.43	7440.98	193.78	-1.62		-0.06		-87.81		0.01	
7465.32	4.44	7461.93	192.33	-1.62		-0.03		-89.43		-0.02	

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7654.40	3.94	7650.53	192.60	-1.46	-0.04	-102.97	-0.28
7675.41	3.77	7671.49	193.42	-1.41	-0.02	-104.38	-0.30
7696.42	3.68	7692.46	192.00	-1.36	-0	-105.74	-0.32
7717.43	3.74	7713.43	191.16	-1.36	0.01	-107.10	-0.31
7738.44	3.71	7734.40	190.72	-1.36	0.03	-108.46	-0.28
7759.44	3.60	7755.36	190.34	-1.34	0.03	-109.80	-0.25
7780.45	3.57	7776.33	191.52	-1.31	0.02	-111.11	-0.23
7801.46	3.49	7797.30	191.01	-1.29	0.02	-112.40	-0.21
7822.47	3.49	7818.27	191.50	-1.28	0.02	-113.68	-0.19
7843.48	3.53	7839.24	191.32	-1.29	0.01	-114.97	-0.18
7864.49	3.61	7860.21	191.34	-1.31	0.02	-116.28	-0.16
7885.50	3.87	7881.17	193.74	-1.37	-0.01	-117.65	-0.17
7906.51	3.85	7902.13	192.46	-1.41	-0.03	-119.06	-0.20
7927.51	3.95	7923.08	193.85	-1.43	-0.03	-120.49	-0.23
7948.52	4.07	7944.04	191.53	-1.47	-0.02	-121.96	-0.25
7969.53	4.05	7965.00	192.54	-1.49	0.00	-123.45	-0.25
7990.54	3.96	7985.96	192.50	-1.47	-0.01	-124.92	-0.26
8011.55	3.83	8006.92	190.61	-1.43	0.01	-126.35	-0.25
8032.56	3.86	8027.88	190.99	-1.41	0.03	-127.76	-0.22
8053.57	3.68	8048.84	190.70	-1.38	0.03	-129.14	-0.19
8074.58	3.45	8069.81	189.65	-1.31	0.04	-130.45	-0.15
8095.58	3.30	8090.77	187.30	-1.23	0.08	-131.68	-0.07
8116.59	3.31	8111.75	190.25	-1.21	0.07	-132.89	0.00
8137.60	3.35	8132.72	189.36	-1.22	0.05	-134.11	0.05
8158.61	3.21	8153.70	189.14	-1.20	0.06	-135.31	0.11
8179.62	3.18	8174.68	190.56	-1.17	0.04	-136.48	0.15
8200.63	3.15	8195.66	188.92	-1.16	0.05	-137.64	0.20
8221.64	3.26	8216.64	190.57	-1.17	0.05	-138.81	0.25
8242.65	3.36	8237.61	190.08	-1.21	0.04	-140.02	0.29
8263.66	3.42	8258.58	190.46	-1.24	0.04	-141.26	0.33
8284.66	3.39	8279.54	190.00	-1.25	0.04	-142.51	0.37
8305.67	3.49	8300.51	189.71	-1.26	0.05	-143.77	0.42
8326.68	3.40	8321.48	191.57	-1.26	0.03	-145.03	0.45
8347.69	3.57	8342.45	191.95	-1.28	0.01	-146.31	0.46
8368.70	3.63	8363.42	192.62	-1.32	-0.01	-147.63	0.45
8389.71	3.68	8384.39	190.64	-1.34	0.01	-148.97	0.46
8410.72	3.70	8405.36	190.53	-1.35	0.03	-150.32	0.49
8431.73	3.70	8426.33	191.47	-1.36	0.02	-151.68	0.51
8452.73	3.71	8447.29	191.24	-1.36	0.02	-153.04	0.53
8473.74	3.77	8468.25	190.85	-1.37	0.02	-154.41	0.55
8494.75	3.78	8489.21	190.07	-1.38	0.04	-155.79	0.59
8515.76	3.78	8510.17	190.30	-1.38	0.04	-157.17	0.63
8536.77	3.63	8531.14	189.36	-1.36	0.05	-158.53	0.68
8557.78	3.71	8552.11	190.01	-1.34	0.05	-159.87	0.73
8578.79	3.76	8573.08	191.28	-1.37	0.03	-161.24	0.76
8599.80	3.88	8594.04	191.81	-1.40	0.01	-162.64	0.77
8620.80	4.00	8614.99	192.51	-1.44	0.00	-164.08	0.77
8641.81	3.91	8635.95	192.56	-1.45	-0.01	-165.53	0.76
8662.82	3.80	8656.91	192.31	-1.41	-0.01	-166.94	0.75
8683.83	3.79	8677.87	191.96	-1.39	0.00	-168.33	0.75
8704.84	3.78	8698.83	193.24	-1.39	-0.01	-169.72	0.74
8725.85	3.80	8719.79	195.02	-1.39	-0.05	-171.11	0.69
8746.86	3.82	8740.75	195.06	-1.39	-0.07	-172.50	0.62
8767.87	3.74	8761.71	194.35	-1.38	-0.07	-173.88	0.55
8788.88	3.71	8782.68	194.57	-1.36	-0.06	-175.24	0.49
8809.88	3.63	8803.64	193.58	-1.34	-0.05	-176.58	0.44
8830.89	3.64	8824.61	193.29	-1.33	-0.03	-177.91	0.41
8851.90	3.56	8845.58	194.64	-1.32	-0.05	-179.23	0.36
8872.91	3.70	8866.55	196.09	-1.33	-0.08	-180.56	0.28
8893.92	3.78	8887.51	197.50	-1.37	-0.11	-181.93	0.17
8914.93	3.79	8908.47	197.93	-1.38	-0.14	-183.31	0.03
8935.94	3.85	8929.43	199.10	-1.39	-0.16	-184.70	-0.13
8956.95	3.93	8950.39	198.78	-1.41	-0.17	-186.11	-0.30
8977.95	3.95	8971.34	200.69	-1.43	-0.19	-187.54	-0.49
8998.96	4.03	8992.30	200.60	-1.45	-0.22	-188.99	-0.71
9019.97	3.98	9013.26	201.46	-1.45	-0.23	-190.44	-0.94
9040.98	3.92	9034.22	201.11	-1.43	-0.23	-191.87	-1.17
9061.99	3.90	9055.18	201.84	-1.41	-0.24	-193.28	-1.41
9083.00	3.87	9076.14	202.94	-1.40	-0.26	-194.68	-1.67
9104.01	3.88	9097.10	201.39	-1.40	-0.25	-196.08	-1.92
9125.02	3.76	9118.06	201.56	-1.38	-0.23	-197.46	-2.15
9146.02	3.80	9139.01	200.29	-1.37	-0.21	-198.83	-2.36
9167.03	3.72	9159.98	201.46	-1.36	-0.21	-200.19	-2.57
9188.04	3.72	9180.95	202.16	-1.34	-0.23	-201.53	-2.80
9209.05	3.74	9201.92	202.20	-1.35	-0.24	-202.88	-3.04
9230.06	3.83	9222.88	202.92	-1.36	-0.25	-204.24	-3.29
9251.07	3.87	9243.84	202.47	-1.39	-0.26	-205.63	-3.55
9272.08	3.88	9264.80	202.80	-1.40	-0.26	-207.03	-3.81
9293.09	3.80	9285.76	201.63	-1.38	-0.25	-208.41	-4.06
9314.09	3.78	9306.71	202.62	-1.37	-0.24	-209.78	-4.30
9335.10	3.82	9327.67	201.60	-1.37	-0.24	-211.15	-4.54
9356.11	3.82	9348.63	202.36	-1.38	-0.24	-212.53	-4.78
9377.12	3.88	9369.59	202.70	-1.39	-0.26	-213.92	-5.04
9398.13	3.89	9390.55	200.55	-1.40	-0.24	-215.32	-5.28
9419.14	3.88	9411.51	200.18	-1.41	-0.21	-216.73	-5.49
9440.15	3.88	9432.47	203.00	-1.40	-0.24	-218.13	-5.73
9461.16	3.96	9453.43	202.22	-1.41	-0.26	-219.54	-5.99
9482.17	3.79	9474.39	201.55	-1.40	-0.24	-220.94	-6.23
9503.17	4.10	9495.34	205.02	-1.42	-0.28	-222.36	-6.51

9566.20	3.80	9558.22	208.31	-1.38	-0.39	-225.17	-7.26
9587.21	3.93	9579.18	209.20	-1.36	-0.39	-226.53	-7.65
9608.22	3.66	9600.14	209.86	-1.36	-0.40	-227.89	-8.05
9629.23	3.56	9621.11	212.73	-1.33	-0.42	-229.22	-8.47
9650.24	3.48	9642.08	211.30	-1.25	-0.44	-230.47	-8.91
9671.24	3.41	9663.04	211.24	-1.21	-0.44	-231.68	-9.35
9692.25	3.44	9684.01	212.66	-1.19	-0.42	-232.87	-9.77
9713.26	3.46	9704.98	214.64	-1.18	-0.43	-234.05	-10.20
9734.27	3.23	9725.95	214.18	-1.17	-0.47	-235.22	-10.67
9755.28	3.31	9746.93	215.13	-1.13	-0.47	-236.35	-11.14
9776.29	3.45	9767.90	214.20	-1.11	-0.46	-237.46	-11.60
9797.30	3.38	9788.87	214.25	-1.14	-0.48	-238.60	-12.08
9818.31	3.51	9809.84	216.52	-1.16	-0.47	-239.76	-12.55
9839.31	3.75	9830.80	218.55	-1.16	-0.50	-240.92	-13.05
9860.32	4.13	9851.76	220.40	-1.20	-0.57	-242.12	-13.62
9881.33	3.81	9872.72	219.90	-1.28	-0.67	-243.40	-14.29
9902.34	3.81	9893.68	219.00	-1.28	-0.69	-244.68	-14.98
9923.35	4.01	9914.64	221.68	-1.24	-0.64	-245.92	-15.62
9944.36	3.76	9935.60	217.80	-1.26	-0.68	-247.18	-16.30
9965.37	4.11	9956.56	212.25	-1.26	-0.66	-248.44	-16.96
9986.38	4.03	9977.52	226.54	-1.33	-0.56	-249.77	-17.52
0007.38	4.15	9998.47	230.29	-1.31	-0.68	-251.08	-18.20
0028.39	3.66	10019.43	229.33	-1.20	-0.89	-252.28	-19.09
0049.40	3.52	10040.40	230.90	-1.13	-0.88	-253.41	-19.97
0070.41	3.49	10061.37	232.98	-1.04	-0.81	-254.45	-20.78
0091.42	3.37	10082.34	234.48	-0.98	-0.82	-255.43	-21.60
0112.43	3.31	10103.31	236.15	-0.94	-0.84	-256.37	-22.44
0133.44	3.19	10124.29	236.81	-0.89	-0.84	-257.26	-23.28
0154.45	2.83	10145.27	242.53	-0.85	-0.83	-258.11	-24.11
0175.46	2.46	10166.26	238.70	-0.74	-0.81	-258.85	-24.92
0196.46	2.87	10187.24	237.13	-0.64	-0.73	-259.49	-25.65
0217.47	2.86	10208.22	233.93	-0.68	-0.70	-260.17	-26.35
0238.48	3.24	10229.20	233.91	-0.76	-0.72	-260.93	-27.07
0259.49	3.00	10250.18	232.57	-0.83	-0.75	-261.76	-27.82
0280.50	2.74	10271.16	224.66	-0.86	-0.75	-262.62	-28.57
0301.51	2.72	10292.15	226.06	-0.84	-0.63	-263.46	-29.20
				-0.84	-0.55	-264.30	-29.75

MAGNETIC DECLINATION (Directional Offset) = 12.00
CLOSURE DISTANCE = 265.96 FEET
CLOSURE ANGLE = 186.42 DEGREE

Hole Bearing is corrected for Magnetic Declination (Directional Offset).

CONFIDENTIAL

To: Royale Energy
7676 Hazard Ceenter Dr
Suite 1500
Sand Diego, CA 92108

GAS ANA LYSIS

COMPANY:: ROYALE

SUBMITT ED BY: Eric Noblitt

DATE SAMPLED: 06-01-05

DATE RE CEIVED: 06-01-05

Morrison Perforation:10,175'-10,190'

CAL. NUMBER	NNAME	MOLE %, /100=X	IDEAL GAS SPECI FIC GRAVI TY, G	IDEAL VALUE, (60F	GROSS DRY, and 760 , H	HEATING BTU/SCF mm Hg)
1	HYDROGEN	0	0.0696		325.02	
2	PROPANE	0.314	1.5225		2517.5	
4	ISO-BUTANE	0.045	2.0068		3252.7	
5	HYDROGEN SULFIDE	0	1.1765		637	
6	N-BUTANE	0.053	2.0068		3262.1	
10	ISO-PENTANE	0	2.4911		4000.3	
11	N-PENTANE		2.4911		4009.6	
12	CARBON DIOXIDE	6.874	1.5195			
14	ETHANE	0.368	1.0382		1768.8	
15	OXYGEN	0	1.1048			
16	NITROGEN	0	0.9672			
17	METHANE	92.346	0.5539		1009.7	
19		0	3.4596		5502.8	
20	C6+	0	2.9753		4756.2	
21		0	2.9753		4746	
TOTALS		100				

NOTES: Z = 0.99792 . IDEA L SPECI FIC GRA VITY OF MIXTUR E = 0.62652

IDEAL G ROSS HE ATING V ALUE, D RY BASI S, PER SCF (60 F & 760 mm Hg) =

TO CONVEERT EIT HER THE IDEAL OR REAL DRY, G ROSS HE ATING V ALUE TO SATURA
THE VALUES AND CALCUL ATION M ETHODS USED IN THIS R EPORT A RE THOS E GIVEN

CONFIDENTIAL

ROYALE ENERGY, INC

MOON CANYON UNIT #2

1470' FSL & 432' FEL
SECTION 9, T16S, R21E
GRAND COUNTY, UTAH

GEOLOGIC WELL REPORT
by
JASON G. BLAKE, RPG, CPG
SUNBURST CONSULTING
BILLINGS, MONTANA
(406) 259-4124

WELL SUMMARY

OPERATOR:	**ROYALE ENERGY, INC.**
NAME:	**MOON CANYON UNIT #2**
API NUMBER:	**43-019-31405 UTAH PERMIT: 52471**
LOCATION:	**1470' FSL & 432' FEL, NE SE SECTION 9, T16S, R21E**
COUNTY/STATE:	**GRAND COUNTY, UTAH**
ELEVATION:	**GR 7382', KB 7397'**
SPUD DATE:	**1/2/05**
COMPLETION DATE:	**2/11/05**
DRILLING ENGINEERS:	**RUSS BURDICK, ERIC NOBLITT, DAVID NUNO, LARRY TAVEGIO**
WELLSITE GEOLOGY:	**JASON BLAKE, JOHN GILLESPIE**
GAS DETECTION EQUIP:	**MUDLOGGING SYSTEMS INCORPORATED**
LOGGERS:	**J. BLAKE, T. BLAKE, J. SUYDAM, J. GILLESPIE, J. BLAKE**
CONTRACTOR:	**UNION DRILLING COMPANY, RIG #7**
TOOL PUSHER:	**CHRIS CHAPMAN, CONRAD TERREY**
HOLE SIZE:	**12 ¼" 51'-1100', 8 ¾" 1100' to 6205', 6 ⅛" 6205' to 10,300'**
CASING RECORD:	**9 5/8" SURFACE TO 1087' W 490 SACKS TYPE V 7" INTERMEDIATE TO 6205' W 295 SACKS IN 2 STAGES**
DRILLING MUD:	**MI SWACO, VERNAL, UT**
ENGINEERS:	**CHARLIE SNELL, RON LAIN, CRAIG ADELS**
MUD TYPE:	**DAP/GEL/POLYMER**
ELECTRIC LOGS:	**HALLIBURTON, GRAND JUNCTION, CO RUN 1: INDUCTION, DENS/NEUT, BCS FROM 1090'-6184' RUN 2: TRIPLE COMBO, BSC, EMI, MIRL 6174'-10288'**
SAMPLES	**30' FROM 2500' TO 9700; 10' FROM 9700' TO 10,300'-TD**
TOTAL DEPTH:	**DRILLER- 10,300'; LOGGER- 10,288'**
DST'S/CORES:	**NONE**

DRILLING CHRONOLOGY

ROYALE ENERGY, INC.
MOON CANYON UNIT #2

DATE	DEPTH	DAILY	ACTIVITY
1/2/05	51'	0'	Spud @ 0500 hrs. Drill & survey 51'-1031'.
1/3/05	1031'	980'	Drill & survey 1031'-1100'. Short trip & cond hole for casing. Rig up and run 9 5/8", 36", J-55 casing. Landed at 1087'. Wait on cementers.
1/4/05	1100'	69'	Wait on cementers. Rig up cementers and cement surface casing w 490 sacks Type V w additives. WOC. Nipple up BOP.
1/5/05	1100'	220'	Nipple up and test BOP. PU BHA and RIH. Drill cement and float equipment. Drill 8 ¾" hole 1100'-1320'.
1/6/05	1320'	973'	Drill 1320'-2293'. Hole seeping fluid, mix LCM pills.
1/7/05	2293'	810'	Drill 2293'-2469'. Lost returns, mix LCM pill. Drill with occasional fluid losses 2469'-3103'. Lost approximately 1000 bbls fluid.
1/8/05	3103'	858'	Drill 3103'-3961' with minor fluid losses.
1/9/05	3961'	789'	Drill 3961'-4750'.
1/10/05	4750'	120'	Drill 4750'-4870'. Circ out & TOH. Tight hole at 4350' when tripping out. Stuck at 4325'. Displace hole w water & work pipe. Wait on pipe lax and surface jars. Pump emulsified diesel pill, pick up surface jars and jar on hole.
1/11/05	4870'	0'	Jar on hole-did not come loose. Rig down jars and Kelly up. Spot pipe lax and diesel around fish and soak 1 hour. Pulled loose. POOH slowly-pulled tight. Kelly up & circ (no crew due to snow drifted in road).
1/12/05	4870'	0'	Circ until 0600. POOH slow-pulling tight. Circulate high vis pill & work tight hole. POOH slowly. LD Teledrift & PU monel collar. PU NB #3 and TIH. Run single shot surveys every 1000'. Trip in to 2068'-still no crew so kelly up & circ.
1/13/05	4870'	0'	Circ until 0600. Trip in hole to 4160' running single shot surveys every 1000'. Hole got tight, circulate and condition hole/work tight hole. Pull two joints DP up to 4096'. Stuck in hole, could not circulate, rotate or move up or down. Wait on fishing tools.
1/14/05	4870'	0'	Wait on fishing tools. Rig up wireline and run freepoint. Replace right angle drive on rig. Run in with wireline and back off successfully, leaving bit, motor, monel & 1 DC in hole. Chain out of hole.
1/15/05	4870'	0'	Pick up fishing tools and TIH. Screw into fish and jar on same. Jar fish loose and trip out. LD fishing tools. Mud up.

DRILLING CHRONOLOGY (CONT.)

ROYALE ENERGY, INC.
MOON CANYON UNIT #2

DATE	DEPTH	DAILY	ACTIVITY
1/16/05	4870'	0'	Finish mud up and TIH. Ream from 4033' to 4690.
1/17/05	4870'	287'	Wash & ream 4690'-4870'. Drill 4870'-4909'. Lost returns. Mix & pump pills. Work pipe. Pull 5 stands & build mud volume. Pumped away 600+ bbls before regaining returns. Drill 4909'-5157'.
1/18/05	5157'	271'	Drill 5157'-5190'. Lost returns. Pull 5 stands & mix mud. Spot pill, trip in & resume drilling @ 1000 hrs. Drill 5190'-5428'.
1/19/05	5428'	215'	Drill 5428'-5643'. Pull wiper trip to BHA. Perform rig repairs. TIH.
1/20/05	5643'	328'	TIH & resume drilling @ 0030 hrs. Drill 5643'-5971.
1/21/05	5971'	135'	Drill 5971'-6106'. Lost returns. Mix and spot pill, then dump and clean pits. Mix mud & spot pill.
1/22/05	6106'	0'	Spot LCM pills. Briefly regained returns, but then lost it again. TOH & LD plugged drill collars & mud motor. PU NB#4 & TIH.
1/23/05	6106'	99'	TIH & ream through 4400', spot high density LCM pill @ 4900' with good returns, fill pipe & ream to bottom, drill 6106'-6169'.
1/24/05	6205'	0'	Drill 6169'-6205', pump LCM pill, survey 6155', TOH to 3000', TIH & ream to bottom, pump LCM pill, TOH, rig up Halliburton, run logs.
1/25/05	6205'	0'	Run logs, rig down logging tools, TIH (20' fill), circ & pump pill to condition for casing, LDDP (4 ½").
1/26/05	6205'	0'	LDDP (4 ½"), break kelly, LD BHA, function blind rams, pull wear bushing, RU casing crew, run 7" casing & fill every 25 jts, RD casing crew, circulate, RU Halliburton, cement with 150 sx lead and 145 sx tail, plug down 16:30, RD Halliburton, work on choke lines.
1/27/05	6205'	0'	Change out pipe rams, change out kellys, work on choke line, unload 3 ½" DP, change out head & liner pump#1, run mud over shaker to remove LCM, test BOP – test failed, modify choke assembly to meet BLM spec's.
1/28/05	6205'	0'	Pull test plug, strap in hole with BHA, repair choke, TOOH and stand DCs in derrick, test blind rams and choke valves – test OK, pull test plug.
1/29/05	6205'	21'	Plug stuck in wellhead, function test accumulator, work pipe, work on jars, pick up jars, jar on stuck plug, lay down jars, test 7" casing to 1500 PSI for 30 min, trip in hole with 6.13" bit #5, mud motor and BHA, pick up 3.5" drill pipe with T & M, tag cement, drill cement, float and shoe from 6130', drill new hole from 6205' to 6226'.

DRILLING CHRONOLOGY (CONT.)

ROYALE ENERGY, INC.
MOON CANYON UNIT #2

DATE	DEPTH	DAILY	ACTIVITY
1/30/05	6226'	706'	Drill and survey 6226'-6932'.
1/31/05	6932'	604'	Drill and survey 6932' to 7536'.
2/01/05	7536'	926'	Drill and survey 7536' to 8462'.
2/02/05	8462'	620'	Drill and survey 8462'-8771'. Survey and pull wiper trip to casing shoe. Drill and survey 8771'-9082'.
2/03/05	9082'	666'	Drill and survey 9082'-9183'. Replace swab pump #1. Drill and survey 9183'-9748'.
2/04/05	9748'	107'	Drill and survey 9748'-9855'. Run survey (misrun), pump pill and TOH. Lay down mud motor, PU NB #6 & TIH.
2/05/05	9855'	99'	TIH, circ bottoms up & run survey. Resume drilling @ 0400 hours. Drill 9855'-9954'.
2/06/05	9954'	47'	Drill 9954'-10001'. Bit torqued up & mud pressure incr. Circ bottoms up & TOH. Replace wear bushing, PU NB #7 and trip in BHA. Slip drilling line and TIH to casing shoe. Break circ.
2/07/05	10001'	32'	TIH, lay down 5 joints, break circ & ream to bottom. Resume drilling at 0830 hrs. Drill 10001'-10033'. Circ out, drop survey & TOH.
2/08/05	10033'	76'	TOH, LD monel, PU mud motor & NB (PDC) #8. TIH. Resume drilling @ 1500 hrs. Drill 10033'-10109'.
2/09/05	10109'	176'	Drill 10109'-10199'. Lost returns. Mix LCM & spot pill. Resume drilling & drill 10199'-10285'.
2/10/05	10285'	15'	Drill 10285'-10300'. Circ out & pull 10 stand short trip. Cond hole 1 ½ hrs & TOH for logs. Rig up Halliburton & DIL, Dens/Neutron & Microlog. Rig up & run EMI.
2/11/05	10300' TD	0'	Complete running EMI. Rig up and run MIRL. Rig down Halliburton. TIH & condition for casing. Trip out laying down drillpipe.
2/12/05	10,300'	0'	Trip out laying down drillpipe. Prepare to run casing. Run 4 ½ " production casing.

BIT RECORD

OPERATOR: ROYALE ENERGY, INC.
WELL NAME: MOON CANYON UNIT #2

RUN	SIZE	MAKE	TYPE	SERIAL #	IN	OUT	FTG	HRS	FT/HR
1	12 ¼"	HTC	HAT437	10208	51'	1100'	1049'	24	43.7
2	8 ¾"	Hycalog (PDC)	DSX199GW	107142	1100'	4870'	3770'	94	40.1
3	8 ¾"	Hycalog (PDC)	DSX199GW	107360	4870'	6106'	1236'	63	19.6
4	8 ¾"	Reed	HP61A	R25845	6106'	6205'	99'	17.5	5.7
5	6 ⅛"	GeoDiamond (PDC)	MCR75YPX	JT7812	6205'	9855'	3650'	111.5	32.7
6	6 ⅛"	Reed	EPH62APR	ER5344	9855'	10001'	146'	28.0	5.2
7	6 ⅛"	Reed	XR40PS	MT6136	10001'	10033'	32'	10.0	3.2
8	6 ⅛"	GeoDiamond (PDC)	MGR75YPX	JT8611	10033'	10300	267'	31	8.6

DEVIATION RECORD

OPERATOR: ROYALE ENERGY, INC.
WELL NAME: MOON CANYON UNIT #2

DEPTH	ANGLE	AZIM	DEPTH	ANGLE	AZIM	DEPTH	ANGLE	AZIM	DEPTH	ANGLE	AZIM
116'	¾°	---	2981'	1°	---	6771'	5 ¼°	S17W	8415'	3 ¾°	S7W
547'	1°	---	3025'	¾°	N75W	6893'	5°	S12W	8699'	3 ¾°	S12W
1020'	¾°	S10W	3346'	¼°	---	7052'	4°	S16W	9048'	4°	S27W
1068'	1°	---	3937'	¼°	??	7277'	4 3/4°	S15W	9427'	4 ¼°	S27W
1368'	¼°	---	4146'	½°	---	7699'	4°	N33W	9800'	3 ½°	S37W
1868'	2°	---	4665'	1°	---	7912'	4°	S5W	10000'	4°	---
2036	1°	S85W	6155'	1 ½°	S17W	8100'	3 ½°	S7W	10229'	2 ¼°	---
2378'	¾°	---									

MUD REPORT

OPERATOR: ROYALE ENERGY, INC.
WELL NAME: MOON CANYON UNIT #2

DATE	DEPTH	WT	VIS	PV	YLD	GEL	PH	WL	CK	CHL	CA	SD	SOL	WTR
1/4/05	1100'	8.4	29	6	2	--	7.4	NC	--	300	100	--	1.5	98.5%
1/5/05	1100'	8.4	29	4	2	--	7.4	NC	--	300	100	--	1.5	98.5%
1/6/05	1350'	8.4	29	4	3	--	7.4	NC	--	300	100	--	1.6	98.4%
1/7/05	2476'	8.5	29	4	3	--	7.6	NC	--	300	100	--	1.7	98.3%
1/8/05	3732'	8.5	29	4	2	--	7.6	NC	--	300	100	--	1.7	98.3%
1/9/05	4170'	8.6	29	5	2	--	7.6	NC	--	300	100	--	2.0	98.0%
1/10/05	4870'	9.2	33	7	4	1/3/3	7.6	NC	1/32	300	100	.25	5.1	94.9%
1/11/05	4870'	8.5	29	3	1	--	7.4	NC	--	300	100	--	1.2	98.8%
1/12/05	4870'	8.6	50	2	2	--	7.6	NC	--	300	100	--	1.8	98.2%
1/13/05	4870'	8.6	29	2	2	--	7.7	NC	--	300	100	--	1.8	98.2%
1/14/05	4870'	8.6	30	3	2	--	7.6	NC	--	300	100	Tr	1.8	98.2%
1/15/05	4870'	8.6	30	3	2	--	7.5	NC	--	300	100	Tr	1.8	98.2%
1/16/05	4870'	8.6	40	12	10	4/6/7	7.7	14	1/32	300	100	--	2.5	97.5%
1/17/05	4909'	8.6	39	13	10	4/6/8	7.8	10	1/32	300	100	Tr	2.6	97.4%
1/18/05	5090'	8.5	43	15	10	4/6/7	7.7	9	1/32	300	100	1.0	2.5	97.5%
1/19/05	5511'	8.8	37	12	10	3/5/6	7.8	9	1/32	300	100	--	2.8	97.2%
1/20/05	5700'	8.8	38	12	10	3/6/8	7.9	9.2	2/32	300	100	.30	2.8	97.2%
1/21/05	6002'	9.6	43	10	10	4/12/--	9.0	12.4	2/32	450	80	2.5	5.5	94.5%
1/22/05	6106'	8.5	38	9	5	3/7/--	7.6	21	3/32	300	80	Tr	1.0	99.0%
1/23/05	6106'	8.5	39	11	9	3/7/--	7.7	14.8	2/32	350	80	Tr	1.0	99.0%
1/24/05	6191'	8.7	37	9	18	5/15/--	7.8	8.8	1/32	450	80	.50	2.0	98.0%
1/25/05	6205'	8.8	43	9	18	4/12/--	7.7	8.8	1/32	400	80	.40	2.5	97.5%
1/26/05	CASING	-	-	-	-	-	-	-	-	-	-	-	-	-
1/27/05	CASING	-	-	-	-	-	-	-	-	-	-	-	-	-
1/28/05	6205'	8.6	41	9	13	4/14/--	7.7	8.8	1/32	400	90	Tr	1.5	98.5%
1/29/05	6215'	8.6	39	9	12	4/11/19	7.8	8.6	1/32	500	125	.25	1.5	98.5%
1/30/05	6920'	8.7	37	9	10	4/9/	8.5	9.2	1/32	450	100	2.5	2.0	98.0%
1/31/05	7507'	8.7	42	11	15	5/11/	8.5	6.0	2/32	400	80	.75	3.0	97.0%
2/01/05	7960'	8.65	40	10	16	5/10/	8.5	6.4	2/32	400	80	.5	1.5	98.5%
2/02/05	8582'	8.75	43	12	15	4/10/	8.0	6.8	1/32	400	80	.25	2.0	98.0%
2/03/05	9185'	8.7	40	14	14	4/14/	8.0	7.2	1/32	800	120	.5	2.0	98.0%
2/04/05	9849'	9.0	40	12	12	4/16/	8.0	6.8	1/32	800	120	.25	2.5	97.5%
2/05/06	9855'	9.0	42	12	11	5/14/	8.0	6.8	1/32	800	120	.5	3.0	97.0%
2/06/05	9972'	8.8	40	11	12	4/12/	8.0	6.8	1/32	800	120	.5	2.5	97.5%
2/07/05	10001'	9.3	37	12	9	---	8.2	6.2	1/32	700	140	.5	5.0	95.0%
2/08/05	10033'	9.1	39	13	8	6/14/	8.1	9.6	1/32	700	120	.5	5.0	95.0%
2/09/05	10165'	9.0	42	13	10	8/16/	8.2	7.2	1/32	700	120	.5	5.0	95.0%
2/10/05	10200'	9.1	40	13	8	6/12/	8.2	8.0	1/32	700	120	.5	5.0	95.0%

FORMATION TOPS

OPERATOR: ROYALE ENERGY, INC.
WELL NAME: MOON CANYON UNIT #2

FORMATION NAME	SAMPLES		E-LOG			STRUCTURAL COMPARISON – MOON RIDGE UNIT #31-15 SEC. 15-16S-21E
	MEASURED DEPTH	DATUM	MEASURED DEPTH	TRUE VERTICAL DEPTH	DATUM	
WASATCH FM	2577'	4820	2302'?	2302'	5095	+154'?
MESAVERDE FM	3976'	3421	4000'	4000'	3397	-80
SEGO	5473'	1924	5506'	5496'	1901	-86
BUCK TONGUE SHL	5645'	1752	5644'	5644'	1753	-83
CASTLEGATE SS	5851'	1546	5837'	5837'	1560	-63
MANCOS TRANSITION	6010'	1387	5986'	5986'	1411	-70
MAIN MANCOS SHL	6134'	1263	6113'	6113'	1284	-87
MANCOS "B"	6608'	789	6626'	NA	771	-66
COON SPR. SS "DAKOTA SILT"	9738'	-2341	9707'	NA	-2310	-16
DAKOTA SS	9858'	-2461	9843'	NA	-2446	-31
CEDAR MTN.	9935'	-2538	9920'	NA	-2523	-34
BUCKHORN CONGL.	9972'	-2575	9956'	NA	-2559	-2
MORRISON FM.	10001'	-2604	9986'	NA	-2589	-32
BRUSHY BASIN	10176'	-2799	10,159'	NA	-2762	N/C

GEOLOGICAL SUMMARY

INTRODUCTION:

The Royale Energy, Moon Canyon Unit #2 well was spud on January 3, 2005 in the Green River Formation and reached a total measured depth of 10,300 feet on February 11, 2005 within the Morrison Formation. The well is located in the Moon Ridge producing area on the southern flank of the Uinta Basin.

Primary objectives of the Moon Canyon Unit #2 well were the sandstones developed in the Dakota-Cedar Mountain-Morrison section. Secondary objectives included the Castlegate Sandstone at the base of the Mesaverde and the Mancos "B". Geological supervision with gas detection began at 2500 feet within the basal Green River Formation so as to monitor any shows through the complete Wasatch and Mesaverde sections.

A DAP/PolyPlus fluid system was used to drill the upper portion of the hole from 1100 feet to 4870 feet. Fluid losses of up to 100 barrels per hour were encountered beginning in the lower portion of the Green River Formation at 2450 feet. These losses resulted in common recirculated cuttings and lost circulation material being present in the system down to 4870 feet. During a bit trip at 4870 feet, the pipe became stuck in the hole. A pipe lax pill and surface jars sufficed to free the stuck pipe, but on the trip back in the hole after picking up the new bit, the pipe got stuck again at around 4100 feet. A free point and back off was needed to pick up fishing jars. Following the fishing jars, the hole was mudded up to condition and clean out the hole, and to drill to intermediate casing depth of 6205'. Below intermediate casing, the circulating fluid was again the DAP/polymer mud system. Water loss properties were targeted between 6 and 8 cc's/30 min. This lower portion of the well was drilled with no downhole problems, and the DAP system appeared to do an excellent job stabilizing the Mancos shale section.

ZONES OF INTEREST AND SHOWS:

The following are brief descriptions of the lithologies encountered while drilling. For detailed lithologic descriptions, the reader should refer to either the sample descriptions at the end of the report or the accompanying mud log.

Wasatch Formation 2577' (4820)

Geological supervision began at 2500 feet near the top of the Wasatch Formation. The upper 1000 feet of the Wasatch from 2500 feet to 3600 feet was characterized by interbedded shale and sandstone, with a few thin siltstones. The shale was varicolored, exhibiting light gray to gray green to red brown colors with occasional pale lavender and pink. It was sub-blocky to platy in character, moderately soft, slightly bentonitic in part with a waxy texture to earthy in part and calcareous. The sandstone through the section was generally white to clear, very fine to fine grained, sub-angular to sub-rounded and moderately well sorted. It was composed primarily of quartz with scattered dark lithic grains. The sands were cemented with a combination of calcite and quartz and appeared clay filled.

The basal portion of the Wasatch from 3600 feet to the top of the Mesaverde at 3976 feet was composed of interbedded shale, siltstone and sandstone with occasional thin limestone stingers. The sandstones were similar to those seen in the section above, being fine to very fine grained and clay filled. The shale was cream to light gray to gray green and occasionally red brown in color, blocky to sub-tabular in charater, moderately soft, bentonitic to earthy in part and considerably more calcareous grading into the thin stringers of very argillaceous limestone. The siltstone encountered was tan to light gray green in color, blocky, very fine grained, slightly pyritic and slightly calcareous.

Only very minor gas shows of no economic significance were encountered in the Wasatch interval.

Mesaverde Formation 3976' (3421)

Thick sandstone beds with intervening shale horizons characterized the upper portion of the Mesaverde from 3976 feet to 4470 feet. The sandstones through this section were generally white to light gray, mottled dark gray to black (salt and pepper), were fine to medium to occasionally coarse grained with sub-angular to sub-rounded grains and were moderately sorted. Most of these sands were composed of quartz, feldspar and lithic grains with quartz and minor calcite cement. They also exhibited minor amounts of dark gray to black carbonaceous/coal partings in places. The shale through this interval showed a distinct color change from the overlying Wasatch, being light to medium to dark gray. It displayed a blocky character, was slightly firm to moderately soft, very slightly to non-calcareous and was carbonaceous in part with thin coaly partings in places. Background gas of 2 to 5 units appeared through this upper portion of the Mesaverde. Four minor gas shows of up to 29 units were noted near the top of the section, but were of no economic interest.

The interval from 4470 feet to 4870 feet was primarily shale and siltstone with thin interbedded sandstones. The shale through this section was light to medium to occasionally dark gray, blocky, slighty firm to moderately soft and non-calcareous. It was slightly carbonaceous in part to silty in places grading into a siltstone. The sands seen through this interval were cream to tan to light gray with a slight salt and pepper appeance, very fine to fine grained, sub-rounded and well sorted with scattered feldspar and lithic grains. They appeared clay filled and exhibited quartz and minor calcite cement. No shows were encountered through this shaly section.

An increase in sandstone, with associated carbonaceous and coaly streaks characterized the interval from 4870 feet to the top of the Sego at 5473 feet. The sand through this section was primarily white to light gray to occasionally brown with a slight salt and pepper appearance, was fine grained, sub-rounded, moderately well sorted and argillaceous in part. The sands were friable to fairly well cemented with calcite cement. Carbonaceous inclusions and coaly streaks were also present. The shale through this interval was medium to dark gray to gray-brown, blocky to sub-platy, slightly firm to moderately soft, slightly carbonaceous in part and primarily non-calcareous.

This interval from 4870 feet to 5473 feet was marked by an increase in background gas readings, minor to fair gas shows in the sand intervals, with two of the sands displaying minor oil stain, fluorescence and cut. The largest gas show encountered in this section was 1762 units at 5356 feet, associated with a coal. The significant shows through this interval are summarized in the table below:

DEPTH	ROP	BG GAS	PEAK	C_1 (ppm)	C_2 (ppm)	C_3 (ppm)	C_4 (ppm)
5280-5294'	4.7/.8/5.5	15 U	221 U	18,368	3017	738	---
5298-5308'	5.5/.6/1.8	35 U	180 U	15,414	1833	778	---
5349-5353'	2.8/.9/5.0	40 U	280 U	23,611	3601	733	---
5367-5371'	4.0/1.0/3.0	25-30 U	365 U	30,883	4722	906	---
5384-5388'	3.4/.8/1.2	30 U	1752 U	175,279	19,844	3809	---
5472-5478'	4.8/.9/1.2	14-18 U	209 U	16,106	3201	1671	---
5492-5498'	2.7/.6/4.1	44 U	369 U	27,144	5176	1783	---

Sego 5473' (1924)

The Sego sandstone in this well was white to light gray, mottled dark gray (salt & pepper), fine to medium grained, sub-angular to angular, moderately to poorly sorted with abundant lithic grains and scattered chlorite. It appeared to be cemented predominately with quartz cement and only very minor calcite, and became more argillaceous and clay filled toward the base. Only minor gas shows with no associated oil shows were encountered, and are of no economic significance.

Buck Tongue 5645' (1752)

The Buck Tongue in this well was composed almost exclusively of dark gray brown shale that was blocky in appearance, slightly firm to slightly soft and non-calcareous. It displayed a grainy to silty texture and was slightly carbonaceous with occasional black shale or carbonaceous partings. A consistent 35 to 45 units of background gas (C_1 through C_3) was seen through the interval.

Castlegate 5751' (1546)

Because the shaker was being by-passing while drilling most of the lower Mesaverde section, the samples through the Castlegate section were very poor and consisted primarily of shale and re-circulated cuttings. The sand that was seen in the Castlegate was white to clear to tan, fine graned, sub-rounded to sub-angular and well sorted. It was predominately quartz with scattered lithic grains, and was well cemented with silica cement. The lower sand of this interval was similar in appearance but also displayed scattered loose coarse to very coarse rounded quartz grains. Very little porosity was noted, and no oil shows were seen. Two minor gas shows were seen in the interval and are summarized in the following table:

DEPTH	ROP	BG GAS	PEAK	C_1 (ppm)	C_2 (ppm)	C_3 (ppm)	C_4 (ppm)
5910-17'	5.8/3.6/6.0	12-18 U	157 U	13780	1825	101	---
5990-98'	9.5/8.3/9.8	50 U	115 U	10103	1324	108	---

Mancos Transition Zone 6010' (1387)

The Mancos "Transition Zone" was composed of interbedded siltstone and shale with a minor sandstone constituent. The shales seen through this section were medium to dark gray to black, red brown and yellow. They were sub-blocky to laminated, soft to firm, non to slightly calcareous and locally carbonaceous. They were also slightly micro-pyritic. Due to the lost circulation problems encountered in the intermediate portion of the hole, much of the varicolored shale seen through this section may have been recycled cuttings from up the hole.

The siltstone in this section was dark brown to light brown to gray in color, was very fined grained, exhibited a blocky character and was non-calcareous. Minor amounts of sand size grains were incorporated within the siltstone.

Mancos Shale 6134' (1263)

The Mancos section from 6134 feet to 6705 feet was composed almost exclusively of a dark to medium gray shale that was sub-platy to sub-blocky, moderately soft and rarely micro-pyritic that exhibited a silty to grainy/earthy texture throughout. The background gas increased through this upper Mancos section, averaging around 100 to 225 units with the gas composed of C_1 through C_3.

Mancos "B" 6705' (1499)

This section was characterized by an increase of silt size grains with thin interbedded very fine grained sandstone stringers within the shale. The shale through the section was medium to dark gray brown, friable to firm, silty to arenaceous with a grainy appearance. It was moderately calcareous and rarely micaceous with a trace of carbonaceous material. The sandstones exhibited clear to frosted grains with unconsolidated clear quartz grains, was well rounded, and probably clay fill. No oil shows were noted, but minor yellow gold fluorescence was seen. Two minor gas shows were encountered in the Mancos "B" and are summarized in the following table.

DEPTH	ROP	BG GAS	PEAK	C_1 (ppm)	C_2 (ppm)	C_3 (ppm)	C_4 (ppm)
6648'	.68 min/ft	175 U	1325 U	42,822	8971	2442	---
6665'	.6 min/ft	150 U	362 U	22,600	1800	1750	---

The lower portion of the Mancos from 7565 feet to 9600 feet was a homogenous section of medium to dark gray shale that was moderately firm to slightly soft, blocky to sub-platy and moderately calcareous. The shale had a silty to grainy texture, displayed rare finely disseminated pyrite throughout and was slightly carbonaceous in places. From the base of the Mancos "B" to 8150 feet, the background gas ranged from 150 to 300 units and was composed of C_1 through C_3. Pervasive minor residual ring cuts in chlorothene were also noted through this interval. Beginning at 8150 feet, a marked increase in gas shows was noted, and persisted to the top of the Dakota Silt. Background gas readings through this interval ranged from 150 units up to 3000 units and were composed of C_1 through C_4. Associated with the increased gas shows, the pervasive cuts seen in the preceeding interval became less noticeable. A number of significant gas shows were noted through this section as summarized in the following table.

DEPTH	ROP	BG GAS	PEAK	C_1 (ppm)	C_2 (ppm)	C_3 (ppm)	C_4 (ppm)
8199'	no change	140-200 U	458 U	35,656	8697	1455	---
8254'	no change	200-250 U	7365 U	450,427	201,615	55,256	27,223
8288'	no change	200-300 U	2522 U	181,025	61,731	9464	1102
8342'	no change	400-800 U	4887 U	346,007	120,873	17,799	3988
8605'	no change	250-350 U	1309 U	90,708	29,742	7438	3061
8720'	no change	350-450 U	3646 U	287,159	67,691	9613	---
9152-9188'	no change	1100-2100 U	7326 U	471,218	207,453	32,667	21,258
9494'	no change	2300-3000 U	4497 U	336,777	105,036	7438	---
9520'	no change	1500-2000 U	5219 U	344,972	142,461	19,280	15,211
9614'	no change	1000-1500 U	4144 U	310,533	96,834	6331	731

Dakota Silt 9738' (-2341)

The Dakota Silt section in this well appears to have been composed of interbedded siltstone and shale. The shale was medium to dark gray, blocky to sub-platy, moderately firm to soft and slightly calcareous. The siltstone was medium to light gray in color, very fine grained, calcareous and clay filled, and graded locally to sandstone. Occasional medium quartz grain inclusions were noted near the top of the section, but all the sandstone and siltstone within this section appeared completely clay filled with no effective porosity or permeability. No shows were noted through the Dakota Silt.

Dakota Sandstone 9860' (-2463)

The upper 50 feet of the Dakota section appeared to be composed primarily of sandstone while the lower 25 feet was primarily shale. The sandstone in the upper 20 feet of section above the channel sand was white to light gray, mottled dark gray, fine to very fine grained, sub-rounded and moderately well sorted. It was composed of quartz and minor lithic grains, and was hard and well cemented with silica cement. A well-developed Dakota channel was encountered from 9874 feet to 9910 feet. The sandstone within this channel was medium to fine grained, clear to white, sub rounded to rounded and moderately well sorted. It was composed of abundant loose quartz grains, but appeared to be cemented primarily with silica cement. Only minor amounts of clay were noted. The shale at the base of the Dakota was dark to medium to light gray in color, firm to brittle and splintery, slightly calcareous and micro pyritic. The complete channel samd interval exhibited moderate gas shows as summarized in the table below.

DEPTH	ROP	BG GAS	PEAK	C_1 (ppm)	C_2 (ppm)	C_3 (ppm)	C_4 (ppm)
9875-91'	15/2.9/4.1	20-30 U	247 U	22,146	2597	---	---
9898-9910'	4.1/3.1/15	20-30 U	193 U	17,008	2247	---	---

Cedar Mountain Fm. 9935' (-2538)

The Cedar Mountain Formation was marked by a slight color change in the shale from the overlying Dakota section. In addition, there was a marked increase in the amount of bentonite. The shale was dark to medium to light gray to cream colored, sub blocky to slightly splintery, slightly firm to moderately soft with a waxy texture in part, and was slightly pyritic.

Buckhorn Member 9972' (-2575)

The top of the Buckhorn Member was marked by a sandstone interval from 9972 feet to 9981 feet. This sand was light brown in color, fine to medium grained, sub-rounded, moderately sorted and slightly friable. Any porosity development was completely clay filled and no gas increase was noted. The basal portion of the Buckhorn was marked by a thin sandstone that was white to clear, medium to coarse grained, sub-angular, poorly sorted and cemented with silica cement. This interval also displayed abundant chert that was translucent white to light gray to pale yellow-gray. No shows were noted in the Buckhorn in this well.

Morrison Formation 10,001' (-2604)

Varicolored shale with a marked increase in bentonite characterized the upper portion of the Morrison Formation. The shales were red-brown to light gray to pink to salmon to black and cream in color, platy in appearance with an earthy texture in part to slightly waxy texture. They were moderately soft to slightly firm and non- to slightly calcareous. The bentonite through the section was a light pale gray to gray-green and exhibited a bright yellow-orange mineral fluorescence. A sandy/silty interval was drilled from 10,045 feet to 10,056 feet, but exhibited no shows.

Brushy Basin Member 10,176' (-2799)

The top of the Brushy Basin Member was marked by well-developed sandstone with good porosity development. It was white to clear and speckled dark gray in places, fine to occasionally medium grained, sub-rounded, and moderately well sorted. It was composed predominately of quartz grains with scattered lithic grains, and was poorly cemented with calcite cement. Shows were seen in both sands, with an excellent show in the lower sand interval. These shows are summarized in the following table. It should be noted that character of the chromatograph indicated there is a constituent of CO_2 in the gas from the lower zone.

DEPTH	ROP	BG GAS	PEAK	C_1 (ppm)	C_2 (ppm)	C_3 (ppm)	C_4 (ppm)
10176'-182'	6.8/1.4/4.0	2-5 U	273 U	23,600	1716	354	---
10188'-199'	4.0/1.25/3.0	2-5 U	7881 U	550,936	194,096	35,069	7918

DISCUSSION & CONCLUSIONS:

The Moon Canyon Unit #2 was drilled primarily to test the potential of the lower Cretaceous section, specifically the Dakota/Morrison section, the main producing horizon in the Moon Ridge area. Secondary objectives included the sands of the Wasatch Formation, the Mesaverde Formation, the Castlegate Sandstone and any sand development in the Mancos "B" section. An unexpected zone was encountered in the Brushy Basin Member of the Morrison while drilling to the total depth required by

the Moon Ridge Unit agreement. The Superior Oil, Moon Ridge Unit #31-15 well, located one mile to the southeast was used for structural comparison.

Most of the sands developed through the Wasatch interval were fine to very fine grained, some of which exhibited fair porosity development, but many of which were clay filled. No shows of any significance were encountered in the Wasatch and a review of the logs suggest they are wet.

The upper portion of the Mesaverde was characterized by thick sand development with fairly well developed reservoir parameters, but lacked any significant shows. This interval did give up a minor amount of gas while drilling with background gas readings ranging from 4 to 8 units. 39 units of downtime gas was recorded at 4230 feet.

During the fishing job at 4100 feet, cobbles of shale from ½" to 3" or larger were seen in the top of the collar where the drill string had been backed off from the fish. This shale was the typical light to medium gray, bentonitic and slightly micro-pyritic shale seen at the base of the Wasatch. It appears there may be a weathered rubble zone at the Wasatch/Mesaverde transition. The hole was mudded up to control this rubble zone and to condition the lower portion of the hole that caused the problems on bit trip #3.

A number of factors appear to have contributed to the hole problems encountered during the bit trip at 4870 feet. The combination of the DAP/Polyplus fluid system in association with the lost circulation material being carried in the system, plus a lack of water (due to blizzard conditions cutting off access to the rig) caused undesireable fluid properties. Something caused the mud to flocculate and "turn inside out" creating, we felt, a thick sticky mudcake across the permeable sands of the upper Mesaverde. This thick mudcake was probably the contributing factor to getting stuck originally.

The lower porton of the Mesaverde above the Sego section exhibited a number of moderate shows. The largest gas show of 1752 units seen at 5356 feet was associated with a coal seam. The other shows appeared associated with sandstone intervals. These sandstones exhibited 14% to over 18% crossplot porosity, but exhibited resisitivies less than 1 and all calculate wet.

The Castlegate Sandstone and underlying Blackhawk sandstone exhibited porosity ranging from 10% to 14% with corresponding resitivities of less than 1 to 10 ohms. Only a minor amount of crossover was noted on the density neutron log. As only minor gas shows were encountered when drilling these sands, it is likely they are water saturated and non-commercial.

The Mancos "B" interval in this well appeared to be very poorly developed. Only minor shows were encountered in the zone and the log analysis indicates no porosity development.

Significant gas shows (with two zones giving up over 7500 units with C_1 through C_4) were encountered in the lower portion of the Mancos section beginning at 8250 feet and persisted to the top of the Dakota silt at 9738 feet. As these shows were not associated with any specific drilling breaks or reservoir development, it is likely they were associated with fractured intervals.

The Upper Dakota Sandstone displayed a well developed channel fill deposit from 9874 feet to 9910 feet and was composed of medium to fine grained, clear to white, sub-rounded to rounded and moderately well sorted sandstone. The interval exhibited moderate gas shows with crossover on the logs and fair to good resistivites. This zone is a definite completion candidate. The log analysis of the zone is summarized in the table below at the end of this section.

The Moon Canyon Unit #2 well appears to have completely missed any Buckhorn channel development. The Buckhorn in this well was very poorly developed to non-existent, and consisted of clay-filled fine grained sandstone, consistant with what would be expected in an overbank deposit.

The Brushy Basin Member of the Morrison had an unexpected well developed sandstone with an excellent gas show from 10,169 feet to 10,210 feet. Circulation was lost at 10,199 feet near the base of the porosity zone suggesting good porosity and permeability. This zone was composed of a fine to medium grained sandstone that was white to clear in color, sub-rounded and moderately well sorted. It was composed predominately of quartz with scattered lithic grains, and was poorly cemented with calcite cement. This zone is a definite completion candidate. The log analysis of the zone is summarized in below.

The following table shows the results of the evaluation of the Dakota and Brushy Basin intervals using a simplistic Archie equation. No shale correction was utilized in this evaluation, and for that reason, these numbers should be used only as a rough estimate of potential productivity. The Rw values utilized were from the Utah State database for produced waters. An average from four wells in the vicinity was utilized for the Dakota Rw. Resistiviy values from two wells for the Morrison/Salt Wash were used to estimate an Rw for the Brushy Basin, but as these wells were 1 to 2 townships distant the actual Rw could be quite different. Density porosity values were used in the calculations.

DEPTH	FORMATION	POR	Rt	Rw	Sw Sat.	Show
9863-67'	Dakota	17.5%	15Ω	.08Ω	42%	247 units gas-no oil shows
9867-70'	Dakota	15%	25Ω	.08Ω	38%	225 units gas-no oil shows
9870-73'	Dakota	13%	35Ω	.08Ω	37%	215 units gas-no oil shows
9884-89'	Dakota	11%	55Ω	.08Ω	35%	193 units gas-no oil shows
10,162-65'	Brushy Basin	19%	7.5Ω	.11Ω	64%	130 units gas-no oil shows
10,165-69'	Brushy Basin	16%	13Ω	.11Ω	57%	273 units gas-no oil shows
10,173-80'	Brushy Basin	18%	15Ω	.11Ω	48%	7880 units gas-no oil shows
10,180-83'	Brushy Basin	16%	30Ω	.11Ω	38%	7880 units gas-no oil shows
10,185-90'	Brushy Basin	18%	14Ω	.11Ω	56%	317 units gas-no oil shows
10,198-10,200'	Brushy Basin	19%	14Ω	.11Ω	54%	250 units gas-no oil shows

CONCLUSIONS:

The Buckhorn Conglomerate is the main producing interval in this area of the basin but was not developed in the Moon Canyon #2 well. The well-developed Dakota channel and the well-developed sand interval in the Brushy Basin both appear to have potential, and are considered to be the two main candidates for completion in this well. In addition to these sandstone intervals, the excellent gas shows seen in the lower portion of the Mancos section should be considered as potential secondary completion candidates.

Following log evaluation and considering the fair to excellent gas shows seen, 4½" production casing was run to total depth for a completion attempt in the Dakota and Brushy Basin zones. This will additionally result in a hole cased through the Mancos, allowing for a cased hole test of that horizon. A successful completion in the Brushy Basin zone would be a deeper pool completion from a zone that has not been produced in this area, increasing the potential for the area significantly. The Dakota zone should also provide significant additional incremental production for the Moon Canyon Unit #2 well.

Jason G. Blake, CPG, RPG
Consulting Geologist

SAMPLE DESCRIPTIONS

OPERATOR: ROYALE ENERGY, INC.
WELL NAME: MOON CANYON UNIT #2

DEPTH	LITHOLOGY

WASATCH FORMATION 2577' (4820)

2590-2620 SHL, rd-brn, mott lt gr ip, sb blky, md sft, slty/sndy ip w snd grn inclus, sl-non calc, SS, lt gr-wht, vfn grn, sb rnd, md wl srt, cly fill, sl calc cem, NFSOC
2620-50 SHL, lt gr-rd brn, mott ip, sb blky-plty, sft, poss sl mic, poss sl bent, sl-non calc, scat SS, lt gr-sl orng, vfn grn grd to SLTSTN, sl calc cem, NFSOC
2650-80 SHL, rd brn-lt gr, mott ip to pl yel brn ip, sb blky-plty, sl-non calc, poss sl bent, SS, wht-clr, fn-vfn grn, sb rnd-sb ang, md srt, pred qtz w scat dk lith grns, sl flor, calc cem, fr POR, NFSOC
2680-2710 SHL, pred rd brn-lt gr, occ pl lav, pl yel, plty, md sft, sl-non calc, slty grd to SLTSTN ip, scat SS aa, NFSOC
2710-40 SHL grd to SLTSTN, lt gr-rd brn-pnk-scat pl grn, sb blky, md sft, grny tex, calc, NFSOC
2740-70 SS, wht-clr, fn-occ md grn, sb ang-sb rnd, md srt, qtz & scat lith grns, qtz cem, pr POR, shl, lt gr-orng brn, mott, md sft, sl calc, sl mic, NFSOC
2770-2800 SHL, rd brn, mott lt gr, sb plty, md sft, sl-non calc, scat SS, wht-clr aa, NFSOC
2800-30 SHL aa, rd brn, mott lt gr, sb plty, md sft, sl-non calc, scat SS, wht-clr, fn-vfn grn, sl frm, sb ang-sb rnd, md srt, sl calc, NFSOC
2830-60 SHL, lt gr-rd brn-pnk-scat, sb blky, md sft, grny tex, calc, scat SS aa, NFSOC
2860-90 SS, wht-ckr, fn-occ md grn, sb ang-sb rnd, pred qtz, scat dk lith grns, rr pyr, sl qtz cem, scat calc cem, scat SHL grd to SLTSTN, rd brn, sb blky, sl calc, NFSOC
2890-2920 SS aa, wht-ckr, fn-occ md grn, sb ang-sb rnd, pred qtz, scat dk lith grns, rr pyr, sl qtz cem, scat calc cem, scat SHL, rd brn, sb blky, sl calc, NFSOC
2920-50 SS, lt gr-clr-lt pnk ip, fn-vfn grn, sb rnd, md wl srt, pred qtz-occ dk lith grns, qtz & calc cem, sl pyr ip, SHL, lt gr-rd brn, plty, md sft, sl calc, poss sl bent ip, NFSOC
2950-80 SS aa, lt gr-clr-lt pnk ip, fn-vfn grn, sb rnd, md wl srt, pred qtz-occ dk lith grns, qtz & calc cem, sl pyr ip, SHL, lt gr-rd brn, plty, md sft, sl calc, poss sl bent ip, NFSOC
2980-3010 SS, crm-tn-lt brn, fn-occ vfn grn, sb rnd, md wl srt, pred qtz w scat lith & poss feld grns, calc cem, cly filled, scat SHL, rd brn, sb blky, md sft, sl calc, NFSOC
3010-40 SS aa, crm-tn-lt brn, fn-occ vfn grn, sb rnd, md wl srt, pred qtz w scat lith & poss feld grns, calc cem, cly filled, scat SHL aa, rd brn, sb blky, md sft, sl calc, NFSOC
3040-70 SHL, rd brn-crm-lt gr, sb blky, md sft, calc, grny tex ip, slty grd to SLTSTN ip, abund SS aa, crm-tn-lt brn, vfn-fn grn, cly filled, NFSOC
3070-3100 SHL, rd brn-crm-lt gr, sb blky, md sft, calc, grny tex ip, slty ip, scat SS, crm-tn-lt brn, vfn-fn grn, sb rnd, wl srt, cly filled, NFSOC
3100-30 SS, lt gr, vfn grn, sb rnd, md wl srt, scat dk lith grns, calc cem, cly filled-no POR + SHL, lt gr-gr grn-rd brn, sb blky, md sft, grny-wxy tex, silty ip to sl bent ip, sl calc-non calc ip, NFSOC
3130-60 SHL aa, lt gr-gr grn-rd brn, sb blky, md sft, grny-wxy tex, silty ip to sl bent ip, sl calc-non calc ip, SS aa, lt gr, vfn grn, sb rnd, md wl srt, scat dk lith grns, calc cem, cly filled-no POR, scat min FLUOR, no shows
3160-90 SS, lt gr, vfn grn, sb rnd, md wl srt, scat dk lith grns, calc cem, cly filled-no POR + SHL, lt gr-gr grn-rd brn, sb blky, md sft, grny-wxy tex, silty ip to sl bent ip, sl calc-non calc ip, NFSOC
3190-3220 SS aa, lt gr, vfn grn, sb rnd, md wl srt, scat dk lith grns, calc cem, cly filled-no POR, SHL aa, lt gr-gr grn-rd brn, sb blky, md sft, grny-wxy tex, silty ip to sl bent ip, sl calc-non calc ip, scat min FLUOR aa
3220-50 SHL, pd grn-crm-lt gr-occ rd brn, sb plty, md sft, slty ip to bent ip, calc, SS, lt gr-tn, vfn-fn grn, sb rnd, wl srt, cly fill, calc, NFSOC
3250-80 SS, lt gr-wht-clr, fn-occ md grn, sb rnd, md wl srt, abund lse qtz grns, calc cem, fr POR, scat SHL, wht-crm-rd brn-lt gr, sb blky, md sft-sft, calc, bent ip, slty to wxy tex ip, scat min FLUOR, no shows

3280-3310 SS aa, lt gr-wht-clr, fn-occ md grn, sb rnd, md wl srt, abund lse qtz grns, calc cem, fr POR, decr SHL aa, wht-crm-rd brn-lt gr, sb blky, md sft-sft, calc, bent ip, no shows
3310-40 SS, wht-clr, fn-md grn, sb rnd, md wl srt, calc, pred qtz, calc cem + SHL grd to SLTSTN, off wht-lt gr, blky-sb plty, md sft, calc, bent ip, NFSOC
3340-70 SHL grd to SLTSTN aa, off wht-lt gr, blky-sb plty, md sft, calc, bent ip + SS aa, wht-clr, fn-md grn, sb rnd, md wl srt, calc, pred qtz, calc cem, NFSOC
3370-3400 SHL. off wht-lt gr, blky-sb plty, md sft, calc, bent ip, slty grd to SLTSTN ip, SS, wht-clr, fn-md grn, sb rnd, md wl srt, calc, pred qtz, calc cem, NFSOC
3400-30 SS, crm-tn-lt brn, vfn-fn-occ md grn, argil, sb ang-sb rnd, md srt, qtz & lith grns, poss feld, cly fill, calc cem & SHL, varicol, gr-gr grn-rd brn-pnk, sb blky, md sft, rthy-wxy tex, bent ip, sl calc, NFSOC
3430-60 incr SHL aa, varicol, gr-gr grn-rd brn-pnk, sb blky, md sft, rthy-wxy tex, bent ip, sl calc, scat SS, crm-tn, vfn-fn grn, argil, sb ang-sb rnd, md srt, qtz & lith grns, poss feld, cly fill, calc cem, NFSOC
3460-90 pred SS, crm-tn-clr, fn-md grn + com vcrs lse qtz, sb ang, md-pr srt, qtz-lith-feld grns, poss sl mic, sl pyr, qtz & minor calc cem, scat SHL aa, NFSOC
3490-3520 SHL, crm-lt gr-lt brn-gr grn-rd brn, sb plty, md sft, calc, rthy-sl wxy tex ip, slty ip grd to SLTSTN, lt gr, sb blky, md sft, calc, sndy, NFSOC
3520-50 SLTSTN, lt-md gr, blky, vfn grn, md sft, calc, rr mic ip,
3550-80 SS, wht-clr, fn grn, sb rnd, md wl srt, abund lse qtz grns, part cly fill, sl pyr ip, calc cem + SHL, rd brn-gr grn, lt gr, sb blky-plty, md sft, sl calc, NFSOC
3580-3610 SHL grd to SLTSTN, gr grn-lt gr, sb blky-plty, md sft, sl calc, scat-com qtz grns, crs, clr, unconsol, gd por, no show
3610-40 SS, wht-lt gr-occ clr, prim fn grn-scat v crs lse qtz grns, sb ang-sb rnd, md wl srt, com lith & feld grns, cly fill, calc cem, SHL, gr-gr grn-rd brn, sb blky, md sft, rthy-wxy tex, bent ip, NFSOC
3640-70 SHL, crm-scat lt gr grn & rd brn, plty, md sft, v calc grd to argil LS ip, gr grn shl sl mic pyr ip, scat SS, wht-lt gr, sl S&P, fn-md grn, sb ang, md srt, abund pl yel gld min FLUOR, no shows
3670-3700 SHL, tn-lt brn-lt gr, blky-sb plty, md sft, rthy-sl wxy tex ip, mic pyr ip, slty ip grd to SLTSTN ip, scat yel gld min FLUOR aa, no shows
3700-30 SHL grd to SLTSTN, tn-lt gr, blky, md sft, calc-v calc ip grd to v argil LS, sl pyr ip, grny/sndy tex ip grd to v argil SS, com-abund md yel min flour, no shows
3730-60 calc SHL grd to v calc LS ip aa, tn-lt gr, md sft, sb blky, sl pyr ip, abund SS, lt gr-off wht, sl S&P, fn-md grn, sb ang-sb rnd, md srt, lith & feld grns, qtz & minor calc cem, scat yel min FLUOR aa, no show
3760-90 SS, lt gr-off wht, sl S&P, fn-md grn, sb ang-sb rnd, md srt, lith & feld grns, qtz & minor calc cem, scat SHL grd to SLTSTN aa, tn-lt gr, sl pyr, sl calc, scat yel min FLUOR aa, no show
3790-3820 SS, wht-lt gr, sl S&P, fn-md grn, sb ang, md srt, SHL, crm-scat lt gr grn & rd brn, plty, md sft, NFSOC
3820-50 SS aa, wht-lt gr, sl S&P, fn-md grn, sb ang, md srt, com SHL aa, crm-scat lt gr grn & rd brn, plty, md sft, slty grd to SLTSTN ip, NFSOC
3850-80 SS, lt gr-wht-clr, fn grn, sb ang, md sft, sl pyr ip, abund lse qtz grns, sl calc cem, SHL, crm-lt gr grn-occ rd brn, plty-sb blky, md sft, sl calc, NFSOC
3880-3910 smp aa, SS aa, lt gr-wht-clr, bcm sl S&P, fn grn, sb ang, md sft, sl pyr ip, abund lse qtz grns, sl calc cem, SHL, crm-lt gr grn-occ rd brn, plty-sb blky, md sft, sl calc, NFSOC
3910-40 SHL, crm-lt gr grn-occ rd brn, plty-sb blky, md sft, wxy tex ip, sl bent, sl pyr, sl-non calc +SS aa, lt gr-wht-clr, fn grn, sb ang, md sft, sl pyr ip, abund lse qtz grns, sl calc cem, NFSOC
3940-70 SHL, pred gr grn-gr-occ yel-rd brn, blky, md sft, wxy tex, bent, sl mic pyr ip, non-sl calc +SS aa, lt gr-wht-clr, fn grn, sb ang, md sft, sl pyr ip, abund lse qtz grns, sl calc cem, NFSOC
3970-4000 pred SHL, pred gr grn-gr-occ yel-rd brn, blky, md sft, wxy tex, bent, sl mic pyr ip, non-sl calc, NFSOC

MESAVERDE FORMATION 3976' (3421)

4000-30 SS, wht-lt gr-gr mott, S&P, sb rnd, mod srt, qtz, feld & dk lith grns, cly filled, sl qtz cem, non calc + SHL, md-dk gr, blky-plty ip, carb ip, non calc, NFSOC
4030-60 SS aa, wht-lt gr-gr mott, S&P, sb rnd, mod srt, qtz, feld & dk lith grns, cly filled, sl qtz cem, non calc + sl decr SHL, md-dk gr, blky-plty ip, carb ip, non calc, NFSOC

4060-90 SS, wht-lt gr-gr mott, S&P, sb rnd, mod srt, qtz, feld & dk lith grns, cly filled, sl qtz cem, non calc + scat SHL, md-dk gr, blky-plty ip, carb ip, non calc, NFSOC
4090-4120 SS aa, wht-lt gr-gr mott, S&P, sb rnd, mod srt, qtz, feld & dk lith grns, cly filled, sl qtz cem, non calc + scat SHL aa, md-dk gr, blky-plty ip, carb ip, non calc, NFSOC
4120-50 SS, wht-lt gr-gr mott, S&P, sb rnd, mod srt, qtz, feld & dk lith grns, cly filled, sl qtz cem, non calc + SHL, md-dk gr, blky-plty ip, carb ip, non calc, NFSOC
4150-80 SS, fn-occ md grn, lt gr-gr mott, sb ang, md srt, com feld & lith grns, cly fill, argil grd to SLTSTN ip, sl-non calc + SHL, lt-md-dk gr, sb blky, md sft, rr mic pyr, non-calc, NFSOC
4180-4210 SHL, lt-md-dk gr, sb blky, md sft, rr mic pyr, non-calc, slty grd to SLTSTN ip, lt gr, mott dk gr, + SS aa, fn-occ md grn, lt gr-gr, mott, S&P, sb ang, md srt, cly fill, sl-non calc, NFSOC
4210-40 smp aa w intrbd SHL, lt-md-dk gr, sb blky, md sft, rr mic pyr, non-calc, grd to SLTSTN & SS, fn-occ md grn, lt gr-gr, mott, S&P, sb ang, md srt, cly fill, sl-non calc, NFSOC
4240-70 SS, wht-gr mott, S&P, fn-md grn, sb ang-sb rnd, md srt, qtz-feld & lith grns, qtz & min calc cem, intrbd SHL, lt-md-dk gr, sb blky, md sft, rr mic pyr, non-calc, grd to SLTSTN, NFSOC
4270-4300 SS aa, wht-gr mott, S&P, fn-md grn, sb ang-sb rnd, md srt, qtz-feld & lith grns, qtz & min calc cem, intrbd SHL, lt-md-dk gr, sb blky, md sft, rr mic pyr, non-calc, NFSOC
4300-30 intrbd SS & SHL aa, SS, wht-gr mott, S&P, fn-md grn, sb ang-sb rnd, md srt, qtz-feld & lith grns, qtz & min calc cem, SHL, lt-md-dk gr, sb blky, md sft, rr mic pyr, non-calc, NFSOC
4330-60 SS, wht-lt gr, mott dk gr, S&P, md-fn-occ crs grn, sb ang, md srt, abund feld & lith grns, sl calc cem, scat dk gr-blk argil ptgs/dd stn, NFSOC
4360-90 pred SS aa, wht-lt gr, mott dk gr, S&P, md-fn-occ crs grn, sb ang, md srt, abund feld & lith grns, sl calc cem, scat dk gr-blk argil ptgs/dd stn, NFSOC
4390-4420 SS, wht-lt gr, mott dk gr, S&P, md-fn-occ crs grn, sb ang, md srt, abund feld & lith grns, sl calc cem, scat dk gr-blk argil ptgs/dd stn, NFSOC
4420-50 pred SS aa, wht-lt gr, mott dk gr, S&P, md-fn grn, sb ang, md srt, qtz & sl calc cem, scat SHL, lt-md-occ dk gr, blky, sl frm, v sl-non calc, NFSOC
4450-80 SS aa, wht-lt gr, mott dk gr, S&P, md-fn grn, sb ang, md srt, qtz & sl calc cem + SHL, md-dk gr-gr brn, blky, sl frm-md sft, carb ip, pyr ip, slty/grny tex ip grd to SLTSTN, NFSOC
4480-4510 SHL, lt-md-occ dk gr, blky, sl frm-md sft, non-calc + SLTSTN, tn-lt gr-lt gr grn, blky, vfn grn, scat dk gr carb ptgs, non calc, sndy ip grd to vfn grn SS ip, NFSOC
4510-40 SHL aa, lt-md-occ dk gr, blky, sl frm-md sft, non-calc grd to SLTSTN aa, tn-lt gr-lt gr grn, blky, vfn grn, scat dk gr carb ptgs, non calc, sndy ip grd to vfn grn SS ip, NFSOC
4540-70 SHL, lt-md-occ dk gr, blky, sl frm-md sft, non-calc grd to SLTSTN + SS, crm-tn, mott dk gr, sl S&P, fn-md grn, sb rnd, md wl srt, feld & scat lith grns, qtz cem, cly fill, NFSOC
4570-4600 SHL aa, lt-md-occ dk gr, blky, sl frm-md sft, non-calc grd to SLTSTN, decr SS aa, crm-tn, mott dk gr, sl S&P, fn-md grn, sb rnd, md wl srt, feld & scat lith grns, qtz cem, cly fill, NFSOC
4600-30 SS, off wht-tn, mott dk gr, sl S&P, fn-md grn, sb rnd, md wl srt, feld & scat lith grns, qtz cem, cly fill + SHL aa, lt-md-occ dk gr, blky, sl frm-md sft, non-calc grd to SLTSTN, NFSOC
4630-60 SHL, lt-md gr, blky, sl frm-md sft, non-calc grd to SLTSTN, gr grn, blky, vfn grn & SS, tn-lt gr, mott dk gr, sl S&P, vfn-fn-occ md grn, sb rnd, md wl srt, feld & scat lith grns, qtz cem, cly fill, NFSOC
4660-90 intrbd SHL, SLTSTN and SS aa, SHL, lt-md gr, blky, sl frm-md sft, non-calc, SLTSTN, gr grn, blky, vfn grn, SS, tn-lt gr, mott dk gr, sl S&P, vfn-fn-occ md grn, sb rnd, md wl srt, qtz cem, cly fill, NFSOC
4690-4720 SHL, lt-md gr, blky, sl frm-md sft, non-calc grd to SLTSTN, gr grn, blky, vfn grn, SS, tn-lt gr, mott dk gr, sl S&P, vfn-fn-occ md grn, sb rnd, md wl srt, cly fill, NFSOC
4720-50 SHL, lt-md gr, blky, sl frm-md sft, non-calc grd to SLTSTN, gr grn, blky, vfn grn & SS, tn-lt gr, mott dk gr, sl S&P, vfn-fn-occ md grn, sb rnd, md wl srt, feld & scat lith grns, qtz cem, cly fill, NFSOC
4750-80 SHL, lt-md-occ dk gr, blky, sl frm-md sft, non-calc, slty grd to SLTSTN, gr grn, blky, scat SS, tn-lt gr, mott dk gr, sl S&P, vfn-fn-occ md grn, sb rnd, md wl srt, feld & scat lith grns, qtz cem, cly fill, NFSOC
4780-4810 pred SHL grd to SLTSTN, lt-md gr-gr grn-md brn, blky-sb plty, sl frm-md sft, carb ip w dk gr-blk carb ptgs, slty ip, sl pyr ip, NFSOC
4810-40 SHL grd to SLTSTN aa, lt-md gr-gr grn-md brn, blky-sb plty, sl frm-md sft, carb ip w dk gr-blk carb ptgs, slty ip, sl pyr ip, scat SS, lt gr-mott dk gr ip, vfn-fn grn, sb rnd, md srt, cly fill, NFSOC
4840-70 SHL grd to SLTSTN, lt-md gr-gr grn-md brn, blky-sb plty, sl frm-md sft, carb ip w dk gr-blk carb ptgs, slty ip, sl pyr ip, NFSOC
4870-4900 SS, lt gr-wht, S&P, fn grn, sb rnd, md wl srt, qtz & scat lith grns, sl calc cem + SHL, lt-md gr-brn, blky-sb plty, sl frm-md sft, sl carb ip, pri non-calc, NFSOC

4900-30 SS, lt gr-wht-dk gr, fn grn, sb rnd, md wl srt, v argil ip w blk shl/coal? ptgs, calc cem & SHL aa, lt-md gr-brn, blky-sb plty, sl frm-md sft, sl carb ip, pri non-calc, NFSOC
4930-60 SS aa, lt gr-wht-dk gr, fn grn, sb rnd, md wl srt, v argil ip w blk shl/coal? ptgs, calc cem & SHL aa, lt-md gr-brn, blky-sb plty, sl frm-md sft, sl carb ip, pri non-calc, NFSOC
4960-90 SHL, lt-md gr-brn, blky-sb plty, sl frm-md sft, sl carb ip, pri non-calc, SS, lt gr-wht, S&P, fn grn, sb rnd, md wl srt, argil ip, calc cem, NFSOC
4990-5020 SS, lt gr-wht, S&P, fn grn, sb rnd, md wl srt, argil ip, calc cem, SHL, lt-md gr-brn, blky-sb plty, sl frm-md sft, sl carb ip, pri non-calc, NFSOC
5020-50 incr SHL, md-dk gr-gr brn, blky-sb plty, sl frm-md sft, sl carb ip, pri non-calc + minor SS, lt gr-wht, S&P, fn grn, sb rnd, md wl srt, argil ip, calc cem, NFSOC
5050-80 SHL, md-dk gr-gr brn, blky-sb plty, sl frm-md sft, sl carb ip, pri non-calc, incr SS, lt gr-wht, S&P, fn grn, sb rnd, md wl srt, argil ip, rr carb/coal ptgs, calc cem, NFSOC
5080-5110 pred SHL aa, md-dk gr-gr brn, blky-sb plty, sl frm-md sft, sl carb ip, pri non-calc, scat SS, lt gr-wht, S&P, fn grn, sb rnd, md wl srt, argil ip, rr carb/coal ptgs, calc cem, NFSOC
5110-40 SHL, md-dk gr-brn, blky-sb plty, sl frm-md sft, sl carb ip, pri non-calc, SS, lt gr-wht, lt brn ip, S&P ip, fn grn, sb rnd, md wl srt, argil ip, calc cem, NFSOC
5140-70 SS, wht-lt gr-brn, sl S&P ip, fn grn, sb rnd, md wl srt, scat carb/coal ptgs, poss dk brn dd STN, v dull yel grn FLUOR, vsl grn yel strm CUT w resid rnd CUT, scat SHL aa
5170-5200 SS, wht-lt gr-brn, sl S&P ip, fn grn, sb rnd, md wl srt, scat carb/coal ptgs, poss dk brn dd STN, no FLUOR or CUT, SHL, md gr-brn, sb plty, sl hd-md sft, rr carb/coaly ptgs, non-calc
5200-30 SHL, lt-md gr-brn, plty-sb blky, md sft-sl frm, rthy-sl wxy tex, poss sl bent ip, mic pyr ip, non-calc + SS, wht-lt gr-brn, fn grn, sb rnd, md wl srt, argil w carb ptgs, calc cem, NFSOC
5230-60 SS, wht-crm-tn, sl S&P ip, fn gr, sb rnd, md wl srt, sl frm-fri ip, qtz & lith grns, appear cly fill, argil ip w carb ptgs, calc cem, scat dull yel gld FLUOR, fnt blu-wht strm cut, fr resid rnd cut, no vis STN
5260-90 SHL, gr-brn, sb plty, md sft, rthy, carb ip, non-sl calc, com COAL, blk, sft, rthy grd to carb shl, SS, wht-tn, S&P, fn grn, sb rnd, md wl srt, lith grns, calc cem, no vis STN, sl dull FLUOR, sl cut aa
5290-5320 SHL, dk gr-dk gr brn, sb blky, md sft-sft, carb, blk coal ptgs, grny/slty tex grd to SLTSTN ip, non calc, scat SS, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC
5320-50 SHL aa, dk gr-dk gr brn, sb blky, md sft-sft, carb, blk coal ptgs, grny/slty tex, non calc, scat SS, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC
5350-80 SHL, dk gr-dk gr brn, sb blky, md sft-sft, carb, blk coal ptgs, grny/slty tex, prim non calc, SS, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, rr pcs COAL, blk, sft, NFSOC
5380-5410 SHL aa, dk gr-dk gr brn, sb blky, md sft-sft, carb, blk coal ptgs, grny/slty tex, non calc + SS, wht-lt gr-tn, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC
5410-40 SHL, dk gr-dk gr brn, sb blky, md sft-sft, carb, blk coal ptgs, grny/slty tex, prim non calc, abund SHL, lt gr, blky, rnd, sl wxy tex, prob bent (appar cav/re-circ cuttings) SS, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC
5440-70 smp aa, SHL, dk gr-dk gr brn, (+lt gr shl from uphole), sb blky, md sft-sft, carb, blk coal ptgs, grny/slty tex, prim non calc, SS, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC

SEGO 5473' (1924)

5470-5500 pred SHL, md-dk gr brn-dk gr, sb blky, md sft, carb, prim non-calc + abund lt gr bent SHL from up hole. scat SS, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC
5500-30 pred SHL aa, md-dk gr brn-dk gr, sb blky, md sft, carb, prim non-calc + abund lt gr bent SHL from up hole-sl incr SS, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC
5530-60 SHL aa, md-dk gr brn-dk gr, sb blky, md sft, carb, prim non-calc & lt gr bent SHL aa, scat SS, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC
5560-90 SS, wht-lt gr, mott dk gr, S&P, fn-md grn, sb ang-ang, md-pr srt, abund lith grns, scat chlor, pred qtz cem w mnr calc, abund SHL aa, md-dk gr brn-dk gr, sb blky, md sft, carb, prim non-calc & lt gr bent SHL aa, NFSOC
5590-5620 abund SHL aa, md-dk gr brn-dk gr, sb blky, md sft, carb, prim non-calc & lt gr bent SHL aa + SS, wht-lt gr-brn, S&P ip, fn grn, sb ang-sb rnd, md srt, argil ip, NFSOC

BUCK TONGUE 5645' (1752)

5620-50 SHL, dk gr brn-pl grn-grn, blky, sl frm-md sft, bent ip to carb ip, prim non-calc, com SS aa, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC
5650-80 SHL aa, dk gr brn-pl grn-grn, blky, sl frm-md sft, bent ip to carb ip, prim non-calc, com SS aa, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC
5680-5710 SHL, pl grn-md gr-dk gr brn, blky, sl frm-md sft, bent ip to carb ip, prim non-calc, abund SS aa, wht-lt gr, S&P, fn grn, sb rnd, md wl srt, fri ip, sl calc cem, NFSOC
5710-40 SHL, dk brn-gr brn, scat gr grn shl aa, blky-sb plty, sl frm, britt, gry/slty tex grd to SLTSTN ip, sl carb, blk carb inclus, non calc, scat SS aa, NFSOC
5740-70 pred SHL, dk brn-gr brn, blky-sb plty, sl frm, britt, gry/slty tex, sl carb, blk carb inclus, non calc, scat SS aa, NFSOC
5770-5800 SHL aa, dk brn-gr brn, blky-sb plty, sl frm, britt, gry/slty tex, sl carb, blk carb inclus, non calc, scat SS aa, NFSOC
5800-5830 SHL, dk gr brn, sb blky-sb plty, sl frm-sl sft, carb ip, grny tex, non calc, NFSOC
5830-60 SHL, dk gr brn, sb blky-sb plty, sl frm-sl sft, carb ip, grny tex, non calc, NFSOC

CASTLEGATE 5851' (1546)

5860-90 SS, wht-clr-tn, fn grn, sb rnd-sb ang, wl srt, pred qtz w scat lith grns, qtz ovrgth cem, non calc, pr-no POR, abund SHL aa, NFSOC
5890-5920 SS aa, wht-clr-tn, fn grn, sb rnd-sb ang, wl srt, pred qtz w scat lith grns, qtz ovrgth cem, non calc, pr-no POR, abund SHL, dk gr brn, blky, grny tex, non calc, NFSOC
5920-50 pr smp, pred SHL, varicol, gr grn-gr-yel brn-rd, blky, wxy tex, pred non calc, scat SS aa, wht-clr-tn, fn grn, sb rnd-sb ang, wl srt, pred qtz w scat lith grns, sil cem, non calc, pr-no POR, NFSOC
5950-80 pred SHL aa, varicol, gr grn-gr-yel brn-rd, blky, wxy tex, pred non calc, scat SS aa, wht-clr-tn, fn grn, sb rnd-sb ang, wl srt, pred qtz w scat lith grns, sil cem, non calc, pr-no POR, NFSOC
5980-6010 pr smp aa, pred SHL, varicol, gr grn-gr-yel brn-rd, blky, wxy tex, non calc, scat SS, wht-clr-lt brn, fn-crs grn, md wl rnd, pr srt, scat crs lse qtz grns, sil cem, non calc, pr-no POR, NFSOC

MANCOS TRANSITION 6010' (1387)

6010-40 SHL, varicol, gr gr-gr-brn-rd brn, blky-sb plty, md sft-sl frm ip, wxy to grny tex, sl calc ip to non calc, intrbd SLTSTN, tn-lt gr, blky, sl frm vfn grn, calc, NFSOC
6040-70 varicol SHL aa, gr gr-gr-brn-rd brn, blky-sb plty, md sft-sl frm ip, wxy to grny tex, sl calc ip to non calc, intrbd SLTSTN grd to vfn grn SS, tn-lt gr, blky, sl frm vfn grn, calc, NFSOC
6070-6100 pred SLTSTN grd to vfn grn SS, lt gr-tn, blky, sl frm, argil grd to slty SHL, brn-dk brn, blky, sl frm, sl calc, NFSOC
6100-30 SHL, dk gry-dk brn, sb plty, firm, sli calc, min plty mica, stringers of SLTSTN and vfg SS, aa, NFSOC

MANCOS 6134' (1263)

6130-60 SHL, dk gry-dk brn, sb plty, firm, silt-vfg sand stringers, sli calc, loc mic pyr, min plty mica, loc grdg to vfg sandstone, v wk strmg ylw cut
6160-90 SHL, dk gry-dk brn, sb plty, firm, silt-vfg sand stringers, sli calc, loc mic pyr, min plty mica, loc grdg to vfg sandstone, v wk strmg ylw cut
6190-6240 VP Sample: cement, Mancos SHL & vari col SHL, abdt contam
6240-70 SHL, dk gr, dk gr bn, plty, sbplty, sli calc, loc sli slty w/ com vf sd grs, carb ip, mic mica, dis pyr, wk yel gn cut
6270-6300 SHL, a/a; dk gr,dk gr bn, fr,. plty, fis, sli-mod calc, mica ip, fnly pyr ip, spty orng flor, wk strm yel gn cut
6300-40 SHL, med-dk gr bn, frm, fis, plty-sb plty, sli cal, carb ip, loc lt gr bn & slty, com mica, tr dis pyr, bcmg less calc, v dl orng flor, v wk yel gn cut
6340-70 SHL, loc non calc, v slty, com mica, tr dis pyr, carb iprr sltst strngr, NFSOC
6370-6400 SHL, lt-med gr, gr bn, frm, fis, plty ip, gen non calc, carb ip, speckled app assoc w/slt grs, loc sli

aren, tr pyr, NFSOC
6400-30 SHL, no vis flor, dif yel gn cut
6430-60 SHL, med-dk gr, slty, non calc, loc vf sd grs, NFSOC
6460-6500 SHL, med-dk gr, gr brn, frm, fis, loc v slty, non calc, carb ip, tr mica & dis pyr, NFSOC
6500-30 SHL, med gr brn, sli speckled, frm, slty, non calc, carb, com dis pyr, no flor,gen no cut, rr milky yel gn dif cut
6530-60 SHL, vdk gr bn, frm, fis, mas, loc v slty, sli dol ip, pyr ip w/ occ thn pyr lams, com blk carb mat, no flor, mlky yel gn cut from dry ctgs, pale yel gn rng cut
6560-90 SHL, sli ltr col, incr slty, sli dol, grdg to SLTST ip, NFSOC
6590-6620 SHL, med-dk gr, speckled ip, grny/slty app, sli aren w/ tr vf sd grs, sli dol, com mica, loc abdt carb mat, NFSOC

MANCOS "B" 6608' (789)

6620-40 SS: vfg, clr - fros, unconsol clr qtz, wl rnd, prob as thn intbds in aren SHL
6640-70 SHL, med-dk gr bn, fria-frm, slty-aren, grny app, mod calc, rr mica, tr carb mat, tr dis pyr, thnly intbd w/ vf, wl rndd clr qtz sd, no flor, rr yel gn dif cut
6670-6700 SHL, med-dk gr brn, fria-frm, loc v grny tex, mod calc, tr mica, tr carb mat, rr pyr, grdg to vf drty ss, no flor, wk yel gn dif cut
6700-30 SHL, med-dk gr brn, fria-frm, sub plty-blky, silty, mod calc, tr mica, tr carb mat, rr pyr, grdg to vfg drty SS, lt-med gr brn, sub rnd-rnd, blky, clr-frostd qtz, mod carb, no flor, wk yel grn dif cut, pale yel ring cut
6730-60 SHL, med-dk gr brn, fria-frm, sub plty-blky, silty, mod calc, com mica, tr carb mat, occ SS, aa, no flor, no cut
6760-90 SHL, med-dk gr brn, fria-frm, sub plty-blky, silty, mod calc, com mica, tr carb mat, grdg to vfg drty SS, lt-med gr brn, speckled, sub rnd-rnd, blky, clr-frostd qtz, mod carb, no flor, no cut
6790-6820 SHL, med-dk gr brn, fria-frm, plty-blky, silty, mod calc, tr mica, tr pyr, tr carb mat, grdg to vfg SS, aa, loc fg qtz, clr, sub rnd, no flor, wk dif yel cut, pale yel ring cut
6820-50 SHL, med-dk gr brn, fria-frm, plty-blky, silty, mod calc, tr mica, tr pyr, tr carb mat, grdg to vfg SS, aa, no flor, wk dif yel cut, pale yel ring cut
6850-80 SHL, med-dk gr brn, fria-frm, sub plty-blky, silty, mod calc, com mica, tr pyr, tr carb mat, grdg to vfg SS, aa, no flor, wk dif yel cut, pale yel ring cut
6880-6920 SHL, med-dk gr bn, frm, fis, slty, freq grny tex, aren ip w/ loc lams of drty fn grn arg SS, tr carb mat, sli calc, pyr, no flor, wk dif yel gn cut
6920-60 SHL, a/a, slty-aren, carb, sli-mod calc, no flor, wk dif yel gn cut
6960-90 SHL, a/a, dk gr bn, bcmg ltr col, loc incr slty & aren, com lt gr SLTST & vf-f, s&p SS, incr calc
6990-7020 SLTST: (pred as thn intbds), lt gr, lt-med gr bn, fria-frm, loc v aren w/ abdt vf sd grs, arg, carb, mod calc, pale yel rng cut
7020-50 SS: (pred as thn intbds & lams in mass SH), vf-f, drty gr bn, occ S&P, arg, slty, carb, thn bdd, no vis por, no flor, wk yel gn dif cut
7050-80 Note: decr SLTST & SS intbds
7080-7110 SHL, med-dk gr, med-dk gr bn, decr slty & aren, frm, fis, sb plty, sli-mod calc, tr carb mat, occ dis pyr, slty ip, tr contorted, right angled chips indicating fracturing, wk fnt yel gn dif cut
7110-40 SHL, med-dk gr, med-dk gr bn, occ ltr gy SLTST intbds, frm, fis, slty, mod calc, carb, loc pyr, no flor, wk, fnt yel gn dif cut
7140-70 SHL, med-dk gr, frm, slty, sli-mod calc, carb ip, loc tr pyr,
tr mica, no flor, wk yel gn dif
7170-7200 SHL, med-dk gr, med-dk gr bn, frm, fis, sb plty, slty, carb ip, sli-mod calc, no flor, wk yel gn dif cut, lt yel rng cut
7200-30 SHL, med-dk gr, med-dk gr bn, frm, fis-sb plty, slty, carb ip, sli-mod calc, rr pyr, loc lt gry SLTST intbds, no flor, poor yel dif cut, pale yel ring cut
7230-60 SHL, med-dk gr, med-dk gr bn, frm, fis-sb plty, slty, carb ip, sli-mod calc, tr disemm pyr, tr mica, intbds of vf-fg SS, lt gry, spkld, subrnd-rnd, carb lam ip, no flor, poor yel dif cut, pale yel ring cut
7260-80 SHL, med-dk gr, med-dk gr bn, frm, fis-sb plty, slty, carb ip, sli-mod calc, tr mica, intbdd SS, aa, no flor, wk yel grn dif cut, pale yel ring cut
7280-7310 SHL, med-dk gr, med-dk gr bn, frm, fis-sb plty, slty, tr carb mat, mod calc, tr mica, tr gran pyr, minor intbdd SS, aa, no flor, poor yel dif cut, pale yel ring cut

7310-40 SHL, med-dk gr, med-dk gr bn, frm, fis-sb plty, slty, tr carb mat, sli-mod calc, tr mica, tr gran pyr, minor intbdd SS, aa, no flor, poor yel dif cut, pale yel ring cut
7340-70 predom SHL, aa, contaminated by pre-casing LCM.
7370-7400 SHL, med-dk grbrn, dk gr, fri-firm, fis-sub plty, slty ip, carb, sli calc, tr vfg SS strgrs, lt gry, spkld, sub rnd, no flor, wk yel grn dif cut, lt yel ring cut
7400-30 SHL, med-dk grbrn, dk gry, fri-firm, fis-sub plty, slty ip, carb, sli calc, tr vfg SS strgrs, lt gry, spkld, sub rnd, no flor, poor yel dif cut
7430-60 SHL, med-dk gr brn, dk gr, fri-firm, fis-sub plty, slty ip, carb, mod calc, tr disemm & gran pyr, no flor, wk yel grn dif cut, brt lt yel ring cut
7460-7500 SHL, med-dk gr bn, mod frm - frm, sb plty, carb, tr dis pyr, sli-mod calc, no flor, dif yel gn cut
7500-40 SHL, a/a, med gr bn, dk bn, frm, sb plty-fis, carb mat, dis pyr, tr mica, hrln fracs w/ ca fl, yel gn dif cut, yel rng cut
7540-70 SHL, med dk gr bn, med-dk bn, frm, fis-sb plty, carb, mod calc, tr pyr, mica ip, no flor, wk yel gn dif cut
7570-7600 SHL, med gr bn, frm, sb plty, mass, calc, mica ip, carb ip, loc pyr nods, no flor, pale yel rng cut
7600-40 SHL, dk gr bn, frm, incr fis, carb, pyr, vis frac w/ wh spar ca lng, NFSOC
7640-70 SHL, med-dk gr bn, a/a, frm, fis-sb plty, carb, mod calc, NFOSC
7670-7700 SHL, med-dk gr bn, med-dk bn, frm fis, sbplty, carb, mod calc, wk, fnt, pale yel dif cut
7700-30 SHL, med-dk gr brn, frm, fis-sub plty, carb, mod calc, tr pyr, no flor, poor yel dif cut
7730-60 SHL, med-dk gr brn, frm, fis-sub plty, carb, sli calc, tr pyr, loc intbdd SLTST, lt gr, plty, non calc, NFSOC
7760-90 SHL, med-dk gr brn, frm, fis-sub plty, carb, mod calc, tr pyr, poor yel dif cut
7790-7820 SHL, med-dk gr brn, frm, fis-sub plty, slty, carb, sli calc, tr pyr, vis fracs w/ spar calc fill, wk yel dif cut, pale yel ring cut
7820-50 SHL, med-dk gr brn, frm, fis-sub plty, carb, sli calc, tr pyr, poor yel dif cut
7850-80 SHL, med-dk gr brn, frm, fis-sub plty, carb, mod calc, rr pyr, poor yel dif cut
7880-7910 SHL, med-dk gr brn, frm, fis-sub plty, carb, slty ip, sli calc, rr pyr, poor yel dif cut
7910-40 SHL, med-dk gr brn, frm, fis-sub plty, carb, sli calc, rr pyr, poor yel dif cut
7940-70 SHL, pred dk gr bn, mod frm-frm, fis, sb plty, mod calc, loc v carb, mass, dis pyr, no flor, dif yel gn cut, yel rng cut
7970-90 Note: very soft samples
7990-8020 SHL, pred dk gr bn, mod frm-frm, fis, sb plty, mod calc, loc v carb, mass, dis pyr, no flor, dif yel gn cut, yel rng cut
8020-50 SHL, med-dk gr bn, med-dk gr, frm, fis, sbplty ip, carb, mod calc, rr mica, no vis flor, wk yel gn dif cut
8050-80 SHL, med-dk gybn, sft-frm, mass, pred sb plty, carb, mod calc, no flor, yel rng cut
8080-8110 SHL, pred dk gr bn, mod frm-frm, fis, sb plty, mod calc, loc v carb, mass, dis pyr, no flor, dif yel gn cut, yel rng cut
8110-40 SHL, md-dk gr, occ pl gr grn, sb plty, md sft, lt gr pwdry strk, mod calc, pl grn shl sl bent ip, slty/sndy ip grd to vfn grn SS, lt-md gr, sb ang, md wl srt, argil, calc cem, pl yel grn diff CUT
8140-70 SHL aa, md-dk gr, occ pl gr grn, sb plty, md sft, lt gr pwdry strk, mod calc, pl grn shl sl bent ip, scat SS aa, v fn grn, lt-md gr, sb ang, md wl srt, argil, calc cem, pl yel grn diff CUT
8170-8200 pred SHL, md-dk gr brn, occ pl gr grn, sb plty, md sft, lt gr pwdry strk, mod calc, mic pyr, pl grn shl sl bent ip, slty/sndy ip aa, pl yel grn diff CUT
8200-30 SHL, md gr, blky-sb plty, sl frm-md sft, sl grny tex ip, md calc, rr mic pyr, rr vfn gr SS aa, md gr, argil, NFSOC
8230-60 SHL aa, md gr, blky-sb plty, sl frm-md sft, sl grny tex ip, md calc, rr mic pyr, NFSOC
8260-90 SHL, md gr-gr brn, blky-sb plty, sl frm-md sft, md calc, scat mic pyr, scat dk gr carb inclus, sl grny tex ip, NFSOC
8290-8320 SHL, md gr, blky-sb plty, md frm, sl grny tex ip, md calc, rr mic pyr, NFSOC
8320-50 SHL aa, md gr, blky-sb plty, sl frm-md sft, md calc, rr mic pyr, sl grny tex ip, NFSOC
8350-80 SHL, md gr, blky-sb plty, sl frm-md sft, md calc, rr mic pyr, sl grny tex ip, rr SS, lt-md gr brn, fn-vfn grn, sb rnd, md srt, argil/cly fill,NFSOC
8380-8410 SHL, md gr-gr brn, sb blky-plty, md sft-sl frm, sl mic pyr, md calc, sl grny tex ip, rr SS aa, vfn grn, cly fill, NFSOC
8410-40 SHL, md gr, blky-sb plty, sl frm-md sft, md calc, rr mic pyr, sl grny tex ip, rr SS, lt-md gr brn, fn-vfn

grn, sb rnd, md srt, argil/cly fill,NFSOC
8440-70 SHL aa, md gr-gr brn, sb blky-plty, md sft-sl frm, sl mic pyr, md calc, sl grny tex ip, rr SS aa, vfn grn, cly fill, NFSOC
8470-8500 SHL, md gr-gr brn, sb blky-plty, md sft-sl frm, sl mic pyr, md calc, sl grny tex ip, rr SS aa, vfn grn, cly fill, NFSOC
8500-30 SHL, md-occ lt gr, blky-sb plty, md sft-sl frm ip, grny/slty tex, md calc, sndy ip grd to fn gr SS, argil, calc cem, NFSOC
8530-60 SHL aa, md-occ lt gr, blky-sb plty, md sft-sl frm ip, grny/slty tex, mic pyr ip, md calc, sndy ip grd to fn gr SS aa, argil, calc cem, NFSOC
8560-90 SHL, md-occ lt gr, blky-sb plty, md sft-sl frm ip, grny/slty tex, md calc, sndy ip, decr v fn gr SS, argil, calc cem, NFSOC
8590-8620 SHL, md-occ lt gr, blky-sb plty, md sft-sl frm ip, grny/slty tex, md calc, mic pyr ip, sndy ip grd to fn gr SS, argil, calc cem, NFSOC
8620-50 SHL, md-dk gr-gr brn ip, sb blky-plty, sl frm-md sft, md calc, mic pyr ip, slty/grny tex ip, sndy ip, NFSOC
8650-80 SHL aa, md-occ dk gr-occ dk gr brn, blky-sb plty, sl frm-sl sft, sl-md calc, mic pyr ip, grny/slty tex ip, sndy ip, NFSOC
8680-8710 SHL, md-dk gr-gr brn ip, sb blky-plty, sl frm-md sft, md calc, mic pyr ip, slty/grny tex ip, sndy ip, NFSOC
8710-40 SHL aa, md-occ dk gr, blky-sb plty, md sft-sl frm ip, grny/slty tex, mic pyr ip, md calc, sndy ip grd to fn gr SS, argil, pyr, calc cem, NFSOC
8740-70 SHL aa, md-occ dk gr-occ dk gr brn, blky-sb plty, sl frm-sl sft, sl-md calc, mic pyr ip, grny/slty tex ip, sndy ip, NFSOC
8770-8800 SHL, md-dk gr-gr brn ip, sb blky-plty, sl frm-md sft, md calc, mic pyr ip, slty/grny tex ip, sndy ip, NFSOC
8800-30 SHL, md-dk gr, gr brn ip, blky-sb plty, md sft, slty/grny tex ip, md calc, sndy ip, fnt resid rnd CUT, no shows
8830-60 SHL, md gr-sl gr brn, blky-sb plty, sl frm-md sft, md calc, grny tex, slty/sndy ip, NFSOC
8860-90 SHL aa, md gr-sl gr brn, blky-sb plty, sl frm-md sft, md calc, grny tex, sl incr slty/sndy tex aa, NFSOC
8890-8920 SHL aa, md gr-sl gr brn, blky-sb plty, sl frm-md sft, md calc, incr slty/sndy grd to SLTSTN strgrs ip, lt gr, vfn grn, sb rnd, md srt, pyr, poss v sl resid rnd CUT, no shows
8920-50 SHL, md gr-md gr brn, blky-sb plty, sl frm-sl sft, md calc, grny/slty tex ip, decr SLTSTN aa, lt gr, vfn grn, calc, pyr, NFSOC
8950-80 pred SHL, md gr-md gr brn, blky-sb plty, sl sft-sl frm, grny tex ip, md calc, slty/sndy ip, NFSOC
8980-9010 SHL aa, md gr-md gr brn, blky-sb plty, sl sft-sl frm, grny tex ip, md calc, slty/sndy ip, NFSOC
9010-40 SHL aa, md gr-md gr brn, blky-sb plty, grny tex, calc, com SS, lt gr, vfn grn, sb rnd, md wl srt, cly fill, qtz & scat lith grns, sl pyr, calc cem, NFSOC
9040-70 SHL, md gr-md gr brn, blky-sb plty, grny tex, calc, decr SS aa, lt gr, vfn grn, sb rnd, md wl srt, cly fill, qtz & scat lith grns, sl pyr, calc cem, NFSOC
9070-9100 pred SHL, md gr-md gr brn, blky-sb plty, sl sft-sl frm, grny tex ip, md calc, slty/sndy ip, NFSOC
9100-30 SHL, md-dk gr-gr brn, blky-sb plty, sl sft-sl frm, sl grny tex, bcm sl carb ip, md calc, rr SS strgrs, lt gr, vfn grn, tt, NFSOC
9130-60 SHL aa, md-dk gr-dk gr brn, blky-sb plty, md sft-sl frm, carb ip, sl grny tex ip, md calc, poss sl mic, poss v sl resid rng cut, no shows
9160-90 SHL aa, md-dk gr-dk gr brn, blky-sb plty, md sft-sl frm, carb ip, sl grny tex ip, md calc, poss sl mic, rr calc healed frac, sl resid rng cut, no shows
9190-9220 SHL, bcm md gr-md gr brn, decr dk gr, blky-sb plty, grny tex, calc, rr SS, lt gr, vfn grn, sb rnd, md wl srt, cly fill, calc cem, NFSOC
9220-50 SHL, md-occ dk gr-gr brn, blky-sb plty, md sft-sl frm, grny tex, sl pyr, calc, sndy ip, NFSOC
9250-80 SHL aa, md-occ dk gr-gr brn, blky-sb plty, md sft-sl frm, grny tex, sl pyr, calc, sndy ip, NFSOC
9280-9310 SHL, md-occ dk gr-gr brn, blky-sb plty, md sft-sl frm, grny tex, sl pyr, calc, sndy ip, faint resid rnd cut, no shows
9310-40 SHL aa, md-occ dk gr-gr brn, blky-sb plty, md sft-sl frm, grny tex, sl pyr, calc, sndy ip, sl resid rnd cut aa, no show
9340-70 SHL, md-occ dk gr-gr brn, blky-sb plty, md sft-sl frm, grny tex, sl pyr, calc, slty/sndy ip, sl resid cut aa

9370-9400 SHL, md-occ dk gr-gr brn, blky-sb plty, md sft-sl frm, grny tex, sl pyr, calc, slty/sndy aa, fnt resid cut aa
9400-30 SHL, md gr, sb blky-plty, sl frm-md sft, grny tex, rr mic pyr, sl-md calc, slty ip w snd grn inclus, sl resid rng CUT, no show
9430-60 SHL aa, md gr, sb blky-plty, sl frm-md sft, grny tex, rr mic pyr, sl-md calc, slty/ sndy ip, sl resid rng cut aa
9460-90 SHL, dk-md gr, plty-sb blky ip, md sft-sl frm, carb, mic pyr, calc, NFSOC
9490-9520 SHL aa, dk-md gr, plty-sb blky, md sft-sl frm, carb, mic pyr, poss brecc rip-up zones, scat SHL, crm-lt brn, wxy, sft, non calc, bent w orng min FLUOR, no shows
9520-50 SHL, dk-md gr, plty-sb blky, md sft-sl frm, carb, mic pyr, sl brecc aa, sl incr SHL, crm-lt brn, wxy, sft, non calc, bent w orng min FLOUR aa, no shows
9550-80 SHL, md-dk gr, blky-sb plty, sl frm-md sft, grny tex, sl calc, slty/sndy ip, sl carb ip, NFSOC
9580-9610 SHL aa, md-dk gr, blky-sb plty, sl frm-md sft, grny tex, sl calc, slty/sndy ip, sl carb ip, NFSOC
9610-40 SHL, md-dk gr-occ blk, sb tab-blky, md sft-sl frm, sl calc, grny tex ip, mic pyr ip, slty ip, carb ip, NFSOC
9640-70 SHL, md gr-occ md brn, blky-sb plty, md frm-sl sft, grny tex, sl calc, slty/sndy ip w SLSTSN strgrs, md-lt gr, vfn grn, cly fill, calc, NFSOC
9670-9700 SHL aa, md gr-occ md brn, blky-sb plty, md frm-sl sft, grny tex, sl calc, slty/sndy, incr SLSTSN, md-lt gr-brn, vfn grn, cly fill, calc, NFSOC
9700-20 SHL, md-dk gr, blky-sb plty, sl frm-md sft, sl calc, grny tex, SLTSTN aa, lt-dk gr-brn, vfn grn, cly fill, abund lt gr-crm cly, scat orng min FLUOR, no shows
9720-40 smp aa, intrbd SHL, md-dk gr, blky-plty, sl calc & SLTSTN, lt-dk gr-brn, vfn grn, cly fill, abund clay aa w scat fluor, no shows

DAKOTA SILT 9738' (-2341)

9740-60 SLTSTN grd to SS, md-lt gr, pred vfn grn-occ md grn, sb rnd, md srt, cly fill, sl calc, abund lt gr cly, scat orng min fluor, no shows
9760-80 SLTSTN grd to SS aa, md-lt gr, vfn grn, v argil, cly fill + SHL, dk -md gr, blky, grny/slty tex, md calc, NFSOC
9780-9900 SHL, md-dk gr, blky-sb plty, md frm-sl sft, sl-md calc & intrbd SLTSTN, dk gr-occ lt gr, vfn grn, md frm, calc, NFSOC
9900-20 intrbd SHL, md-dk gr, blky-sb plty, md frm-sl sft, sl-md calc & SLTSTN grd to SS ip, dk gr-occ lt gr, vfn grn, md frm, calc, NFSOC
9920-40 SHL, md-dk gr, blky-sb plty, md frm-sl sft, sl-md calc & SLTSTN grd to SS aa, dk gr-incr lt gr, vfn grn, md frm, calc, NFSOC
9940-60 SHL, md-dl gr, blky-sb plty, sl frm-md sft, md calc, NFSOC

DAKOTA SANDSTONE 9858' (-2461)

9960-80 SS, wht-lt gr, mott dk gr, fn-vfn grn, sb rnd, md wl srt, qtz & com lith frags, hd, wl cem w sil cem, NFSOC
9980-9900 SS, clr-wht, fn-md grn, sb rnd-rnd, md wl srt, abund lse qtz grns, scat lith grns, sil cem, non calc, NFSOC
9900-20 SS aa, clr-wht, bcm pred md grn, sb rnd-rnd, md wl srt, abund lse qtz grns, scat lith grns, sil cem, non calc, NFSOC
9920-40 SHL, dk-md-occ lt gr, splint, frm-britt, mic pyr, sl calc, NFSOC

CEDAR MOUNTAIN 9935' (-2538)

9940-60 SHL, dk-md-occ lt gr, dk shl frm, lt gr shl sft, md plty, non-calc, occ SS, wht-clr, sb rnd-rnd, wl srt, hd, wl cem w sil cem, NFSOC
9960-70 SHL, md-dk gr-occ blk, occ crm, sb plty, md frm-md sft, carb ip to bent ip, non calc, min FLUOR from bent SHL

BUCKHORN 9972' (-2575)

9970-85 SS, lt brn, fn-md grn, sb rnd, md srt, fri ip, completely cly fill, non calc, NFSOC
9985-10005 SHL, dk gr-blk, blky, sl frm, non calc + SS, wht-clr, md-crs grn, sb ang, pr srt, wl cem w sil cem, abund CHT, wht-lt gr-pl yel gr, trans, vit, concoid frac, NFSOC

MORRISON 10001' (-2604)

10005-20 SHL, lt gr-md-dk gr, plty-splint to blky, lt gr shl bent w wxy tex, gr shl sl carb ip, pred non calc, NFSOC
10020-40 SHL, varicol, lt-md-dk gr, rd orng-occ mar-pl gr grn, plty-sb blky, md sft, pred non calc, rthy ip to bent ip, NFSOC
10040-60 SHL, orng rd-mar-lt gr-occ dk gr, plty-sb blky, md frm-sft, rthy/grny tex ip, bent ip, pred non calc, sndy ip grd to vfn grn SS to SLTSTN, lt gr, sb rnd-sb ang, md wl srt, non calc, cly fill, NFSOC
10060-80 SHL, lt gr-brk rd, occ mar-gr grn, plty, md sft, rthy-sl wxy tex, bent ip, v sl calc ip, NFSOC
10080-10100 SHL, dk-md-lt gr, rd, mar, gr-grn, mrn shl sl calc, plty-sb rndd, rthy txt, com bent, NFSOC
10100-20 SHL, varicol, rd brn-rd-md-lt gr, mar, pnk, gr-grn, non-calc, plty, rthy-sl wxy txt ip, NFSOC
10120-40 SHL, lt gr-orng-rd brn-pnk, flky-plty, sl sft-sft, pred non calc, rthy, bent ip, NFSOC
10140-60 SHL, pred brk rd, plty-flky, md sft, rthy, bcm v calc, NFSOC
10160-75 SHL varicol, mar-rd brn-lt gr-pnk-occ dk gr, plty, md sft-sft, slty/grny tex ip, bent ip, pred non calc., NFSOC

BRUSHY BASIN 10176' (-2799)

10175-90 SS, wht-clr, speck dk gr ip, fn grn, sb rnd, md wl srt, pred qtz w scat lith grns, sl calc cem, NFSOC
10190-10200 SS aa, wht-clr, fn-occ md grn, sb rnd, md wl srt, pred qtz w scat lith grns, sl calc cem, NFSOC
10200-20 SS aa, clr-wht, pred fn grn, sb rnd, md wl srt, bcm cly fill/argil w depth + SHL, varicol, rd brn-lt gr, mott wht/rd, sl sft-sft, plty, rthy tex ip to sl bent ip, sl calc ip, NFSOC
10220-40 SHL, varicol, rd brn-lt gr, mott wht/rd, sl sft-sft, plty, rthy tex ip to sl bent ip, sl calc ip, com lse crs grn QTZ xlts, poss LCM contam?, NFSOC
10240-60 SHL, lt-med gr, rd, brn, gr-grn, plty, sft-sl sft, sl bent ip, mod calc, occ clr/grn QTZ xtls, NFSOC
10260-80 SHL, rd brn-mar, gr-grn, lt-med gr, plty, sft-sl sft, sl calc, SS ip, wht-clr, gr, wht-clr sl calc cem, gr slt cem NFSOC
10280-10300 SHL, pred lt gr-grn, decr rd brn-mar, plty, sft-sl sft, mod cal, NFSOC

CONFIDENTIAL

ROYALE OPERATING

MOON CANYON
2

API Well No.:

1/4/2005
GRAND

9 5/8 SURFACE CASING

Customer Representative:
RUSS BURDICK
Halliburton Operator:
COREY REYNOLDS 828-4507
Ticket No.:
3476429

HALLIBURTON

CEMENT JOB SUMMARY SHEET

Job Type 9 5/8 SURFACE CASING

	Size	Weight	Grade	Measured Depth
Casing	9 5/8	36		1,095
Drill Pipe				
Tubing				
Hole Size	12 1/4			1,100
Mud Weight				

CEMENT DATA

Spacer 50 BBLS Bbls H20

Cement 1 TYPE V — 160 Sacks
Additives 2%CALSEAL,2%ECONOLITE,5.64#SALT,.3%VERSASET,.125#POLYFLAKE,.25#D-AIR 3000

Weight (lb/gal) 12.30 Yield (cuft/sk) 2.37 Water (gal/sk) 13.76

Cement 2 TYPE V — 250 Sacks
Additives 2%GEL,3%SALT(BWOW),.125#POLYFLAKE

Weight (lb/gal) 14.80 Yield (cuft/sk) 1.37 Water (gal/sk) 6.46

Cement 3 TYPE V — 80 Sacks
Additives NEAT WITH 2 % CALCIUM CHLORIDE ON THE SIDE

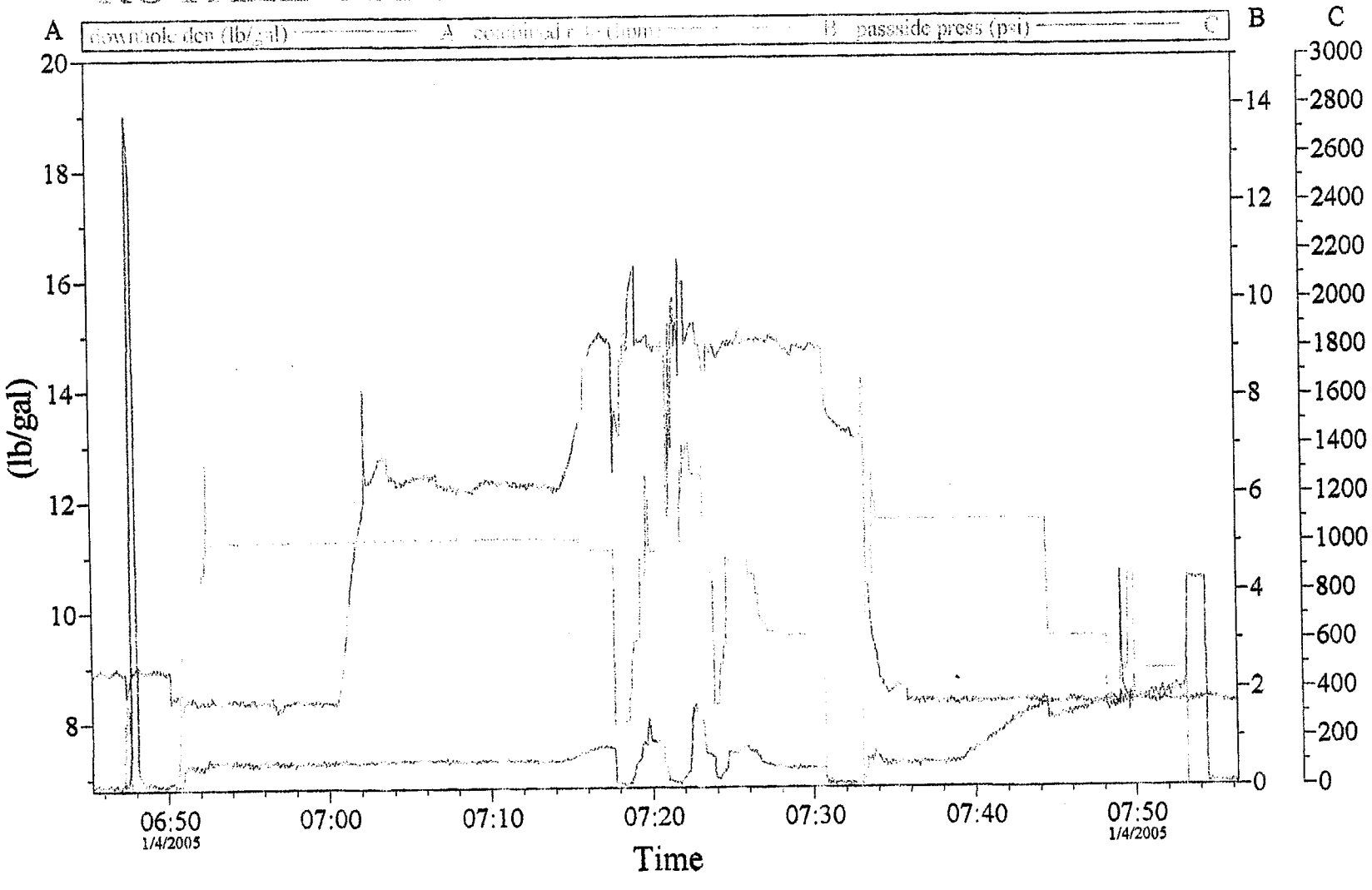
Weight (lb/gal) 15.60 Yield (cuft/sk) 1.18 Water (gal/sk) 5.20

Displacement H20 (lb/gal)

CEMENTING EQUIPMENT

Provider	HES				
Guide Shoe		ea.	Centralizers		ea.
Float Shoe		ea.	Plug Type	9 5/8 HWE	1 ea.
Float Collar		ea.	Packer		ft.
DV Tool		ft.	Retainer		ft.

ROYALE OPERATING 9 5/8 SURFACE CASING



Customer: ROYALE OPER.	Job Date: 04-JANUARY-2005	Ticket #: 3479429
Well Description: 9 5/8 SURFACE	UWI:	

HALLIBURTON
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04-Jan-05 08:04

HALLIBURTON JOB SUMMARY

SALES ORDER NO.	3476429	TICKET DATE	4-Jan-05
REGION	NORTH AMERICA	BDA / STATE	CO
COUNTY	GRAND
NWA / COUNTRY	ROCKY MOUNTAIN
MBU ID / EMPL #	212159
H.E.S EMPLOYEE NAME	COREY REYNOLDS 828-4507
PSL DEPARTMENT	ZONAL ISOLATION
LOCATION	VERNAL,UT
COMPANY:	ROYALE OPERATING
CUSTOMER REP / PHONE	RUSS BURDICK
TICKET AMOUNT	$18,521.95
WELL TYPE	02 GAS
APINUMBER #	
WELL LOCATION	MOON CANYON
DEPARTMENT	ZONAL ISOLATION 10003
SAP BOMB NUMBER	7528
9 5/8 SURFACE CASING	
LEASE NAME	MOON CANYON
Well No.	2
SEC / TWP / RNG	SEC 9/TWP 16 S/RNG 21 E.

H.E.S. EMP NAME / EMP # / (EXPOSURE HOURS)	HRS		HRS		HRS		HRS
COREY REYNOLDS 212159	6.5	Rick Broderick 322698	6.5				
Tim Geier 317026	6.5						
Ashly Poglajen 248826	6.5						
Brett Campbell 313047	6.5						

H.E.S. UNIT #'S / (R / T MILES)	R / T MILES	R / T MILES	R / T MILES	R / T MILES
10286389	240			
10264848-10574660	240			
10421116-10025021	240			
10026536-10025117	240			

Form. Name _____ Type: _____
Form. Thickness _____ From _____ To _____
Packer Type _____ Set At _____
Bottom Hole Temp. _____ Pressure _____
Retainer Depth _____ Total Depth _____

	Called Out	On Location	Job Started	Job Completed
Date	1/3/05	1/4/05	1/4/05	1/4/05
Time	1400	0430	0630	1100

Tools and Accessories

Type and Size		Qty	Make
Float Collar			HES
Float Shoe			HES
Centralizers			HES
Top Plug	9 5/8 HWE	1	HES
Limit Clamp			HES
BASKET			HES
Insert Float			HES
Guide Shoe			HES
Weld-A			HES

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing	N	36.0	9 5/8			1,095	
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole			12 1/4			1,100	Shots/Ft.
Perforations							
Perforations							
DV Tool							

Materials

Mud Type		Density		Lb/Gal
Disp. Fluid	H20	Density	8.33	Lb/Gal
Prop. Type		Size	Lb	
Prop. Type		Size	Lb	
Acid Type		Gal.	%	
Acid Type		Gal.	%	
Surfactant		Gal.	In	
NE Agent		Gal.	In	
Fluid Loss		Gal/Lb	In	
Gelling Agent		Gal/Lb	In	
Fric. Red.		Gal/Lb	In	
Breaker		Gal/Lb	In	
Blocking Agent			Gal/Lb	
Perfpac Balls			Qty.	
Other				
Other				
Other				
Other				
Other				

Hours On Location

Date	Hours
1/4/05	6.50
Total	6.50

Operating Hours

Date	Hours
1/4/05	2.00
Total	2.00

Description of Job

SEE JOB LOG

SET 9 5/8 SURFACE CASING
AS PER COMPANY MAN

Hydraulic Horsepower
Ordered _____ Avail. _____ Used _____

Average Rates in BPM
Treating 6 Disp. 6 Overall 6

Cement Left in Pipe
Feet 47.00 Reason CUSTOMER REQUEST

Cement Data

Stage	Sacks	Cement	Bulk/Sks	Additives	W/Rq.	Yield	Lbs/Gal
LEAD	160	TYPE V	BULK	SEAL,2%ECONOLITE,5.64#SALT,.3%VERSASET,.125#POLYFLAKE,.25#D-A	13.76	2.37	12.3
TAIL	250	TYPE V	BULK	2%GEL,3%SALT(BWOW),.125#POLYFLAKE	6.46	1.37	14.8
topout	80	TYPE V	BULK	NEAT WITH 2 % CALCIUM CHLORIDE ON THE SIDE	5.20	1.18	15.6

Summary

Circulating		Displacement		Preflush:	Gal - BBl	50 BBLS	Type: H20
Breakdown		Maximum		Load & Bkdn:	Gal - BBl		Pad:Bbl -Gal
Lost Returns-YES		Lost Returns-NO	NO	Excess /Return	Gal BBl	BBL	Calc.Disp Bbl 81 BBLS
Cmt Rtrn#Bbl		Actual TOC	SURFACE	Calc. TOC:		SURFACE	Actual Disp. 81 BBLS
Average		Frac. Gradient		Treatment:	Gal - BBl	50 BBLS	Disp:Bbl-Gal BBL
Shut In: Instant		5 Min.	15 Min.	Cement Slurry:	Gal - BBl	129 BBLS	
				Total Volume	Gal - BBl	260 BBLS	

Frac Ring #1 | Frac Ring # 2 | Frac Ring # 3 | Frac Ring # 4

THE INFORMATION STATED HEREIN IS CORRECT
CUSTOMER REPRESENTATIVE _____ SIGNATURE

HALLIBURTON JOB LOG

TICKET # 3476429	TICKET DATE 1/4/2005		
REGION NORTH AMERICA LAND	NWA / COUNTRY ROCKY MOUNTAIN	BDA / STATE CO	COUNTY GRAND
MBU ID / EMPL # #	H.E.S EMPLOYEE NAME COREY REYNOLDS 828-4507	PSL DEPARTMENT ZONAL ISOLATION	
LOCATION VERNAL,UT	COMPANY ROYALE OPERATING	CUSTOMER REP / PHONE RUSS BURDICK	
TICKET AMOUNT $18,521.95	WELL TYPE 02 GAS	API/UWI #	
WELL LOCATION MOON CANYON	DEPARTMENT ZONAL ISOLATION 10003	JOB PURPOSE CODE 7528	Description 9 5/8 SURFACE CASING
LEASE / WELL # MOON CANYON	Well No. 2	SEC / TWP / RNG SEC 9/TWP 16 S./RNG 21 E.	

Chart No.	Time	Rate (BPM)	Volume (BBL)(GAL)	Pmps T	Pmps C	Press.(PSI) Tbg	Press.(PSI) Csg	Job Description / Remarks
	1400							CALLED OUT 01/03/05
	1500							PRE-TRIP SAFETY MEETING
	1500							LEAVE YARD
	0430							ARRIVE LOCATION
	0500							LOCATION ASSESSMENT & SAFETY MEETING
	0500							SPOT EQUIPMENT RIG UP IRON
								CASING ON BOTTOM, RIG CIRCULATING
	0630							START JOB
	0647	1.0					2500	PRESSURE TEST LINES TO 2000 PSI
	0651	4.0					70	START 50 BBLS H20 SPACER
	0702	5.0	50				100	END H20, START 160SX, 68 BBLS LEAD @ 12.3#
	0715	5.0	70				120	END LEAD, START 250SX, 61 BBLS TAIL @ 14.8#
	0731		61					END TAIL, SHUT DOWN, DROP PLUG
	0733	5.5					90	START 81 BBLS DISPLACEMENT
	0744	3.5	58				290	CEMENT RETURNS TO SURFACE, SLOW RATE
	0754	1.5	81				800	LAND PLUG, SHUT DOWN
	0800							RELEASE PRESSURE TO CHECK INSERT FLOAT
								FLOAT HELD
								31 SX, 13 BBLS CEMENT RETURNS TO SURFACE
								PUMPED 80SX, 17 BBLS TOP OUT CEMENT @ 15.6#
								CEMENT GOOD TO SURFACE AS PER COMPANY MAN
								RIG WAITED ON HES TRUCKS FOR 11 HRS DUE TO
								SNOW AND ICE PACKED ROADS. HAD TO BE PULLED
								TO LOCATION BY ROAD MAINTAINER
	1000							SAFETY MEETING AND RACK UP
	1100							END JOB
	1100							RELEASED BY COMPANY MAN
								THANK YOU, COREY, TIM, AND CREW

CONFIDENTIAL

ROYALE OPERATING

MOON CANYON
#2

API Well No.:
N/A

1/26/2005
GRAND

7" INTERMEDIATE

Customer Representative:
LARRY TAVEGIA
Halliburton Operator:
BILLY SEYMOUR
Ticket No.:
3514905

HALLIBURTON

HALLIBURTON JOB SUMMARY

SALES ORDER	3514905	TICKET DATE	1/26/05
REGION	NORTH AMERICA	NWA / COUNTRY	ROCKY MOUNTAIN
BDA / STATE	COLORADO	COUNTY	GRAND
EMPLOYEE #	181774	H.E.S EMPLOYEE NAME	BILLY SEYMOUR
PSL DEPARTMENT	CEMENTING SERVICES		
LOCATION	GRAND JUNCTION, CO	COMPANY:	ROYALE OPERATING
CUSTOMER REP / PHONE	LARRY TAVEGIA		
TICKET AMOUNT		WELL TYPE	02 GAS
API/UWI #	N/A		
WELL LOCATION	CISCO 84515	DEPARTMENT	ZONAL ISOLATION 10003
SAP BOMB NUMBER	7522	Description	7" INTERMEDIATE
LEASE NAME	MOON CANYON	Well No.	#2
SEC / TWP / RNG	SEC 9 T 16S R 21E		

H.E.S. EMP NAME / EMP # / (EXPOSURE HOURS)	HRS		HRS		HRS		HRS
Bill Seymour 181774	6.0	SCOTT DIAL 313445	6.0				
Ed Mason 300947	6.0		6.0				
Derich Simmons 295282	6.0						
Anthony Andrews 321604	6.0						

H.E.S. UNIT #S / (R / T MILES)		R / T MILES		R / T MILES		R / T MILES
10195621		220	220			
10219244		220	220			
10026681	10025029	220				
10025614		220				

Form. Name _____ Type: _____
Form. Thickness _____ From _____ To _____
Packer Type _____ Set At _____
Bottom Hole Temp. _____ Pressure _____
Retainer Depth _____ Total Depth _____

	Called Out	On Location	Job Started	Job Completed
Date	1/26/05	1/26/05	1/26/05	1/26/05
Time	0100	1215	1455	1625

Tools and Accessories

Type and Size		Qty	Make
Float Collar	7"		HES
Float Shoe	7"		HES
Centralizers	7"		HES
Top Plug	7"	1	HES
Limit Clamp	7"		HES
DV Tool	7"		HES
Insert Float	7"		HES
Guide Shoe	7"		HES
Weld-A			HES

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing	NEW	26.0	7"		0	6184.61`	
Liner							
Liner							
Tubing							
Drill Pipe							
Open Hole					0	6,205	Shots/Ft.
Perforations							
Perforations							
DV Tool							

Materials

Mud Type WBM Density Lb/Gal
Disp. Fluid MUD Density 8.88 Lb/Gal
Prop. Type _____ Size _____ Lb _____
Prop. Type _____ Size _____ Lb _____
Acid Type _____ Gal. _____ % _____
Acid Type _____ Gal. _____ % _____
Surfactant _____ Gal. _____ In _____
NE Agent _____ Gal. _____ In _____
Fluid Loss _____ Gal/Lb _____ In _____
Gelling Agent _____ Gal/Lb _____ In _____
Fric. Red. _____ Gal/Lb _____ In _____
Breaker _____ Gal/Lb _____ In _____
Blocking Agent _____ Gal/Lb _____
Perfpac Balls _____ Qty. _____
Other _____
Other _____
Other _____
Other _____
Other _____

Hours On Location

Date	Hours
1/26/05	6.00
Total	6.00

Operating Hours

Date	Hours
1/26/05	2.50
Total	2.50

Description of Job
SEE JOB LOG

Hydraulic Horsepower
Ordered: N/A Available: N/A Used: N/A

Average Rates in BPM
Treating: N/A Displacing: N/A Overall: N/A

Cement Left in Pipe
Feet: 45.48 Reason: CUSTOMER REQUEST

Cement Data

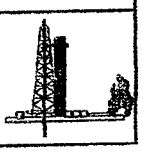
Stage	Sacks	Cement	Bulk/Sks	Additives	W/Rq.	Yield	Lbs/Gal
	150	Mountain G		3% Econolite, 10#/sk Gilsonite, 0.125#/sk Polyflake	16.75	2.89	11.4
	145	MG 50/50 POZ		2% Gel, 0.125#/sk Polyflake	5.39	1.21	14.2

Summary

Circulating _____ Displacement 234 Total Preflush BBL: 10 Type: WATER
Breakdown _____ Maximum _____ Load & Bkdn Gal - BBl _____ Pad:Bbl -Gal _____
Lost Returns-YES _____ Lost Returns-NO XXXXX Excess /ReturnGal BBl _____ BBL Calc.Disp. 234.0
Cmt Rtrn#Bbl _____ Actual TOC _____ Calc. TOC: 2,195 Actual Disp. 80+154
Average _____ Frac. Gradier _____ Cement Slurry: 108 Disp:Bbl BBL
Shut In: Instant _____ 5 Min. _____ 15 Min _____ Cement Mix H20: 78 BBLS
Total H2O Volume 322 BBLS

Frac Ring #1	Frac Ring # 2	Frac Ring # 3	Frac Ring # 4

THE INFORMATION STATED HEREIN IS CORRECT
CUSTOMER REPRESENTATIVE _____ SIGNATURE

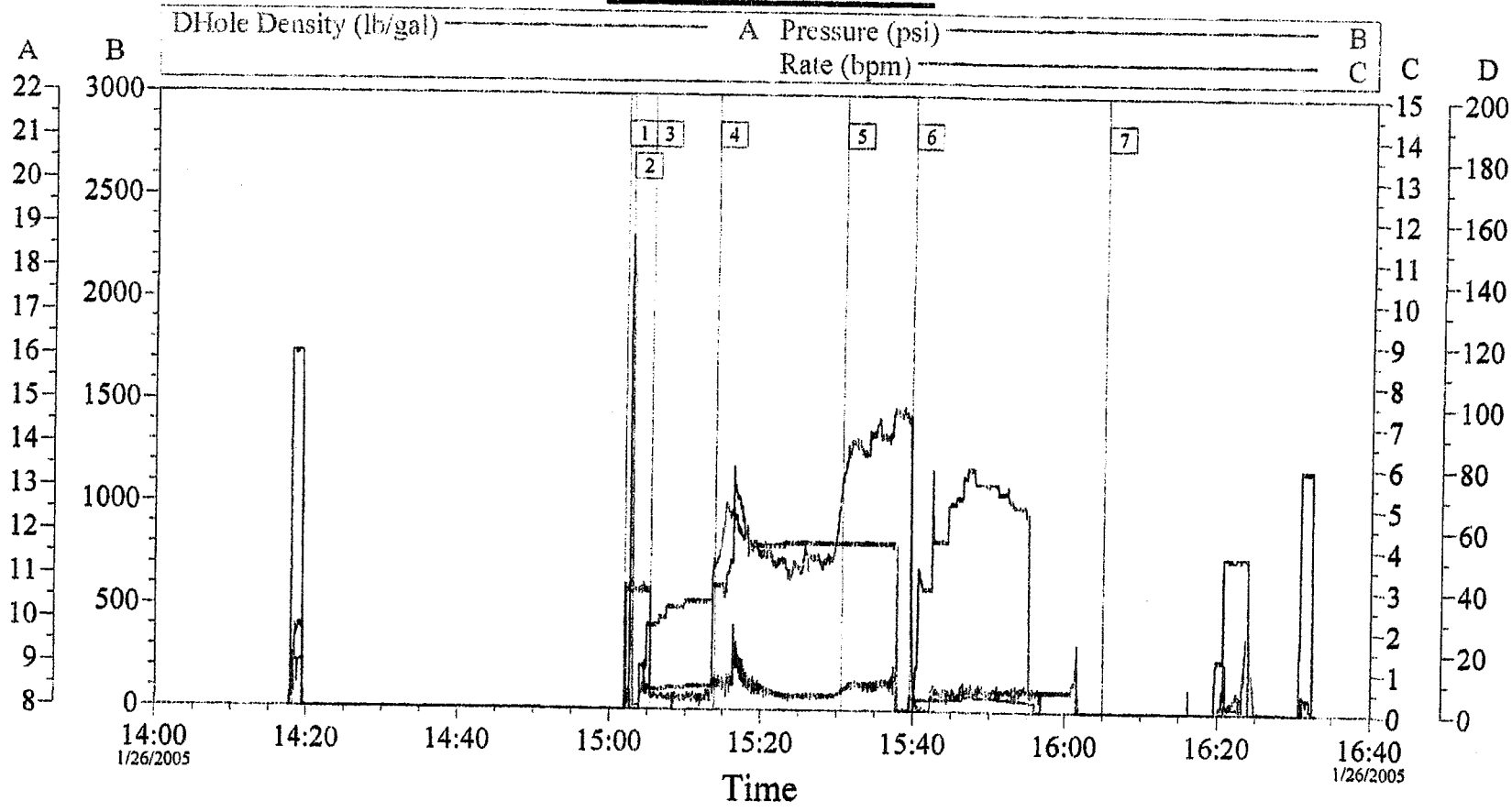


HALLIBURTON JOB LOG

TICKET # 3514905	TICKET DATE 1/26/2005		
REGION NORTH AMERICA LAND	NWA / COUNTRY ROCKY MOUNTAIN	BDA / STATE COLORADO	COUNTY GRAND
MBU ID / EMPL # 181774	H.E.S EMPLOYEE NAME BILLY SEYMOUR	PSL DEPARTMENT CEMENTING SERVICES	
LOCATION GRAND JUNCTION, CO	COMPANY ROYALE OPERATING	CUSTOMER REP / PHONE LARRY TAVEGIA	
TICKET AMOUNT	WELL TYPE 02 GAS	API/UWI # N/A	
WELL LOCATION CISCO 84515	DEPARTMENT ZONAL ISOLATION 10003	JOB PURPOSE CODE 7522	Description 7" INTERMEDIATE
LEASE NAME MOON CANYON / Well No. #2	SEC / TWP / RNG SEC 9 T 16S R 21E		

Chart No.	Time	Rate (BPM)	Volume (BBL)(GAL)	Pmps T	Pmps C	Press.(PSI) Tbg	Press.(PSI) Csg	Job Description / Remarks
	0200							CONDUCT IN YARD SAFETY MEETING LEAVE YARD
	1215							ARRIVE ON LOCATION 01/26/05
	1225							CONDUCT LOCATION ASSESSMENT SAFETY MEETING
	1235							SPOT EQP. AND RIG UP
	1430							CONDUCT PREJOB SAFETY MEETING
	1440							RIG UP CEMENT HEAD TO CIRCULATE
	1455			1			2500	TEST LINES
	1500	2.5	10.0	1			100	PUMP SPACER OF FRESH H2O
	1508	4.0	77.0	1			130	PUMP 150 SACKS MOUNTIAN-G 3% ECONOLITE, 10#GILSONITE,
								.125#/SK POLYFLAKE
	1526	4.0	31.0	1			130	PUMP 145 SKS MOUNTIAN-G 50/50 POZ 2% GEL .125#/SK POLYFLAKE
	1534							DROP PLUG
	1536	5.5	80.0	1			60	PUMP DISLACEMENT OF MUD
								SHUT DOWN, INSPECT LEEKING MUD SUPLY LINE
								DISPLACE WITH RIG PUMP 154 BBLS
	1625							LAND PLUG TO 900PSI WITH RIG PUMP
								RELEASE PRESSURE, FLOATS HOLDING
	1640							POST JOB SAFETY MEETING
	1650							RIG DOWN
	1755							PRETRIP SAFETY MEETING
	1800							LEAVE LOCATION
								THANK YOU FROM BILLY SEYMOUR, ED MASON & CREW

7" Intermediate



Event Log

1	Start Job	15:01:52	2	Test Lines	15:02:38	3	Pump Spacer 1	15:05:16
4	Pump Lead Cement	15:13:52	5	Pump Tail Cement	15:30:31	6	Pump Displacement	15:39:32
7	End Job	16:04:56						

Customer:	*Royal Operating*	*Job Date:*	*1/26/05*	*Ticket #:*	*3514905*
Service Supervisor:	*Billy Seymour*	*A.D.C. (yes/no):*	*No*	*Real Time (yes/no):*	*Yes*
Co. Man	*Larry Tavegia*	*Lease*	*Moon Canyon*	*Well#*	*2*

HALLIBURTON
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26-Jan-05 16:35

CONFIDENTIAL

ROYALE OPERATING

MOON CANYON
#2

API Well No.:

2/13/2005
GRAND

4 1/2" LONG STRING

Customer Representative:
LARRY TAVEGIA 254-378-0442
Halliburton Operator:
Billy Seymour
Ticket No.:
3544320

HALLIBURTON

HALLIBURTON JOB SUMMARY

SALES ORDER	3544326	TICKET DATE	2/13/05
REGION	NORTH AMERICA	NWA / COUNTRY	ROCKY MOUNTAIN
BDA / STATE	COLORADO	COUNTY	GRAND
EMPLOYEE #	81774	H.E.S EMPLOYEE NAME	Billy Seymour
PSL DEPARTMENT	CEMENTING SERVICES		
LOCATION	GRAND JUNCTION, CO	COMPANY:	ROYALE OPERATING
CUSTOMER REP / PHONE	LARRY TAVEGIA 254-378-0442		
TICKET AMOUNT		WELL TYPE	02 GAS
API/UWI #			
BILL LOCATION	CISCO 84515	DEPARTMENT	ZONAL ISOLATION 10003
SAP BOMB NUMBER	7523	Description	4 1/2" LONG STRING
LEASE NAME	MOON CANYON	Well No.	#2
SEC / TWP / RNG	SEC 9 T 16S R 21E		

H.E.S. EMP NAME / EMP # / (EXPOSURE HOURS)	HRS		HRS		HRS		HRS
Bill Seymour 181774	12.5	Bill Jamison 229155	12.5				
Ed Mason 300947	12.5	Anthony Andrews 321604	12.5				
Nick Ripa 271144	12.5	Scott Dial 313445					
Jeremy Schrock 314189	12.5	Guy Manspeaker					

H.E.S. UNIT #S / (R / T MILES)	R / T MILES			R / T MILES	R / T MILES	R / T MILES
10195621	220	10026594	10025118	220		
10547379	220	10026530	10025041	220		
10219244	220					
10137042	220					

Form. Name _____ Type: _____
Form. Thickness _____ From _____ To _____
Packer Type _____ Set At _____
Bottom Hole Temp. _____ Pressure _____
Retainer Depth _____ Total Depth _____

	Called Out	On Location	Job Started	Job Completed
Date	2/12/05	2/13/05	2/13/05	2/14/05
Time	1500	1530	1700	0200

Tools and Accessories

Type and Size		Qty	Make
Float Collar	4 1/2"	1	HES
Float Shoe	4 1/2"	1	HES
Centralizers	4 1/2"	46	HES
Top Plug	4 1/2"		HES
Limit Clamp	4 1/2"	2	HES
DV Tool	4 1/2"	1	HES
Insert Float	4 1/2"		HES
Guide Shoe	4 1/2"		HES
Weld-A		2	HES

Well Data

	New/Used	Weight	Size	Grade	From	To	Max. Allow
Casing	NEW	11.6 P-110	4 1/2"	P110	0	10,295	7,560
Liner							
Liner							
Tubing							
Casing	USED		7		0	6,184	
Open Hole					6184	10,300	Shots/Ft.
Perforations							
Perforations							
DV Tool							

Materials

Mud Type	WBM	Density		Lb/Gal
Disp. Fluid	H20	Density	8.33	Lb/Gal
Prop. Type		Size		Lb
Prop. Type		Size		Lb
Acid Type		Gal.		%
Acid Type		Gal.		%
Surfactant		Gal.		In
NE Agent		Gal.		In
Fluid Loss		Gal/Lb		In
Gelling Agent		Gal/Lb		In
Fric. Red.		Gal/Lb		In
Breaker		Gal/Lb		In
Blocking Agent		Gal/Lb		
Perfpac Balls		Qty.		
Other				
Other				
Other				
Other				
Other				

Hours On Location

Date	Hours
2/13/05	8.50
2/14/05	4.00
Total	12.50

Operating Hours

Date	Hours
2/13/05	2.00
2/14/05	1.00
Total	3.00

Description of Job
SEE JOB LOG

Hydraulic Horsepower
Ordered: N/A Available: N/A Used: N/A

Average Rates in BPM
Treating: N/A Displacing: N/A Overall: N/A

Cement Left in Pipe
Feet: 44 Reason: SHOE JOINT

Cement Data

Stage	Sacks	Cement	Bulk/Sks	Additives	W/Rq.	Yield	Lbs/Gal
STAG	215	MG 50/50 POZ		2% Gel, 0.6% Halad-23, 0.3% Halad-322, 0.3% Versaset, 0.2% Super CBL, 0.1% HR-5	5.42	1.23	14.2
STAG	430	MG 50/50 POZ		2% Gel, 0.6% Halad-23, 0.3% Halad-322, 0.3% Versaset, 0.2% Super CBL, 0.1% HR-5	5.42	1.23	14.2

Summary

Circulating		Displacement		Total Preflush BBL: 60	Type: WATER/SUPERFLUSH
Breakdown		Maximum		Load & Bkdn Gal - BBl	Pad:Bbl -Gal
Lost Returns-YES		Lost Returns-NO	XXXXX	Excess /ReturnGal BBl	Calc.Disp. 159/137
Cmt Rtrn#Bbl	none	Actual TOC		Calc. TOC: 3,242 BBL	Actual Disp. 159/137
Average		Frac. Gradier		Cement Slurry: 141	Disp:Bbl BBL
Shut In: Instant		5 Min.	15 Min	Cement Mix H20: 83 BBLS	
				Total H2O Volume #VALUE! BBLS	

Frac Ring #1 | Frac Ring # 2 | Frac Ring # 3 | Frac Ring # 4

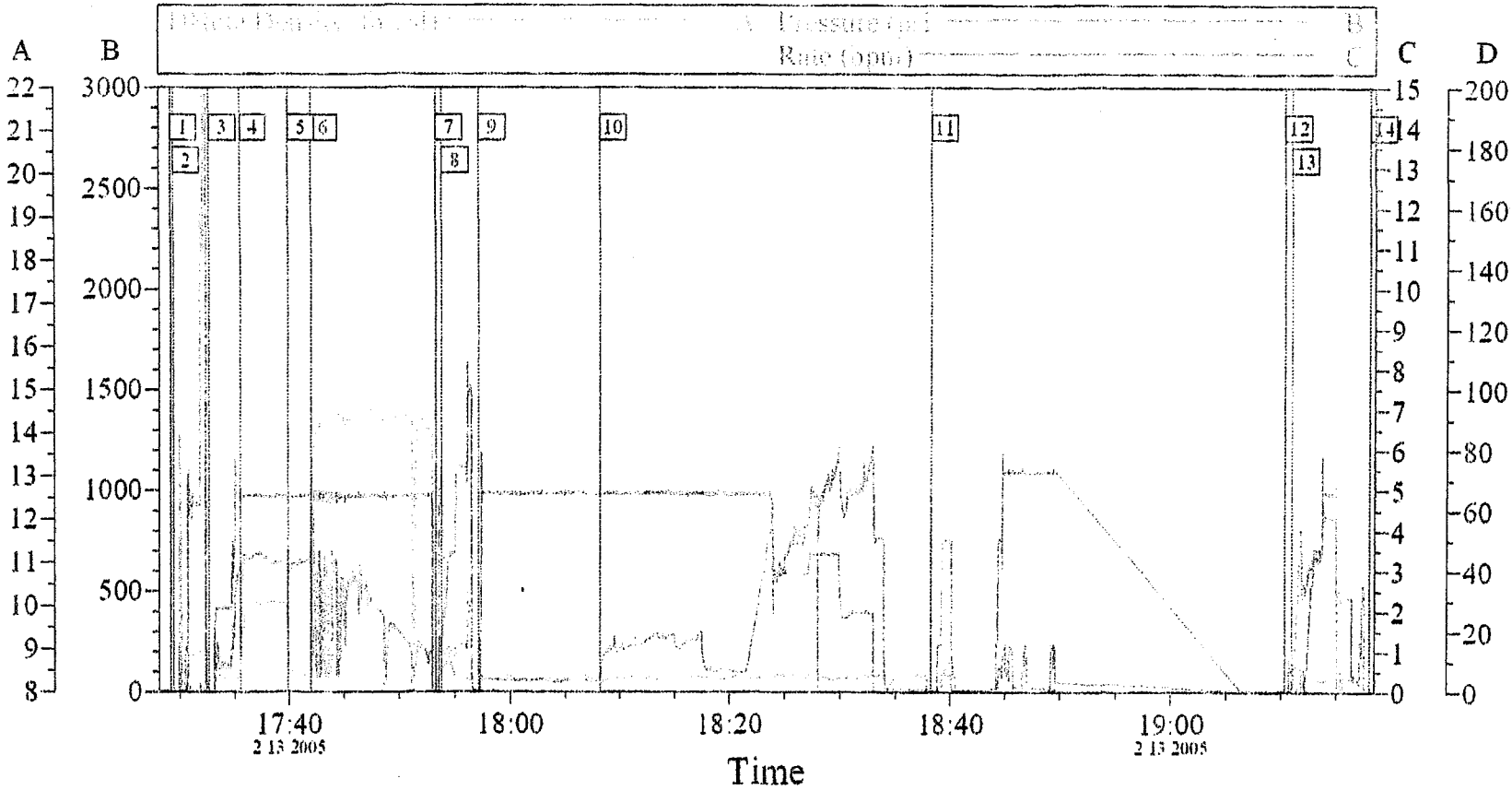
THE INFORMATION STATED HEREIN IS CORRECT

CUSTOMER REPRESENTATIVE _____ SIGNATURE

HALLIBURTON JOB LOG

TICKET # 3544320	TICKET DATE 2/13/2005		
REGION NORTH AMERICA LAND	NWA / COUNTRY ROCKY MOUNTAIN	BDA / STATE COLORADO	COUNTY GRAND
MBU ID / EMPL # 181774	H.E.S. EMPLOYEE NAME Billy Seymour	PSL DEPARTMENT CEMENTING SERVICES	
LOCATION GRAND JUNCTION, CO	COMPANY ROYALE OPERATING	CUSTOMER REP / PHONE LARRY TAVEGIA 254-378-0442	
TICKET AMOUNT	WELL TYPE 02 GAS	API/UWI #	
WELL LOCATION CISCO 84515	DEPARTMENT ZONAL ISOLATION 10003	JOB PURPOSE CODE 7523	Description 4 1/2" LONG STRING
LEASE NAME MOON CANYON	Well No. #2	SEC / TWP / RNG SEC 9 T 16S R 21E	

Chart No.	Time	Rate (BPM)	Volume (BBL)(GAL)	Pmps T	Pmps C	Press.(PSI) Tbg	Press.(PSI) Csg	Job Description / Remarks
2/12/2005	1630							CONDUCT IN YARD SAFETY MEETING LEAVE YARD
2/13/2005	1530							ARRIVE ON LOCATION 02/13/05
	1535							CONDUCT LOCATION ASSESSMENT SAFETY MEETING
	1545							SPOT EQP. AND RIG UP
	1645							RIG UP CEMENT HEAD TO CIRCULATE
	1720							CONDUCT PREJOB SAFETY MEETING
	1730				1		3000	TEST LINES
	1733	2.0	5.0		1		150	FRESH WATER SPACER
	1735	5.0	20.0		1		700	SUPERFLUSH 102
	1739	5.0	10.0		1		650	FRESH WATER SPACER
	1741	5.0	47.0		1		500	MIX AND PUMP 215 SKS MG 50/50 POZ 2% GEL, .6% HALAD 23, .3%
								HALAD 322, .3% VERSASET, .2% SUPER CBL, .1% HR-5 @ 14.2 PPG
	1753							SHUT DOWN DROP SHUTOFF PLUG
	1756	5.0	130.0		1		900	DISPLACE W/ KCl WATER
	1824	3.0	19.5		1		700	REDUCE PUMP RATE
	1829	2.0	10.0		1		1000	REDUCE PUMP RATE
	1833				1		1200	LAND SHUTOFF PLUG
	1834							RELEASE PRESSURE - FLOAT HOLDING
	1840							DROP OPENING PLUG
	1910	1.0	1.0		1		800	OPEN MSC
	1911	5.0	9.0		1		900	CIRCULATE WELL
	1913							SHUT DOWN CIRCULATE W/ RIG PUMP
2/14/2005	0056				1		4000	TEST LINES
	0059	4.0	5.0		1		300	FRESH WATER SPACER
	0100	4.0	10.0		1		350	SUPERFLUSH 102
	0103	5.0	10.0		1		450	FRESH WATER SPACER
	0106	5.0	94.0		1		450	MIX AND PUMP 430 SKS MG 50/50 POZ 2% GEL, .6% HALAD 23, .3%
								HALAD 322, .3% VERSASET, .2% SUPER CBL, .1% HR-5 @ 14.2 PPG
	0127							SHUT DOWN DROP CLOSING PLUG
	0131	5.0	127.0		1		2000	DISPLACE W/ KCl WATER
	0157	3.0	10.0		1		1850	REDUCE PUMP RATE
	0159				1		3400	LAND PLUG CLOSE MSC
	0200							RELEASE PRESSURE MSC HOLDING
								JOB COMPLETE
								THANK YOU LARRY!
								BILLY, ED, SCOTT, ANTHONY. BILL, JEREMY, NICK, AND GUY

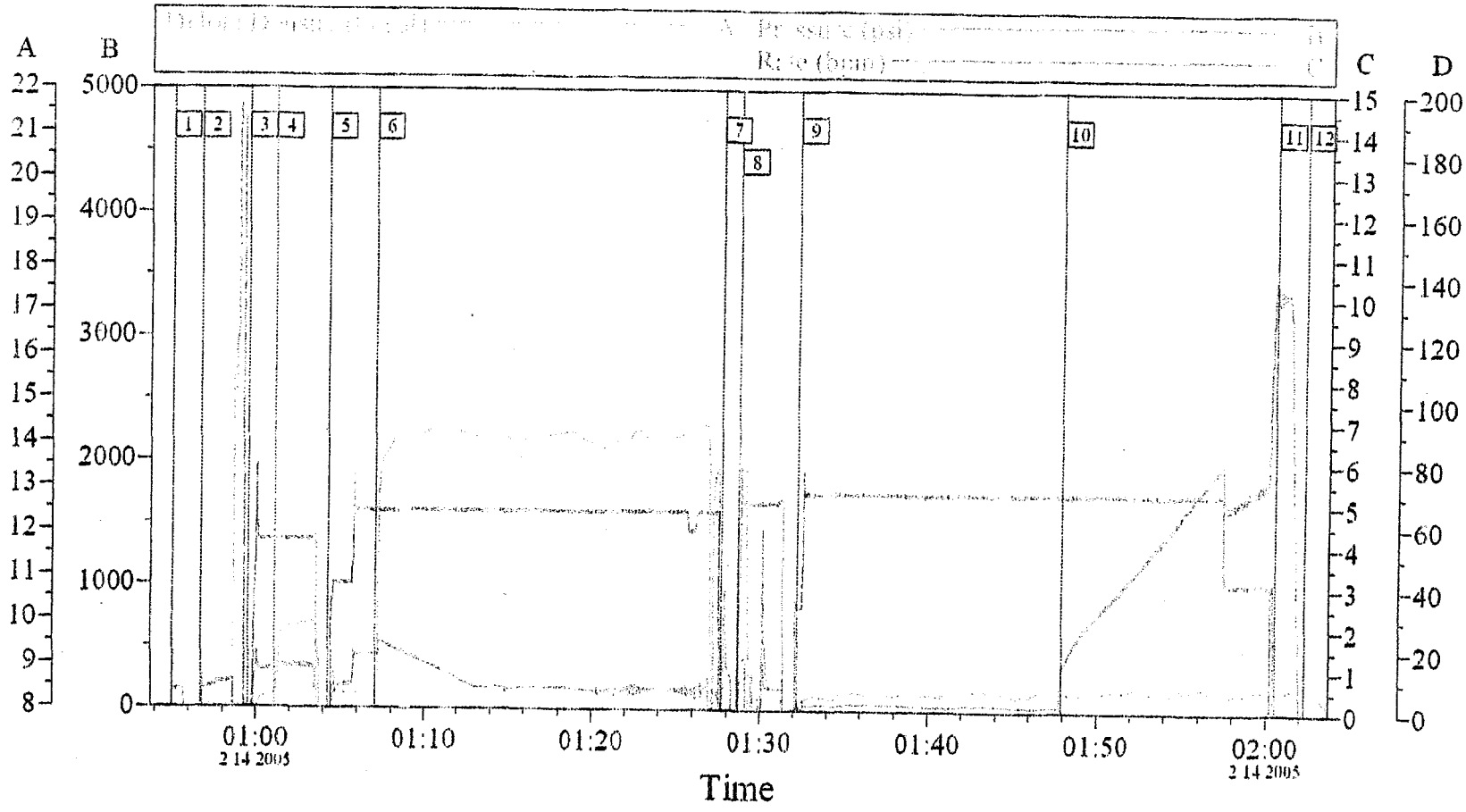


Event Log

1	Start Job	17:29:10	2	Test Lines	17:29:26	3	Pump Spacer 1	17:32:42
4	Pump Spacer 2	17:35:30	5	Pump Spacer 1	17:39:54	6	Pump Lead Cement	17:42:00
7	Drop Top Plug	17:53:15	8	Clean Lines	17:53:49	9	Pump Displacement	17:57:10
10	Displ Reached Cement	18:08:11	11	Clean Lines	18:38:10	12	Open MSC	19:10:18
13	Circulate Well	19:10:56	14	End Job	19:17:59			

Customer: *Service Supervisor: Billy Seymour* *Co. Mm*	*Job Date:* *A.D.C. (yes/no): No* *Lease*	*Ticket #:* *Real Time (yes/no): Yes* *Well#*

CemWin v1.3.0
13-Feb-05 19:35



Event Log

1	Start Job	00:55:01	2	Test Lines	00:56:42	3	Pump Spacer 1	00:59:31
4	Pump Spacer 2	01:01:05	5	Pump Spacer 1	01:04:16	6	Pump Cement	01:07:04
7	Clean Lines	01:27:41	8	Drop Top Plug	01:28:45	9	Pump Displacement	01:32:14
10	Displ Reached Cement	01:47:54	11	Close MSC	02:00:31	12	End Job	02:02:16

Customer: *Service Supervisor: Billy Seymour* *Co. Man*	*Job Date:* *A.D.C. (yes/no): No* *Lease*	*Ticket #:* *Real Time (yes/no): Yes* *Well#*

CemWin v1.3.0
14-Feb-05 02:11

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

FORM 5

DESIGNATION OF AGENT OR OPERATOR

The undersigned is, on record, the holder of oil and gas lease

RECEIVED
JUL 18 2008
DIV. OF OIL, GAS & MINING

LEASE NAME: Moon Canyon Unit

LEASE NUMBER: _____

and hereby designates

NAME: William "Bill" Ryan & Ginger Bowden

ADDRESS: 290 South 800 East

city Vernal state UT zip 84078

as his (check one) agent ☑ / operator ☐, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the Division Director or Authorized Agent may serve written or oral instructions in securing compliance with the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah with respect to:

(Describe acreage to which this designation is applicable. Identify each oil and gas well by API number and name. Attach additional pages as needed.)

API: 4301931398 Moon Canyon #1
API: 4301931405 Moon Canyon #2 Sec 9 T16S R23E
API: 4301931526 Tenmile Canyon #22-1
API: V Canyon 20-2

It is understood that this designation of agent/operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah. It is also understood that this designation of agent or operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated agent/operator, the lessee will make full and prompt compliance with all rules, lease terms or orders of the Board of Oil, Gas and Mining of the State of Utah or its authorized representative.

The lessee agrees to promptly notify the Division Director or Authorized Agent of any change in this designation.

Effective Date of Designation: July 8, 2008

BY: (Name) Stephen Hosmer

(Signature) _____

(Title) CFO/Executive Vice President

(Phone) (619) 881-2800

OF: (Company) Royale Energy, Inc

(Address) 7676 Hazard Center Dr, Suite 1500

city San Diego

state CA zip 92108

(5/2000)

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

5. Lease Serial No.
UTU-52471

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.
UTU-80642X

1. Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

8. Well Name and No.
Moon Canyon #2

2. Name of Operator
Royale Energy, INC

9. API Well No.
4301931405

3a. Address
7676 Hazard Center, Suite 1500
San Diego, CA 92108

3b. Phone No. *(include area code)*
619-881-2800

10. Field and Pool or Exploratory Area
Wildcat

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
1470 FSL & 432 FEL Sec. 9, T16S, R21E SLB&M NESE

11. Country or Parish, State
Grand, UT

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Reperforate current formation
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

The operator respectfully requests approval for the following perf intervals:

Zone 1

Perfs 9863'-9874', .38", 4 SPF
Formation Dakota "B"

COPY SENT TO OPERATOR
Date: 8·14·2008
Initials: KS

Accepted by the
Utah Division of
Oil, Gas and Mining
Date: 8/12/08
By: DSTaylor

Federal Approval Of This
Action Is Necessary

* If to be commingled with Morrison production, Application should be filed for such commingling in accordance with R649-3-22

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Ginger Bowden

Title Agent

Signature Ginger Bowden

Date 07/29/2008

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

RECEIVED
JUL 31 2008
DIV. OF OIL, GAS & MINING

FORM 9

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

5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-52471

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: Moon Canyon

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: Moon Canyon #2

2. NAME OF OPERATOR: Royale Energy, Inc.

9. API NUMBER: 019-31405

3. ADDRESS OF OPERATOR: 7676 Hazard Center Drive S CITY San Diego STATE CA ZIP 92108

PHONE NUMBER: (619) 881-2800

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 432' FEL, 1470'FSL

COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 9 16S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion: 8/26/2008	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: New Completion
	☐ CONVERT WELL TYPE	☒ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

See attached history report

NAME (PLEASE PRINT) Glenn Donaldson TITLE Chief Engineer

SIGNATURE [signature] DATE 26/9/08

(This space for State use only)

RECEIVED
OCT 02 2008
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

Moon Canyon 2 – Workover Summary

8/14/08
Moved rig in. Spotted pump rig tank & BOPs.

8/15/08
Pulled Tefteller gauges.Rigged up Stone Well Service.Blew well down to 25 psi in two hours, pumped 20 bbls down csg and 10 bbls down tbg. Tbg unloaded, let tbg blew 45 min, loaded tbg w/10 bbls and well remained dead. N/D well head N/U BOP rigged up floor & TOH tallying tbg. 322 jts, tbg nipple, 1 jt, nc.

8/16/08
SICP 100. R/U Cased Hole Solutions. RIH w/ gauge ring to 10,094'. POOH. RIH & set CIBP @ 10,070'. POOH, Installed WHI frac head. Load hole & test to 3,000 psi for 15 min. Pressure held. Release pressure. RIH w/3 1/8" csg gun. **Perforate 9,863-9,874', 4spf.** R/D Cased Hole Solutions. Watch well 1 hr no suck. Light blow after perforating. SDFN.

8/17/08
Well dead. P/U Arrowset pkr. RIH. Hole full. Set pkr 9808 w/15000 comp. Break down perfs 9863-74'. Broke @3500 psi. Inject 10 bbl KCL @ 1700 psi. 1.5 BPM. Start rigging up to swab.Lubricator full of hard black oil. Clean lubricator. Prep to swab. Ran out of gas. SDFN

8/18/08
RU swab tools, starting FL 1,800'. Swabbed to 5200 ft, recovered 19 bbls, well kicked off and flowed one hour very wet. RU to swab FL 4,700 ft, made 4 runs FL fell to SN 9,808'. Well kicked off flowed one hr 50 psi on 20/64 choke, 150 mcf, light mist. Total swab runs for the day 10, Total fluid recovered 33 bbls, load 38 bbls.

8/19/08
Opened well on 20/64 choke. Well flowed until 9:30, Recorded pressure every 30 min. Pressure dropped from 2100 to 750, 750 to 250, and 250 to 150. Pulled choke when pressure dropped. Pulled choke when pressure dropped to zero. Well unloaded heavy mist. R/U to swab and made two swab runs. Well started to flow for three hours, unable to see pressure on 3,000 psi estimate the pressure at 20/30 psi. Shut well in and started to record pressure build up. Rigged up flow back tank, flow line w/chokes, one line to tank & one to pit. Tanks full of water, san master spotted. Ready to frac, Trip time 3 hr. Western Pet. Delivered fuel.

8/20/08
Opened well on 20/64 choke. Well blew down to 925 in one hour. Well unloaded slight mist. Pressure decreased to 76,210 mcf/d. Well blew down to 70 psi. Estimate flow at 210 mcf/day. Well flowing stable at 70 psi, dry gas. Well remained stable at 70 psi all night.

8/21/08
Well flowed all night on 20/64 choke, at 70 psi, dry gas, 200 mcf. Loaded tbg, released packer. POOH. Rigged down tbg equipment. Rigged up to frac. Frac sand on location.

8/22/08
Superior well service moving on location. Rigging up pump equipment. Worked on computers, loaded hole w/25 bbls, pumped brake down test. Started pad pumped 7,000 gal of pad at 3,000 psi and 26 bpm. Crosslinker chemical pump would not work. Shut down and worked on comp. Pumped frac job, Pad started at 4,000 psi at 26 bpm, avg pressure 3700 psi, 4173 psi w/1# on perfs, 4260 psi w/2# on perfs, had to go to flush 7,000# sand short due to hydrolic failure on sand master. Pump pressure decreased as displacement fluid loaded the hole. Pressure decreased from 4300 psi to 3900 psi. ISIP 2915. Opened well on 14/64 choke in 5 min. Well flowed fluid at 1 bpm. For one hr. Open well up on 18/64 choke. Well still flowing at 8:00, should have bottoms up. Pressure dropped from 900 psi to zero. Ordered out foam unit, unit will be on loc at noon. Equipment on loc. Two pump truck, one, out of fuel and one w/no fuel tank, tank fell of on the way to the loc., lab van, out of tires, sand master, no hydrolics.

8/23/08
Well quit flowing. Ordered out foam unit, unit will be on loc at noon. Rigged down frac head and NU BOPs, TIH w/NC, One jt 2 3/8 tbg, SN. Unloaded approximately 200 bbls. Well did not start flowing. Shut well in.

8/24/08
SICP 1250 Flow. Died in 30 min. Start PU singles & air foam to CIBP @ 10,065'. Clean up mostly air, no sand. Pump 180 bbl w/air foam in 2 days. Recover 282 bbl. POOH to 9,838', killed well w/10 bbl 3% KCL. Pull float. R/U to flow tank on 20/64, SICP 1,050 psi. Open to tank. Unload kill H20 flowing @750 psi. Slugs of fluid. Trace sand. Choke to 18/64 750 psi. Drain to 17", from flow back tank. Well flowed all night stable at 800 psi tbg, 1,225 psi csg. Flowing about 7 bph water as fine mist no sand, fluid looks like frac fluid, Ordered out gas bottle to take gas sample.

8/25/08
CSG pressure decreasing and tbg increasing. Tbg 850 psi csg 1025 psi, well stopped misting and started to unload very little water. Well unloading light mist for 10-15 min then dry gas for an hour or more. Water production too small to measure. Well stable at 850 psi tbg, 1025 psi csg 1.5 mmcf/d to 2.0 mmcf/d dry gas. Well declined from 850 psi to 800 psi on tbg, csg 1000 psi.

8/26/08
Rigged down.

FORM 9

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

5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-52471

SUNDRY NOTICES AND REPORTS ON WELLS

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1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: Moon Canyon #2

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9. API NUMBER: 019-31405

3. ADDRESS OF OPERATOR: 7676 Hazard Center Drive S CITY San Diego STATE CA ZIP 92108

PHONE NUMBER: (619) 881-2800

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 432' FEL, 1470'FSL

COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 9 16S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
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Approximate date work will start: _____	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
_____	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: Application for a wildcat status
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

- Moon Canyon #2 well produced gas from the Jurassic/Brushy Basin formation at a depth of 10,158-10,194'. This is the first production from that formation in several miles in all directions.

- The closest two wells to this well are the NFC well MR 31-15 located in Grand County, API: 43-019-15671 Sec. 15 T16S R21E and the Beartooth well State 16-9 located in Grand County, API: 43-019-30669 Sec. 16 T16S R21E. Both wells produce from the Cretaceous/Buckhorn formation.

- A map is attached that shows the location of the Moon Canyon #2 well in relation to the other two wells.

- A stratigraphic cross section is also attached that shows how different the pay zone at Moon Canyon #2 is from those at the NCF MR 31-15 and the Beartooth Ice Canyon wells.

NAME (PLEASE PRINT) Mohamed Abdel-Rahman TITLE VP Exploration & Production

SIGNATURE Mohamed A Abdel-Rahman DATE 5/11/09

(This space for State use only)

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

DATE: 7/7/09

BY: [signature]

* See Statement of Basis (Attached)

CC: Tax Commission (emailed)

RECEIVED

MAY 13 2009

DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

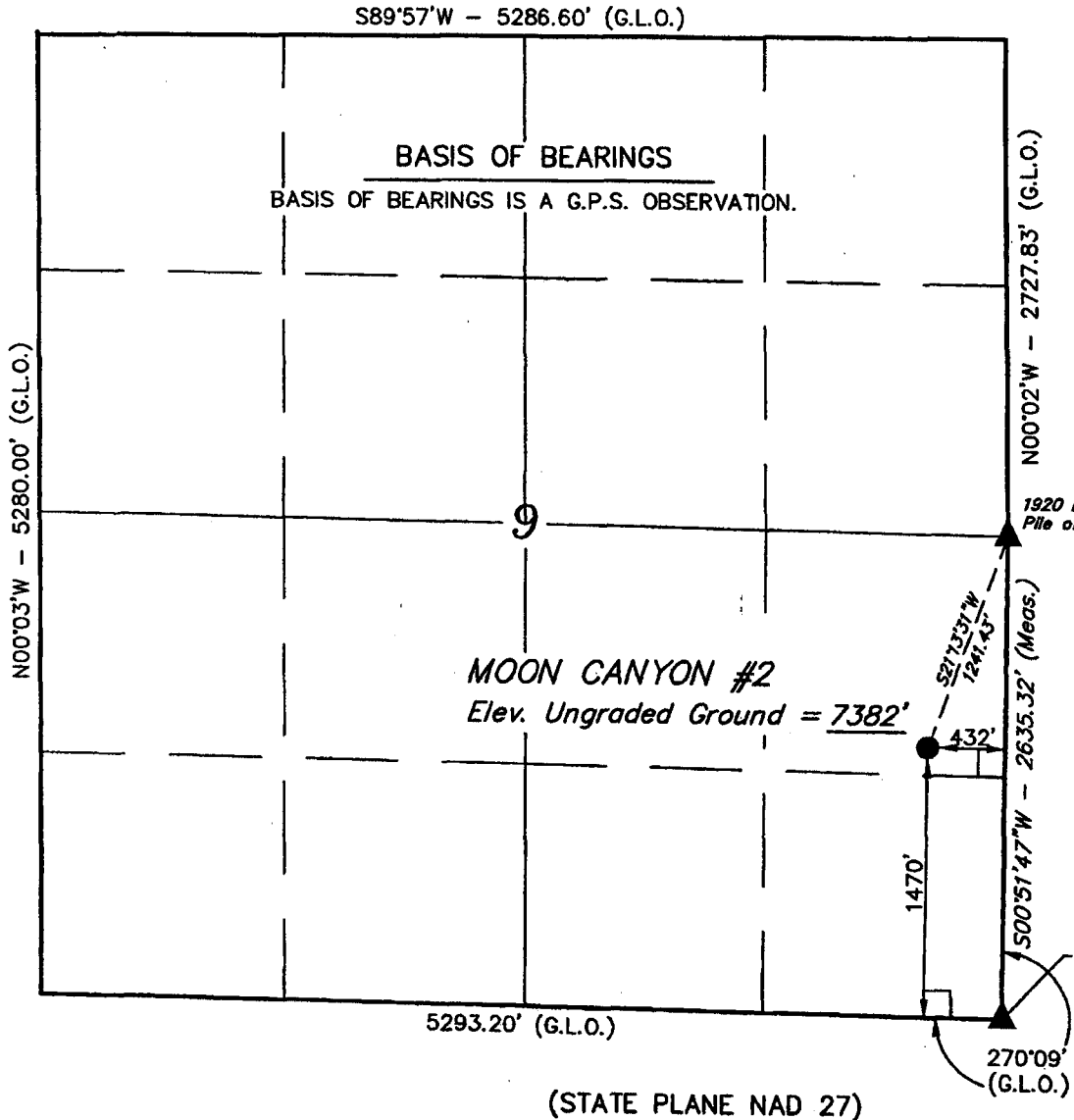
T16S, R21E, S.L.B.&M.

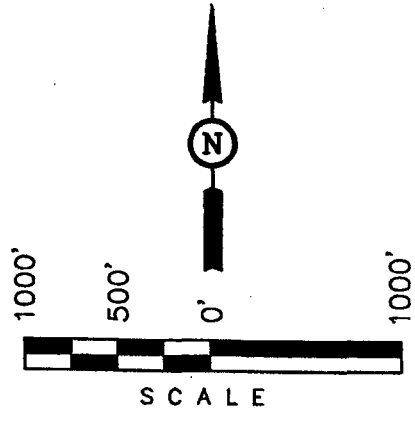
ROYALE ENERGY, INC.

Well Location, MOON CANYON #2, located as shown in the NE 1/4 SE 1/4 of Section 9, T16S, R21E, S.L.B.&M. Grand County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT AN OIL WELL LOCATED IN THE NE 1/4 OF SECTION 15, T16S, R21E, S.L.B.&M. TAKEN FROM THE TENMILE CANYON NORTH QUADRANGLE, UTAH, GRAND COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 7620 FEET.





CERTIFICATE

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

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

(STATE PLANE NAD 27)
N = 404087.22
E = 2536854.09

(AUTONOMOUS NAD 27)
LATITUDE = 39°25'37.59" (39.427108)
LONGITUDE = 109°35'57.58" (109.599328)

LEGEND:

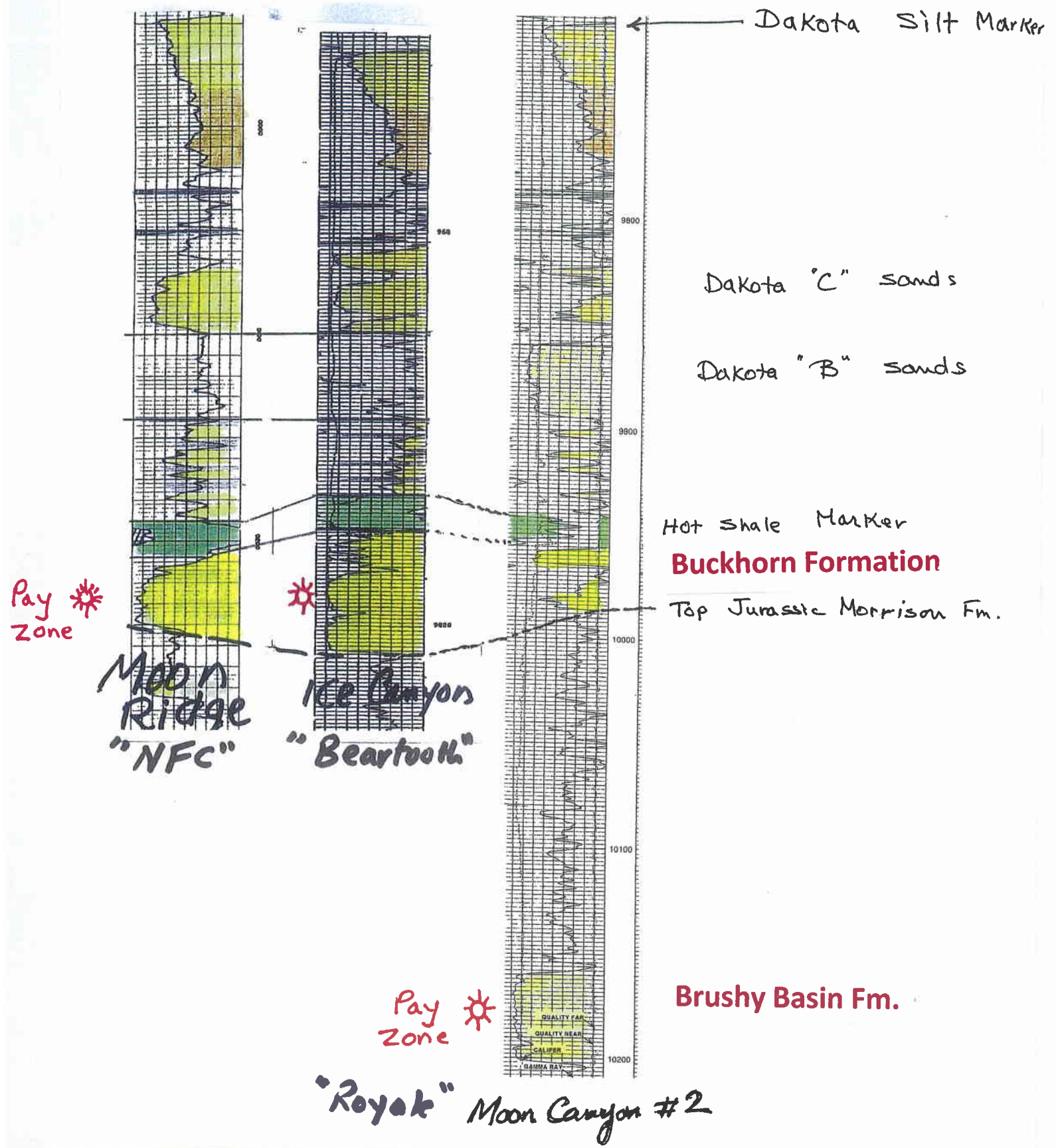
└ = 90° SYMBOL
● = PROPOSED WELL HEAD.
▲ = SECTION CORNERS LOCATED.

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE: 1" = 1000'	DATE SURVEYED: 05-19-04	DATE DRAWN: 05-21-04
PARTY: B.B. T.H. K.G.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: ROYAL ENERGY, INC.	


Moon Canyon #2
NFC Moon Ridge 31-15
Beartooth State 16-9
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
© 2009 Tele Atlas
39°25'27.55" N 109°33'40.01" W
elev 7943 ft
Google Earth Point
Eye alt 25908 ft

Stratigraphic Cross Section



DIVISION OF OIL, GAS AND MINING

Wildcat Well Determination

STATEMENT OF BASIS

Applicant: ROYALE ENERGY, INC.

Location: NESE Sec 9 T16S R21E Grand County, Utah

WELL NAME: Moon Canyon #2 **API #:** 43-019-31405

FINDINGS

1. This well first produced on January 05, 2005 out of the Brushy Basin Formation. Later on October 2, 2008 it produced out of the Dakota Formation (See Attachment A).
2. This well was > 1 mile from any known production in the Brushy Basin formation at the time of the completion and the start of commercial production. However, this well is <1 Mile from known production out of the Dakota formation (Attachment A).
3. This well is approximately 4309' from the MR 31-15 well, which produces from the Dakota formation.
4. The Wildcat Tax Credit application was received 4+ years after completion of the Moon Canyon #2 well (see submittal requirements in R649-3-35-1).

CONCLUSIONS

Future requests for wildcat well determination should be submitted in accordance with R649-3-35-1.1. Based on the findings above the Division has determined the Moon Canyon #2 well was drilled into an unknown area for the Brushy Basin formation. The Division finds that this well qualifies for the severance tax exemption under Section 59-5-102(2)(d) for wildcat wells for the **Brushy Basin** formation. This determination was made in accordance with Oil and Gas General Conservation Rule R649-3-35. If the operator disagrees with this determination, the decision may be appealed to the Board of Oil Gas and Mining.

Reviewer(s): Dustin K. Doucet DKD Date: 7/7/09

Joshua J. Payne Date: July 6, 2009

CC: Utah State Tax Commission (emailed)
ATTN: Ken Petersen

ATTACHMENT A														
1 Mile Area of Review														
API	WELL_NAME	Well Status	QTR_QTR	Sect	Town	Range	Cum Oil	Cum Gas	Field Type	Dx from Well(ft)	Rotary Spud	Date TD Reached	Date first Produced	Producing Formation
4301931470	VERNAL EQUINOX 10-1	LA	SWNW	10	160S	210E	0	0	E	2202				
4301931405	MOON CYN # 2	TA	NESE	09	160S	210E	0	309743	D	0	1/5/2005	2/15/2005	7/6/2005	Brushy Basin / Dakota on 8-16-08
4301930669	STATE 16-9	PGW	SENE	16	160S	210E	112	1195471	D	3686		10/26/1981	5/10/1982	Buckhorn
4301915671	MR 31-15	PGW	NWNE	15	160S	210E	0	2255048	D	4309		12/4/1961	9/1/1962	Dakota - Buckhorn

FORM 9

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

5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-52471

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: Moon Canyon

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: Moon Canyon #2

2. NAME OF OPERATOR: Royale Energy, Inc.

9. API NUMBER: 43-019-31405

3. ADDRESS OF OPERATOR: 7676 Hazard Center Drive S CITY San Diego STATE CA ZIP 92108

PHONE NUMBER: (619) 881-2800

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 432' FEL, 1470'FSL

COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 9 16S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: _____	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion: _____	☐ CHANGE WELL STATUS	☑ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER: _____
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Well is currently uneconomic to produce. As of April 17, 2009 this well has been temporarily shut in due to the current gas prices.

NAME (PLEASE PRINT) Mohamed Abdel-Rahman TITLE VP Exploration & Production

SIGNATURE M. A. Abdel-Rahman DATE 5/18/09

(This space for State use only)

Accepted by the
Utah Division of
Oil, Gas and Mining
For Record Only

RECEIVED
MAY 21 2009
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: U-52471

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER: MOON CYN # 2

2. NAME OF OPERATOR: ROYALE ENERGY, INC.

9. API NUMBER: 43019314050000

3. ADDRESS OF OPERATOR: 7676 Hazard Center Dr Ste 1500 , San Diego, CA, 92108
PHONE NUMBER: 619 881-2800 Ext

9. FIELD and POOL or WILDCAT: ICE CANYON (DK-MR)

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1470 FSL 0432 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 09 Township: 16.0S Range: 21.0E Meridian: S

COUNTY: GRAND

STATE: UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 10/1/2012	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☑ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Moon Canyon 2 went on production September 26, 2012 - Stop production October 1, 2012

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 05, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Rachele Wolchko	619 881-2874	Executive Assistant
SIGNATURE		**DATE**
N/A		10/3/2012

RECEIVED: Oct. 03, 2012

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET (for state use only)

ROUTING
CDW

X - Change of Operator (Well Sold) Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective: **2/1/2013**

FROM: (Old Operator):	**TO:** (New Operator):
N2465- Royale Energy Inc.	N8060- National Fuel Corporation
7676 Hazard Center Drive	8400 East Prentice Ave, Suite 735
San Diego, CA 92108	Denver, CO.80111
Phone: 1 (619) 881-2800	Phone: 1 (303) 996-6774

CA No. **Unit:** N/A

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
MOON CYN # 2	9	160S	210E	4301931405	14434	Federal	GW	P
TEN MILE CYN 22-1	22	160S	210E	4301931526	16245	State	GW	P
V CYN 20-1	20	150S	210E	4304738968	16331	Federal	GW	P
V CANYON 20-2	20	150S	210E	4304740349	17117	Federal	GW	S

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 3/13/2013
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 3/13/2013
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 3/29/2013
4a. Is the new operator registered in the State of Utah: _____ Business Number: 1260477-0143
5a. (R649-9-2)Waste Management Plan has been received on: Yes
5b. Inspections of LA PA state/fee well sites complete on: N/A
5c. Reports current for Production/Disposition & Sundries on: 3/29/2013
6. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM Not Yet BIA N/A
7. **Federal and Indian Units:**
   The BLM or BIA has approved the successor of unit operator for wells listed on: N/A
8. **Federal and Indian Communization Agreements ("CA"):**
   The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
9. **Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to **Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 3/29/2013
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 3/29/2013
3. Bond information entered in RBDMS on: 3/29/2013
4. Fee/State wells attached to bond in RBDMS on: 3/29/2013
5. Injection Projects to new operator in RBDMS on: N/A
6. Receipt of Acceptance of Drilling Procedures for APD/New on: N/A

BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: UTB000186
2. Indian well(s) covered by Bond Number: N/A
3a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number LPM8756586
3b. The **FORMER** operator has requested a release of liability from their bond on: N/A

LEASE INTEREST OWNER NOTIFICATION:

4. (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

National Fuel Corporation-Did not accept
Moon Cyn 1 4301931398
Trial Cyn 1-2 and 1-3 will be moved when
bonds are recevied

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: See Attached

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: See Attached

2. NAME OF OPERATOR: Royale Energy, Inc. N2465

9. API NUMBER:

3. ADDRESS OF OPERATOR: 7676 Hazard Center Drive S CITY San Diego STATE CA ZIP 92108

PHONE NUMBER: (619) 881-2800

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL

FOOTAGES AT SURFACE:

COUNTY:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion: 2/1/2013	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective February 1, 2013, National Fuel Corporation (DOGM entity N8060) succeeded Royale Energy, Inc. as operator of all wells on the attached list and is responsible under the terms and conditions of the lease for the operations conducted upon the leased land. National Fuel Corporation is principal to the Statewide Utah Bond #~~LPM4021517~~ LPM8756586
BLM: UTB000186

RECEIVED
MAR 13 2013
DIV. OF OIL, GAS & MINING

x Diane Thompson
National Fuel Corporation

NATIONAL FUEL CORPORATION
Diane Thompson
President

N8060

NAME (PLEASE PRINT) Stephen Hosmer TITLE CFO/Co-President/Co-CEO

SIGNATURE DATE 2/21/2013

(This space for State use only) APPROVED

MAR 29 2013

DIV. OIL GAS & MINING

By: Rachel Medina

(5/2000) (See Instructions on Reverse Side)

SCHEDULE OF PROPERTIES
EFFECTIVE FEBRUARY 1, 2013

API No.	Lease No.	CA No.	Well Name	CA Description	Legal Description	County
4301931398	ML-48391A		Moon Canyon #1		T16S-R21E-Sec 32-NWSW	Grand
4301931405	UTU-52471	UTU-88962	Moon Canyon #2 ✓	SE Sec. 9,T16S-R21E	T16S-R21E-Sec 9-NESE	Grand
4301931526	ML-46542		Ten Mile Canyon #22-1 ✓		T16S-R21E-Sec 22-NESE	Grand
4304738968	UTU-78023		V Canyon 20-1 ✓		T15S-R21E-Sec 20-NENW	Uintah
4301931532	ML-47218		Trail Canyon 1-2 ✓		T16S-R21E-Sec 1-SWNE	Grand
4304740349	UTU-78023		V Canyon 20-2 ✓		T15S-R21E-Sec 20-NENW (surface)	Uintah
4301931603	ML-47218		Trail Canyon 1-3 ✓		T16S-R21E-Sec 1-SESE	Grand

ROYALE ENERGY, INC.

RECEIVED
MAR 13 2013
DIV. OF OIL, GAS & MINING

February 21, 2013

State of Utah
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, UT 84114-5801

RE: Operator Change – Royale Energy, Inc. to National Fuel Corporation

Royale Energy, Inc., the operator of wells located in Grand and Uintah Counties requests that the designation operator of all wells to be change to National Fuel Corporation effective February 1, 2013. Enclosed for approval is the Sundry Notice regarding the leases.

National Fuel Corporation is principal to its Surety Bond #LPM4021517; BLM Bond #UTB000186 which previously have been provided to the Salt Lake City office. The Resignation of Unit Operator and Designation of Successor Operator will also be provided accordingly.

Please advise if any additional information or documentation is required.

Sincerely,

Stephen Hosmer
CFO/Co-President/Co-CEO
Royale Energy, Inc.

7676 HAZARD CENTER DRIVE, SUITE 1500, SAN DIEGO, CA 92108 • 619 / 881-2800 • FAX 619 / 881-2899

Fwd: NFC PLAN FOR ML-49381-A (MOON CYN. #1); ROYALE ENERGY, INC. RESIGNATION/DESIGNATION OF NFC AS OPERATOR

Dustin Doucet <dustindoucet@utah.gov> Thu, Mar 14, 2013 at 3:08 PM
To: Rachel Medina <rachelmedina@utah.gov>

Got your message on National Fuel. Based on the following email from NFC, I didn't think they were transferring the Moon Cyn #1 well. Probably need to check into this as NFC states Royalite is responsible for plugging. Wouldn't think we would change operator on it and would keep bond attached to well at a minimum. Take a look and let me know what you think.

-------- Forwarded message --------
From: **Diane Thompson** <dthompson@national-fuel.com>
Date: Fri, Mar 8, 2013 at 2:54 PM
Subject: RE: NFC PLAN FOR ML-49381-A (MOON CYN. #1); ROYALE ENERGY, INC. RESIGNATION/DESIGNATION OF NFC AS OPERATOR
To: lavonnegarrison@utah.gov, Dustin Doucet <DUSTINDOUCET@utah.gov>

Dear LaVonne and Dustin,

This is to inform you that based on our review of the well log described in my message to you dated 8 February (below), NFC has decided **not** to pursue an OBA on the subject lease.

On a related matter, this is to inform DOGM and SITLA that pursuant to a Settlement Agreement reached on NFC's operator removal lawsuit against Royale Energy, Inc., NFC received various documents in which effective February 1, 2013, Royale Energy resigned as Operator of wells in the now-terminated Moon Canyon Unit and designated NFC as Successor Operator. Early next week, NFC will submit these documents to DOGM and BLM for review and approval. We are aware that Royale recently filed a Sundry Notice with DOGM for plugging and abandoning the Moon Canyon #1 ("P&A"). Since Moon Canyon #1 was an Earning Well in which NFC has no interest as described in my e-mail dated 22 January (below), despite Royale's Resignation and Designation of NFC as Successor Operator, **Royale will continue to bear responsibility for P&A and all related activities for this well**.

Please let me know if you have further questions or concerns.

Thank you,

Diane Thompson

From: Diane Thompson
Sent: Friday, February 08, 2013 10:03 AM
To: 'lavonnegarrison@utah.gov'; 'Dustin Doucet'
Subject: RE: NFC PLAN FOR ML-49381-A (MOON CYN. #1)

Dear LaVonne and Dustin,

This is to follow up with you on NFC's January 22 e-mail plan, below, and subsequent discussions with SITLA

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

FORM 5

DESIGNATION OF AGENT OR OPERATOR

The undersigned is, on record, the holder of oil and gas lease

LEASE NAME: _____

LEASE NUMBER: UTU-52471, UTU-78023, ML-46542

RECEIVED
FEB 2 2 2013
DIV. OF OIL, GAS & MINING

and hereby designates

NAME: National Fuel Coporation

ADDRESS: 8400 East Prentice Avenue, Suite 1100

city Greenwood Village state CO zip 80111

as his (check one) agent ☐ / operator ☒, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the Division Director or Authorized Agent may serve written or oral instructions in securing compliance with the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah with respect to:

(Describe acreage to which this designation is applicable. Identify each oil and gas well by API number and name. Attach additional pages as needed.)

API: 43-019-31405 / Well Name: Moon Canyon 2
API: 43-019-31526 / Well Name: Tenmile Canyon 22-1
API: 43-019-31532 / Well Name: Trail Canyon 1-2
API: 43-019-31603 / Well Name: Trail Canyon 1-3
API: 43-047-38968 / Well Name: V Canyon 20-1
API: 43-047-40349 / Well Name: V Canyon 20-2

It is understood that this designation of agent/operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah. It is also understood that this designation of agent or operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated agent/operator, the lessee will make full and prompt compliance with all rules, lease terms or orders of the Board of Oil, Gas and Mining of the State of Utah or its authorized representative.

The lessee agrees to promptly notify the Division Director or Authorized Agent of any change in this designation.

Effective Date of Designation: February 1, 2013

BY: (Name) Stephen Hosmer

(Signature) _____

(Title) CFO/Co-President/Co-CEO

(Phone) 619-881-2800

OF: (Company) Royale Energy, Inc.

(Address) 7676 Hazard Center Drive, Suite 1500

city San Diego

state CA zip 92108

(5/2000)